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Management Audit of Eversource Energy's Connecticut Companies

Connecticut Light and Power Company
Yankee Gas Services Company
Aquarion Water Company

RFP #2022-01

EXPERTS WITH IMPACT™

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Introduction

Procedural Matters

In accordance with the General Statutes of Connecticut (Conn. Gen. Stat.) §§ 16- 8(b) and 16-8c(b), the Connecticut Public Utilities Regulatory Authority ("PURA") requires audits of certain public service companies to be performed by independent management consulting firms under the supervision of the PURA staff. These management audits generally consist of a diagnostic review of all company functions, including documentation of the operations of the company, assessment of the company's system of internal controls, affiliate transactions, and identification of any areas of the company that may require focused attention.

After receiving and reviewing submitted proposals, the PURA selected FTI Consulting in partnership with Overland Consulting, collectively "FTI" to jointly conduct the management audit of three regulated utility subsidiaries of Eversource Energy ("Eversource") doing business in Connecticut: Connecticut Light and Power ("CL&P"), Yankee Gas Services Company ("YGS"), and Aquarion Company ("Aquarion"). The PURA approved the selection of FTI on March 25, 2022.

FTI's Approach

This audit examined seven focus areas of special interest to the PURA. The seven focus areas addressed in this management audit are:

Chapter 1: Executive Management

Chapter 2: System Operations

Chapter 3: Finance

Chapter 4: Human Resources

Chapter 5: Customer Service

Chapter 6: External Communications

Chapter 7: Support Services

Project Communications

An audit kickoff meeting was held on October 31, 2022 and included FTI audit team members and executives from Eversource and its subsidiaries. The parties discussed the expectations of the audit, including the overall timeline, the process for issuing discovery requests ("DRs"), and the process for interviewing Eversource (and subsidiary) employees ("Eversource personnel").

Discovery Requests

Over the course of the audit, FTI issued 799 DRs through 42 individual request sets. FTI indexed and tracked the issuance of all requests and the receipt of responses in an effort to ensure the timely receipt of information.

Conducted Interviews

Over the course of the audit, FTI completed 70 interviews of Eversource personnel. FTI worked with Eversource's audit lead to schedule interviews and prior to each interview, FTI informed Eversource interviewees about the topics to be discussed. Each employee interviewed was prompt, courteous, and responsive to FTI questions. Interviews were later used as source material in the audit report.

Analysis and Benchmarking

The FTI audit team leveraged its industry and past audit experience to evaluate Eversource and its three subsidiary Connecticut utilities to support the analysis and the recommendations contained within this report. All analysis performed by the FTI team references DRs, workpapers, interviews, or other sources, such that the audit report contents are traceable. In certain instances, FTI make findings and/or recommendations based on benchmarking data either prepared by or acquired through in-house research.

Consolidated Findings and Recommendations

This section provides the consolidated list of all the Recommendations and Findings organized by Chapters.

Chapter 1: Executive Management

Findings

Corporate Ownership and Structure

1. Eversource is comprised of numerous electric, gas, and water utilities, with approximately 4 million electric, gas, and water customers in Connecticut, Massachusetts, and New Hampshire. Eversource has acquired multiple regional gas and water entities over the last decade.

2. Eversource is also involved in some non-utility businesses, including real estate and, until recently, offshore wind. On May 25, 2023, following a strategic review, Eversource announced it would sell its offshore wind ownership interests.[1] On February 13, 2024, Eversource announced the sale of its 50% ownership interest in South Fork Wind and Revolution Wind to Global Infrastructure Partners, which will fully exit Eversource from the offshore wind business after its January 24, 2024 announcement to sell its 50% interest in Sunrise Wind to Ørsted.[2]

Personnel Organizational Structure

3. Eversource's management structure is organized around a centralized, matrix-type structure with six cross-cutting shared service business units within the Eversource Energy Service Company ("EESC"),

[1] "Eversource Energy Announces Agreement to Sell Interest in Uncommitted Offshore Lease Area," Eversource Press Release, May 25, 2023.
[2] "Eversource Energy Announces Pathway to Fully Exit its Offshore Wind Investments Pursuant to Agreement with Global Infrastructure Partners to Sell Revolution Wind and South Fork Wind Projects," Eversource Press Release, February 13, 2024.

each led by a Senior Leader with an Executive Vice President title. The six "Senior Leaders," plus the Eversource Chief Executive Officer ("CEO"), constitute the seven-member "Senior Team."

4. All three CT Company Presidents (Stephen Sullivan for CL&P, William Akley for the Gas Distribution Business[3] in Connecticut and Massachusetts, and Donald Morrissey for Aquarion) report directly to the Eversource Chief Operating Officer ("COO") Werner Schweiger (Werner Schweiger retired July 2023 and was replaced by Paul Chodak III September 14, 2023, see footnote 47 for additional details), who is a member of the Senior Team and reports directly to the Eversource CEO, as do all the Senior Leaders.[4] Through this oversight role, the Eversource COO reviews and approves major operational decisions for all Eversource utility companies, including the CT Companies. The President of CL&P also has an indirect or "dotted" reporting line to the Eversource CEO, which was a condition of the 2021 Settlement Agreement ("2021 Settlement") with several key Intervenors as detailed in the final decision for Docket No. 20-08-03.

5. The Senior Team oversees and makes decisions for each of their shared service business units. The Senior Team's shared service business units provide administrative and management services to all Eversource operating companies, including the CT Companies. The Senior Leaders and the CT Company Presidents are also responsible for providing direction and guidance to their respective organizations during the annual O&M and capital planning processes as well as final approvals. The approved final results of the annual O&M and capital plans serve as inputs to the five-year Strategic Capital Plans, which then are incorporated into the one-year, forward-looking Eversource Corporate Operating Plan and five-year Eversource Long-Range Plan ("LRP"). Each Senior Leader approves and is responsible for their organization's final annual operating and capital budgets and for meeting their annual operating performance goals.[5]

6. The shared service business units provide full-time dedicated resources to each of the CT Companies and the CT Company Presidents, shared services specific to a single state covering all CT Companies, or shared services covering two or all three states, depending on the specific function. For example, the Budgeting, Forecasting, and Investment Planning function within the Finance organization employs both CL&P- and YGS-dedicated resources and Eversource-wide resources.

7. The CT Company Presidents are responsible for developing their company's capital and O&M plans, meeting performance targets, providing leadership on project and work initiatives, overseeing adherence to the annual operations and maintenance ("O&M") budget, ensuring employee safety, leading the company's external affairs, building positive relationships with stakeholders, and most importantly, running the business.

8. Each CT Company President socializes major issues, positions, and decisions with multiple levels of Eversource-level Senior Leadership on a biweekly-to-monthly basis, while meeting internally within

[3] Eversource's Gas Distribution Business comprises Eversource Gas of Massachusetts ("EGMA"), NSTAR Gas Company ("NSTAR Gas"), and YGS.

[4] For the purposes of this audit, Mr. Schweiger will be referred to as the COO as he was the acting COO at the start of the audit. He retired in July 2023. James Hunt III, Executive Vice President of Corporate Relations and Sustainability assumed Mr. Schweiger's duties on an interim basis until November 2023 when Paul Chodak III assumed the role of Executive Vice President and COO. Eversource 8-K, Item 5.02: Appointment of Certain Officers, September 14, 2023.

[5] Response to FTI-117.

their Connecticut jurisdiction on a weekly-to-monthly basis.[6] Thus, the CT Company Presidents receive feedback from Eversource-level executives for decisions affecting their respective CT Companies, and both collect information from and disseminate information to their direct reports. All these interfaces ensure that important Connecticut issues are discussed at the highest levels.

9. The Senior Team meets regularly weekly and more frequently on an informal basis. The Senior Team also interacts regularly with the CT Company Presidents, either through the Eversource COO or directly in regularly scheduled meetings, but also informally to receive updates or discuss current issues.

10. Eversource stated that the CT Company Presidents are the primary faces of Eversource to their Connecticut customers, municipalities, and legislators.

11. The Senior Team/CT Company Presidents matrix organization structure is not uncommon amongst other multi-state utility holding companies. Decisions are made by the parties who are the experts in their areas of responsibility, however there is broad input, discussion, and consultation amongst the decision-makers to ensure all affected parties are informed and participate in the decisions. The CT Company Presidents are allowed to focus on running the Operations business and are primarily measured on that performance.

12. Aquarion, as Eversource's only water utility, is a more autonomous organization than peer CT Companies, with different internal processes. Aquarion does not have dedicated resources from the EESC – most services are provided internally within AWC-CT and report to the President of Aquarion. Numerous EESC organizations provide support to Aquarion[7] and there are two dotted reporting lines to EESC organizations (Regulatory/Rates and Accounting). On February 13, 2024, Eversource announced it is considering a potential sale of Aquarion and will launch a process to evaluate market interest.[8]

13. The CT Companies are structured to focus on operations and running the business, with dedicated staff members from the shared service organizations embedded in each CT Company to assist in running the operation. The CT Company Presidents are highly knowledgeable about technical operations and have intimate knowledge of their respective CT Company's needs and operations, thus, they are actively involved in the capital and O&M budget planning processes and advocate for their respective CT Company's needs before the Eversource COO.

14. The CL&P President is solely responsible for CL&P, while the Gas Distribution President is responsible for EGMA, NSTAR Gas, and YGS, and the Aquarion President is responsible for all of Aquarion's regulated water businesses and non-regulated service businesses, serving as Aquarion's COO.

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[6] Response to FTI-289. Meeting cadence ranges are approximate and represent most, not all, meetings. See Figure 1-7 for specific meeting cadences.

[7] Response to FTI-263. These EESC organizations providing support to Aquarion as needed are: Regulatory Affairs; Accounting and Taxes; Financial Strategy; Investor Relations; Enterprise Risk Management and Claims; Treasury and Investment Management; Corporate Performance Management; Budgeting, Forecasting, and Investment Planning; Legal; Internal Audit and Security; and Information Security and Compliance.

[8] "Eversource Energy Reports Full-Year Results Announces Exploration of Sale of Water Distribution Business," Eversource Press Release, February 13, 2024.

15. The CL&P Board of Directors consists of four Senior Leaders, including the Eversource COO, and three Independent Directors, per the 2021 Settlement. The YGS Board of Directors consists of four Senior Leaders, but no Independent Directors. The Aquarion Board is also internal and there are no Directors from the Eversource Senior Team.

Shared Services

16. The Eversource organizational structure allows CL&P and YGS to benefit from shared corporate services that are provided under the oversight of the Eversource Senior Team through EESC. Some of the Eversource shared services are CT Company-specific or state-specific while others are shared enterprise-wide.

17. Aquarion's shared services structure is centralized and mostly internal and provided through AWC-CT. Aquarion shared service business unit leaders report directly to the Aquarion President, rather than to a member of the Eversource Senior Team. Aquarion may use Eversource shared services that Aquarion does not have or when additional resources are needed. Numerous EESC organizations provide some support to Aquarion, as well as the Senior Team.

18. Certain operational departments are centralized under the EESC to ensure standard practices amongst utility operating companies and to allow for sharing of personnel and equipment when necessary, and most importantly, best practices.[9]

Governance

19. Decision-making authority and spending/contract signatory authority for CL&P and YGS is governed by the Eversource Delegations of Authority. Aquarion has separate Signature Authority levels.

20. The maximum spending/contract signatory authority level for the CL&P and Gas Distribution Presidents is $5 million, Senior Leaders' maximum authority level is $12.5 million, the Eversource CFO's maximum authority level is $20 million, the Eversource CEO's maximum authority level is $25 million, and the Subsidiary Boards have unlimited authority. The Aquarion President has a Signature Authority level (i.e., ability to sign contracts) of $0.25 million and above and therefore has no maximum authority level.[10]

21. The Subsidiary Boards do not participate formally in the CT Companies' day-to-day decision-making processes, but they do formally approve financings and the amount and payment of dividends, in addition to reviewing and commenting on draft long-term and short-term capital and O&M plans, corporate metric performance and other presented topics and issues. They do approve capital projects above $25 million. The Boards are kept apprised on key issues and financial results by the CT Company Presidents and CL&P provides a more extensive agenda covering a variety of Connecticut electric and energy topics. The CL&P Board is the only CT Company Board with Independent Directors; YGS and Aquarion Boards have internal Directors only.

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[9] Examples of functions centralized under the EESC include Safety; Emergency Response Planning; Engineering; Fleet Operations; Technical Training and Compliance; and Vegetation Management.

[10] To ensure adequate controls are in place over expenditures, amounts greater than $250,000 are authorized by Mr. Morrissey, as President of Aquarion. Response to FTI-797.

22. CL&P's Independent Directors were appointed per a condition of the 2021 Settlement. The Independent Directors receive training and education on topics such as cybersecurity, emergency response, and rate recovery. The CL&P President provides financial, operational, policy and regulatory updates to the CL&P Board for the Independent Directors' benefit.

23. In line with Eversource's Operations-focused business model for subsidiary Presidents, most meetings attended by CT Company Presidents are operational in nature.

Regulatory Compliance

24. For the CL&P and YGS organizations, the Regulatory Affairs team under the Corporate Communications and Sustainability shared service business unit led by James Hunt III serves as the primary liaison and interface with the PURA.

25. Aquarion has no dedicated liaison to the PURA, however, certain departments report frequently to the PURA. Given that a large share of Aquarion customers are located in Connecticut, the state's regulatory issues are prioritized.

26. There is a "three-legged stool" of cross-cutting teams responsible for Connecticut-specific regulatory and legal issues: a Director of Regulatory Affairs, an Assistant General Counsel, and the Vice President of Distribution Rates.

27. At least three times weekly, Connecticut-specific standing meetings are held to discuss any regulatory action items, deadlines/due dates for filings which are tracked, current developments, and concerns.

28. Compliance with all regulatory orders is tracked in an Archer software database for CL&P and YGS, and in Microsoft Outlook for Aquarion.

Long-Term, Short-Term, and Strategic Planning

29. All three CT Companies participate in two forward-looking planning processes: 1) a long-term, five-year, strategic capital plan ("Strategic Capital Plan" for CL&P and YGS; "5-Year Plan" for Aquarion), and 2) a detailed short-term, one-year capital and O&M budget ("Corporate Operating Plan" for CL&P and YGS; "Annual Capital Budget" and "Annual O&M Budget" for Aquarion, together the "Annual Budgets") that follows the Strategic Capital Plan/5-Year Plan processes.

30. These long-term and short-term planning processes are performed annually, with the long-term planning cycle occurring between February and June and the short-term planning cycle occurring between August and December.

31. The CT Companies' long-term Strategic Capital Plan feeds into the consolidated Eversource five-year Long-Range Plan ("LRP") planning process. The LRP is broader than the CT Companies Strategic Capital Plan and incorporates flat O&M projections based on the current year budget as well as many other financial assumption inputs from numerous Eversource-wide departments which are used to create a full five-year projection of financial results as well as a five-year capital forecast.

32. The first year of the Eversource LRP becomes the basis for the Eversource Corporate Operating Plan which incorporates the CT Companies' first year of their Strategic Capital Plan and their initial one-year O&M estimate, which is based on the current year's budget.

33. Continuous updates to the LRP are made throughout the year to reflect changes in legislation, regulatory outcomes, prevailing economic conditions, or any other significant events. The resultant LRP spans a six-year period: the current year plus a five-year forecast.

34. Eversource's LRP includes both a capital spending component and a broader five-year financial forecast. Each CT Company submits capital spending templates for their organization for consolidation into the Eversource LRP. Eversource's Financial Strategy group maintains Eversource's five-year financial forecast, while Aquarion maintains its own financial forecast, which is later consolidated with Eversource's.

35. The Financial Planning and Analysis ("FP&A") group oversees Eversource's short-term planning efforts, while the Financial Strategy group oversees long-term planning. The FP&A group has employees called FP&A leads embedded within each Eversource function to assist the Senior Leaders and functions leadership, as well as the CT Company Presidents, with all planning and budgeting efforts. Both the FP&A and Financial Strategy groups report to the Eversource Chief Financial Officer ("CFO").

36. The Vice President of FP&A is responsible for keeping the Eversource CEO, Eversource CFO, and Eversource Controller apprised of monthly financial results and explanations of material budget variances.

37. Each CT Company President and their Operations and Planning departments, in collaboration with the Engineering department and embedded Eversource investment planning groups within the Finance organization, conduct more detailed capital and O&M budget planning processes after the Eversource LRP is reviewed by the Eversource BOT in June. The capital budgeting process starts with the first year of the LRP, which originates from the Strategic Capital Plan, and the O&M budgeting process starts with the current year's budget, which also was incorporated in the Eversource LRP.

38. The CT Company Presidents are responsible for managing their respective capital and O&M budgets throughout the year. Embedded employees from Eversource's FP&A group communicate regularly with the CT Company Presidents to help them understand their results, and these employees review budget variances on a monthly basis. Each month, the CT Company Presidents and other direct reports present an operational, consolidated financial briefing to the Eversource COO. These briefings include key industry trends (supply chain disruptions, fuel pricings, etc.), O&M and capital budget variances at the operating company and major division level (safety, engineering, etc.), O&M budget and capital variances at the cost element level (Labor, Materials, etc.), Aquarion O&M budget variances at the department level (Engineering, Administration, etc.), Aquarion capital budget variances at the state and project category level (Metering, Reliability, etc.), staffing capital and O&M budget variances including overtime analysis, storm expense and deferred costs to date by state, and operational items such as meter inventory and active work order counts.

39. The Eversource Senior Team, in conjunction with Eversource department leaders, each year identifies numeric scorecard metrics and qualitative Strategic Initiatives that Eversource leaders use to run the business. These metrics are developed during Eversource's short-term planning process to set targets for the following year. The Corporate Performance Management group tracks scorecard metrics and Strategic Initiatives for each Eversource department via performance reports, acting as a liaison between the Senior Team and Eversource department leaders. We observe modest changes in these metrics and Strategic Initiatives from year to year, commensurate to current business needs.

40. CL&P regularly files with the Connecticut Public Utilities Regulatory Authority ("the PURA") both the following year's capital budget and a budget-to-actual comparison to their long-term capital forecast. Any variances greater than 10% must be noted and justified in the filing.

Internal Audit

41. Governance of the internal audit function is performed by the Eversource Board of Trustees' Audit Committee with oversight activities set forth in its charter. The Vice President of Internal Audit and Security reports functionally to the Audit Committee and administratively to the Executive Vice President of the Legal department and General Counsel.

42. The Internal Audit organization is divided by functional area – Information Technology, Operations, Financial/Sarbanes-Oxley compliance, and Corporate/Environmental. Each area is led by an Audit Manager.

43. The Vice President of Internal Audit and Security, while not formally holding the title of "Chief Security Officer," is responsible for the corporate security group.

44. Annual internal audit plans are developed through stakeholder outreach and risk assessment updates of the audit universe. Some lower priority audits are not completed due to unplanned engagements added during the year. The audit plan completion rate dropped from 92% in 2019 to 82% in 2020 and 86% in 2021 but recovered to 94% in 2022.

45. Audit procedures are documented in a detailed Internal Audit Manual and conform to best practice standards issued by the Institute of Internal Auditors.

46. Written audit findings require mitigation plans with implementation dates. Implementation status is monitored by Internal Audit and reported quarterly to the Audit Committee. The average time to complete mitigation plan implementation has decreased in the last two years. In addition, the number of mitigation plans that received extensions to their original implementation dates was relatively low.

47. Audit reports may receive one of four ratings – Controlled, Controlled with Opportunities for Improvement, Needs Improvement, or Unsatisfactory. The first two ratings indicate that internal controls are functioning properly. Only three rated audits did not receive one of the Controlled ratings between 2019 and 2022. Approximately 30% of all reports, many of which were unplanned, management-requested reviews, and were not rated. Summaries of unrated audits are included in reports to the Audit Committee.

48. Internal Audit uses several internal quality assurance programs to monitor compliance with its policies and procedures, including detailed workpaper reviews. In addition, a recent external quality assessment found the Internal Audit function in compliance with international standards and code of ethics.

49. Internal Audit tracks and reports performance indicators related to staff productivity, audit timeliness and implementation plan duration. The department met its targets for all measurements in 2021 and 2022.

Recommendations

Personnel Organizational Structure

1. The Eversource organizational structure is an informal matrix structure overseen by the Senior Team. The structure requires frequent communication between the various shared services organizations and the operations functions. Eversource has operated in this type of structure for an extended period and based on our review communication and information flow within the matrix works well and is embedded in the organization. This results in well informed and customer focused decision-making. As with any matrix organization the chain of command and ultimate responsibilities across the various organizations can sometimes be difficult to understand. We recommend that Eversource create a formal internal organizational document that simply explains how the various functions/organizations are managed and decision-making works for the CT Companies.

Governance

2. Unlike the Presidents of CL&P and YGS who are capped at $7.5 million, the Aquarion President, Donald Morrisey, has unlimited authority through the Aquarion Signature Authority levels. We recommend capping the Aquarion President's Signature Authority level at $7.5 million to be in line with the other CT Companies Presidents.[11]

Regulatory Compliance

3. To track regulatory compliance, we recommend that Eversource determine whether Aquarion's regulatory orders can and should be added into the Archer database to enhance the sharing of information and best practices and increase visibility to the many parties involved in regulatory compliance.

Long-Term, Short-Term, and Strategic Planning

4. We recommend Eversource link its long-term planning process to the key categories used in its Corporate Operating Plan to create business metrics. This will make the LRP more strategic in nature and better integrate the themes of the Company's planning processes.

5. We recommend that Eversource internally document their long-term and short-term planning processes including timelines, responsibilities and in summary broad categories information required for the CT Companies. The internal document(s) should include the Strategic Capital Plan, 5-Year Plan, Corporate Operating Plan, Annual Capital Budget, and Annual O&M Budget and a description of the interrelationships between these various planning processes.

6. We further recommend Eversource include in the documentation for the Strategic Capital Plan and Annual Capital Budget for the CT Companies how the capital spending categories benefits Connecticut customers as well as how the capital spend is meeting state regulatory and energy policy objectives.

[11] Response to FTI-797.

Findings

Organization and Structure

1. Werner Schweiger, COO, retired from Eversource Summer 2023 and was replaced by James Hunt, Executive Vice President of Corporate Relations and Sustainability on an interim basis. On September 19, 2023, the Company announced Paul Chodak III as the permanent COO for Eversource Energy.
2. The role for the President of CL&P was developed as a result of a 2021 Settlement agreement which required dedicated leadership in the aftermath of Hurricane Isaias. Stephen Sullivan is the President of CL&P and is the primary point of contact which includes leading and responding to operational issues including storm response, power quality issues, and major projects and initiatives for the Company.
3. While there are dedicated resources for CL&P, Eversource Energy organizes many of their functions centrally to leverage the lessons learned across all the operating companies.
4. YGS is more centrally organized than CL&P with William Akley serving as the President for YGS as well as the other Eversource gas distribution companies. Mr. Akley also has more functional roles reporting to him than Mr. Sullivan.
5. AWC-CT is relatively self-sufficient organizationally and has a high level of independence. They remain coordinated with Eversource Energy through various processes and governance.
6. Emergency Preparedness is a shared service across all Eversource operating companies, and while AWC-CT maintains their own Emergency Preparedness plan and capabilities, they participate in best practice sharing.
7. Senior leadership noted no specific resourcing risks beside typical industry challenges, including an aging workforce and competition for resources in a constrained market.

Distribution Asset Management

8. Each Companies' Maintenance Manuals and maintenance/replacement approaches align to industry standards and best practices. The use of Cascade, Maximo and GIS to manage the Maintenance program also aligns to industry practices.
9. CL&P and YGS both have an older asset population which is similar in age to other utilities in the Northeast.
10. AWC-CT system consist of older assets on the supply side, but they have newer pipelines.
11. Over a 5-year period, CL&P reliability performed significantly better than the industry average for non-major outage events.
12. CL&P's Transmission and Distribution Reliability Performance report, issued annually, highlighted that tree related failures are a leading cause for outages.

13. 13 percent of CL&P substations are loaded near capacity and are expected to be overloaded within five years. Plans are underway to mitigate this concern.

14. YGS's five-year leak history indicates a general decline in leaks. The Company recognizes additional work remains by continuing to invest in their Accelerated Pipeline Replacement Program ("ARP"). The program will eliminate remaining cast-iron pipeline by 2029 and will support their goal of replacing all bare steel mains.

15. AWC-CT has an overall water main break rate of 0.1 per mile, which is better than the industry average of 21 to 27 breaks per 100 mile or .21 to .27 per mile.

System Planning

16. CL&P has been leveraging DER interconnection lessons learned from their sister Companies' in Massachusetts to ensure consistent application of best practices.

17. In response to PURA's docket no 17-12-03R07, CL&P has evaluated how their approach to Non-Wires Solutions ("NWS") will change from their current approach.

18. YGS models new gas connections by including load with a diversity factor where appropriate. However, they do not include load reduction factors such as energy efficiency in system design as a conservative practice for peak demand preparedness.

19. Of the 68 AWC-CT water systems, three fall below the "average day" MoS and five systems fall below "average month" Margin of Safety ("MoS"). Six water systems fall below the 1.15 MoS threshold for their maximum day margin of safety.

System Design

20. CL&P considers solution alternatives early in the project development process where two key drivers are considered, including "(1) maintaining and improving the safety and reliability of the distribution system for the benefit of all customers; and (2) accomplishing this goal at a reasonable cost." However, they do not appear to consider design alternatives for all projects during the detailed design phase.

21. YGS' approach to design alternatives is similar to CL&P's, but with differences due to the nature of work performed. For example, regulator station rebuilds and pipeline replacement projects generally require direct replacement which limit the opportunity for alternatives.

22. AWC-CT manages an alternative analysis process similar to CL&P and YGS. However, this analysis is not conducted for water main replacement work, because they are typically replacement in-kind.

Project Management

23. Under certain circumstances CL&P's Transmission organization is responsible for managing large and complex distribution, substation and transmission projects.

24. While the YGS Project Management Playbook and CL&P's Integrated Planning and Scheduling Process Playbook contain similar themes, CL&P's Playbook is focused on the work management process and less on Project Management Processes like YGS's Playbook. AWC-CT did not provide their project management playbook for review.

25. The tools used by the Companies to prioritize projects is inconsistent. CL&P referenced an Excel based tool. YGS did not indicate if any tool is used other than GAMES which is used to prioritize asset replacement not manage prioritization. AWC-CT does not use any tools to support prioritization.

26. CL&P uses a mix of contractors and internal crews to resource project work. YGS and AWC-CT use contractors for all project work. Most contracted work is paid through lump sum or competitive bids.

27. Project Management documentation was inconsistent between and within the Companies.

28. The Capital Plan vs Actual spend across the three Companies were mostly within tolerance, and any variances were not deemed systemic in nature.

Operations and Maintenance

29. Each Companies' five year historical spend verse budget indicates little variation with the exception of CL&P in 2017. The variation was due to an increase in storm activity which did not meet the threshold for major event qualification.

30. CL&P, YGS, and AWC-CT independently manage their Call Before You Dig ("CYBD") programs. CL&P completely outsources much of their CBYD responsibilities, YGS manages all activities internally, and AWC-CT manages most activities internally with an outsource pilot on-going.

31. AWC-CT CBYD budget has held relatively stable over the past 5 years. CL&P and YGS have both experienced increases beginning 2020. CL&P's budget increased 49 percent in 2021 and 2022 when compared to 2020. YGS budget increased 34 percent in 2021 and 27 percent in 2022 when compared to 2020. Ticket volume for CL&P increased 5 percent and 7.6 percent in 2021 and 2022 respectively when compared to 2020. YGS ticket volume increased 4.8 percent in 2021 when compared to 2020 but decreased by 6.5 percent in 2022 when compared to 2020.

32. YGS recently implemented their own OQ program that was developed internally to comply with US DOT standards.

Electric Distribution

33. The Vegetation Management program was recently reorganized under the Electric Engineering group to closely align this activity to the leader who is responsible for driving the operational performance (including reliability) of the electric assets.

34. A 5-year review of Vegetation Management performance indicates generally good results, with occasional challenge areas including "cost management", "quality performance", and "schedule performance" measures.

35. CL&P's historical budget versus actual spending indicates close alignment over the review period except for 2017 with a variation of just over 10 percent.

Gas Distribution

36. YGS's current ARP is projected to reduce the replacement timeline of pipelines from a projected 60 years to 20 years. The YGS leak mitigation program is more vigorous than the federal safety regulations and includes several winter patrols on all cast iron pipelines.

37. YGS did not have formal marketing plans for 2020 and 2021 due to reduced activity as a result of COVID restrictions. YGS halted marketing in August 2021, upon the opening of Docket No. 21- 08-24.

Emergency Response Plan

38. Eversource Energy's Emergency Preparedness is achieved through a hybrid shared and direct service model with high level planning and coordinated activities shared across the Companies.

39. All three Companies maintain their own Emergency Response plans that are responsive to their unique needs.

40. CL&P and YGS's ERPs provide details about their compliance with and utilization of the ICS, including applicable roles and responsibilities. AWC-CT plans, however, do not.

41. CL&P recently deployed the "ES Municipal Hub" which provides a two-way communications platform for information sharing between municipalities and the Company.

42. Both CL&P and YGS both work with their municipalities to determine individual priorities for an event.

Recommendations

Organization and Structure

1. The Director of Emergency Preparedness currently reports to Craig Hallstrom, President of the Massachusetts Electric Companies, despite being a shared resource across the COO's organization. Many other peer utilities across the Northeast have this role report to the most senior operations leader, usually a COO or similar role, due to the shared nature of this service. This change will promote clear lines of accountability and consistency for Eversource. The Managers who currently report to the Director of Emergency Preparedness will remain accountable to the operating company Presidents they currently serve.

System Planning

2. The CL&P should embed the locationally specific influences of Heavy-Duty Electric Vehicles (*"*HDEVs") and other influences such as marijuana growing facilities into their long-term system forecasts.

3. The Companies should consider the development of a long-term strategic system plan to assist with anticipating and preparing for major industry trends. This plan would discuss key known industry challenges and opportunities along with Company strategic goals to assist with long-term resourcing needs, systems and tools, organizational alignment, and other parameters.

System Design

4. CL&P should consider a design alternative requirement during the detail design phase for all projects with an estimated budget of $250k and above. This would require the consideration of design, routing and construction alternatives that further promote least-cost solutions while satisfying Company objectives.

Project Management

5. The Companies should work to consolidate their project management processes and documentation, so they are aligned and utilize best practices. This effort should include the development of a Project Management Process design group that is composed of subject matter experts across the Companies who design, review and approve any changes or updates. AWC-CT should also include close out as a major project management process that assures close out activities, similar to CL&P and YGS.

6. The Companies should develop a project prioritization process as either a standalone document or within existing documentation that includes best practices from the industry and internally. The Companies should also evaluate and implement a tool that assists with the consistent prioritization of projects. Since each Company has unique needs and methodologies, the tool or tools considered should be flexible.

7. CL&P needs to provide a comprehensive set of productivity trackers to Operations leaders on a regular cadence. CL&P should also perform regular crew productivity tracking to assist with decisions on when to use and not to use contracted resources. YGS and AWC-CT should also conduct time tracking studies for field-facing supervisors so they can determine if time is focused on supervising field crews as much as practicable.

8. AWC-CT should consider moving toward a network or cloud-based tool Project and Portfolio Management database that provides project schedule and dependency visibility across the enterprise. This will provide several benefits including enterprise-wide visibility, more effective version control, access control, and real-time updates among others.

9. Project documentation for all Companies should be expanded and where possible standardized. Documentation should include but not be limited to project charters (includes scope, justification, etc.), project approval logs, project financials, schedule, resource plan, risk register, lessons learned, and status reports.

Operations and Maintenance

10. The Companies should consider conducting peer benchmarking to determine the efficiency of their work practices and productivity related to O&M tasks. They should also ensure that program status is clearly tracked and monitored by leadership.

11. CL&P and YGS should conduct detailed analysis to the specific cause of the increase in spend for their respective CYBD programs and implement changes, if any, based on lessons learned.

Emergency Response Plan

12. Eversource should realign the Emergency Preparedness group to report to the COO. This will provide clear reporting lines and equal accountability to all operating Companies including CL&P.

13. CL&P's ERP should include checklists for each ICS and other critical operational roles. Additionally, operational and communication forms and templates should be developed and included in the ERP to ensure consistent documentation. All forms should be used and collected after each incident for after action review and auditing purposes.

14. YGS's ERP should include checklists for each ICS and other critical operational roles. Additionally, standardized forms and templates should be included to ensure consistent documentation. All forms should be used and collected after each incident for after action review and auditing purposes.

15. All Command Staff Roles should have at least 2 named individuals assigned, and critical roles should have at least 3 individuals assigned. Those serving in these roles should be fully trained and qualified. The Companies should also consider having back-up employees in a training capacity for attrition or other personnel related issues.

16. CL&P and YGS should develop processes and associated documentation for critical emergency response processes. These processes should then be deployed through training to applicable employees. CL&P and YGS should also consider developing decisions trees where appropriate and document them through their emergency response plans.

17. CL&P should develop an activation process that ensures employees are activated consistently for all events. CL&P should develop a database that indicates assigned and available resources including the role they are activated for.

18. AWC-CT should consider conducting annual drills which alternate between scenarios to test the effectiveness of the Company's readiness.

Chapter 3: Finance

Findings

Organization and Structure

1. Eversource's electric and gas utility subsidiaries, which include CL&P and YGS, follow a centralized finance model within the shared service organization (the Eversource Energy Service Company, or "the EESC") providing financial services to each operating company, utilizing shared services leadership and subject matter experts, in addition to CT Company-dedicated personnel and leveraging cross-cutting experts where needed.

2. Aquarion Company ("Aquarion" – the ultimate parent company of AWC-CT) operates semi-independently regarding finance activities, with certain services such as Accounting and Rates and Regulation provided internally with dotted line reporting to EESC Vice Presidents, and others such as Treasury and Financing provided from EESC. Certain other functions such as Business Development are also provided from EESC to augment Aquarion's in-house function when additional expertise and resources are needed. On February 13, 2024, Eversource announced it is considering a potential sale of Aquarion and will launch a process to evaluate market interest.[12]

3. Following Eversource's shared service organizational model, the Eversource Executive Vice President and Chief Financial Officer's ("CFO") Finance organization has 10 Vice Presidents/Directors, reporting

[12] "Eversource Energy Reports Full-Year Results Announces Exploration of Sale of Water Distribution Business," Eversource Press Release, February 13, 2024.

directly to the CFO, each responsible for a major Finance function.[13] Two of these Vice Presidents/Directors have indirect dotted-line reports from their counterparts in Aquarion, connecting equivalent functions across the organizations.

4. The Eversource CFO is a member of the seven-member Eversource Senior Team (the "Senior Team"), which is comprised of the Eversource Chief Executive Officer ("CEO") and Senior Leaders of six major shared service Departments: Operations, HR and IT, Finance, Customer Experience and Energy Strategy, Legal/Internal Audit/Energy Supply, and Corporate Relations and Sustainability. The Eversource CFO is the primary conduit between the various Finance and Regulatory functions and the broader Eversource Senior Team by bringing any pertinent financial or regulatory matters to the Senior Team's attention.

5. The various Finance groups interact frequently and work together on matters that require cross-team collaboration, such as rate cases. This includes interactions between Eversource and Aquarion.

Accounting and Treasury

6. Eversource maintains two distinct Accounting organizations to service the CT Companies due to the 2017 Aquarion acquisition. The much larger accounting group supports CL&P and YGS, while the smaller one services Aquarion. Each has its own distinct enterprise-wide resource platform. The financial benefits of consolidating these two organizations are unknown since Eversource has never analyzed the matter either at the time of acquisition or in the subsequent six years

7. According to management, performance of both Accounting and Treasury organizations is monitored by management at both the corporate scorecard level and via departmental goals and objectives, although the specifics of the latter were not shared with us. Unlike Treasury, Accounting failed to meet its only corporate scorecard objective (timeliness of the monthly close) in each of the most recent years for its non-Aquarion entities. However, its under-performance improved year-over-year and will disappear if the trend continues.

8. Internal audit testing, Sarbanes-Oxley ("SOX") testing, and a review of past audit adjustments in recent years identified some instances of discrepancies but resulted in no significant cause for concern in our opinion.

9. Neither Accounting nor Treasury participates in or relies upon external benchmarking studies outside of commercial paper benchmarking.[14]

10. Eversource prepares budgets and most variance reporting on a functional basis (i.e., Connecticut Electric Operations, Gas Operations) rather than on a subsidiary company basis. As such, operations and maintenance ("O&M") expense budget costs originate from multiple sources within Eversource.

11. Unlike Accounting services, Treasury services provided to the CT Companies have been consolidated into one group that serves all Eversource entities, including Aquarion.

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[13] The Finance organization will soon grow to 11 leaders when the current Eversource CFO's former Executive Vice President role is filled.

[14] While Eversource asserts that it employs benchmarks when setting targets for the corporate scorecard, when asked to provide relevant information for Accounting and Treasury, it was not produced.

12. CL&P, YGS, and AWC-CT primarily fund their operations from cash flows generated by their operations, issuance of long-term debt, and periodic net infusions of equity from their respective parents.

13. In the next five years, CL&P and YGS have a substantial amount of long-term debt maturing. Some of this is due to shorter durations of debt (5 to 10 years) that were issued by the two utilities in the past decade to take advantage, at least in part, of low interest rates. Research indicates that Eversource management was not alone in selecting these shorter durations of debt to issue during this timeframe, but the decision will result in a potential wave of near-term refinancing that will likely be at much higher interest rates.

14. While management strives to achieve a dividend pay-out ratio of 60% for all CT Companies, equity balances are managed to comply with regulator-approved capital structures which currently range from 51% to 54% of total capital.

15. As the only CT Company that has experienced an outflow of equity funds in the past four years, CL&P may be indirectly funding the net equity infusions that have been made to some of its affiliates during this time, which include, but are not limited to, its two sister CT Companies, NSTAR Electric Company, and NSTAR Gas Company, in addition to the EESC.

16. CL&P and YGS rely on an inter-company revolving credit facility for short-term borrowings. Neither can lend funds under this arrangement. On the other hand, Aquarion's Connecticut subsidiary, the Aquarion Water Company of Connecticut ("AWC-CT"), borrows and lends short-term funds under the terms of the Aquarion money pool. Although each of the CT Companies has access to an external revolving credit facility, none of them have used it since the beginning of 2019.

17. None of the CT Companies have recognized a significant asset impairment in recent years, and we have little reason to believe that significant funds are being diverted from CL&P, YGS, or Aquarion to other affiliates to cover the few impairment losses that other entities have recorded during this time.

Rate Cases and Credit Rating

18. Energy utilities in Connecticut generally file rate cases every four years, however, CL&P and YGS have not since 2018. As a settlement condition of their 2021 agreement following Hurricane Isaias, CL&P agreed to a rate case stay-out period until 2024.

19. Eversource's Treasury organization makes all dividend payment recommendations for CL&P, YGS and AWC-CT in order to maintain appropriate capitalization ratios for each of the CT Companies.

20. CL&P and YGS have investment-grade credit ratings from the three major credit rating agencies; AWC-CT has an investment-grade credit rating by Moody's, as shown below in Figure 2.34 in Section 3.4.3.1.

21. The primary driver of the CT Companies' credit ratings is their regulatory environment, dictated by the actions of the Connecticut Public Utilities Regulatory Authority ("the PURA"), and the Federal Energy Regulatory Commission (the "FERC") for CL&P.

Electric and Gas Affiliate Relationships and Transactions

22. Eversource's affiliate transactions consist primarily of shared services provided by EESC to six energy utilities, including CL&P and YGS.

23. The cross subsidization risk normally associated with intercompany goods and services is mitigated in Eversource because its businesses are confined almost entirely to regulated electric, gas, and water utilities. This removes any economic incentive to overcharge the regulated business segment for shared services in order to minimize charges to the non-regulated segment. In addition, it is easier to develop reasonable procedures to allocate the cost of shared services in an enterprise consisting of utility companies with similar businesses, operations, and assets.

24. Shared services provided by the EESC accounted for more than 95% of the value of intercompany transactions between the CT Companies and affiliates during our 2020-2022 review period. Other than the centralized services provided by the EESC, CL&P and YGS exchanged minor amounts of goods and services with each other and with other Eversource affiliates, primarily utilities in MA and New Hampshire ("NH"). Goods and services exchanged with other utilities consisted primarily of storm outage support, but also included minor amounts of transmission system and substation work, and minor exchanges of meters and transformers. Eversource's procedures require all goods and services exchanged between utilities to be priced on a fully distributed cost basis.

25. At the end of 2022, 3,650 (39%) of Eversource's 9,264 employees worked for the EESC. In addition to corporate management and administrative services traditionally provided by utility service companies, Eversource has integrated many utility services that can be provided centrally into the EESC, thereby obtaining related cost efficiencies. Among the utility operations provided in whole or in part by the EESC are customer, engineering, planning and some electric and gas operations.

26. Eversource describes the EESC as a cost accounting and tracking entity through which shared services are provided. Executive Vice Presidents head the major shared service organizations within the EESC and are responsible for management and decision making related to their organizations and their services. Other than the Eversource officers who serve as subsidiary management, the dedicated operating subsidiary management does not have a direct role in determining the services to be provided by the EESC or its allocations. This is at odds with EESC service agreements with CL&P and YGS, which state that services are provided "if and to the extent requested by" the operating companies.

27. Budgeting, cost tracking and management reporting for the EESC's service organizations and costs does not extend to operating subsidiary cost distributions. With the exception of the Customer Experience and Energy Strategy organization, EESC organizational budget presentations do not provide subsidiary-level budget, actual, and budget variance cost distribution amounts.

28. The EESC's cost distribution procedures appear adequate to ensure a reasonable distribution of costs among the six Eversource energy utilities. A significant percentage of the EESC's costs are directly charged to benefiting subsidiaries. Most EESC costs are either directly charged or are allocated using attributable allocation methods, such as number of customers, customer phone handling time, occupied floor space and employee labor.

29. A comparison of EESC cost distributions to the Eversource utilities with an average of several measures of utility size (number of customers and four measures of financial size) showed that the percentage of EESC utility charges allocated to the CT Companies closely approximated relative size.

Water Affiliate Relationships and Transactions

30. Aquarion and its subsidiaries operate as a self-contained group of companies, separate from and unintegrated with the Eversource Energy organization. Aquarion and its subsidiaries are not cost objectives in the EESC's shared services allocation process. Aquarion and Eversource have different information systems and accounting platforms. They each have their own policies and procedures. However, the EESC and Aquarion have a service agreement under which the EESC provides a relatively small amount of management services to Aquarion and its subsidiaries. The EESC also pays certain bills, mainly insurance, on behalf of Aquarion, for which it is reimbursed.

31. Aquarion's affiliate transactions consist primarily of: 1) various centralized services provided by AWC-CT, to parent Aquarion and to other regulated water utilities in Massachusetts and New Hampshire; 2) management services provided by the EESC to Aquarion and its subsidiaries under the agreement discussed in the previous finding; 3) corporate management services directly charged and allocated by Aquarion to its subsidiaries (including AWC-CT, which is the actual service provider and charges them to Aquarion); and 4) administrative, customer and other services provided by AWC-CT to unregulated Aquarion subsidiary Homeowner Safety Valve ("HSV").[15]

32. Although Aquarion charges certain centralized management, administrative and support services to its regulated water companies, it does not operate under a service company model. Centralized services are not provided by Aquarion but rather by employees and vendors of AWC-CT. For many functions, including capital programs, corporate accounting, Human Resources ("HR") and various others, AWC-CT employees directly charge their costs to affiliate Aquarion subsidiaries or to parent company Aquarion. Employee and other costs incurred by AWC-CT, but not charged to an affiliate, automatically default to AWC-CT. In addition to direct charging procedures used exclusively for many shared activities, there are allocation processes to distribute certain AWC-CT-incurred customer and Information Technology ("IT") services to affiliates.

33. Aquarion has agreements governing the provision of shared services between "service company," defined as Aquarion Water Company ("AWC"), and three of Aquarion's regulated water utilities: Aquarion Water Company of New Hampshire ("AWC-NH"), Aquarion Water Company of Massachusetts ("AWC-MA") and Abenaki Water Company, Inc. ("Abenaki"). The reference in the agreements to AWC is vague. There is no service agreement between AWC and AWC-CT. AWC-CT houses the employees who actually provide shared services to Aquarion and its subsidiaries. There are also no service agreements governing the provision of intercompany services by AWC or AWC-CT to parent company Aquarion or to non-regulated affiliate HSV.

34. Aquarion has procedures providing for the distribution of indirect costs incurred by AWC-CT to other subsidiaries. This is important because indirect costs incurred by AWC-CT and not properly distributed to benefiting affiliates along with direct costs can become part of AWC-CT's regulated cost of service. Indirect costs include costs such as payroll taxes, employee benefits, and facilities costs.

[15] HSV was sold in 2024, after the primary period of analysis of this audit report.

Recommendations

Accounting and Treasury

1. As it relates to the Accounting and Treasury functions, we recommend that Eversource participate in formal benchmarking studies for the Accounting and Treasury organizations and obtain such information in the future as a tool to be used in identifying processes that could be improved and performed more cost effectively. If centrally managed and monitored, the acquisition of this type of information should be coordinated with the group responsible for identifying best practices throughout the Eversource organization.

2. We recommend review of EESC's capital structure used for fixed capital cost recovery in the next round of general rate cases for the CT Companies.

Electric and Gas Affiliate Transactions

3. We recommend that the EESC extend its budget and internal management reporting to the operating company level such that the reports show costs budgeted and distributed to utility subsidiaries and to their transmission and distribution business segments. As Eversource demonstrated with the data made available for audit review, this information is readily available from the accounting system and is, in fact, already provided in high-level budget presentations for the Customer Experience and Energy Strategy organization. Production of budget and actual cost data at the operating company level will serve to highlight significant shifts, if any, in cost distributions between companies, and will provide a means to demonstrate to state regulators that costs charged by the service company which make up a substantial share of each regulated utility's cost of service are fairly and reasonably apportioned between individual Eversource utilities and their distribution and transmission business segments.

4. Service company agreements with the CT Companies are dated January 1, 2014 and reference the legacy service company, the Northeast Utilities Service Company ("the NUSC"), instead of the EESC. We recommend Eversource make appropriate revisions to these agreements to bring them up to date with respect to the services listed and to accurately reflect the service relationship between the EESC and operating companies. In particular, we recommend Eversource revise the agreement language stating that services are provided "if and to the extent requested" by the utility operating companies to more accurately reflect the fact that the EESC's services and costs are managed by the Executive Vice Presidents in the EESC's senior leadership organizations, and that other operating company managers do not have a role in determining how much of a service they purchase or EESC cost amounts budgeted for distribution to their utilities.

Water Affiliate Transactions

5. We recommend Aquarion adopt a service company model under which employees and vendors who provide shared products and services are separated from other AWC-CT employees and provide the services either through parent company the Aquarion Company, through Aquarion Water Company ("AWC"), or preferably, through an entity established for the purpose of providing centralized, shared services (akin to the EESC). The cost of centralized services shared by a group of utilities or provided for the benefit of the corporate group of companies as a whole, should not be incurred and charged

from one of the benefiting utilities, primarily because any services not explicitly recognized as shared with affiliated utilities or as benefiting the corporate group as a whole will automatically default to the utility providing the service and incurring the cost. As Aquarion continues to grow through acquisitions, it becomes increasingly important to separate the services benefiting multiple subsidiaries or Aquarion as a whole from those provided only for the benefit of AWC-CT.

6. We recommend Aquarion bring its existing service agreements up to date and initiate agreements between all affiliates in which intercompany products or services are shared or exchanged, including, AWC-CT, HSV and Torrington. Aquarion should also ensure that all service agreements accurately identify the legal entities involved and the services provided.

7. Apart from and in addition to establishing a service company model for the provision of shared services, we recommend Aquarion develop cost allocation procedures for all significant centralized administrative and management functions to ensure the costs of these functions and their activities are properly distributed to all benefiting operating subsidiaries.

Chapter 4: Human Resources

Findings

HR Organization

1. The Eversource HR organization is organized into five main operating groups. Aquarion has a separate HR function led by a Director of HR who reports to an executive within Aquarion.

2. The Executive Vice President of HR is also responsible for Eversource's Information Technology ("IT") organization.

3. Eversource's HR group has met most of its key performance metrics over the past few years, with the exception of employee staffing and retention. Aquarion uses separate HR performance metrics and has seen worsening results in the last two years, most notably with employee safety measurements.

Compensation and Benefits

4. Eversource and Aquarion's non-union compensation structures use salary bands with a midpoint salary and maximum and minimum salaries in each band that are 15%-20% above and below the midpoint. CL&P and YGS employee salaries average very close to the midpoint in each grade. The salaries for the majority of Aquarion positions are also close to the midpoint, but approximately 40% are closer to the salary band minimum or maximum.

5. Eversource and Aquarion offer different incentive compensation plans. Each has a short-term plan available to all non-union employees and a long-term plan available to Director levels and above. Incentive compensation expenses charged to each CT Company did not materially change between 2019 and 2022.

6. Eversource met or exceeded nine of ten target performance metrics for incentive compensation in 2022. Short-term plan targets are a mix of financial and operational measures, while the long-term

plan is tied to earnings growth and shareholder return. Eversource also substantially exceeded overall targets in 2019-2021.

7. Eversource and Aquarion offer benefit packages commensurate with other large utility companies, both in the breadth of benefits available and in coverage levels.

8. In 2021, Eversource ranked 7 of 13 utility peers for benefit programs for its salaried workforce and 5 of 13 utility peers in the union ranking. The combined non-union employee benefit program value was 100.19% of the average value, where the utility group ranged from 88.05% to 111.93%.

Labor Relations

9. CL&P has union contracts with three bargaining units: field operations and support employees ("Teal Book"), distribution system operators, and transmission system maintainers and operators. YGS and Aquarion each have contracts with one bargaining unit for field employees. A new contract covering Customer Service Representatives ("CSRs") was initiated with the Eversource Energy Service Company ("EESC") in 2021.

10. Annual wage increases in the past two years have been 3% for each Connecticut union contract, except for Teal Book employees, who received a 3.5% general wage increase in 2022. The increases have been below consumer price inflation; however, they have been slightly larger than the 2.5% annual increases applied to management salary bands during the period. Although inflation trends appear to be easing, the gap between increases in consumer prices and wages over the past two years could introduce more risk in future wage negotiations with Eversource's unions.

11. Eversource appears to maintain effective working relationships with labor unions at the CT Companies.

12. With the exception of incentive compensation, Eversource and Aquarion management and represented employees participate in similar benefit plans, including medical and retirement plans, resulting in larger groups for greater cost efficiency. While pension plans have been frozen for many years, Eversource offers a company-funded contributory retirement plan, K-Vantage, in addition to 401(k) programs with matching funding.

13. The number of grievance claims from CL&P and YGS union employees filed annually has been relatively consistent since 2019, and none have reached arbitration, pointing to a strong working relationship with the unions. Aquarion reported no grievance claims since 2019. CL&P and YGS management hold frequent meetings with union officials covering topics such as work planning, training, and safety.

Workforce Planning

14. Vacancy rates at all three CT Companies and the EESC increased in 2022, consistent with industry trends. Higher vacancies are being caused by higher voluntary separations and retirements. Retention of CSRs has been particularly difficult for Eversource in the last two years. The CSR attrition rate was 9.94% in 2022 but is expected to ease somewhat in 2023.

15. A recent increase in retirements has led to the de-aging of Eversource's workforce. Eversource has seen a 5% decrease in the age 55+ cohort, while the proportion aged 19-44 has increased 10%.

16. Eversource has identified workforce acquisition and retention as a key enterprise risk. Eversource tracks relevant Key Risk Indicators ("KRIs") and has developed and implemented several mitigation initiatives such as a new talent acquisition strategy to improve hiring outcomes.

17. Succession planning at Eversource is performed by HR in collaboration with Eversource departmental leadership. Eversource has identified critical roles that are used in evaluating the workforce to identify "key talent" individuals and those who are ready for promotion. Aquarion does not have a formal succession planning program.

18. External contractor spending has been relatively flat at each of the CT Companies. Spending at the EESC has increased over the past couple of years due to the increased use of temporary labor and higher IT consulting expenses.

19. Non-storm overtime costs were slightly over budget at CL&P and YGS in 2022 but were consistent with previous years. Planned overtime is generally used to manage workload peaks.

Training and Development

20. CL&P and YGS technical training is provided by separate groups located within the Operations Services department. New hires in both electric and gas craft positions are trained using Time Merit Progression programs ("TMPs") consisting of on-the-job apprenticeships supported by formalized classroom training programs.

21. Eversource tracks required training issuances and completions in its learning management software. Tracking report data is incorporated into monthly scorecards for each Executive Vice President. CL&P and YGS have had near-100% training completion rates each of the past four years. Aquarion does not centrally track or report employee training.

22. Responsibility for monitoring the licensing of Eversource employees is decentralized based on functional area. Operations Services groups (Training and Fleet Services) oversee some federal and state licensing of employees. However, occupational licenses required by meter service mechanics are not monitored. Aquarion assigns monitoring of licenses to individual departments who use spreadsheets to capture licensing information.

23. Both CL&P and YGS have implemented enhanced training programs for field supervisors, many of whom are hired into the companies from outside the utility industry. Other recent improvements include a new curriculum for field engineering to address technology changes at CL&P and redesigns of pressure management and construction apprenticeship coursework at YGS.

Recommendations

HR Organization

1. Aquarion should expand their HR Key Performance Indicator ("KPI") tracking to include more metrics that are consistent with Eversource's corporate priorities, such as diversity hirings.

Workforce Planning

2. Aquarion employees should be incorporated into Eversource's succession planning program, where key talent is identified.

Training and Development

3. Aquarion should ensure that the SuccessFactors system, scheduled for implementation in 2024, will allow it to track the issuance and completion of training programs offered throughout the organization and provide sufficient monitoring capabilities to ensure Aquarion's training objectives are met.

4. Eversource should implement monitoring systems for all employees who require licenses to perform job functions, including occupational licenses. Aquarion should centralize license monitoring within HR and implement tracking system improvements such as those contemplated in SuccessFactors.

Chapter 5: Customer Operations

Findings

Eversource Electric & Gas Utilities

Management and Organization

1. Eversource customer service is centrally managed by employees in the Eversource Energy Service Company ("EESC"). Its functions and activities are integrated across utilities to the extent currently feasible. Complete integration of customer service operations across all utilities is constrained by the legacy information systems which continue to serve the utilities; by regulatory, operational, and knowledge base differences; and by existing agreements with different union groups.

2. The Eversource customer service organization has recently been given more responsibility for corporate strategy and industry competitiveness. Since 2019, Eversource has added two new customer service executive positions, one responsible for Energy Strategy and Policy, and the other responsible for developing Eversource's solar programs. The new Vice President of Energy Strategy and Policy is described as a "key member of [Eversource's] leadership team," and is responsible for developing an approach to make Eversource a leading "utility of the future" and improving Eversource's competitive position. Since 2019, Eversource also added two new Director positions both of which are responsible for the implementation of the OMNI customer system.

Customer Contact Operations

3. Eversource has four customer contact centers, each serving one or more of its utilities. These include Manchester, New Hampshire serving Public Service New Hampshire ("PSNH"); Springfield, Massachusetts serving Eversource Gas of Massachusetts ("EGMA"); Westwood, Massachusetts serving NSTAR Electric and NSTAR Gas, and Windsor, Connecticut serving Connecticut Light & Power ("CL&P"), Yankee Gas Service ("YGS") and Western Massachusetts Electric Company ("WMECO").

There is some ability for the Windsor contact center to support the Manchester contact center and vice versa; however, integration of all utilities into a single virtual contact center is currently constrained by union agreements, employee training and knowledge limitations with respect to specific utilities, and different information systems serving specific utilities or groups of utilities.

4. There are no current plans to combine the individual contact center operations into a unified virtual call center for all Eversource utilities. Among other issues, Eversource stated that the possible future integration of all utilities under one customer information system ("CIS") will be influenced by the implementation of Advanced Metering Infrastructure ("AMI") in Connecticut and New Hampshire.

5. Due primarily to Customer Service Representatives ("CSRs") being trained to work with specific utilities, the Windsor contact center has relied on separate CSR groups and call queues for CL&P, YGS, and WMECO. However, with recent cross-training, it is expected that these will be merged into a single call queue, making Windsor a fully integrated contact center. The scheduled "go live" date for the integration is October 2023.

6. Eversource implemented a new SAP-based CIS for EGMA in 2023. The NSTAR utilities in Eastern Massachusetts are expected to implement the same system in 2024. [16] Notwithstanding the constraints of union agreements and the need to cross-train customer contact staff, this suggests the Springfield and Westwood centers will eventually be consolidated into a virtual call center.

7. All Eversource contact centers experienced staffing reductions between the end of 2019 and the end of 2022. During this period, the Windsor contact center, which serves CL&P and YGS, experienced a 25% reduction in staffing, including a 24% reduction in CSRs. CSRs are a primary point of utility interface with customers.

8. A comparison of 2019 customer contact key performance indicators ("KPIs") (the last full pre-COVID-19 pandemic year) with 2022 (the first full post-COVID-19 pandemic year) shows that telephone performance in Connecticut deteriorated across several important indicators. Average speed of answer ("ASA") increased from 91 seconds in 2019 to 176 seconds in 2022. The 90-second CSR service level (the percentage of calls requesting to speak with CSRs that are answered within 90 seconds) decreased from 75% to 64%. The call abandonment rate ("CAR") increased from 2.2% in 2019 to 3.7% in 2022. Average call handling time ("AHT") increased by almost a minute. Eversource cited a decrease in customer contact staffing and changes to (increases in) the live call guidance required of contracted CSRs handling credit calls as reasons for deteriorating telephone metrics.

9. Of the telephone performance indicators noted in the previous finding, in Connecticut, Eversource sets and measures performance against a scorecard target only for the service level. There are no performance targets maintained for ASA, AHT, or CAR.

10. Between 2019 and 2022, performance scores from post-contact customer surveys declined for three of four call categories. Overall telephone experience scores, measured on a scale of 1-10, declined for

[16] Interview with Senior Vice President, Customer Operations and Digital Strategy, Eversource Energy, (Jared Lawrence); Vice President, Customer Operations, Eversource Energy, (Jessica Cain); Vice President, Solar Programs, Eversource Energy, (Andrew Belden); Director, Electric Service Support and Distributive Generation, Eversource Energy, (Warren Boutin); Director, Strategic and National Accounts, Eversource Energy, (Peter Barsamian), March 1, 2023.

CL&P non-credit calls (8.58 to 7.97), YGS non-credit calls (8.59 to 8.22), and YGS credit calls (7.69 to 7.48), while overall telephone experience scores for CL&P credit calls improved from 7.02 to 7.64. Generally, the internal details associated with the surveys declined or improved in concert with the overall experience scores.

Metering, Billing and Collection

11. Nearly all Eversource meters in Connecticut use automated meter read ("AMR") technology. Most of these rely on radio transmission of data to a device in a vehicle driven within range of the meter.

12. CL&P and YGS meter reading routes are integrated. Meter Readers and support staff (supervision, route coordination, and data management) are employees of the EESC. At the end of 2022, Eversource had 19 Meter Readers dedicated to Connecticut electric and gas operations, down from 22 readers at the end of 2019. Meter Installers and Meter Service Mechanics moved under EESC in October 2023.

13. As a member of the Edison Electric Institute ("EEI"), Eversource participates in the DataSource benchmarking process.[17] With an average meter read rate of 99.26%, Eversource ranked third among an average nine participants in the 2020 and 2021 DataSource benchmarking processes. CL&P's 99.3% average meter read rate for the years 2017-2022 is similar to the rate reported in the benchmarking process for Eversource overall. YGS's meter read rate averaged 98.8% for the six years 2017 through 2022.

14. At the time of our audit Eversource had not implemented AMI in any of its utilities. The Massachusetts Department of Public Utilities ("MA DPU") has approved a plan for Eversource to deploy electric AMI in Massachusetts beginning in 2025. At the time of our audit, a plan for AMI deployment for CL&P was under consideration by the Connecticut Public Utilities Regulatory Authority ("PURA"). Eversource has no current plans to deploy AMI in New Hampshire. Eversource has no current plans to deploy AMI for YGS.

15. Eversource's existing AMR meter system in Connecticut produces read rates of around 99% with a meter reading force of approximately 25 employees. Any savings from eliminating employee meter reading under AMI will depend on whether AMI extends to both electric (CL&P) and gas (YGS), given that meter reading for both utilities is currently integrated. In addition to reduced meter reading costs, Eversource expects AMI to deliver a number of additional benefits that AMR meters cannot provide, including enhanced system voltage regulation, reduced theft of service, better and earlier detection of outages, faster storm restoration, advanced rate options, and a reduction in greenhouse gas emissions.

16. Eversource's estimated bill percentage was lower (better) than the median participant in DataSource benchmarking surveys for the years 2019 through 2021. This is consistent with a system in which nearly all meters are automatically read and with a properly functioning meter data system. In Connecticut, Eversource has relatively low rates of implausible bills (e.g., bills flagged as out of

[17] Eversource provided limited, confidential, and redacted benchmarking data in response to FTI-420. The data shows how Eversource ranks within the participant group, but in accordance with non-disclosure agreement, it does not provide information about other participating utilities or how they ranked.

tolerance) and bills that need to be canceled and rebilled, indicating that Eversource's legacy "C2" CIS accurately calculates customer bills.

17. DataSource benchmarking results for the years 2019 through 2021 show Eversource's levelized billing (budget billing) participation rate was low compared with other benchmarking participants.

18. CL&P and YGS' rate of accounts receivable over 60 days and net write-off percentage were adversely affected by the COVID-19 pandemic. Both metrics began to normalize in 2022, however, for the year 2022, CL&P's receivables over 60 days for "non-tracked" accounts remained more than double the level experienced prior to the COVID-19 pandemic.

19. DataSource benchmarking for the years 2019 through 2021 shows Eversource had a relatively high credit and collection cost per customer and a relatively high cost per involuntary disconnect/reconnect. Benchmarking for this period also shows that Eversource ranked worse than most participants in the number of days sales outstanding and in net write-offs as a percentage of revenue.

Complaint Management

20. Two Regulatory Affairs Specialists ("RASs") in the Regulatory Affairs department manage the PURA's and other agencies' complaints for CL&P, YGS, and WMECO. The RASs report to the Manager, Regulatory Affairs.[18] Two other RASs are responsible for regulatory and other agency complaints in Eastern Massachusetts and New Hampshire. They report to a separate Manager of Regulatory Affairs.

21. Eversource maintains an Executive Complaints group consisting of a Supervisor of Executive Inquiries and two Consultants. The group is responsible for investigating and resolving customer complaints directed to Eversource executives in all three states, complaints registered with the Better Business Bureau, and escalated complaints that originate in customer contact centers or in the field.

22. The Regulatory Affairs and Executive Complaint groups meet with each other periodically to examine selected complaints, assess causes, and identify opportunities for process improvements. The work product from these meetings consists primarily of a worksheet that identifies suggested performance improvements, assigns a process owner, and notes the status and description of improvements implemented.

23. Eversource does not maintain metrics or performance targets for regulatory or executive complaints. Based on statistics maintained by the PURA, Eversource has a lower rate of regulatory complaints per thousand customers than Avangrid. Primarily, because a majority of regulatory complaints can be traced to problems customers have with *paying* bills, and because bill payment assistance programs have been expanded in recent years, both Eversource and Avangrid have experienced a decline in the rate of complaints registered with the PURA since 2019, the last full year prior to the COVID-19 pandemic.

[18] The Regulatory Affairs group is part of the Corporate Relations and Sustainability &organization, not the Customer Experience and Energy Strategy organization.

Low-Income and Medical Protection Programs

24. Eversource maintains two key arrearage forgiveness programs ("AFPs") to assist Low-Income customers in Connecticut. The Matching Payments Program ("MPP") protects participating customers from involuntary shutoff while they are paying down past-due bills over a 12-month period. Customer payments are matched by Eversource until the account reaches a zero balance. CL&P operates the New Start Program,[19] which pays 1/12th of past due electric bill balance for each month the customer pays a levelized bill for current usage. Both programs provide for automatic annual renewal and there are several ways customers can apply for the programs, including online, through customer inquiry staff, or through a Community Action Agency ("CAA").

25. Eversource tracks total enrollment, the automatic enrollment rate, and the "success rate" (percentage of customers who successfully pay their past due balances with matching assistance) for the MPP. It does not currently track metrics relating to Aquarion's Customer Assistance Program ("CAP").

26. Low-Income programs for all Eversource utilities are administered centrally by a Manager of Low-Income Programs who reports to the Director of Credit and Collections. The Credit and Collections team assists with program administration. Outreach activities include information provided during outbound collection telephone calls, emails, letters and bill inserts, webinars and live outreach events, and radio and newspaper advertising.

Aquarion

Management and Organization

27. Aquarion's customer service operations are integrated for all water utilities and are conducted by employees of Aquarion Water Company of Connecticut ("AWC-CT"). Aquarion operates a single call center in Monroe, Connecticut, owned by AWC-CT, which serves Connecticut, Massachusetts ("AWC-MA"), and New Hampshire ("AWC-NH") water utility customers and the customers of Aquarion's non-regulated appliance repair subsidiary.

28. Apart from customer data relating to Low Income Rate Assistance Program qualification, Aquarion and Eversource do not share customer service management, operations, or data. There is currently no expectation that electric and gas customer service operations will be integrated with those of the water utilities.

Customer Contact Operations

29. Aquarion conducts customer contact operations for all of its Connecticut, Massachusetts, and New Hampshire water utilities from a contact center located in Monroe, Connecticut, north of Bridgeport. Operations for all three states are integrated into a single call queue, and approximately 17 CSRs who are employees of AWC-CT trained to handle call traffic for all Connecticut, Massachusetts, and New Hampshire utilities. Aquarion has two CSRs outside the Monroe facility in Gilford, New Hampshire and Hampton, New Hampshire. These CSRs handle walk-in customers for water utilities in New Hampshire, which include AWC-NH and Abenaki Water Co. ("Abenaki"). Aquarion currently relies on employee CSRs and does not use contracted CSRs. At the time of the audit, Aquarion employed two Spanish-

[19] The New Start Program is scheduled to end in November 2024.

speaking CSRs and contracts with a translation service which is used, as needed, to service customers who speak languages other than English and Spanish.

30. AWC-CT uses a SAP-based CIS which integrates with its telephone system and has been upgraded over time. In 2022, Aquarion added a CSR chat feature that can be used for keyboard-based customer interaction during periods of high telephone traffic. At the time of our audit, Aquarion was investigating the possibility of adding chatbot technology.

31. Aquarion handled approximately the same number of customer telephone calls in 2022 as it handled in 2017. Key telephone metrics, including ASA, AHT, and CAR all have associated performance targets and were relatively stable throughout the 2017-2022 period.

Metering, Billing and Collection

32. Nearly all of Aquarion's meters utilize AMR technology. Consistent with this, AWC-CT has a meter read rate averaging approximately 99%.

33. Aquarion's billing and collection activities are integrated for Connecticut, Massachusetts, and New Hampshire. All billing and collection employees work for AWC-CT and any employee efforts deemed to benefit utilities in Massachusetts and New Hampshire are either allocated or directly charged to the utilities in those states.

34. AWC-CT's billing metrics reveal a low rate of corrected bills, consistent with a system which properly calculates customer bills. However, AWC-CT's implausible bill rate (between 6% and 7% in most years) appears high compared with its low corrected bill rate.[20]

35. AWC-CT's account delinquencies were adversely affected by the COVID-19 pandemic. During the COVID-19 pandemic, residential customers were able to continue receiving service without making payments after collection activities were suspended. Average accounts in arrears over 90 days doubled in 2020 compared with the years 2017 through 2019, and almost doubled again in 2021. Although collection efforts resumed in 2022, customers can now avoid shutoffs with smaller down payments on unpaid balances. Partly as a result of less stringent requirements to have disconnected accounts turned on, the average number of accounts in arrears more than 90 days remained high in 2022, and slightly exceeded the average for 2021.

Complaint Management

36. AWC-CT has few complaints referred by the PURA or other outside agencies. It records and manages a larger number of mostly non-escalated complaints internally. These are logged by CSRs in Aquarion's SAP-based CIS. AWC-CT has substantially reduced the number of internally recorded complaints in the largest category, high bill investigations, by improving CSR training and using better scripts to help customers self-identify leaks.

[20] We have no data to compare this with other water utilities. It may be because customer leaks and unattended lawn watering can occasionally cause high (implausible) bills that nevertheless accurately reflect usage.

Low-Income and Medical Protection Programs

37. AWC-CT maintains a CAP under which water customers with incomes up to 75% of median household income may receive a bill credit of between $50 and $250. The federally-funded Low-Income Household Water Assistance Program ("LIHWAP") provides a credit of up to $1,000 but is set to expire at the end of September 2023.

38. In March 2023, the PURA approved the Low-Income Rate Assistance Program ("LIRAP"), which provides a 15% bill credit for AWC-CT customers with income at or below 60% of the state median income. Eligible customers must be an owner-occupier or a tenant. LIRAP bill credits are not available to landlord accounts.

39. AWC-CT co-manages and administers the CAP and LIHWAP programs with Operation Fuel, an organization which provides emergency heating assistance to Connecticut utility customers, as well as with other Community Action Agencies. Outreach includes bill inserts, website postings, and information provided by CSRs in the customer inquiry and collection functions.

Recommendations

Customer Contact Operations

1. We recommend Eversource establish performance targets for ASA, AHT, and CAR telephone metrics in Connecticut. These metrics currently lack targets and performance has deteriorated in the post-COVID-19 pandemic period compared with 2019. While the targets should consider current operating conditions, they should also consider results achieved before the COVID-19 pandemic. We recommend targets based on levels achieved in 2019, the most recent pre-pandemic year.

2. Until CSR employee staffing levels return to levels needed to maintain acceptable Connecticut telephone performance (i.e., pre-COVID-19 pandemic performance levels), and to the extent the integration of utility-specific CSR groups into a single queue later this year may create additional temporary performance issues, we recommend Eversource increase the level of support provided by third-party vendor Alorica to the Windsor, Connecticut contact center's non-credit call operations to achieve improvements in performance. This assumes that Eversource is already exploring solutions such as the increased use of technology (e.g., chat features) as a way of improving telephone performance and is evaluating individual CSR performance as it is permitted to do under its 2021 contract with the Windsor, Connecticut contact center's union employees.

Metering, Billing and Collection

3. We recommend Eversource take steps to improve customer adoption of levelized (budget) billing, which benchmarking data showed Eversource was underperforming relative to peers. Customers on levelized billing (budget billing) plans are less likely overall to fall into payment delinquency due to occasional high seasonal bills.

4. E-bills are significantly less costly than paper bills. We recommend Eversource review the procedures AWC-CT has used to achieve an e-bill adoption rate exceeding 50% and determine whether it might apply similar procedures to achieve better e-bill adoption rates for CL&P and YGS.

Complaint Management

5. We recommend Eversource develop a scorecard performance target rate for customer complaints referred to Eversource in Connecticut by the PURA. The scorecard target should be applicable to the Regulatory Affairs department. The target should be informed by actual experience in the post-COVID-19 pandemic environment, during which complaints have declined due to improved programs for low-income customers and lower numbers of accounts disconnected for non-payment.

Low-Income and Medical Protection Programs

6. We recommend AWC-CT develop metrics to track participation and customer renewal of participation in its Low-Income programs, including its new LIRAP program.

Chapter 6: External Relations

Findings

1. External Relations is provided on a shared service basis with leaders located in either Connecticut or Massachusetts, with many of the activities for CL&P and YGS provided by employees who are located within Connecticut.
2. A "strategic structure" was recently implemented by Eversource to focus on the needs of underserved and environmental justice communities within Connecticut.
3. The supplied list of charitable investments for all three CT Companies contains a wide cross section of organizations and locations across the state that have received these investments.
4. AWC-CT External Relations activities are exclusively managed within the Company which includes the review and implementation of the Communications plan. There is little regular interaction or coordination with Eversource's External Relations activities.

Chapter 7: Support Services

Findings

Enterprise Risk Management

1. Eversource's ERM function is led by the Director of ERM, who also oversees Eversource's corporate insurance and liability claims functions and reports to the Eversource Executive Vice President and Chief Financial Officer ("CFO"). Risk management governance is assigned to the Eversource Board of Trustees' ("BOT") Finance Committee, which receives formal ERM updates annually.
2. Eversource has an executive Risk Committee comprised of leadership from a diverse group of functional areas and is chaired by the Eversource CFO. The Risk Committee meets quarterly and actively participates in selecting the subset of risks to be designated as enterprise risks.

3. Risk identification and assessment is performed annually through workshops with operating areas, meetings with business liaisons, and reviews with executive sponsors. Eversource uses quantitative risk scores in the development stage, however, business and enterprise risks are not determined solely based on those scores.

4. Mitigation plans are required for all enterprise and business risks. Eversource's mitigation plans are sufficiently detailed, and many of the business risks include multiple mitigation activities. Plans are updated twice per year and reviewed by the Risk Committee at least semiannually.

5. Enterprise risks are monitored using Key Risk Indicators ("KRIs") and are assigned a status rating based on KRI performance against predetermined targets. Eversource reported 10 enterprise risks relevant to its regulated utility business in the fourth quarter of 2022. Five were categorized as "on watch" based on KRI results that were below target.

6. The ERM group is a member of several external organizations, including the ERM committee of the Edison Electric Institute ("EEI") and the American Gas Association ("AGA"). The Risk Committee & Finance Committee receives an annual update entitled, "Industry View on Top Risks" that shows the top ten risks from the most recent EEI/AGA survey and relative risk rankings over the past three years. According to the 2022 report, each of the top utility industry risks were also Eversource risks.

Legal

7. Eversource Energy's Legal organization uses a centralized shared services model where all legal matters for CL&P, YGS, and AWC-CT are managed under the same organization. Legal resourcing is provided mostly though internal counsel at CL&P and YGS, while AWC-CT has recently relied more on external than internal counsel.

8. Cost management for external counsel is achieved through the use of fixed fee, success-based fees, and by the Company exercising their right to pick specific attorneys. They also regularly negotiate rates with law firms.

Asset Management (Real Estate, Fleet, and Inventory Management)

9. (Real Estate) Real Estate vendor contracts are structured through a competitively bid multi-year Master Services Agreement which provide long-term pricing hedges. Each service request must be competitively bid by approved vendors to promote cost control.

10. (Fleet) Each Company determines when a new vehicle is needed by using certain milestones such as vehicle age, mileage or condition as qualifiers. For example, AWC-CT stated that once a vehicle reaches 100,000 miles they proactively review the vehicle's repair history and perform a condition assessment to determine the need for replacement.

11. (Fleet) CL&P and YGS had no particular challenges sourcing vehicles during the COVID-19 Pandemic related supply chain shortages, but AWC-CT had to make alternative arrangements due to sourcing challenges.

12. (Fleet) CL&P and YGS both service and repair vehicles using on-site Company garages while AWC-CT utilizes vendors.

13. (Fleet) None of the Companies provided metrics that tracked overall vehicle utilization.

14. (Fleet) CL&P, YGS and AWC-CT all had challenges with Preventable Motor Vehicle Accidents ("PMVA") in 2022. Several actions were implemented to mitigate this challenge, however, given their recency we were unable to assess their impact.

15. (Inventory Management) The Companies actively review material standards to drive consistent practices across the lines of business through Eversource's Tri-State Standards Group.

16. (Inventory Management) To promote crew efficiency, CL&P had a prior practice of pre-loading materials on trucks. In 2020 and 2021 the Company pre-loaded material approximately 50% of the time. This service dropped off in 2022 due to interface issues between the Company's work management system and the material pre-loading system. The Company noted that they are working on reestablishing this valuable practice where practical.

17. (Inventory Management) AWC-CT's requirement to sole sourcing metering equipment results in supplier risk. The Company stated they understand this risk and manage it by assessing other vendors' ability to supply meters should the need arise.

18. (Inventory Management) CL&P and YGS both experienced supply chain issues resulting from COVID-19 related disruptions, which resulted in extended lead and unpredictable delivery times. AWC-CT did not have similar issues.

Information Technology and Cybersecurity

19. CL&P and YGS both receive IT services from Eversource's centralized IT group. AWC-CT has their own IT organization with a consultative link to Eversource's IT group. This separation exists to account for the differences between the Companies' Enterprise Resource Planning applications, specifically Eversource Energy's (includes CL&P and YGS) use of Oracle and AWC-CT's use of SAP.

20. The Companies' use internal IT employees to develop less routine strategic applications which typically have special requirements. Third-party employees/vendors are used for standard applications.

21. IT projects are developed from a robust IT Roadmap development process at both CL&P and YGS. We were unable to determine if AWC-CT uses similar process.

22. CL&P's and YGS's historical spend indicates that most IT expenses are Operational ("OpEx") rather than Capital ("CapEx"). In comparison, AWC-CT has a balanced CapEx and OpEx spend profile.

23. The Companies maintain an "Off-Cycle" Project Request Process to allow priority projects to be authorized outside of the normal business planning cycle.

24. CL&P and YGS provided documentation for eight sample projects which had undergone a scope change. Each reviewed project had a sufficient level of project detail and rationale for each change.

25. The responsibility for Eversource's day-to-day management of Cybersecurity falls under Christopher Leigh, Vice President and Chief Information Security Officer, who reports to Ron Utterbeck, Vice President of Information Technology ("IT") and Chief Information Officer ("CIO"). AWC-CT's

Cybersecurity Organization reports to the Company's Director of IT. AWC-CT's Day-to-day cybersecurity activities are the responsibility of the Technical Service Manger and two direct reports.

26. Eversource's and AWC-CT's cybersecurity groups are coordinated through a cybersecurity governance counsel where on a standing basis operational concerns, organizational and staffing issues, cybersecurity vulnerabilities and projects are discussed.

27. The Companies' cybersecurity performance management measures, scorecards, and review processes are consistent with industry practice.

28. The Companies maintain several cybersecurity incident response documents that cover a range of potential cyber related emergencies and include details on recovery processes.

29. Communication protocol for cybersecurity incidents could not be established for various agencies including Public Utilities Regulatory Authority ("PURA").

30. CL&P's Independent Board members were interviewed and they indicated the Company provided information and training concerning cybersecurity.

31. "Click rates" for phish tests range between 3 to 7% for Eversource and 3 to 11% for AWC-CT. For an organization the size of Eversource the industry average click rate is approximately 6%.

Recommendations

Legal

1. The Company should perform a formal cost study to determine the effectiveness of their resourcing strategy including the utilization and cost of external counsel. In addition, the Company should promote additional oversight of external counsel by ensuring that the lawyer overseeing the work is not the only person reviewing the need and charges provided by external counsel which will help mitigate against any instances of conflict of interest.

Asset Management (Real Estate, Fleet, and Inventory Management)

2. (Real Estate) The three Companies should implement improvements to their real estate budget management process which should include the development of an attainable budget that is appropriately managed throughout the year using a portfolio management process.

3. (Fleet) Eversource should work with AWC-CT to implement a new vehicle sourcing synergy. This could assist with additional cost savings and help mitigate against future supplier issues. However, this recommendation should be only implemented if significant benefits can be realized, and therefore is not intended to create any undue administrative burden for the sake of a consistent process.

Information Technology and Cybersecurity

4. AWC-CT should implement a similar, but scaled, version of the Eversource Energy IT Roadmap development process. This will allow for a clear link between business imperatives and the applications developed to improve performance. This will assist the Company with prioritizing projects with the highest impact on business performance through a transparent and repeatable process.

5. The Companies should make improvements to the IT CapEx forecasting process to more accurately reflect actual spend. This will allow for more accurate portfolio management and in-year tracking of expenses.

6. AWC-CT did not demonstrate the development or use of IT project management documentation to ensure consistent delivery practices. If they do not already exists, the Company should develop project documentation by consulting with Eversource's IT group for best practices and other support.

7. Given the documentation provided by the Companies, they should update their cybersecurity risk register to include risk scoring (likelihood and severity) and mitigation actions which is consistent with Eversource's ERM practices.

8. The Companies should consider conducting a third-party cybersecurity maturity assessment to provide a independent evaluation of the Companies' cybersecurity operations and compliance to applicable rules and regulations.

9. The Companies should update their cybersecurity incident response plans to provide details about the communication protocols for all applicable federal, state and other industry groups. These plan should also be updated to include information concerning the approach and structure for after action reviews. Additionally, AWC-CT should benchmark Eversource and other utilities' plans to include more tactical response details for a variety of scenarios.

10. The Company should consider revoking access to email systems and/or the Company network should an employee fail multiple phishing attempts after previous manager interventions. If not already in place, non-compliance to cybersecurity training should also result in revocation of computer access until such training is complied with.

Chapter 1. Executive Management

Introduction

The Executive Management Chapter will provide an overview of how leadership within Eversource Energy ("Eversource") is structured and interacts to operate the three regulated utilities covered in this audit: the Connecticut Light & Power Company ("CL&P"), Yankee Gas Services Company ("YGS"), and the Aquarion Company ("Aquarion") (collectively the "CT Companies"). Topics covered in this chapter include:

- Organizational structures covering Eversource's regulated utilities and non-regulated entities, as well as the personnel and organizations within the entities covered by this audit;
- Governance and decision-making processes, including the people and entities involved;
- Regulatory compliance personnel, structure, and processes;
- Long-term and short-term planning processes; and
- Internal Audit organization and processes.

Findings

Corporate Ownership and Structure

1. Eversource is comprised of numerous electric, gas, and water utilities, with approximately 4 million electric, gas, and water customers in Connecticut, Massachusetts, and New Hampshire. Eversource has acquired multiple regional gas and water entities over the last decade.

2. Eversource is also involved in some non-utility businesses, including real estate and, until recently, offshore wind. On May 25, 2023, following a strategic review, Eversource announced it would sell its offshore wind ownership interests.[1] On February 13, 2024, Eversource announced the sale of its 50% ownership interest in South Fork Wind and Revolution Wind to Global Infrastructure Partners, which will fully exit Eversource from the offshore wind business after its January 24, 2024 announcement to sell its 50% interest in Sunrise Wind to Ørsted.[2]

Personnel Organizational Structure

3. Eversource's management structure is organized around a centralized, matrix-type structure with six cross-cutting shared service business units within the Eversource Energy Service Company ("EESC"), each led by a Senior Leader with an Executive Vice President title. The six "Senior Leaders," plus the Eversource Chief Executive Officer ("CEO"), constitute the seven-member "Senior Team."

4. All three CT Company Presidents (Stephen Sullivan for CL&P, William Akley for the Gas Distribution Business[3] in Connecticut and Massachusetts, and Donald Morrissey for Aquarion) report directly to the Eversource Chief Operating Officer ("COO") Werner Schweiger (Werner Schweiger retired July 2023 and was replaced by Paul

[1] "Eversource Energy Announces Agreement to Sell Interest in Uncommitted Offshore Lease Area," Eversource Press Release, May 25, 2023.
[2] "Eversource Energy Announces Pathway to Fully Exit its Offshore Wind Investments Pursuant to Agreement with Global Infrastructure Partners to Sell Revolution Wind and South Fork Wind Projects," Eversource Press Release, February 13, 2024.
[3] Eversource's Gas Distribution Business comprises Eversource Gas of Massachusetts ("EGMA"), NSTAR Gas Company ("NSTAR Gas"), and YGS.

Chodak III September 14, 2023, see footnote 47 for additional details), who is a member of the Senior Team and reports directly to the Eversource CEO, as do all the Senior Leaders.[4] Through this oversight role, the Eversource COO reviews and approves major operational decisions for all Eversource utility companies, including the CT Companies. The President of CL&P also has an indirect or "dotted" reporting line to the Eversource CEO, which was a condition of the 2021 Settlement Agreement ("2021 Settlement") with several key Intervenors as detailed in the final decision for Docket No. 20-08-03.

5. The Senior Team oversees and makes decisions for each of their shared service business units. The Senior Team's shared service business units provide administrative and management services to all Eversource operating companies, including the CT Companies. The Senior Leaders and the CT Company Presidents are also responsible for providing direction and guidance to their respective organizations during the annual O&M and capital planning processes as well as final approvals. The approved final results of the annual O&M and capital plans serve as inputs to the five-year Strategic Capital Plans, which then are incorporated into the one-year, forward-looking Eversource Corporate Operating Plan and five-year Eversource Long-Range Plan ("LRP"). Each Senior Leader approves and is responsible for their organization's final annual operating and capital budgets and for meeting their annual operating performance goals.[5]

6. The shared service business units provide full-time dedicated resources to each of the CT Companies and the CT Company Presidents, shared services specific to a single state covering all CT Companies, or shared services covering two or all three states, depending on the specific function. For example, the Budgeting, Forecasting, and Investment Planning function within the Finance organization employs both CL&P- and YGS-dedicated resources and Eversource-wide resources.

7. The CT Company Presidents are responsible for developing their company's capital and O&M plans, meeting performance targets, providing leadership on project and work initiatives, overseeing adherence to the annual operations and maintenance ("O&M") budget, ensuring employee safety, leading the company's external affairs, building positive relationships with stakeholders, and most importantly, running the business.

8. Each CT Company President socializes major issues, positions, and decisions with multiple levels of Eversource-level Senior Leadership on a biweekly-to-monthly basis, while meeting internally within their Connecticut jurisdiction on a weekly-to-monthly basis.[6] Thus, the CT Company Presidents receive feedback from Eversource-level executives for decisions affecting their respective CT Companies, and both collect information from and disseminate information to their direct reports. All these interfaces ensure that important Connecticut issues are discussed at the highest levels.

9. The Senior Team meets regularly weekly and more frequently on an informal basis. The Senior Team also interacts regularly with the CT Company Presidents, either through the Eversource COO or directly in regularly scheduled meetings, but also informally to receive updates or discuss current issues.

[4] For the purposes of this audit, Mr. Schweiger will be referred to as the COO as he was the acting COO at the start of the audit. He retired in July 2023. James Hunt III, Executive Vice President of Corporate Relations and Sustainability assumed Mr. Schweiger's duties on an interim basis until November 2023 when Paul Chodak III assumed the role of Executive Vice President and COO. Eversource 8-K, Item 5.02: Appointment of Certain Officers, September 14, 2023.

[5] Response to FTI-117.

[6] Response to FTI-289. Meeting cadence ranges are approximate and represent most, not all, meetings. See Figure 1-7 for specific meeting cadences.

10. Eversource stated that the CT Company Presidents are the primary faces of Eversource to their Connecticut customers, municipalities, and legislators.

11. The Senior Team/CT Company Presidents matrix organization structure is not uncommon amongst other multi-state utility holding companies. Decisions are made by the parties who are the experts in their areas of responsibility, however there is broad input, discussion, and consultation amongst the decision-makers to ensure all affected parties are informed and participate in the decisions. The CT Company Presidents are allowed to focus on running the Operations business and are primarily measured on that performance.

12. Aquarion, as Eversource's only water utility, is a more autonomous organization than peer CT Companies, with different internal processes. Aquarion does not have dedicated resources from the EESC – most services are provided internally within AWC-CT and report to the President of Aquarion. Numerous EESC organizations provide support to Aquarion [7] and there are two dotted reporting lines to EESC organizations (Regulatory/Rates and Accounting). On February 13, 2024, Eversource announced it is considering a potential sale of Aquarion and will launch a process to evaluate market interest.[8]

13. The CT Companies are structured to focus on operations and running the business, with dedicated staff members from the shared service organizations embedded in each CT Company to assist in running the operation. The CT Company Presidents are highly knowledgeable about technical operations and have intimate knowledge of their respective CT Company's needs and operations, thus, they are actively involved in the capital and O&M budget planning processes and advocate for their respective CT Company's needs before the Eversource COO.

14. The CL&P President is solely responsible for CL&P, while the Gas Distribution President is responsible for EGMA, NSTAR Gas, and YGS, and the Aquarion President is responsible for all of Aquarion's regulated water businesses and non-regulated service businesses, serving as Aquarion's COO.

15. The CL&P Board of Directors consists of four Senior Leaders, including the Eversource COO, and three Independent Directors, per the 2021 Settlement. The YGS Board of Directors consists of four Senior Leaders, but no Independent Directors. The Aquarion Board is also internal and there are no Directors from the Eversource Senior Team.

Shared Services

16. The Eversource organizational structure allows CL&P and YGS to benefit from shared corporate services that are provided under the oversight of the Eversource Senior Team through EESC. Some of the Eversource shared services are CT Company-specific or state-specific while others are shared enterprise-wide.

17. Aquarion's shared services structure is centralized and mostly internal and provided through AWC-CT. Aquarion shared service business unit leaders report directly to the Aquarion President, rather than to a member of the Eversource Senior Team. Aquarion may use Eversource shared services that Aquarion does

[7] Response to FTI-263. These EESC organizations providing support to Aquarion as needed are: Regulatory Affairs; Accounting and Taxes; Financial Strategy; Investor Relations; Enterprise Risk Management and Claims; Treasury and Investment Management; Corporate Performance Management; Budgeting, Forecasting, and Investment Planning; Legal; Internal Audit and Security; and Information Security and Compliance.

[8] "Eversource Energy Reports Full-Year Results Announces Exploration of Sale of Water Distribution Business," Eversource Press Release, February 13, 2024.

not have or when additional resources are needed. Numerous EESC organizations provide some support to Aquarion, as well as the Senior Team.

18. Certain operational departments are centralized under the EESC to ensure standard practices amongst utility operating companies and to allow for sharing of personnel and equipment when necessary, and most importantly, best practices.[9]

Governance

19. Decision-making authority and spending/contract signatory authority for CL&P and YGS is governed by the Eversource Delegations of Authority. Aquarion has separate Signature Authority levels.

20. The maximum spending/contract signatory authority level for the CL&P and Gas Distribution Presidents is $5 million, Senior Leaders' maximum authority level is $12.5 million, the Eversource CFO's maximum authority level is $20 million, the Eversource CEO's maximum authority level is $25 million, and the Subsidiary Boards have unlimited authority. The Aquarion President has a Signature Authority level (i.e., ability to sign contracts) of $0.25 million and above and therefore has no maximum authority level.[10]

21. The Subsidiary Boards do not participate formally in the CT Companies' day-to-day decision-making processes, but they do formally approve financings and the amount and payment of dividends, in addition to reviewing and commenting on draft long-term and short-term capital and O&M plans, corporate metric performance and other presented topics and issues. They do approve capital projects above $25 million. The Boards are kept apprised on key issues and financial results by the CT Company Presidents and CL&P provides a more extensive agenda covering a variety of Connecticut electric and energy topics. The CL&P Board is the only CT Company Board with Independent Directors; YGS and Aquarion Boards have internal Directors only.

22. CL&P's Independent Directors were appointed per a condition of the 2021 Settlement. The Independent Directors receive training and education on topics such as cybersecurity, emergency response, and rate recovery. The CL&P President provides financial, operational, policy and regulatory updates to the CL&P Board for the Independent Directors' benefit.

23. In line with Eversource's Operations-focused business model for subsidiary Presidents, most meetings attended by CT Company Presidents are operational in nature.

Regulatory Compliance

24. For the CL&P and YGS organizations, the Regulatory Affairs team under the Corporate Communications and Sustainability shared service business unit led by James Hunt III serves as the primary liaison and interface with the PURA.

25. Aquarion has no dedicated liaison to the PURA, however, certain departments report frequently to the PURA. Given that a large share of Aquarion customers are located in Connecticut, the state's regulatory issues are prioritized.

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[9] Examples of functions centralized under the EESC include Safety; Emergency Response Planning; Engineering; Fleet Operations; Technical Training and Compliance; and Vegetation Management.

[10] To ensure adequate controls are in place over expenditures, amounts greater than $250,000 are authorized by Mr. Morrissey, as President of Aquarion. Response to FTI-797.

26. There is a “three-legged stool” of cross-cutting teams responsible for Connecticut-specific regulatory and legal issues: a Director of Regulatory Affairs, an Assistant General Counsel, and the Vice President of Distribution Rates.

27. At least three times weekly, Connecticut-specific standing meetings are held to discuss any regulatory action items, deadlines/due dates for filings which are tracked, current developments, and concerns.

28. Compliance with all regulatory orders is tracked in an Archer software database for CL&P and YGS, and in Microsoft Outlook for Aquarion.

Long-Term, Short-Term, and Strategic Planning

29. All three CT Companies participate in two forward-looking planning processes: 1) a long-term, five-year, strategic capital plan (“Strategic Capital Plan” for CL&P and YGS; “5-Year Plan” for Aquarion), and 2) a detailed short-term, one-year capital and O&M budget (“Corporate Operating Plan” for CL&P and YGS; “Annual Capital Budget” and “Annual O&M Budget” for Aquarion, together the “Annual Budgets”) that follows the Strategic Capital Plan/5-Year Plan processes.

30. These long-term and short-term planning processes are performed annually, with the long-term planning cycle occurring between February and June and the short-term planning cycle occurring between August and December.

31. The CT Companies’ long-term Strategic Capital Plan feeds into the consolidated Eversource five-year Long-Range Plan (“LRP”) planning process. The LRP is broader than the CT Companies Strategic Capital Plan and incorporates flat O&M projections based on the current year budget as well as many other financial assumption inputs from numerous Eversource-wide departments which are used to create a full five-year projection of financial results as well as a five-year capital forecast.

32. The first year of the Eversource LRP becomes the basis for the Eversource Corporate Operating Plan which incorporates the CT Companies’ first year of their Strategic Capital Plan and their initial one-year O&M estimate, which is based on the current year’s budget.

33. Continuous updates to the LRP are made throughout the year to reflect changes in legislation, regulatory outcomes, prevailing economic conditions, or any other significant events. The resultant LRP spans a six-year period: the current year plus a five-year forecast.

34. Eversource’s LRP includes both a capital spending component and a broader five-year financial forecast. Each CT Company submits capital spending templates for their organization for consolidation into the Eversource LRP. Eversource’s Financial Strategy group maintains Eversource’s five-year financial forecast, while Aquarion maintains its own financial forecast, which is later consolidated with Eversource’s.

35. The Financial Planning and Analysis (“FP&A”) group oversees Eversource’s short-term planning efforts, while the Financial Strategy group oversees long-term planning. The FP&A group has employees called FP&A leads embedded within each Eversource function to assist the Senior Leaders and functions leadership, as well as the CT Company Presidents, with all planning and budgeting efforts. Both the FP&A and Financial Strategy groups report to the Eversource Chief Financial Officer (“CFO”).

36. The Vice President of FP&A is responsible for keeping the Eversource CEO, Eversource CFO, and Eversource Controller apprised of monthly financial results and explanations of material budget variances.

37. Each CT Company President and their Operations and Planning departments, in collaboration with the Engineering department and embedded Eversource investment planning groups within the Finance organization, conduct more detailed capital and O&M budget planning processes after the Eversource LRP is reviewed by the Eversource BOT in June. The capital budgeting process starts with the first year of the LRP, which originates from the Strategic Capital Plan, and the O&M budgeting process starts with the current year's budget, which also was incorporated in the Eversource LRP.

38. The CT Company Presidents are responsible for managing their respective capital and O&M budgets throughout the year. Embedded employees from Eversource's FP&A group communicate regularly with the CT Company Presidents to help them understand their results, and these employees review budget variances on a monthly basis. Each month, the CT Company Presidents and other direct reports present an operational, consolidated financial briefing to the Eversource COO. These briefings include key industry trends (supply chain disruptions, fuel pricings, etc.), O&M and capital budget variances at the operating company and major division level (safety, engineering, etc.), O&M budget and capital variances at the cost element level (Labor, Materials, etc.), Aquarion O&M budget variances at the department level (Engineering, Administration, etc.), Aquarion capital budget variances at the state and project category level (Metering, Reliability, etc.), staffing capital and O&M budget variances including overtime analysis, storm expense and deferred costs to date by state, and operational items such as meter inventory and active work order counts.

39. The Eversource Senior Team, in conjunction with Eversource department leaders, each year identifies numeric scorecard metrics and qualitative Strategic Initiatives that Eversource leaders use to run the business. These metrics are developed during Eversource's short-term planning process to set targets for the following year. The Corporate Performance Management group tracks scorecard metrics and Strategic Initiatives for each Eversource department via performance reports, acting as a liaison between the Senior Team and Eversource department leaders. We observe modest changes in these metrics and Strategic Initiatives from year to year, commensurate to current business needs.

40. CL&P regularly files with the Connecticut Public Utilities Regulatory Authority ("the PURA") both the following year's capital budget and a budget-to-actual comparison to their long-term capital forecast. Any variances greater than 10% must be noted and justified in the filing.

Internal Audit

41. Governance of the internal audit function is performed by the Eversource Board of Trustees' Audit Committee with oversight activities set forth in its charter. The Vice President of Internal Audit and Security reports functionally to the Audit Committee and administratively to the Executive Vice President of the Legal department and General Counsel.

42. The Internal Audit organization is divided by functional area – Information Technology, Operations, Financial/Sarbanes-Oxley compliance, and Corporate/Environmental. Each area is led by an Audit Manager.

43. The Vice President of Internal Audit and Security, while not formally holding the title of "Chief Security Officer," is responsible for the corporate security group.

44. Annual internal audit plans are developed through stakeholder outreach and risk assessment updates of the audit universe. Some lower priority audits are not completed due to unplanned engagements added during the year. The audit plan completion rate dropped from 92% in 2019 to 82% in 2020 and 86% in 2021 but recovered to 94% in 2022.

45. Audit procedures are documented in a detailed Internal Audit Manual and conform to best practice standards issued by the Institute of Internal Auditors.

46. Written audit findings require mitigation plans with implementation dates. Implementation status is monitored by Internal Audit and reported quarterly to the Audit Committee. The average time to complete mitigation plan implementation has decreased in the last two years. In addition, the number of mitigation plans that received extensions to their original implementation dates was relatively low.

47. Audit reports may receive one of four ratings – Controlled, Controlled with Opportunities for Improvement, Needs Improvement, or Unsatisfactory. The first two ratings indicate that internal controls are functioning properly. Only three rated audits did not receive one of the Controlled ratings between 2019 and 2022. Approximately 30% of all reports, many of which were unplanned, management-requested reviews, and were not rated. Summaries of unrated audits are included in reports to the Audit Committee.

48. Internal Audit uses several internal quality assurance programs to monitor compliance with its policies and procedures, including detailed workpaper reviews. In addition, a recent external quality assessment found the Internal Audit function in compliance with international standards and code of ethics.

49. Internal Audit tracks and reports performance indicators related to staff productivity, audit timeliness and implementation plan duration. The department met its targets for all measurements in 2021 and 2022.

Recommendations

Personnel Organizational Structure

1. The Eversource organizational structure is an informal matrix structure overseen by the Senior Team. The structure requires frequent communication between the various shared services organizations and the operations functions. Eversource has operated in this type of structure for an extended period and based on our review communication and information flow within the matrix works well and is embedded in the organization. This results in well informed and customer focused decision-making. As with any matrix organization the chain of command and ultimate responsibilities across the various organizations can sometimes be difficult to understand. We recommend that Eversource create a formal internal organizational document that simply explains how the various functions/organizations are managed and decision-making works for the CT Companies.

Governance

2. Unlike the Presidents of CL&P and YGS who are capped at $7.5 million, the Aquarion President, Donald Morrisey, has unlimited authority through the Aquarion Signature Authority levels. We recommend capping the Aquarion President's Signature Authority level at $7.5 million to be in line with the other CT Companies Presidents.[11]

[11] Response to FTI-797.

Regulatory Compliance

3. To track regulatory compliance, we recommend that Eversource determine whether Aquarion's regulatory orders can and should be added into the Archer database to enhance the sharing of information and best practices and increase visibility to the many parties involved in regulatory compliance.

Long-Term, Short-Term, and Strategic Planning

4. We recommend Eversource link its long-term planning process to the key categories used in its Corporate Operating Plan to create business metrics. This will make the LRP more strategic in nature and better integrate the themes of the Company's planning processes.

5. We recommend that Eversource internally document their long-term and short-term planning processes including timelines, responsibilities and in summary broad categories information required for the CT Companies. The internal document(s) should include the Strategic Capital Plan, 5-Year Plan, Corporate Operating Plan, Annual Capital Budget, and Annual O&M Budget and a description of the interrelationships between these various planning processes.

6. We further recommend Eversource include in the documentation for the Strategic Capital Plan and Annual Capital Budget for the CT Companies how the capital spending categories benefits Connecticut customers as well as how the capital spend is meeting state regulatory and energy policy objectives.

1.1. Description of Regulated Utility

1.1.1. Corporate Ownership and Structure

This management audit covers three regulated electric/gas/water utilities, the CT Companies, under the umbrella of Eversource: CL&P, YGS, and Aquarion.[12] Eversource is the direct parent of CL&P and Aquarion, and is the indirect parent of YGS.[13] To understand the corporate structure that governs these utilities, this report will briefly explain the Eversource corporate structure from the parent company down to the three CT Companies.

1.1.2. Eversource Energy

Eversource is the largest energy delivery provider in the Northeast U.S., with approximately 4 million electric, gas, and water customers in Connecticut, Massachusetts, and New Hampshire.[14]

Eversource's wholly owned utility subsidiaries are listed below.[15] Bolded and starred utilities are regulated by the PURA and have service territories in Connecticut.

Electric Utilities

* **CL&P**, a regulated electric utility that serves residential, commercial, and industrial customers in most of Connecticut.
- NSTAR Electric Company ("NSTAR Electric"), a regulated electric utility that serves residential, commercial, and industrial customers in parts of eastern and western Massachusetts. NSTAR owns solar power facilities, and subsidiary Harbor Electric Energy Company, a regulated electric utility that distributes electricity to its sole customer, the Massachusetts Water Resources Authority.
- Public Service Company of New Hampshire ("PSNH"), a regulated electric utility that serves residential, commercial, and industrial customers in New Hampshire.

Gas Utilities

* **YGS**, a regulated natural gas utility that serves residential, commercial, and industrial customers in northern, central, eastern, and western Connecticut.
- NSTAR Gas, a regulated natural gas utility that serves residential, commercial, and industrial customers in parts of Massachusetts.
- EGMA, a regulated natural gas utility that serves residential, commercial, and industrial customers in parts of Massachusetts.[16]

Water Utilities

* **Aquarion**, a utility holding company that owns five separate regulated water utility subsidiaries and a non-regulated services business, and collectively serves residential, commercial, industrial, and municipal and fire protection customers in parts of Connecticut, Massachusetts, and New Hampshire. On February 13,

[12] For the purposes of this audit, the Aquarion Company, which encompasses Water Companies across three states, is referred to as a CT Company.
[13] Response to FTI-292.
[14] "Eversource Energy, Long Business Description." CapitalIQ.SPGlobal.com. Last accessed July 6, 2023.
[15] Response to FTI-262, Att. 1(ES); Eversource Energy, 10-K for the fiscal year ended December 31, 2022".
[16] Formerly Bay State Gas doing business as Columbia Gas of Massachusetts.

2024, Eversource announced it is considering a potential sale of Aquarion and will launch a process to evaluate market interest.[17]

Eversource also has other businesses. These include active and/or inactive corporations related to gas and electric transmission, real estate, and nuclear generation ownership. Additionally, Eversource currently has an offshore wind business, which includes a 50% ownership interest in offshore wind projects that are being developed and constructed through a joint venture with Ørsted.[18] On February 13, 2024, Eversource announced the sale of its 50% ownership interest in South Fork Wind and Revolution Wind to Global Infrastructure Partners, which after Eversource's January 24, 2024 announcement to sell its 50% interest in Sunrise Wind to Ørsted, will fully remove Eversource's interest in offshore wind.[19]

Figure 1-1 below depicts an abridged corporate organizational structure of Eversource and its regulated operating subsidiaries as of October 3, 2022. The CT Companies are denoted in orange, and partial ownership is indicated in parentheses for less than 100% owned subsidiaries.

[17] "Eversource Energy Reports Full-Year Results Announces Exploration of Sale of Water Distribution Business," Eversource Press Release, February 13, 2024.
[18] Response to FTI-266.
[19] "Eversource Energy Announces Pathway to Fully Exit its Offshore Wind Investments Pursuant to Agreement with Global Infrastructure Partners to Sell Revolution Wind and South Fork Wind Projects," Eversource Press Release, February 13, 2024.

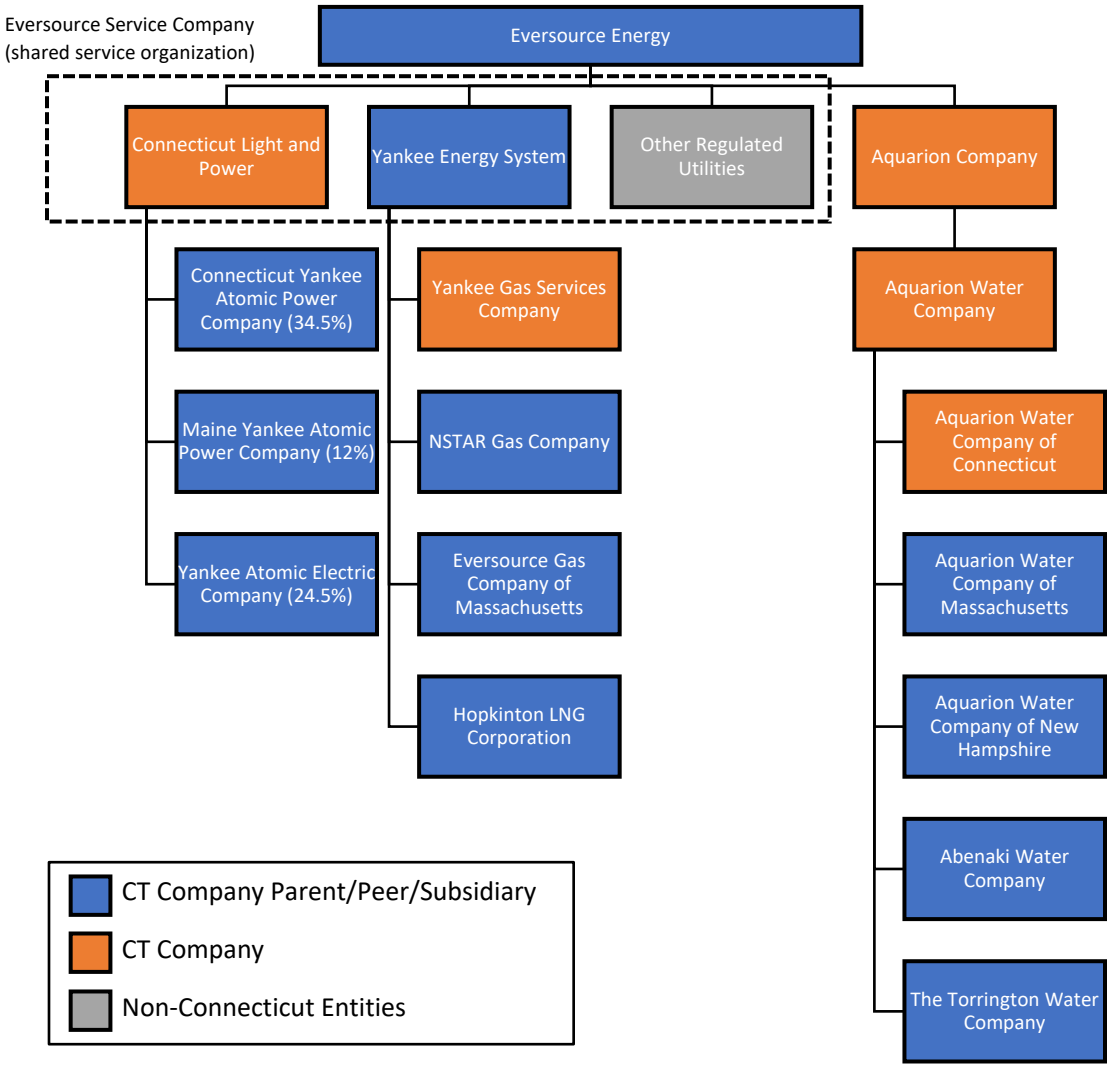

Figure 1-1 Organizational Structure of the Eversource Regulated Utility Subsidiaries[20]

1.1.3. Connecticut Operating Companies

1.1.3.1. Connecticut Light & Power

CL&P is a direct subsidiary of Eversource Energy. CL&P is Connecticut's largest electricity provider, serving approximately 1.28 million customers in 149 cities and towns in Connecticut. CL&P's service territory is approximately 4,400 square miles, which comprises most of the state's area. In 2022, CL&P delivered 20.56 million MWh to its retail customers. With a rate base of $9.6 billion, CL&P maintains 1,821 miles of transmission and 23,556 miles of overhead and underground distribution.[21,22]

[20] Ownership of the two Yankee Atomic companies is shared among the three Eversource electric utilities. A sixth subsidiary of Aquarion Water Company, Aquarion Water Capital of Massachusetts, is an unregulated company that formerly is in the process of discontinuing its business. Response to FTI-262, Att. 1(ES); Response to FTI-264, Att. 1(ES).
[21] Response to FTI-262, Att. 1(ES).
[22] Eversource Energy, 2022 10-K; Eversource Energy 2023 Financial Review.

CL&P does not own any operational electric generation facilities. However, CL&P owns partial shares of decommissioned nuclear generating sites and maintains these sites together with its electric utility counterparts in Massachusetts and New Hampshire.[23]

1.1.3.2. Yankee Gas Services and Yankee Energy System

Yankee Energy System, Inc. ("YES") is a wholly owned subsidiary of Eversource Energy and is a holding company for Eversource's four gas businesses: YGS, NSTAR Gas, EGMA, and Hopkinton LNG Corporation ("Hopkinton LNG"). YGS is a direct, wholly owned subsidiary of YES.

YGS is Connecticut's largest natural gas distribution company, serving approximately 251,000 customers in 74 cities and towns covering 2,632 square miles in Connecticut. In 2022, YGS delivered 58.4 billion cubic feet of natural gas. With a rate base of $1.8 billion, it owns and maintains 3,519 miles of natural gas distribution pipeline.[24]

1.1.3.3. Aquarion

Aquarion is a wholly owned subsidiary of Eversource and a holding company for Eversource Energy's water businesses. The Aquarion Water Company ("AWC") is a wholly-owned subsidiary of Aquarion as shown in Figure 1-1, and a holding company that owns five regulated public water utility operating subsidiaries: Aquarion Water Company of Connecticut ("AWC-CT"), Aquarion Water Company of Massachusetts ("AWC-MA"), Aquarion Water Company of New Hampshire ("AWC-NH"), Torrington Water Company ("Torrington"), and Abenaki Water Company, Inc. ("Abenaki"). These operating subsidiaries collect, treat, and distribute water to residential, commercial, and industrial customers, to other utilities for resale, and for private and municipal fire protection.[25]

Aquarion also owns a non-regulated warranty services business which performs plumbing services and water utility operations and management functions (New England Service Company). One of Aquarion's subsidiaries, Abenaki, provides sewer services to certain customers. As of December 31, 2021, Aquarion's operating affiliates provided water to customers in 59 cities and towns in Connecticut, six in Massachusetts, and seven in New Hampshire.[26]

AWC-CT is the largest of Aquarion's operating affiliates, serving approximately 207,000 of Aquarion's 226,000 customers. With a rate base of $1.16 billion, AWC-CT owns and operates 3,746 miles of transmission and distribution mains, 10 surface water treatment plants, 36 dams, and 116 wellfields. In 2022, AWC-CT's combined water yield was approximately 133 million gallons per day.[27]

1.2. Acquisition History

Eversource is comprised of numerous utilities, following the initial formation of Eversource in 2012 as a merger between two large regional utility companies. Eversource has continued to grow in recent years and has integrated new gas, electric, and water entities into one large multi-utility holding company.

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[23] Ibid.
[24] Ibid.
[25] Prior to March 4, 2021, the Aquarion Company was a wholly owned subsidiary of Eversource Aquarion Holdings, Inc. ("EAH"), which in turn was a wholly owned subsidiary of Eversource Water Ventures ("EWV"), a subsidiary of Eversource. On March 4, 2021, EWV was merged into EAH and EAH was then merged into Aquarion Company. Response to FTI-264.
[26] Response to FTI-264.
[27] Eversource Energy, 2022 10-K; Eversource Energy 2023 Financial Review.

1.2.1. NSTAR – Northeast Utilities

In April 2012, the PURA approved a $4.17 billion all-stock merger between Hartford-based Northeast Utilities ("NU") and Boston-based NSTAR, which owned both electric and gas subsidiaries.[28,29] The resultant entity is regulated by the Securities and Exchange Commission and is overseen by an independent Board of Trustees ("BOT").

As part of NU's merger with NSTAR, the parties agreed to a settlement ("2012 Settlement") between interested parties which was approved by the PURA as part of its final Merger Order approval.[30] NU was required to comply with 24 conditions which are presented in Appendix 2 A1: 2012 Merger Order Conditions. Eversource has complied with all 2012 Settlement conditions, and there are no ongoing merger reporting requirements now that all settlement conditions have been met.[31]

In the PURA's investigation of Hurricane Isaias, it found that Eversource had not complied with one section of the 2012 Settlement. The PURA determined that Eversource's "pivot crews" were not available to respond in Connecticut and issued two directives pertaining to the use of affiliate crews. Eversource has since complied with both directives.[32]

In February 2015, NU changed its name and began doing business under the brand "Eversource Energy" throughout its service territories. All six utility subsidiaries at the time (CL&P, NSTAR Electric, NSTAR Gas, PSNH, Western Massachusetts Electric Company, and YGS) assumed the new Eversource brand. NU stock was also rebranded to Eversource and began trading under the ticker "ES" on the New York Stock Exchange.[33]

1.2.2. Eversource – Aquarion

In December 2017, Eversource acquired Aquarion from Macquarie Infrastructure Partners for $1.68 billion. The merger represented Eversource's "first foray" into public water service, and Eversource was the first U.S. utility to own electric, gas and water.[34]

Under the terms of the deal, Eversource was permitted to recover costs of the acquisition through a future rate case within seven years of the transaction closing date, pending cost savings post-acquisition.[35] Eversource also committed to maintaining and improving Aquarion's operations. Eversource was required to comply with multiple conditions which are presented in Appendix 2 A2: 2017 Merger Order Conditions. Eversource is currently in compliance with all 2017 Merger Order conditions.[36] The PURA monitors Aquarion's infrastructure, operational,

[28] Cambridge Electric, Boston Electric, NSTAR Gas, Commonwealth Gas.
[29] "Northeast Utilities to buy NSTAR for $4.17 billion," Reuters, October 18, 2010.
[30] Final Decision, Docket No. 12-01-07 "Application for Approval of Holding Company Transaction Involving Northeast Utilities and NSTAR." April 2, 2012.
[31] Response to FTI-688.
[32] Ibid.
[33] "Northeast Utilities Becomes Eversource Energy," Eversource Media Relations, February 2, 2015.
[34] Pretyman, Caroline (Eversource spokeswoman). "Eversource to Buy Aquarion in $1.68 Billion Deal." Hartford Courant, June 2, 2017; Khan, Sania. "Eversource closes $1.68B acquisition of Aquarion Water utilities." CapitalIQ.SPGlobal.com. December 4, 2017.
[35] Aquarion requested recovery of its portion of merger costs totaling $4.9 million in its most recent rate case, however, the PURA denied the request stating the Company failed to provide evidence proving savings post-merger exceeded transaction costs. See Final Decision, in Docket No. 22-07-01 "Application of Aquarion Water Company of Connecticut to Amend its Rate Schedule." March 15, 2023.
[36] Response to FTI-267, Atts. 7-9(ES).

and customer service activities through annual water infrastructure and conservation adjustment proceedings and periodic rate cases.[37]

On February 13, 2024, Eversource announced it will launch a process to evaluate market interest in a potential sale of Aquarion, citing hopes to reduce equity needs, increase regulatory diversity, and allow Eversource to concentrate on its core, energy delivery business. [38]

1.2.3. Aquarion – New Water Systems

Aquarion and its affiliates have acquired approximately 19 new water companies since 2013. Two of those acquisitions, the New England Service Company in 2021 and the Torrington Water Company in 2022, resulted in new employees joining Aquarion. The other 17 acquisitions were smaller "tuck-in" acquisitions.[39,40] Torrington has been the largest of Aquarion's acquisitions, at nearly double the purchase price of its second largest transactions (Valley Water Systems and New England Service Company in 2021). The 2022 transaction resulted in Torrington's approximate 10,000 customers remaining separate from Aquarion, while Torrington continues to operate as its own public water company. Torrington's customers were added to Aquarion's overall customer base for shared service efficiencies such as customer service, call centers, and billing systems.[41]

In June 2023, the Massachusetts Department of Public Utilities approved a $15 million merger between AWC and Plymouth-based Pinehills Water Company, marking Aquarion's 11th purchase of an individual water system in Massachusetts or New Hampshire since December 2021. With the merger, Aquarion gains 2,700 new customers and expects to expand the Pinehills' system to 3,100 connections.[42]

1.2.4. Eversource Gas of Massachusetts – Columbia Gas of Massachusetts

Eversource agreed to acquire all the Massachusetts assets of Bay State Gas, who previously did business as Columbia Gas of Massachusetts ("Columbia"), in February 2020. Columbia's natural gas assets were acquired by EGMA, which was formed in 2020 and is a wholly owned subsidiary of YES, and Columbia's LNG assets were merged into Hopkinton LNG. EGMA's natural gas distribution footprint at the time served approximately 332,000 residential, commercial, and industrial customers, with over 5,000 miles of natural gas distribution pipeline in more than 60 communities in Massachusetts.[43]

[37] Final Decision, Docket No. 17-06-30 "Joint Application of Eversource Energy and Macquarie Utilities Inc. for Approval of a Change of Control." October 27, 2017.
[38] "Eversource Energy Reports Full-Year Results Announces Exploration of Sale of Water Distribution Business," Eversource Press Release, February 13, 2024.
[39] A "tuck-in" acquisition is the complete integration of a smaller company into the acquiring company's platform.
[40] Response to FTI-268.
[41] Final Decision, Docket No. 22-04-01 "Application of Aquarion Company, Aquarion Merger Company II, LLC and The Torrington Water Company for Approval of Change in Control." September 28, 2022.
[42] Fazekas, Peter. "Aquarion Water Company Finalizes Purchase of Pinehills Water System in Plymouth, MA." Aquarion Water Company, August 2, 2023.
[43] Eversource Energy, 2020 10-K; Eversource 2020 Annual Report.

1.3. Executive Leadership

1.3.1. Eversource Senior Team

Eversource's management structure is organized around a centralized, matrix-type structure with six cross-cutting shared service business units within the EESC, each led by a Senior Leader with an Executive Vice President title.[44] Eversource's seven-member executive leadership core is referred to as the "Senior Team" and consists of the Eversource CEO Joseph Nolan, Jr. and the following six direct reports, each responsible for their respective functional areas:[45]

1. **Operations:** Werner Schweiger, Executive Vice President and COO (Werner Schweiger retired July 2023 and was replaced by Paul Chodak III September 14, 2023, see footnote 46 and 47 below for additional details) [46]
2. **Customer Experience and Energy Strategy:** Penelope Conner, Executive Vice President
3. **Finance:** John Moreira, Executive Vice President, CFO and Treasurer
4. **Human Resources ("HR") and Information Technology ("IT"):** Christine Carmody, Executive Vice President
5. **Legal, Internal Audit, and Energy Supply:** Gregory Butler, Executive Vice President and General Counsel
6. **Corporate Relations and Sustainability:** James Hunt III,[47] Executive Vice President

The six shared service functional areas overseen by the Senior Team are located within the EESC and provide administrative and management services to all Eversource operating companies in Connecticut, Massachusetts, and New Hampshire, including the CT Companies. Each Senior Leader is the top decision-maker and ultimately responsible for the day-to-day running of their organization and the services provided to the Eversource operating companies including the CT Companies. They have responsibility to oversee their respective organizations during the annual O&M and capital planning processes, execute these plans, and ensure the organization is meeting its annual operating performance goals.

In general, all of Eversource's significant strategic and financial decisions are made at the Senior Team level, with participation of other senior leadership as appropriate.[48]

The EESC operates in a manner consistent with the former NU and NSTAR's Service Company model. In that model, the "shared services" entity functions exclusively as a cost center and cost-sharing platform with a unified

[44] In a matrix organization, there are typically multiple employee reporting lines, both solid- and dotted-line or indirect. A solid line is a direct reporting line to a manager, as depicted on a typical organizational chart. A dotted-line report is also known as an indirect report, or someone who shares the results of their operations to a manager but does not actually have a direct reporting relationship with said manager.
[45] Response to FTI-117.
[46] Mr. Schweiger has retired. James Hunt III assumed Mr. Schweiger's duties on an interim basis until November 2023 when Paul Chodak III assumed the role of Executive Vice President and COO. Eversource 8-K, Item 5.02: Appointment of Certain Officers, September 14, 2023.
[47] Mr. Hunt had assumed Mr. Schweiger's role as Executive Vice President and Eversource COO, while Vice President of Government and Community Affairs and Community Relations, Timothy Ceurvels, assumes Mr. Hunt's role. Interview with Interview with Vice President, Regulatory Affairs, Eversource Energy (Kerry Britland) June 9, 2023; Interview with Vice President, Government Affairs (CT), Eversource Energy (Margaret Morton), July 11, 2023.
[48] Response to FTI-273.

management team overseeing both the operating companies and the delivery of shared services to the operating companies. The EESC, in this same manner, operates with direct oversight and control by the Senior Team.[49] Within these shared services, some resources are shared across all operating companies, while others are dedicated full-time to one or more operating companies as necessary.[50]

In the EESC, the leaders of each of the six shared service business units are responsible for developing an annual operating and capital budget and work plan for their organization. Each Executive Vice President is responsible for assuring that their organization executes its needed work functions, and that they meet their organization's operating performance goals. Through this operating model, Eversource achieves cost efficiencies, sharing of best practices, and a uniform customer experience.[51]

Eversource's six shared service areas and Senior Team Leaders function in a matrix-type fashion. The CT Company Presidents Stephen Sullivan (CL&P), William Akley (Gas Distribution), and Donald Morrissey (Aquarion), to a lesser degree, work together with company-specific embedded shared service representatives from the Senior Team's organizations on a daily basis as part of their jurisdictional team.[52] Certain operating company-specific personnel directly report to an Eversource-level shared service Senior Leader, while being embedded in a specific department and/or area. These personnel are considered, for all intents and purposes, part of that department and liaise frequently with the operating company President and his direct reports while maintaining ultimate functional responsibility to their Senior Leader (for example, the Eversource CFO).[53]

Recommendation: The Eversource organizational structure is an informal matrix structure overseen by the Senior Team. The structure requires frequent communication between the various shared services organizations and the operations functions. Eversource has operated in this type of structure for an extended period and based on our review communication and information flow within the matrix works well and is embedded in the organization. This results in well informed and customer focused decision-making. As with any matrix organization the chain of command and ultimate responsibilities across the various organizations can sometimes be difficult to understand. We recommend that Eversource create a formal internal organizational document that simply explains how the various functions/organizations are managed and decision-making works for the CT Companies.

The CT Company Presidents are responsible for developing their capital and O&M plans for their specific reporting functions and not the entire CT Company, overseeing adherence to these annual budgets, meeting their performance targets, providing leadership on project and work initiatives, ensuring employee safety, actively participating in the company's external affairs, building positive relationships with stakeholders, and most importantly, running the business. The Eversource COO, the Senior Leader to whom the CT Company Presidents report directly, provides guidance and approvals for major decisions. These major decisions are subject to budgetary guidelines set through long- and short- term budgets and plans approved by the Eversource CFO, who is also a Senior Leader. This structure allows CL&P and YGS[54] to focus on running their operations business while Senior Leaders maintain focus on running their departments (Accounting, Finance, IT, HR, Regulatory Affairs, Legal, Corporate Relations, Government Relations, Customer Care, and shared Operational Services) and providing

[49] Response to FTI-117.

[50] Ibid.

[51] Ibid.

[52] Response to FTI-284.

[53] Interview with President, Connecticut Light & Power (Stephen Sullivan), March 27, 2023.

[54] Aquarion does not have a shared service organization. Shared services serving Aquarion are centralized within their organization.

services to the CT Companies. CL&P and YGS interact and collaborate with the shared service functions and Senior Leaders through a variety of committees and activities.

The Corporate Performance Management group under John Moreira's Finance shared service business unit is responsible for tracking key metrics and Initiatives across all Eversource departments and functions. These metrics/Initiatives tracked are developed during Eversource's short-term planning processes. For more information, see Section 1.7.

Figure 1-2 below depicts an abridged version of how Eversource's corporate structure pertains to the CT Companies. The Presidents of the operating companies, including the CT Company Presidents, report directly to the Eversource COO, who in turn reports directly to the Eversource CEO. Additionally, in 2021, CL&P President Stephen Sullivan, already a direct report to the Eversource COO, became a dotted-line report to the Eversource President and CEO (Mr. Nolan) per the 2021 Settlement.[55] Further, each of the six shared service business units has employees within their organization that are dedicated full time to the state of Connecticut.

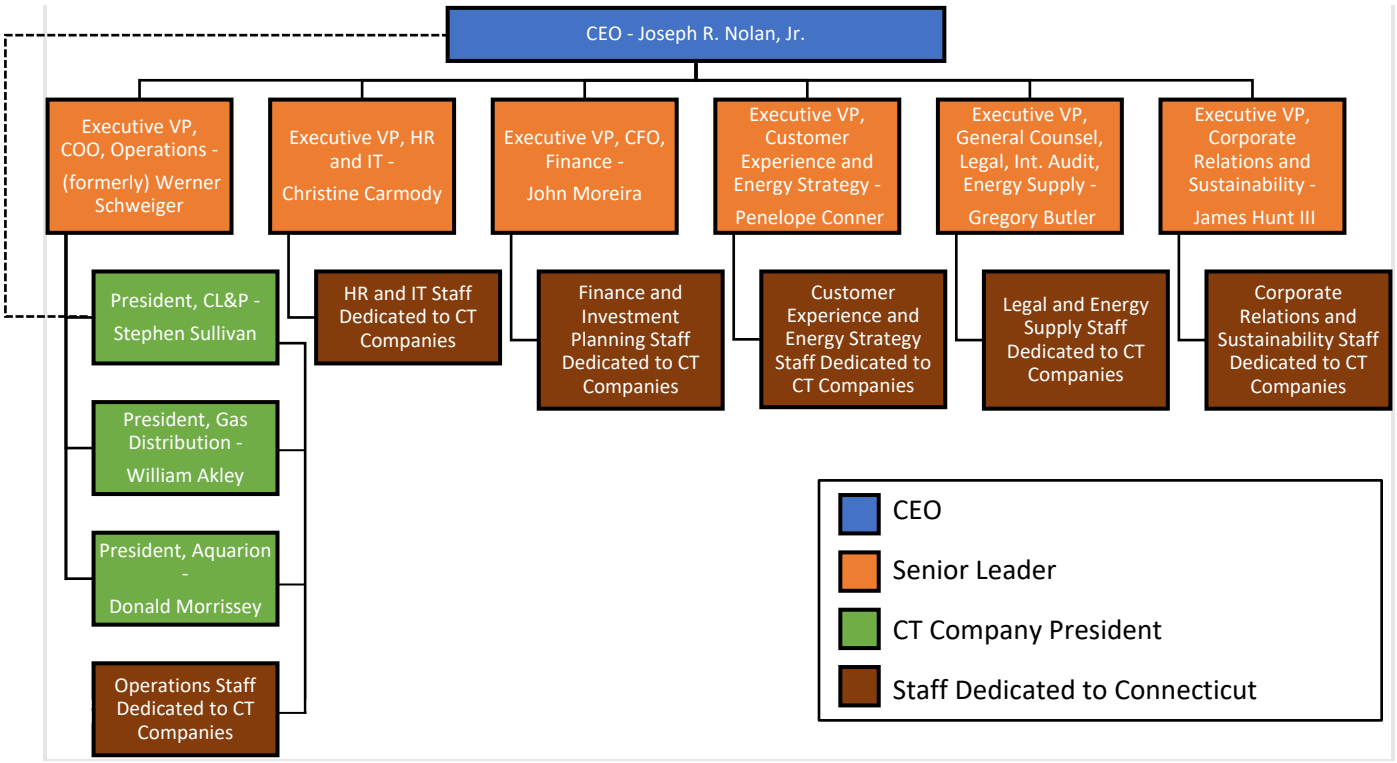

Figure 1-2 Eversource Corporate Structure as it Pertains to the CT Companies[56]

1.3.1.1. Senior Team Officers

Each Senior Team leader is responsible for achieving their performance metrics some of which are unique to their shared service business unit and others which are cross-cutting.[57] Eversource's Corporate Performance organization under the Eversource CFO embeds dedicated representatives in each shared service business unit to assist in performance tracking. Each Senior Team leader meets with their shared service business unit team on a

[55] Response to FTI-284.
[56] Response to FTI-113, Atts. 1-16 (all).
[57] Response to FTI-150, Att. 7(ES).

regular basis to prepare and present performance results to the Senior Team and the Expanded Senior Team (see Section 1.5.2.2 for more information on the Senior Team).[58,59]

CEO

Joseph Nolan, Jr. is the President and CEO of Eversource and the CEO of the EESC.[60] Mr. Nolan has served as Chairman of the Eversource BOT since January 2023, and has served in his President and CEO role, and as the sole non-independent Trustee of Eversource, since 2021.[61] As President and CEO of Eversource, Mr. Nolan reports to the Eversource BOT, whom he updates periodically on financial, operational, regulatory, storm response, and other pertinent matters. Mr. Nolan meets with his Senior Team on a weekly basis and holds quarterly Leadership Meetings that include all three CT Company Presidents. [62] In addition to his six direct reports consisting of the Eversource Senior Team, the President of CL&P, Stephen Sullivan, reports to Mr. Nolan in a dotted-line fashion.[63]

Mr. Nolan collaborates with his Senior Team to cover his primary responsibilities:

- Leading the overall Eversource organization by setting its vision, strategy, and performance standards;[64]
- Acting as the face of the Eversource business with the BOT, general public, and local governments such as the Connecticut Governor's office;[65]
- Providing input and final approval on the need to file a rate case;[66]
- Determining the long-term growth strategy in consultation with his Senior Team by applying a forward-looking vision;
- Engaging the BOT as a strategic partner and managing the overall enterprise and its component parts.[67]

Operations: Executive Vice President and COO (Schweiger/Hunt)

Werner Schweiger has served as Eversource's Executive Vice President and COO since September 2014.[68] He retired in July 2023, and James Hunt served in an interim COO role until Mr. Schweiger's position was filled in November 2023 by Paul Chodak III.[69] For the purposes of this audit, we will continue to refer to Mr. Schweiger as the Eversource COO.

[58] Interview with Executive Vice President, HR and IT, Eversource Energy (Christine Carmody), April 27, 2023.
[59] The Expanded Senior Team includes operating company Presidents and other Senior Leadership of the various shared services, as explained in Section 1.5.2.2.
[60] Interview with Chief Financial Officer, Eversource Energy (John Moreira), April 17, 2023.
[61] Eversource Energy, 2022 10-K; Eversource 2022 Annual Report.
[62] Response to FTI-271.
[63] Response to FTI-284.
[64] Response to FTI-689.
[65] Response to FTI-689; Interview with Vice President, Government Affairs (CT), Eversource Energy (Margaret Morton), July 11, 2023.
[66] Interview with Executive Vice President, Legal, Internal Audit, Energy Supply, Chief General Counsel, Eversource Energy (Gregory Butler) April 13, 2023.
[67] Response to FTI-689.
[68] Eversource Energy, 2022 10-K; Eversource 2022 Annual Report.
[69] Interview with Executive Vice President, Corporate Relations, Sustainability, and Corporate Secretary, Eversource Energy (James Hunt III) April 25, 2023; Eversource has engaged a recruiting firm and expects to fill Mr. Schweiger's position by Fall 2023. Response to FTI-686

The Eversource COO is responsible for field operations across all Eversource subsidiaries. Thus, the Eversource COO is the direct superior of all three CT Company Presidents, and serves as the CEO of CL&P, YGS, and Aquarion.[70] Each CT Company President is responsible for running their gas/water/electric business, and they brief the Eversource COO in a one-on-one meeting every few weeks on issues in their organization but also more frequently depending on the issue. The Eversource COO also holds a regular staff meeting every two weeks, attended by all Eversource operating company Presidents, representatives from all the Senior Team organizations, Senior Vice Presidents, and other direct reports. The Eversource COO acts as a resource and offers guidance to the operating company Presidents while allowing the Presidents a degree of autonomy in day-to-day operational decisions. Ultimately, the operating company Presidents are responsible for socializing their capital and O&M budget decisions with the Eversource COO, who approves their budgets before presentation to the Eversource CFO; the operating company Presidents are responsible for advocating for the Eversource COO's approval if a budget increase is necessary.[71]

Mr. Schweiger's primary Connecticut-facing responsibilities are:

- Electrical Engineering;
- Safety;
- Transmission and Offshore Wind;
- Operations Services;
- CEO of regulated operating companies.[72]

Eversource centralizes services under EESC and shares certain of these services with its adjacent utility territories within New England that affect operations when possible. For example, Safety and Operations Services such as vegetation management are under the purview of the Eversource COO rather than the operating company Presidents. While still a concern of the operating companies, these departments are under the shared services umbrella to ensure standardization and allow sharing of personnel and equipment when necessary.[73]

Customer Experience and Energy Strategy: Executive Vice President (Conner)

Penelope Conner has served as Eversource's Executive Vice President of Customer Experience and Energy Strategy since May 2021.[74] Ms. Conner's organization is responsible for understanding energy, technology, and customer trends to inform and develop Eversource's future energy and overall customer service strategy. She oversees the entire Eversource Customer Service operations as well as solar, electric vehicle, and energy efficiency programs. Ms. Conner's primary Connecticut-facing responsibilities are:

- Customer Operations and Digital Strategy;
- Customer Solar;
- Electric Service Support and Distributed Generation;
- Energy Efficiency;
- Energy Strategy and Policy;

[70] Response to FTI-668, Att. 1(all) (confidential).
[71] Interview with President, Connecticut Light & Power (Stephen Sullivan), March 27, 2023.
[72] Response to FTI-113, Att. 10(ES).
[73] Interview with President, Connecticut Light & Power (Stephen Sullivan), March 27, 2023.
[74] Eversource Energy, 2022 10-K; Eversource 2022 Annual Report.

- Strategic Accounts.[75]

Ms. Conner's organization considers customer preferences, trends, and insights when planning for the grid of the future. Also responsible for the Customer Experience department, her group polls customers and uses the results to determine necessary investments to support the growth of a clean and sustainable grid. [76]

Finance: Executive Vice President, CFO, and Treasurer (Moreira)

John Moreira has served as Eversource's Executive Vice President, CFO, and Treasurer since May 2022.[77] Eversource is working to fill Mr. Moreira's former role of Senior Vice President of Regulatory and Treasurer.[78]

Mr. Moreira serves as a key decision-maker on major decisions such as filing rate cases and approving annual and 5-year capital budgets and operating plans. Ultimately, the Eversource CFO is responsible for all finance and budgeting matters. However, the entire planning process is constructed to be a collaborative and iterative effort that begins within the operating companies themselves and reaches a consensus before presentation to Mr. Moreira.[79] For more info on long- and short-term planning see Section 1.7. Mr. Moreira oversees the financial performance of all operating subsidiaries and shared service functions through his various Finance reporting organizations and is the final decision maker after consultation with Senior Leaders to adjust capital and O&M budgets as necessary.[80]

The Corporate Performance Management group within the Finance shared service business unit acts as a liaison between the Senior Team and departmental budget leaders throughout the budgeting process by tracking key metrics and Initiatives for each department. This group coordinates the establishment and measurement of corporate performance Initiatives and metrics oversees performance improvement initiatives, and supports regulatory filing requirements.[81] For more information on corporate performance metrics and Initiatives, see Section 1.7.4.4.

Mr. Moreira's primary Connecticut-facing responsibilities are:

- Accounting;
- Tax;
- Financial Strategy;
- Investor Relations;
- Regulatory and Treasury;
- Distribution and Transmission Rates;
- Enterprise Risk Management and Claims;
- Financial Planning and Analysis;
- Supply Chain and Property Management.[82]

[75] Response to FTI-113, Att. 9(ES).
[76] Interview with Executive Vice President, Customer Experience and Energy Strategy, Eversource Energy (Penelope Conner) April 27, 2023.
[77] Eversource Energy, 2022 10-K; Eversource 2022 Annual Report.
[78] Response to FTI-697.
[79] Response to FTI-311.
[80] Interview with President, Connecticut Light & Power (Stephen Sullivan), March 27, 2023.
[81] Interview with Director, Performance Management, Eversource Energy (Elizabeth Foley), June 26, 2023.
[82] Response to FTI-113, Att. 5(ES).

While the Finance Organization covers the traditional finance functions, Mr. Moreira also has other, less traditional functions under his purview, as shown above.[83] Although there are separate Government Affairs and Regulatory Affairs groups, some personnel within the Finance organization may have direct relationships with various government bodies related to their work; for example, the Director of Strategic Financial Analysis is the direct contact for the Massachusetts Water Resource Authority.[84]

HR and IT: Executive Vice President (Carmody)

Christine Carmody has served as Eversource's Executive Vice President of HR and Information Technology since August 2016.[85] Ms. Carmody's primary Connecticut-facing responsibilities are:

- Benefits;
- Compensation;
- Employee and Labor Relations;
- Talent Development;
- Overseeing the Chief Information Officer ("CIO") who is responsible for IT business solutions, information security, quality assurance, and architecture.[86]

HR and IT is a combination not commonly seen in executive leadership but was a strategic choice by Eversource roughly seven years ago when the Chief Administrative Officer retired. Following this retirement, Eversource redesigned their shared service leadership so that the members of the Senior Team could be more knowledgeable about the business and assume a broader scope of responsibility. The Energy Supply function was placed with the Legal team, while IT and HR were combined because both are service delivery organizations with multiple projects and sub-teams.[87] Ms. Carmody is supported by a CIO, Ron Utterbeck, who reports to her. Many peer CIOs report to their company's CEO, but given Eversource's organizational structure, the CIO has many opportunities for exposure to the Senior Team, such as monthly Senior Team Expanded Leadership meetings, which are discussed more in Section 1.5.3. Further, the Eversource CEO assumed his role in 2021, therefore, for continuity, he was not assigned another direct report at that time.[88]

Legal, Internal Audit, Energy Supply: Executive Vice President/General Counsel (Butler)

Gregory Butler has served as Eversource's General Counsel since May 2001, and has been an Executive Vice President since August 2016.[89] The Legal Department is akin to a full-service law firm complete with all necessary expertise required by the Eversource's utilities.[90] Mr. Butler has various responsibilities within his department beyond legal matters. Embedded in the Legal department are the following organizations:

- General Counsel;
- Compliance and Governance;
- Energy Supply (both gas and electric);

[83] Interview with Chief Financial Officer, Eversource Energy (John Moreira), April 17, 2023.
[84] Interview with Director, Strategic Financial Analysis, Eversource Energy (Mark Mueller), June 15, 2023.
[85] Eversource Energy, 2022 10-K; Eversource 2022 Annual Report.
[86] Response to FTI-113, Att. 7(ES).
[87] Interview with Executive Vice President, HR and IT, Eversource Energy (Christine Carmody), April 27, 2023.
[88] Ibid.
[89] Eversource Energy, 2022 10-K; Eversource 2022 Annual Report.
[90] Interview with Executive Vice President, Legal, Internal Audit, Energy Supply, Chief General Counsel, Eversource Energy (Gregory Butler) April 13, 2023.

- Internal Audit;
- Security;
- Federal Regulatory Affairs.[91]

Legal and Energy Supply is a combination not commonly seen in executive leadership, but Eversource's CEO at the time, given Mr. Butler's diversity of prior experiences in the field of energy supply purchasing, assigned him the dual role. The Senior Team leaders generally have wide-ranging responsibilities, as Eversource attempts to divide labor amongst capable executives.[92]

Corporate Relations and Sustainability: Executive Vice President (Hunt)

James Hunt III has served as Eversource's Executive Vice President of Corporate Relations and Sustainability since May 2021, and as Secretary of Eversource Energy since July 2021.[93] Mr. Hunt served as Eversource's interim Executive Vice President of Operations and COO until Eversource chose Paul Chodak III to replace the recently retired Werner Schweiger. Mr. Hunt works closely with the Legal department, which has corporate governance and regulatory teams.[94]

Mr. Hunt's primary Connecticut-facing responsibilities as Executive Vice President of Corporate Relations and Sustainability are:

- Strategic Communications to Customers;
- State Regulatory Affairs and Regulatory Strategy;
- Government Affairs;
- Community Relations and Corporate Citizenship;
- Corporate Secretary;
- Environmental Affairs;
- Competitive Transmission and Renewable Markets.[95]

Mr. Hunt's direct report, the Vice President of Government Affairs and Community Relations, Timothy Ceurvels, oversees community relations for all three states; however, there is a separate, equal-ranking Vice President of Government Affairs dedicated solely to the state of Connecticut, Margaret Morton, reporting directly to Mr. Hunt.[96] The Connecticut-dedicated Government Affairs group interfaces with state authorities (Senate, House, Department of Transportation, Economic Development Agencies, etc.) while the regulator (the PURA) is served separately by the Regulatory Affairs group. Direct calls from the Connecticut Governor, however, are often directed to the CEO of Eversource or to Mr. Hunt.[97]

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[91] Response to FTI-113, Att. 7(ES); Interview with Executive Vice President, Legal, Internal Audit, Energy Supply, Chief General Counsel, Eversource Energy (Gregory Butler) April 13, 2023.
[92] Interview with Executive Vice President, Legal, Internal Audit, Energy Supply, Chief General Counsel, Eversource Energy (Gregory Butler) April 13, 2023.
[93] Eversource Energy, 2022 10-K; Eversource 2022 Annual Report.
[94] Interview with Executive Vice President, Corporate Relations, Sustainability, and Corporate Secretary, Eversource Energy (James Hunt III) April 25, 2023.
[95] Interview with Executive Vice President, Corporate Relations, Sustainability, and Corporate Secretary, Eversource Energy (James Hunt III) April 25, 2023; Response to FTI-113, Att. 8(ES); Response to FTI-695.
[96] Interview with Vice President, Government Affairs and Community Relations, Eversource Energy (Timothy Ceurvels), June 26, 2023; Interview with Vice President, Government Affairs (CT), Eversource Energy (Margaret Morton), July 11, 2023.
[97] Interview with Vice President, Government Affairs (CT), Eversource Energy (Margaret Morton), July 11, 2023.

Between Mr. Hunt, Mr. Moreira, and Mr. Butler's organizations, there is a "three-legged stool" responsible for Connecticut-specific regulatory and legal issues: a Director of Regulatory Affairs, an Assistant General Counsel, and a Vice President of Distribution Rates.[98] This group interacts with the PURA frequently.[99] These three functional leads coordinate on rate cases and energy procurement. Eversource CFO John Moreira is kept abreast and brought into decision-making when necessary. The three "legs" also leverage subject matter experts (the "seat" of the stool) in their respective organizations and within operations to draw in expertise for certain filings when needed.[100]

1.3.2. Connecticut Company Level

1.3.2.1. Connecticut Light & Power and Yankee Gas Services

Each CT Company has its own set of goals, metrics, and individual O&M and capital budgets which are developed, managed, and executed annually. CL&P President Stephen Sullivan and Gas Distribution President William Akley are directly responsible for running the day-to-day electric/gas businesses in Connecticut and are responsible for meeting customer needs. Mr. Sullivan and Mr. Akley are the faces of Eversource to Connecticut customers, municipalities, and legislators, and represent Eversource in press conferences about topics such as rate cases or storms.[101]

The role of the President of each CT Company is to: [102]

- Assist in developing the capital plan;
- Execute the annual work plan to meet discrete performance goals;
- Provide leadership on project and work initiatives;
- Oversee adherence to the approved Operations O&M and capital budgets, while ensuring employee safety;
- Lead the company's external affairs and build positive relationships with all stakeholders;
- Run the day-to-day business.

While the CT Company Presidents are responsible for day-to-day operations and their capital and O&M budgets, and are the faces of Connecticut to their customers, municipalities, legislators, and regulators, it is the Eversource COO, a Senior Leader, who approves the CT Companies' major decisions. Major CT Company decisions may also ultimately require review by the Senior Team depending on the nature or materiality of the decision. Other Senior Leaders make decisions for their own shared service business unit functions.[103]

Eversource's gas and electric businesses are structured differently. In the electric business, each of the three Eversource subsidiaries have a dedicated President, whereas Eversource's three gas companies are overseen by a singular President.[104] Stephen Sullivan, formerly a Vice President of Transmission Project Management and

[98] Interview with Executive Vice President, Corporate Relations, Sustainability, and Corporate Secretary, Eversource Energy (James Hunt III) April 25, 2023.
[99] Response to FTI-291, Att. 1(ES). Particularly the Director of Regulatory Affairs, who is the primary interface with the PURA.
[100] Interview with Executive Vice President, Corporate Relations, Sustainability, and Corporate Secretary, Eversource Energy (James Hunt III) April 25, 2023; Interview with Vice President, Regulatory Affairs, Eversource Energy (Kerry Britland) June 9, 2023.
[101] Interview with President, Connecticut Light & Power (Stephen Sullivan), March 27, 2023; Interview with President, Gas Distribution (William Akley), March 29, 2023.
[102] Response to FTI-117.
[103] Response to FTI-273.
[104] Response to FTI-113, Att. 10(ES); Response to FTI-700.

Construction for Connecticut, Massachusetts, and New Hampshire, was promoted to CL&P President in 2021 after the 2021 Settlement, following the PURA's conclusion that a lack of local control resulted in storm response performance deficiencies.[105,106] Mr. Sullivan leads a cross-functional team dedicated to Connecticut responsible for electric field operations, system maintenance, storm response, regulatory affairs, and liaising with local communities. Mr. Sullivan is directly supported by other Connecticut-based corporate officers who lead IT and Corporate Communications.[107]

Mr. Sullivan's role was previously under the purview of Craig Hallstrom, the President of Regional Electric Operations in Massachusetts, who serves as the President of NSTAR Electric.[108] Mr. Hallstrom oversees electric field and system operations in Massachusetts and is also responsible for shared electric operations between Connecticut and Massachusetts, and Emergency Preparedness across all three states.[109]

The President of Gas Distribution, William Akley, serves as President of Eversource's three gas utilities (EGMA, NSTAR Gas, and YGS). In this role, Mr. Akley is responsible for all gas distribution operations, helping ensure customers across all three states receive safe, reliable, and affordable gas delivery. Mr. Akley is responsible for planning, engineering, system operations, construction, and maintenance of the gas infrastructure.[110]

Figure 1-3 depicts CL&P and YGS' corporate structures, including whether employees are dedicated to CL&P/YGS in Connecticut or support Eversource subsidiaries in all three Eversource jurisdictions.

[105] Interim Rate Decision, Docket No. 17-12-03RE11 "PURA Investigation into Distribution System Planning of the Electric Distribution Companies – New Rate Designs and Rates Review." October 27, 2021.
[106] Final Decision, Docket No. 20-08-03 "PURA Consideration of Civil Penalty and Enforcement Action against the Electric Distribution Companies after Storm Isaias Investigation." July 14, 2021.
[107] Interview with President, Connecticut Light & Power (Stephen Sullivan), March 27, 2023.
[108] Ibid.
[109] Response to FTI-701.
[110] Response to FTI-700.

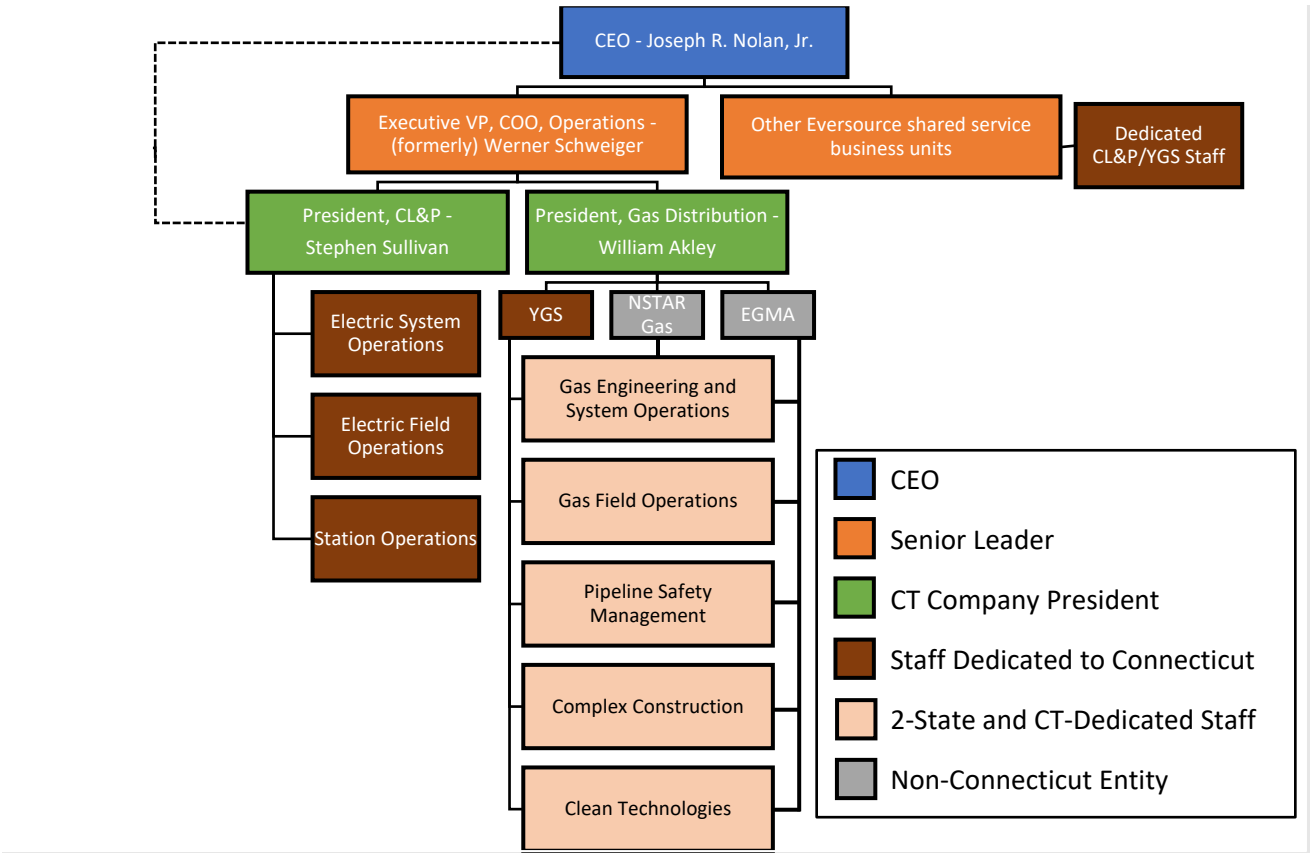

Figure 1-3 CL&P and YGS Corporate Structure[111]

The CT Company Presidents do not have a direct role in the EESC as the "cost sharing entity" or its allocations of costs. Instead, the Presidents report to the Eversource COO, and directly interact with shared services business units led by each member of the Senior Team as well as their representatives in the various functions providing service to the CT Companies. Monthly performance data is produced for Senior Team review and the CT Company Presidents join the Senior Team for an Expanded Senior Team meeting periodically over the course of the year to present and discuss operating and performance results – see Section 1.7.4.5 for more details. [112]

The CT Companies are structured to focus on operations, with dedicated staff members from the shared service organizations embedded in each CT Company to assist in the running of the operation (e.g., Investment Planning, IT, HR and others). If the CT Company President has an HR issue, for example, there are designated shared service staff assigned to the respective CT Company to work with directly to resolve it. The CT Company President knows exactly who their shared service liaison is. Each CT Company President is also free to reach out to the Senior Leader responsible for the shared service business unit, but normally would contact their liaison first.[113]

Mr. Sullivan and Mr. Akley are highly knowledgeable about technical operations and assist their direct reports by helping to prepare "bottom-up" annual and long-term capital plans and annual O&M plans for each of their

[111] Response to FTI-113, Atts. 1(CL&P/YGS) and 10(ES).
[112] Response to FTI-117.
[113] Ibid.

operations groups.[114] The Presidents have intimate knowledge of their respective CT Company's needs, and, if a capital need arises, can advocate for a budget increase before the Eversource COO with the help of Eversource-level Finance and Investment Planning staff embedded in the CL&P or YGS organizations. The Eversource COO makes final decisions based on their holistic view of other Eversource subsidiaries' needs. Notably, if the Eversource COO directs either of the CL&P and Gas Distribution Presidents to reduce their budgets for any reason, the CT Company President has full discretion over which capital spending or O&M item(s) to reduce, reprioritize or postpone.[115]

With respect to financial results, the CT Company Presidents receive daily, weekly, and monthly insights about their O&M and capital budgets via Investment Planning staff from the Eversource-level Finance group embedded in the operating company. The CT Company Presidents have the ability to log into the Eversource financial and performance tracking systems and obtain information necessary to perform their leadership role. Investment Planning staff also conduct a formal monthly meeting with each CT Company President and their direct reports to review O&M and capital results, overtime levels, and any other financial matters.[116]

1.3.2.2. Aquarion

Aquarion is a more autonomous organization than peer CT Companies CL&P and YGS for a variety of reasons. First and foremost, it is the only water utility under the Eversource umbrella and is set up with different internal processes. For example, Aquarion uses a different software platform (SAP) to integrate its business units, in contrast to Oracle-based Eversource.[117] Decision-making is similar in Aquarion to its other Connecticut affiliates, with decisions by the operating company President subject to budgetary constraints set by the Eversource-level Finance organization.[118]

Donald Morrissey serves as both the President and the COO of Aquarion. Like Mr. Sullivan and Mr. Akley, Mr. Morrissey is responsible for ensuring smooth operation of the day-to-day water business, but Mr. Morrissey oversees all functions within Aquarion and therefore must maintain a more granular and holistic view of Aquarion's capital expenditures, O&M costs, shared services and financial results.[119] Due to its small size, Aquarion does not have a service company – most services are internal to Aquarion and report to the President of Aquarion. Some services are provided through the EESC, such as the Treasury and Internal Audit functions.[120]

Mr. Morrissey holds all Aquarion functions accountable for their budgets and will contact directly the responsible Aquarion functional leader if he has questions or concerns about their numbers.[121]

[114] Interview with Executive Vice President, Legal, Internal Audit, Energy Supply, Chief General Counsel, Eversource Energy (Gregory Butler) April 13, 2023.
[115] Interview with President, Connecticut Light & Power (Stephen Sullivan), March 27, 2023.
[116] Response to FTI-117.
[117] Response to FTI-117; Interview with Vice President, Information Technology, Eversource Energy (Ron Utterbeck), May 11, 2023.
[118] Response to FTI-284.
[119] Interview with President, Aquarion Company (Donald Morrissey), April 5, 2023.
[120] Response to FTI-117.
[121] Interview with President, Aquarion Company (Donald Morrissey), April 5, 2023.

Since Mr. Morrissey reports to Eversource COO Werner Schweiger, Mr. Schweiger acts as the CEO of Aquarion (as well as the CEO of CL&P and YGS).[122] Mr. Morrissey meets with Mr. Schweiger biweekly to provide updates on business activities, operating initiatives, and O&M and capital performance.[123]

Figure 1-4 depicts Aquarion's corporate structure, including whether employees are dedicated to AWC-CT in Connecticut or Aquarion subsidiaries in all three Aquarion jurisdictions. One of Aquarion's officers, the Vice President of Operations and Sustainability, is dedicated to the state of Connecticut,[124] and the others assist all of Aquarion's subsidiaries. Even so, according to Aquarion's President, most work for Aquarion-wide employees falls within the Connecticut jurisdiction.[125]

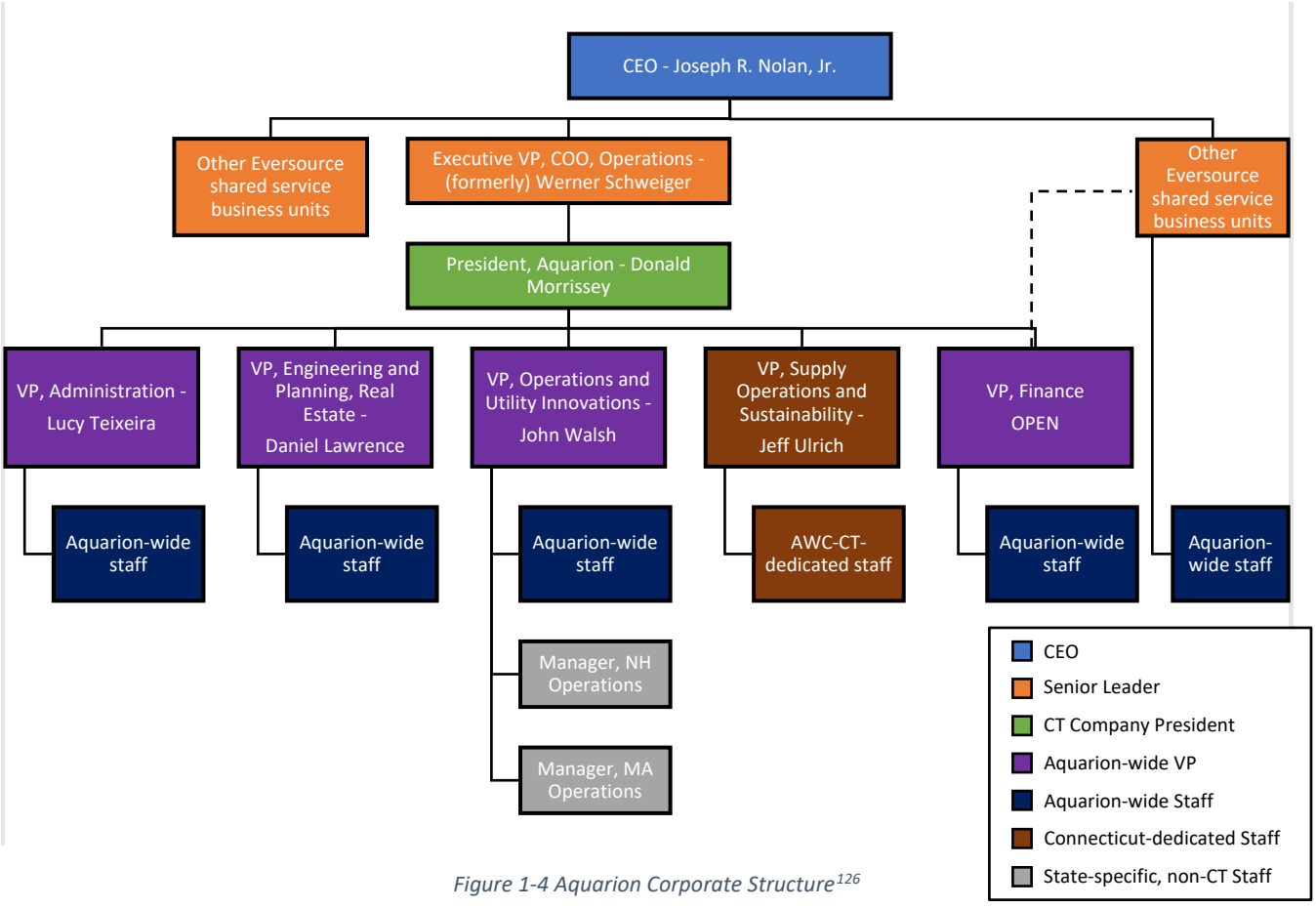

Figure 1-4 Aquarion Corporate Structure[126]

Though Aquarion is an autonomous entity, there are a few dual reporting lines into the Eversource organization, shown in Figure 1-4 as dotted lines. For example, the Eversource Finance shared service organization has an Aquarion-dedicated employee.[127] In the Finance and Administration organizations, there are a few dotted reporting lines: the Aquarion Director of Taxes has a dotted line relationship with his Eversource counterpart to

[122] Response to FTI-668, Att. 1(AQ) (confidential).
[123] Response to FTI-690.
[124] Interview with Vice President, Operations and Utility Innovations, Aquarion Company (John Walsh), June 16, 2023.
[125] Interview with President, Aquarion Company (Donald Morrissey), April 5, 2023.
[126] Response to FTI-001, Att. 1(AQ/ES).
[127] Interview with Assistant Treasurer, Corporate Finance and Cash Management, Eversource Energy (Emilie O'Neil) June 15, 2023.

report monthly financial results, organize risk management, and update long-range planning scenarios;[128] the Aquarion Director of Rates and Regulation has a dotted reporting line to the Eversource Vice President, Distribution Rates and Regulatory Requirements; the Aquarion Controller has a dotted line relationship to and sits in on the weekly staff meetings of the Eversource Controller;[129] and although not a formal dotted relationship, Aquarion's Vice President of Administration meets frequently with Eversource's IT group to align certain programs.[130]

Some services are provided to Aquarion through the EESC, such as the Treasury and Internal Audit functions.[131]

1.3.3. Local Leadership and Autonomy

The Eversource organizational structure leverages efficiencies via its shared service model, however, there is additional focus on certain states in order to reinforce local relationships. For example, the Government Affairs function for Massachusetts and New Hampshire is under the purview of the Vice President of Government Affairs and Community Relations, but an equal-ranking Vice President of Government Affairs is solely dedicated to the state of Connecticut. Additionally, the Director of Connecticut Regulatory Affairs has a dotted-line reporting relationship with the CL&P President.[132]

1.3.3.1. Connecticut Light & Power and Yankee Gas Services

CL&P and Gas Distribution operations are organized primarily around lines of business:

CL&P (Electric) Lines of Business

- System Operations;
- Transmission and Distribution Field Operations;
- Substation;

Gas Distribution Lines of Business

- Gas Engineering & System Operations;
- Gas Field Operations;
- Complex Construction;
- Pipeline Safety Management;
- Clean Technologies (gas).[133]

For CL&P, all of these lines of business are contained within the state of Connecticut, overseen by the President of CL&P, whereas the gas function leaders oversee three states, with certain workers dedicated to Connecticut or Massachusetts. Certain other functions, such as Electric Safety, are kept centralized.[134] The Vice President of Safety reports to the Eversource COO to ensure consistency across states, and to allow better movement of shared service personnel and equipment across jurisdictions.[135] CL&P and YGS operate with assistance from dedicated

[128] Interview with Director, Taxes, Aquarion Company (Michael Appicelli), May 10, 2023.
[129] Interview with President, Aquarion Company (Donald Morrissey), April 5, 2023.
[130] Interview with Vice President, Administration, Aquarion Company (Lucy Teixeira), June 23, 2023.
[131] Response to FTI-117.
[132] Interview with Director, Regulatory Affairs, Eversource Energy (Jonathan Harris), May 12, 2023; Interview with Executive Vice President, Corporate Relations, Sustainability, and Corporate Secretary, Eversource Energy (James Hunt III) April 25, 2023.
[133] Response to FTI-261.
[134] Ibid.
[135] Interview with President, Connecticut Light & Power (Stephen Sullivan), March 27, 2023.

staff members from Eversource-level shared service organizations embedded in each CT Company's organization (e.g., Safety, Investment Planning, IT, and HR). [136]

In the wake of Hurricane Isaias, the PURA concluded that Eversource's lack of local control resulted in storm response performance deficiencies in Connecticut. Per the 2021 Settlement CL&P agreed to appoint a CL&P President solely dedicated to the state of Connecticut and focused on Connecticut operations and the day-to-day running of the Connecticut electric business versus the previous structure which provided for one President who oversaw Massachusetts and Connecticut.[137]

Mr. Sullivan and Mr. Akley are designated as the local leaders directly responsible for the Connecticut communities they serve. The Companies state that both Presidents frequently visit Connecticut towns and communities, and that they are visible and raise Eversource's profile. The Companies also noted that Mr. Sullivan and Mr. Akley speak frequently with Connecticut's governor via phone, appear on television, and engage in community events. They also stated that other Senior Leaders do this as well, but by design, Mr. Sullivan and Mr. Akley are intended to be most recognizable Eversource figures in the state. [138]

1.3.3.2. Aquarion

Aquarion operates as an autonomous utility company in Connecticut, mostly separated from YGS and CL&P. Aquarion has multiple offices that are physically situated in the areas and communities it serves, and near the water sources and treatment plants that it maintains, having been developed initially as its own company prior to the Eversource acquisition. Aquarion's offices and operation centers are located in areas that allow for quick response to emergencies, prompt customer service, and regular maintenance of the system. Aquarion's back-office functions are centralized in Fairfield County, Connecticut, where most of its current customer base resides, and where most of its employees work.[139] Though Aquarion is a more autonomous entity, there are a few implied reporting lines into the Eversource organization, as shown in Figure 1-4.

Aquarion remains more locally based and autonomous from Eversource in all aspects of the business including decision-making, which primarily falls under Mr. Morrissey. At the time of the Aquarion-Eversource merger, former Eversource CEO Jim Judge promised: "As part of Eversource, Aquarion will remain a [local] company with access to the resources it will need for investments to ensure ongoing reliability and customer service." [140] Therefore, Aquarion has not been fully integrated into the EESC shared services model, nor have Aquarion lines of responsibility shifted to the Senior Leaders.

1.3.4. The Boards

1.3.4.1. Eversource Board of Trustees

The Eversource BOT oversees Eversource's business affairs and management. The BOT ensures that Eversource has a clear strategic and operational plan, and that the Eversource business is managed effectively in accordance with the plan, taking into consideration economic circumstances and regulatory or legal constraints. The BOT

[136] Response to FTI-117.
[137] Interview with President, Connecticut Light & Power (Stephen Sullivan), March 27, 2023.
[138] Interview with Executive Vice President, Legal, Internal Audit, Energy Supply, Chief General Counsel, Eversource Energy (Gregory Butler) April 13, 2023.
[139] Response to FTI-261.
[140] Khan, Sania. "Eversource closes $1.68B acquisition of Aquarion Water utilities." CapitalIQ.SPGlobal.com. December 4, 2017.

meets at least seven times per year to review and discuss Eversource's management, performance, plans and prospects, and immediate issues.[141]

BOT responsibilities are broad and involve Committees[142] besides regular Board meetings and include, but are not limited to:

- The BOT reviews the Eversource CFO's presentation of the consolidated LRP each June and the five-year Strategic Capital Plan;[143]
- The BOT's Finance Committee reviews the finalized Corporate Operating Plan each December with the Eversource CFO and the full BOT approves it in February of the following year;[144]
- The BOT receives reports from the Eversource CEO on all company operations, including the CT Companies;[145]
- The BOT reviews the Eversource CEO's monthly letter that discusses financial, operational, and regulatory updates, current enterprise matters, storm response updates, as applicable, and other relevant topics;[146]
- The Senior Team updates the BOT at Committee meetings, as explained below in Section 1.5.2.1.

The BOT's goal is to enhance Eversource's long-term value for its shareholders, thus, Trustees are elected by shareholders to oversee management and to assure that the long-term interests of the shareholders are being served.[147] As of 2023, there are 12 Trustees, and after the retirement of James J. Judge at the end of 2022, only one is a member of Eversource management (Eversource CEO Joseph R. Nolan, Jr.).[148]

The BOT receives regular reports from the Eversource CEO on all subsidiary operations, including the CT Companies, as appropriate.[149] The Eversource CEO also provides a comprehensive biannual CL&P update to the BOT, which the CL&P President attends, as mandated in the 2021 Settlement.[150] Finally, the BOT reviews a monthly letter from the Eversource CEO that discusses financial, operational, and regulatory updates, current enterprise matters, storm response updates, as applicable, and other relevant topics.[151]

1.3.4.2. Subsidiary Boards (Connecticut Light & Power and Yankee Gas Services)

Each of Eversource's operating companies are governed by a Board of Directors that has subsidiary-level authority. Eversource Subsidiary Board (CL&P and YGS) responsibilities include, but are not limited to:[152]

- Review CL&P/YGS financial results, including capital investments;
- Review and approve the one-year capital plan;

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[141] "Corporate Governance Guidelines." Eversource.com. Last accessed July 28, 2023.
[142] The Eversource BOT Committees are the Audit Committee, the Compensation Committee, the Executive Committee, the Finance Committee, and the Governance, Environmental and Social Responsibility Committee.
[143] Response to FTI-023.
[144] Ibid.
[145] Response to FTI-271.
[146] Ibid.
[147] "Corporate Governance Guidelines." Eversource.com. Last accessed July 28, 2023.
[148] Response to FTI-699.
[149] Response to FTI-271.
[150] Response to FTI-73, Att. 3(CLP).
[151] Response to FTI-271.
[152] Response to FTI-023; Response to FTI-235, Att. 1(ES); Response to FTI-333, Att. 1(ES) (confidential); Response to FTI-668, Att. 1(CLP/YGS) (confidential);
[152] Response to FTI-023.

- Authorize multi-year contracts;
- Elect company officers on an annual basis;
- Review annual budget variance reports, which include an income statement and balance sheet;
- Review larger-scale capital projects in excess of $25 million that require subsidiary board approval in accordance with the CT Company's Delegations of Authority Policy;
- Approve dividend recommendations and financings.

The Subsidiary Boards meet quarterly and may call ad hoc meetings as necessary.[153] CL&P and YGS provide annual budget variance reports to their respective subsidiary Board of Directors, which each include an income statement and a balance sheet with commentary.[154] Sometimes, CL&P and YGS Board meetings are held in conjunction with Senior Team meetings as Senior Leaders are also Directors of those Subsidiary Boards.[155] Both Subsidiary Boards approve action items via unanimous written consent.[156]

1.3.4.2.1. Connecticut Light & Power Board

The CL&P Board of Directors ("CL&P Board") consists of seven Directors, four of which are internal Eversource Senior Leaders and three of which are Independent Directors. The Independent Directors are a new addition to the CL&P Board. In June 2022, per a condition of the 2021 Settlement, the CL&P Board was expanded to add these three independent board members.[157] The CL&P Board consists of the following Directors:[158]

- Gregory Butler (Eversource Senior Team)
- John Moreira (Eversource Senior Team)
- Penelope Conner (Eversource Senior Team)
- Werner Schweiger (Eversource Senior Team)[159]
- Ian Nicholson (Independent)
- Chandler Howard (Independent)
- Patrick McGrath (Independent)

FTI conducted an interview of CL&P's three Independent Directors who were appointed on June 1, 2022 per a condition in the 2021 Settlement.[160] The Independent Directors receive training and education on topics such as cybersecurity, emergency response, and rate recovery. They receive updates on financial, operational, regulatory and other important topics related to CL&P's business and Connecticut energy policies at the regularly scheduled Board meetings.

The CL&P President is not a voting member of the CL&P Board but provides a financial and operational update at each meeting.

The CL&P Board does not opine on day-to-day matters but receives an update letter in between quarterly meetings from the CL&P President that includes the current operational and financial information, updates on

[153] Interview with Executive Vice President, HR and IT, Eversource Energy (Christine Carmody), April 17, 2023.
[154] Response to FTI-235, Att. 1(ES).
[155] Response to FTI-333, Att. 2(YGS/CL&P) (confidential).
[156] Response to FTI-301.
[157] Response to FTI-669, Att. 2(ES).
[158] Response to FTI-333, Att. 1(CLP) (confidential).
[159] James Hunt, III is currently serving in Mr. Schweiger's place as interim COO.
[160] Response to FTI-669, Att. 2(ES).

regulatory matters, storm responses, regional energy supply, community support, and current company happenings.[161]

The CL&P Board is also unique in that financial performance (budget vs. actuals) is discussed at every CL&P Board meeting. This is not the case at YGS and Aquarion board meetings, because Senior Team Leaders comprise the entire Board of those companies, whereas CL&P has three Independent Directors who require additional briefings.[162] The YGS and Aquarion Boards, which solely consist of internal officers, receive information as part of routine communications, workstreams, and processes.[163] In addition to briefings, Eversource will occasionally provide educational sessions to the CL&P Independent Directors to raise their understanding of electricity industry concepts and trends.[164]

The CL&P Board is provided with updates from the subsidiary President, the Eversource COO, and the Corporate Performance Management group, which continually tracks corporate performance metrics. [redacted] shows an example of CL&P's monthly performance metrics shared with the CL&P Board by the Corporate Performance Management group.

[161] Response to FTI-301.
[162] Interview with Chief Financial Officer, Eversource Energy (John Moreira), April 17, 2023.
[163] Response to FTI-691.
[164] Interview with Independent Directors, CL&P Board of Directors (Chandler Howard, Patrick McGrath, and Ian Nicholson), July 12, 2023.

1.3.4.2.1. Yankee Gas Services Board

The YGS Board has the same responsibilities and meeting cadences as the CL&P Board but has fewer Directors and no Independent Directors. The YGS Board consists of the following Directors: [166]

- Gregory Butler (Eversource Senior Team)
- John Moreira (Eversource Senior Team)
- Joseph Nolan, Jr. (Eversource Senior Team)
- Werner Schweiger (Eversource Senior Team)

Like the CL&P Board, the YGS Board is not involved in day-to-day matters, rather, members receive updates as part of ongoing reporting and communications processes. [167] The Gas Distribution President is not a voting member of the YGS Board and attends Board meetings on an as-needed basis. [168]

[166] Response to FTI-292, Att. 1(YGS).
[167] Response to FTI-692.
[168] Response to FTI-706.

1.3.4.3. Aquarion Board

The Aquarion Board consists of the following directors.[169] The Aquarion President is a full voting member of the Aquarion Board.[170]

- Donald Morrissey (Aquarion President and COO)
- John Walsh (Aquarion Officer)
- Lucy Teixeira (Aquarion Officer)

Unlike the other Subsidiary Boards, the Aquarion Board does not necessarily meet quarterly.[171] However, similar to the Subsidiary Boards, the Aquarion Board is not involved in day-to-day matters related to regulatory issues (or other matters), rather, Board members receive updates on regulatory matters as part of ongoing reporting and communications processes. The Aquarion Board also approves action items via unanimous written consent, as do the CL&P and YGS Boards.[172] Aquarion Board responsibilities include, but are not limited to:

- Review Aquarion financial results;[173]
- Approve dividend declarations and financing;[174]
- Approve strategic decisions such as the purchase of new property, acquisitions, or retaining counsel;[175]
- Review annual budget variance reports, which include an income statement and balance sheet;[176]
- Elect company officers on an annual basis;[177]
- Review larger-scale capital projects that require Aquarion board approval in accordance with Aquarion's Signature Authority levels.[178]

1.4. Shared Services

Eversource's organizational structure is built on six broad shared service business units that each cut across geographic and functional areas. Operations department employees are located specifically within the CT Companies. Most services are provided by officers who report directly within a shared service business unit to maintain vertical alignment with their functional area. Aquarion operates differently from the other CT Companies, with most of its shared services positioned internally within the Aquarion structure under the purview of the Aquarion President.

1.4.1. Shared Service Allocations to Connecticut Light & Power and Yankee Gas Services

The Eversource organizational structure allows CL&P and YGS to benefit from shared corporate services that are provided under the supervision of the Eversource Senior Team. In addition to dedicated resources within each operating company, the shared service organization encompasses resources dedicated to one or more operating companies, as necessary.[179] The shared service business units provide either full-time dedicated resources to the

[169] Response to FTI-292, Att. 4(AQ) (confidential).
[170] Interview with Manager, Corporate Governance and Assistant Secretary, Eversource Energy (Florence Iacono) June 9, 2023.
[171] Response to FTI-331.
[172] Response to FTI-301.
[173] Response to FTI-292, Att. 4(AQ) (confidential).
[174] Response to FTI-333, Att. 1(AQ) (confidential).
[175] Ibid.
[176] Response to FTI-235, Att. 1(ES).
[177] Response to FTI-668, Att. 1(AQ) (confidential).
[178] Response to FTI-292, Att. 4(AQ) (confidential).
[179] Response to FTI-001.

CT Companies and the CT Company Presidents, shared services specific to a single state, or services covering two or all three states, depending on the specific function. For example, the Budgeting, Forecasting, and Investment Planning function within the Finance organization employs both CL&P- and YGS-dedicated resources and Eversource-wide resources. In the Operations organization, this can include groups which may be either gas- or electric-focused, resulting in some employees being CL&P- or YGS-specific and others being enterprise-wide.

Figure 1-6 below depicts which Eversource functional areas have employees who are CL&P/YGS-specific (specific to one operating company only), state-specific (specific to multiple operating companies within one state), or enterprise-wide (employees serving multiple operating companies and states). Certain functions, such as Accounting and Taxes, have both CT Company-dedicated resources and Eversource-wide resources, but may not need state-dedicated resources.

Organization	CL&P- and YGS-Dedicated Resources	State-Assigned Resources	Enterprise-Wide Resources
Corporate Relations, Sustainability, and Corporate Secretary – Hunt			
Government Affairs and Community Relations		■	
Regulatory Affairs		■	
Government & Legislative Affairs		■	
Strategic Communications	■		■
Sustainability & Environmental Affairs			■
Corporate Citizenship & Equity			■
Corporate Governance			■
Competitive Transmission and Renewable Markets			■
Energy Planning - Business Development (Offshore Wind)			■
Finance and Treasury – Moreira			
Accounting and Taxes	■		■
Financial Strategy			■
Investor Relations			■
Enterprise Risk Management & Claims			■
Treasury & Investment Management			■
Transmission Rates			■
Distribution Rates		■	■
Corporate Performance Management	■		■
Budgeting, Forecasting & Investment Planning	■		■
Procurement & Materials Planning	■		■
Materials Logistics		■	■
Real Estate		■	■
Facilities and Property Management		■	■
Legal, Energy Supply and Internal Audit & Security – Butler			
Legal[180]		■	■
Energy Supply	■		■
Internal Audit & Security			■
HR and IT – Carmody			
Employee & Labor Relations	■		■
HR Business Partners	■		■
Talent Acquisition	■		■
HR Operations & Benefits			■

[180] Although not exclusively dedicated to the state of Connecticut, Assistant General Counsel, Vincent Pace, in practice is focused on Connecticut matters; Interview with Assistant General Counsel, Eversource Energy (Vincent Pace), June 8, 2023.

Talent & Organizational Development			
Diversity, Equity & Inclusion			
Compensation			
IT Infrastructure			
IT Business Solutions			
Information Security and Compliance			
IT PMO and Next Generation Delivery			
Customer Experience and Energy Strategy – Conner			
Energy Strategy and Policy			
Customer Solar Program			
Energy Efficiency			
Electric Serviced Support & Distributed Generation			
Strategic and National Accounts			
Customer Contact Centers			
Customer Operations: Billing, Payments, Credit & Collections, Meter Reading			
Customer Digital & Technology			
Customer Transformation & Voice of the Customer			
Customer Transformation: OMNI project			
Operations – Schweiger			
Safety			
Emergency Response Planning			
Planning & Scheduling			
Engineering			
Fleet Operations			
Technical Training & Compliance			
Field Operations Training			
Vegetation Management			

Figure 1-5 Shared Service Allocations to CL&P and YGS by Functional Area[181]

For both CL&P and YGS, resource reallocation decisions are made in the event of an emergency. For example, the Presidents of the CT Companies and their Operations staff are dedicated to the state of Connecticut, but if a major storm event occurred in New Hampshire or Massachusetts, the CT Company Presidents, in accordance with Eversource's Emergency Response Plan, could respond to the other President's request and dispatch crews to the affected Eversource jurisdiction and vice versa. This action does not require Senior Team approval, though they are kept apprised of progress during emergency events.[182] This is one clear benefit from the NU-NSTAR merger: the ability to move electric and gas emergency crews across jurisdictions.

1.4.1.1. Connecticut Light & Power Company

The Electric Operations organization receives shared services from other business units managed by Eversource COO Werner Schweiger. Most of the work performed by these business units is conducted as a shared service reporting to Mr. Schweiger. Many services are directly embedded in CL&P within the Distribution Operations group led by CL&P President Stephen Sullivan. Generally, engineering, system planning, and operational services are organized as shared services under the Senior Vice President of Engineering, Aftab Khan, whereas distribution construction, small project management, and field operations are managed solely within CL&P under the CL&P

[181] Response to FTI-263, Att. 1(ES); Interview with Assistant General Counsel, Eversource Energy (Vincent Pace), June 8, 2023.
[182] Response to FTI-707.

President.[183] General shared services such as Finance, Legal, IT, HR, and others are also provided to CL&P from their respective shared service functions.

1.4.1.2. Yankee Gas Services Company

The YGS business units receiving shared services are located within the Gas Operations organization managed by Gas Distribution President William Akley, who reports to the Eversource COO. Since the 2012 merger of NSTAR and Yankee Gas, the Gas Distribution organization has made a concerted effort to standardize procedures across territories to leverage a cross-cutting shared service model to achieve synergies, best practices, and lessons learned.[184] Within the YGS organization, certain services such as Gas Engineering are shared with the Massachusetts gas companies (NSTAR Gas and EGMA).[185]

1.4.1.3. Shared Service Accounting Policies

Service Company Operating Agreements are in place between the EESC and each operating company to govern the provision of services by the EESC.[186] The agreements in place are "evergreen" and are not revised and signed each year, but instead renew automatically.[187] Eversource's Time Reporting Policy notes that "Each subsidiary company should be charged directly, when possible, for employees' time benefiting that subsidiary." This avoids cross-subsidization between the Operating Companies. When an EESC employee provides services to one subsidiary or business segment, the direct-charge methodology may be utilized to directly assign 100% of the costs to that subsidiary or business segment.[188]

When costs are incurred to broadly serve the Eversource subsidiaries and cannot be directly assigned by charging an operating company work order or utilizing the EESC direct methodology, costs are allocated based on a specific causal-based methodology. When direct charging is not feasible and a specific causal-based methodology cannot be used, common allocators are used.[189] For more detail on the cost allocation procedures, see Chapter 3's Section on affiliate transactions.

1.4.2. Shared Service Allocations to Aquarion

Due to its small size, Aquarion does not have a service company – most services are internal to Aquarion and report to the President of Aquarion. Some services are provided entirely through EESC, such as the Treasury and Internal Audit functions.[190] Some other areas within Aquarion have a dotted line reporting relationship to a centralized EESC business unit such as Regulatory and Accounting. The remainder of Aquarion's required shared services are embedded in the Aquarion corporate organization, within AWC-CT. The Vice President of Administration, Lucy Teixeira, has all shared service groups (IT, HR, Corporate Communications, Public Relations, and Customer Service) except Finance and Legal under her purview – that is, any group that is "customer-facing."[191] According to Ms. Teixeira, though she serves all Aquarion subsidiaries, 95% of Aquarion's shared services support AWC-CT due to its size relative to its Aquarion subsidiary peers.[192] All back-office shared services (Customer Service, IT, Rates, Procurement, Accounting, HR) are currently AWC-CT employees, to the extent they

[183] Response to FTI-001.
[184] Interview with Vice President, Gas Operations, Yankee Gas Company (Kevin Kelley), May 16, 2023.
[185] Response to FTI-001.
[186] Response to FTI-115.
[187] Interview with Chief Financial Officer, Eversource Energy (John Moreira), April 17, 2023.
[188] Response to FTI-117.
[189] Ibid.
[190] Ibid.
[191] Interview with Vice President, Administration, Aquarion Company (Lucy Teixeira), June 23, 2023; Response to FTI-265.
[192] Interview with Vice President, Administration, Aquarion Company (Lucy Teixeira), June 23, 2023.

charge their time to an Aquarion affiliate. These individuals report directly to the Aquarion President, Donald Morrissey.[193]

Costs are directly incurred by the specific Aquarion subsidiary employee, directly charged, or allocated as appropriate, by AWC-CT employees with Aquarion employees performing the shared service function across Aquarion's operating entities. Aquarion, the parent company, can charge down to AWC-CT as needed.[194]

Though Aquarion is managed more autonomously than CL&P and YGS, Eversource does allocate a portion of officer payroll to Aquarion. Further, if Aquarion uses an EESC shared service that Aquarion does not have, such as Internal Audit, Eversource charges Aquarion for that service .[195] EESC services are not allocated to AWC-CT (only to its parent, Aquarion), however, Aquarion will then charge to AWC-CT, AWC-MA, or AWC-NH as appropriate. EESC employees can only directly charge Aquarion, and billed amounts are settled via various billing processes. As a result, Aquarion is not included in any of the EESC's causal-based rate codes or any common allocators. Aquarion receives a monthly bill from the EESC for shared services that are provided, including support from Eversource's Finance, Legal, Regulatory Affairs and other departments.[196]

Certain individuals in an EESC Senior Team shared service business unit are dedicated to serving Aquarion. For example, in the Eversource-level Finance organization, there is a dedicated manager who supports Aquarion's corporate finance and cash management.[197]

1.5. Governance

The governance structure for the CT Companies aligns with its operations-focused business model with centralized shared services. Spending authority is embedded in the Eversource Delegation of Authority Policy (applicable to CL&P and YGS) and the Aquarion Levels of Signature Authority. The CT Company Presidents have less monetary decision-making authority (up to $7.5 million) than Senior Leadership ($15 million for Senior Leaders, $20 million for the Eversource CFO, and $25 million for the Eversource CEO), however, the dollar value of most relevant decisions needed to operate the CT Companies' day-to-day operations falls within the CT Company Presidents' budgets.[198] Each CT Company President socializes major issues, positions, and decisions with multiple levels of Eversource-level Senior Leadership on a biweekly-to-monthly basis, while meeting internally within their Connecticut jurisdiction on a weekly-to-monthly basis.[199] Informal meetings also occur as issues arise and timing requires a need to be discussed. Thus, the CT Company Presidents receive feedback from Eversource-level executives for decisions affecting their respective CT Companies, and both collect information from and disseminate information to their direct reports. All these interfaces ensure that important Connecticut issues are discussed at the highest levels.

[193] Interview with President, Aquarion Company (Donald Morrissey), April 5, 2023.
[194] Response to FTI-117.
[195] Interview with Controller, Aquarion Company (Debra Kirven) May 9, 2023.
[196] Response to FTI-117.
[197] Interview with Assistant Treasurer, Corporate Finance and Cash Management, Eversource Energy (Emilie O'Neil) June 15, 2023.
[198] Interview with President, Gas Distribution (William Akley), March 29, 2023.
[199] Response to FTI-289. Meeting cadence ranges are approximate and represent most, not all, meetings. See Figure 1-7 for specific meeting cadences.

1.5.1. Delegations of Authority

Delegations of Authority provide the governance framework for Eversource's financial commitments or contractual obligations. They provide specific dollar thresholds of decision-making authority for Subsidiary Boards and employees. CL&P and YGS have identical Delegation of Authority Policies while Aquarion has separate Signature Authority levels.[200]

The specific dollar thresholds are aligned with the appropriate employee seniority levels, increasing with title. While Eversource-level leaders have higher spending authority than employees within the utility operating companies, the Subsidiary Boards have unlimited authority. Note, however, as mentioned in Section 1.3.4.2, the CL&P and YGS presidents are not voting members of their respective Subsidiary Boards.[201]

1.5.1.1. Delegations of Authority: Connecticut Light & Power and Yankee Gas Services

CL&P, YGS, and other non-Connecticut Eversource subsidiaries have equivalent Delegations of Authority (excluding Aquarion). The Subsidiary Boards have the highest delegations of authority levels ($25 million and above), followed by the Eversource CEO and the Eversource CFO. However, dollar amounts of authority differ based on the type of authorization. Most significant strategic and financial decisions are made at the Senior Team level ($7–25 million), with participation of other Senior Leadership as appropriate. The CL&P and Gas Distribution Presidents and their senior staff are involved in the decision-making process when the decision pertains to their jurisdiction and affects operations, both from an O&M and capital project budget perspective.[202] Operations-related decisions are typically made by the CL&P or Gas Distribution Presidents or within their organizations in coordination with the Eversource COO and CFO, but may also be reviewed by the entire Senior Team depending on the decision's materiality.[203] Eversource's authorization areas are listed below:[204]

- Capital projects;
- Energy supply, including electric and gas supply;
- Procurement of goods and services;
- Invoices for goods/services identified within the procurement system (Maximo); and
- Invoices for goods/services not identified within the procurement system (Authorization for Payment).

Figure 1-7 below lists Eversource's Delegations of Authority by authorization area. As shown in Figure 1-7, the maximum authority level for the CL&P and Gas Distribution Presidents is up to $7.5 million, Senior Leaders' maximum authority level is $15 million, the Eversource CFO's maximum authority level is $20 million, the Eversource CEO's maximum authority level is $25 million, and the Subsidiary Boards have unlimited authority.

Capital Project Delegations of Authority For all projects (Corporate Shared Services, Electric Distribution, Gas Distribution, Transmission, and Wind) Level of approval is on a total project cost basis:	
Position	*Level of Approval*
Subsidiary Boards	greater than $25 million
Eversource CEO	$25 million
Eversource CFO	$20 million
Executive Vice Presidents (Senior Team)	$12.5 million

[200] Response to FTI-708.
[201] Response to FTI-706.
[202] Response to FTI-272.
[203] Response to FTI-273.
[204] Response to FTI-023, Att. 2(ES).

Senior Vice Presidents / Subsidiary Presidents	$5 million
Vice Presidents	$1 million
Directors	$100,000
Managers	$100,000

Energy Supply Delegations of Authority

Position	*Contracts*	*Payments*
Energy Risk Committee ("ERC")	greater than $20 million	N/A
Vice President, Energy Supply (Based on prior ERC approval)	up to and greater than $20 million	up to and greater than $20 million
Directors	$5 million	$20 million
Managers	$1 million	$5 million

Procurement and Invoice Payment Delegations of Authority

For purchase commitments and associated invoices received for services (contracts and purchase orders), and desktop requisitions originated by business areas:

Position	*Corporate Shared Services*	*Operations*
Subsidiary Boards	greater than $25 million	greater than $25 million
Eversource CEO	$25 million	$25 million
Eversource CFO	$20 million	$20 million
Executive Vice Presidents (Senior Team)	$12.5 million	$12.5 million
Senior Vice Presidents / Subsidiary Presidents	$7.5 million	$5 million
Vice Presidents	$3 million	$1 million
Directors	$500,000	$100,000 ($500,000 for desktop)
Managers	$250,000	$50,000
Supervisors	$50,000	$5,000 ($25,000 for desktop)

Procurement Authorization Only: Delegations of Authority

Position	*Purchases*	*Invoices*	*Desktop Requisitions*
Executive Vice President	$400 million	$5 million	$12.5 million
Vice President	$15 million	$1 million	$3 million
Director	$10 million	$500,000	$500,000
Manager	$5 million	$250,000	$250,000
Category Lead	$1 million	$50,000	$50,000
Senior Sourcing Agent	$500,000	N/A	N/A
Sourcing Agent	$250,000	N/A	N/A
Procurement Contractor	$100,000	N/A	N/A
Agent	$100,000	N/A	N/A

Invoice Payment for Non-Purchase Order/Contract Transaction Delegations of Authority

Position	*Corporate Shared Services*	*Operations*
Subsidiary Boards	greater than $25 million	greater than $25 million
Eversource CEO	$25 million	$25 million
Eversource CFO	$20 million	$20 million
Executive Vice Presidents (Senior Team)	$12.5 million	$12.5 million
Senior Vice Presidents / Subsidiary Presidents	$7.5 million	$5 million
Vice Presidents	$3 million	$1 million
Directors	$500,000	$100,000
Managers	$250,000	$50,000
Supervisors	$50,000	$5,000

Figure 1-6 Eversource Delegations of Authority[205]

In certain circumstances, employees may request exceptions to the Delegations of Authority from both their direct supervisor and an Eversource Vice President, Controller, or delegate, based on a valid business reason.[206]

Since the CT Company Presidents spending authority is capped at $7 million, projects between $7 and $25 million require review and approval from the Eversource Senior Team, Eversource CFO, or Eversource CEO, with whom the CL&P and Gas Distribution Presidents regularly interface with, including during the annual capital and O&M budget planning processes. Because Senior Leaders meet weekly and comprise the YGS and CL&P Subsidiary Boards, the CL&P and Gas Distribution Presidents can quickly call upon them, and in some cases, Subsidiary Board members may review requests without an in-person meeting.[207]

1.5.1.2. Signature Authority Levels: Aquarion

Aquarion's Signature Authority levels differ from those of CL&P and YGS. The Aquarion President has a Signature Authority level (i.e., ability to sign contracts) of $0.25 million and above. There is not a maximum spending authority level for the Aquarion President.[208] The Signature Authority levels must be followed for any contract that obligates Aquarion and/or its subsidiaries, shown below in Figure 1-8.

Levels of Signature Authority For all contracts, including Task Orders, that will obligate Aquarion Company and/or any of its subsidiaries.	
Position	*Contract Amount*
President	$250,000 or above
Vice President	$150,000 to $249,999
Director	$50,000 to $149,999
Manager	$10,000 to $49,999
Supervisor	$1,000 to $9,999

Figure 1-7 Aquarion Signature Authority Levels[209]

Further, all contracts must be developed with and approved by Aquarion's Procurement department, who tracks and maintains them once they are signed.[210]

Recommendation: Unlike the Presidents of CL&P and YGS who are capped at $7.5 million, the Aquarion President, Donald Morrisey, has unlimited authority through the Aquarion Signature Authority levels. We recommend capping the Aquarion President's Signature Authority level at $7.5 million to be in line with the other CT Company Presidents.

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[205] Ibid.
[206] Ibid.
[207] Interview with Manager, Corporate Governance and Assistant Secretary, Eversource Energy (Florence Iacono) June 9, 2023.
[208] To ensure adequate controls are in place over expenditures, amounts greater than $250,000 are authorized by Mr. Morrissey, as President of Aquarion. Given the nature of the utility business, expenditures are typically planned and captured within the annual operating and capital budgets that are reviewed by the AQ Board of Directors. In the event transactions arise that are outside of the normal scope of operations, such as real estate transactions and business acquisitions, additional authorization from the AQ Board of Directors would be attained. Response to FTI-797.
[209] Response to FTI-708, Att. 1(AQ).
[210] Ibid.

1.5.2. Groups with Decision-Making Influence or Authority

The Eversource Boards, Senior Team, Executives, and CT Company Presidents have varying levels of decision-making authority. There are also multiple Committees at the Board, Eversource, and Connecticut levels, which meet for specialized or general purposes. Below, we describe groups and Committees who impact the CT Companies' decision-making. Most groups and Committees described below are not the primary decision-makers for the CT Companies, however, they do make Eversource-wide decisions, provide valuable input into decisions affecting the CT Companies, and serve as important platforms for alignment of different business functions. Figure 1-9 shows the key decision-making entities discussed in this section.

Boards	Senior Team	Non-Senior Team Eversource Executives	CT Company Groups
• Eversource BOT **BOT Committees** • Executive • Audit • Compensation • Governance, Environmental and Social Responsibility • Finance **Subsidiary Boards** • CL&P • YGS • Aquarion	**Groups and Committees** • Senior Team • Senior Team Expanded Leadership • Leadership Team Company Results report (Eversource COO Direct Reports)	**Groups and Committees** • Customer Council • Future of Gas Steering Committee • Future of the Grid Committee • AMI Implementation Steering Committee • Emergency Coordination Team • Cybersecurity Governance Committee • Enterprise Business Technology Council • Enterprise Risk Committee • Solution Design Committee • Compliance and Ethics Committee	**Groups and Committees** • CT Community Regulatory and Government Monthly Strategy Update • Weekly Staff Meetings • Work Plan Development with the Eversource COO • Business Planning Group • Project Management Committee

Figure 1-8 Key Decision-Making Entities at Multiple Levels of Eversource[211]

1.5.2.1. The Boards

Board of Trustees

The BOT and its Committees oversee Eversource's management, finances, and strategic plans, but are not primary decision-makers for the CT Companies; rather, the BOT reviews the Eversource-wide consolidated Strategic Capital Plan, reviews the LRP and approves the Corporate Operating Plan that includes the CT Companies. The BOT has five committees with focus on specific parts of the business that require independent input. For more information, see Section 1.3.4.1.

BOT Committees

The Eversource BOT has five standing committees that serve to delegate certain, specific Board responsibilities.[212] Each of the BOT's five Committees has five to six members in addition to a Committee Chair.[213] BOT Committees both receive informational updates and are responsible for decision-making. After Committee meetings, the full BOT votes on the issue at hand. The Charters of the five Committees detail their responsibilities:[214]

[211] Response to FTI-023; Response to FTI-271; Response to FTI-273; Response to FTI-117; Response to FTI-292; Interview with Director, Regulatory Affairs, Eversource Energy (Jonathan Harris), May 12, 2023; Interview with Executive Vice President, HR and IT, Eversource Energy (Christine Carmody), April 17, 2023.
[212] Response to FTI-292, Att. 2(ES).
[213] Eversource Committee Members.
[214] Response to FTI-292, Att. 3(ES); Response to FTI-292, Att. 1(ES); Response to FTI-689, Att. 1(ES).

- **Executive:** The Executive Committee exercises, as necessary, all the authority of the BOT during the intervals between BOT meetings. The Eversource CEO must be a member of the Executive Committee.
- **Audit:** The Audit Committee provides independent review and oversight of Eversource's financial reporting processes, internal controls, and independent registered public accountants. The Audit Committee appoints and oversees Eversource's independent registered public accounting firm, which was most recently Deloitte in 2022. The Audit Committee meets independently with Eversource internal audit staff and with Deloitte to report its findings to the BOT. This Committee does not plan or conduct audits or investigations, nor does it determine if Eversource's financial statements and disclosures are complete and accurate. For information, see Section 1.9.
- **Compensation:** The Compensation Committee reviews and approves the compensation and benefits for the Eversource CEO and other company officers, in addition to BOT member compensation. Compensation and benefits are based on performance in relation to corporate goals and objectives. The Compensation committee reviews and approves goals and objectives specific to the Eversource CEO.
- **Governance, Environmental and Social Responsibility ("ESG"):** The ESG Committee has three distinct roles: 1) to establish criteria for BOT membership and recommend the composition of the BOT and its committees; 2) to assess BOT effectiveness and develop and review corporate governance guidelines; and 3) to provide oversight for Eversource's climate action, environmental, human capital management, and social responsibility programs and performance.
- **Finance:** The Finance Committee assists the BOT in its responsibilities to review financial plans and policies to ensure liquidity. The Finance Committee must convene at least three times per year to review Eversource's financial status, such as its liquidity, financial goals, capital structure, dividend policy, investment policies, operating plans, insurance trends, and financial budgets. The Finance Committee must also conduct an annual review of counterparty credit policy, insurance coverages, and pension plan performance.

Each June, the BOT reviews Eversource's five-year LRP and the five-year Strategic Capital Plan. The LRP also includes a projected Profit and Loss ("P+L") statement at the consolidated Eversource level.[215]

The Eversource CFO also presents the preliminary annual Corporate Operating Plan, which is more granular in nature, to the Finance Committee in December. The final annual Corporate Operating Plan, which is a full P+L statement for the following year and sets the capital and O&M budgets and the earnings targets, is reviewed and approved by the full BOT at its February meeting the following year.[216] For more information on the short and long-term plans for Eversource, see Section 1.7.

Subsidiary Boards

The Subsidiary Boards are not involved in day-to-day matters but meet periodically to discuss important issues and make key decisions for their respective operating companies. The CL&P, YGS, and Aquarion Boards meet at least quarterly and often throughout the year on an ad hoc basis. Meetings result in unanimous written consent votes. [217] The CT Company Presidents provide updates to the Board on regulatory matters as applicable. The CL&P and YGS Presidents are not members of their subsidiary Boards, but the CL&P President attends each one, and the Gas Distribution President attends meetings as needed; the Aquarion President is a voting member of the

[215] Response to FTI-655.
[216] Response to FTI-033.
[217] Response to FTI-292; Response to FTI-292, Atts. 3(all).

Aquarion Board. At CL&P and YGS Board meetings, the Boards review and approve capital projects either above $25 million or are multi-year and other financial decisions such as dividends and financings that fall under their Delegations of Authority. If a new major project needs approval, there is opportunity for discussion amongst Directors about the costs. Occasionally, a new officer needs to be approved, and the Subsidiary Board votes on that approval.[218]

1.5.2.2. Senior Team

The Senior Team acts as a major decision-making entity. The seven leaders of the Senior Team (the Eversource CEO plus six Senior Leaders) provide standardized administrative and management services to the operating companies in Connecticut, Massachusetts, and New Hampshire. In general, all significant strategic and financial decisions are made at the Senior Team level, with participation of other Senior Leadership as appropriate.[219] The following scenarios are examples of Senior Team decision-making: [220]

- Any decision above a CT Company President's Delegation of Authority must be approved by a Senior Leader and/or its Subsidiary Board.
- Major financial decisions, such as whether to file a rate case.[221]

Weekly Senior Team meetings are largely informational. In a roundtable fashion, each Senior Leader reports on their group's performance, provides updates on financial and regulatory matters as needed, and receives feedback from other Senior Leaders. [222]

Additional groups within the Senior Team include:

- **Senior Team Expanded Leadership:** At least once per quarter, the Eversource CEO conducts Expanded Senior Team meetings that involve the operating company Presidents and other Senior Leadership of the various shared services to review company performance and discuss important cross-functional issues. This meeting allows Presidents, Vice Presidents, and Senior Vice Presidents to present their respective departments' needs and socialize issues before the full Senior Team, including the Eversource CEO. [223]
- **Leadership Team Company Results (Eversource COO Direct Reports):** Each month, all of the Eversource COO's direct reports, including the CT Company Presidents, present a consolidated Operations department financial briefing to the Eversource COO.[224] For more information about scorecards and performance metrics presented in these briefings, see Section 1.7.4.5.

1.5.2.3. Non-Senior Team Eversource Executives

Eversource assembles numerous "Executive Steering Committees," which are major cross-functional and typically regional decision-making meetings in order to align major business units on novel and time-consuming challenges.[225] These committees are hosted by either one of the six Senior Leaders, or by key personnel within

[218] Interview with Independent Directors, CL&P Board of Directors (Chandler Howard, Patrick McGrath, and Ian Nicholson), July 12, 2023.
[219] Response to FTI-273.
[220] Interview with President, Aquarion Company (Donald Morrissey), April 5, 2023; Interview with Executive Vice President, Legal, Internal Audit, Energy Supply, Chief General Counsel, Eversource Energy (Gregory Butler) April 13, 2023; Response to FTI-337.
[221] The decision to file a rate case is made by the Eversource CFO, after consultation with the Senior Team.
[222] Response to FTI-271.
[223] Ibid.
[224] Response to FTI-331 Amended; Response to FTI-287.
[225] Response to FTI-273.

their shared service organizations. Below, we review some of the participants and decisions made at key Eversource-wide Committee meetings.

Customer Council

Bi-monthly, the CT Company Presidents participate in the Eversource Customer Council, which is comprised of 16 senior staff members from Eversource's "customer-facing" functions, for example, the Senior Vice President of IT. The Council reviews customer service data for each operating jurisdiction with the Connecticut, Massachusetts, and New Hampshire Company Presidents, including data on customer satisfaction, customer engagement metrics, and digital channel plans. This Council has launched initiatives on customer communication channels and employee training since its inception in 2022. HR is also involved in the Customer Council to accommodate changes needed internally, such as additional training needed to integrate programs developed by the Council.[226]

Future of Gas Steering Committee

The Future of Gas Steering Committee was established to maintain alignment and awareness of the clean energy transition and potential impacts on Eversource gas customers, employees, and systems.[227]

Future of the Grid Committee

The Future of the Grid Committee was established in 2022 to ensure Eversource-wide alignment on emerging regulatory and legislative opportunities which may have a material customer, financial, or operational impact on Eversource. The group is tasked with reviewing, providing direction, and approving initiatives at key milestones and informing overall coordination across the company. Topics include both state and federal issues, such as storage systems through the Federal Energy Regulatory Commission ("FERC") Order No. 841, Connecticut Public Act 21-53, and Advanced Metering Infrastructure ("AMI") and grid modernization efforts. This committee has met three times since its inception in late 2022.[228]

AMI Implementation Steering Committee

The AMI Implementation Steering Committee ensures alignment and awareness regarding the deployment of AMI and its associated systems across all Eversource states.[229]

Emergency Coordination Team

The Eversource-wide Emergency Coordination Team organizes activity and resources during emergency events.[230]

Cybersecurity Governance Committee

The Cybersecurity Governance Committee was founded in 2022 and, similarly to the Future of the Grid Committee, assesses external and internal cybersecurity trends which may have a material customer, financial, or operational impact on Eversource.[231]

Enterprise Business Technology Council

[226] Response to FTI-117.
[227] Response to FTI-273.
[228] Response to FTI-659; response to FTI-659, Att. 3b(ES).
[229] Response to FTI-273.
[230] Ibid.
[231] Interview with Executive Vice President, HR and IT, Eversource Energy (Christine Carmody), April 27, 2023.

The Enterprise Business Technology Council members oversee and monitor the IT capital portfolio for the year. The Council works to assess projects' success and expenditures to date, and to adjust the capital portfolio if projects exceed their budgets or if new compliance requirements emerge.[232]

Enterprise Risk Committee

The Enterprise Risk Committee is responsible for ensuring that Eversource is prudently managing its enterprise-wide risks. All three CT Company Presidents and all Senior Leaders are officers of this committee.[233] For more information on the Risk Committee, see Chapter 7.

Solution Design Committee and Eversource Planning Authorization Committee

The Solution Design Committee is an Engineering department committee that helps system planners determine the most feasible, cost-effective solutions to solve an identified need. The Senior Vice President of Engineering arranges meetings with his direct reports to review ideas for capital improvements against the capital plan. Once a solution's final design is approved, the solution then reaches the final funding stage and further scope planning at the Eversource Planning Authorization Committee, where other engineering disciplines, such as siting and permitting experts, contribute feedback and determine next steps.[234]

Compliance and Ethics Committee

The Compliance and Ethics Committee ("CEC") has a decision-making role providing oversight for the development and implementation of the Eversource Corporate Compliance Program, which addresses the legal requirements and commitments of Eversource's operating companies. Each of the CT Company Presidents are members of the CEC. The Corporate Compliance Program is overseen by the Chief Compliance Officer ("CCO"), Duncan MacKay, together with the CEC. The CEC is chaired by the CCO and reports to the Eversource BOT Audit Committee. [235]

1.5.2.4. Connecticut Company Groups

Eversource's business model allows the CT Company Presidents to run the operations of their electric/gas/water business, with oversight from the Senior Team (particularly the Eversource COO) and Boards, while shared service business units are run by their respective Senior Leaders. The CT Company Presidents are responsible for making and implementing decisions for day-to-day operations within their $5–7.5 million Delegations of Authority, while decisions above that level require Senior Team review.[236]

The CT Company Presidents are members of various internal staff groupings to remain apprised of Connecticut issues outside of Operations, and to socialize concerns with the Senior Team.

[232] Ibid.
[233] Response to FTI-331 (Amended); Interview with President, Connecticut Light & Power (Stephen Sullivan), March 27, 2023.
[234] Response to FTI-016; Interview with Vice President, System Planning, Eversource Energy (Digaunto Chatterjee), April 24, 2023.
[235] Response to FTI-208.
[236] Response to FTI-273.

Weekly Staff Meetings

The three CT Presidents host weekly roundtable (internal staff) meetings with their direct reports from across the business areas. These internal meetings are not typically decision-making meetings; however, CT Company Presidents use them to make more informed budget- and operations-related decisions.[237]

Connecticut Community Regulatory and Government Monthly Strategy Update

Stephen Sullivan, President of CL&P, participates in this hour-long monthly meeting with members of the Community Relations and Government Affairs groups.[238]

Work Plan Development with the Eversource COO

Both Mr. Sullivan and Mr. Akley attend monthly Work Plan meetings with the Eversource COO and other CL&P or YGS Vice Presidents and Directors. The purpose of Work Plan meetings is to execute CL&P or YGS' capital plan and provide updates on initiatives.[239]

The Business Planning Group (Connecticut Light & Power Company and Yankee Gas Services Company)

The capital budget planning process for both CL&P and YGS begins at mid-year with a meeting of the "Business Planning Groups," which consist of staff from the Eversource-wide Engineering, Electric Operations or Gas Operations, and Finance departments. During Business Planning Group meetings, each function presents its capital plan and resource requirements to the CL&P or YGS Presidents, who are members of their respective Business Planning Groups, for review. The resulting capital plan and resource requirements are presented to the Eversource COO and CFO for final approval and are input into five-year planning models maintained by the Investment Planning group.[240] For more information on CL&P and YGS' capital budget planning process, see Section 1.7.2.

The Project Management Committee (Aquarion Company)

Aquarion's major capital decision-maker is a company-wide budget planning committee, the Project Management Committee ("PMC"), of which the Aquarion President is a member. The Aquarion Vice President of Engineering and Planning is the chair of this seven-member committee, which meets monthly. If an authorization request must be reviewed immediately, the PMC can meet on an ad hoc basis via Zoom and vote via email.[241] The PMC's charges are to:[242]

- Review and approve Aquarion's capital budgets;
- Review and approve project justification and alternative analyses;
- Review and vote on project authorization requests greater than $100,000;
- Monitor project status;
- Monitor and manage the capital budget to the authorized limits; and

[237] Response to FTI-534; Interview with Director, Regulatory Affairs, Eversource Energy (Jonathan Harris), May 12, 2023; Interview with President, Aquarion Company (Donald Morrissey), April 5, 2023.
[238] Interview with Director, Regulatory Affairs, Eversource Energy (Jonathan Harris), May 12, 2023.
[239] Response to FTI-289; Interview with President, Connecticut Light & Power (Stephen Sullivan), March 27, 2023.
[240] Response to FTI-023.
[241] Response to FTI-312, Att. 1(AQ); Interview with Vice President, Engineering/Planning and Real Estate, Aquarion Company (Daniel Lawrence), May 17, 2023.
[242] Response to FTI-312, Att. 1(AQ).

- Encourage capital efficiency, risk reduction, innovation, and best available technology.

Any capital budget additions, regardless of total project cost, must be approved by the PMC. Projects forecasting a budget variance of +/-10% or more must be reviewed by the PMC immediately for re-authorization. A detailed memo outlining reasons for the projected variance must accompany revised PMC forms.[243]

The PMC is included in finalizing the yearly Capital Budget and inputs regarding cuts and project priorities. For more information on Aquarion's capital budget planning process, see Section 1.7.6.

1.5.3. Meetings for the Connecticut Company Presidents

The Presidents of CL&P, YGS, and Aquarion attend numerous weekly, monthly, quarterly, and annual meetings, where they may exercise their delegated authority to make decisions, or they may be briefed by their staff. These meetings include frequent audiences with Eversource-level Senior Team executives (as listed above) as well as a weekly-to-monthly cadence of meetings on Connecticut topics with their direct reports. In line with Eversource's operations-focused business model for subsidiary Presidents, most meetings attended by CT Company Presidents are operational in nature. Figure 1-10 depicts a calendar of the CT Company Presidents' recurring meetings. Entity-specific (CL&P, Gas Distribution, or Aquarion) meetings are depicted in blue, and meetings to socialize issues with Eversource-level executives or the Boards are depicted in yellow. Note that long-term and annual planning meetings are excluded from this figure; they will be discussed in Section 1.7.

Meeting	Frequency	CL&P President	Gas Distribution President	Aquarion President
1:1 Meetings with Eversource COO	Monthly (Aquarion Bi-Weekly)	X	X	X
Operations Executive Staff Meeting	Bi-Weekly	X	X	X
Subsidiary Board Meetings	Quarterly	X	X	
Senior Team Expanded Leadership	Quarterly	X	X	X
Eversource BOT Meetings	Bi-Annually	X	X	
Enterprise Risk Committee	Quarterly	X	X	X
Compliance and Ethics Committee	Quarterly		X	X
Customer Council Meetings	Bi-Monthly	X	X	
Leadership Meetings with Eversource CEO	Quarterly	X	X	X
Updates with Eversource CEO	Monthly	X		
Operations Executive Financial Results	Monthly	X	X	X
Safety Check-in with Eversource VP Safety	Monthly	X	X	X
IT Strategic Roadmap Review	Annually	X	X	
Staff Meeting	Weekly (YGS Bi-Weekly)	X	X	X
Work Plan Development	Monthly	X	X	X
CT Community Relations, Regulatory, and Governmental Strategy	Monthly	X		X[244]

[243] Response to FTI-541, Att. 1(AQ) (confidential).
[244] Response to FTI-331 (Amended). Aquarion holds both a weekly Regulatory Update and a monthly Federal Policy Steering Team meeting.

Leadership Team Company Results (CT Operations Financial Results)	Monthly	X	X	X
1:1 Meetings with Direct Reports	Monthly (Aquarion Bi-Weekly)	X	X	X
Emergency Preparedness Update	Monthly	X		
Section Chief (EP) Update Meetings	Monthly	X	X	X
AWC Visits	Monthly	X	X	X
Operate & Restore Conference Call	Daily	X		
Equity Governance Committee	TBD		X	
Risk and Compliance Committee Monthly	Monthly		X	
Gas Sanctioning Committee Monthly	Monthly		X	
Gas Scorecard – Metrics and Initiatives	Monthly		X	
Gas Leadership Call	Monthly		X	
Complex Project Review	Monthly		X	
Enterprise Technology Business Council	Monthly		X	
Ops Monthly HR/Staffing Update	Monthly			X
Finance Team Meetings	Bi-Weekly			X
Integration Team Meetings	Bi-Weekly			X
Project Management Committee	Monthly			X
Department Reviews	Quarterly			X
IT Steering Committee	Monthly			X
Safety Committee Meeting	Monthly			X
Safety Tailgate	Weekly			X

Figure 1-9 Calendar of Recurring Meetings for CT Company Presidents[245]

1.5.3.1. Meetings for Shared Service Business Units

While many of the CT Company Presidents' meetings are operational in nature, members of the shared service business units often interface with the Presidents as well. For example, the Eversource Customer Council is comprised of 16 senior staff members from all of Eversource's customer-facing functions. During meetings, the Council reviews detailed customer service data for each operating jurisdiction with the CT Company Presidents, including state-specific data on customer satisfaction, customer engagement metrics, call center performance, and digital channel plans. Representatives from the Customer Experience and HR business units are in attendance to brief the CT Company Presidents. After these meetings, information is relayed to the Senior Leader of a shared service business unit, so that they in turn can report findings to the rest of the Senior Team. [246]

Shared service business units may also hold meetings about Connecticut-specific topics without CT Company Presidents in attendance. As an example one organization we interviewed, the "Rates and Regulatory" team comprised of employees from the Regulatory, Legal, and Regulatory Affairs groups, holds a regular weekly meeting about Connecticut-specific issues.[247] Listing all shared service business unit meetings is outside the scope of this audit, but the Regulatory Affairs group's meetings, particularly as they pertain to Connecticut, will be discussed further in Section 1.6.1.

[245] Response to FTI-331 (Amended).
[246] Response to FTI-117.
[247] Interview with Director, Regulatory Affairs, Eversource Energy (Jonathan Harris), May 12, 2023.

1.6. Regulatory Compliance

1.6.1. Interfacing with the PURA

The three CT Companies have consistent PURA-facing personnel that serve as primary contacts. CL&P and YGS interface with the PURA via multiple CL&P- and YGS-embedded employees from Eversource's shared service business units (Regulatory Affairs, Regulatory, and Legal groups). The Director of Regulatory Affairs is a Connecticut-dedicated liaison and the primary interface with the PURA, and together with two other staff (one Connecticut-dedicated), frequently interacts with the PURA on regulatory and energy issues and legal matters. Aquarion's interaction with the PURA is structurally different in that there is no dedicated liaison to the PURA, however, certain departments report and interact frequently with the PURA, and, given that a large share of Aquarion customers are located in Connecticut, the state's regulatory issues are prioritized.

1.6.1.1. Connecticut Light & Power and Yankee Gas Services

For the CL&P and YGS organizations, the Regulatory Affairs group under the Corporate Communications and Sustainability shared service business unit serves as the primary liaison and interface with the PURA. The Regulatory Affairs group routinely interacts with the PURA to address specific questions, provide notifications regarding emergency events, and gather appropriate subject matter experts to respond to regulatory requests.[248]

Figure 1-11 below depicts the organizational structure of Eversource staff that interact with the PURA, including the interaction between Eversource-wide and Connecticut-specific regulatory leadership. The dashed-line box represents a team responsible for Connecticut-specific regulatory and legal issues: a Director of Regulatory Affairs, an Assistant General Counsel, and a Vice President of Distribution Rates. This group interacts with the PURA frequently.[249]

[248] Response to FTI-291.

[249] Interview with Vice President, Distribution Rates, Eversource Energy (Douglas Horton) June 12, 2023.

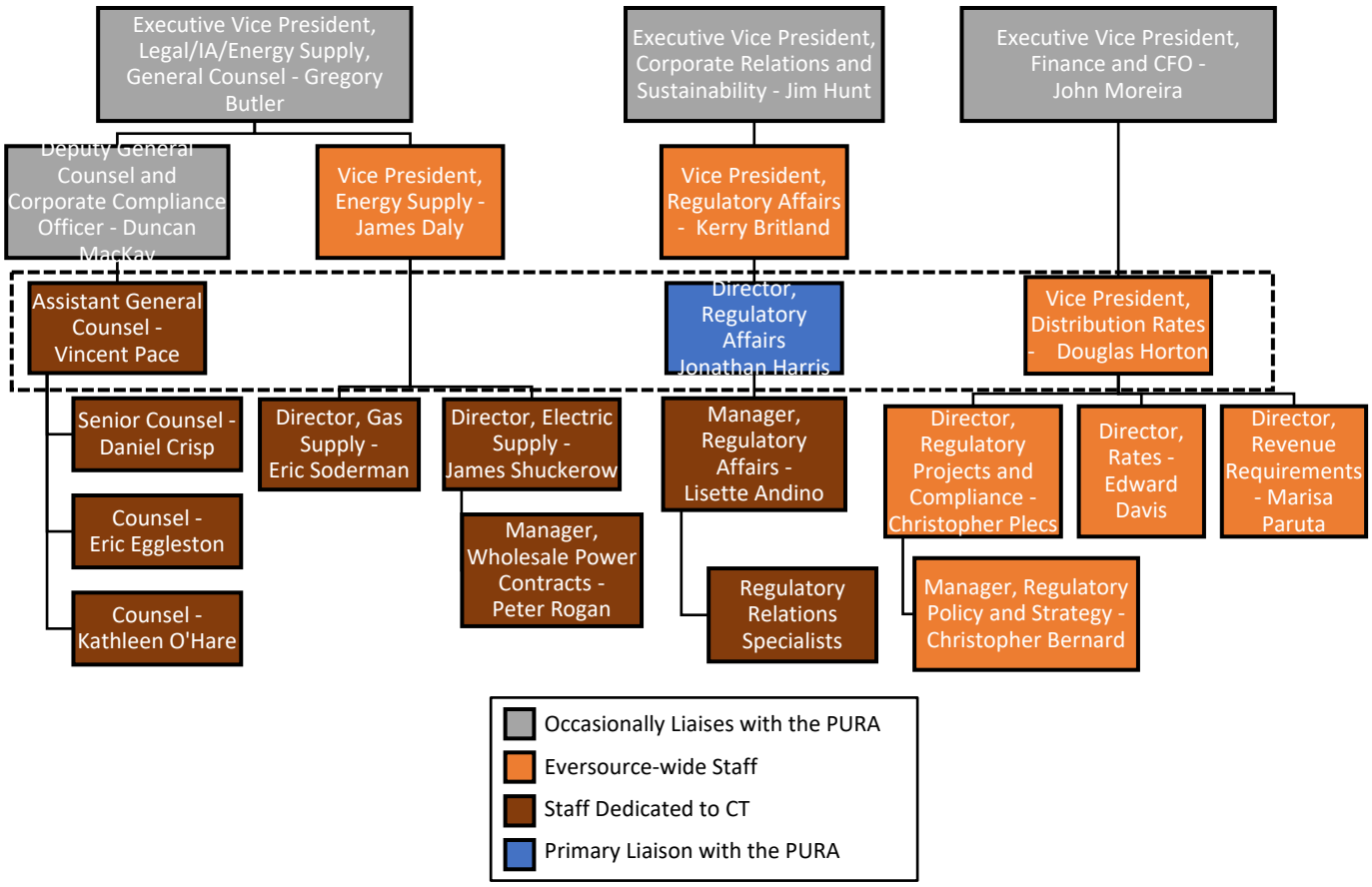

Figure 1-10 Eversource's PURA-facing Organizational Structure[250]

The three individuals in the dashed-line box are frequent interactors with the PURA, with the Director of Regulatory Affairs serving as the primary liaison.[251] As shown in

Figure 1-11 above, Senior Leaders generally do not interface with the PURA. This Figure does not include individuals who are requested to communicate with the PURA or serve as expert witnesses; those designations are determined on a case-by-case basis.[252] CT Company Presidents occasionally testify before the PURA on emergency events, emerging issues, or new business initiatives.[253] Their primary role is as the public face of their companies, serving more customer-oriented, public roles.

All six shared service business units may interact with PURA, especially about topics of high regulatory interest. For example, representatives from the Finance department are active during rate cases, and the Operations, HR and IT, and Customer Experience and Energy Strategy business units respond to inquiries about gas safety,

[250] Response to FTI-291, Att. 1(ES).
[251] Ibid.
[252] Response to FTI-291.
[253] Response to FTI-291, Att. 1(ES).

cybersecurity, and energy efficiency, respectively.[254] However, like the CT Company Presidents, regulatory interactions are not these individuals' primary responsibilities.

1.6.1.2. Aquarion

Similar to CL&P and YGS, multiple Aquarion departments interact with the PURA. However, due to Aquarion's small size, Aquarion does not have a dedicated liaison to the PURA, unlike CL&P and YGS. Instead, all of the Aquarion President's senior staff interface with the PURA.[255] Figure 1-12 depicts the organizational structure of the Aquarion staff that interact with the PURA.

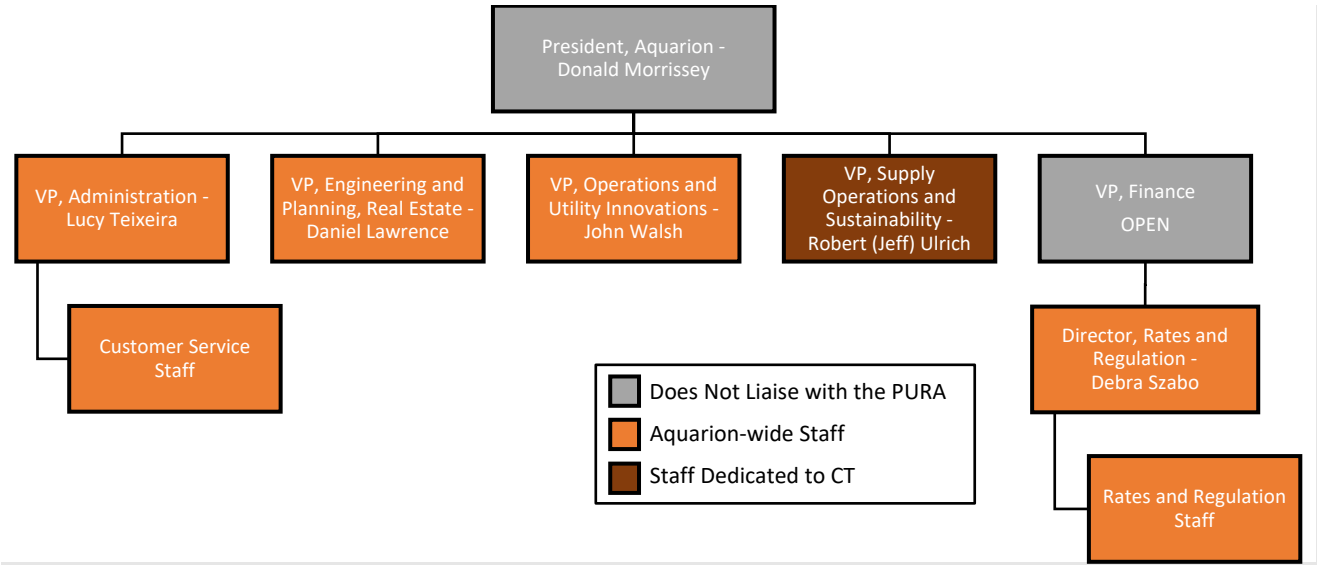

Figure 1-11 Aquarion's PURA-facing Organizational Structure[256]

Aquarion reports to the PURA on accidents and customer communications. Members of the Rates and Regulation and the Engineering departments work with the PURA staff on regulatory matters and compliance filings. Aquarion's Rates and Regulations department administers the Aquarion regulatory compliance process. The PURA has also participated directly during water update calls with AWC-CT's Supply Operations department when drought triggers are activated. Additional interactions with the PURA may occur on an ad-hoc basis to discuss, for example, a customer complaint, compliance orders, or requests for information regarding a business process.[257]

1.6.1. Key Regulatory Meetings

The Legal group, led by Connecticut-specific Assistant General Counsel Vincent Pace, facilitates an hour-long weekly call on Mondays with the Connecticut-based Rates and Regulatory group, the Regulatory Affairs group, and the Legal group to review upcoming regulatory developments. These developments include hearings, written comments, briefs, written discovery requests, technical sessions, and filings in Connecticut, and any milestones and deliverables due to the PURA. On Fridays, an Archer-generated report for CL&P and YGS is circulated that lists

[254] Response to FTI-291, Att. 1(ES).
[255] Response to FTI-291.
[256] Ibid.
[257] Ibid.

all due dates and deadlines in the week ahead as well as relevant information posted on PURA's website for review prior to Monday meetings.[258]

Other key regulatory meetings include a standing Connecticut regulatory check-in that occurs twice weekly on Tuesdays and Thursdays. In those check-ins, the PURA-facing staff discusses and aligns on any major events upcoming in next day or two.[259] There is also a standing Eversource-wide weekly regulatory affairs call led by Kerry Britland, the Vice President of Regulatory Affairs, and a larger Eversource-wide weekly call with the Legal, Rates, and Government Affairs teams led by Douglas Horton, the Vice President of Distribution Rates, who reviews regulatory activity in all three Eversource jurisdictions, Aquarion, and Transmission/FERC and alerts the team to critical regulatory milestones.[260]

Each week, the Regulatory team also schedules meetings and calls with business departments and subject matter experts at CL&P, YGS, and Aquarion affected by specific regulatory dockets to ensure there is appropriate coordination and collaborative decision-making to submit timely deliverables in regulatory proceedings.[261]

As described in Section 1.5.2.4, the President of CL&P hosts a monthly Connecticut Community Regulatory and Government Monthly Strategy Update with members of the Community Relations and Government Affairs groups. This group convenes to alert the CL&P President of any regulatory concerns that need to be addressed, even if they do not specifically impact overall operations.[262]

1.6.2. Compliance Tracking

1.6.2.1. Connecticut Light & Power and Yankee Gas Services

The Rates and Regulatory group lead is responsible for managing and overseeing Eversource's compliance with state statutes, regulations, decisions, and orders.[263] As of May 2022, the Rates and Regulatory group uses the regulatory tracking software Archer to track compliance with regulatory orders.

In Archer's software, each individual regulatory proceeding is assigned a Docket Coordinator in the Regulatory Projects and Compliance team. When a PURA proceeding concludes, the Docket Coordinator receives directives from the PURA's final decision/order and, together with the Legal group and subject matter experts, determines which directives pertain to Eversource. The Docket Coordinator completes the Archer compliance input form, shown in Figure 1-13, and provides it to the Archer Administrator, who is also a member of the Regulatory Projects and Compliance team, and is responsible for uploading the information into Archer.[264]

[258] Response to FTI-659; Response to FTI-666; Interview with Assistant General Counsel, Eversource Energy (Vincent Pace), June 8, 2023.
[259] Interview with Assistant General Counsel, Eversource Energy (Vincent Pace), June 8, 2023.
[260] Response to FTI-660, Att. 1(ES); Response to FTI-659.
[261] Response to FTI-666.
[262] Interview with Vice President, Regulatory Affairs, Eversource Energy (Kerry Britland) June 9, 2023.
[263] Response to FTI-303.
[264] Response to FTI-304.

COMPLIANCE ITEMS ENTRY FORM

Docket (Short) Name: _____ **Docket No.** _____ **Final Decision Date:** _____

(Attach orders and relevant pages from Final Decision. Include PURA (Public Utilities Regulatory Au hority) or DEEP (Department of Energy and Environmental Protection) directives not explicitly stated in Orders and indicate page reference from Final Decision.)

Order # (or Page #)	Notify Frequency (Mon, Tues, Wed, Thu, Fri)	Email Reminder Lead Time (How Many Days)	Initial Due Date (First Due Date)	Frequency of Due Date (Annual, biennial, monthly, quarterly, semi-annual, single occurrence, weekly, next case pending, information only)	Key Person Responsible (Key contact(s) responsible in charge of responding to the present Order/Condition.)	Regulatory Contact (From Reg. Policy & Planning)	Notification List (Include supervisor of Person Responsible, others that contribute to the filing, legal, etc.)
1							
2							
3							
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7							
8							
9							
10							

Figure 1-12 PURA Compliance Input Form to Archer[265]

As the compliance deadline approaches, Archer sends automated emails according to the programmed notification frequency to the three personnel defined above in Figure 1-13: Key Person Responsible for completing the requirement, the Regulatory Contact, and the Notification List. The Regulatory Contact follows up with the Key Person Responsible to ensure the filing is being prepared, after which the Key Person will begin to assemble the compliance filing. Once signoffs are received, the Key Person Responsible sends a single, 'request for filing' email with all final filing documents to an internal email account which begins the compliance filing process.[266]

There are slightly different processes for managing compliance filings based on characteristics of the order. The simplest orders require only a single filing and do not require approval from the PURA. In this instance, after filed via email, the Archer Administrator creates a link with documents under the order and submits a resolution in Archer, then sends an email to the Regulatory Manager for approval to mark the order as complete. For orders requiring recurring (monthly, quarterly, and annually) filings but no motion for the PURA's approval, the same process is followed as for a single filing, but when the noted resolution is submitted, the Archer system automatically resets the next due date.[267]

Compliance with orders is managed in two ways. First, orders do not get marked complete until all required filings and/or regulatory approvals are obtained. If an order is not marked complete and the due date is past, the system continues to send reminder emails thereby keeping the obligation "alive" to all those receiving the reminders. Secondly, the Archer Administrators and Regulatory Contacts routinely run reports in Archer to identify open compliance. Examples of these reports include "Orders Due Next 31 days" or "Orders Due Next 7 days." With this

[265] Response to FTI-304, Att. 2(ES).
[266] Response to FTI-304.
[267] Ibid.

information, the Regulatory Contact can reach out to associated Key Person(s) Responsible to obtain the documents needed for compliance.[268]

The process for managing regulatory discovery deadlines is similar, in that upon receipt of discovery, a contact within the regulatory team will upload key information into the regulatory discovery software Caseworks, including information about key roles and responsibilities for drafting and reviewing, as well as assignment due dates and other details. This initiates automated emails from the Caseworks system to notify personnel of their assignments in drafting or reviewing responses.[269]

1.6.2.2. Aquarion

Aquarion uses a different process and software from their energy utility peers. Aquarion's five-member Rates and Regulations group administers the regulatory compliance process by tracking compliance orders in Microsoft Outlook. The Rates and Regulations administrator incorporates all one-time and recurring compliance orders into a shared calendar and sends a weekly email summarizing upcoming compliance orders. Draft responses to compliance orders are prepared by appropriate departments, reviewed by the Rates and Regulations group, and, if necessary, distributed for legal or additional internal review. Once Aquarion has finalized the compliance filing, a member of the Rates and Regulations group electronically files the information with the PURA. Procedures to correct any regulatory non-compliance follow the same process.[270]

Recommendation: To track regulatory compliance, we recommend that Eversource determine whether Aquarion's regulatory orders can and should be added into the Archer database to enhance the sharing of information and best practices and increase visibility to the many parties involved in regulatory compliance.

1.7. Long-Term and Short-Term Planning

All three CT Companies participate in two forward-looking planning processes.[271]

- Long-term, five-year, strategic capital plans, referred to as:
    - "Strategic Capital Plan" for CL&P and YGS;
    - "5-Year Plan" for Aquarion;
- Short-term, one-year, detailed capital and O&M budgets, referred to as:
    - "Corporate Operating Plan" for CL&P and YGS;
    - "Annual Capital Budget" and "Annual O&M Budget" for Aquarion, together the "Annual Budgets."

Both planning processes are performed annually and are interrelated, as shown below in Figure 1-14.[272] The first year of the CT Companies' respective five-year Strategic Capital Plans/5-Year Plan is used as the foundation for each of their Corporate Operating Plans/Annual Budgets.[273]

[268] Response to FTI-304.
[269] Response to FTI-666.
[270] Response to FTI-304.
[271] Response to FTI-033.
[272] Response to FTI-023.
[273] Response to FTI-033.

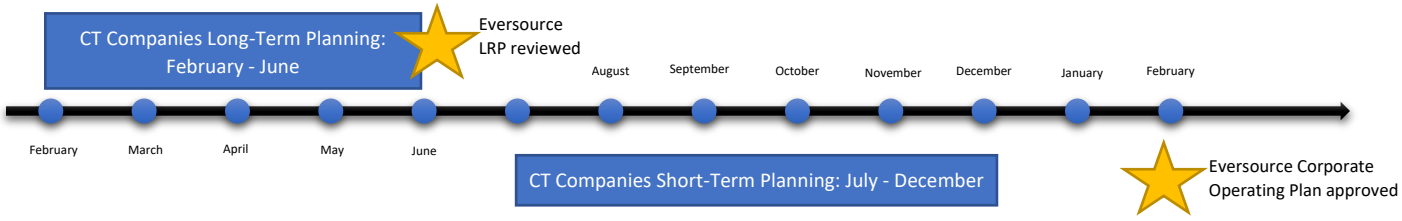


Figure 1-13 CT Companies' Long-Term and Short-Term Planning Timelines[274]

The CT Company-specific Strategic Capital Plans and O&M plans serve as inputs into the consolidated, Eversource-wide LRP and the Corporate Operating Plan, which incorporates detailed, one-year forward budgets.

The Strategic Capital Plan details the CT Company's long-term capital projects and their associated spending projections and timing.[275] The Senior Leader functions also develop their own Strategic Capital Plans, e.g., IT and Facilities, which are produced through a separate but standardized process. These Plans are then consolidated and overlaid with full financial forecasts to create the Eversource LRP. Additionally, gas operating companies' (including YGS') plans are consolidated into the Gas Business Strategic Capital Plan, which is in turn consolidated into the Eversource LRP.

To produce the LRP, the CT Company-specific Strategic Capital Plans are incorporated into five-year financial forecast models along with O&M and other financial assumptions. These models are maintained by the Eversource Corporate Financial Forecasting group ("CFF group") and the Aquarion Director of Taxes, respectively. They contain projected income statements, balance sheets, and statements of cash flows. The financial forecast models also contain assumptions on capital structure, cost of debt, returns on equity ("ROE"), tax rates, property taxes, and other financial assumptions. The end products are projected financial statements showing forecasted long-term and short-term borrowings and necessary capital contributions to fund the CT Companies' capital spending programs.[276]

The final end product is the CT Companies' one-year Corporate Operating Plans/Annual Budgets, which contain detailed capital, O&M and profit and loss ("P+L") projections for the following calendar year. These Plans also include Strategic Initiatives related to, for example, safety, environment, and customer service.[277]

To evaluate the end-to-end planning processes, FTI reviewed all documentation related to the CT Companies' long-term and short-term planning processes, including governance documents and meeting minutes. In this audit, we focus on the Connecticut-specific inputs to these Plans to illustrate how local leaders influence the planning processes. In Sections 1.7.1 and 1.7.4, we will also address Eversource-wide planning.

1.7.1. Long-Term Planning: Eversource LRP

Eversource's LRP process occurs annually and includes both a capital spending component and a broader five-year financial forecast. The resultant LRP spans a six-year period: the current year plus a five-year, long-range forecast.

[274] Response to FTI-023; Response to FTI-033.
[275] Response to FTI-033.
[276] Interview with Director, Taxes, Aquarion Company (Michael Appicelli), May 10, 2023; Response to FTI-033.
[277] Interview with Director, Budgeting and Financial Analysis, Eversource Energy (John Griffin), July 7, 2023; Response to FTI-279, Atts. 2-9(CLP/YGS/AQ).

The LRP process is an ongoing effort throughout the year, with continuous updates to reflect changes in legislation, regulatory outcomes, prevailing economic conditions, or any other significant events.[278]

The key objective of the long-range planning process is to develop a financial plan that enables Eversource to achieve its capital and strategic needs on a long-term basis and build investor confidence in Eversource's financial health.[279] A presentation containing components of the final Eversource LRP and the Eversource Corporate Operating Plan is presented publicly to investors and analysts in February of the following year.[280] The investor presentation highlights capital expenditures, the prior year's financial results, and long-term growth projections.[281]

1.7.1.1. Major Participants

The following groups, all located within the Finance organization reporting to the Eversource CFO, are responsible for assisting all departments to create capital, O&M, and other financial projections, and to track and report monthly performance results of the long and short-term planning processes:

CFF group: A subset of the Financial Strategy group,[282] the CFF group is responsible for the Eversource LRP and directs the overall long-term budgeting and financial forecasting effort, provides initial guidance to functions on required assumptions, and creates, maintains, and updates the financial forecasts through their financial models. This group is led by Jonathan Kallen, who recently transitioned to the Financial Strategy group from the Financial Planning and Analysis group.[283]

Financial Planning and Analysis ("FP&A") group: This group is led by Daniel Driscoll, the Vice President of FP&A, who is a direct report to the Eversource CFO. This group is responsible for the Corporate Operating Plan and carries out short-term budgeting, forecasting, and variance analysis functions for all Eversource subsidiaries. Budget support from the FP&A group, specifically the Investment Planning group described below, is embedded within each Eversource department.

Investment Planning group: Each Eversource department has a dedicated budget analyst called an "FP&A lead"[284] from the Investment Planning group who assists in the development of the budget and supports that organization all year long for short-term and long-term planning efforts.[285] FP&A leads from the Investment Planning group who assist the Electric and Gas Operations and capital planning groups are described below:[286]

Director of Investment Planning, Electric (Leanne Landry): provides financial support to each of the state Electric Operations organizations (including CL&P) and supporting areas, and for the consolidated roll-up at the Eversource level. There are 128 individuals in this group that support operations in three states, with 57 directly supporting Connecticut operations. The group also

[278] Response to FTI-033.
[279] Ibid.
[280] Interview with Director, Corporate Financial Strategy, Eversource Energy (Jeffrey Normant), June 27, 2023.
[281] Response to FTI-795, Att. 2(ES).
[282] Response to FTI-281, Att. 2(ES).
[283] Response to FTI-731.
[284] Response to FTI-281, Att. 3(ES).
[285] Response to FTI-033.
[286] Response to FTI-231.

compiles the annual and long-term plan and monthly financial performance results for O&M expenses and capital and provides back-office functions such as timesheet and invoice processing.

Director of Investment Planning, Gas (Thomas Desrosiers): provides all financial support for the Gas Operations business including annual and long-term budgeting and tracking. The 11 individuals in this group support across all Eversource gas subsidiaries, with none directly assigned to YGS.

Department leadership: Personnel from various departments assume leading roles in their respective department's long-term Strategic Capital Planning process.

1.7.1.2. Key Components

The Eversource LRP is complex and consists of over 30 components.[287] In February, to initiate the LRP process, the CFF group issues a "Critical Path Schedule" to all Eversource departments that requests information, establishes a process timeline, and provides templates for each component.[288] An abridged version of the Critical Path Schedule is shown below in Figure 1-15.

Item	Responsible Department
Forecast Instructions and Detailed Schedule	FP&A
YGS Regulatory Asset Build-up & Amortization	Revenue and Regulatory Accounting
Uncollectible Expenses by Operating Company	Revenue and Regulatory Accounting
Regulatory Amortizations by Balance Sheet Account – Operating Companies	Revenue and Regulatory Accounting
Debt Amortization Expenses	Accounting
Power Purchase Energy Wholesale Revenues & Expenses, Contract for Differences	Electric Supply Corporate Finance and Cash Mgmt.
Electric & Gas Distribution Sales and Revenue by Operating Company	Budgeting and Financial Analysis
Energy Efficiency Expense and Incentive by Operating Company	Energy Efficiency
Interest Rates (Long-, short-term and Prime); Bank Fees Amortization and Payments	Corporate Finance and Cash Mgmt.
Supply Pricing – Standard Offer Expenses	Electric Supply
YGS Cost of Gas (PGA) and Fuel Supplies	Gas Supply
Aquarion Water Company Financial Forecasts, including Rate Base & Financing	Aquarion Water Company
CapEx Templates for Electric Distribution Projects	Budgets and Investment Planning
CapEx Templates for YGS, NSTAR Gas, and EGMA	Budgets and Investment Planning
CapEx Templates for Operations Services Projects	Budgets and Investment Planning
CapEx Templates for Shared Service- IT Projects	Information Technology
CapEx Templates for Shared Service- Facility Projects	Real Estate & Property Mgmt. Facility Operations
CapEx Templates for Shared Service- Customer Group Projects	Customer Operations
CapEx Templates for Engineering Projects	Budgets and Investment Planning
"Draft 1" Consolidated Model Results	Financial Forecasting and Analysis
Tax Depreciation and Book Depreciation subject to normalization	Taxes
1st Senior Team Review	FP&A and Senior Team
"Draft 2" Consolidated Model Results	Financial Forecasting and Analysis
2nd Senior Team Review	FP&A and Senior Team
Senior Team Approves 2023-2027 LRP	Senior Team

[287] Response to FTI-281, Att. 2(ES).
[288] Response to FTI-033.

BOT presentation, approval of 2023-2027 LRP	Eversource CFO

Figure 1-14 Key Components of Eversource's 2023-2027 LRP, from the Critical Path Schedule issued by the CFF group[289]

1.7.1.3. Timeline

Eversource's LRP process occurs prior to the short-term Corporate Operating Planning process.[290] The LRP process takes place between February and June and the short-term Corporate Operating Planning process begins two months later in August; this allows the first year of the Eversource LRP to serve as the basis for the more detailed and granular Eversource Corporate Operating Plan.[291] For example, the 2023-2027 LRP was developed between February and June 2022, as shown below in Figure 1-16.

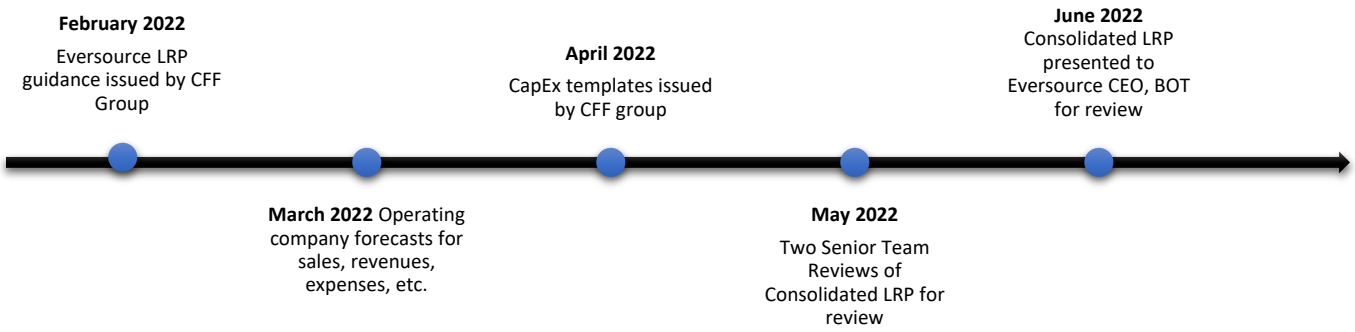


Figure 1-15 Abridged Eversource 2023-2027 LRP Process[292, 293]

1.7.1.4. Process

Each February, once financial models have been updated to incorporate final accounting balances from the prior year's close, the CFF group issues the Critical Path Schedule summarized in Figure 1-2 above. Each department submits their completed standardized templates to the CFF group, which compiles all needed inputs for the long-term forecasting model. The Critical Path Schedule requirements provide minimal financial guidance, except for a flat O&M projection based on the current year's budget.[294]

Capital Component of the Eversource LRP

Capital expenditure ("CapEx") templates are issued to shared service departments such as Engineering, Facilities, and IT, and to the individual operating companies: CL&P, PSNH, and NSTAR Electric for electric distribution projects, and YGS, EGMA, and NSTAR Gas for gas distribution projects. Other items are also company-specific, such as electric supply pricing, uncollectible expenses, power purchase revenue and expenses, and energy efficiency expenses. One exception is AWC, which submits an all-inclusive budget to the CFF group roughly one month after the long-term planning process begins.[295]

[289] Response to FTI-281, Att. 2(ES).
[290] Interview with Controller, Aquarion Company (Debra Kirven), May 9, 2023.
[291] Interview with Assistant Treasurer, Corporate Finance and Cash Management, Eversource Energy (Emilie O'Neil), June 15, 2023; Interview with Chief Financial Officer, Eversource Energy (John Moreira), April 17, 2023.
[292] Response to FTI-281, Att. 2(ES).
[293] This 2022 timeline is accelerated, as the BOT's June Strategic Retreat was "several weeks" earlier than in years past.
[294] Response to FTI-281.
[295] Response to FTI-281, Att. 2(ES).

Over 8-12 weeks beginning in April, Eversource departments populate capital budget templates issued by the CFF group and develop capital forecast estimates for the next five years from the bottom up. Beginning with the 2022-2026 LRP development process, project variances from the prior year's projections are required to be developed and provided in parallel with the capital plans.[296]

FP&A leads for CL&P and YGS work closely with leaders of all operations disciplines and the Engineering group to consolidate the capital costs of all functions within the CT Company. In parallel, the Operations and Engineering groups prepare a presentation with variance and cost justifications at the project level. The Investment Planning group confirms the CT Company's costs and variances and presents the Strategic Capital Plan results to the Eversource COO for his approval before the final Strategic Capital Plan is sent to the CFF group.[297] For Aquarion, the long-term capital budget is built into capital project authorizations, allowing department leaders to input authorized projects into their capital budgets.[298] For more information on CL&P, YGS, and Aquarion's long-term capital planning processes, see Sections 1.7.2 and 1.7.3.

5-Year Financial Forecast

Simultaneously, the CFF group maintains and updates a five-year financial forecast model that includes annual dividend levels, capital structure, ROE, and many other financial assumptions provided through the Critical Path Schedule. The Eversource Treasury department provides the Financial Strategy group with initial assumptions and any changes in financing and costs of capital for the forecasting model. The Treasury group maintains insight into the capital requirements of each of the CT Companies to determine the size and timing of potential long-term debt issuances, capital contributions, short-term funding, and dividend payments.[299]

The CFF group, upon receipt of each department's capital budget in April, analyzes any changes and corroborates expectations across disciplines to ensure strategic business initiatives, regulatory developments, and recent or pending legislation are properly reflected in the Eversource LRP. The CFF group also integrates the five-year CT Companies financial forecast into the Eversource LRP.[300] Once the Eversource LRP is finalized by the CFF group and approved by the Senior Team, the Eversource CFO presents it to the full Eversource BOT[301] and the rest of the Senior Team in June at the BOT's "June Strategic Retreat."[302] The Eversource BOT reviews, but does not formally approve, the Eversource LRP at that retreat.[303]

The Eversource BOT's review of Year 1 of the LRP in June also serves as a starting point for the Eversource Corporate Operating Plan.[304] Certain elements of both the Eversource LRP and the Eversource Corporate

[296] Response to FTI-033; Response to FTI-281, Att. 3(ES).
[297] Interview with Director, Investment Planning, Eversource Energy (Leanne Landry), May 10, 2023.
[298] Interview with Chief Information Officer and Director, IT, Aquarion Company (Ken Zima), June 29, 2023.
[299] Interview with Assistant Treasurer, Corporate Finance and Cash Management, Eversource Energy (Emilie O'Neil) June 15, 2023; Response to FTI-319.
[300] Interview with Chief Financial Officer, Eversource Energy (John Moreira), April 17, 2023.
[301] Response to FTI-281, Att. 2(ES); Interview with Chief Financial Officer, Eversource Energy (John Moreira), April 17, 2023. The full Eversource BOT approves the LRP at the June Strategic Retreat, rather than the Finance Committee of the BOT; therefore, the LRP presentation contains only a high-level financial forecast.
[302] Response to FTI-281, Att. 1(ES).
[303] Response to FTI-794.
[304] Interview with Vice President, Controller and Chief Accounting Officer, Eversource Energy (Jay Buth), June 14, 2023.

Operating Plan (capital expenditures, the prior year's financial results, and long-term growth projections) are released to investors in February of the following year.[305]

1.7.1.5. Outputs

[redacted] through [redacted] depict excerpts from the 2023-2027 Eversource LRP as presented to the full Eversource BOT and the Senior Team at the June 2022 Strategic Retreat.

[redacted]

[redacted]

[redacted]

[redacted]

[305] Response to FTI-795; Interview with Director, Corporate Financial Strategy, Eversource Energy (Jeffrey Normant), June 27, 2023; Interview with Chief Financial Officer, Eversource Energy (John Moreira), April 17, 2023.

[redacted]

1.7.2. Long-Term Planning: Connecticut Light & Power and Yankee Gas Services' Strategic Capital Plans

The CL&P and YGS five-year Strategic Capital Plans serve as inputs to the consolidated Eversource LRP.[310] The Strategic Capital Plans are built using a "bottom-up" approach, with initial input coming from the joint efforts of the Engineering department at the Eversource COO level and the Operations departments within each CT Company. The initial guidance to these groups is based on Year 1 of the Eversource LRP. State-level managers and their direct reports factor in all projects necessary to run their business safely, reliably, and in compliance with state policy objectives and mandatory regulatory requirements. Comparisons to the prior year's budget are made and variances explained.[311]

1.7.2.1. Major Participants

The following groups provide key input into the Strategic Capital Plan process for CL&P and YGS:

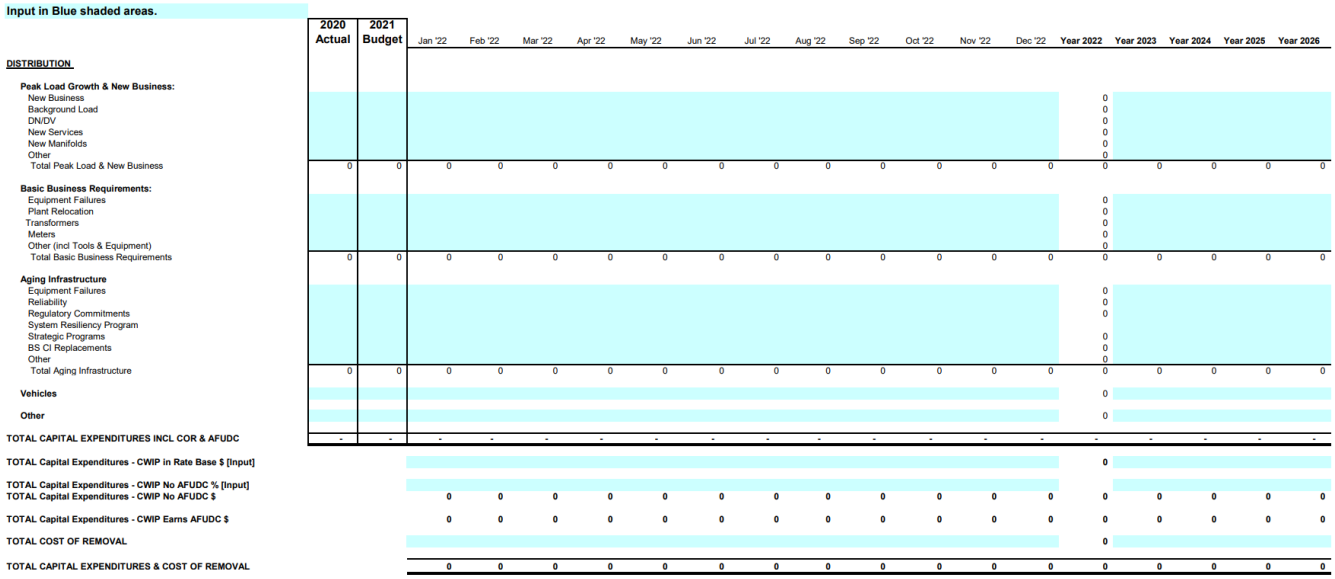
Business Planning Group: The Business Planning Group consists of employees from the Eversource-wide Finance, Engineering, and Electric Operations or Gas Operations departments, some of which are dedicated to the state of Connecticut. The Business Planning Group liaises frequently with the CL&P and Gas Distribution Presidents to discuss Plan progress and results.[312] The Finance department is represented by the Investment Planning group. The Engineering department, which directs CL&P and YGS' long-term capital planning processes, is led by Aftab Khan, the Senior Vice President of Engineering and a direct report to the Eversource COO. The Operations department employees help the business units prepare their initial capital inputs.[313]

The Investment Planning group: As explained above in 1.7.1.1, each Eversource department has an "FP&A lead."

1.7.2.2. Key Components

As shown in the Critical Path Schedule in Figure 1-15, each Eversource department, including Electric Distribution, Gas Distribution, and Engineering, populates and submits the standard CapEx template with assistance from the FP&A leads, which is then integrated into the Eversource LRP. For example, for the 2022-2026 Planning cycle, the CapEx template includes distribution project categories from the 2021-2025 LRP, 2020 actuals, the 2021 budget, monthly projections for 2022, and annual projections for the years 2023-2026, as shown in Figure 1-21. The template also includes line items for CapEx including Allowance for Funds Used During Construction ("AFUDC") and removal costs.

[310] Interview with President, Connecticut Light & Power (Stephen Sullivan), March 27, 2023.
[311] Interview with Director, Investment Planning, Eversource Energy (Leanne Landry), May 10, 2023.
[312] Response to FTI-023.
[313] Response to FTI-734.



Input in Blue shaded areas.

	2020 Actual	2021 Budget	Jan '22	Feb '22	Mar '22	Apr '22	May '22	Jun '22	Jul '22	Aug '22	Sep '22	Oct '22	Nov '22	Dec '22	Year 2022	Year 2023	Year 2024	Year 2025	Year 2026
DISTRIBUTION																			
Peak Load Growth & New Business:																			
New Business															0				
Background Load															0				
DN/DV															0				
New Services															0				
New Manifolds															0				
Other															0				
Total Peak Load & New Business	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Basic Business Requirements:																			
Equipment Failures															0				
Plant Relocation															0				
Transformers															0				
Meters															0				
Other (incl Tools & Equipment)															0				
Total Basic Business Requirements	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Aging Infrastructure																			
Equipment Failures															0				
Reliability															0				
Regulatory Commitments															0				
System Resiliency Program																			
Strategic Programs															0				
BS CI Replacements															0				
Other															0				
Total Aging Infrastructure	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Vehicles															0				
Other															0				
TOTAL CAPITAL EXPENDITURES INCL COR & AFUDC	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TOTAL Capital Expenditures - CWIP in Rate Base $ [Input]															0				
TOTAL Capital Expenditures - CWIP No AFUDC % [Input]																			
TOTAL Capital Expenditures - CWIP No AFUDC $			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL Capital Expenditures - CWIP Earns AFUDC $			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL COST OF REMOVAL															0				
TOTAL CAPITAL EXPENDITURES & COST OF REMOVAL			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Figure 1-16 CL&P and YGS Distribution CapEx Template, 2022-2026[314]

1.7.2.3. Timeline

Long-term Planning at the operating company and function level begins at the same time as the Eversource LRP process in February, with CapEx templates issued to CL&P, YGS, and the Engineering group in April, as shown in Figure 1-15. The resultant CapEx forecasts are reviewed and approved during the April/May timeframe by management (the Eversource COO and CFO). Final review of the consolidated Eversource long-term capital forecast occurs at the Eversource BOT's June retreat. There, the preliminary LRP is presented, showing the following year's preliminary earnings per share and also the projected five-year growth.

In Figure 1-22, CL&P and YGS milestones are highlighted. The April/May review is technically part of the Eversource-wide process, but the only Eversource-level attendees of those review sessions are the Eversource COO and the FP&A leads, since the CT Company Presidents have already approved the capital forecasts.[315] The Eversource CFO also approves the forecast after the Eversource COO.

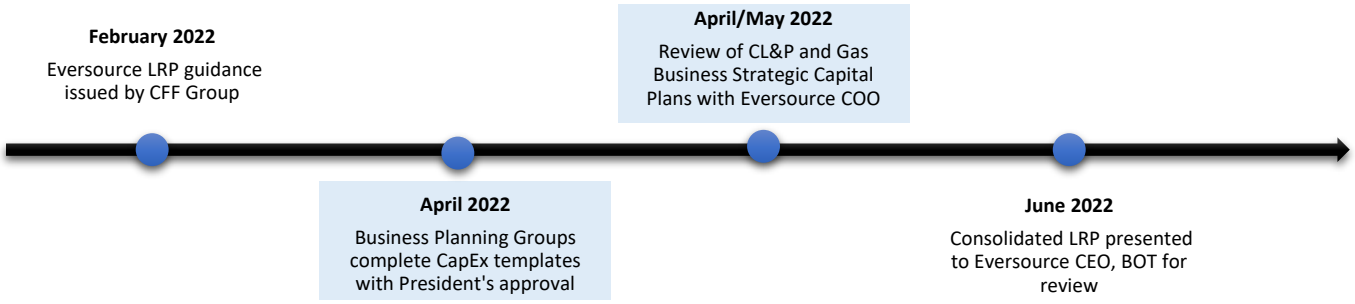


Figure 1-17 Abridged Eversource 2023-2027 LRP Process, Denoting CL&P and YGS-Specific Milestones[316]

[314] Response to FTI-281, Att. 9(ES).
[315] Response to FTI-277.
[316] Response to FTI-281, Att. 2(ES); Response to FTI-033.

1.7.2.4. Process

The Strategic Capital Planning process for both CL&P and YGS occurs concurrently to Eversource's LRP process, as Strategic Capital Plans serve as inputs to the Eversource LRP. In February prior to Year 1, the CFF group issues guidance and a capital budget template to each CT Company.

Each CT Company's Business Planning Group develops capital forecast estimates over an 8–12-week period. Each operating area of CL&P and YGS, whether representing a geographic work region or a functional area, presents its capital plan and resource requirements to the CL&P President or Gas Distribution President and Eversource COO for review, and, with their input, presents the resulting capital plan and resource requirements to the Business Planning Group for consideration. The capital plans presented by the operating areas to the Business Planning Group are input into five-year planning models maintained by the Investment Planning group, and the results are evaluated relative to operational performance targets and financial goals.[317]

Each CT Company's Strategic Capital Plan template is reviewed in April or May prior to Year 1. For example, the 2023-2027 CL&P and YGS Strategic Capital Plan review sessions took place in May and April 2022, respectively. Key CL&P Strategic Capital Plan review session attendees include the Eversource COO, the CL&P President, the Senior Vice President of Engineering, CL&P's Investment Planning FP&A leads, and, notably, the Presidents and Investment Planning representatives from Massachusetts and New Hampshire. Key Gas Business Strategic Capital Plan review session attendees include the Eversource COO, the Gas Distribution President, and both CL&P and YGS' Investment Planning FP&A leads.[318] Once finalized, each CT Company provides the five-year capital forecasts to the CFF group for inclusion into the Eversource LRP, which is presented to the Eversource BOT each June for review.[319]

1.7.2.5. Outputs

The Business Planning Group develops a Strategic Capital Plan with CapEx that balances financial and performance targets. The YGS Strategic Capital Plan is developed concurrently with an overall Gas Business Strategic Capital Plan.[320] Figures [redacted] and [redacted] depict highlights from the 2023 Connecticut Electric Operations Strategic Capital Plan and the 2023 Gas Business Strategic Capital Plan, respectively.

[317] Response to FTI-023.
[318] Response to FTI-277.
[319] Response to FTI-033.
[320] Response to FTI-277, Att. 1(YGS) (confidential and redacted); Response to FTI-735.

[redacted]

1.7.3. Long-Term Planning: Aquarion's 5-Year Plan

Aquarion has a separate process for long-term planning that predates its acquisition by Eversource. Aquarion prepares a 5-Year Plan that includes projected income statements, balance sheets, and statements of cash flows. Various assumptions are used to determine the annual O&M expense projections, along with movements in the balance sheet and cash flows. In addition, Aquarion develops five-year capital spending forecasts consistent with Eversource's LRP templates using a variety of sources including Water Supply Plans, Master Plans, Capital Improvement Plans, and applicable regulatory commitments.[323]

Aquarion's all-inclusive 5-Year Plan is an input to the annual Eversource-wide LRP process. The 5-Year Plan Aquarion submits to Eversource's CFO contains forecasts for all aspects of the business, including both operations and shared services.

1.7.3.1. Major Participants

The following groups provide key input into the long-term planning process for Aquarion: [324]

Aquarion's Engineering and Planning group: This group is led by the Vice President of Engineering and Planning and Real Estate (Daniel Lawrence), who directs both the 5-Year Plan and the Annual Capital Budget development processes.

[redacted]

[323] Response to FTI-033.

[324] Response to FTI-277.

Aquarion's Director of Taxes: This Director incorporates financial documents and coordinates with counterparts at Eversource. Separate from the long-term model run by the Engineering and Planning group, Aquarion's Director of Taxes runs a five-year financial model for all three AWC entities: AWC-MA, AWC-NH, and AWC-CT. The Director of Taxes aggregates all 5-Year Plan components in Figure 1-25 below into his model.

Aquarion's Finance group: This group includes the Controller, the Director of Rates and Regulation, and the Director of Taxes. The Aquarion Finance group is responsible for all other inputs to the 5-Year Plan, including projected rate relief from future rate cases.

1.7.3.2. Key Components

The Aquarion 5-Year Plan includes:[325]

- Consolidated long-term capital and operating income projections;
- Rate case activity, capitalization, and rate relief requirements;
- Balance sheets and statements of cash flows;
- Financial and CapEx projections for each subsidiary.

The 5-Year Plan assumes certain regulatory values, such as Aquarion's capital structure and ROE each year, and derives projected long-term and short-term borrowings and necessary capital contributions to fund Aquarion's capital spending program.[326] Figure 1-25 shows the full list of components that the 5-Year Plan contains, and the Aquarion Lead assigned to each workstream.

Component	Aquarion Lead
Overall 5-Year Plan Model	Director of Taxes (Michael Appicelli)
Capital Spending Forecasts	Vice President, Engineering and Planning and Real Estate (Daniel Lawrence)
Income Statements, Balance Sheets, and Cash Flow Statements	Director of Taxes (Michael Appicelli)
O&M Costs	Annual Inflator
Long- and Short-Term Interest Rates	Manager, Treasury Operations (Aquarion-dedicated Eversource employee) (DJ Smiarowski)
Projected Pension and Retiree Medical Costs	Aquarion actuaries for each plan
Projected Rate Relief	Director, Rates and Regulation group (Debra Szabo)
All Other Inputs	Aquarion's Finance Group (Michael Appicelli, Debra Kirven)

Figure 1-18 Aquarion's 5-Year Plan Components and Workstream Leads[327]

[325] Response to FTI-233.
[326] Ibid.
[327] Response to FTI-277.

Separate budget models are maintained for each AWC entity: AWC-MA, AWC-NH, and AWC-CT. These three models are presented in both consolidated form and individual form to Eversource-level executives.[328]

1.7.3.3. Timeline

Aquarion prepares its 5-Year Plan each spring (March-May) alongside Eversource's LRP process. For example, the 2023-2027 5-Year Plan was completed in May 2022, as shown in Figure 1-26 below.

Figure 1-19 Abridged Eversource 2023-2027 LRP Process, Denoting Aquarion-Specific Milestones[329]

1.7.3.4. Process

In March Aquarion's Director of Taxes incorporates financial documents such as income statements, balance sheets, and cash flow statements into a forward-looking model. For the income statement, Aquarion's forecast for the current year serves as the starting point for the 5-Year Plan. Likewise, for the balance sheet, Aquarion's forecast for the current year serves as the starting point for Aquarion's balance sheet projections.[330]

Aquarion's Director of Taxes coordinates with Eversource to standardize certain assumptions. Eversource's tax department provides the annual inflator that is applied to most O&M costs, pensions, and retiree medical expenses based on actuarial projections.[331] An Aquarion-dedicated employee from Eversource's Treasury group also helps Aquarion's Director of Taxes standardize long- and short-term interest rates to the other Eversource subsidiaries.[332]

In early April, the Eversource COO and his direct report, the Aquarion President, review the 5-Year Plan to ensure the model and analysis is attainable and the assumptions are reasonable. Also in attendance are Aquarion's Vice President of Engineering, Planning and Real Estate, and Eversource's Director of Investment Planning. [333] The final Plan is sent to Eversource's CFO in May for integration into the LRP.

1.7.3.5. Outputs

Aquarion's 2023-2027 5-Year Plan includes both consolidated Aquarion-wide financial and state-specific AWC-CT projections. [redacted] through [redacted] detail Aquarion's financial and CapEx projections, as well as a

[328] Response to FTI-277, Att. 1(AQ) (confidential and redacted).
[329] Response to FTI-281, Att. 2(ES); Response to FTI-277.
[330] Response to FTI-033; Interview with Director, Taxes, Aquarion Company (Michael Appicelli), May 10, 2023.
[331] Interview with Director, Taxes, Aquarion Company (Michael Appicelli), May 10, 2023; Response to FTI-277.
[332] Response to FTI-277.
[333] Ibid.

comparison of 2023 projections to 2021 actuals and the 2022 forecast from the previous iteration of the 5-Year Plan.

According to [redacted], much of Aquarion's long-term growth is predicated upon "revenue increases throughout the projection period due to rate cases in 2022 and 2025." However, in 2022, these rate case results did not come to pass. Aquarion's projections at the time were premised upon a $22.7 million revenue increase, however, the PURA rejected the rate increase and instead reduced Aquarion's revenues.[337] Aquarion has filed an appeal in a Connecticut Superior Court which was rejected. The case is now before the State's Supreme Court.[338,339]

1.7.4. Short-Term Planning: Eversource's Corporate Operating Plan

Each Eversource department, including the CT Companies, follows a standardized, Corporate Operating Planning process. The objective of each department's Corporate Operating Planning process is to conduct an in-depth review and analysis of both O&M expenses and capital projects to ultimately ensure that each department is meeting its own goals and requirements. The result is the Eversource-wide Corporate Operating Plan, which contains a complete one-year financial forecast with full P+L for each Eversource department.[340]

1.7.4.1. Major Participants

Figure 1-30 depicts the Eversource departments and the major O&M cost categories that their Corporate Operating Plans (or Aquarion's Annual Budgets) contain. Short-term Corporate Operating Plans for CL&P and YGS will be discussed in Section 1.7.5.

Eversource Departments Submitting O&M Budgets	Cost Categories Budgeted
• Electric Operations CT (discussed in Section 1.7.5) • Electric Operations MA • Electric Operations NH • Electric Transmission • Gas Operations (discussed in Section 1.7.5) • Aquarion Water Company (discussed in Section X) • Engineering • Operations Services (incl. vegetation management) • Customer Group • Communications, External Affairs & Sustainability • CFO • Human Resources • Information Technology • General Counsel • CEO • Corporate areas (incl. employee benefits)	• Labor (incl. straight time, non-productive time, overtime, and other) • Employee Expenses • Fees & Payments • Materials • Outside Services • Vehicles • Reimbursements • Benefits • Other *(Cost categories may vary depending on the nature of the department's work)*

Figure 1-20 Eversource Departments Submitting Capital and O&M Budgets Annually, with Cost Categories[341]

[337] Final Decision, Docket No. 22-07-01, "Application of Aquarion Water Company of Connecticut to Amend its Rate Schedule."
[338] Order 438570, Docket No. HHBCV236078177S *Aquarion Water Company of Connecticut v. Public Utilities Regulatory Authority,* Superior Court of New Britain, April 5, 2023.
[339] https://www.hartfordbusiness.com/article/ct-supreme-court-to-hear-aquarion-rate-case-appeal.
[340] Response to FTI-033.
[341] Ibid.

The following groups provide key input into the Corporate Operating Plan process (see section 1.7.1.1 for more detail on FP&A and Investment Planning): [342]

FP&A group: FP&A acts as an intermediary between groups. After discussions with the Senior Team, the FP&A group communicates capital and O&M budget targets and key target metrics to the departmental budget teams, who are led by Vice President-level employees.

Investment Planning group: For CL&P and YGS, the Investment Planning group works hand-in-hand with the broader FP&A group to represent their operating company through dedicated FP&A leads.

Budgeting and Financial Analysis group: A subset of the FP&A group, this group has overall management and oversight responsibilities for the annual budgeting process. This group begins the short-term planning process by distributing a Budget Manual for guidance. No individuals in this organization directly support CL&P or YGS.

Corporate Performance Management group: A subset of the FP&A group which acts as a liaison between the Senior Team and departmental budget leaders throughout the budgeting process by tracking key metrics and Initiatives for each department. This group coordinates the establishment and measurement of corporate performance Initiatives and key performance indicators, oversees performance improvement initiatives during the year, and supports regulatory filing requirements. For more information on corporate performance metrics and Initiatives, see Section 1.7.4.5.

1.7.4.2. Timeline

Eversource's Corporate Operating Planning process runs between August of the preceding year and February of the budget year. For example, the Corporate Operating Plan encompassing calendar year 2022 was developed between August 2021 and February 2022, as shown below in Figure 1-31.

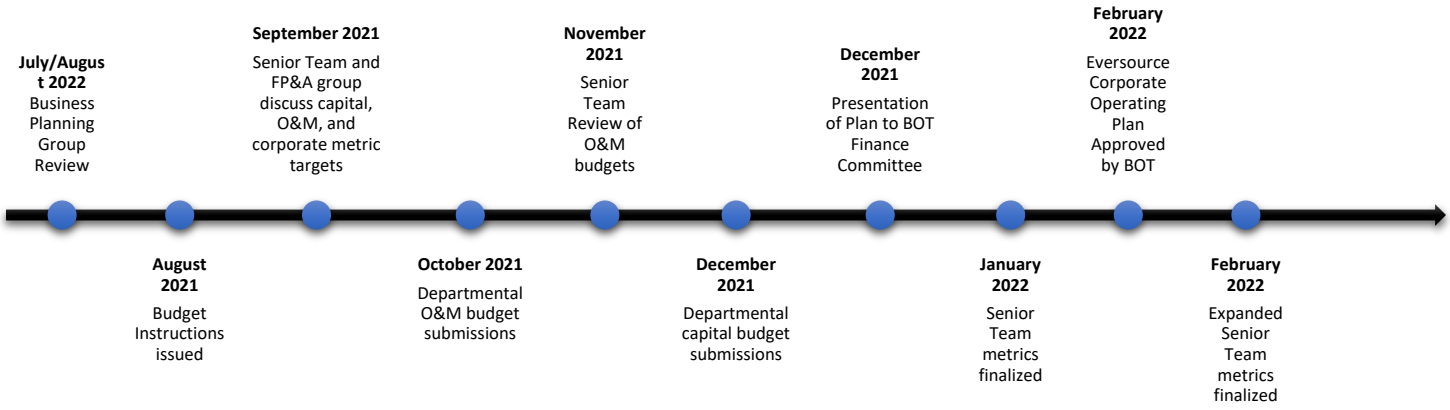


Figure 1-21 Eversource's Abridged 2022 Short-Term Budgeting Process[343]

1.7.4.3. Process

The first year of the Strategic Capital Plan is used as the basis for the upcoming year's Corporate Operating Plan. The Strategic Capital Plan has two components: an O&M and a capital budget.

[342] Response to FTI-233, Att. 2(ES) (confidential); Response to FTI-033.
[343] Response to FTI-233, Att. 2(ES) (confidential).

Detailed O&M Component of the Corporate Operating Plan

The annual detailed O&M budget process begins in August, when the Budgeting and Financial Analysis group distributes a budget manual and communicates O&M budget targets to each Eversource department. The budget targets are a high-level guide for each organization's total O&M costs in the upcoming budget year.[344]

O&M budget development is a detailed process, accounting for any updates to regulatory mechanisms, changes in market conditions, labor developments, impacts to benefit programs, and other factors specific to each organization. The O&M budget undergoes a review with department leadership and the CT Company Presidents to ensure accuracy and the ability to meet customer needs.[345]

The O&M targets are adjusted by considering a combination of the prior year's trends and known information for the upcoming year. Labor budgets are based on a combination of current employee positions and salaries, merit increase assumptions, and forecasted attrition and hires based on workforce requirements. Labor budgets are specific to each business area and account for any known labor contract changes.[346]

Each CT Company President is substantially involved in the approval of the detailed operations O&M budgets prior to the overall incorporation into the total Operations department budget, which is then approved by the Eversource COO for consolidation into the overall Operations department budget.[347] The O&M budgets are submitted to the FP&A team in early October and presented to the Eversource CFO and Eversource CEO in mid-October and, once approved, are incorporated into the Eversource Corporate Operating Plan.[348]

Capital Component of the Corporate Operating Plan

The capital component of the Corporate Operating Plan is based on Year 1 of the CT Company's Strategic Capital Plan (see Sections 1.7.2 and 1.7.3).[349]

In late October and early November, all departments defend their individual capital budgets before the Eversource CFO and CEO. Each Eversource department's capital budget is finalized in December. Concurrently, the Corporate Performance Management group, in consultation with the Senior Team and departmental leadership, determines an annual set of scorecard metrics and Strategic Initiatives (further explained in Section 1.7.4.5 below) as part of the Corporate Operating Planning process. The process results in an Eversource-level performance report, and department-level performance reports, both with scorecard metrics and Strategic Initiatives, which are monitored for monthly performance by the Senior Team.[350]

The FP&A group uses the database tool IBM Planning Analytics to input and maintain each Eversource department's short- and long-term budgets. When all proposed budgets are accepted, they are compiled and incorporated into the tool to form the operating company-specific and the Eversource Corporate Operating Plans.[351]

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[344] Response to FTI-033.
[345] Ibid.
[346] Ibid.
[347] Ibid.
[348] Ibid.
[349] Response to FTI-023.
[350] Response to FTI-288.
[351] Response to FTI-033.

Throughout the entire Eversource-wide Corporate Operating Planning process, the Eversource CEO and the Eversource CFO are kept apprised on the status of the planning processes. Once the Corporate Operating Plan is finalized, the Eversource CFO presents the preliminary consolidated annual Eversource Corporate Operating Plan, with a detailed financial forecast, at the BOT's Finance Committee meeting in December. The final Corporate Operating Plan is reviewed and approved by the full BOT at its February meeting.[352] The Corporate Operating Plan includes a full P+L statement at the consolidated Eversource level. Following the full BOT review, a formal vote is called by the Chairman of the BOT to approve the Eversource Corporate Operating Plan.[353]

1.7.4.4. Outputs

[redacted] through [redacted] depict excerpts from the 2022 Eversource Corporate Operating Plan as they were presented to the Eversource BOT's Finance Committee in December 2021.

[redacted]

[352] Response to FTI-795.
[353] Response to FTI-655.
[redacted]

1.7.4.5. Corporate Performance Strategic Initiatives and Metrics

The annual Corporate Operating Planning process results in performance targets, which are developed by the Corporate Performance Management group (a subset of the FP&A group in the Finance business unit) in conjunction with the Senior Team and departmental leadership.[359] The Corporate Performance Management group tracks progress in real time via PowerBI dashboards. There is a performance report for Eversource and for each Eversource department (with its respective Senior Leader responsible), with both a scorecard with metrics for numeric targets such as CapEx or SAIDI, and a set of annually updated "Strategic Initiatives" for day-to-day business operations such as rate case filings or vendor risk management. Scorecards represent a snapshot of monthly performance, whereas Strategic Initiatives are inclusive of the entire year's progress and include timelines for achievement. Prior to 2022, scorecards combined Connecticut and Massachusetts results.[360]

The purpose of the dashboards is to report on each Leader and their department's performance in a consolidated fashion. Department leaders can easily view progress on performance metrics and the year's Strategic Initiatives, which are tracked and recorded regularly for timely results. The Senior Team and/or expanded leadership are also able to view the dashboards.[361] This allows expanded leadership to address underperforming metrics and identify corrective actions. Additionally, some metrics are included in determining employee incentive compensation.[362]

The Corporate Performance Management group creates two types of performance reports to track performance metrics: the "Senior Team package," which contains metrics and tasks assigned to Senior Team members and is reviewed at Senior Team meetings; and the "Expanded Senior Team package," which contains metrics and tasks assigned to Eversource functional leaders (including CT Company Presidents and their officers) and is presented monthly at Expanded Senior Team meetings.[363] The Corporate Performance Management group reviews Strategic Initiatives and scorecard metrics' performance weekly with the Senior Team and monthly with the Expanded Senior Team.

The Corporate Performance Management group is responsible for identifying industry trends and organizing each Eversource Corporate Operating Plan around a specific theme. For example, the 2023 Eversource Corporate Operating Plan's theme is the "clean energy future."[364] Themes are based on a combination of industry benchmarks, historical performance trends, operational budgets, and specific plans for business performance in key areas.[365]

Many Eversource departments also benchmark their metrics by submitting them to the Edison Electric Institute ("EEI"), an association of investor-owned electric utilities. The Corporate Performance Management group then gathers all EEI benchmark data and provides it to departmental leadership, who can in turn search for best practices and set Strategic Initiatives and scorecard metrics congruent with other utilities.[366]

[359] Response to FTI-286; Interview with COO, Eversource Energy (Werner Schweiger), April 12, 2023.
[360] Response to FTI-276.
[361] Response to FTI-117.
[362] Response to FTI-256.
[363] Interview with Director, Performance Management, Eversource Energy (Elizabeth Foley), June 26, 2023.
[364] Ibid.
[365] Ibid.
[366] Ibid.

Scorecards

Scorecards are created as part of the dashboards for each Eversource department in addition to the company as a whole, as shown below in [redacted]. Eversource-wide Scorecards have metrics that are categorized into Customer, Employee, Reliable Operations, Community, Clean Energy or Financial groupings, while department-level scorecards may have additional, organization-specific categories such as Project Management for IT. Figure 1-37 shows a sample Eversource-wide scorecard, and [redacted] depicts one of 16 department-level scorecards[367] shown in the Senior Team package, featuring a subset of metrics found in the Eversource-wide scorecards. For example, Employee DART-OSHA Rate is seen in both scorecards below.

[redacted]

[367] Corporate Relations & Sustainability, Customer Experience and Energy Strategy, Chief Customer Officer, HR, IT, CFO, COO, General Counsel, Gas Operations, Aquarion, CT Electric Operations, MA Electric Operations, NH Electric Operations, Engineering, Transmission, and Offshore Wind, [redacted]

Strategic Initiatives

The Corporate Performance Management group creates, with the help of all the departments, Strategic Initiatives (actions needed to arrive at a financial target) that Eversource leaders use to run the business.[370] Incomplete and/or multi-year Strategic Initiatives are carried over into the next year's planning process, along with the addition of new Strategic Initiatives. Initiatives are established during the Corporate Operating Planning Process, but the process allows for adjustments as needed to address emergent business circumstances throughout the year.[371]

Strategic Initiatives are sorted into categories that may change year-over-year, but are often carried over to the following year, as shown in Figure 1-39.

2021 Categories for Strategic Initiatives	2022 Categories for Strategic Initiatives
• Strengthen People and Culture • Position Eversource for Long-Term Strategic Growth • Strengthen Eversource Brand • Integration of Eversource Gas of MA • Transform Storm Response to Meet Customer and Community Expectations	• Strengthen People and Culture • Position Eversource for Long-Term Strategic Growth • Strengthen Eversource Stakeholder Relationships • Enhance Customer and Operational Performance

Figure 1-22 2021 and 2022 Categories for the Senior Team Strategic Initiatives [372]

[370] Interview with Director, Performance Management, Eversource Energy (Elizabeth Foley), June 26, 2023; Response to FTI-288.
[371] Response to FTI-733.
[372] Response to FTI-150, Atts. 6-7(ES) (confidential and redacted).

[redacted] through [redacted] below depict examples of Strategic Initiatives that the Corporate Performance Management group conceptualizes with the Senior Team during each budgeting cycle. For Eversource-wide Strategic Initiatives, the Corporate Performance Management team assigns each Strategic Initiative to a Senior Team member(s) or a department leader(s) and assesses the department's performance on a monthly basis on a scale of Complete/On Track/Off Track/At Risk.

Reviewing dashboards across years, the Categories (e.g. Reliable Operations, Community) generally do not change, while the individual metrics (e.g. SAIDI, Employee Volunteerism) see some change in name and numeric target. We do see substantial year over year changes for Strategic Initiatives, which tend to follow current events such as the EGMA acquisition or rate cases (see [redacted]).[373]

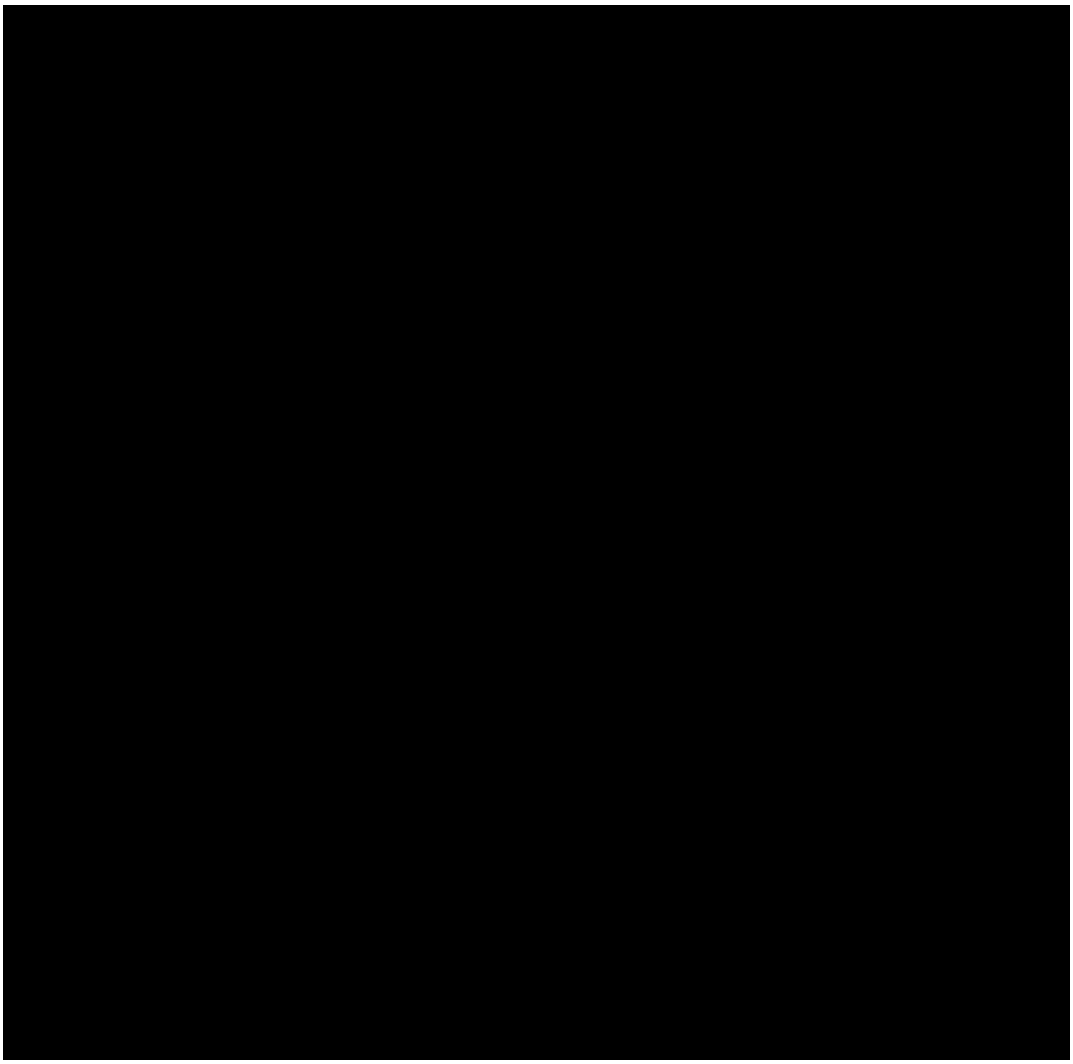
[redacted]

[373] Response to FTI-150, Atts. 4-7(ES) (confidential and redacted)

[redacted]

In addition to the Eversource-wide Strategic Initiatives, each department has its own Strategic Initiatives that are presented as part of its department dashboard, alongside its scorecard metrics. [redacted] below shows the Strategic Initiatives that are included as part of the CFO's organization's dashboard. These dashboard pages include the same Strategic Initiatives included in the Senior Leaders' Eversource-wide dashboard (see "Develop Strategies for Storm Cost Securitization" and "Rate Cases" in both [redacted] and [redacted]), plus additional Initiatives that are added throughout the year to address present business concerns.[376]

[375] Ibid.
[376] Ibid.



Eversource-wide Strategic Initiatives are standardized across the company; however, different operating companies can work towards different Initiatives based on their own needs. For example, in the Safety department, the two corporate-wide foci are development of the Eversource Safety Management System and prevention of motor vehicle accidents. Departmental leadership (the Vice President of Safety and his Directors) develops the Initiatives based on prior performance gaps and prompts from the regulator. Vice Presidents and Presidents from business units approve the Safety group's proposed Initiatives, and each operating company President has "leading" and "lagging" indicator targets for achievement of those. However, at the operating company level, the Safety organization (whose staff is embedded in the Operations organization) can determine unique Initiatives for each operating company per its needs, such as reducing motor vehicle incidents, and report them to the Corporate Performance Management group, which manages company-wide dashboards. [378]

[378] Interview with Vice President, Safety, Eversource Energy (Kenneth Bogler), August 14, 2023.

CT Companies Dashboards

The CT Companies each have their own dashboards which include both scorecard metrics and Strategic Initiatives. CL&P and Aquarion have their own dashboards, while all of Gas Operations shares one dashboard, as shown in [redacted] though [redacted] below.

[redacted]

[redacted]

[redacted]

[redacted]

[redacted]

[redacted]

Interaction between Scorecards and Strategic Initiatives

Although the Scorecards and Strategic Initiatives are presented as separate pages in the Senior Team and Expanded Senior Team packages, their major categories follow similar themes, as shown in Figure 1-49 below.

[redacted]

2022 Categories for Scorecards	2022 Categories for Strategic Initiatives
• Employee • Reliable Operations • Community • Customer • Clean Energy • Financial	• Strengthen People and Culture • Position Eversource for Long-Term Strategic Growth • Strengthen Eversource Stakeholder Relationships • Enhance Customer and Operational Performance

Figure 1-23 2022 Categories Scorecards and Strategic Initiatives [385]

Scorecard Metrics are analyzed in the categories used for Strategic Initiatives during Executive Performance Review sessions as shown in [redacted] below, which shows metrics from the Eversource-wide Scorecard in [redacted] labelled under the Strategic Initiative category shown in [redacted]. The Strategic Initiative categories analyzed vary by month, and do not include all dashboard metrics tracked across all Scorecards.

[redacted]

[redacted]

[385] Response to FTI-150, Atts. 6-7(ES) (confidential and redacted).
[redacted]

1.7.4.6. Budget Monitoring and Variance Reporting

The CL&P, Gas Distribution, and Aquarion Presidents are responsible for managing their respective distribution operations and capital budgets throughout the year. They work closely with their directors and managers to ensure the details of their budget align with the company's goals and requirements. On a monthly basis, CT Company Presidents can view detailed O&M and Capital reports in the Financial Performance System ("FPS") dashboard application, which provide actual, budgeted, and variance information by cost category. These reports can be accessed by functional organization leadership, as well as subordinates and analysts that oversee cost control centers within the functional organization. Actual, budget, and variance information is reported by cost category for O&M, and by project category for capital.[387]

The CT Companies prepare a monthly reporting package that is sent to Eversource that includes variance analyses for its financial and non-financial metrics, operating results with month and year-to-date figures compared to prior year and budget, CapEx by major program area (month and year-to-date), and status of corporate Initiatives.[388]

Budget analysts assigned to operating departments communicate regularly with the owners of each functional organization to assist in the identification of variance drivers. FP&A leads communicate regularly with the CT Company Presidents to help them understand their results. In addition, the FP&A leads meet monthly with the Vice President of FP&A to review the O&M and Capital detail reports and discuss major drivers of variances. Ultimately, through this process, each organization reforecasts its respective budget's and annual Corporate Operating Plan's expected year-end results.[389]

Throughout the year, budget performance is reported to various levels of Eversource management:

Eversource COO: Each month, at the "Leadership Team Company Results" meeting, the CT Company Presidents present a consolidated Operations financial briefing to the Eversource COO. The variance reporting includes financial highlights, key industry trends (supply chain disruptions, fuel pricings, etc.), O&M and capital budget variances at the operating company and major division level (safety, engineering, etc.), O&M budget and capital variances at the cost element level (Labor, Materials, etc.), Aquarion O&M budget variances at the department level (Engineering, Administration, etc.), Aquarion capital budget variances at the state and project category level (Metering, Reliability, etc.), staffing capital and O&M budget variances including overtime analysis, storm expenses and deferred costs to date by state, and operational items such as meter inventory and active work order counts.[390] [redacted] and [redacted] depict excerpts from these financial briefings.

Eversource Leadership: The Vice President of FP&A prepares monthly Eversource-wide financial briefings and routinely discusses with the Eversource CEO, Eversource CFO, and Eversource Controller. The monthly briefing includes analysis of actual monthly financial results (expense and capital) compared to the Eversource Corporate Operating Plan. The Vice President of FP&A identifies each material budget-to-actual variance and its driver. Drivers are generally related to business-plan changes (e.g., project starts a month ahead of time, an especially cold heating month, etc.). The objective of the Vice President of FP&A's

[387] Response to FTI-033.
[388] Response to FTI-287, Att. 4(ES) (confidential and redacted).
[389] Response to FTI-033.
[390] Response to FTI-690.

presentation and budget-to-actual comparison is to enable continuous oversight by high-level Eversource executives.[391]

Subsidiary Boards: Each of the CT Companies also provides annual budget variance reports to their respective subsidiary Board of Directors. These high-level financial reports include operating company-specific O&M budget comparisons and variance analyses. [redacted] through [redacted] depict excerpts from budget variance reports, which each include an income statement and a balance sheet with commentary.

[redacted]

[391] Response to FTI-033.
[redacted]

1.7.5. Short-Term Planning: Connecticut Light & Power and Yankee Gas Services' Corporate Operating Plans

The CL&P and YGS Corporate Operating Plans consist of capital and O&M components. The capital components are based on the first year of the five-year Strategic Capital Plans described above in 1.7.2, and are a subset of the broader Eversource Corporate Operating Plan described above in Section 1.7.4.

1.7.5.1. Major Participants

The following groups provide key inputs to CL&P and YGS' short-term planning processes:[397]

Engineering group: CL&P and YGS' Corporate Operating Plans are developed by the Engineering group, with input from the Electric/Gas Operations group and the CL&P/Gas Distribution Presidents.

Investment Planning group: As explained above in 1.7.1.1, each Eversource department has an "FP&A lead." Investment Planning FP&A leads Leanne Landry (CL&P) and Tom DesRosiers (YGS) are embedded in their respective organizations to assist with the budget planning process.

1.7.5.2. Timeline

CL&P and YGS' Corporate Operating Plan development process takes place between August and December each year. For example, the Corporate Operating Plan encompassing calendar year 2022 was developed between August 2021 and December 2021, as shown in Figure 1-56; CL&P and YGS milestones are highlighted.

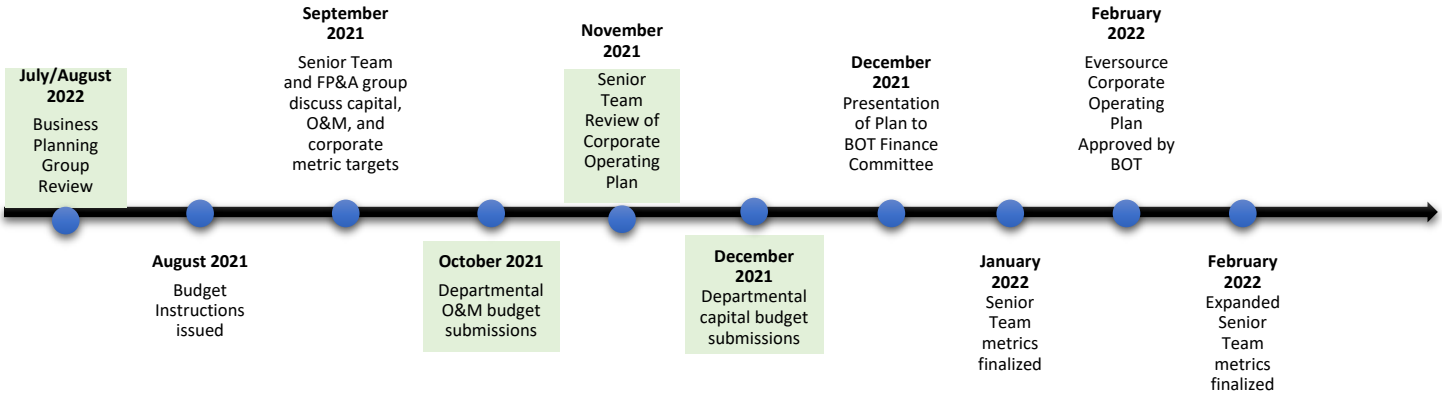


Figure 1-24 CL&P and YGS' 2022 Corporate Operating Plan Development Timeline[398]

1.7.5.3. Process

Capital and O&M Corporate Operating Plan development, as part of the larger Eversource short-term planning effort, occurs during the summer and fall for the following calendar year. Following the Eversource BOT's June review of the Eversource LRP, CL&P, YGS, and the Business Planning Groups meet in July and using the first forecast year (Year 1) of their Strategic Capital Plans as a target, begin to update and finalize their detailed capital forecasts and projects for the Corporate Operating Plan.

In August, the Vice President of FP&A presents and discusses the proposed capital and O&M targets with each member of the Senior Team. The Budget & Financial Analysis group within FP&A issues a Budget Manual to all FP&A leads (Ms. Landry for CL&P and Mr. DesRosiers for YGS). The Budget Manual contains a high-level guide for each department's O&M costs in the upcoming budget year, an overview of departmental budgeting guidelines,

[397] Response to FTI-023.
[398] Response to FTI-233, Att. 2(ES) (confidential).

significant process updates for the current budget year, and a calendar for the current budget cycle. Attachments to the manual contain detailed instructions for data entry into the budgeting information system for labor and operating costs. FP&A leads work with each cost center in their organization to develop each function's capital and O&M budgets from the bottom up; all O&M costs originating from the EESC are allocated to operating companies.[399] The Eversource CFO also offers guidance to each organization. For example, the Eversource CFO may propose constraints such as percentage limits on budget deviations.[400]

Each department's senior officers, for example, the Eversource COO and his direct reports including the CT Company Presidents, present their respective proposed O&M (October) and capital (December) budgets to the Eversource CFO and the Vice President of FP&A. If the organization deviates from their previous year's budget target and/or the Eversource CFO's guidance, department leadership must justify their choices and propose actions to meet the target.[401] Participating Eversource departments that develop their own Corporate Operating Plans, which are then consolidated into an Eversource Corporate Operating Plan, are listed in Figure 1-30 above.

Operating company Presidents work with their directors and managers to review and present their budgets to the Eversource COO, who, as an individual who interacts frequently with the Eversource CFO, proposes iterations to the Presidents without involving the Eversource CFO directly. Once iterations with the Eversource COO are complete, the Eversource COO is responsible for presenting the overall Operations budget to the Eversource CFO and the Senior Team for review and approval in November.[402] After this, the budget is consolidated into the broader Eversource Corporate Operating Plan, as shown in Figure 1-56.

Below are descriptions of the Capital and O&M components of the Corporate Operating Plans.

Capital Component of the Corporate Operating Plan

All projects in the annual Corporate Operating Plan align with the financial and performance targets established in the long-term Strategic Capital Plan. A variety of factors determine which capital investments are necessary to achieve operating objectives, including aging infrastructure needs, system conditions, reliability performance, new customer growth, and resource availability. The Corporate Operating Plan's capital section consists of major projects and "Expanded Reliability" projects such as non-discretionary core projects to be funded during the upcoming year. CL&P's major capital projects, or the "total core capital program," consist of New Customer, Peak Load/Capacity, Basic Business, Regulatory Commitments, and Reliability categories.[403] YGS' major capital project categories are New Business, Basic Business, and Reliability. Capital programs in the Basic Business category are not prioritized but are updated annually based on forecasted business requirements.[404] Capital programs in the Reliability category are generally prioritized on an annual basis within the Gas Asset and Risk Management Program process, which is described in Chapter 2.

O&M Component of the Corporate Operating Plan

Because Eversource's planning process is organized by department rather than by subsidiary, it does not prepare or use O&M budget views at the utility subsidiary level (i.e., for CL&P and YGS). For example, the CL&P President

[399] Response to FTI-033.
[400] Interview with President, Gas Distribution (William Akley), March 29, 2023.
[401] Response to FTI-033.
[402] Response to FTI-033; Response to FTI-281, Att. 2(ES).
[403] Response to FTI-663, Att. 3(CLP).
[404] Response to FTI-023.

oversees the budget for all electric operations at the utility but does not have responsibility for corporate allocations to CL&P such as HR or IT shared services expenses.

O&M budgets are developed through a bottom-up process at the functional department level using a combination of prior year trends and known information for the upcoming year, as discussed in Section 1.7.4.3.[405]

1.7.5.4. Inter-Company Trade-offs

During their respective budget planning processes, Eversource's operating companies may sometimes need to make trade-offs amongst themselves. The operating company Presidents, the Eversource COO, the Eversource CFO, and the FP&A group collaborate closely throughout the year to achieve company-wide budget stability. The Eversource COO has a holistic view of all operating companies' needs, and communicates any constraints precipitated by out-of-state needs to the CT Company Presidents during the budget planning process. Three mechanisms exist to balance interests across Eversource:[406]

1. **Alternating Project Prioritizations:** Eversource's Engineering group maintains a rolling five-year planning horizon for CL&P, YGS, and Aquarion. The Engineering group evaluates system needs based upon new customer connections, asset conditions, equipment obsolescence, reliability performance, resiliency objectives and system capacity, and establishes priorities for the capital plan. Capital investment is prioritized primarily for mitigating risks for the system and meeting obligations for non-discretionary commitments, although other inputs are considered, such as number of customers impacted, cost, logistical considerations, and reliability improvement opportunities. Capital projects may be accelerated or delayed within the five-year planning horizon due to unforeseeable circumstances such as supply chain delays, permitting delays, or regulatory mandates.
2. **Flexibility with Budget Targets:** When risk exposure requires a department to exceed its initial target, individual budget participants and entire "project" groups meet to find opportunities for budget savings that offset any necessary budget increases.
3. **Continuing Capital Investment:** Eversource mitigates maintenance spending by investing in more efficient technology and capital investment in the distribution system. These "preventative" investments allow operating companies flexibility to manage O&M costs.

1.7.5.5. Budget Filing to the PURA

Each November, CL&P files the following year's capital plan with the PURA, and each May, CL&P files a budget-to-actual comparison to the long-term capital forecast, with detailed explanations for the year's capital spending. Any variances greater than 10% must be justified in the filing, as shown in [redacted]. [407,408] The PURA then issues a final decision in or around February of the following year, in which it accepts CL&P's reconciliation of balances for the prior calendar year.[409]

[405] Response to FTI-033.
[406] Interview with President, Gas Distribution (William Akley), March 29, 2023; Response to FTI-533.
[407] Response to FTI-662, Att. 3(CLP).
[408] Interview with Director, Investment Planning, Eversource Energy (Leanne Landry), May 10, 2023; Interview with Senior Vice President, Engineering, Eversource Energy (Aftab Khan), June 14, 2023.
[409] Final Decision, Docket No. 20-03-01, "PURA Annual Review of the Rate Adjustment Mechanisms of the Connecticut Light and Power Company."

YGS and Aquarion do not have the same capital budget filing requirements as CL&P. The PURA conducts an annual review of all local gas distribution companies' System Expansion Reconciliation Mechanisms which are not all-encompassing of the capital budget.[411] Separately, the PURA continues to monitor Aquarion's infrastructure, operational, and customer service activities through annual water infrastructure and conservation adjustment proceedings and periodic rate cases.[412]

1.7.6. Short-Term Planning: Aquarion's Annual Budgets

The Aquarion Annual Budgets are the foundation for the first year of the 5-Year Plan and are a subset of the broader Eversource Corporate Operating Plan described in Section 1.7.4. As in Aquarion's long-term planning process, separate budget models are maintained for each AWC entity, as explained in 1.7.3.2.[413]

1.7.6.1. Major Participants

The following groups provide key inputs to Aquarion's short-term planning processes:

Aquarion's Engineering and Planning group: Led by the Vice President of Engineering and Planning and Real Estate (Daniel Lawrence), the Engineering and Planning group directs both the 5-Year Plan and the Annual Capital Budget development processes. [414]

[411] Docket No. 13-06-02, "PURA Investigation of Connecticut's Local Distribution Companies' Proposed Expansion Plans to Comply with Connecticut's Comprehensive Energy Strategy."
[412] Response to FTI-267, Att. 7(ES); Response to
[413] Response to FTI-277, Att. 1(AQ) (confidential and redacted).
[414] Response to FTI-311.

Aquarion's Accounting Department: Accounting has ultimate responsibility for the O&M budgeting process.[415]

Aquarion's Controller: The Controller, Debra Kirven, is responsible for the Annual O&M Budget development process. Mr. Lawrence and Ms. Kirven report directly to the Aquarion President and the three work in tandem throughout the annual budgeting processes until final approvals are received at the Eversource level. [416]

The PMC: Aquarion's company-wide budget planning committee, the PMC, reviews and approves Aquarion's capital budgets on a monthly basis. The PMC is included in finalizing the Annual Capital Budget. [417]

1.7.6.2. Key Components

Aquarion's Annual Budgeting process is similar to Eversource's but does not follow Eversource's Budget Manual. Budgets are reviewed by Aquarion's leadership team and a "Capstone" presentation that synthesizes the business plan and budget is presented to the Eversource COO, Eversource CFO, and FP&A Vice President.[418] Figure 1-58 denotes Aquarion leaders with specific responsibility for a budget development workstream.

Activity	Aquarion Lead
Department Business Plan Development	President - Donald Morrissey
Performance Metric Targets	Controller - Debra Kirven
Major Initiatives	Controller - Debra Kirven
Risk Register	Director of Taxes - Michael Appicelli
Payroll Budget	Director of Human Resources - Brian Csizmadia
Capital Budget and 5-Year CapEx	Vice President, Engineering and Planning, Real Estate -Daniel Lawrence
Operating Budget	Controller - Debra Kirven
1-Year Capstone	All

Figure 1-25 Aquarion's Annual Capital and O&M Budget Activities and Leads[419]

1.7.6.1. Timeline

Aquarion's Annual Capital and O&M Budget development processes take place between August and October each year. As shown in Figure 1-59, eight interrelated processes occur concurrently and culminate in presentations to the Eversource CEO, the Eversource CFO, and the Vice President of FP&A. Aquarion's process concludes earlier than the CL&P and YGS processes so that Aquarion budgets can be incorporated into Eversource's in a timely manner. As shown in Figure 1-59, Aquarion's all-inclusive budget is submitted in October, whereas other Eversource departments submit their O&M budgets in October and capital budgets in December. [420]

[415] Response to FTI-233.
[416] Response to FTI-311.
[417] Response to FTI-312, Att. 1(AQ).
[418] Response to FTI-033.
[419] Ibid.
[420] Interview with President and COO, Aquarion Company (Donald Morrissey), April 5, 2023; Interview with Controller, Aquarion Company (Debra Kirven), May 9, 2023.

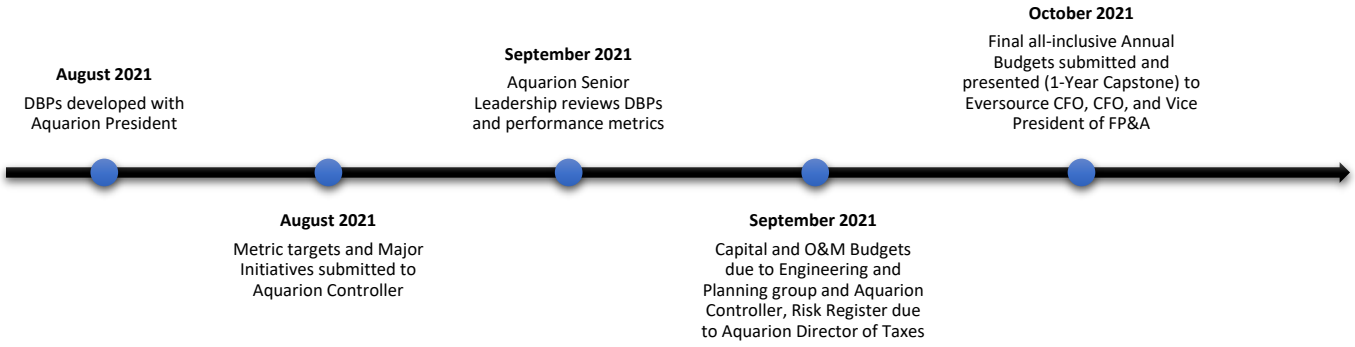


Figure 1-26 Aquarion's 2023 Annual Capital and O&M Budget Development Timeline[421]

1.7.6.2. Process

In early August, the leaders of Aquarion's approximately 20 major departments submit their group's Department Business Plan ("DBP") directly to the Aquarion President. DBPs detail the group's mission, key suppliers and customers, targets, risks, and Initiatives. Aquarion's department leaders submit their performance metrics and major Initiatives for the upcoming year to the Aquarion Controller, Debra Kirven, who is also responsible for O&M budgeting. [422]

Aquarion's company-wide budget planning committee, the PMC, reviews and approves Aquarion's capital budgets on a monthly basis. The PMC is included in finalizing the Annual Capital Budget: it reviews and approves the one-year (and five-year) capital budget forecasts prior to submission to Eversource.[423] All capital project prioritizations for projects over $100,000 are reviewed by the PMC.[424]Any capital budget additions, regardless of total project cost, must be approved by the PMC.[425]

In early August, concurrently with the development of DBPs, Aquarion's department leaders submit their group's capital budget requests, both short-term and long-term, to Mr. Lawrence and the Engineering and Planning group, including all supporting details, justifications, and assumptions used to arrive at the budgeted numbers.[426] Development of the DBPs guide the department leaders to identify the capital and O&M resources needed for the upcoming year. Notably, to further aid the development of the Annual Capital Budget, Aquarion's IT department has linked the long-term and annual capital budgeting processes to the PMC's monthly capital project authorizations, allowing department leaders to easily view and input their authorized projects into their capital budgets.[427]

While Mr. Lawrence directs the capital budgeting process, Aquarion's Director of Taxes and Director of HR budget their risk registers and compensation levels, respectively. These Directors seek approval directly from the Aquarion President. Then, Ms. Kirven and Mr. Lawrence work closely with the Directors to incorporate risk registers and payroll into their O&M and capital budgets. Notably, Ms. Kirven's Annual O&M Budget process lags

[421] Response to FTI-033.
[422] Response to FTI-033; Interview with Controller, Aquarion Company (Debra Kirven), May 9, 2023.
[423] Response to FTI-788.
[424] Response to FTI-312, Att. 1(AQ).
[425] Response to FTI-541, Att. 1(AQ) (confidential).
[426] Response to FTI-233.
[427] Interview with Chief Information Officer and Director, IT, Aquarion Company (Ken Zima), June 29, 2023.

Mr. Lawrence's Annual Capital Budget process by approximately one week. This way, the Engineering and Planning group may remove items from the payroll category and prevent their inclusion in the Annual O&M Budget.[428]

Aquarion does not use the IBM Planning Analytics tool. Operating and capital budgets are integrated into a planning calendar that includes the creation of annual business plans, performance metric targets, and key risk items. Spreadsheet budget templates for each operating department are generated from Aquarion's SAP accounting system that include the current year budget and forecast amounts for reference.[429]

In early September, all Aquarion Directors, Vice Presidents, and the Aquarion President (the "Aquarion Senior Team") meet to review each department's DBP, performance metrics, and major Initiatives. The Aquarion President and COO approves the DBPs, and Aquarion leadership may suggest adding or deleting a certain performance metric or adjusting a target.[430] The Aquarion Senior Team then reviews the Annual Capital Budget and 5-Year CapEx in mid-September, and the Annual Operating Budget in late September.[431] At these Annual Budget meetings, each department leader has 20-30 minutes to defend their group's budget, and any meeting attendee may comment on any department's budget. Then, the Aquarion Senior Team compares the Annual Budgets to the second year of the previous year's 5-Year plan. For example, for the 2023 Annual Budgets, the Aquarion Senior Team references Year 2 (2023) projections from the 2022-27 5-Year Plan.[432]

In October, Aquarion leadership presents its consolidated capital and O&M budgets to the Eversource COO for review, and in turn, the Eversource COO presents Aquarion's capital budgets to the Eversource CFO, the Eversource Vice President of FP&A, and eventually the Eversource CEO.[433]

1.7.7. Impact of the COVID-19 Pandemic and Ukraine Crisis on Planning Processes

For all three CT Companies, there was no impact on the timeline of the annual budget planning and long-term financial and strategic planning processes due to the COVID-19 pandemic and/or the Ukraine crisis.[434] However, due to COVID-19 restrictions, Eversource temporarily changed the structure and format of its BOT meetings during 2020, and as a result, no LRP presentation was developed.[435]

1.7.8. Local Leadership in the Planning Process

1.7.8.1. Connecticut Light & Power and Yankee Gas Services

The CL&P and Gas Distribution Presidents influence the Corporate Operating Plan and the Strategic Capital Plan with respect to their operational needs. During the annual budgeting process, the CL&P and YGS Presidents, with oversight and approval from the Eversource COO, are heavily involved in building their jurisdiction's bottom-up capital and O&M budgets. As shown in [redacted] and [redacted], the CL&P and YGS Presidents are responsible for their own Connecticut Electric Operations and Gas Business Operations respective metrics, capital budgets, and O&M expenses. For example, the CL&P President works in tandem with the Senior Vice President of

[428] Interview with Controller, Aquarion Company (Debra Kirven), May 9, 2023.
[429] Response to FTI-033; Interview with Director, Taxes, Aquarion Company (Michael Appicelli), May 10, 2023..
[430] Interview with Controller, Aquarion Company (Debra Kirven), May 9, 2023.
[431] Response to FTI-033.
[432] Interview with Controller, Aquarion Company (Debra Kirven), May 9, 2023.
[433] Response to FTI-281, Att. 2(ES).
[434] Response to FTI-340.
[435] Response to FTI-794.

Engineering and his Connecticut-dedicated direct report, the Vice President of Distribution Engineering, to determine five-year capital projections for CL&P's Strategic Capital Plan.[436]

CT Company Presidents have decision-making authority to accept or reject aspects of their organization's plans.[437] The Presidents ask the Eversource COO to approve budget increases, but conversely, if the Eversource COO directs either of the CL&P and YGS Presidents to reduce their budgets for any reason, the CT Company President has full discretion over which capital spending item(s) to reduce or postpone. They can also advocate against a budget reduction.[438]

Members of the Investment Planning group, a subset of the FP&A group, are embedded into the CL&P and YGS organizations as FP&A leads to assist the CL&P and YGS Presidents with budgeting and planning. In total, the Investment Planning group has around 15-20 financial employees dedicated to the state of Connecticut.[439] This support system allows the CL&P and YGS Presidents to focus on customer-facing, operational issues.[440]

Leanne Landry, Director of Investment Planning, works across all three states as the FP&A lead providing financial support to the electric transmission and distribution operations organizations, including annual Corporate Operating Plan development, Strategic Capital Plan development, budget-to-actual briefings, daily/monthly/annual performance analysis, and any ad hoc requests such as data requests or overtime analysis for projects. Ms. Landry interacts frequently with the CL&P President, the YGS President, the Aquarion President, the Eversource COO, and the Senior Vice President of Engineering. Notably, one of Ms. Landry's direct reports, a Manager of Budget and Investment Planning (Jeffrey Turano), is an FP&A Lead for Connecticut electric operations. Mr. Turano is dedicated to CL&P to manage O&M expenses and capital budgets and interacts frequently with the CL&P President. [441]

Ms. Landry's counterpart in the Gas Business is the Director of Investment Planning Thomas DesRosiers. Ms. Landry and Mr. DesRosiers work closely together to align, gain a holistic view of operating company budgets across Eversource, and use their insight to advise the CT Company Presidents on financial decisions. Ms. Landry and Mr. DesRosiers are extremely knowledgeable about operations and serve as liaisons to Eversource about budget planning issues.[442]

Ultimately, the CL&P and YGS Presidents are substantially involved in the development of capital and O&M budgets for their organizations, FP&A leads socialize proposed budget amendments with the CT Company Presidents, and the Eversource COO issues final budget approval. Local leadership within the Operations organization allows the Investment Planning group to aid decision-makings without lengthy discussion and approval with the FP&A group.[443]

1.7.8.2. Aquarion

Due to Aquarion's small size and autonomy relative to other Eversource subsidiaries, the Aquarion President, Donald Morrissey, oversees all aspects of the company and must deliver Aquarion's financial P+L to the net income

[436] Interview with President, Connecticut Light & Power (Stephen Sullivan), March 27, 2023.
[437] Interview with Senior Vice President, Engineering, Eversource Energy (Aftab Khan), June 14, 2023.
[438] Interview with President, Connecticut Light & Power (Stephen Sullivan), March 27, 2023.
[439] Interview with Director, Investment Planning, Eversource Energy (Leanne Landry), May 10, 2023.
[440] Interview with Chief Financial Officer, Eversource Energy (John Moreira), April 17, 2023.
[441] Interview with Director, Investment Planning, Eversource Energy (Leanne Landry), May 10, 2023.
[442] Interview with Vice President, Financial Planning & Analysis, Eversource Energy (Daniel Driscoll), July 7, 2023.
[443] Interview with Director, Investment Planning, Eversource Energy (Leanne Landry), May 10, 2023.

level.[444] Mr. Morrissey is also a member of the PMC, which authorizes capital projects on a monthly basis. Thus, Mr. Morrissey is one of three key leaders of the long-term and short-term planning processes, alongside Daniel Lawrence (responsible for long-term and short-term capital budgets) and Debra Kirven (responsible for short-term O&M budgets). [445]

1.8. Other Strategic Planning

The long-term and short-term capital and O&M planning processes described above are prepared by individual Eversource departments that are responsible for their own strategic and financial plans, which are aggregated into consolidated Eversource plans. However, certain major Initiatives require substantial collaboration between departments, and such initiatives may result in a separate strategic document separate from Eversource's consolidated plans.[446]

One example is the Clean Energy Strategy document, which is a collaboration between multiple shared service business units. [447] Consolidating key major initiatives in a strategy document places greater emphasis on Eversource's most salient goals and allows for corporate tracking on the monthly corporate scorecard described in Section 1.7.4.5.

Not all cross-cutting programs or strategies result in a change in the short-term and long-term capital or short-term O&M plans because the strategies may be policy-based and/or have not received legislative or regulatory support to proceed.[448]

Other similar strategic documents prepared by multiple departments include:[449]

- EGMA's Safety Assessment plan following the acquisition of Columbia Gas, which in turn influences the gas investment plan;
- The Energy Efficiency plan that is input into the Energy Efficiency Programs;
- The AMI plan in Massachusetts that was included as a cross-functional capital investment following approval by Massachusetts regulators.

There are no comparable strategic documents in Connecticut that are inputs into the short-term and long-term capital or short-term O&M plans.[450]

Recommendation: We recommend that Eversource internally document their long-term and short-term planning processes including timelines, responsibilities and in summary broad categories information required for the CT Companies. The internal document(s) should include the Strategic Capital Plan, 5-Year Plan, Corporate Operating Plan, Annual Capital Budget, and Annual O&M Budget and a description of the interrelationships between these various planning processes.

[444] Interview with President and COO, Aquarion Company (Donald Morrissey), April 5, 2023.
[445] Response to FTI-541, Att. 1(AQ) (confidential).
[446] Response to FTI-704.
[447] Response to FTI-654, Att. 2(ES); Response to FTI-704.
[448] Response to FTI-704.
[449] Ibid.
[450] Ibid.

Recommendation: We further recommend Eversource include in the documentation for the Strategic Capital Plan and Annual Capital Budget for the CT Companies how the capital spending categories benefits Connecticut customers as well as how the capital spend is meeting state regulatory and energy policy objectives.

1.9. Internal Audit

The internal audit organization is situated under the Chief General Counsel, while oversight of the internal audit function rests with the BOT's Audit Committee. In accordance with its Charter, the Audit Committee is specifically authorized to perform the following activities:[451]

- Approve the appointment, replacement, reassignment, or dismissal of the senior internal auditing executive;
- Delegate to the Chair of the Audit Committee an annual review of the senior internal audit executive's compensation, independence, and succession planning;
- Review the significant reports to management prepared by the internal auditing department and management's responses;
- Approve the annual internal audit plan and significant changes to that plan;
- Review with the internal auditing department, management and independent registered public accountants the internal audit department responsibilities, budget and staffing and any recommended changes in the planned scope of the internal audit and ensure that there are no restrictions placed on the internal audit process;
- Review and approve the Internal Audit Charter;
- Review the results of internal and external quality assessments.

The Vice President of Internal Audit and Security attends the quarterly meetings of the Audit Committee. Each meeting includes reviews of completed internal audits and investigations (planned and unplanned), audit plan status, open audit recommendations, and updates on Sarbanes Oxley ("SOX") internal controls testing.

In addition, information is provided to the Audit Committee at least annually including, but not limited to, the audit plan for the upcoming year, Strategic Plan, annual objectives, and department-level quality assurance projects. The Vice President of Internal Audit and Security, together with the Vice President, Controller, and Chief Accounting Officer annually submit the Report of System of Internal Controls that includes, among other topics, the overall results of SOX testing, a summary of compliance hotline complaints, and an assessment of Eversource's internal control environment.

The Vice President of Internal Audit and Security is provided the opportunity to meet privately with the Audit Committee at the quarterly Audit Committee meetings.[452]

1.9.1. Internal Audit Organization

Ronald Smith, the Vice President of Internal Audit and Security, reports in a solid-line fashion (administratively) to Greg Butler, Executive Vice President and General Counsel, and in a dotted-line fashion (functionally) to the BOT's Audit Committee.[453] The department is organized into four functional areas, each overseen by an Internal Audit

[451] Response to FTI-292, Att. 3(ES).
[452] Response to FTI-211, Att. 1(ES).
[453] Response to FTI-209.

Manager, as shown below in Figure 1-60. Mr. Smith, while not formally holding the title of "Chief Security Officer," is also responsible for the corporate security group comprised of eight employees not shown below.

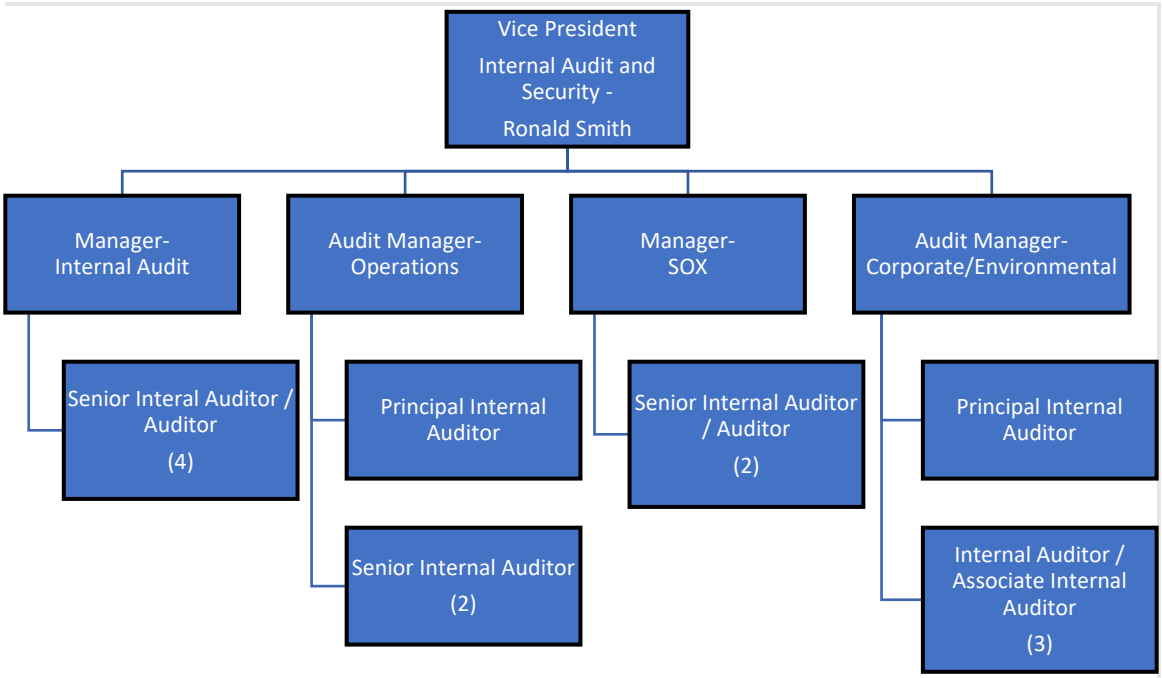


Figure 1-27 Internal Audit Organizational Chart[454]

The internal audit managers and their direct reports specialize in different subject areas:[455]

- **Manager - Internal Audit:** performs IT audits in areas such as cybersecurity, systems implementations, and IT systems control testing for SOX compliance. Also oversees audits of the customer care function including metering, billing, collection, call center operations, and energy efficiency.
- **Audit Manager - Operations:** performs operational and compliance audits of the Eversource utility companies, including CL&P, YGS, and Aquarion.
- **Manager - SOX:** performs accounting-related audits and conducts SOX testing of internal controls over financial reporting.
- **Audit Manager - Corporate/Environmental:** audits administrative functions carried out at the Eversource corporate or service company level such as HR, purchasing, and regulatory functions. Eversource's unregulated businesses are also addressed by this team. Environmental auditing is performed to evaluate compliance with company environmental policies and procedures as well as regulatory requirements.

[454] Response to FTI-113, Att. 6(ES).
[455] Response to FTI-211, Att. 1(ES).

The internal audit department co-sources approximately six to eight audits annually with external accounting firms (other than their independent financial auditor) or consulting firms. Typically, these audits are in specialized areas, such as IT security, where the firms use proprietary tools to assist in conducting the audit.[456]

1.9.2. Internal Audit Plan

The audit planning process begins in the fall when the Vice President of Internal Audit and Security solicits feedback from Eversource management for input into the Internal Audit plan. During this time, the Internal Audit group updates its audit universe spreadsheets which are used as tools for identifying areas of high risk and potential audits.[457] A process timeline is shown in Figure 1-61.

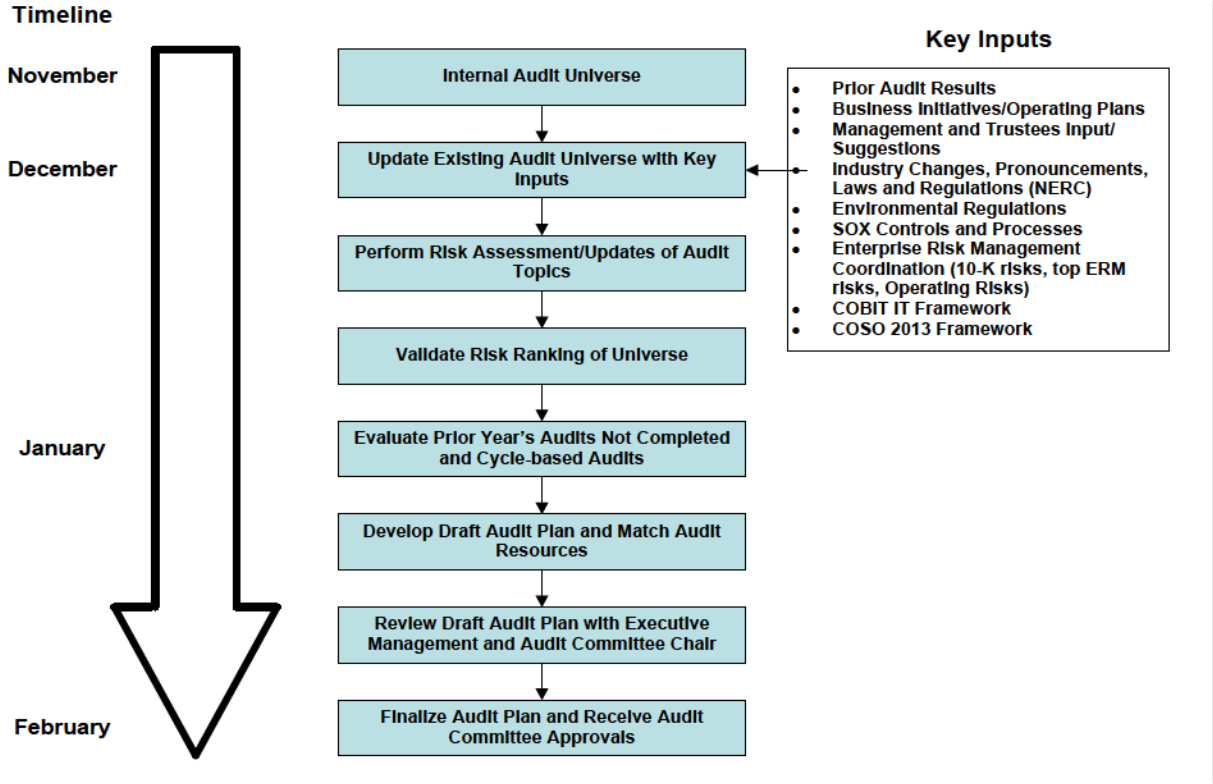


Figure 1-28 Internal Audit Plan Development Timeline[458]

Audit universe updates include consideration of business initiatives, operating plans, enterprise risks, and risks identified on the Company's 10-K. Risk evaluations of audit areas encompass multiple factors, including financial, operational, and strategic.

In addition to audits derived from risk assessments, audit engagements on the plan may be prior year planned audits that were not performed, follow-ups of past audits rated as "needs improvement" or "unsatisfactory",

[457] Response to FTI-211, Att. 1(ES).
[458] Response to FTI-214.

cycle-based audits, management requests, or commitments to external parties (such as regulators or external auditors). Cyclical audits occur on timelines established based on the risk of the function. Most occur every three to five years, although areas with the lowest risk assessments may be addressed every 8-10 years.[459]

Planned audits are categorized using a scheduling priority. Priority "A" rated audits are planned to be completed during the current year. Priority "B" rated audits will be scheduled once all priority "A" rated audits have been completed. On a quarterly basis, the Vice President of Internal Audit and Security provides an update on the status of the audits on the audit plan to the Audit Committee.

As noted above, not all scheduled audits on the audit plan are completed each year. Management assigns hourly budgets to each audit project and allocates available staff time when the plan is assembled. However, time spent on unplanned management-requested audits and investigations cannot be reliably predicted, which has resulted in some Priority "A" audits not being performed. As shown in Figure 1-62, completion rates decreased during the global COVID-19 pandemic but recovered in 2022.

Year	Audits Completed	Completion Rate
2019	49 of 52	94.2%
2020	45 of 55	81.8%
2021	43 of 50	86.0%
2022	48 of 51	94.1%

Figure 1-29 Audit Plan Completion Rates, 2019-2022[460]

The audits not completed are included in audit plan status reports to the Audit Committee. FTI observed that all Priority "A" audits were completed as planned in the past four years. Management indicated that delayed audits did not result in critical internal controls or financial risks remaining unaddressed.[461]

1.9.3. Audit Processes and Procedures

Audit procedures are documented in a detailed Internal Audit Manual and conform to best practice standards issued by the Institute of Internal Auditors ("IIA").

Initial planning procedures are designed to enable the auditor to obtain an understanding of any unusual operating problems, critical audit areas, scope limitations, unusual accounting matters, timing and staffing considerations, and IT audit assistance. Additional planning objectives include obtaining performance measurement data, departmental policies and procedures, related reference material, and industry best practices. Planning information is thoroughly documented in part using a risk-based approach (as set forth in the Internal Audit Manual) and includes walkthroughs and flowcharts of operating systems. Planning concludes with an engagement memo issued to management outlining, among other things, the scope and planned audit procedures.

Fieldwork testing involves validating whether financial, operational or systems controls are effective. In situations where the audit area has a history of sound controls, the auditor will design tests so that a sample can be tested

[459] Interview with Vice President, Internal Audit and Security, Eversource Energy (Ronald Smith), March 3, 2023.
[460] Response to FTI-212, Att. 1(ES) (confidential), Att. 5(ES) (confidential), Att. 9(ES) (confidential); Response to FTI-394, Att. 1(ES) (confidential).
[461] Interview with Vice President, Internal Audit and Security, Eversource Energy (Ronald Smith), March 3, 2023.

both substantively and for compliance. If the results of the compliance tests indicate that the controls are not functioning as expected, substantive testing may be expanded.[462]

Audit workpapers are documented in AutoAudit, a Lotus Notes product. In addition, as appropriate the department uses flowcharting software and performs data analytics using Excel and a third-party software, ACL.[463] Workpaper reviews by managers are required and, at a minimum, include reviews of key documents such as the engagement memo, audit program and findings. The reviews are documented in AutoAudit which has a status field that indicates the review has been completed.

Findings and observations that are developed during the audit may become written "Opportunities for Improvement", which are documented in the audit report, verbal findings discussed with the auditee during the closing conference but not included in the audit report or findings passed due to immateriality. These designations are approved by the manager and Vice President of Internal Audit and Security during the audit review process. Written and verbal findings include recommendations for corrective actions to address the issues found.

Written findings require an action plan from management and a target implementation date. The internal audit group uses an issue tracking database, CATSWeb, to monitor the status of open audit findings. Findings are closed when management attests to the completion of action plans. For audit issues that present a significant level of risk (based on the professional judgment of the managers and VP), verification of the corrective actions is performed. Target date extensions are approved if the appropriate officer-level executive responsible for the mitigation plan agrees with the need to extend. Extensions are noted in monthly reports to senior management and quarterly reports to the Audit Committee.[464]

The number of open audit findings is subject to considerable variation due to the number of issues found during recent audits and the time needed to implement corrective action. Figure 1-63 shows open findings from quarterly Audit Committee reports immediately after year-end.

The number of open recommendations requiring implementation date extensions was relatively low in each sampled period. In addition, the number of observations requiring one year or longer to implement has

[462] Response to FTI-211, Att. 1(ES).
[463] Response to FTI-211, Att. 1(ES); Response to FTI-216.
[464] Response to FTI-211, Att. 1(ES).

decreased significantly in the last two years. Internal Audit measures implementation plan timeliness as a performance metric.

1.9.4. Internal Audit Reports

The Internal Audit group utilizes several written reports during the closing stages of an audit. A closing report is prepared at the conclusion of fieldwork that contains audit findings and observations. The closing report is discussed with management at the closing meeting. A draft audit report is subsequently issued to a limited group of management personnel within the audit scope. Management provides feedback on report content and uses the report findings and recommendations to develop mitigation plans. The formats of draft and final audit reports are standardized per the guidance in the Internal Audit Manual.[466] Final reports are issued when management's formal response and mitigation plans are received.

Rated reports contain a clear and concise overall conclusion on the area audited relative to the audit objectives and a summary of significant audit results. The following ratings are used:[467]

- Controlled - Internal control systems are functioning in an acceptable manner to provide reasonable assurance that management's control objectives are being achieved. Opportunities for improvement, if noted, are considered minor in nature.
- Controlled with Opportunities for Improvement - Internal control systems are functioning in an acceptable manner to provide reasonable assurance that management's control objectives are being achieved, but audit results show there are opportunities for improvement.
- Improvement Needed - Internal control systems are not functioning in a manner necessary to provide reasonable assurance that management's control objectives are being achieved. However, the control weakness is isolated to a program or activity that is not financially or operationally material to the Eversource system.
- Unsatisfactory - Internal control systems are not functioning in a manner necessary to provide reasonable assurance that management's control objectives are being achieved. The condition requires substantial improvements with more than usual management involvement and monitoring until controls are improved.

A significant number of internal audit projects, such as unplanned, management requested reviews, do not receive a report rating. The Vice President of Internal Audit and Security ultimately determines whether a rated report is issued. For unrated engagements a written memo documents audit conclusions and opportunities for improvement. Review findings typically do not require a formal written action plan but may be required if significant control issues are noted. In those instances, the mitigation plans require implementation dates and are included in the issue tracking systems and reports described above.

The Audit Committee receives summary reports each quarter that list the audits completed and contain a description of the audit results and conclusions, number of observations, and report rating (including audits that were unrated). A summary of internal audit report issuances is shown in Figure 1-64.

[466] Response to FTI-211, Att. 1(ES).
[467] Ibid.

[redacted]

Of the 132 rated audit reports in between 2019 and 2022, only three received a rating that indicated the audit area did not have adequately functioning internal control systems. The audits that received Improvement Needed ratings were:[469]

[redacted]

1.9.5. Quality Assurance and Performance Metrics

1.9.5.1. Internal Quality Assurance Procedures

The internal audit function uses several internal quality assessments ("QAs") to ensure that audit documentation conforms to the Internal Audit Manual. A designated QA auditor is tasked with workpaper reviews for sampled audits that have been recently completed. Procedures include verifying that audit objectives were met, key audit workpapers were present, and conclusions were supported. The auditor uses a QA review checklist and can denote the QA review on workpapers directly in AutoAudit. Audit engagements are selected for QA using the following guidelines:[470]

- Audits performed by a 1st or 2nd year auditor, or at the discretion of their respective manager.
- Audits where the exposure risk for compliance is high, as determined by department management.

[468] Response to FTI-212, Att. 1(ES) (confidential), Att. 5(ES) (confidential), Att. 9(ES) (confidential); Response to FTI-394, Att. 1(ES) (confidential).

[redacted]

[470] Response to FTI-392, Att. 1(ES).

- At least one audit engagement supervised by each manager is reviewed annually. Also, audit engagement sampling should consider selecting an audit from each Eversource operating company.
- All audits rated Improvement Needed or Unsatisfactory are assessed.

Managers also perform an annual review of departmental governance documents, communications, ethics, and staff training/competencies for compliance with IIA standards. The Vice President of Internal Audit and Security presents the results to senior management and the Audit Committee.

1.9.5.2. External Quality Assessment

In 2020 the Internal Audit group participated in an external quality assessment ("EQA") of the department's policies and practices for compliance with the IIA's International Standards for the Professional Practice of Internal Auditing, and the IIA Code of Ethics. The department was found overall to have "generally conformed" to the IIA Standards and Code of Ethics – the highest rating provided through the assessment process. Furthermore, the department received a similar top rating in all individual Standards and had no instances of noncompliance.[471]

The EQA report made many favorable observations during the course of the assessment, including:

- The department had a good blend of skills from a technical, financial, and operational perspective and individuals have relevant professional certifications.
- The Internal Audit group generally, and the VP Internal Audit & Security specifically, were found to have a "seat at the table" to effectively capture information related to emerging and/or challenging risk profiles. There was evidence of active coordination between the internal audit function and other assurance activities such as ERM.
- Internal Audit was clearly viewed as an inherent part of the governance structure by management and the Audit Committee.

The EQA also provided some recommendations for improvement, which included the following:

- Several recommendations were made to update or clarify provisions in the Internal Audit Charter and to use an "Internal Audit Charter Matrix" to monitor and report on the status of Charter requirements.
- Continue to develop and enhance competencies around computer-assisted audit techniques and data analytics.
- Add dimensions to audit reports that provide additional context for the overall audit conclusion as well as for individual observations.
- Develop detailed procedures for conducting assurance and consulting engagements.

The EQA report indicated that the Internal Audit group agreed with the recommendations, and enhancements were fully implemented by 2021.

1.9.5.3. Performance Indicators

Performance metrics establish benchmarks for monitoring performance throughout the year. Performance metric results are tracked each quarter and shared at Internal Audit department staff meetings and with management.

[471] Response to FTI-213, Att. 1(ES).

The performance metrics are also used for individual performance evaluations and goals. Results for the past three years are shown in Figure 1-65.

Eversource Energy, Inc. Internal Audit KPI Results, 2020-2022				
Key Performance Indicator	**2020 Actual**	**2021 Actual**	**2021/2022 Actual ***	**Goal**
Significant Audit Activities per Auditor (reports, investigations, etc.)	5.57	6	5.37	5-6
Audit Duration (days) (days from audit start to draft report issuance)	84	74	70	≤ 80
Draft Report Duration (days) (days from closing meeting to draft issuance)	7	4	3	≤ 5
Implemented Recommendations (% of recommendations implemented by management within 6 months for final reports issued)	86%	75%	75%	≥ 70%
* The measurement period was changed in 2022 from calendar year to a July-June fiscal year.				

Figure 1-30 Internal Audit Performance Metrics, 2020-2022[472]

Internal Audit underperformed relative to timeliness performance in 2020 but met all performance targets in 2021 and 2022.

[472] Response to FTI-212, Att. 11(ES) (confidential).

Chapter 2: System Operations

Introduction

This chapter evaluates the Gas, Electric and Water System Operations activities for the Connecticut Operating Companies ("Companies" or "Operating Companies") of Eversource Energy ("Eversource"), which includes Connecticut Light and Power ("CL&P"), Yankee Gas Service ("YGS") and Aquarion Water Company of Connecticut ("AWC-CT"). FTI's review of this area encompasses the following topics: evaluation of the organizational structure, analysis of how the Companies manage distribution assets, analysis of system planning activities, evaluation of system design practices, evaluation of project management processes and practices, analysis of operations and maintenance ("O&M") activities.

This chapter also evaluates Electric Distribution-specific activities including vegetation management and inspection programs, Gas Distribution-specific activities including system management, and the evaluation of all three operating companies' Emergency Response Plans.

Findings

Organization and Structure

1. Werner Schweiger, COO, retired from Eversource Summer 2023 and was replaced by James Hunt, Executive Vice President of Corporate Relations and Sustainability on an interim basis. On September 19, 2023, the Company announced Paul Chodak III as the permanent COO for Eversource Energy.
2. The role for the President of CL&P was developed as a result of a 2021 Settlement agreement which required dedicated leadership in the aftermath of Hurricane Isaias. Stephen Sullivan is the President of CL&P and is the primary point of contact which includes leading and responding to operational issues including storm response, power quality issues, and major projects and initiatives for the Company.
3. While there are dedicated resources for CL&P, Eversource Energy organizes many of their functions centrally to leverage the lessons learned across all the operating companies.
4. YGS is more centrally organized than CL&P with William Akley serving as the President for YGS as well as the other Eversource gas distribution companies. Mr. Akley also has more functional roles reporting to him than Mr. Sullivan.
5. AWC-CT is relatively self-sufficient organizationally and has a high level of independence. They remain coordinated with Eversource Energy through various processes and governance.
6. Emergency Preparedness is a shared service across all Eversource operating companies, and while AWC-CT maintains their own Emergency Preparedness plan and capabilities, they participate in best practice sharing.
7. Senior leadership noted no specific resourcing risks beside typical industry challenges, including an aging workforce and competition for resources in a constrained market.

Distribution Asset Management

8. Each Companies' Maintenance Manuals and maintenance/replacement approaches align to industry standards and best practices. The use of Cascade, Maximo and GIS to manage the Maintenance program also aligns to industry practices.
9. CL&P and YGS both have an older asset population which is similar in age to other utilities in the Northeast.
10. AWC-CT system consist of older assets on the supply side, but they have newer pipelines.
11. Over a 5-year period, CL&P reliability performed significantly better than the industry average for non-major outage events.
12. CL&P's Transmission and Distribution Reliability Performance report, issued annually, highlighted that tree related failures are a leading cause for outages.
13. 13 percent of CL&P substations are loaded near capacity and are expected to be overloaded within five years. Plans are underway to mitigate this concern.
14. YGS's five-year leak history indicates a general decline in leaks. The Company recognizes additional work remains by continuing to invest in their Accelerated Pipeline Replacement Program ("ARP"). The program will eliminate remaining cast-iron pipeline by 2029 and will support their goal of replacing all bare steel mains.
15. AWC-CT has an overall water main break rate of 0.1 per mile, which is better than the industry average of 21 to 27 breaks per 100 mile or .21 to .27 per mile.

System Planning

16. CL&P has been leveraging DER interconnection lessons learned from their sister Companies' in Massachusetts to ensure consistent application of best practices.
17. In response to PURA's docket no 17-12-03R07, CL&P has evaluated how their approach to Non-Wires Solutions ("NWS") will change from their current approach.
18. YGS models new gas connections by including load with a diversity factor where appropriate. However, they do not include load reduction factors such as energy efficiency in system design as a conservative practice for peak demand preparedness.
19. Of the 68 AWC-CT water systems, three fall below the "average day" MoS and five systems fall below "average month" Margin of Safety ("MoS"). Six water systems fall below the 1.15 MoS threshold for their maximum day margin of safety.

System Design

20. CL&P considers solution alternatives early in the project development process where two key drivers are considered, including "(1) maintaining and improving the safety and reliability of the distribution system for the benefit of all customers; and (2) accomplishing this goal at a reasonable cost." However, they do not appear to consider design alternatives for all projects during the detailed design phase.

21. YGS' approach to design alternatives is similar to CL&P's, but with differences due to the nature of work performed. For example, regulator station rebuilds and pipeline replacement projects generally require direct replacement which limit the opportunity for alternatives.

22. AWC-CT manages an alternative analysis process similar to CL&P and YGS. However, this analysis is not conducted for water main replacement work, because they are typically replacement in-kind.

Project Management

23. Under certain circumstances CL&P's Transmission organization is responsible for managing large and complex distribution, substation and transmission projects.

24. While the YGS Project Management Playbook and CL&P's Integrated Planning and Scheduling Process Playbook contain similar themes, CL&P's Playbook is focused on the work management process and less on Project Management Processes like YGS's Playbook. AWC-CT did not provide their project management playbook for review.

25. The tools used by the Companies to prioritize projects is inconsistent. CL&P referenced an Excel based tool. YGS did not indicate if any tool is used other than GAMES which is used to prioritize asset replacement not manage prioritization. AWC-CT does not use any tools to support prioritization.

26. CL&P uses a mix of contractors and internal crews to resource project work. YGS and AWC-CT use contractors for all project work. Most contracted work is paid through lump sum or competitive bids.

27. Project Management documentation was inconsistent between and within the Companies.

28. The Capital Plan vs Actual spend across the three Companies were mostly within tolerance, and any variances were not deemed systemic in nature.

Operations and Maintenance

29. Each Companies' five year historical spend verse budget indicates little variation with the exception of CL&P in 2017. The variation was due to an increase in storm activity which did not meet the threshold for major event qualification.

30. CL&P, YGS, and AWC-CT independently manage their Call Before You Dig ("CYBD") programs. CL&P completely outsources much of their CBYD responsibilities, YGS manages all activities internally, and AWC-CT manages most activities internally with an outsource pilot on-going.

31. AWC-CT CBYD budget has held relatively stable over the past 5 years. CL&P and YGS have both experienced increases beginning 2020. CL&P's budget increased 49 percent in 2021 and 2022 when compared to 2020. YGS budget increased 34 percent in 2021 and 27 percent in 2022 when compared to 2020. Ticket volume for CL&P increased 5 percent and 7.6 percent in 2021 and 2022 respectively when compared to 2020. YGS ticket volume increased 4.8 percent in 2021 when compared to 2020 but decreased by 6.5 percent in 2022 when compared to 2020.

32. YGS recently implemented their own OQ program that was developed internally to comply with US DOT standards.

Electric Distribution

33. The Vegetation Management program was recently reorganized under the Electric Engineering group to closely align this activity to the leader who is responsible for driving the operational performance (including reliability) of the electric assets.

34. A 5-year review of Vegetation Management performance indicates generally good results, with occasional challenge areas including "cost management", "quality performance", and "schedule performance" measures.

35. CL&P's historical budget versus actual spending indicates close alignment over the review period except for 2017 with a variation of just over 10 percent.

Gas Distribution

36. YGS's current ARP is projected to reduce the replacement timeline of pipelines from a projected 60 years to 20 years. The YGS leak mitigation program is more vigorous than the federal safety regulations and includes several winter patrols on all cast iron pipelines.

37. YGS did not have formal marketing plans for 2020 and 2021 due to reduced activity as a result of COVID restrictions. YGS halted marketing in August 2021, upon the opening of Docket No. 21- 08-24.

Emergency Response Plan

38. Eversource Energy's Emergency Preparedness is achieved through a hybrid shared and direct service model with high level planning and coordinated activities shared across the Companies.

39. All three Companies maintain their own Emergency Response plans that are responsive to their unique needs.

40. CL&P and YGS's ERPs provide details about their compliance with and utilization of the ICS, including applicable roles and responsibilities. AWC-CT plans, however, do not.

41. CL&P recently deployed the "ES Municipal Hub" which provides a two-way communications platform for information sharing between municipalities and the Company.

42. Both CL&P and YGS both work with their municipalities to determine individual priorities for an event.

Recommendations

Organization and Structure

1. The Director of Emergency Preparedness currently reports to Craig Hallstrom, President of the Massachusetts Electric Companies, despite being a shared resource across the COO's organization. Many other peer utilities across the Northeast have this role report to the most senior operations leader, usually a COO or similar role, due to the shared nature of this service. This change will promote clear lines of accountability and consistency for Eversource. The Managers who currently report to the Director of Emergency Preparedness will remain accountable to the operating company Presidents they currently serve.

System Planning

2. The CL&P should embed the locationally specific influences of *Heavy-Duty Electric Vehicles* (*"*HDEVs") and other influences such as marijuana growing facilities into their long-term system forecasts.

3. The Companies should consider the development of a long-term strategic system plan to assist with anticipating and preparing for major industry trends. This plan would discuss key known industry challenges and opportunities along with Company strategic goals to assist with long-term resourcing needs, systems and tools, organizational alignment, and other parameters.

System Design

4. CL&P should consider a design alternative requirement during the detail design phase for all projects with an estimated budget of $250k and above. This would require the consideration of design, routing and construction alternatives that further promote least-cost solutions while satisfying Company objectives.

Project Management

5. The Companies should work to consolidate their project management processes and documentation, so they are aligned and utilize best practices. This effort should include the development of a Project Management Process design group that is composed of subject matter experts across the Companies who design, review and approve any changes or updates. AWC-CT should also include close out as a major project management process that assures close out activities, similar to CL&P and YGS.

6. The Companies should develop a project prioritization process as either a standalone document or within existing documentation that includes best practices from the industry and internally. The Companies should also evaluate and implement a tool that assists with the consistent prioritization of projects. Since each Company has unique needs and methodologies, the tool or tools considered should be flexible.

7. CL&P needs to provide a comprehensive set of productivity trackers to Operations leaders on a regular cadence. CL&P should also perform regular crew productivity tracking to assist with decisions on when to use and not to use contracted resources. YGS and AWC-CT should also conduct time tracking studies for field-facing supervisors so they can determine if time is focused on supervising field crews as much as practicable.

8. AWC-CT should consider moving toward a network or cloud-based tool Project and Portfolio Management database that provides project schedule and dependency visibility across the enterprise. This will provide several benefits including enterprise-wide visibility, more effective version control, access control, and real-time updates among others.

9. Project documentation for all Companies should be expanded and where possible standardized. Documentation should include but not be limited to project charters (includes scope, justification, etc.), project approval logs, project financials, schedule, resource plan, risk register, lessons learned, and status reports.

Operations and Maintenance

10. The Companies should consider conducting peer benchmarking to determine the efficiency of their work practices and productivity related to O&M tasks. They should also ensure that program status is clearly tracked and monitored by leadership.

11. CL&P and YGS should conduct detailed analysis to the specific cause of the increase in spend for their respective CYBD programs and implement changes, if any, based on lessons learned.

Emergency Response Plan

12. Eversource should realign the Emergency Preparedness group to report to the COO. This will provide clear reporting lines and equal accountability to all operating Companies including CL&P.
13. CL&P's ERP should include checklists for each ICS and other critical operational roles. Additionally, operational and communication forms and templates should be developed and included in the ERP to ensure consistent documentation. All forms should be used and collected after each incident for after action review and auditing purposes.
14. YGS's ERP should include checklists for each ICS and other critical operational roles. Additionally, standardized forms and templates should be included to ensure consistent documentation. All forms should be used and collected after each incident for after action review and auditing purposes.
15. All Command Staff Roles should have at least 2 named individuals assigned, and critical roles should have at least 3 individuals assigned. Those serving in these roles should be fully trained and qualified. The Companies should also consider having back-up employees in a training capacity for attrition or other personnel related issues.
16. CL&P and YGS should develop processes and associated documentation for critical emergency response processes. These processes should then be deployed through training to applicable employees. CL&P and YGS should also consider developing decisions trees where appropriate and document them through their emergency response plans.
17. CL&P should develop an activation process that ensures employees are activated consistently for all events. CL&P should develop a database that indicates assigned and available resources including the role they are activated for.
18. AWC-CT should consider conducting annual drills which alternate between scenarios to test the effectiveness of the Company's readiness.

2.1. Organization and Structure

System Operations broadly addresses several activities and functions that occur within Eversource's operating companies including the investment, development, design, construction, operation and maintenance ("O&M"), and restoration (in response to system outages or damage) of each Company's electric, gas and water systems. This chapter evaluates the organizations, processes and tools that directly and indirectly manage and perform these activities.

2.1.1. Connecticut Light & Power Organizational Structure and Headcount

Joe Nolan, President and Chief Executive Officer ("CEO") of Eversource, is the leader responsible for all Electric, Gas and Water System Operations activities for the Eversource Companies. Operational leadership was provided by Werner Schweiger, Executive Vice President and Chief Operating Officer. Mr. Schweiger retired from Eversource Summer 2023 was replaced by James Hunt, Executive Vice President of Corporate Relations and Sustainability on an interim basis. On September 19, 2023 the Company announced Paul Chodak III as the permanent replacement for the COO role. All references to Mr. Schweiger's, Mr. Hunt's, or Mr. Chodak's role as Chief Operating Officer will be strictly referred to the role of "COO" in this chapter.

The COO role includes responsibility for the electric, gas and water Companies within New Hampshire, Massachusetts and Connecticut as well as Eversource's Transmission and Offshore Wind business.

Stephen Sullivan, President of CL&P; Aftab Khan, Senior Vice President of Electric Engineering; and Bill Quinlan, President of Transmission and Off-Shore Wind Projects provide direct leadership oversight of CL&P operations. Mr. Sullivan is the primary point of contact for CL&P which includes leading and responding to operational issues including storm response, power quality issues, and major projects and initiatives for the Company. His responsibilities also include leading the field operations group, which is responsible for building, maintaining and operating the electric assets within the state. During emergency response events he attends and leads press conferences, and provides information to key stakeholders as needed.[1] Mr. Sullivan's direct reports, four Vice Presidents, are split both geographically and by responsibility to provide field operations and emergency response services during blue-, gray- and dark-sky days, see Figure 2-1.

Mr. Sullivan's current role was created from a reorganization that was initiated as a result of Eversource's 2021 Settlement agreement stemming from an investigation of the Company's Hurricane Isaias storm response. [2] Previously, this role was responsibility of Craig Hallstrom who served as the President of Regional Electric for both Massachusetts and Connecticut Electric Operations. The previous regionalized structure was intended to drive standardization across the Companies, however, the Company acknowledged that CL&P required dedicated leadership to address the specific needs for the State of Connecticut.[3] FTI believes the current structure is appropriate and is consistent with Eversource's peers.

Aftab Khan, Senior Vice President of Electric Engineering is responsible for all Electric Engineering activities for the Eversource operating companies including CL&P, see Figure 2-1. CL&P's distribution engineering services are provided through Mr. Khan's direct report David Gladey, Vice President of Distribution Engineering.[4] However,

[1] Interview with President, Connecticut Light & Power (Stephen Sullivan), March 27, 2023.
[2] Final Decision, Docket No. 20-08-03 "PURA Consideration of Civil Penalty and Enforcement Action against the Electric Distribution Companies after Storm Isaias Investigation." July 14, 2021.
[3] Ibid.
[4] Interview with Senior Vice President, Engineering, Eversource Energy (Aftab Khan), June 14, 2023.

Mr. Khan's remaining Vice Presidents are centrally focused (provide services to all the electric operating companies), with their direct reports providing services directly to CL&P. This includes Grid Modernization, System Planning, Substation and Transmission Line Engineering, and Asset Management and Process Improvement. Mr. Khan stated the centralized model was implemented to drive best practices across the engineering discipline, which is a typical approach for large multi-jurisdiction utilities.[5]

Bill Quinlan, President of Transmission and Offshore Wind Projects, primarily leads the Federal Energy Regulatory Commission ("FERC")-regulated Transmission business and is responsible for executing the onshore transmission projects that connect offshore wind assets. Mr. Quinlan's team also has responsibility for leading Eversource's transmission and largest distribution projects through a team that is dedicated to the state of Connecticut, see Figure 2-1. Smaller distribution projects and programs are managed within Mr. Sullivan's organization.[6] This structure leverages the project management capabilities of the Transmission Organization to promote consistency for large distribution projects.

Emergency Preparedness is a shared service across all Eversource operating companies, and while AWC-CT maintains their own Emergency Preparedness plan and capabilities, they participate in best practice sharing. The Director of Emergency Preparedness is responsible for this service and currently reports to the Mr. Hallstrom, the President of Eversource Electric Massachusetts (see Figure 2-1.) This places the Emergency Preparedness function under a single company President despite providing services to all Eversource operating companies. FTI recommends that the Director of Emergency Preparedness reports directly to the COO which is a consistent practice across the industry. This allows for direct accountability to the COO and consistent accountability to other the leaders within Eversource including CL&P and YGS.

Recommendation: The Director of Emergency Preparedness currently reports to Mr. Hallstrom despite being a shared resource across the COO's organization. Many other peer utilities across the Northeast have this role report to the most senior operations leader due to the shared nature of this service. This move will promote clear lines of accountability and consistency for Eversource. The Managers who currently report to the Director of Emergency Preparedness will remain accountable to the operating company Presidents they currently serve.

[5] Ibid.

[6] Interview with President, Transmission and OSW, Eversource Energy (Bill Quinlan), August 16, 2023.

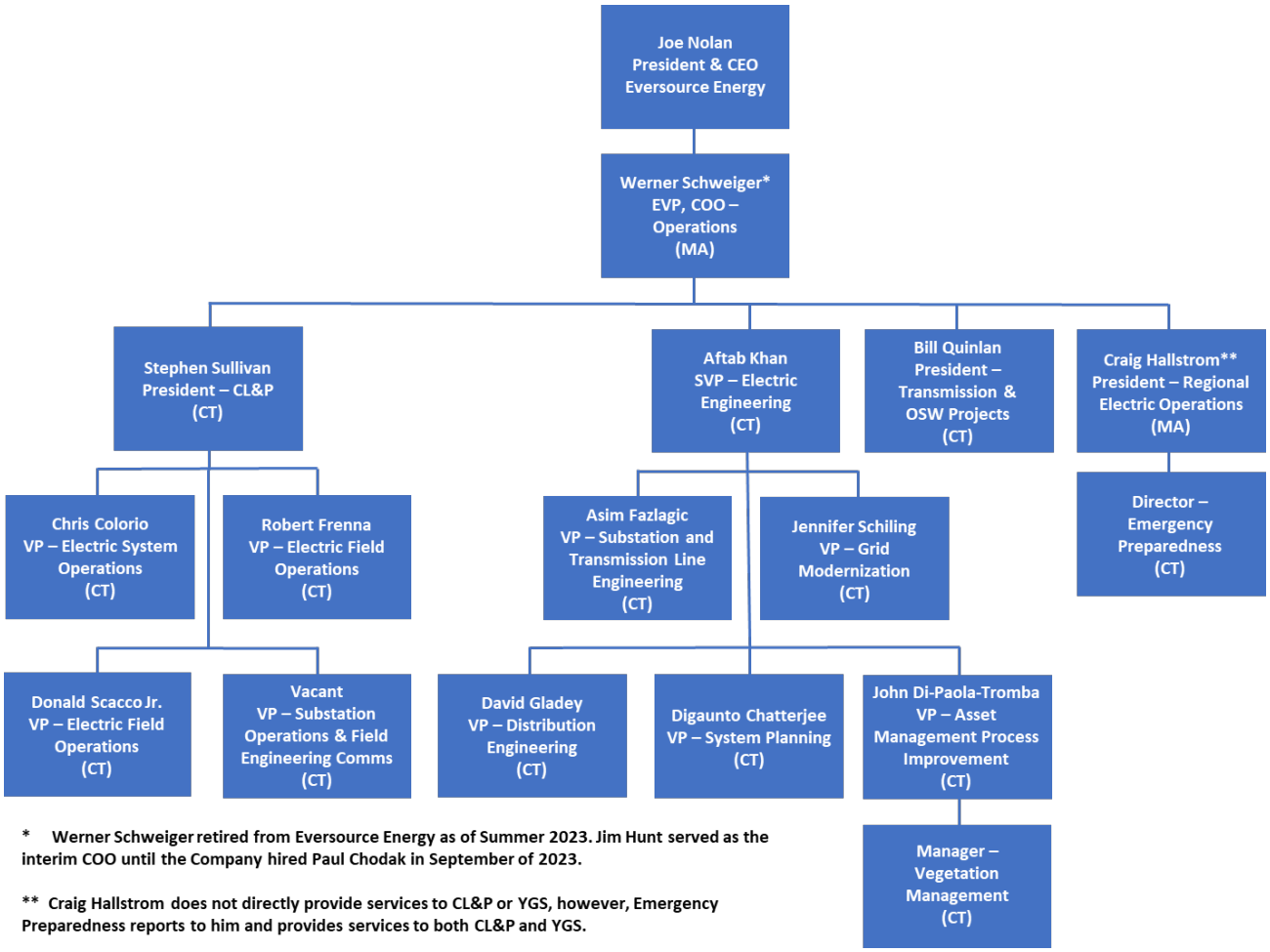


Figure 2-1 Organization Responsible for System Operations for CL&P[7]

2.1.1.1. Headcount for Connecticut Light & Power

As of September 30, 2022 CL&P has 2,078 employees manage and perform System Operations activities, many of whom report to locations within Connecticut, see Figure 2-1. Senior leadership noted no specific resourcing risks beside typical industry challenges, including an aging workforce and competition for resources in a constrained market. Specific analysis on how CL&P hires, trains and manages their employees is provided in Chapter 4: Human Resources.

As of November 30, 2023, there were a total of 39 positions that were open, representing a vacancy rate of 1.9 percent for System Operations, see Figure 2-3. This relatively low rate indicates that CL&P is effectively managing retirements and other attrition.

[7] Response to FTI-001, Att. 1(CLP), FTI-001, Att. 2(CLP), FTI-001, Att. 3(CLP), FTI-001, Att. 4(CLP).

System Operations Headcount for CL&P as of September 30, 2022	
Function	**Headcount**
Distribution Engineering	124
Electric Field Operations - Eastern/Central	219
Electric Field Operations - Western	223
Electric Operations	4
Electric Planning & Scheduling	63
Electric System Operations	281
Electrical Engineering	3
Emergency Preparedness	18
Energy Efficiency	181
Engineering System Planning	65
Grid Modernization	61
Operations	2
Safety	42
Station Operations & Field Engineering /Communications	327
Substation & Transmission Engineering	10
Substation Design Engineering	56
Substation Technical Engineering	30
Training & Compliance	137
Transmission & Engineering Project Controls	43
Transmission Line Engineering	29
Transmission Project Management & Construction	81
Transmission Project Performance	11
Transmission Protection and Controls	34
Vegetation Management	34
Total	**2078**

Figure 2-2 System Operations Headcount for CL&P as of 09/30/2022[8]

System Operations Vacancies for CL&P as of November 30, 2022	
Function	**Headcount**
Electric Operations (includes Line Construction, Field Operations and Maintenance)	21
Electric Engineering (includes Asset Management, System Planning, System Engineering, Distribution Project Management, System Operations)	17
Vegeration Management	1
Emergency Response	0
Total	**39**

Figure 2-3 System Operations Vacancies for CL&P as of 11.30.2022[9]

2.1.2. Yankee Gas Services Organizational Structure and Headcount

William (Bill) Akley, President of Gas Distribution, serves as the primary point of contact for gas operations including operational performance, emergency response, major projects and initiatives for YGS.[10] Mr. Akley is also responsible for all Gas Distribution activities at Eversource where he reports to the COO.

Unlike CL&P, the organizational design of YGS has most key functional areas reporting directly to Mr. Akley, with the exception of Emergency Preparedness as previously noted. Mr. Akley is responsible for Field Operations, Engineering, Pipeline Safety and Quality Assurance, and Clean Technologies. The individuals responsible for these

[8] Response to FTI-113, Att. 4(CLP).
[9] Response to FTI-002.
[10] Interview with President, Gas Distribution (William Akley), March 29, 2023.

areas include Kevin Kelley, Vice President of Gas Operations, Gregory Hill, Vice President Gas Engineering, a Director of Pipeline Safety Management, and Nikki Bruno, Vice President of Clean Technologies Gas, see Figure 2-4.

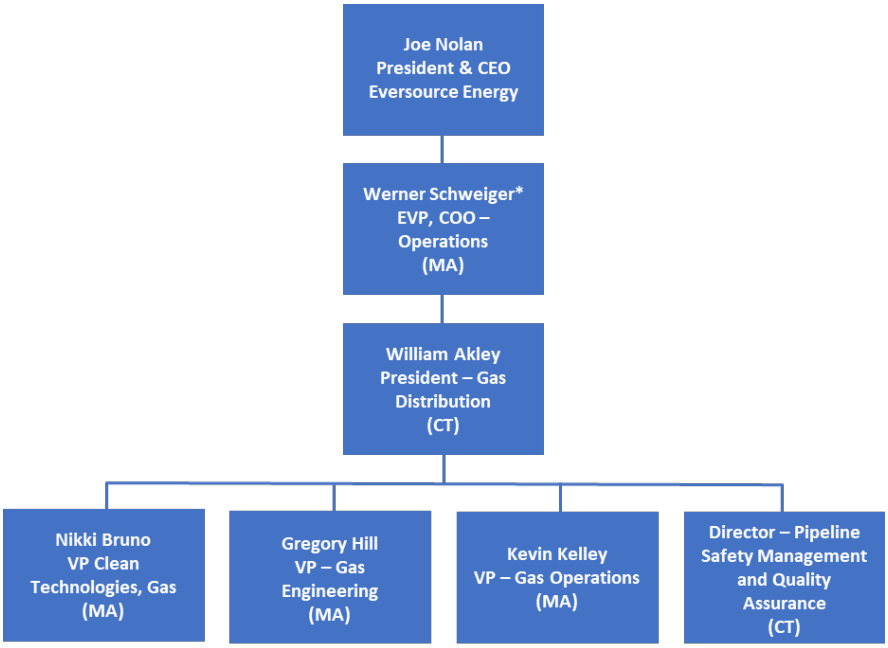


Figure 2-4 Organization Responsible for System Operations for YGS[11]

Mr. Kelley is responsible for construction, maintenance and operations activities for Eversource's Gas Companies in Massachusetts and Connecticut, except for the former Columbia Gas Company assets. This role was centralized with the intent to standardize the operational practices across all Eversource Gas Companies. Within the past year Mr. Kelley reorganized his team to be aligned geographically by an East and West Division. The West Division includes operations within the State of Connecticut and Springfield Massachusetts, while the East Division includes the remainder of Massachusetts. Both divisions are served by three Directors, who are each responsible for Gas Maintenance, Gas Construction, and Meter Services respectively. While each Director lead activities in both Divisions, the managers reporting to them are responsible for these activities within specific divisions. Mr. Kelley noted that several different structures were previously implemented but the current organization is the most effective from a responsibility and consistency perspective.[12]

Mr. Hill's responsibilities include both engineering and system operations which is managed centrally for all Eversource Gas Companies, see Figure 2-4. These responsibilities are split across two Directors who oversee managers and individual contributors. The System Operators, who manage day-to-day gas system operations, are assigned directly to YGS with six employees and one supervisor rotating through 24-hour shifts. Mr. Hill's team is flexible so they can also utilize System Operators from the other Eversource Companies should the need arise.[13]

[11] Response to FTI-001, Att. 1(YGS).
[12] Interview with Vice President, Gas Operations, Gas Distribution (Kevin Kelley), May 16, 2023.
[13] Interview with Vice President, Gas Engineering, Gas Distribution (Gregory Hill), June 16, 2023.

The Director of Pipeline Safety Management and QA/QC provides an independent quality control check to ensure compliance to the rules and regulations that govern gas safety, see Figure 2-4. This group's activities includes field oversight, investigations, hazard analysis and incident investigations.[14] Similar to Mr. Hill's organization, individual contributors are dedicated to specific Companies.

Ms. Bruno's group is responsible for gas sales and marketing along with clean technology development, see Figure 2-4. Sales and Marketing were recently merged to coordinate activities between these two groups. Clean technologies is a growing capability that interacts with policy makers on the future of the gas industry.[15] This team is centrally managed but with a dedicated manager responsible for Sales and Account Management in the state of Connecticut.

YGS's Manager of Emergency Preparedness, reporting to Mr. Kelley, is responsible for the Eversource Gas Companies Emergency Response Plans ("ERP") and overall preparedness. This individual maintains a formal connection to the Director of Emergency Preparedness.[16]

While the Gas Organization is structured more centrally than the CL&P and the Electric Organization overall, the smaller size of the Gas businesses eases efforts to standardize processes and to coordinate resources. Mr. Akley effectively serves as the point of contact for YGS and there are several gas employees who are located in Connecticut who directly provide services to YGS.

2.1.2.1. Headcount for Yankee Gas Services

As of September 30, 2022 YGS has 776 employees managing and performing System Operations activities, see Figure 2-5. Senior leadership stated there were no specific resourcing risks beyond typical industry challenges, including an aging workforce and competition resources in a constrained market. Specific analysis on how the Company hires, trains and manages their employees are provided in the Chapter 4: Human Resources.

As of November 30, 2023 there were a total of 15 open positions representing a vacancy rate of 1.9 percent for System Operations, see Figure 2-6. This is a relatively low rate, indicating that like CL&P, YGS is effectively managing retirements and other attrition.

System Operations Headcount for YGS as of September 30, 2022	
Function	**Headcount**
Emergency Preparedness	18
Gas Clean Technologies/Sales & Marketing	49
Gas Engineering	115
Gas I&R, Field Engineering & Project Management	84
Gas Operations	438
Gas Organization	30
Safety	42
Total	**776**

Figure 2-5 System Operations Headcount for YGS as of 09,30,2022[17]

[14] Interview with President, Gas Distribution (William Akley), March 29, 2023.
[15] Ibid.
[16] Interview with Vice President, Gas Operations, Gas Distribution (Kevin Kelley), May 16, 2023.
[17] Response to FTI-113, Att. 4(YGS).

System Operations Vacancies for YGS as of November 30, 2022	
Function	**Headcount**
Gas Operations (includes Field Operation and Maintenance)	14
Gas Engineering (includes Asset Management, System Planning, System Engineering, Distribution Project Management, System Operations)	1
Emergency Response	0
Total	**15**

Figure 2-6 System Operations Vacancies for YGS as of 11.30.2022[18]

2.1.3. Aquarion Water Company of Connecticut Organizational Structure and Headcount

Donald Morrissey, President of Aquarion, reports to the COO and is directly responsible for activities within AWC-CT. Mr. Morrissey has three leaders reporting to him who are responsible for System Operations activities. Daniel Lawrence is the Vice President of Engineering and Planning and Real Estate. John Walsh is the Vice President of Utility Operations and Innovation. Robert (Jeff) Ulrich is the Vice President of Supply Operations and Sustainability. These leaders along with Mr. Morrissey's two other direct reports are integrated through their day-to-day operational activities and through governance.

Mr. Lawrence's primary responsibilities includes leading AWC-CT's engineering team which includes water supply planning, asset management, capital budgeting and programs including main replacement, relocations and betterments. His team is also responsible for the management of records including the Company's GIS which is used for a variety of operational purposes such as engineering design and dig-safe markouts. Mr. Lawrence is responsible for fleet and real estate including the management of Company Houses, property transactions, easements, facility management which includes the maintenance of buildings and property, and the Company's vehicle fleet. Mr. Lawrence stated that Real Estate, Facility and Fleet Management reports to him based on synergies between these areas and engineering. This coupled with the significant capital spend in these areas made the organizational alignment appear logical.[19] Additional details about Real Estate, Property Management and Fleet are provided in the Chapter 7: Support Services.

Mr. Walsh is responsible for watershed environmental and water quality management. Mr. Walsh's key responsibilities including testing and reporting on any major water quality issues and for protecting the watershed area. He also has a role reporting to him that is responsible for business process improvement, which utilizes process maps to document and improve on processes across AWC-CT. [20]

Mr. Ulrich is responsible for maintaining reserve resources, operating treatment plants and wells, along with operating the water distribution system. Key activities include deploying chemical treatments at treatment plants and maintaining water distribution assets by performing actions such as exercising valves and flushing water mains.[21]

As stated in the Executive leadership section, AWC-CT runs independent from other Eversource subsidiaries which also extends to how the Company manages System Operations. The primary driver behind this operating principal

[18] Response to FTI-002.
[19] Interview with Vice President, Engineering/Planning and Real Estate, Aquarion Company (Daniel Lawrence), May 17, 2023.
[20] Interview with Vice President, Operations and Utility Innovations, Aquarion Company (John Walsh), June 16, 2023.
[21] Interview with Vice President, Supply Operations and Sustainability, Aquarion Company (Jeff Ulrich), August 14, 2023.

is the unique nature of the water industry when compared to gas and electric. However, there are instances of overlap and areas of synergies which are detailed in this Chapter.

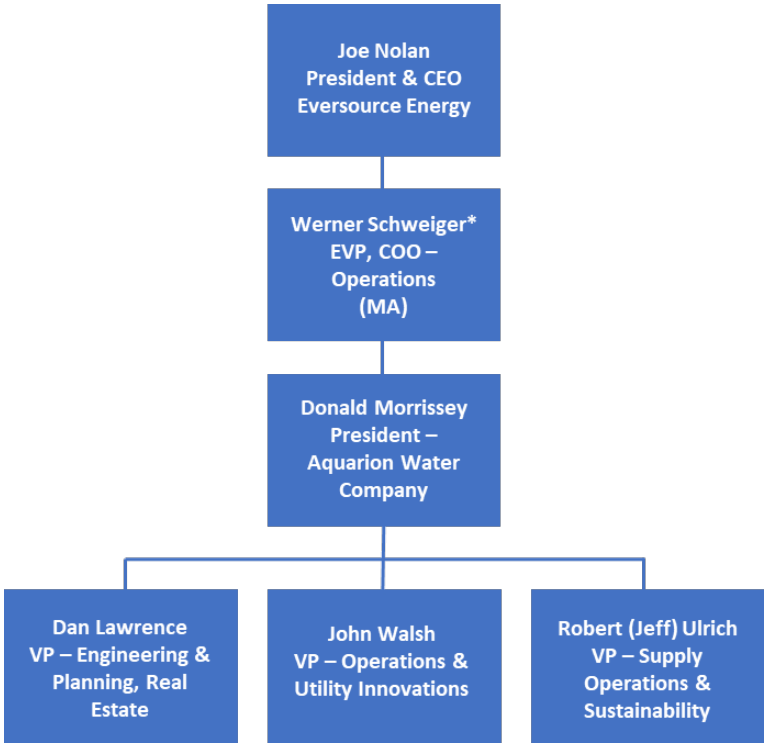


Figure 2-7 Organization Responsible for System Operations for AQ[22]

2.1.3.1. Headcount for Aquarion Water Company of Connecticut

As of September 30, 2022 AWC-CT has 216 employees that lead and manage System Operations activities, most of whom report to locations within Connecticut, see Figure 2-7. Senior leadership stated there were no specific resourcing risks beyond typical industry challenges, including an aging workforce and competition resources in a constrained market. Specific analysis on how the Company hires, trains and manages their employees is detailed in the Chapter 4: Human Resources..

As of November 30, 2023 there were a total of 22 open positions representing a vacancy rate of 10 percent for System Operations, see Figure 2-8.[23] While this is a high percentage, these vacancies are spread across 17 Operational and back office functions. Most functions have only one vacancy which represents a low level of overall resourcing risk.

[22] Response to FTI-001, Att. 1(AQ),
[23] Response to FTI-002_SP01, Att. 1(AQ).

System Operations Headcount for AQ as of September 30, 2022	
Function	**Headcount**
Distribution	21
Distribution - Green	13
Engineering/Planning	30
Executive Office	5
Operations	1
Service	29
Supply Operations	81
Water Quality	22
Watershed Management	14
Total	**216**

Figure 2-8 System Operations Headcount for AWC-CT as of 11.30.2022[24]

2.2. Distribution Asset Management

Maintaining reliable and safe electric, gas and water infrastructure is a primary responsibility for any utility. Best practices include the development and management of a well-defined asset management program that details each Company's asset standards and practices. For CL&P, this responsibility is managed through several functional areas including Distribution Engineering, System Planning, Substation and Transmission Line Engineering, Asset Management, Electric Field Operations and Electric System Operations. YGS manages this responsibility with their Gas Engineering, Gas Operations, and Pipeline Safety Management and Quality Assurance groups. For AWC-CT, this responsibility spans across the several areas including Engineering and Planning, Operations and Utility Innovations, and Supply Operations and Sustainability.

2.2.1. Procedures and Documentation

Each Company's functional areas are coordinated through documentation that defines the procedures, standards, maintenance practices and work methods. Specific to CL&P are several maintenance manuals that are used along with Assessment Procedures, Distribution System Engineering Manual, National Electric Safety Code, and Information and Technical Requirement for the Interconnection of Distributed Energy Resources (DER) to support asset management activities. For YGS the Eversource Gas Asset and Risk Management Program, Engineering Standards, and Construction Standards, and Work Practices documents define their procedures. For AWC-CT there are several Preventative Maintenance Plans (PM), Standard Operating Procedures (SOPs), and Engineering Standards.[25,26]

2.2.1.1. Maintenance and Inspection Procedures and Tools used for Connecticut Light & Power

The following "Maintenance Manuals" define the processes, procedures, and specifications for CL&P including[27]:

- Direct Buried Systems
- Capacitors
- Voltage Regulators
- Reclosers and Sectionalizers
- Network Protectors

[24] Response to FTI-113, Att. 4(AQ).
[25] Response to FTI-003.
[26] Response to FTI-004.
[27] Response to FTI-003.

- Network Transformers
- Underground Vaults and Manholes
- Metal Street Lights Poles
- Infrared Inspections

Each manual includes a description of the various types of equipment covered, for example direct buried systems includes pad-mounted and submersible transformers, switch enclosures, switchgear, among others. The manuals define the standardized intervals for inspections/maintenance for each piece of equipment, which drives the work management timelines used by the Company. The Company also documents the basis for the maintenance and inspection programs including if they are specified by the manufacturer or through industry practices.

The Company uses the software package Cascade as the system of record for equipment installed within Substations and Maximo/GIS for equipment installed on Distribution lines. Power-Plan Continuing Property Ledger System is used to track equipment age for all Company assets. CL&P's maintenance program is managed through Maximo and Cascade.[28]

Either a condition based or run to failure approach is used to guide the equipment replacement strategy. This is determined by equipment type, with more expensive and operationally critical "Major field distribution assets" replaced based on condition assessments. This is also known as reliability centered maintenance ("RCM") where a strategic approach is used to determine the critically, inspection history, individual asset condition, and the outage impact for each asset. This information is used to proactively determine if equipment replacement is justified to ensure continued reliability. Other "Non-major assets" are either replaced during upgrade projects or if the equipment fails. [29]

Other approaches used within the industry includes a time-based approach which replaces equipment based solely on age which can be both costly and not result in materially improved reliability.

Overall, FTI's review of CL&Ps Maintenance Manuals and maintenance/replacement approaches indicates their alignment to industry standards and best practices. The use of Cascade, Maximo and GIS to manage the Maintenance program also aligns to industry practices.

2.2.1.2. Maintenance and Inspection Procedures and Tools used for Yankee Gas Services

YGS's Maintenance Plans are embedded within their Operations and Maintenance Plans ("OM") which are designed to comply with federal and state regulations and applicable codes. The applicable OMs for maintenance and inspection includes[30]:

- OM-110 and OM-110-ADM: Leakage Surveys and Patrols (including administrative)
- OM-160 and OM-160-ADM: Corrosion Control (including administrative)
- OM-235 an OM-235-ADM: Inspection and Identification of Critical Valves (including administrative)
- OM-250 and OM-250-ADM: Maintenance of Cast Iron Pipelines (including administrative)
- OM-265 and OM-265-ADM: Curb Valve Maintenance (including administrative)
- OM-310 and OM-310-ADM: Carbon Monoxide Investigation (including administrative)
- OM-410 and OM-410-ADM: Inspecting Gate/District Regulator Stations (including administrative)

[28] Response to FTI-003.
[29] Ibid.
[30] Response to FTI-094.

- OM-430 and OM-430-ADM: Quantitative Odorant Testing (including administrative)
- OM-440 and OM-440-ADM: Inspecting and Calibrating Instrumentation (including administrative)
- OM-510 and OM-510-ADM: Combustible Gas Indicator Inspection and Maintenance
- OM-700 and OM-700-ADM: Patrolling and Leakage Surveys of Pipelines Operating Over 200 PSIG

Each OM uses a consistent structure including the departments responsible for the OM, scope of the procedure, general information (procedure specific information), technical procedure (step by step information), record management, applicable exhibits, and record of revision (change management). The exhibits are specific to each OM and may include details concerning templates, flowcharts, or procedures that extend beyond the technical procedure contained within the section.[31]

Each document must undergo a review every calendar year which is not to exceed 15 months from the date of the last revision. [32] A review of each OM revealed that revisions were well documented in the "record of revision" section where a revision number along with an effective date and the areas revised or changed are detailed. Our review noted that certain revisions did not always adhere to the 15-month maximum timeframe, which was likely due to a lack of a revision during the review period.

YGS uses GIS as the system of record for assets and Maximo for managing the inspection and maintenance programs.[33] All other aspects of the documentation and procedures follow industry practices.

2.2.1.3. Maintenance and Inspection Procedures and Tools used for Aquarion Water Company of Connecticut

AWC maintains approximately 98 Preventative Maintenance Plans (PM) and Standard Operating Procedures that cover all assets used to support the water utility.

The Company provided a sample of five maintenance plans for their Chemical Feed Pumps, Variable Frequency Drive Electric Panels, Generator Maintenance, Water Analyzers, and Centrifuge Sludge Pumps. The plans are in a simple checklist format, which include the relevant procedures for notifications and the handling of equipment. The plans include the required frequency of inspections and maintenance whether quarterly, annual, and bi-annually.[34]

The Company asset records and maintenance plans are available through both GIS and SAP. All Company asset information is stored in SAP through Computerized Maintenance Management System which is also used to document the maintenance performed on each asset. The system also maintains pertinent information such as age, material used, and models. GIS is used as the system of record for the water distribution system and when a new asset is uploaded into GIS a new asset record is automatically created within SAP. All other non-GIS asset information is manually created within SAP.

While AWC-CT's maintenance plans are simple, they cover necessary details. The use of SAP and GIS to manage their maintenance programs aligns to industry practices.

[31] Response to FTI-094, Att. 1(YGS).
[32] Response to FTI-094.
[33] Response to FTI-003.
[34] Response to FTI-003_SP01, Att. 1(AQ).

Overall, FTI's review of each Companies' Maintenance Manuals and maintenance/replacement approaches align to industry standards and best practices. The use of Cascade, Maximo and GIS to manage the Maintenance program also aligns to industry practices.

2.2.2. Engineering and Material Standards

CL&P, YGS, and AWC-CT equipment and engineering standards are used to define the material/equipment requirements for the gas, electric and water systems.

CL&P referenced seven standards and guides that are used to promote standard design practices. These standards comply with applicable codes including the National Electric Safety Code which establishes the baseline requirements for the electric transmission and distribution systems. Of these standards the "Eversource Distribution System Planning Guide" is used for the electric distribution system which includes the design standards, planning criteria and methods used to drive consistency for all Eversource Electric Companies.

The "Eversource Distribution System Engineering Manual" is used by all of Eversource's Electric Companies to standardize the design practices which serves to minimize any potential power quality and reliability issues caused by added assets. There are other documents used to address specific issues such as Distributed Energy Resource ("DER") interconnections, bulk transformer ratings, and bulk substation assessment procedures.[35] The Distribution System Engineering Manual also details topics such as the Company's engineering philosophy, reliability practices, circuit rebuild practices, system design practices, system operational considerations, capacity planning, and construction considerations. It also provides pertinent information for each major asset class including specifications and parameters that can be used for system calculations. There is a change control section that manages document changes and has required approvals for when updates are made to the document.[36,37]

Similarly, the Eversource Gas Companies, including YGS, share standards which span across four primary categories including Engineering Standards, Construction Standards, Work Practices, and Gas Standard Technical Bulletins. Each category is addressed through several documents by either their asset classes, work activity or other considerations. The documents comply with Title 49 Code of the Federal Regulations Part 192, along with others including those set by their regulators in Massachusetts and Connecticut, the American Petroleum Institute, the American Society of Mechanical Engineers, Gas Technology Institute, National Electric Code, and Occupational Safety and Health Administration. [38]

Consistent practices across Eversource's Gas Companies are promoted through the use of a single point of contact who is responsible for maintaining these standards. This individual is also the chairperson for the stakeholder committee that participates in the Standards review governance. Also included on this committee are representatives from Gas Policy and Compliance, QA/QC, and Construction and Craft leads for the Eversource Companies. This group meets quarterly using a defined process to review and approve any new and changes in standards. Once approvals are obtained, the Companies' follow a defined process that notifies both internal and external stakeholders.[39]

[35] Response to FTI-004.
[36] Interview with Senior Vice President, Engineering, Eversource Energy (Aftab Khan), June 14, 2023.
[37] Response to FTI-004.
[38] Ibid.
[39] Ibid.

Leadership from both gas and electric companies all noted that a primary driver behind the centralization of the engineering groups was to drive standardized practices and design. These efforts were evident through the current organizational structure and through the use of common standards and review processes.

AWC-CT maintains several documents that cover specific assets and work methods which align and comply to several industry standards and regulations including the American Water Works Association, United States Environmental Protection Agency, Connecticut Department of Public Heath and the Connecticut Department of Energy and Environmental Protection. This documentation provides the required procedures or practices for the design and installation each type of asset. Standard designs and drawings are also included for meter vaults, water facilities, and other assets where practical.[40]

AWC-CT reviews their engineering standards on an annual basis which are updated based on lessons learned from the field, or through best practices provided by their consulting engineers. Any updates are reviewed by the appropriate managers and final approval is obtained by the Vice President of Engineering.[41]

2.2.3. Asset Age

While age alone is not an accurate indicator of overall asset health, older assets must follow a rigorous and, at times, an elevated level of maintenance to ensure continued reliability. However, certain assets can be reliable as they age and do not need replacement based on this factor alone. Conversely, certain assets such as older cross-linked polyethylene insulated underground cables can be more age sensitive with limited success for extending useful life.[42] We evaluated each Companies' average asset age to determine their alignment to industry trends and to determine if there are any special considerations for their maintenance program based on asset age.

CL&P age data is organized by major asset classes, with the exception of pole data, see Figure 2-9. The Company assets are similar in age to other Northeast utilities, which is older on average when compared to the rest of the Country. The spread in age between the oldest and newest assets also follow similar trends in the Northeast where the oldest assets are approximately double in age to newer assets. This indicates the Company does a reasonable job of replacing aged assets while also maintaining older assets that still have useful life remaining.

The Company's maintenance cycles, which help extend the life of assets, also align to industry practices.[43] This includes regular inspection and maintenance based on a prescribed schedule that is tracked and monitored by leadership. A more detailed review of adherence to their inspection and maintenance program is in the Operations and Maintenance Section.

[40] Ibid.
[41] Ibid.
[42] Buchholz, Vern. "Finding the Root Cause of Power Cable Failures," EEOnline, November/December 2004.
[43] Response to FTI-008.

YGS Average Age by Asset Class		
Major Asset Class	**Age of population (years)**	**Average age of oldest 10% of population (years)**
LNG Facility	15	15
Gas Station	20	45
District Regulator Station	30	50
Cast Mains	102	124
Cast Iron Services	77	112
Bare Steel Mains	81	102
Bare Steel Services	87	119
Unprotected Coated Steel Mains	57	62
Unprotected Coated Steel Services	57	62
Copper Mains	53	55
Copper Services	55	59
Plastic Mains	19	40
Plastic Services	21	46
Protected Steel Mains	46	68
Protected Steel Services	53	73
Meter Assets	13	38

Figure 2-9 YGS Average and Oldest Assets by Class[44]

YGS provided a detail set of age data that groups assets by major classes, see Figure 2-10. YGS also has an older asset population which is similar in age to other Northeast utilities, including cast iron and bare steel pipelines. Specific to cast iron and bare steel pipelines, the average age will only increase since plastic and protected steel pipes have supplanted their installation. However, an effective Integrity Management Program that considers the risk, location of installation, inspection and leak results, and pipe attributes such as wall thickness of these older pipelines can be safely operated until replacement is deemed necessary.

The Company's maintenance cycles, which serve to extend the life of assets, includes regular inspection and maintenance based on a prescribed schedule that is tracked and monitored by leadership.[45] A more detailed review of the adherence to their inspection and maintenance program is in the Operations and Maintenance Section.

[44] Ibid.
[45] Ibid.

AWC-CT Average Age by Asset Class		
Major Asset Class	**Age of population (years)**	**Average age of oldest 10% of population (years)**
Structures and Improvements (Sources of Supply)	13	27
Collecting & Impounding Reservoirs (Sources of Supply)	27	43
Lake, Rivers, and other intakes (Sources of Supply)	52	60
Wells & Springs (Sources of Supply)	10	33
Infiltration Galleries and Tunnels (Sources of Supply)	98	109
Supply Mains (Sources of Supply)	33	67
Structures and Improvements (Pumping Plant)	19	36
Other Power Production Equipment (Pumping Plant)	15	35
Electric Pumping Equipment (Pumping Plant)	11	26
Diesel Pumping Equipment (Pumping Plant)	20	29
Other Pumping Equipment (Pumping Plant)	11	20
Structures & Improvement (Water Treatment)	11	34
Water Treatment Equipment (Water Treatment)	9	27
Structures and Improvements (T&D Plant)	10	30
Distribution Reservoirs & Standpipes (T&D Plant)	19	49
Transmission and Distribution Mains (T&D Plant)	19	45
Fire Mains (T&D Plant)	31	31
Services (T&D Plant)	22	39
Meters (T&D Plant)	11	23
Meter Installation (T&D Plant)	31	46
Hydrants (T&D Plant)	26	41
Other T&D (T&D Plant)	15	23

Figure 2-10 AQ Average and Oldest Assets by Class[46]

Water systems throughout the country are faced with an aging asset population which creates a number of operational challenges including increases in non-revenue and unaccounted for water, water quality issues and breaks. Keeping maintained and newer assets is also important given the area's climate which experiences frequent freeze thaw cycles.

While the AWC-CT system consists of older assets on the supply side, it does have newer pipelines. This is an important detail since the average age of failing pipeline is 50 years old. AWC-CT mains average 19 years with the oldest 10 percent approaching 50 years.[47]

AWC-CT did not provide the maintenance cycles for their assets, therefore a detail analysis of this aspect of the program could not be completed.

[46] Ibid.

[47] Folkman, Steven. "Water Main Break Rates in the USA and Canada: A Comprehensive Study," Utah State University, March 2018.

2.2.4. Asset Management Performance

FTI evaluated the effectiveness of each Company's asset management program, including how the influence of asset age impacted system reliability, by analyzing system reliability (outages), leaks, and breaks data. Other factors such as outage and leak response times can also influence these indicators, but overall this is an effective measure for evaluating the Company's asset management program.

2.2.4.1. Electric (Connecticut Light & Power) Reliability and Loading

CL&P uses industry-recognized metrics to monitor the heath of their system, which are composed of the following:[48]

- **System Average Interruption Frequency Index ("SAIFI"):** Measures how frequently outages occur on average.
- **System Average Interruption Duration Index ("SAIDI"):** The outage duration any particular customer may experience.
- **Customer Average Interruption Duration Index ("CAIDI"):** The ratio of SAIDI and SAIFI, which is typically considered the average restoration time.

Over a 5-year period, CL&P performed significantly better than the industry average for non-major outage events, as shown in Figure 2-12.[49] When compared to the 1st Quartile utilities (among the best performing) within their size class, CL&P compares favorably or better. Specifically, their frequency and duration of outages is better than their 1st quartile peer average.[50] CL&P's other Connecticut Peer, United Illuminating, has similar results but with somewhat higher system interruption frequency likely due to CL&P's more expansive service territory that extends into rural areas which are subject to more tree related outages. Overall, CL&P reliability data indicates good performance.

CL&P Reliability Data						
Year	**SAIFI (CL&P)**	**SAIFI (1st Quartile)**	**CAIDI (CL&P)**	**CAIDI (1st Quartile)**	**SAIDI (CL&P)**	**SAIDI (1st Quartile)**
2017	0.733	0.91	106.8	99.0	78.2	90.0
2018	0.728	0.80	111.2	100.0	81.0	86.0
2019	0.648	0.85	103.0	103.0	66.8	85.0
2020	0.705	0.82	103.1	98.0	72.7	84.0
2021	0.686	0.86	110.7	103.0	76.0	100.0

Figure 2-11 CL&P Five-year Reliability Compared to U.S. Industry Data[51,52]

CL&P also reports on the frequency certain customers experience multiple outages to gauge if there are certain areas which are impacted by multiple outages. This assists with identifying systemic outage issues for certain circuits, regions, or individual customers which is otherwise lost in traditional SAIFI, SAIDI, and CAIDI measures. CL&P specifically, annual report on Customers Experiencing Multiple Interruptions ("CEMI") and Customers

[48] Response to FTI-005.
[49] Response to FTI-005.
[50] Cummings, Bill. "Data suggests CT utilities are more reliable than other New England companies," CT Post, October 6, 2020.
[51] Response to FTI-005.
[52] Response to FTI-005, Att. 1(CLP).

Experiencing Long Interruption Duration ("CELID"). The Company provided CEMI and CELID data for the 2022 and 2023. Conducting benchmarking to compare Company results is difficult since many utilities do not report of these metrics, so a comparison of the year-over-year results was performed. The Company's CEMI metrics trended toward improvement when comparing 2022 to 2023 results across all categories, see Figure 2-12 and Figure 2-13. CELID indicated an increase in outages of this type of category when comparing 2022 to 2023, see Figure 2-14 and Figure 2-15.

CL&P Customers Experiencing Multiple Interruptions (CEMI) for 2022							
Method	**Parameters**	**Planned Outages**	**Major Storms**	**3 or More**	**5 or More**	**7 or More**	**9 or More**
RE08 Method	**Excluding Planned and Major Storms**	**N**	**N**	**0.056**	**0.009**	**0.001**	**0.000**
	Excluding Major Storms (Including Planned)	Y	N	0.066	0.011	0.002	0.001
	Including Major Storms	N	Y	0.095	0.024	0.006	0.001
	Including Planned and Major Storms	Y	Y	0.105	0.026	0.007	0.002
IEEE	**Excluding Planned and Major Storms**	**N**	**N**	**0.054**	**0.009**	**0.001**	**0.000**
	Excluding Major Storms (Including Planned)	Y	N	0.063	0.011	0.002	0.000
	Including Major Storms	N	Y	0.095	0.024	0.006	0.001
	Including Planned and Major Storms	Y	Y	0.105	0.026	0.007	0.002
TDRP	**Excluding Planned and Major Storms**	**N**	**N**	**0.062**	**0.011**	**0.002**	**0.001**
	Excluding Major Storms (Including Planned)	Y	N	0.072	0.013	0.003	0.001
	Including Major Storms	N	Y	0.095	0.024	0.006	0.001
	Including Planned and Major Storms	Y	Y	0.105	0.026	0.007	0.002

Figure 2-12 CL&P CEMI for 2022[53]

CL&P Customers Experiencing Multiple Interruptions (CEMI) for 2023							
Method	**Parameters**	**Planned Outages**	**Major Storms**	**3 or More**	**5 or More**	**7 or More**	**9 or More**
RE08 Method	**Excluding Planned and Major Storms**	**N**	**N**	**0.055**	**0.009**	**0.002**	**0.000**
	Excluding Major Storms (Including Planned)	Y	N	0.062	0.011	0.022	0.001
	Including Major Storms	N	Y	0.090	0.021	0.005	0.001
	Including Planned and Major Storms	Y	Y	0.099	0.023	0.006	0.001
IEEE	**Excluding Planned and Major Storms**	**N**	**N**	**0.052**	**0.009**	**0.002**	**0.000**
	Excluding Major Storms (Including Planned)	Y	N	0.059	0.010	0.002	0.001
	Including Major Storms	N	Y	0.090	0.021	0.005	0.001
	Including Planned and Major Storms	Y	Y	0.099	0.023	0.006	0.001
TDRP	**Excluding Planned and Major Storms**	**N**	**N**	**0.059**	**0.010**	**0.002**	**0.000**
	Excluding Major Storms (Including Planned)	Y	N	0.067	0.012	0.003	0.001
	Including Major Storms	N	Y	0.090	0.021	0.005	0.001
	Including Planned and Major Storms	Y	Y	0.099	0.023	0.006	0.001

Figure 2-13 CL&P CEMI for 2023[54]

[53] Response to FTI-436, Att. 5a(ES).
[54] Ibid.

CL&P Customers Experiencing Multiple Interruptions (CELID) for 2022							
Method	**Parameters**	**Planned Outages**	**Major Storms**	**3 or More**	**5 or More**	**7 or More**	**9 or More**
RE08 Method	**Excluding Planned and Major Storms**	**N**	**N**	**0.117**	**0.045**	**0.022**	**0.011**
	Excluding Major Storms (Including Planned)	Y	N	0.128	0.049	0.022	0.011
	Including Major Storms	N	Y	0.155	0.155	0.110	0.077
	Including Planned and Major Storms	Y	Y	0.269	0.160	0.110	0.078
IEEE	**Excluding Planned and Major Storms**	**N**	**N**	**0.109**	**0.039**	**0.019**	**0.009**
	Excluding Major Storms (Including Planned)	Y	N	0.119	0.043	0.019	0.009
	Including Major Storms	N	Y	0.258	0.155	0.110	0.077
	Including Planned and Major Storms	Y	Y	0.269	0.160	0.110	0.078
TDRP	**Excluding Planned and Major Storms**	**N**	**N**	**0.131**	**0.053**	**0.027**	**0.015**
	Excluding Major Storms (Including Planned)	Y	N	0.141	0.057	0.028	0.015
	Including Major Storms	N	Y	0.258	0.155	0.110	0.077
	Including Planned and Major Storms	Y	Y	0.269	0.160	0.110	0.078

Figure 2-14 CL&P CELID for 2022[55]

CL&P Customers Experiencing Multiple Interruptions (CELID) for 2023							
Method	**Parameters**	**Planned Outages**	**Major Storms**	**3 or More**	**5 or More**	**7 or More**	**9 or More**
RE08 Method	**Excluding Planned and Major Storms**	**N**	**N**	**0.116**	**0.053**	**0.026**	**0.016**
	Excluding Major Storms (Including Planned)	Y	N	0.131	0.131	0.028	0.016
	Including Major Storms	N	Y	0.289	0.195	0.145	0.117
	Including Planned and Major Storms	Y	Y	0.305	0.200	0.146	0.117
IEEE	**Excluding Planned and Major Storms**	**N**	**N**	**0.104**	**0.044**	**0.021**	**0.011**
	Excluding Major Storms (Including Planned)	Y	N	0.120	0.049	0.022	0.011
	Including Major Storms	N	Y	0.289	0.195	0.145	0.117
	Including Planned and Major Storms	Y	Y	0.305	0.200	0.146	0.117
TDRP	**Excluding Planned and Major Storms**	**N**	**N**	**0.132**	**0.064**	**0.033**	**0.020**
	Excluding Major Storms (Including Planned)	Y	N	0.148	0.069	0.035	0.021
	Including Major Storms	N	Y	0.289	0.195	0.145	0.117
	Including Planned and Major Storms	Y	Y	0.305	0.200	0.146	0.117

Figure 2-15 CL&P CELID for 2023[56]

FTI also reviewed the causes of outages to determine if there were specific drivers and areas of opportunities. CL&P's Transmission and Distribution Reliability Performance report, issued annually, highlighted that tree related failures are a leading cause for outages. This category represented around 20 to 30 percent of all outages, with 2021 serving as an outlier with nearly half of all outages being tree related, see Figure 2-13. Vegetation-related outages remain the largest outage cause within the U.S. The Vegetation Management Program section details the Company's program and progress on mitigating outages caused by vegetation.[57]

[55] Ibid.
[56] Ibid.
[57] Hoff, Brian. "Outsmart Vegetation-Related Power Outages," T&D World, August 8, 2022.

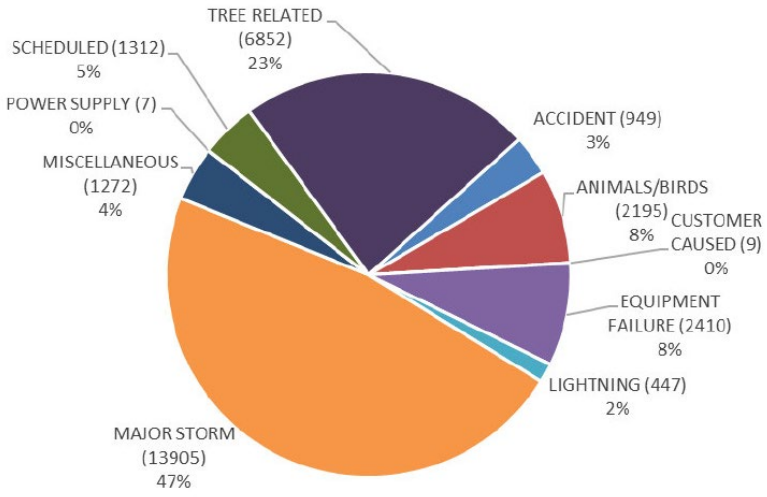


Figure 2-16 CL&P Four-year Outage Causes[58]

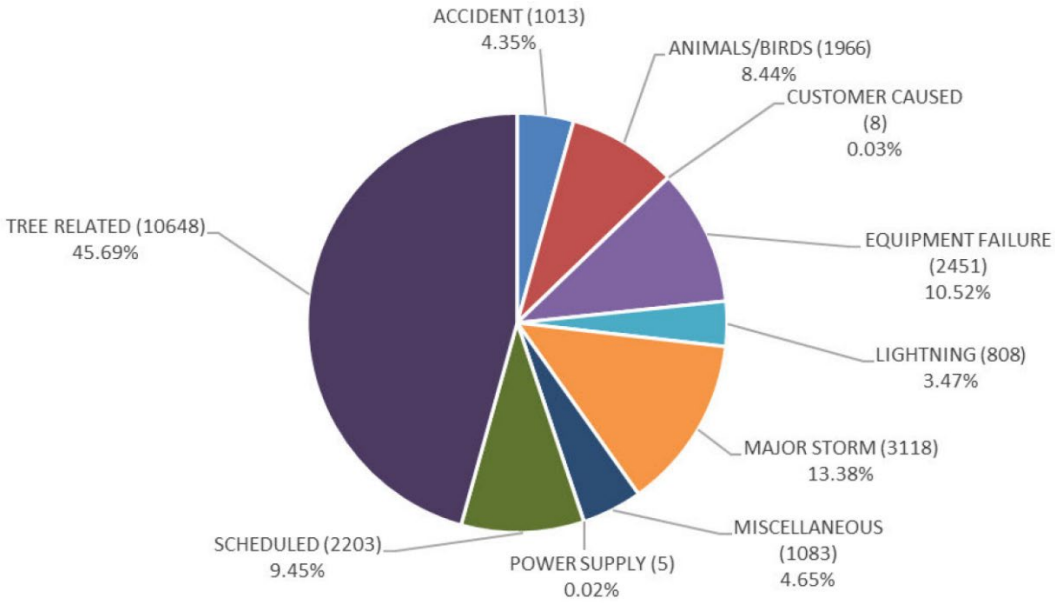


Figure 2-17 CL&P 2021 Outage Causes[59]

FTI also evaluated CL&P's circuit loading to determine if any substations or circuits were loaded above the Company's loading criteria. The loading criteria was designed to ensure that substations and circuits do not regularly exceed the thermal capacity of equipment, which can lead to accelerated fatigue and circuits outages. Additional information about System Planning is detailed in System Planning Section.

The industry typically uses "90 percent of summer normal limit" to determine when action is required to ensure that a circuit is not loaded to the point of failure. Summer is the time of year where circuit loading capacity is most

[58] Response to FTI-436, Att. 5a(ES).
[59] Ibid.

impacted given asset thermal issues and increases in demand factors such as cooling. CL&P-provided data indicates around one percent of circuits are loaded within 90 percent of their summer normal limit, which is a good result. [60]

Conversely, 13 percent of CL&P substations are loaded near capacity and are expected to be overloaded within five years. This is concerning since substation expansions or new substations solutions can take a significant amount of time to implement. This is compounded by supply chains issues impacting the industry for long lead time items such as transformers and circuit breakers. The Company stated that plans are either in development or underway to address these challenges.[61]

2.2.4.2. Gas (Yankee Gas Services) Reliability

YGS identifies leak data through either odor calls or routine inspections which is tracked and monitored to assist with determining pipeline health. This data, when coupled with other asset data such as age, installation location, materials used, protection, inspection results, and other parameters, are typically used to determine the health of assets and their subsequent inclusion in replacement programs. The Company also delineates if the data was sourced through customer complaints or through their inspection program, which provides additional information that can be used to determine the effectiveness their inspection program.

YGS's five-year leak history indicates a general decline in leaks, as shown in Figure 2-18. There was, however, an increase in leaks detected in 2021 caused by accelerated corrosion due to an increase in external (natural) causes. Natural causes are typically weather driven including abnormally cold weather and flooding which can weaken pipeline joints.[62] Corrosion had particularly impacted the Company's bare steel pipeline in 2021 which, depending on the volume of leaks, would result in their inclusion into the leak prone Accelerated Pipeline Replacement Program (ARP). Additional information about this program is provided in the System Planning Section.

YGS leak data began the five-year period high, but significant repair and replacement progress was made which is reflected by the reduction in the number of leaks. While this improvement is positive, the Company recognizes additional work remains by continuing to invest in their ARP. The program will eliminate the remaining cast-iron pipeline in 2029 and will continue their goal of replacing bare steel mains.[63]

YGS Leaks			
Year	**Grade 1 Leaks**	**Grade 2 Leaks**	**Grade 3 Leaks**
2017	517	409	947
2018	536	415	916
2019	331	382	851
2020	336	300	733
2021	392	383	639

Figure 2-18 YGS and YGS Five-Year Gas Leaks[64,65]

[60] Response to FTI-010, Att. 2(CLP).
[61] Response to FTI-010.
[62] Response to FTI-497.
[63] Response to FTI-005, Att. 2.
[64] Response to FTI-005.
[65] Response to FTI-497.

When compared to their peers, YGS repairs leaks at a similar rate with their 5 to 10 year averages trending close to the industry of around 225-250 leaks repairs, see Figure 2-19 and Figure 2-20. This indicates that the Company is similarly responsive to leaks when compared to their peers.

Overall YGS is effectively managing their pipeline through their inspection, repair and replacement programs when compared to their peers.

YGS Historical Leaks				
5 year Average Hazardous Leaks Eliminated (Leaks per 1,000 miles)	10 Year Average Leaks Eliminated (Leaks per 1,000 miles)	5 Year Average Leak Eliminated (leaks per 1,000 miles)	10 year Average Leaks Schedule for Repair (leak per 1,000 miles)	2021 Miles
73.66	202.36	159.09	8.88	5981.62

Figure 2-19 YGS Historical Leaks[66,67]

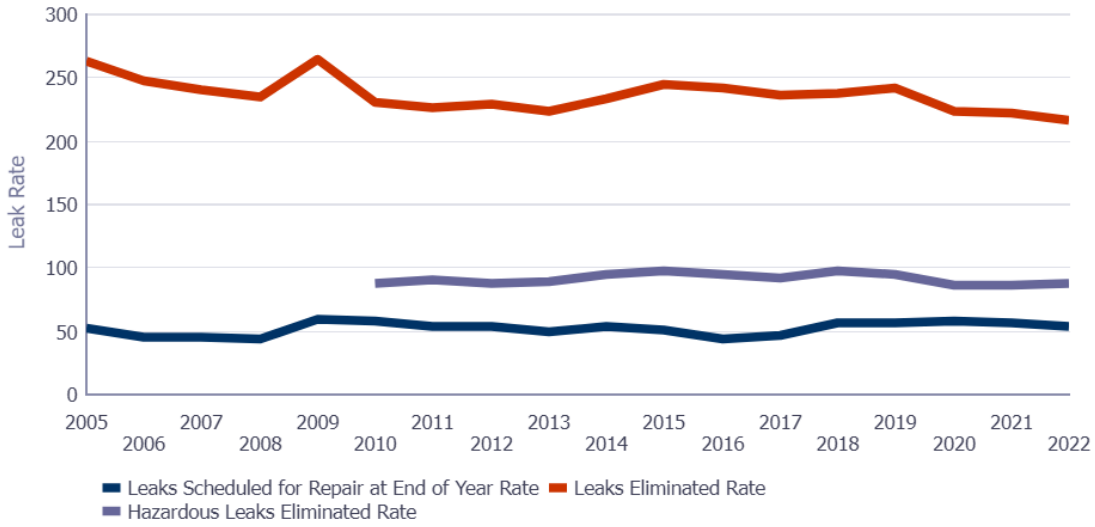


Figure 2-20 National Gas Leak Data Per 1000 miles of pipeline[68]

2.2.4.3. Water (Aquarion Water Company of Connecticut) Reliability

AWC-CT evaluates system performance using industry standard practices including monitoring margin of safety, non-revenue water, water main break rate, system pressures, and storage volumes.

The Company has an overall water main break rate of 0.1 per mile, which is better than the industry average of 21 to 27 breaks per 100 mile or .21 to .27 per mile.[69,70] The relatively low age of AWC-CT's pipeline system coupled

[66] Response to FTI-005, Att. 1.
[67] Response to FTI-005, Att. 2.
[68] Source: https://www.phmsa.dot.gov/data-and-statistics/pipeline/national-pipeline-performance-measures
[69] Response to FTI-005.
[70] Folkman, Steven. "Water Main Break Rates in the USA and Canada: A Comprehensive Study," Utah State University, March 2018.

with the materials used are likely significant drivers, but it should also be noted that the industry as a whole has experienced increased breaks due to historical lack of investment in the water system.[71]

Unaccounted for and non-revenue water usually results from persistent leaks caused by a deteriorated asset condition. Typical industry percentages range between 25 to 50 percent, with many of AWC-CT water systems operating within or below (better) this range. The Company's newer asset condition likely supported better performance overall, however, their poorest performing systems are monitored through metrics and targeted for repair/replace programs as needed. The Company also highlighted other steps taken to further improve performance, including repairing leaks in small meter pits and stepped-up efforts on enhanced leak detection.[72,73]

System pressure issues can also be a leading indicator for asset management issues and customer complaints. The Company monitors the system to identify under- or over-pressure conditions which typically result from supply issues or main breaks. Pressure below 25 pounds per square inch ("psi") or above 125 psi are highlighted and addressed with a custom solution. 17 of the Company's 68 water systems have areas with pressure issues.[74] Many of these areas have been addressed through agreements with their customers where mitigating measures such as pressure regulators or pressure boasters have been installed. The Company also routinely identifies solutions to directly address these issues through their Master Planning process.[75]

Water quality is regularly monitored and reported as required by regulation defined by the Clean Water Act and through EPA standards. The Company regularly tests and reports on water quality including through the annual Consumer Confidence Report (CCR). A review of the Company's reports over the past 5 years indicate compliance to appropriate reporting requirements and non-compliance to water quality standards/reporting appear to be managed. [76]

2.3. System Planning

System Planning is an activity that analyzes the electric, gas, water systems to identify and address any planning violations based on established criteria. The tools and metrics used to support this process include load forecasting, reliability analysis, system operational analysis, summer/winter loading, stability calculations, gas and water pressure, among others. The outcome of planning analysis can result in new capital and maintenance programs and projects, including asset replacement programs, circuit reconfigurations, new circuits, gate stations, storage tanks, new wells, and new substations. These recommendations are then prioritized and budgeted as appropriate based on a range of factors such as drivers, metrics, operational need, risks, and others. This section evaluates CL&P, YGS, and AWC-CT's System Planning capabilities, including their application of best practices.

2.3.1. Connecticut Light & Power System Planning

CL&P's System Planning is the responsibility of the System Planning group, which is led by Digaunto Chatterjee, Vice President of System Planning, as seen in Figure 2-1.

[71] https://www.epa.gov/infrastructure/water-infrastructure-investments
[72] Interview with Robert (Jeff) Ulrich Vice President Supply Operations and Sustainability, August 14, 2023.
[73] Interview with Vice President, Engineering/Planning and Real Estate, Aquarion Company (Daniel Lawrence), May 17, 2023.
[74] Response to FTI-005, Att. 3(AQ).
[75] Response to FTI-005.
[76] Response to FTI-005, Att. 4a-e(AQ).

Mr. Chatterjee manages a centralized organization that provides services to all Eversource Electric Operating Companies. His organization consists of four directors. This includes a Director for System Planning Distribution, a Director for System Planning Transmission, a Director of System Resiliency and Standards Engineering and a Director of System Solutions. While Mr. Chatterjee's team is shared across the Eversource Electric Operating Companies they are scaled differently, for example, with the difference in pace of solar adoptions in each state they operate.[77]

Specific to CL&P's distribution system, this team is responsible for providing system forecasting, system planning, DER planning, and vegetation planning. There are also two teams that perform advanced forecasting and modeling and builds and manages the Companies' forecasting models used for power flow analysis.

Transmission system planning is regionally structured with three managers responsible for planning activities. One manager is aligned to Connecticut and Western Massachusetts, and the second is focused on Eastern Massachusetts and New Hampshire. A third manager is responsible for the Off-Shore Wind transmission studies in both New England and Long Island. This division of responsibility was based on the historic shape of Eversource and the interconnection points of their system.[78]

Mr. Chatterjee's fourth Director supports the siting and feasibility of transmission projects; however, he is currently focused on projects in Massachusetts. [79]

Mr. Chatterjee stated that his organization has grown significantly since he joined the Company in 2019. His team includes a cross section of employees with varied background and experience to work on key Company and Industry challenges. Prior to his arrival, the Company was more reliant on contractors, but has since become more self-sufficient. He stated there are currently no resource challenges.[80]

2.3.1.1. Modeling and Forecasting Methodology

The modeling and forecasting methods used by CL&P are contained within their "Distribution System Planning Guide" document. This planning guide is used by all Eversource Electric Companies where it details the development of forecast models and the methodology used to develop them. The planning guide also documents the process for developing regional planning models which, as the Company describes, are "used to perform capacity, reliability, and power quality studies for bulk distribution substations, including 10-year substation capacity plans".[81]

CL&P performs planning studies on an annual basis using Synergi Electric, which considers a variety conditions and scenarios including system loading based on two peak conditions defined as:[82]

- **Peak Net Load Day:** The day which a substation experiences it's highest net loading, which includes the effective load reduction provided by DER such as solar.
- **Peak Gross Load Day:** The day which a substation experiences it's highest gross demand. This is a calculation using the loading experienced by the substation with the contribution of DER removed from

[77] Interview with Vice President of System Planning (Digaunto Chatterjee), April 26, 2023.
[78] Ibid.
[79] Interview with Digaunto Chatterjee, Vice President of System Planning (Digaunto Chatterjee), April 26, 2023.
[80] Interview with Senior Director of System Planning, November 16, 2022.
[81] Response to FTI-0009 Attachment 1(CLP).
[82] Ibid.

the total. This assists with modeling total system demand for an extreme scenario where there is no DER output.

These models are designed to consider the unique loading impacts of DER during the summer and winter seasons. However, CL&P also uses a minimum forecast which assists with the analysis of systems that are highly impacted by the influence of DER. The planning group determines which systems are modeled and analyzed using these scenarios, but at a minimum include:[83]

- All distribution substation bulk transformers
- Normal configuration transmission source transformer high side impedance
- Station bus including tie and feeder breakers
- Backbone sections of all distribution feeders "used to provide load carrying capability (LCC)"
- Non-bulk substations and as needed the secondary side of transformers

CL&P worked with their sister Companies in Massachusetts to understand the best practices for DER interconnection to ensure an alignment across the Companies. An example of this includes the use of advanced probabilistic forecasting to test the need for any future substation upgrades by creating forecast scenarios based on specific parameters for each analyzed substation. These scenarios include 11 forecast components such as DER growth, econometric trends, Energy Efficiency (EE), among others. Probabilistic forecasts are not always adopted by utilities, and CL&P's use of this tool along with the weighting of DER is an example of a best practice.[84]

CL&P addresses other key industry topics such as Electric Vehicles through their Advanced Forecasting and Modeling group. While they demonstrated their forecasting capabilities for general electric vehicle growth, CL&P did not demonstrate how they would consider the impact of Heavy-Duty Electric Vehicles ("HDEV"). HDEV represents a future spot load challenge for the industry.[85] HDEVs include Class 6 through 8 vehicles such as school buses, dump trucks, and tractor-trailer trucks, which will likely be prevalent within CL&P's service territory given its proximity to the busy Interstate corridors between New England, New York and beyond.[86] The demand profile for these vehicles will likely be significant, typically occurring during peak periods of the day, unlike electric passenger vehicles.[87] We recommend that CL&P include HDEVs and their locationally specific impacts in their system planning studies.

Also, the growth of the adult use marijuana industry has fueled locationally specific increases in electricity demand across the U.S., and as of January 2023, Connecticut has opened this market. This will result in high electric demand from growing facilities, which typically site in industrial areas with good access to transportation infrastructure.[88] Therefore, we also recommend the Company consider this influence in their locationally specific forecasts where possible.

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[83] Response to FTI-0009 Attachment 1(CLP).
[84] Response to FTI-009, Att. 1(CLP).
[85] El Helou, R., Sivaranjani, S., Kalathil, D., Schaper, A., and Xie, L. "The impact of heavy-duty vehicle electrification on large power grids: A synthetic Texas case study," Science Direct, June 2022.
[86] U.S. Department of Transportation Federal Highway Administration, "Verification, Refinement, and Applicability of Long-Term Pavement Performance Vehicle Classification Rules," U.S. DOT, November 2014.
[87] Voelcker, John. "JD Power Study: Electric Vehicle Owners Prefer Dedicated Home Charging Stations, " Forbes, February 5, 2021.
[88] Durkay, Jocelyn and Duranya Freeman. "Electricity Use in Marijuana Production, "National Conference of State Legislatures, August 1, 2016.

Recommendation: The CT Companies should embed the locationally specific influences of Heavy-Duty Electric Vehicles ("HDEVs") and other influences such as marijuana growing facilities into their long-term system forecasts.

2.3.1.2. Other Planning Inputs

In addition to load growth, CL&P's Planning Guide considers other system planning factors such as contingency planning (N-1) which considers the loss of one critical system component. Power quality (i.e., low-voltage, high-voltage, high frequency, and low frequency), phase imbalances or thermal violations are also key planning criteria included in the document.[89]

The Company has also recently included Non-Wires Solutions ("NWS") as a viable approach for correcting planning violations. PURA's docket no 17-12-03R07 which establishes the process utilities can use to consider NWS, which the Company states may impact their current approach. Documentation describing the current process was provided by the Company and includes detailed planning criteria and example applications which is consistent with other similar programs such as those in New York State.

2.3.1.3. Planning Outcomes

The output of the planning process includes a list of recommended projects based on violated planning criteria. The Planning Guide includes a process map that details the process and governance that reviews and approves the recommendations developed through the process, see Figure 2-21. The approval process includes a review first by the Solution Design Committee ("SDC") which refines (if applicable) and approves each project to move to the Distribution Capital Project Committee which reviews projects over $100,000. The Eversource Project Approval Committee then reviews and approves each project and, where applicable, updates to the capital plan are made.[90] Transmission projects are further reviewed by the Eversource Project Approval Committee for projects above $250,000.[91]

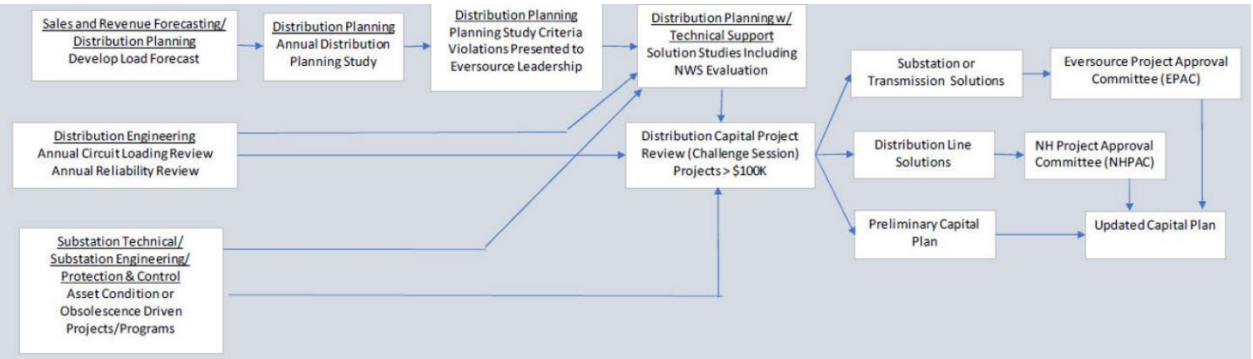

Figure 2-21 Project Initiation Process (note: NH Project Approval Committee is replaced by CT Project Approval Committee for CL&P projects)[92]

2.3.2. Yankee Gas Services System Planning

The YGS System Planning group is organized under Gregory Hill who serves as the Vice President of Gas Engineering, reporting to Mr. Akley. Mr. Hill manages his group as a centralized organization that services

[89] Response to FTI-009, Att. 1(CLP).
[90] Ibid.
[91] Response to FTI-0014 Attachment(CLP).
[92] Response to FTI-0009 Attachment 1(CLP).

Eversource's Gas Companies through two Directors who are each responsible for Engineering and System Operations. The Director of Engineering is directly responsible for the Eversource Gas Companies' System Planning activities.

According to Mr. Hill he regularly reviews staffing and that there are no major staffing issues within his organization.[93]

2.3.2.1. System Planning Process

YGS utilizes Eversource's "Gas System Planning User Manual" to describe and document a wide range of industry and operational topics such as system modeling, management of Liquefied Natural Gas ("LNG") facilities, the design and management of gate and regulator stations, system analysis used for sizing mains and services, system analysis for ARP and Gas System Enhancement Plan ("GSEP"), management of critical valves, emergency response, and long-range planning.[94]

The Company uses an industry recognized tool, Synergi Gas to model their distribution systems, which follows the fundamental flow equation with flow dependent friction. The model also includes a range of distribution pipeline and regulator values within their component set. The Company models the combined flow from all customers for various temperatures to build their Demand verse Temperature linear regression model, see Figure 2-22. YGS then uses what is called a 1 to 20 probability or a 95 percent chance that a specified hourly low temperature will not be exceeded for a heating season as measured and collected at a specified airport during a heating season. The gas distribution system is then analyzed based on peak demand, new installations, and potential equipment upgrades. [95]

[93] Interview with Vice President of System Planning (Digaunto Chatterjee), April 26, 2023.
[94] Response to FTI-0009 Attachment 1 (YGS).
[95] Ibid.

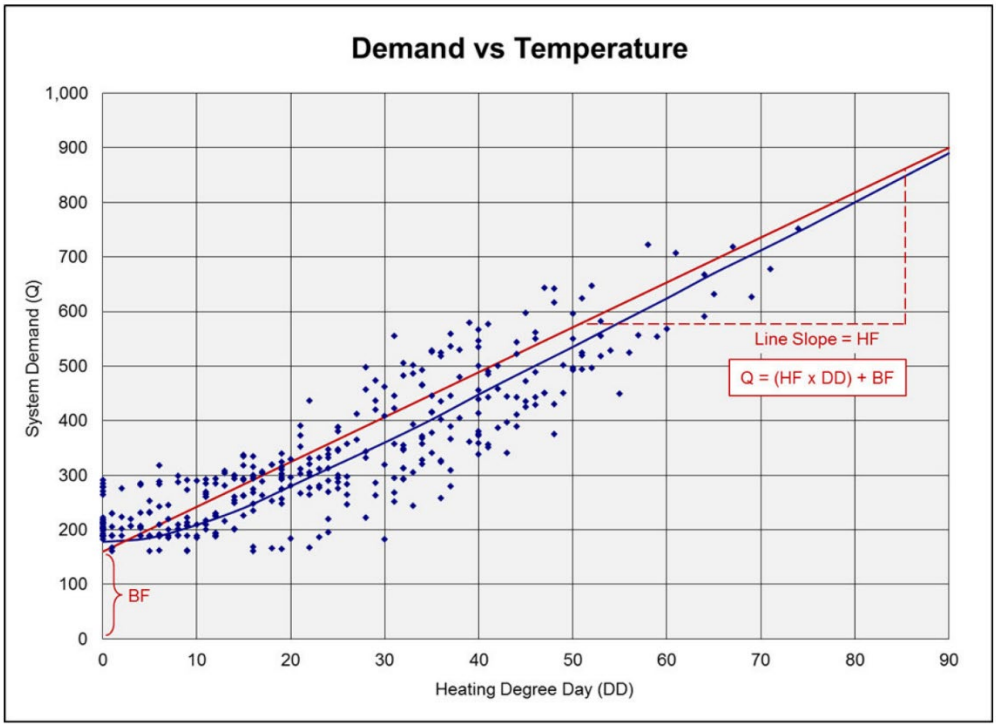

Figure 2-*22* Gas Demand Model by Heating Degree Day[96]

YGS models new connections by including load with a diversity factor where appropriate. A diversity factor considers that not every customer pulls their peak demand at the same time, but rather in a sequence such as when furnaces cycle on and off. YGS was clear, however, that they do not include load reduction factors such as energy efficiency in system design to ensure they are prepared for peak demand.

With industry topics including the electrification of heat pumps and other traditionally gas-powered equipment emerging, the Company stated these potentially load reducing influences are not currently considered in their peak demand models.[97] For now, this position is reasonable, as the current policy environment would make it difficult to understand the timing and scale of electrification. YGS predicts that mass electrification will follow the same trend as electric energy efficiency and demand reduction programs, which once these programs matured their effects can be included in forecasting projections.[98]

2.3.2.2. Planning Outcomes

The output of the planning process includes a list of recommended projects based on violated planning criteria. The Planning Guide details the next steps including project design, prioritization and the project categories. Recommended projects are prioritized based on "the more pressing the issue and/or the greater benefit to system pressure/flows, the higher the priority of the project – some requiring immediate action and other incorporated into the 5-year capital plan and schedule accordingly." Project categories includes general system improvements, flood hardening, maximum allowable operating pressure, lower-pressure conversion, and ARP.[99]

[96] Response to FTI-0009 Attachment 1(YGS).
[97] Response to FTI-0011.
[98] Response to FTI-0012.
[99] Response to FTI-0009 Attachment 1(YGS).

2.3.3. Aquarion Water Company of Connecticut System Planning

Water system planning is the responsibility of Dan Lawrence Vice President of Engineering and Planning and Real Estate, who reports to Mr. Morrissey. Reporting to him is a manager who is responsible for Supply Planning, Asset Management and Budget.

2.3.3.1. System Planning Process

AWC-CT system planning activities are focused on ensuring adequacy of supply for forecasted demand. This is accomplished through monitoring Margin of Safety ("MoS") statistics to determine the Margin ratio for each water system. The Margin ratio is derived from available supply when compared to demand. While it is not codified by the State of Connecticut, the Connecticut Department of Public Health ("CT-DPH") states that 1.15 MoS is considered the threshold for adequate water supply. Additionally, the generally accepted industry practice is a 1.15 MoS, which the Company states they follow. [100] CT-DPH indicates that 87 percent of large community public water supply meet or exceed this figure.

The Company conducts water planning studies by analyzing historical and future population trends to determine areas of growth. These trends are analyzed against historical consumption to develop projections. These projections are then analyzed against available water from surface water, wells, and storage to determine if there are MoS violations. Based on the outcome of the study, projects are considered and prioritized based on need. [101]

Of the 68 water systems that AWC-CT manages, three fall below the "average day" MoS and five systems fall below "average month" MoS. Six water systems fall below the 1.15 MoS threshold for their maximum day margin of safety. Additionally, the Company assesses the ability to meet system demand with their largest well out of service to identify priority areas for projects.

2.3.3.2. *Planning Outcomes*

The Planning study assists with determining areas that require action to manage violations to the MoS. The Company will use this to develop specific solutions where, for example, the consolidation of water systems can be implemented to increase MoS. An example includes a recent capital project that will bring supply from the Company's main system located in the Bridgeport region to the towns with greatest demand including Greenwich, Stamford, New Canaan, and Darien. [102] They can also leverage conservation, and reduction in non-revenue water approaches to understand if they can effectively mitigate or delay the need for major capital projects. [103]

These efforts will help mitigate many of the current and projected MoS violations including through a consolidation of smaller water systems with larger water systems. Once consolidated, the Company is projecting all violations will be resolved.

2.3.4. Asset Record Management

Maintaining accurate asset records is necessary to ensure the data used to support the planning process is based on actual field conditions. CL&P maintains asset information, which includes the type of equipment, its specific attributes, and locational data, through both GIS and Cascade which serves as the "base model" for their

[100] https://portal.ct.gov/dph
[101] Response to FTI-0009 Attachment 2 (AQ).
[102] Interview with President Aquarion Water Company (Donald Morrissey), April 05, 2023.
[103] Response to FTI-0009 Attachment 2 (AQ).

records.[104] Ensuring that information is accurate upon installation is managed through an as-built process as detailed in the System Design section.

YGS maintains their asset records through Daily Activity Reports ("DAR") which documents the work performed in the field. The DAR are then used to update Docuware (the Company's Document Management System) and GIS. The Company also maintains a quality control process that audits the information provided in the DAR. Any uncovered issues are documented and communicated to the appropriate representatives in management for follow up, and where appropriate, the development and implementation of an action plan is initiated.[105]

YGS also manages a re-dig program that uncovers recently completed work to determine if it meets quality standards for construction and as-built purposes. YGS stated this is currently performed for a selected sample of work, however, they indicated that they plan to accelerate this program in 2023 to expand the sample size.[106]

2.3.5. Strategic Planning

It was apparent that the Companies' considers key industry trends and challenges, including the influence of DER on the system (electric), the electrification of equipment (gas), and pending per-and polyfluoroalkyl substances ("PFAS") management (water). However, there was no clear strategic plan that provided insight into the forward-looking approaches to adapting or adjusting business models to the industry of the future. While it is reasonable that utilities plan for known events and challenges, the development of a cohesive strategic system plan to address established trends could allow the company to quickly react and adapt anticipated industry changes and policies. This includes the development of resource plans, scalable organizational structures, and the consideration of IT software and other tool to support these challenges. The development of a long-term strategic system plan is a common practice at many utilities.

Recommendation: The Companies should consider the development of a long-term strategic system plan to assist with anticipating and preparing for major industry trends. This plan would discuss key known industry challenges and opportunities along with Company strategic goals to assist with long-term resourcing needs, systems and tools, organizational alignment, and other parameters.

2.4. System Design

System design is the practice of developing a plan for and building the infrastructure needed to either extend the system, upgrade/uprate existing equipment, or improve an asset condition. These designs are guided by engineering standards and standard operating procedures ("SOP") which detail the necessary steps to comply with industry standards and to promote cost control. Additionally, best practices ensures that oversight is in place to ensure designs adhere to standards and are of a high quality to limit repeat work and as-builts.

2.4.1. Connecticut Light & Power System Design

CL&P's system design is the responsibility of Aftab Khan, Senior Vice President of Engineering, who leads a centralized organization shared across the Eversource's Electric Companies, as seen in Figure 2-1. Mr. Khan has two Vice Presidents, Asim Fazlagic and David Gladey, reporting to him who are responsible for Transmission and Distribution Engineering respectively. Mr. Gladley is responsible for distribution engineering activities outside of the substation fence including overhead and underground lines. Mr. Gladley is also responsible for the engineering

[104] Response to FTI-0011.
[105] Ibid.
[106] Response to FTI-0550.

standards that are used to specify the material and equipment used for the electric system. Mr. Fazlagic is responsible for substation design including the components that operate at a distribution voltage level, and for transmission line engineering.[107]

2.4.1.1. Design Tools

CL&P primarily uses Maximo Work Management system, which is a work management tool that is used throughout the industry, to design electric projects and to manage their execution in the field. Once a design is created, Maximo creates material lists which are populated from the Company's approved design standards. [108]

2.4.1.2. Design and Alternatives Analysis

CL&P includes a wide stakeholder group within their design review process which uses a combination of governance and formal interaction to evaluate designs for constructability and the least cost to serve. Engineers must solicit regular reviews throughout the design lifecycle including during the "project roll-out", "constructability review", and construction phases of a project. These phases require a certain level of review in order to advance to subsequent phases. The "detailed design" phase does not require a design review, but the design Engineer can work with the project team to obtain input where needed.[109]

CL&P considers design alternatives early in the project development process where two key drivers are considered, including "(1) maintaining and improving the safety and reliability of the distribution system for the benefit of all customers; and (2) accomplishing this goal at a reasonable cost." Secondary drivers include environment, line loss and other factors such as siting challenges. The Company now also include NWS as an approach to satisfy these drivers. [110]

CL&P compiles all viable solutions including NWS to determine if the least-cost traditional alternative ("LTCA") or if some combination of LTCA and an NWS is appropriate. The LTCA or combination of LTCA and NWS is presented along with the other non-LTCA solutions at the Solution Design Committee for review and design approval. [111] CL&P developed a tool that is used to assist with the process of determining the viability of a NWS and all capital projects with a value of $3M or greater. The tool was implemented to ensure that a certain level of repeatability through an equal application of review. [112]

It should be noted that the PURA Commission's Final Decision for Docket No. 14-12-03RE07 states that projects with a budget of $500k to $1M "may" provide potential NWS solicitation opportunities, and projects greater than $1M "likely" have NWS solicitation opportunities.[113] CL&P states that a $3M or greater threshold was established based on the Company's belief that "no demonstrated non-wires alternative to date that has displaced traditional cost solutions of $3M or less." Therefore, they also stated that Company resources would not be best utilized to analyze potential projects below the $3M threshold, as noted in their feedback provided in Docket No. 24-08-08.[114]

[107] Interview with Senior Vice President, Engineering, Eversource Energy (Aftab Khan), June 14, 2023.
[108] Response to FTI-015.
[109] Response to FTI-018.
[110] Response to FTI-016.
[111] Ibid.
[112] Ibid.
[113] https://portal.ct.gov/pura/electric/grid-modernization/grid-modernization
[114] Response to FTI-016, C.

Beyond NWS, it was unclear through review of Company material and interviews if a design alternative process is considered small to medium projects during the design phase. This includes considering alternative routing, analysis of construction type (e.g., selective use of spacer cable to offset vegetation management needs), and others. Many of CL&P's peer utilities embed this activity within their detail design phase which serves as an additional checkpoint to drive the least cost solutions. CL&P should consider implementing this practice for projects that reach a threshold of $250k or greater.

Recommendation: CL&P should consider a design alternative requirement during the detail design phase for all projects with an estimated budget of $250k and above. This would require the consideration of design, routing and construction alternatives that further promote least-cost solutions while satisfying Company objectives.

2.4.1.3. Cost Estimation

Cost estimation can present quality, accuracy, and repeatability challenges if standards are inconsistent and poorly defined. This can result in projects overrunning or underspending their budget, which will have rippling impacts to the Corporate Operating Plan. CL&P projects over $100k undergo a review process that begins with the SDC then with the CTPAC. The estimates are either the responsibility of the project manager ("PM") or a project initiator (if a PM was not previously assigned) who coordinates stakeholders to develop both conceptual and planning grade estimates. Conceptual estimates adhere to a -25%/+50% tolerance which is used for project analysis. Planning estimates adhere to +/-25% tolerance.[115] These high-level estimates are developed through the use of an estimating sheet where quantities for various pieces of material and equipment drive total cost. The form provided by the Company was updated in 2016, however the Company noted that a new form was under review which will supplant the one shown in Figure 2-23.

2016 Estimating Sheet (Updated 1/21/16)								
Code	Unit Type	Unit Description	Included	Unit of Measure	Unit Cost	Quantity	Total Cost	KEYWORD
ALL11	ALL	ACT Estimate for System Projects Crews		$	$1			ACT
ALL12	ALL	ACT Estimate for Contractor Crews		$	$1			ACT
ALL13	ALL	ACT Estimate for Division Crews		$	$1			ACT
ALL14	ALL	OTHER	Item not in list	$	$1			OTHER
ALL20	ALL	Credit Adjustment Value	Credit Adjustment Value	$	($1)			OTHER
ALL15	ALL	OH/DB/UG - SWITCHING Network	Labor per switching order	EA	$14,049			SWITCH NG
ALL16	ALL	OH/DB/UG - SWITCHING NonNetwork - Complex	Labor per switching order	EA	$7,024			SWITCH NG
ALL17	ALL	OH/DB/UG - SWITCHING NonNetwork - Average	Labor per switching order	EA	$3,510			SWITCH NG

Figure 2-23 CL&P Estimating Sheet[116]

Being the most refined, detail design estimates have the tightest tolerance and are developed through CL&Ps Maximo work management tool to drive consistency for project estimates. This standardizes the labor and material cost across all projects which use actual cost data. Projects that go before the SDC and CTPAC require a constructability review to either validate or update the design estimates to accurately reflect project costs. Once complete, these projects undergo an additional CTPAC review.

This process, governance and estimating tolerances follow typical industry conventions.

[115] Response to FTI-022, Att. 1 (CLP).
[116] Response to FTI-009, Att. 1(YGS).

2.4.1.4. As-builts and Data Quality

As-builts are used to capture any changes between the original design and final construction to ensure record accuracy. Typically, as-builts are not unusual and can either occur on a small or large scale based on a variety of factors. For CL&P the process begins with field construction crews indicating that changes exist between construction and design. This action begins the as-built process where Maximo creates a requirement for the design engineer of record to initiate an as-built design which must be completed before the work order can be closed. Maximo will also perform a material balance check which compares the materials issued against the material used for construction. If there is a mismatch between the two, the system requires correction prior to close out. Once closed out is achieved CASCADE is updated with the correct asset information, and GIS mapping data is updated to reflect the geographical representation of assets. Critical operational devices such as switches are updated in these systems upon energization and does not wait for the work order close out process to complete.[117]

Maximo also prepares a summary report that is used by supervisors to determine if there are any systemic issues with as-builts that should be addressed. This practice provides good oversight to ensure that as-builts are completed in a timely manner. Trends are monitored and corrected if systemic issues are identified. [118]

Substation and Transmission projects follow a similar process with differences relating to the systems updated. Additionally, Transmission projects that fall under the requirements of New England Independent System Operator (NE-ISO) OP16 which require modeling of equipment thermal ratings that are reported on and regularly validated. [119]

All Company suppled documentation detail the as-built procedures and guidelines including the processes and policies. The Company also embedded as-builts within their Change Management process and other sections within the Project Management Process documentation. The overall process and documentation are consistent with industry practices.

2.4.2. Yankee Gas Services System Design

2.4.2.1. Design Tools

YGS utilizes several tools to manage their system design including Synergi Gas, Smallworld GIS and EGIS Hub (ESRI), and Docuware.[120] Synergi Gas is a tool used to model gas system performance based on conditions that the Company selects to model. These models are the initial step for planning studies that are used to create new projects. [121]

Small World GIS and EGIS Hub documents the geographical details about the distribution system. This tool is updated using the Company's DAR process which ensures timely and accurate field information as the system is updated with new assets. These updates are reviewed on a weekly basis with changes made as appropriate. Quality control is assured through regular DAR sample audits, with corrective actions referred to the appropriate manager. This tool is also used to support the design process for new projects. [122]

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[117] Response to FTI-020.
[118] Ibid.
[119] Ibid.
[120] Response to FTI-015.
[121] Ibid.
[122] Ibid.

Docuware is the repository for the Company's documents that are created and maintain for a variety of purposes. The system supports an orderly change management process where documents are updated and revised as necessary.[123]

2.4.2.2. Design and Alternatives Analysis

YGS's design alternative practice is similar to CL&P's, but with differences due to the nature of work performed. Major capital programs and projects undergo review during the Project Sanctioning Committee meeting which includes most members of the senior leadership team. Reliability projects (gap closure projects) and any pipeline crossing that include bridges, culverts, and railroads have a variety of approaches that are considered including the use of horizonal directional drilling ("HDD"). HDD can limit the amount of disturbed area which, along with other benefits, can decrease costs. Additionally, regulator station rebuilds projects are generally direct replacement which limits the opportunity for alternatives.

The Company stated that pipeline replacement work also eliminates the opportunity to consider design alternatives, since the replacement is direct in-kind. These practices are consistent within the industry.

2.4.2.3. Cost Estimation

YGS cost estimation practice is dependent on whether the design is Complex or Standard. Standard designs include pipeline replacement projects or new mains that are 12 inches or less in diameter and less than 100 psig in operating pressure. These designs are estimated using an Excel file that contain a variety of unit costs and overhead adders including contactor rates. These designs are developed using GIS maps, service records and Google Street View maps which are used to assist with determining length and the quantities needed. Standard Design Estimators create the estimates, and the Project Manager is responsible for them. Estimating accuracy is reviewed through the project estimation process.[124]

Complex designs adhere to a similar process but are typically outsourced to contractor crews who typically work on a unitized cost or lump sum bid basis. The Company will use the same estimating sheet as Standard Designs, but Project Engineering is responsible for the development of Complex Design estimates instead of the Standard Design Estimators. This estimating process begins with reviewing prior projects with similar scope to establish a benchmark. Project specific factors are then incorporated into each cost estimate, including any cost escalators. The Company reviews estimating accuracy through the Project Engineering team. [125]

The Company maintains documentation that detail the process and policies concerning estimating which align with industry practices.

2.4.2.4. As-builts and Data Quality

YGS's DAR process is used to document work performed including any changes from the original design. The DAR is uploaded into the Company's documentation system, Docuware, and the work location is pinned in GIS. Once the job is complete, the DAR is compared to GIS as part of the Company's QA/QC process. If issues are identified during this comparison, an email is sent to understand and clarify the issue.

Additional QA/QC methods includes comparing mapping in GIS to ensure accuracy including determining if the correct material and equipment is coded properly. The Company documents any as-built issues and tracks them

[123] Response to FTI-015.
[124] Response to FTI-019.
[125] Response to FTI-019.

to identify any systemic issues that need resolution. They also use their Hazard ID and Gas Asset and Risk Management program to identify issues with design or work procedures.[126]

2.4.3. Aquarion Water Company of Connecticut System Design

2.4.3.1. Design Tools

AWC-CT uses Water Gem which is a hydraulic modeling tool used to model impacts on the distribution system, specifically to determine if a proposed solution provides its intended benefits, and to support the analysis of alternatives. This analysis also includes determining operational and fire flow results. The Company's GIS system provides information concerning asset location and specifications. GIS is also used to support the design process by providing background for Water Gem's modeling process. [127]

2.4.3.2. Design and Alternatives Analysis

Many of the AWC-CT engineers serve in a Project Manager capacity with designs developed and completed by consulting engineers who are contracted by AWC-CT. Project Managers provide project and design review oversight, along with guidance about system particulars using their engineering experience.[128]

AWC-CT has a similar alternative analysis process to CL&P and YGS. The Planning phase is the second step in a four-step process used for managing capital projects, and is where the Project Management Committee ("PMC") determines if project objectives are met by the least cost option. [129] Operations is also included in alterative analysis review to assist with any operational and constructability concerns.[130]

The Company stated that alternative analysis is not conducted for water main replacement work, because they are typically replacement in-kind.[131]

2.4.3.3. Cost Estimation

AWC-CT consulting engineers must provide an Opinion of Probable Cost ("OPC") using costing data from past projects with similar scope. As project development matures, their estimates are expected to adhere to increasing levels of accuracy tolerance:[132]

- **Alternatives Analysis:** +/-50 percent
- **Design:** +/- 25 percent
- **Execution:** +/-10 percent

The estimate QA/QC process uses these tolerances to assess project compliance by comparing final project costs with estimates from the design and execution phase. The outcome of this analysis is included with project documentation, and off-target performance includes explanations.

2.4.3.4. As-builts and Data Quality

Project as-builts for AWC-CT are collected by the Project Manager during the project closeout phase. The Company has a defined set of documents for water main replacement and extensions that must be supplied during close

[126] Response to FTI-020.
[127] Response to FTI-015.
[128] Interview with Vice President, Engineering/Planning and Real Estate, Aquarion Company (Daniel Lawrence), May 17, 2023.
[129] Response to FTI-016.
[130] Interview with Vice President, Engineering/Planning and Real Estate, Aquarion Company (Daniel Lawrence), May 17, 2023.
[131] Ibid.
[132] Response to FTI-019.

out. This includes the bid drawings, tap cards, and completed work requests. The collected documentation is then forwarded to the Manager of GIS and Records Management for updates and document retention. Other capital projects follow a similar process with the added step of including O&M manuals with project documentation.[133]

2.5. Project Management

Project Management is a wide-reaching discipline that manages major construction projects through standardized processes that promote communication and coordination of the major tasks necessary to manage scope, schedule, budget, quality, benefits, and risks. This discipline is seen as a valuable tool to manage the complexities of a project, including the coordination of multidisciplinary groups, and is known to be effective at containing costs while ensuring on-time delivery of projects within scope.[134]

Each Company maintains their own practices and processes for managing projects. Specifically, within CL&P, smaller distribution projects and less complex programs are managed through the Electric Field Operations organization which is divided into two geographic areas. Each area has a project manager who manages smaller projects and programs. They also manage the field-based employees who are responsible for performing construction activities.[135]

The Transmission organization is responsible for managing the large and complex distribution, substation and transmission projects. These large projects and programs are governed through the following documentation which serve to drive transparency and consistency:[136]

- **Capital Project Approval Process (JA-AM-2001-A, Rev. 7):** Describes the capital project initiation, approval processes, and governance for CL&P.
- **Integrated Planning and Scheduling Process Playbook:** Describes the planning activities for the annual work plan, work order planning for schedule development, and weekly and daily scheduling.

Many of YGS projects are managed through a centralized group led by Mark Gunsalus who is a General Manager with additional responsibilities for Eversource's acquisition of Columbia Gas of Massachusetts'. His team is specifically focused on complex projects excluding certain LNG plants and other facilities which are managed under Mr. Hill's organization. This split in responsibilities was driven by the different vendors and standards used for specific assets.[137] However, all projects coordinated through the use of a "Project Authorization Policy – APS 1 – Project Authorization Policy" and a "Project Management Playbook Gas Operations."[138]

YGS's "Project Authorization Policy" is similar in design to the "Capital Project Approval Process" used for CL&P projects. The policy is specifically focused on the governance process and the required approval steps to advance a project forward. The Project Authorization Policy is used for a variety of project types including, for example, IT projects. However, what was not clear was why the Gas and Electric Companies have differing policy documents to describe similar processes.

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[133] Response to FTI-020.
[134] Armshaw, Derek, "How to Get Big Benefits from Project Management Basics," Project Management Institute, May 25, 2005.
[135] Interview with Vice President, Electric Field Operations, Connecticut Light & Power (Robert Frenna), June 28, 2023.
[136] Response to FTI-020.
[137] Interview with President, Gas Distribution (William Akley), March 29, 2023.
[138] Response to FTI-022.

Similarly, while YGS Project Management Playbook and CL&P's Integrated Planning and Scheduling Process Playbook contain similar themes, CL&P's Playbook is focused on the work management process and less on Project Management Processes like YGS's Playbook. There is an opportunity for CL&P and YGS to consolidate playbooks and seek ways to optimize their project management processes.

AWC-CT manages projects primarily through Mr. Lawrence's Real Estate and Engineering and Planning group. The Company did not provide their project management playbook for review, but they described their four-stage project management process which generally follows industry practices. However, they are missing the important project close out phase, which is where projects are administratively closed. This includes the collection and completion of as-builts, review of project forecast verse actuals, collection of lessons learned, among other activities.

Recommendation: The Companies should work to consolidate their project management processes and documentation so they are aligned and utilize best practices. This effort should include the development of a Project Management Process design group that is composed of subject matter experts across the Companies who design, review and approve any changes or updates. AWC-CT should also include close out as a major project management process that assures close out activities, similar to CL&P and AWC-CT.

2.5.1. Investment Management

2.5.1.1. Capital Budget Development and Prioritization Process

As previously discussed, the Company reviews and selects projects through a process which considers a range of factors to determine the spending priorities for each Company. CL&P and YGS both referenced the "APS 1 Project Authorization Policy" document which details the steps and governance necessary to move capital projects from review to approval. The Companies also detailed how projects are evaluated in accordance with this policy. CL&P and YGS both prioritize major projects to create their 5-year long-range forecast called the Strategic Plan. The Strategic Plan is then used to inform the priorities during the Companies' annual budget development process. These projects are further prioritized based on a balance of electric and gas system needs, and through financial and performance targets established through the strategic planning process.[139]

YGS also uses a process called the annual Gas Asset Management Evaluation System ("GAMES") that is used to prioritize pipeline replacement. GAMES has a weighting and scoring system that is used as the starting point for project evaluation. This allows the Company to consider other priorities outside of those within GAMES to further refine the prioritization process.[140]

AWC-CT prioritizes their projects during the development of Water System Master Plans which is a forward-looking plan with an eight-to-12-year planning horizon. These plans are then actively monitored to determine if any adjustments or advancement of projects is required to support Company goals. The Company also maintains a list of priority assets which is also used to support the prioritization of projects. This list is updated based on actual asset performance, which are assigned a score of zero through three, with zero being a non-priority and three being the highest.[141] AWC-CT stated that this is managed by the PMC which is responsible for reviewing and approving projects through the Company's four project stages.[142]

[139] Response to FTI-023.
[140] Response to FTI-487.
[141] Response to FTI-487, Att. 1(AQ).
[142] Response to FTI-023.

All three Companies were asked to provide documentation that details their respective prioritization processes. This typically includes the categories evaluated, weighting, scoring criteria and the mechanics of how to manage the process. CL&P and YGS response was the "APS 1 Project Authorization policy" which does not have any prioritization information. YGS did provide some level of detail for their prioritization process including scoring criteria, however, CL&P did not. AWC-CT did not provide any documentation that specifically detailed the prioritization process, only rate case testimony which describes the process and scoring. The lack of documentation makes it difficult to ensure that consistent results are achieved and based on established criteria.[143]

The tools used by the Companies to prioritize projects is also inconsistent. CL&P referenced an Excel based tool. YGS did not indicate if any tool is used other than GAMES which is used to prioritize asset replacement not project priority. AWC-CT does not use any tools to support prioritization.

Prioritization tools when used with a well-defined process can promote consistency to ensure that the process can not be circumvented (e.g., the loud project sponsor moving a pet project forward). Most peers have established tools for this purpose.

Recommendation: The Companies should develop a project prioritization process as either a standalone document or within existing documentation that includes best practices from the industry and internally. The Companies should also evaluate and implement a tool that assists with the consistent prioritization of projects. Since each Company has unique needs and methodologies, the tool or tools considered should be flexible.

2.5.1.2. Project Execution

The steps that follow project prioritization include the refinement of scope, detailed design, environmental reviews, and the procurement of materials. The project manager also needs to develop a resourcing plan to determine how their project will be staffed. This Section evaluates the application of these practices at the Companies.

2.5.1.3. Equipment and Material Sourcing

Recently, lead times for material and equipment have grown significantly due to COVID-19 related supply chain challenges. These challenges and how the Companies are mitigating them are evaluated in more detail in Chapter 7.

CL&P and YGS both use similar methods for sourcing equipment and material which includes the three-tiered approach detailed below:

- **Fulfillment from Inventory:** Fulfilled from existing inventory that is stocked through the normal course of business. Preestablished inventory levels are maintained on a regular basis.
- **Direct Fulfillment from Distributor:** Fulfilled directly from a distributor with items shipped from the distributor's warehouse to a project location.
- **Direct Fulfillment from Manufacturer:** Fulfilled directly from a manufacturer. This is typically used for long lead time items or for specialty manufactured equipment and materials.

One of Utilities biggest schedule risk is caused by the lack of timely equipment and material delivery. This is usually prominent with custom ordered equipment and material, or if there is a significant led time to manufacture. To

[143] Response to FTI-023.

manage this CL&P and YGS order long lead items as early in the project development process as possible. For CL&P this could result in ordering material up to 1 year prior to need. YGS also follows a similar practice with equipment and material ordered as soon as projects are approved for execution. AWC-CT also follows a similar practice.[144]

2.5.1.4. Resource Management

Project resourcing balances the availability of resources with cost and productivity. It also optimizes resources so that each project is delivered within scope, schedule, and budget. This occurs by analyzing the type of resources used including contracted versus in-house crews, and dedicated project resources versus platform crews.

CL&P, YGS and AWC-CT all use contractors to construct many of their largest projects and programs. YGS and AWC-CT outsource most of their work with little to no project construction performed by internal crews. CL&P uses a more balanced approach where they completely exhaust their internal construction employees first then source contracted resources to fill any gaps. This is managed through the Company's Integrated Planning and Scheduling group who has holistic view of the annual work plan.[145]

For small projects (less than $250k), CL&P uses a contractor of choice ("COC") model where preferred contractors are pre-selected through a procurement event which establishes prescribed unit prices. The Engineering and Field Operations group is responsible for reviewing bids and comparing them to internal estimates. Once reviewed and approved the project moves through the Company's procurement process and work is awarded to the successful COC. Projects over $250k have a formal scope of work document sent to the COCs for competitive bids. Work is awarded to the most successful bidder.

Similar to CL&P, YGS also uses a COC model where smaller projects are resourced from preselected vendors who "met the standards of pricing and qualified resources". Larger and complex projects are competitively bid which undergoes a procurement review before award. [146]

AWC-CT outsources all construction work through a competitive bid process using vendors they have existing relationships with. [147]

All three Companies use their supervisors or consulting engineers (YGS also uses inspectors) to oversee work in order to contain contractor cost. An example includes the required review and approval of changes prior to commencing with any additional out of scope work.[148]

2.5.1.5. Productivity

Effective resource management includes evaluating the number and types of resources throughout the year to determine if levels are appropriate. Ensuring that these resources are as effective as possible is achieved through productivity tracking and the use of time studies.

CL&P stated they benchmark internal resources to evaluate productivity against their peers. However, provided data was only focused on Vegetation Management Costs and O&M productivity. The Company stated that Contactor productivity is assured through the use of lump sum or not to exceed contracts. This approach can drive

[144] Response to FTI-024.
[145] Response to FTI-026.
[146] Ibid.
[147] Ibid.
[148] Response to FTI-028.

productivity, but still requires oversight to ensure that contactors are working safely and within Company standards.[149]

Since YGS and AWC-CT competitively bid all capital projects they do not conduct formal productivity studies. [150]

While the Companies' competitive bid and lump sum contracts can be an effective for managing productivity, it also requires supervisors to be in the field so they can oversee work to ensure safety and quality standards.

To this point, CL&P has a unique arrangement which recognizes that supervisors need to balance office time with field time, so they have select supervisors dedicated to performing office related tasks while the remaining supervisors are expected to be in the field to manage safety, productivity, and quality.[151] This approach is also used by certain peer utilities since it allows for more consistent face time with crews.

YGS stated that they perform supervisor time studies to determine how they spend their day, however, the material provided by the Company was focused on field crew productivity for specific tasks and functions.[152] There was no time study information.

AWC-CT also does not perform formal supervisor time studies. The Company stated that similar to CL&P their Chiefs and Senior Chiefs have the most job experience and are in the field full-time supervising work activities. The Work Lead along with Managers are expected to be in the field 25 to 50 percent of their working day. While this does promote leadership presence is it critical to increase this as much as practicable.

Both YGS and AWC-CT would benefit from supervisor time studies to determine exactly how much time is split between the field and the office. This will help identify trends and opportunities to maximize field supervision time.

Recommendation: CL&P needs to provide a comprehensive set of productivity trackers to Operations leaders on a regular cadence. CL&P should also perform regular crew productivity tracking to assist with decisions on when to use and not to use contracted resources. YGS and AWC-CT should also conduct time tracking studies for field-facing supervisors so they can determine if time is focused on supervising field crews as much as practicable.

2.5.2. *Project Management Tools*

Capital projects are comprised of multiple processes and activities with several layers of governance to manage, monitor and control performance. The collection of projects (or portfolio) must all be managed together to ensure an optimized mix of resources while spending within their allotted annual budgets. This complexity coupled with the need for a wide range of project information is the primary driver behind utilizing a project and portfolio management ("PPM") tool.

CL&P and YGS both utilize several tools to manage projects which include the following:[153]

- **IBM Maximo:** Is used to manage the Companies' work management processes. This includes the development of work orders to manage project milestones.
- **PowerPlan:** Is used to manage and track all financial transactions associated with each individual project.

[149] Ibid.
[150] Response to FTI-026.
[151] Interview with President, Connecticut Light & Power (Stephen Sullivan), March 27, 2023.
[152] Response to FTI-716.
[153] Response to FTI-796.

- **Oracle Primavera:** Is used to manage the project schedule and their associated dependencies.
- **IBM Planning Analytics:** Used for project reporting.

CL&P uses a "Project Portal database" to track all projects. YGS uses their Salesforce Customer Relationship Management ("CRM") tool to track new gas connection requests.

AWC-CT uses an integrated PPM module within their SAP software suite to manage many of the functions needed for project management. Schedules and their dependencies are tracked using Excel spreadsheets. AWC-CT should consider implementing a network, cloud-based, or expanding their existing PPM to provide enterprise-wide visibility into projects, similar to CL&P and YGS's Primavera tool. This will provide more consistent documentation with updates made in real time which is visible to authorized users.[154]

Recommendation: AWC-CT should consider moving toward a network or cloud-based tool Project and Portfolio Management database that provides project schedule and dependency visibility across the enterprise. This will provide several benefits including enterprise-wide visibility, more effective version control, access control, and real-time updates among others.

2.5.3. *Scope, Schedule, and Budget Attainment*

Project performance management is the responsibility of the Project Manager with other leaders providing oversight to ensure the delivery of commitments. Detailed project documentation is critical for managing projects and ensuring transparency since they guide each project through their lifecycle and provide a baseline that performance can be evaluated upon.

We reviewed sample documentation for several recent gas, electric, and water projects to evaluate the monitoring and control capabilities. The provided documents varied with their use of formats and content, and while they contained a great level of technical detail, they were missing details that would be considered essential for project documentation. This includes project schedules, resource plans, and risk registers. CL&P's documentation includes scope and justification which serve as a project charter, but YGS and AWC-CT either lacked this information or were inconsistent with their documentation. Project approval documentation is also inconsistent.[155]

Recommendation: Project documentation for all Companies should be expanded and where possible standardized. Documentation should include but not be limited to project charters (includes scope, justification, etc.), project approval logs, project financials, schedule, resource plan, risk register, lessons learned, and status reports.

FTI also reviewed Leadership scorecards which include Project Authorization Compliance and capital spend. The Company appeared to have challenges with managing Capital spend and had mixed results with respect to Project Authorization Compliance.[156] Capital underspend was sustained through the review period but improved over time. The Project Authorization Compliance measure began with on-target performance but dropped over time. While specific conclusions could not be made given the data available, the Company appears to be actively managing performance.

[154] Ibid.
[155] Response to FTI-029.
[156] Response to FTI-027.

FTI further examined the Companies' ability to manage the capital budget to determine if they effectively deliver on commitments and, where necessary, effectively reprioritize projects to account for overspend, underspend, or other factors such as delays.

Capital spend variance greater than 10 percent was observed at points during a five-year review period, as shown in Figure 2-24. CL&P stated that variances in 2018, 2019 and 2021 were caused by storms that were capitalized and the associated post storm work. Additionally, CL&P initiated a direct buried cable replacement program rather than conducting planned repair work.[157] Direct buried cable becomes problematic as they age since the materials used to backfill trenches can eventually breakdown cable insulation which results in eventual failure. The most effective way to implement long-term reliability improvement is through replacing the old cable with cable in conduit. These variances are reasonable and do not indicate any systemic issues.

YGS variances in 2017 and 2018 were due to additional work required for joint sealing and steel coupling replacements, costs that carried over from a completed LNG plant, and scope changes due to DOT requests.[158] Since the variances were limited and have not occurred since 2018 there does not appear to be any systemic issues.

AWC-CT had one variance in 2017 with a similar experience as YGS.[159] Given that there was only one variance over the review period coupled with tight budget management over the successive years, there doesn't appear to be any systemic issues that require correction.

Capital Plan vs Actuals (thousands)									
	CL&P			YGS			AWC-CT		
Year	Actual	Plan	Variance	Actual	Plan	Variance	Actual	Plan	Variance
2017	$ 358,900	$ 335,990	6.8%	$ 151,480	$ 171,610	-11.7%	$78,739	$69,587	13.2%
2018	$ 408,940	$ 325,110	25.8%	$ 168,250	$ 193,890	-13.2%	$92,796	$90,130	3.0%
2019	$ 417,920	$ 357,300	17.0%	$ 215,190	$ 199,740	7.7%	$100,239	$96,181	4.2%
2020	$ 402,390	$ 371,350	8.4%	$ 213,800	$ 199,220	7.3%	$119,930	$116,615	2.8%
2021	$ 40,910	$ 36,470	12.2%	$ 237,210	$ 239,620	-1.0%	$138,612	$143,853	-3.6%

Figure 2-24 Capital Plan Versus Actuals – Five Years[160,161,162]

FTI also evaluated the Companies' 10-year forecast of capital expenditures, to determine if there were any major year-over-year variances. CL&P and AWC-CT both have flat spending over the next 10 years with no new major programs indicated, as shown in Figure 2-25. CL&P, however, indicated significant spending increases in 2023 and 2024 and a significant decrease after 2027. The Company stated that five projects were key contributors to this spending profile, including a flood mitigation project, line and substation rebuilds, and certain transmission projects. The decrease in spend beyond 2027 is the result of these projects reaching their conclusion.[163]

[157] Response to FTI-488.
[158] Response to FTI-495.
[159] Interview with President, Aquarion Company (Donald Morrissey), April 5, 2023.
[160] Response to FTI-032, Att. 2(AQ).
[161] Response to FTI-032, Att. 2(CLP).
[162] Response to FTI-032, Att. 2(YGS).
[163] Response to FTI-732.

Capital five year Long Range Plan (thousands)					
Company	2022	2023	2024	2025	2026
CL&P	$ 517,800	$ 531,000	$ 527,600	$ 511,100	$ 512,000
YGS	$ 283,000	$ 361,000	$ 379,600	$ 371,100	$ 357,200
AWC-CT	$ 143,224	$ 164,225	$ 179,715	$ 188,126	$ 203,446

Figure 2-25 Capital 5-Year LRP, 2022-2026[164,165,166]

2.5.4. Impacts Due to COVID-19

CL&P, YGS and AWC-CT stated that COVID-19 had impacts on their capital projects due to a variety of factors including a self-imposed moratorium of customer facing activities, and supply issues resulting the difficulty of obtaining material for projects which is detailed in Chapter 7. However, this situation is not isolated as the entire industry is still facing ongoing supply chain issues, especially with long lead time items. The Companies each noted how they adapted to this including through certain work method changes, the use of alternate suppliers, and by taking advantage of lower traffic volumes to accelerate work in the roadway.[167] The Companies' adaptation follows industry practices during the pandemic, and while there appeared to be individual challenges at the project level, the Companies were also able to meet their capital budget to ensure that work was still performed.

2.6. Operations and Maintenance

Performing regular operation and maintenance ("O&M") tasks on electric, gas, and water systems is a core responsibility given the stress they face due to fluctuations in weather, increases in demand, and infrastructure age, among others. This Section evaluates the Companies' ability to operate and maintain their respective systems by evaluating if they properly plan for and execute maintenance activities, manage their inspection programs effectively, and comply with the Call Before You Dig ("CBYD") program.

Several groups are responsible for O&M at CL&P, however, the core responsibility remains with the Engineering and Field Operations group (shown in Figure 2-1) Gas Operations is responsible for O&M at YGS (shown in Figure 2-4), and this responsibility is split among Operations and Utility Innovation and Supply Operations and Sustainability for AWC-CT (shown in Figure 2-7). Each Companies' O&M budget is developed through a top-to-bottom then bottom-to-top process where leadership sets budget goals and their teams refine the budget based their understanding of specific needs to arrive at a final recommended budget.

This process begins with leadership communicating budget targets for the upcoming fiscal year. The major budget categories include Labor, Employee Expenses, Fees and Payments, Materials, Outside Services, Vehicles, Reimbursements, Benefits, and an "Other" category. The Operating Company Presidents ask their teams to provide their individual budget recommendations which are based on historical performance. The Operating Company Presidents will then consolidate and provide budget recommendation to the COO for review and challenge. Once complete, the COO presents this refined budget to the senior leadership team including the CFO for approval. [168] The Operating Company Presidents stated that their O&M budget requests have not been constrained in by the leadership team.

[164] Response to FTI-032, Att. 1(AQ) (confidential).
[165] Response to FTI-032, Att. 3(CLP) (confidential).
[166] Response to FTI-032, Att. 3(YGS) (confidential).
[167] Response to FTI-031.
[168] Response to FTI-033.

Each Companies' five year historical spend verse budget indicates little variation with the exception of CL&P in 2017, as shown in Figure 2-26. CL&P's budget overrun was caused by increased storm activity which did not reach the threshold for major event qualification.[169] This exogenous factor aside, the Companies have remained within their O&M budgets. Their annual O&M budget growth rate also remains within an acceptable rate of inflation or less.

O&M Plan vs Actuals (thousands)									
	CL&P			YGS			AWC-CT		
Year	Actual	Plan	Variance	Actual	Plan	Variance	Actual	Plan	Variance
2017	$ 178,624	$ 158,317	12.8%	$ 42,857	$ 43,052	-0.5%	$69,595	$67,116	3.7%
2018	$ 167,366	$ 157,399	6.3%	$ 43,739	$ 42,893	2.0%	$69,368	$69,595	-0.3%
2019	$ 175,909	$ 180,230	-2.4%	$ 45,986	$ 44,160	4.1%	$67,672	$69,368	-2.4%
2020	$ 175,011	$ 177,971	-1.7%	$ 45,533	$ 46,559	-2.2%	$71,715	$67,672	6.0%
2021	$ 182,070	$ 198,155	-8.1%	$ 45,034	$ 49,310	-8.7%	$72,835	$71,715	1.6%

Figure 2-26 O&M Five-year Plan Versus Actuals[170]

CL&P and YGS both do not perform long range forecasts for O&M, therefore FTI is unable to conduct analysis to determine their O&M growth projections. AWC-CT provided their 5-year O&M projections, however, the forecast did not appear to align to historical spend which made further analysis not possible.[171]

2.6.1. Maintenance and Inspection Work Management

This section evaluates how maintenance and inspection activities are scheduled so that cycle times are maintained. It also evaluates how schedule exceptions are managed so programs remain on track.

CL&P schedules their maintenance and inspection work through the Integrated Planning and Schedule team which is responsible for developing and managing crew schedules using the Company's Primavera P6 project and portfolio management tool. The EFO group is responsible for using this schedule to create timely work orders within their work management system, Click Schedule, which updates the field workforce's mobile workforce management tool, Click Mobile.

Overall, schedule attainment is achieved by scheduling the work so it is completed in advance of year end and is monitored through weekly and monthly work plan meetings.[172,173] The intent is to provide enough buffer to allow for schedule deviations (or exceptions) so that annual maintenance and inspection requirements are achieved. Leadership monitors a maintenance dashboard which includes progress on maintenance and inspection programs for all divisions.

CL&P supervision and management team establishes maintenance and inspection productivity targets for field crew, which are monitored from Click Schedule using Power BI analytics. Productivity results are then used to refine the following year's schedule.

[169] Response to FTI-488.
[170] Response to FTI-031.
[171] Response to FTI-032.
[172] Response to FTI-034.
[173] Response to FTI-035.

CL&P internally benchmarks productivity; however, peer benchmarking or time studies are not conducted. These studies can be used to optimize the performance of field crews, or to identify systemic productivity issues.[174]

YGS's work management practices and tools used for maintenance and inspections are similar to CL&P, including how productivity is monitored. YGS has maintenance dashboards and productivity charts which includes progress and productivity. The reports are detailed and provide information about year-to-date progress and targets. The Company indicated that they conduct time-studies to determine the amount of time needed to perform specific work activities, however, they do not formally benchmark to determine efficiency.[175,176] [177]

AWC-CT uses SAP for managing their maintenance and inspection programs. These programs are developed around a tri-, bi-, annual and monthly maintenance and inspection cycles. Each local supervisor is responsible for scheduling work in coordination with their SAP Planning/Coordinators. Work is then pushed to the field crews through the SAP Mobile work management system.

AWC-CT maintains dashboards that track the progress of maintenance and inspection activities, however, they only provided a limited sample for review. From this sample FTI was unable to determine if they track progress against targets or determine if these reports feed performance reports.[178] The Company did not indicate if they monitor productivity or conduct benchmarking.[179,180]

Recommendation: The Companies should consider conducting peer benchmarking to determine the efficiency of their work practices and productivity related to O&M tasks. They should also ensure that program status is clearly tracked and monitored by leadership.

2.6.2. Call Before You Dig Program ("CBYD")

The state of Connecticut CBYD program was developed to minimize the risk of digging into underground utility infrastructure, which can often result in the damage of underground gas pipeline, buried underground electric cables and water lines. This can lead to outages, injuries, and even death. To comply with this program, each Company "mark out" gas, electric, and water infrastructure with a clearly visible warning to alert third parties to potentially conflicting dig locations.

CL&P, YGS, and AWC-CT independently manage their CBYD programs. CL&P completely outsources much of their CBYD responsibilities to USIC, a company that specializes in locating services across the country. CL&P is responsible for providing asset location details and maintains the records used for locating requests. Should a dig-in occur, the Company is responsible for leading an investigation in coordination with USIC to identify the cause. The results from the investigation are then submitted to the PURA. The Company monitors performance through their "Daily Dig-up report" which provides a monthly summary of data, and through of use the PURA's quarterly CBYD report where they benchmark against other in-state utilities participating in the program.[181]

[174] Response to FTI-432.
[175] Response to FTI-715.
[176] Response to FTI-034.
[177] Response to FTI-432.
[178] Ibid.
[179] Response to FTI-034.
[180] Response to FTI-035.
[181] Response to FTI-036.

YGS, conversely, manages their program internally which includes field markouts.[182] The Company maintains a system called Utilisphere that is used to manage CBYD tickets and to serve as a repository for prior tickets. They also use their legacy TelDig system to store older tickets. All dig-in investigations are the responsibility of the Company's Damage Prevention group. Should a dig-in occur all information is collected documented and analyzed by this group. This analysis provides the dig-in's root cause and contributing factors which are then used to improve the program where necessary. YGS monitors the program's performance through KPIs that indicate fault and total damages per 1000 tickets. The KPI goals are reviewed and adjusted annually, presumably to a more stringent target.[183]

AWC-CT maintains a hybrid approach where most aspects of the program are managed internally including field markouts. However, the Company recently implemented a pilot in the Towns of Fairfield and Trumbull where mark-outs are performed by contractors. The Company will evaluate the effectiveness of this pilot to determine if they will expand or discontinue the pilot.[184] The Company uses both SAP and Pelican ticketing system. They follow a similar process for investigation and reporting as their sister Companies.[185]

AWC-CT budget has held relatively stable over the past 5 years. CL&P and YGS have both experienced more variation beginning 2020. CL&P experienced a budget increase of 49 percent in 2021 and 2022 when compared to 2020. YGS budget increased 34 percent in 2021 and 27 percent in 2022 when compared to 2020, see Figure 2-27. CL&P and YGS both stated that their budgets increased due to an uptick in CBYD ticket volume. YGS added an additional employee to assist with this additional volume. CL&P experienced a rate increase with their contractor.[186]

Analysis of the CYBD data indicates that ticket volume for CL&P increased 5 percent and 7.6 percent in 2021 and 2022 respectively when compared to 2020, see Figure 2-28. YGS ticket volume increased 4.8 percent in 2021 when compared to 2020 but decreased by 6.5 percent in 2022 when compared to 2020, see Figure 2-29. The increase of ticket volume does not align to the increases in budget for CL&P and YGS. Additionally, YGS's budget is similar to CL&P's despite having nearly half the volume. No specific reason was provided for YGS higher cost per ticket but could be due to CL&P's use of outside contractors to perform this function.

Damage Prevention Budget			
	CL&P	YGS	AWC-CT
Year			
2018	$ 1,714,460	$ 2,012,332	$ 1,374,182
2019	$ 1,514,413	$ 1,228,641	$ 1,392,609
2020	$ 1,514,413	$ 1,728,023	$ 1,313,267
2021	$ 2,254,204	$ 2,318,682	$ 1,358,556
2022	$ 2,254,204	$ 2,198,284	$ 1,561,909

Figure 2-27 CBYD Program Budget[187]

[182] Interview with President, Gas Distribution (William Akley), March 29, 2023.
[183] Response to FTI-036.
[184] Interview with President, Aquarion Company (Donald Morrissey), April 5, 2023.
[185] Response to FTI-036.
[186] Ibid.
[187] Ibid.

CL&P CBYD Metrics												
Year	CBYD Requests	Total Damages	Hits / 1000	Contact or Hits	Contact or Hits / 1000	No Notice Hits	No Notice Hits / 1000	Company Mark Out Fault	Company Fault / 1000	Company Records Faults	Company Records Hits / 1000	On Time Performance
2018	182,733	139	0.761	57	0.312	27	0.148	54	0.296	1	0.005	N/A
2019	182,378	99	0.543	53	0.291	17	0.093	28	0.154	1	0.005	N/A
2020	181,047	104	0.574	51	0.282	24	0.133	28	0.155	1	0.006	N/A
2021	190,267	87	0.457	37	0.194	28	0.147	18	0.095	4	0.021	N/A
2022	194,895	91	0.467	48	0.246	14	0.072	26	0.133	3	0.015	N/A

Figure 2-28 CL&P CBYD Program Metrics[188]

YGS CBYD Metrics												
Year	CBYD Requests	Total Damages	Hits / 1000	Contact or Hits	Contact or Hits / 1000	No Notice Hits	No Notice Hits / 1000	Company Mark Out Fault	Company Fault / 1000	Company Records Faults	Company Records Hits / 1000	On Time Performance
2018	88,775	91	1.03	66	0.74	18	0.2	9	0.1	16	0.18	99.9%
2019	87,555	66	0.75	40	0.46	14	0.16	8	0.09	18	0.21	99.9%
2020	85,685	72	0.84	50	0.58	22	0.26	9	0.11	13	0.15	99.9%
2021	89,821	65	0.72	47	0.52	18	0.2	8	0.09	10	0.11	99.9%
2022	80,122	64	0.71	41	0.45	6	0.07	7	0.08	16	0.18	99.9%

Figure 2-29 YGS CBYD Program Metrics[189]

AWC-CT CBYD Metrics								
Year	CBYD Requests	Total Damages	Total / 1000	Damage Access Data (At Fault)	At Fault / 1000	Damage Access Data (No Fault)	No Fault / 1000	On Time Performance
2018	50,386	56	1.11	35	0.69	21	0.42	N/A
2019	49,886	53	1.06	31	0.62	22	0.44	N/A
2020	49,506	44	0.89	27	0.55	17	0.34	N/A
2021	53,388	41	0.77	34	0.64	7	0.13	N/A
2022*	55,842	11	0.20	9	0.16	2	0.04	N/A
***Partial year**								

Figure 2-30 AWC-CT CBYD Program Metrics[190]

Recommendation: CL&P and YGS should conduct detailed analysis to the specific cause of the increase in spend for their respective CYBD programs and implement changes, if any, based on lessons learned.

Analysis of sample dig-in investigation reports indicate a thorough review of incidents including photos of the work site and damage along with an investigative narrative that indicates the process followed. This sample also included root cause and contributing factors along with any follow up actions. Overall, the investigation process appears to be compliant to applicable industry practices.[191]

2.6.3. Operator Qualification Program

Given recent high-profile events, the gas industry has been focused ensuring the training and qualifications of those who manage, operate, construct, and maintain the gas system. An OQ program is a requirement of the U.S. Department of Transportation ("US DOT") for all pipeline operators to ensure controls and training are in place for continued pipeline safety.[192]

[188] Response to FTI-0482_SP01.
[189] Ibid.
[190] Ibid.
[191] Response to FTI-0482.
[192] "Operator Qualification," Northeast Gas Association, last accessed February 5, 2024.

YGS recently implemented their own OQ program that was developed internally to comply with US DOT standards. Previously the Company followed the Northeast Gas Association ("NGA") OQ program but believed that there was an opportunity to develop a program that would align to what the Company believed were best practices. As a result, YGS requires any contractors who have not previously worked with YGS, or not in the recent past, to become qualified under their OQ program.[193]

Mr. Akley's Director of Pipeline Safety Management and Quality Assurance, a direct report, is responsible for managing the program. This organizational design was purposeful to ensure that the leader responsible for the program is close to Mr. Akley for performance management purposes.[194]

YGS follows what are called prescribed "tracks" as they develop employees for their OQ. This includes an apprentice program where employees can advance as they progressively complete their training. The training program supporting this was developed by the Company through a partnership with a computer-based training expert to ensure alignment to the Company specific program while implementing testing best practices.[195] Testing integrity is assured through the use a third-party testing company, Prometric, who administers testing either off-site at a Prometrics testing center or at an Eversource site. Performance Evaluations are also administered by a third-party organization for all internal and contracted employees. These practices align to industry practices for qualification integrity.[196]

Employee OQ qualification status is monitored through weekly reporting that provides a six-month forward-looking view of expired and expiring qualifications. Local leadership, including supervisors, are responsible for ensuring that employees maintain their qualification or are removed from OQ tasks if necessary. The Pipeline Safety Management and Quality Assurance Group also assures employee qualification during the QA/QC inspection process.[197,198]

The CT Companies' OQ program appears to be robust and ensures the integrity of the program through controls, organizational alignment to leadership, and through continued monitoring of the OQ program.

2.6.4. Maintenance, Inspection and Operations Impacts Due to COVID-19

CL&P stated that there was no significant impact to their inspection and maintenance programs due to the COVID-19 Pandemic, which is confirmed through review of their budget and actuals which trended to their pre-COVID level of spend.[199]

YGS experienced some challenges to their inspection and maintenance programs due to efforts to limit contact with customers during this period. Affected areas included their mandated meter change out program, and certain inspections and leak surveying. The Company stated they notified the PURA of any compliance related issues. During this period the Company reassigned crews to focus more on non-customer facing maintenance and inspection tasks to keep crews utilized, which is reflected in their O&M spending.[200]

[193] Interview with Chief Operating Officer, Eversource Energy (Werner Schweiger), April 12, 2023.
[194] Interview with President, Gas Distribution (William Akley), March 29, 2023.
[195] Response to FTI-038.
[196] Ibid.
[197] Ibid.
[198] Interview with Director, Pipeline Safety Management and Quality Assurance, Gas Distribution, August 17, 2023.
[199] Response to FTI-037.
[200] Ibid.

AWC-CT also experienced some COVID-19 related impacts to their customer facing "Periodic Meter Testing Program" and cross connections. The Company was also able to reallocate employees to other inspection and maintenance programs which is mostly reflected in their flat spending between 2020 and 2021.[201]

2.7. Electric Distribution

This Section focuses how CL&P manages ongoing integrity and system reliability through a range of operating conditions (including weather and other internal and external impacts). It also reviews their Vegetation Management program to ensure compliance and alignment to best practices to improve reliability.

2.7.1. Vegetation Management Program

CL&P's Vegetation Management program is the responsibility of the Director of Vegetation Management, who until recently reported to Stephen Driscoll who leads the Operations Services group. The Company reorganized this group January 2023, where they now report to John DiPaola-Tromba, Vice President of Asset Management and Process Improvement. Mr. DiPaola-Tromba reports to Mr. Khan, who reports to the COO. This approach centrally aligns system planners, asset managers and vegetation management so they are directly accountable to a single leader who is responsible for system reliability. For example, if there are issues with obtaining consent for tree removal this team will be coordinated in a manner so alternative solutions can be quickly developed and implemented.[202]

CL&P's vegetation management is managed by a dedicated Manager who is responsible for the day-to-day aspects of the program. Reporting to him are two supervisors and a program coordinator who are responsible for field oversight. There are also 10 vendor-arborists and 2 vendor clerks who provide oversight and invoice processing for the tree contractors.[203]

2.7.1.1. Adherence to Standards and Consent

The Company states that the Vegetation Management program is designed to be complaint to PURA Docket No. 12-01-10 which establishes the standards and rules which the Company must comply with. All routine tree pruning is maintained on a four-year cycle with all medium voltage (primary) circuits inspected and trimmed, where necessary, once every four years. This ensures that 25 percent of the Company circuits are inspected every year. The Company also states that they comply with the following industry standards:[204]

- OSHA 29CFR 1910.269 Electric Power Generation, Transmission and Distribution which is applicable for a variety of industry standards including line-clearance trimming.
- ANSI A300 "Standard Practices for Trees, Shrubs and Other Woody Plant Maintenance."
- ANSI Z133.1 "Pruning, Trimming, Repairing, Maintaining and Removing Trees, and Cutting Brush – Safety Requirements."
- International Society of Arboriculture Best Management Practices for Utility Pruning
- ES's Specification for Distribution Line Clearance Tree and Brush Work.

All vegetation management field-based work, including tree and limb removal, is outsourced to contractors. Vendor-Arborists are responsible for contractor oversight to ensure that work is performed to CL&P standards.

[201] Ibid.
[202] Interview with Senior Vice President, Engineering, Eversource Energy (Aftab Khan), June 14, 2023.
[203] Ibid.
[204] Response to FTI-040.

They are also responsible for the oversight of safety and performance of crews. Should trimming standards fall short, the Arborist will work with the contractor to remedy any deficiencies. Payment is typically based on unit-price cost by size class of the tree/limbs being removed. However, should the complexity of the removal fall outside of the unit price's scope, time and equipment rates are used. Unit prices are established each year for the four-year contract period and each contract is issued or renewed based on the contractor's performance.

The vegetation management annual workplan is developed in collaboration with the Company's Vegetation Management staff and the contractor. Circuit prioritization is based on operational efficiencies and reliability improvements. The Arborists will then work with tree wardens within each community to discuss trimming plans and to manage property owners' consent. This interaction typically occurs ahead of the upcoming year when work is planned. If the Company is unable to gain consent for hazard trees they will work with the landowner for modification, if possible, otherwise alternative plans will be developed.[205]

The Company's Arborists meet on a weekly basis with the contractor and work planner to discuss progress to the plan.

2.7.1.2. Performance Management

CL&P's vegetation management program is measured and monitored through the use of Company scorecards that are reviewed internally and by the contractors. These scorecards include Safety Performance, Cost Management, Schedule Performance, Customer Care Performance, and Quality Performance. Each scorecard includes YTD actual and target, along with a color-coded status that provides an overall score, see Figure 2-31. These scorecards are shared with all vendors so they understand their personal performance, and how they perform when compared to the other vendors. This transparency is intended to drive performance between contractors.[206]

A 5-year review of scorecard performance indicates generally good results, with occasional challenge areas including "cost management", "quality performance" and "schedule performance" measures. However, there were no systemic issues that were identified, and off-target performance was corrected in subsequent years.[207]

[205] Ibid.
[206] Interview with Vice President, Operations Services, Eversource Energy (Steve Driscoll), May 9, 2023.
[207] Response to FTI-786 Atts. 1-5(ES).

CL&P's vegetation management productivity is also monitored through benchmarking activities that compares their results with their peers. The Company uses this report to determine the effectiveness of their program with a specific focus on cost. This includes cost per mile managed, cost per line mile cleared, total program dollars, cost per mile cleared in right of ways, among others.

Compared to their peers, CL&P performance verse spend varies depending on the category analyzed. The Company performed better than average on direct O&M per circuit mile managed, however, they spend significantly more than their peers on Direct O&M per line mile cleared. This indicates that the Company contractor costs coupled with the complexity of managing clearing is costly for the Company. For example, certain peer utilities maintain a minimum clearance of as little as 2 feet while CL&P is required to maintain 8 feet. Performance is improved for transmission vegetation management where it is likely less complex to obtain landowner consent to conduct clearing activities.[209]

2.7.1.3. Evidence of Cost Control and Budget Attainment

CL&P promotes vegetation management cost containment and control through a few methods including through regular competitive bidding cycles, using lump sum and unit-based pricing, performance monitoring, benchmarking, and regular supervisor oversight. Lump sum and unitized-based pricing also limit the amount of administrative burden required for the detailed review of timesheets and expenses. This also increases the amount of time an Arborist is available in the field to oversee quality and safety.

Our review of CL&P's historical budget versus actual spending indicates close alignment over the review period with the exception of 2017 where the deviation was just over 10 percent, as shown in Figure 2-32. Since budget

[209] Response to FTI-035, Att. 1(CLP).

remains close to actuals over the remaining years, there are no significant concerns with the Company's ability to properly develop and remain within the budget.

CL&P Vegetation Management Budget vs Actual (5 year)																		
	2017			2018			2019			2020			2021			2022		
Category	Budget	Actual	Var %	Budget	Actual	Var %	Budget	Actual	Var %	Budget	Actual	Var %	Budget	Actual	Var %	Budget	Actual	Var %
Expense*	29.76	29.77	0.05%	29.81	30.21	1.35%	29.84	30.61	2.56%	30.10	27.17	-9.75%	30.10	33.98	12.9%	30.10	-	-
Capital	38.97	47.33	21.45%	50.60	26.41	-47.82%	37.90	36.24	-4.39%	38.00	35.23	-7.28%	38.00	40.18	5.7%	41.20	-	-
Captial Tracker	0.00	0.00	-	0.00	26.46	-	15.10	15.04	-0.40%	15.25	14.83	-2.77%	4.00	0.00	-100.0%	4.00	-	-
Total	**68.73**	**77.10**	**12.2%**	**80.41**	**83.08**	**3.3%**	**82.84**	**81.88**	**-1.2%**	**83.35**	**77.23**	**-7.3%**	**72.10**	**74.16**	**2.9%**	**75.30**	**-**	**-**
*Expense budget includes reimbursemnt from Frontier Communications																		

Figure 2-31 Vegetation Management Five-year Budget Versus Actuals[210,211]

2.7.2. Managing System Integrity

Managing system integrity during abnormal conditions is a critical step that must be embedded into system operations. Abnormal conditions can include major weather events such as unusual temperatures, including heat waves or deep freezes. While electrical systems are typically designed to withstand many types of events, abnormal system conditions including line outages can place additional stress on the system. Effectively designed protocols can help prevent abnormal system conditions and resulting costly damage.

One such protocol includes load shifting, which moves load from a heavily loaded circuit to one with greater capacity. Load shedding can also be achieved by asking customers to voluntarily reduce load, implementing demand response programs, or through voltage reduction programs. Load shedding can also include strategically shutting off supply, but only in extreme circumstances when other measures fall short

FTI also evaluated CL&P's ability to manage system integrity by identifying circuits that are loaded to less than 90 percent of their peak. These circuits can have excess capacity, which allows for load balancing when needed. Analysis is provided in the Distribution Asset section.

2.7.2.1. Load Shedding

The Company's load shedding program is focused on maintaining the integrity of the transmission and distribution system. However, the bulk of the Company's program is focused on transmission system integrity through established Independent System Operator New England (ISO-NE) procedures. The distribution system is used to support load shedding through these procedures.

CL&P documentation includes the procedure for load shedding activities including the process and required notifications. The documentation includes each step of each protocol including applicable notifications. Also included is feeder prioritization by region which is used to understand potential load relief measures. The Company stated that they have not had the need to implement voltage reduction or a load shedding program over the past five years.[212]

2.7.3. Electric Supply Management

CL&P procures electricity through a Request for Proposal ("RFP") process to solicit bids, which are managed through a dedicated section on their website. The website contains the materials necessary for suppliers to bid

[210] Response to FTI-040.
[211] Response to FTI-040_SP01, Att. 1(CLP).
[212] Response to FTI-043, Att. 1(ES) (confidential).

on standard service ("SS") and last resort service ("LRS"). The RFP process follows the applicable Connecticut General Statues as well as multiple PURA dockets, including the most recent PURA decision in Dockets No 06-01-08PH01 issued on June 21, 2006, for Standard Service and Supplier of Last Resort Service – Phase 1 and 05-10-03, Time of Use issued on December 21, 2006. The most recent RFP had four phases with bids due by at 10:00 am based on the following schedule:

RFP Timeline		
Phase	**Term**	**Due Date**
I	Standard Service - 2H2023, 1H2024 LRS - 2Q2023	24-Jan-23
II	Standard Service - 2H2023, 1H2024 LRS - 3Q2023	18-Apr-23
III	Standard Service - 1H2024, 2H2024 LRS - 4Q2023	18-Jul-23
IV	Standard Service - 1H2024, 2H2024 LRS - 1Q2024	17-Oct-23

Figure 2-32 CL&P Energy Supply RFP Timeline[213]

CL&P evaluates bids based on a load weighted average monthly price rounded to the nearest thousandths of cents/kWh for evaluations. If bidders are tied, the load weighted average prices may be expanded to additional decimal places. The Company will then utilize the load-weighted price to select the bid(s) based on the following criteria:

- Pricing as described in the RFP
- Compliance with the Standard Contract
- Financial and credit risks associated with each bid
- Compliance with the RFP Process.

Prior to submitting bids, bidders must execute (or document when it anticipates executing) a Market Participant Service Agreement with CL&P where they will be subject to the ISO New England Billing Policy. If the supplier does not meet CL&P's credit requirement, they must provide either a guaranty from an affiliate that meets the credit threshold, a letter of credit, or cash as outlined in the RFP. The RFP process is the only method of securing electric supply, and CL&P does not financially hedge any of their supply requirements.

2.7.3.1. Electric System Operations and Supporting Tools

Actively monitoring the electric system is necessary to ensure that assets are operated within their specifications. If abnormal conditions exist, appropriate steps must be implemented to maintain safe and reliable supply of electricity. This practice for CL&P is supported through the use of a Distribution Supervisory Control and Data Acquisition ("DSCADA") system and Outage Management System ("OMS"). DSCADA provides system information such as circuit configuration, device status, system loading among other details. It also can sound alarms to alert operators of abnormal conditions that require investigation. DSCADA is also used to manage the Company's system automation schemes including smart devices such as reclosers and switches.[214]

The OMS is used to monitor outages on the system and, when needed, to dispatch crews. This system is also used to develop estimated time of restoration ("ETR") which is used to notify customers of restoration timeframes. During normal conditions, if an outage is indicated, the Company dispatches a dedicated single person crew that is trained in repairing and restoring a variety of system issues. The use of single person crews for restoration allows

[213]https://www.eversource.com/content/residential/about/doing-business-with-us/energy-suppliers/connecticut-wholesale-supply

[214] Response to FTI-042.

line crews to focus on construction or maintenance work without having to break down their worksite to respond to outages.

These systems and practices are managed through the Company's control center which is a 24 hour by 7 day a week operation, staffed by trained System Operators who work on 12-hour shifts. The Company has a good training and incident investigation program that is used to ensure these system operations are safe. The Company also maintains multiple backup control centers that can be activated should there be a reason to evacuate the primary center.[215]

2.7.4. Electric Distribution Impacts Due to COVID-19

FTI did not observe any material impact to electric system operations due to the COVID-19 pandemic. FTI also did not observe any issues with the implementation of the Vegetation Management Program or the other inspection programs.

2.8. Gas Distribution

This section assesses the effectiveness of YGS's gas supply process. This includes planning for extreme weather, demand forecasts, and acquisition of appropriate supply to serve customers per statutory requirements. This section also includes a review of Lost and Unaccounted-for Gas ("LAUF").

2.8.1. Current Organization Structure

The Gas Supply group is part of the Eversource Energy Supply organization led by Greg Butler, Executive Vice President and General Counsel. The Gas Supply group is managed by the Director of Gas Supply for Eversource and is organized into three areas: Gas Procurement, Gas Operations and Gas Supply Planning with managers leading each area, see Figure 2-34.[216] The "Connecticut Gas Supply Handbook", last revised and approved by the Director of Gas Supply in November 2022, outlines the Gas Supply teams roles, responsibilities and includes the polices and procedures the organization is responsible for.

[215] Interview with Vice President, Electric System Operations, Connecticut Light & Power (Chris Colorio), August 23, 2023.
[216] Response to FTI-098, Att. 1(YGS).

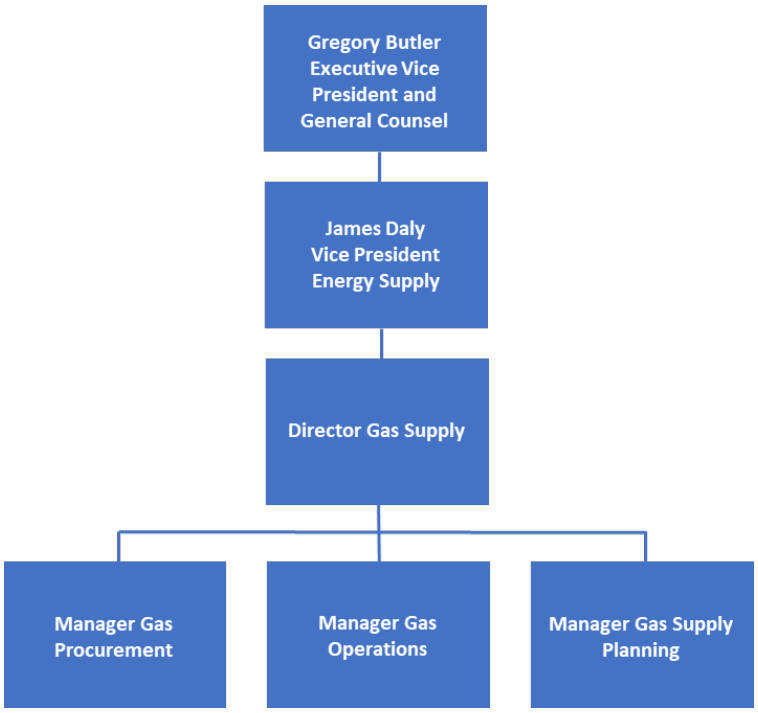


Figure 2-33 Organization Responsible for Gas Supply[1]

2.8.2. Gas Planning

The Gas Planning team has short / medium (intra-day to seasonal) and long-term planning responsibilities. Short and mid-term planning includes the current supply strategy based on weather, pipeline operating conditions and load requirements. This group manages the entire storage portfolio and negotiates monthly and seasonal contracts. Long-term planning focuses on design day model development, new capacity and supply acquisition, capital project considerations and counterparty credit management. This group ensures regulatory compliance and addresses FERC matters. This includes, pursuant to regulatory requirements, YGS filing a forecast of demand and supply every two years which includes:

- A tabulation of estimated peak loads and resources for each year
- Data on natural gas use and peak loads for the five preceding calendar years
- A list of present and projected natural gas supply sources
- Specific measures to control load growth and promote energy efficiency
- A full description of the methodology used to arrive at the forecast of loads and resources.[217]

2.8.2.1. Peak Day Demand Forecast

Short and mid-term planning includes the current supply strategy based on weather, pipeline operating conditions and load requirements. Long-term planning focuses on design day model development, new capacity and supply acquisition, capital project considerations and counterparty credit management. The Gas Supply group uses this information to manage their overall storage portfolio and negotiates monthly and seasonal contracts.

[217] Response to FTI-098, Att. 2(YGS).

This group also ensures regulatory compliance and handles FERC matters. Pursuant to regulatory requirements, YGS files a forecast of demand and supply every two years which includes:

- A tabulation of estimated peak loads and resources for each year
- Data on natural gas use and peak loads for the five preceding calendar years
- A list of present and projected natural gas supply sources
- Specific measures to control load growth and promote energy efficiency
- A full description of the methodology used to arrive at the forecast of loads and resources[218]

2.8.3. *Gas Supply and Procurement*

Gas Supply Procurement is responsible for procuring natural gas as well as managing daily operations of wholesale gas trading and scheduling. They also support Eversource with applicable market analysis to satisfy least cost for gas purchases. They accomplish this by utilizing Asset Management Agreements ("AMAs"), off-system-sales, and capacity releases to maximize the benefits of the system without sacrificing reliability or least cost goals.[219]

2.8.4. Gas Operations

The Gas Operations team focuses on real-time operations which are based on load projections and requirements for the applicable market horizon. Due to weekends and holidays, there is a one to five day forecast period which is satisfied by either purchasing gas, withdrawing out of storage, or the utilization of LNG peak shaving facilities. Gas Operations is the liaison between YGS and external entities (pipelines and other vendors) who support this process. Gas Operations is also responsible for the retail choice program, accounting, invoicing, audit, and regulatory functions. [220]

2.8.5. Demand and Supply Planning

The Gas Supply group's goal is "to provide fully reliable, safe and best available cost natural gas supply service to firm customers under all weather conditions over all time horizons to foster customer satisfaction and growth, increasing the competitiveness of natural gas at the retail level vis-a-vis competing forms of energy."[221]

To accomplish this, Demand and supply long-term planning is performed using the PURA's approved design day and design year modeling. Supply capacity is a function of both projected needs during normal conditions as well as at peak times. Analysis is conducted to ensure the system is capable of supporting the needs at peak times for reliability purposes, while still fulfilling the mission of low-cost service.[222]

Design day is based on the coldest day within the past 30 years. Currently it is 75 Effective Heating Degree Days ("EDD") on a non-holiday/nonweekend day preceded by a 67 EDD as recorded by DTN Meterologix at Bradley International Airport, Windsor Locks, CT. This was established by utilizing a multiple regression model where firm daily load is the dependent variable and current and previous EDD are the binary variables. Additionally, this model takes into account the month, the day of the week, and holidays. Timing is important since Monday – Friday load is different than weekend or holidays, and time of year impacts deliverability from storage. The model

[218] Response to FTI-098, Att. 2(YGS).
[219] Ibid.
[220] Ibid.
[221] Ibid.
[222] Ibid.

is reliable since the design day estimate was 473,340 MMBtu/d and the R-Squared and Adjusted R-Squared were .988 and .987 respectively, Figure 2-2 shows the design day estimate through 2026/2027. [223]

	2021/2022	2022/2023	2023/2024	2024/2025	2025/2026	2026/2027
Design Day Estimate	473,340	481,605	493,685	500,619	505,626	510,682
Forecasted Growth rate		1.7%	2.5%	1.4%	1.0%	1.0%

Figure 2-34 Design Day projections[224]

The planning process also looks at historical peak day analysis including the top 10 days of gas sendout as well as projected regional and national pipeline projects. SENDOUT® gas modeling software is utilized for the long-term plan where it identifies any shortfall in supply to meet firm demand. Supply personnel will then determine what incremental service is required in order to eliminate the shortfall.[5] YGS expects to utilize the following supply resources to meet the design day requirements (if necessary).

[223] Response to FTI-098, Att. 1(YGS).
[224] Response to FTI-103, Att. 1(YGS).

EXHIBIT IV-5
FIRM PEAK DAY SUPPLY SUMMARY (MMBTU)*

YANKEE GAS SERVICES COMPANY DBA EVERSOURCE ENERGY
UPDATED EXHIBIT IV- 5
PROJECTED FIRM PEAK DAY REQUIREMENTS AND SUPPLIES (MMBtu Net of Fuel)
Customer Requirements- Firm Sales and Firm Transportation SOLR, Conservation

	2022/2023	2023/2024	2024/2025	2025/2026	2026/2027
Total MMBtu	**481,605**	**493,685**	**500,619**	**505,626**	**510,682**
Gas Capacity					
	2022/2023	**2023/2024**	**2024/2025**	**2025/2026**	**2026/2027**
FLOWING GAS- SUPPLY AREAS					
Tetco via AGT FT	60,240	60,240	60,240	60,240	60,240
TGP Long Haul	29,419	29,419	29,419	29,419	29,419
TGP - Niagara	4,819	4,819	4,819	4,819	4,819
Dawn via Iroquois -Wright - TGP	9,000	9,000	9,000	9,000	9,000
Dawn via Iroquois - TGP/AGT	6,795	6,795	6,795	6,795	6,795
Ioquois Z1-2 to Shelton/Brookfield TGP/AGT	36,160	36,160	36,160	36,160	36,160
AGT/TGP - Mahwah	12,456	12,456	12,456	12,456	12,456
AGT AIM at Ramapo	50,000	50,000	50,000	50,000	50,000
AGT AIM via Millenium Pipeline	50,000	50,000	50,000	50,000	50,000
TGP CT Expansion Marcellus at Wright	27,100	27,100	27,100	27,100	27,100
GAS STORAGE					
FS-MA via TGP	20,612	20,612	20,612	20,612	20,612
NFG FSS-1 via TGP	10,139	10,139	10,139	10,139	10,139
NFG FSS-1 via Tetco/AGT	9,267	9,267	9,267	9,267	9,267
Dominion GSS via Tetco/AGT	2,409	2,409	2,409	2,409	2,409
Dominion GSS-TE via Tetco/AGT	12,452	12,452	12,452	12,452	12,452
Tetco SS-1/FSS-1 via Tetco/AGT	1,037	1,037	1,037	1,037	1,037
Tetco SS-1 (2) via Tetco/AGT	22,357	22,357	22,357	22,357	22,357
Union via Iroquois - TGP	48,953	48,953	48,953	48,953	48,953
Total via pipeline	413,215	413,215	413,215	413,215	413,215
PEAKING					
LNG Vaporization	105,000	105,000	105,000	105,000	105,000
LNG boiloff	600	600	600	600	600
Peaking Resources	105,600	105,600	105,600	105,600	105,600
Total Resources	518,815	518,815	518,815	518,815	518,815
+/-	37,211	25,131	18,196	13,190	8,134

Figure 2-35 Design Day projections[225]

2.8.6. Gas Portfolio Management

Pursuant to CT PURA requirements, the Gas Supply department must have available enough supply to meet all firm customers needs in any weather. The "any weather" scenario can be defined as design day and design year within the past 30 year rolling period. To meet these needs YGS has negotiated contracts with pipelines, suppliers and producers for firm gas supplies. Gas purchases along with utilizing storage assets and on-system LNG supports the mandate.[226]

[225] Response to FTI-098, Att. 2(YGS).
[226] Response to FTI-098, Att. 1(YGS).

2.8.6.1. Annual and Monthly Planning and Procurement

YGS typically issues a Request for Proposal ("RFP") for the combined purchase of gas and asset management in June, then creates a short list, refreshes the bids, and executes a contract in early August.[227]

Lost and Unaccounted for Gas ("LAUF")	
Action	**Date**
Issue RFP	**June 29, 2022**
Bidders Due Diligence Period	**Up to July 13, 2022**
Proposals Due	**July 14, 2022**
Identify Short List	**July 15, 2022**
Refresh Bids (All contract terms must be finalized prior to refresh)	**August 1, 2022**
Internal Approvals	**August 2, 2022**
Execute Contract	**August 3, 2022**

Figure 2-36 RFP Timeline[228]

YGS had previously tried purchasing seasonally, however, "it was at a premium when we didn't even need it ahead of time. We don't need peaking supply for Yankee, we buy Marcellus gas on a monthly basis at index to absorb on the warmest days of the month. We don't adjust too much; there's only so much you can buy ahead of time. It doesn't matter when you buy if you buy on index."[229] The gas purchases are based on the following table:

								Calling Rights		
Pipeline	**Contract#**	**Rate Schedule**	**(MMBtu) MDQ**	**Annual Vol.**	**Days of Service**	**Receipt Point**	**Delivery Point**	**Summer Apr-Oct**	**Winter Nov 22 - Mar 23**	**Price (1)**
Union Gas	M12-203	M12	40,866	14,916,090	**365**	Dawn, Ontario	Parkway, CA	Yes	Yes	N/A
Union Gas	M12-210	M12	19,487	7,112,755	**365**	Dawn, Ontario	Parkway, CA	Yes	Yes	N/A
Union Gas	M12-212	M12	5,099	1,861,135	**365**	Dawn, Ontario	Parkway, CA	Yes	Yes	N/A
TransCanada	41236	FT	40,417	14,752,205	**365**	Parkway, CA	Iroquois	Yes	Yes	Union-Dawn
TransCanada	41237	FT	19,273	7,034,645	**365**	Parkway, CA	Iroquois	Yes	Yes	Union-Dawn
TransCanada	41223	FT	5,058	1,846,170	**365**	Parkway, CA	Iroquois	Yes	Yes	Union-Dawn
Tennessee	2121	FT-A	4,800	1,752,000	**365**	Zone 5 - Niagara, NY	Yankee CG	No	Yes	Niagara
Iroquois	590-12	RTS-2	6,115	2,231,975	**365**	Waddington, NY	Yankee CG	Yes	Yes	Winter: Iroquois, receipts Summer: Iroquois, Z2
Storage Facility			**(MMBtu) Annual Vol.**	**(MMBtu) MDWQ**	**(MMBtu) MDIQ**	**Receipt Point**	**Delivery Point**			
Union	LST147		3,000,000	50,000	24,900	Dawn	Dawn	Yes	Yes	Storage WACOG

(1) Monthly Baseload purchases will be priced at IFERC and Daily Purchases will be priced at Gas Daily Midpoint for the relevant index

Figure 2-37 RFP Table A – Supply Obligations[8]

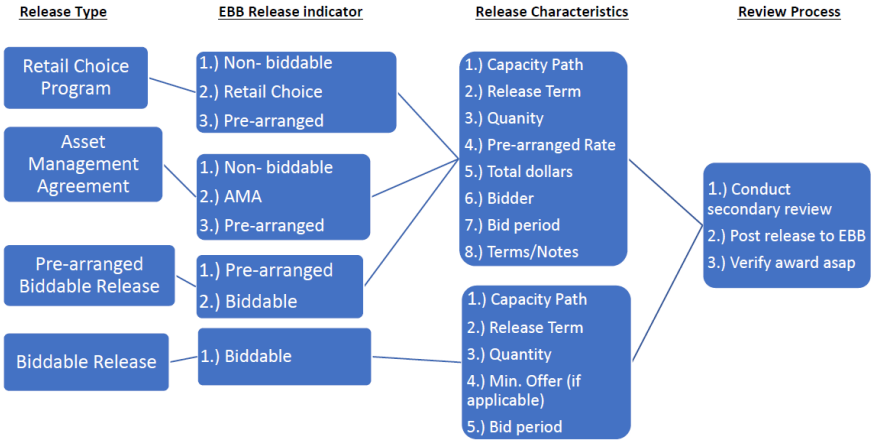
The RFP outlines that "bidders are required to pay an asset management fee to YGS. YGS requires a fixed annual amount paid in equal monthly installments over the course of the agreement."[8] This fee allows the Asset Manager to optimize YGS's transportation and storage contract portfolio. YGS requires bidders to have North American Energy Standards Board contracts executed with the Company which include credit protections.[8]

YGS utilizes a combination of AMAs, off-system sales and capacity releases to achieve reliability on an economical basis within its existing portfolio. Figure 2-39 represents assets managed by AMAs, however, YGS will release unrequired capacity. The Gas Supply manual outlines the capacity release rules map as seen in Figure 2-39. Figure 2-40 indicates the Summer 2022/ April 2022 capacity release program.

[227] Response to FTI-609, Att. 2(YGS).
[228] Ibid.
[229] Interview with Director, Gas Supply, Gas Distribution, June 8, 2023.

EVERSOURCE ENERGY

GAS SUPPLY POLICY & PROCEDURE: GS CT - 4
"EVERSOURCE NATURAL GAS CAPACITY RELEASE RULES & PROCESS MAP"



- *Release rate is capped by the max. rate in the pipeline's tariff for releases greater than one year*
  - *No rate cap on releases of one year or less that take effect within one year of the date the pipeline is notified of the release*
  - *Payments or other consideration between the releasing and replacement shipper may constitute a discount or a premium exceeding the max. rate unless the release is to an asset manager (as defined in the regulations)*

- *Capacity must be posted for bidding, except:*
  - *Release of 31 days or less (**NON-BIDDABLE RELEASES REQUIRE EXPLICIT MANAGEMENT APPROVAL**)*
    - ***No Flipping**: Cannot be rolled-over to same replacement shipper or affiliate without bidding at less than maximum rate until 28 days after first release period has ended (except AMAs or state programs)*
  - *Pre-arranged release for more than one year at the max. rate, Release to an asset manager, Release to a marketer as part of a state-regulated retail access program*

Figure 2-38 Capacity Release Rules and Process[230]

[230] Response to FTI-098, Att. 2(YGS).

YANKEE GAS - SUMMER 2022 / April 2022 CAPACITY RELEASE PROGRAM

Potential Pre-Arranged Biddable Capacity Releases for Summer 2022 / April 2022

Pipeline:	Contract:	Volume:	Receipt Point:	Primary Delivery Pt:	Release Period Begin	Release Period End	Bid
AGT	510802	10,000	Ramapo	YG Citygates (D/S Cromwell)	1-Apr-2022	30-Apr-2022	
AGT	510802	5,000	Ramapo	YG Citygates (U/S Cromwell)	1-Apr-2022	30-Apr-2022	
AGT	94000	10,000	Lambertville/Hanover	YG Citygates (D/S Cromwell)	1-Apr-2022	30-Apr-2022	
AGT	510513	10,000	Beverly/Salem	YG Citygates (U/S Cromwell)	1-Apr-2022	30-Apr-2022	
AGT	510724	8,291	Mahwah	YG Citygates (U/S Cromwell)	1-Apr-2022	30-Apr-2022	
AGT	93209C	1,797	Centerville	YG Citygates (D/S Cromwell)	1-Apr-2022	30-Apr-2022	
Transco	1006430	1,797	Wharton	Centerville/AGT	1-Apr-2022	30-Apr-2022	
MPL	210168	10,000	Corning	Ramapo	1-Apr-2022	30-Apr-2022	
TGP	95351	9,000	Wright	YG Citygates	1-Apr-2022	30-Apr-2022	
TGP	7541	5,000	Z4 Marcellus Pool	YG Citygates	1-Apr-2022	30-Apr-2022	
TGP	109393	5,000	Zone 6	YG Citygates	1-Apr-2022	30-Apr-2022	
TGP	79704	5,000	Zone 6	YG Citygates	1-Apr-2022	30-Apr-2022	
TGP	302031	4,165	Z5 300L	YG Citygates	1-Apr-2022	30-Apr-2022	
TGP	331574	14,200	Wright	YG Citygates	1-Apr-2022	30-Apr-2022	
TGP	10782/333	5,000	Zone 4	YG Citygates	1-Apr-2022	30-Apr-2022	
IGT	590-01	9,105	Waddington	Wright	1-Apr-2022	30-Apr-2022	
IGT	590-15	10,000	Waddington	YG Citygates	1-Apr-2022	30-Apr-2022	
TETCO	800308	5,000	ELA/WLA	Lambertville/Hanover	1-Apr-2022	30-Apr-2022	
TETCO	800108	6,210	Holbrok/Leidy/Chambersburg	Lambertville/Hanover	1-Apr-2022	30-Apr-2022	
TETCO	800476	18,199	Lebanon/Chamb./Oakford	Lambertville/Hanover	1-Apr-2022	30-Apr-2022	
TETCO	800442	1,064	SS-1 Storage	Lambertville/Hanover	1-Apr-2022	30-Apr-2022	
AGT	510802	10,000	Ramapo	YG Citygates (D/S Cromwell)	1-Apr-2022	31-Oct-2022	
AGT	510802	5,000	Ramapo	YG Citygates (U/S Cromwell)	1-Apr-2022	31-Oct-2022	
AGT	94000	10,000	Lambertville/Hanover	YG Citygates (D/S Cromwell)	1-Apr-2022	31-Oct-2022	
AGT	510513	10,000	Beverly/Salem	YG Citygates	1-Apr-2022	31-Oct-2022	
AGT	510724	8,291	Mahwah	YG Citygates	1-Apr-2022	31-Oct-2022	
AGT	93209C	1,797	Centerville	YG Citygates D/S Cromwell	1-Apr-2022	31-Oct-2022	
Transco	1006430	1,797	Wharton	Centerville/AGT	1-Apr-2022	31-Oct-2022	
MPL	210168	10,000	Corning	Ramapo	1-Apr-2022	31-Oct-2022	
TGP	95351	9,000	Wright	YG Citygates	1-Apr-2022	31-Oct-2022	
TGP	7541	5,000	Z4 Marcellus Pool	YG Citygates	1-Apr-2022	31-Oct-2022	
TGP	109393	5,000	Zone 6	YG Citygates	1-Apr-2022	31-Oct-2022	
TGP	79704	5,000	Zone 6	YG Citygates	1-Apr-2022	31-Oct-2022	
TGP	302031	4,165	Z5 300L	YG Citygates	1-Apr-2022	31-Oct-2022	
TGP	331574	14,200	Wright	YG Citygates	1-Apr-2022	31-Oct-2022	
TGP	10782/333	5,000	Zone 4	YG Citygates	1-Apr-2022	31-Oct-2022	
IGT	590-01	9,105	Waddington	Wright	1-Apr-2022	31-Oct-2022	
IGT	590-15	10,000	Waddington	YG Citygates	1-Apr-2022	31-Oct-2022	
TETCO	800308	5,000	ELA/WLA	Lambertville/Hanover	1-Apr-2022	31-Oct-2022	
TETCO	800108	6,210	Holbrok/Leidy/Chambersburg	Lambertville/Hanover	1-Apr-2022	31-Oct-2022	
TETCO	800476	18,199	Lebanon/Chamb./Oakford	Lambertville/Hanover	1-Apr-2022	31-Oct-2022	
TETCO	800442	1,064	SS-1 Storage	Lambertville/Hanover	1-Apr-2022	31-Oct-2022	
AGT	510802	10,000	Ramapo	YG Citygates (D/S Cromwell)	1-Apr-2022	31-Mar-2023	

Figure 2-39 Summer Capacity Release Program[231]

2.8.7. Daily Planning

Daily planning is based on securing projected demand and supply. The supply is adjusted based on reviewing the next day and the ensuing days' weather forecast then taking into account recent trends and other forecasting variables. Current utilization is also taken into account especially if large customers have changing usage patterns, and if there are any special operational conditions (internally and externally). These considerations are evaluated at the daily morning meeting that begins at 8:30 am and is attended by Gas Supply, controllers, engineering, LNG and others.[232]

Understanding daily demand and supply is imperative as there are tighter imbalance restrictions with severe penalties for being long or short at the end of the day (and even intra-day). However, it is important to note that PURA has issued the following directive regarding firm-customer access to reliable capacity: "The Department directs that the LDCs be responsible for ensuring that 100% of capacity needs of firm customers are contractually

[231] Response to FTI-612, Att. 2(YGS).

[232] Interview with Director, Gas Supply, Gas Distribution, June 8, 2023.

available in the state." PURA has also recently reiterated that the Company shall maintain its role as the Supplier of Last Resort ("SOLR") to serve firm customers reliably. To fulfill both requirements, the Company utilizes reasonable and approved forecasting methodologies that appropriately consider qualitative and quantitative variables coupled with established supply strategies."[233] YGS will typically leave capacity open to support its SOLR responsibilities.

YGS has "no-notice" services ("NNS") on Algonquin Gas Transmission to help alleviate this issue. This contract also allows for up to "106% of the hourly ratable contract allowance," allowing for flexibility as gas utilization is not ratable.[11] During lower demand periods, the company may utilize this contract to adjust for nominations or to deal with construction that limits supply. NNS services has the highest priority and is the only contract that can be increased after the timely cycle (per AGT).[234]

YGS evaluates its storage and LNG assets and performs a landed cost analysis for flowing supply to determine the most economical routes for sourcing gas to meet demand.[235]

2.8.8. Transaction Management

Gas Supply has a policy that authorizes the Company "to enter into wholesale natural gas purchases and sales, interstate pipeline and storage capacity agreements, capacity releases, Liquefied Natural Gas trucking contracts and asset management agreements in accordance with the referenced (ES - 2 &3) and (GS - 2 &3) policies.[236] These policies explicitly state that the team is not allowed to enter into speculative transactions or utilize financial instruments. In addition, it identifies Middle Office's Aligne deal capture system, instant messaging, confirmed email or recorded telephone as acceptable forms for executing transactions. The policy goes into detail about the approval requirements for daily, monthly, seasonal gas purchases and sales as well daily, monthly and seasonal capacity releases. AMAs are also documented, and the winning counterparty must have the contract approved by legal Counsel, FERC legal Counsel, Gas Supply Management and the Energy Supply Risk Committee prior to execution. Similar requirements are necessary for pipeline and storage capacity agreements.

2.8.9. Lost and Unaccounted for Gas ("LAUF")

YGS actively manages their LAUF with Figure 2-41 indicating the percentages for the last five years:

Lost and Unaccounted for Gas ("LAUF")				
2017	**2018**	**2019**	**2020**	**2021**
1.32%	1.34%	1.36%	0.92%	1.45%

Figure 2-40 LAUF percentage[237]

PURA approved the Company's current ARP to eliminate leak prone pipelines by 2032.[238] This ARP will reduce the replacement timeline of pipelines from a projected 60 years to 20 years. The YGS leak mitigation program is more vigorous than the federal safety regulations and includes several winter patrols on all cast iron pipelines. The program also ensures that a maximum of 45 Grade 2 leaks at year end and all class 2 leaks are repaired within 12

[233] Response to FTI-098, Att. 1(YGS).
[234] Response to FTI-098, Att. 1(YGS).
[235] Response to FTI- 102, Att. 2(YGS).
[236] ES-2 Eversource "Delegation of Authority", ES-3 Eversource "Credit Risk Management Policy" GS CT-2-Gas Supply Risk Management Policy and GS CT-3 – Gas Supply Capacity Release Policy (FERC 712).
[237] Response to FTI-105.
[238] Response to FTI-106.

months. If not repaired within six months, YGS reviews to determine if there is immediate hazard. YGS also reduces the pressure on pipelines during abandonment, prior to venting, which also reduces lost gas.

2.8.9.1. Marketing Plans

"YGS did not have formal marketing plans for 2020 and 2021 due to reduced activity as a result of COVID restrictions. YGS halted marketing in August 2021, upon the opening of Docket No. 21- 08-24."[239] This docket ordered an immediate wind down of gas expansion plans.

2.9. Emergency Response Plan ("ERP")

Emergency response is a critical activity which all utilities must perform well, every time, regardless of the event type and the scale of impact. Utilities across the country have developed and implemented ERPs which support consistent and coordinated results through defined processes, procedures, and actions. These Plans can be based on an all-hazards approach that can scale and adapt to a variety of incidents. An incident which prompts ERP activation is led by a team that is structured around the Incident Command System ("ICS"), which was developed from the National Incident Management System ("NIMS") created by the Federal Emergency Management Agency ("FEMA").

Eversource Energy's Emergency Preparedness is achieved through a hybrid shared and direct service model with high level planning and coordinated activities shared across the Company. Operating company specific needs are served by a dedicated manager embedded within each company's Operations organization. These individuals are responsible for developing and maintaining their Company's respective ERP.[240]

A shared Emergency Preparedness group, led by the Director of Emergency Preparedness, reports to Craig Hallstrom, President of Eversource Electric Massachusetts, who reports to the COO, see Figure 2-42. This organizational alignment was created when Mr. Hallstrom was the President for Regional Electric Operations which, at the time, included responsibility for CL&P. When Eversource reorganized by appointing Presidents for each Electric operating company, they maintained the existing reporting structure for Emergency Preparedness. The Company stated there was no particular rationale behind maintaining this alignment other than it continued to work for the Company.[241] Ideally, the Director of Emergency Preparedness should report to a leader who is responsible for the needs of all operating Companies, so they remain equally accountable. This is a typical industry practice which drives clear lines of responsibility and visibility across the operating companies. FTI recommends the realignment of the Emergency Preparedness group to the COO.

Recommendation: Eversource should realign the Emergency Preparedness group to report to the COO. This will provide clear reporting lines and equal accountability to all operating Companies including CL&P.

The Emergency Preparedness group provides services such as regulatory filing, training, resource acquisition, logistics and business continuity services. This group also has a Safety Engineer who is responsible for providing Electric Hazard Awareness training to first responders across Connecticut. Many of the employees in this shared group work in Connecticut based locations including a Manager and two Specialists who are dedicated to CL&P.

[239] Response to FTI-112.
[240] Interview with Director, Emergency Preparedness, Eversource Energy, May 15, 2023.
[241] Interview with Chief Operating Officer, Eversource Energy (Werner Schweiger), April 12, 2023

This Manager and their team are responsible for overall readiness, planning activities, training and drilling, and the implementation of Emergency Response processes upon ERP activation for CL&P.[242]

When activated, CL&P staffs their Incident Command team using the ICS structure to create a unique response organization which is customized to the type and scale of an event. The Emergency Preparedness team supports the Incident Command team during activation by coordinating resources.

YGS's Manager of Emergency Preparedness reports to Mr. Kelley, leader for Gas Operations. This Manager has similar responsibilities to their Electric counterpart, but they are responsible for gas specific incidents.[243] Similar to CL&P, YGS developed their emergency response plan and activates their response team using ICS. This gas specific team also supports the Incident Command team during activation.

AWC-CT's Engineering and Planning group is responsible for the Company's "Emergency Contingency Plan", "Dam Emergency Action Plans", and "On-Call Manager Handbook". This group also provides emergency response services through an On-Call Manager who is responsible for providing emergency response leadership during three types of events including "(1) Elevated Routine Events, (2) Critical Events, and (3) Acute Emergencies.".[244]

[242] Interview with Director, Emergency Preparedness, Eversource Energy, May 15, 2023.
[243] Interview with President, Gas Distribution (William Akley), March 29, 2023.
[244] Response to FTI-044.

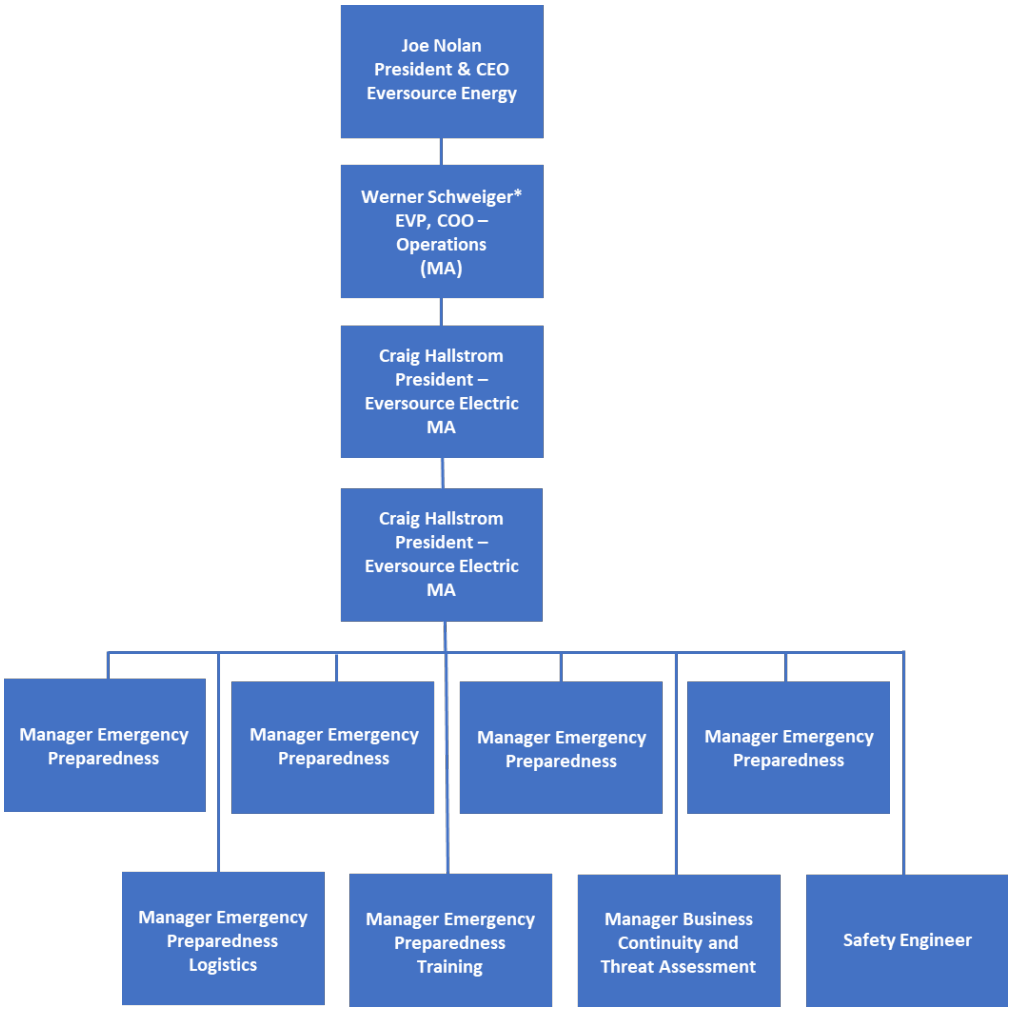


Figure 2-41 Emergency Preparedness Organization[245]

2.9.1. Emergency Response Plans

Eversource developed and maintains a number of plans and other documents including an "All Hazards Emergency Response Plan" that covers all Eversource Operating Companies and Business Units including IT, Customer and Security. The Plan was developed to provide a response framework for a wide variety of Incidents. It also highlights any potential incident scenarios which may require plan activation along with the appropriate ICS response structure and Executive Oversight Group necessary to lead and oversee incident response. Overall, this high-level document allows for flexibility by not being overly prescriptive to the processes required to manage any particular event.[246]

The Operating companies also maintain segment and/or state specific ERPs that are designed to capture a range of emergency response activities. These plans contain more prescriptive processes to drive repeatability and consistency for specific incident types. Details about each Company's specific plan follow.

[245] Response to FTI-612, Att. 2(YGS).
[246] Response to FTI-044.

2.9.1.1. Connecticut Light & Power Emergency Response Plan Details

CL&P's ERP "Emergency Response Plan Electric System Operations – CT" is an electric utility specific plan that was developed to assist with the management of major electric incidents. The Plan is segmented into 13 sections that define the strategy, organization, policies, communications, training, plan maintenance, and other details for preparing, planning, executing and closing out major incident response. The plan is designed around the use of the ICS including the organizational design and response structures used for coordinated incident outcomes.

Central to CL&P's plan is an "Event Classification" index which is used to define the response scale based on a set of defined parameters. Event Classification also drives a range of requirements and actions. Event Classification is segmented by five Event Levels ("Levels") beginning with a minor incident or "5 Minor" and topping with 1, which is a catastrophic incident with nearly all customers without service. Each Level provides a guideline for the number of required crews to effectively perform service restoration, tree trimming, and damage assessment. The Incident Commander and the Planning Section Chief use this guidance to make final decisions on the appropriate number and types of resources needed for each incident.[247]

The Plan is organized around the stages of an event including incident readiness, declaration of an incident, operational phase, restoration and resumption of normal operations. Each stage provides Level specific actions.

The Plan also includes Job descriptions for each critical role including their applicable line of reporting and responsibilities. It details how these roles evolve through each stage of an incident, and provides training and equipment requirements, including applicable personal protective equipment.

The Plan, however, makes limited use of checklists for critical roles. Checklists are an important tool that are used in a variety of industries, including utilities, to ensure that critical actions are completed.[248] Their use is a best practice which also ensures overall compliance to the ERP.

CL&P's Plan also includes only a limited number of standardized forms.[249] Completed incident forms are typically collected at the end of each event and stored for reference, after action review support, and auditing purposes. CL&P should consider including and using more standard operational and communication templates within the Plan's appendix.

Recommendation: CL&P's ERP should include checklists for each ICS and other critical operational roles. Additionally, operational and communication forms and templates should be developed and included in the ERP to ensure consistent documentation. All forms should be used and collected after each incident for after action review and auditing purposes.

2.9.1.2. Yankee Gas Services Emergency Response Plan Details

YGS maintains two documents that are used to assist with Incident Response: "Eversource ERP for Gas System Operations" and "Eversource Gas Incident Management Team Playbook". The Gas ERP aligns to CL&P's with a similar structure and content, however, it also contains details that are specific to the gas company. The Gas ERP, which is also used for the Massachusetts Gas operating companies, includes five "Emergency Event Levels" which are selected based on the number of customers impacted and estimated restoration time. An event level is selected by conducting severity and complexity analysis which, once established, assists the Incident Commander

[247] Response to FTI-045, Att. 1(CLP) (confidential).
[248] Ibid.
[249] Ibid.

with solidifying the required response scale. The Plan also stresses the importance of flexibility so, as each incident develops, the Company can make adjustments as needed.[250]

The Gas Plans also include industry specific details such as inventory levels and location details for specific pieces of long-lead time equipment.

Roles, responsibilities, and organizational charts are included in the Plan which follow a format similar to CL&P's Plan. YGS has defined ICS roles and responsibilities which promotes coordination between the Gas and Electric Companies during major incidents.

However, similar to CL&P's plan, checklists and their use along with standardized operational forms are also missing from the Plan. [251]

Recommendation: YGS's ERP should include checklists for each ICS and other critical operational roles. Additionally, standardized forms and templates should be included to ensure consistent documentation. All forms should be used and collected after each incident for after action review and auditing purposes.

YGS's Playbook serves as a quick reference document for the Incident leadership team. It is segmented into major activity areas including Operations, Resource Tracking, Engineering, Damage Assessment, and Incident Action Plan. Each section contains detail on critical tasks, and is formatted in a manner that provides only pertinent details.

2.9.1.3. Specific Aquarion Water Company of Connecticut Emergency Response Plan Details

AWC-CT maintains three documents that are activated depending on the type of event or incident. The "CT On-Call Manager Handbook" serves as the Company's ERP for incidents such as main breaks and pressure or water quality issues. The "Dam Emergency Action Plans" and "Water Supply Plan – Emergency Contingency Plan" are focused specifically on water supply and dam incidents. The On-Call Manager Handbook is the basis for the Water Supply Plan.

Each plan focuses on many of the tactical activities required for identifying, mobilizing and restoring from an incident. This includes information pertaining to the responsibilities for the On-Call Manager, and communication details including contacts, procedures and other pertinent information. Flow charts are also included which supports decision making for high impact incidents.

The document, however, does not describe ICS nor does AWC-CT use ICS for major event response. While AWC-CT incidents are typically small, AWC-CT and Eversource as a whole would benefit from a common incident response organizational structure and approach to response management. This will ensure consistency and common terminology across all Eversource operating companies. As of December 19th, 2024 the Company indicated that AWC-CT implemented ICS for AWC-CT. [252]

2.9.2. Incident Command System ("ICS")

2.9.2.1. ICS Utilization

CL&P and YGS's ERPs include details about their compliance with and utilization of the ICS, including applicable roles and responsibilities. The individuals who serve in each ICS role are pre-defined and are typically staffed by

[250] Response to FTI-044, Att. 2 (confidential).
[251] Ibid.
[252] Email correspondence from Chris Plecs sent on December 19, 2024.

more than one individual to provide a level of bench depth for shift rotation and back-fill purposes.[253,254] The Incident Commander and Command staff roles are each resourced by two individuals for both Companies. However, there are certain roles such as Safety Officer for both operating companies, Electric Transmission Chief and Gas Human Resource Officer, that are staffed by only one individual. Best practice typically assigns three to four individuals to these roles to provide shift coverage, training and development opportunities, and to mitigate against instances of personnel issues.

Recommendation: All Command Staff Roles should have at least 2 named individuals assigned, and critical roles should have at least 3 individuals assigned. Those serving in these roles should be fully trained and qualified. The Companies should also consider having back-up employees in a training capacity for attrition or other personnel related issues.

The role of the Incident Commander is typically served by a senior operations leader within Eversource. Their assignment is aligned to their blue-sky role ensuring they possess the requisite experience. Other roles within the Command Structure are also filled by individuals with "blue-sky" jobs that align closely to an ICS role.

As previously noted, each Command Staff role includes a description of their responsibilities by incident stage. The Plans also detail a reporting structure to ensure clarity of alignment and responsibilities.

Each ERP demonstrate good alignment to NIMS ICS without undue customization. A reasonable level of detail is provided for each Command Staff role. The sample organizational charts contained within each Plan provide clear organizational alignment for each role, and a sample of interviewed employees indicated a good level of understanding of their respective roles and responsibilities.

As noted in the previous section, AWC-CT does not adhere to ICS therefore analysis could not be performed concerning their alignment to NIMS ICS standards.

2.9.2.2. Event Scaling

Both CL&P's and YGS's Events Levels assist with scaling for incident response which includes determining the number of required line crews, damage assessors, wires down standby, and other field and back-office staff. For major weather incidents, electric utilities typically use historical data to determine this. However, Gas and Water utility incidents are usually difficult to impossible to predict, so establishing specific criteria for each Level can be difficult. YGS's ERP includes some criteria, however, AWC-CT plan does not.

CL&P, YGS, and AWC-CT empowers the Incident Commander/On-Call Manager to determine the appropriate number of resources needed.[255] CL&P and YGS Incident Commanders both consult with their Command Staff to determine the appropriate Level. This can be adjusted as more information is made available, or as the incident develops. Additionally, CL&P uses several weather sources to determine the potential impact of an incident.

Eversource Energy has worked with University of Connecticut to develop a prediction model which is also used to support decision making. After an event, the Company proactively evaluates the model to determine if any refinements are necessary. [256]

[253] Response to FTI-678, Att. 1(CLP).
[254] Response to FTI-678, Att. 1(YGS).
[255] Response to FTI-048.
[256] Interview with Director, Emergency Preparedness, Eversource Energy, May 15, 2023.

Unlike CL&P, YGS and AWC-CT Plans do not attempt to predefine the appropriate number of resources required for each role, with one exception for YGS which provides details on the number of technicians required for gas shut-off and turn-ons.[257] This is due to the high variability of each gas and water incident which can be caused by weather, flooding, a failure of an asset, and water quality issues among others. Therefore, predetermining resource levels is difficult until the specific cause and the required repair is established. The discretion of the Incident Commander/On-Call Manager is ultimately used to determine appropriate resourcing.[258]

CL&P and YGS have the ability scale resourcing beyond their internal levels by activating crews from other Eversource Companies and through the use of Mutual Aid agreements in place with the North Atlantic Mutual Assistance Group for CL&P, and the American Gas Association group for YGS. These Mutual Assistance groups are widely used by utilities across the Northeast, Mid-Atlantic, and other regions. They are reciprocal in nature which allows the Companies to supply resources for major incidents impacting other area utilities.[259]

2.9.2.3. Communications

Documenting and storing incident communications is an important activity since it contains the decisions, notifications, and rationale for each action taken by the Incident leadership. A record of decisions and actions can support the development of post-event reports and continuous improvement activities.

CL&P uses various tools and forms to communicate and document event details. For example, each ERP incident requires the development of an Incident Action Plan at the start of every 24-hour operational period until the event closes. The Incident Action Plan includes details concerning operational priorities for each operational period. Incident Management Reports are then used to detail the progress on the Incident Action Plan, which is updated up to 4 times a day during an incident.[260]

Global Restoration ETRs and Customer Outage information are delivered through a tool within the Company's "RTS" web-based application which supplies Company Community Liaisons (serve as a liaison between the Company and municipalities) with the latest ETR information.[261]

CL&P recently deployed the "ES Municipal Hub" which provides a two-way communications platform for sharing information between municipalities and the Company. This tool includes event details and information such as critical facilities outage status, a list of municipal specific "Make Safe Blocked Roads", ETRs, and high priority tickets. A sample of this information is shown in Figure 2-43. The Company also utilizes their Customer Relationship Management ("CRM") Tool to document communications between the Company and municipalities.[262]

[257] Response to FTI-048, Att. 2(YGS).
[258] Response to FTI-048.
[259] Response to FTI-048.
[260] Interview with Director, Emergency Preparedness, Eversource Energy, May 15, 2023.
[261] Response to FTI-048.
[262] Response to FTI-048.

EVERSOURCE

STORM UPDATE - TOWN OF LEDYARD

Friday, July 9, 2021 5:30 PM

Customers Served	6,845	**Global ETR**	Not Yet Available
Current Customers Affected	13	**Town ETR**	Not Yet Available
Customers Restored	94		

Critical Facilities Impacted

No town critical facilities impacted

Public Safety Summary

Priority	Total	Active	Working	Mitigated	Completed
02	1	0	0	0	1
03	3	1	0	1	1
TOTAL	**4**	**1**	**0**	**1**	**2**

Damage Summary

Damage Type	Total	Active	Completed
# Blocked Roads	0	0	0
# Devices Open	0	0	0
# Poles Broken	0	0	0
# Prim Wire Span Dwn	1	0	1
# Sec Wire Span Dwn	0	0	0
# Trans Damaged	0	0	0
# Trees to Clear	0	0	0

Crew Summary

Public Safety Crew Assigned?	Crews Working or Expeted to Work Restoration Activities		
	Line Crews	Tree Crews	Service Crews
N	5	0	0

Today's Planned Work

Damage Restoration

Circuit	Device Name	Event #	Outage Start Time	Customers Impacted
11B61	1pOH:11B61:112325889	4564036	07/09/2021 8:35:36 AM	11

Figure 2-42 Sample Storm Update[263]

YGS leverages many of the tools used during blue-sky days to support communications during ERP events, including the customer call center system, ARCOS (an automated call out system), Gas Outage Portal, and GIS. These tools provide information including outage details along with ETRs. The call centers are also provided coordinated scripts which contain relevant details and required customer actions through outbound calls. The Company tracks the success rate of these calls and report their details to the Incident Management Team.[264]

The Company's Incident Management Team also uses Microsoft Teams, the Customer Database System, and a Gas Incident Management SharePoint Site which contains information that is used to manage incidents including job aids, critical facilities lists, customer database, and organizational charts.

The majority of AWC-CT's incidents are small, typically water main breaks with an average of 18 customers impacted per break. This requires a much smaller response team where extensive communication systems and tools are not as relevant to maintain coordination. For Critical and Acute events, management is assigned roles as

[263] Response to FTI-046, Att. 1(CLP).
[264] Response to FTI-046.

defined within their On-Call Manager Handbook. The Handbook includes contact information and required communications for these incidents.[265]

Each Company detailed the required incident notifications, including the applicable local, state and federal authorities. The Companies also have appropriately documented notification procedures for major events.[266,267]

2.9.2.4. Restoration Priorities

CL&P has a formal practice detailed in Section 2.11.1 of their ERP that outlines how restoration activities are prioritized, including the following:[268]

- **Public Safety:** Includes Life Safety (Police and Fire Calls) that are life threating in nature, such as wires down.
- **Blocked Road:** Caused by electric infrastructure.
- **Critical Infrastructure:** As defined in Connecticut Emergency Support Function which includes Critical Facilities and Utility Critical Infrastructure. However, restoration of Transmission, Substation and Distribution lines may need to occur first to facilitate critical infrastructure restoration.

While completing these priorities, CL&P will restore the system through the following prioritization:[269]

- **Transmission and Substations:** Using dedicated transmission and substation crews, the Company can prioritize any transmission and substation issues.
- **Circuit Backbones:** Distribution lines that are the main source of power for other non-backbone distribution lines.
- **Lateral Feeder:** Circuits off the Backbone with priority placed on the greatest number of customers first.
- **Transformers and Secondary Circuits:** Local outages.
- **Individual Services:** Restoration of damaged services

CL&P also works to understand each municipality's three priorities, which then become the Company's priorities for each event. This is coordinated through the Company's Community Liaisons using the ES Municipal Hub. The Municipal Hub is also used to communicate Public Safety Priority 2 and 3 tickets. Once these are established the Company provides updates on their status during the event.,[270]

YGS pre-establishes priorities annually including immediate life-threatening situations, locations that will sectionalize and isolate the issue, and critical facilities. During a major event, Company Community Liaisons interact with their assigned municipalities to discuss the status of these priorities.[271]

Since AWC-CT primarily experiences small scale water main breaks, they are able to manage them without needing to prioritize restoration. Should more than one emergency occur, the Company can properly resource them using their existing bench strength, which negates the need to prioritize restoration.[272]

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[265] Response to FTI-045, Att. 2(AQ) (confidential).
[266] Response to FTI-052.
[267] Response to FTI-045, Att. 1(AQ) (confidential).
[268] Response to FTI-051.
[269] Ibid.
[270] Response to FTI-047.
[271] Response to FTI-051.
[272] Ibid.

2.9.3. Emergency Response Processes

Having clear and accurate processes provides clarity for the individuals serving in all incident response roles. Processes also assist with the analysis of emergency response activities to determine if they are managed effectively, help with determining resourcing requirements, and determine if processes are fit for purpose.

While each Companies' plan includes details about the activities performed during an event response, processes are only detailed in textual bulletized format. The lack of emergency response process maps constrains the ability to conduct advanced analysis. With process maps, analysis can be used for performance management and continuous improvement purposes, and can also support resourcing needs by identifying the most efficient resource levels for each incident. One exception is that AWC-CT maintains decision trees with the steps necessary to manage an event, which given their incident scale is appropriate.[273]

Recommendation: CL&P and YGS should develop processes and associated documentation for critical emergency response processes. These processes should then be deployed through training to applicable employees. CL&P and YGS should also consider developing decisions trees where appropriate and document them through their emergency response plans.

2.9.3.1. Resource Activation

Once an Event Level and resulting resource needs are established, CL&P activates resources through a combination of approaches including ACROS callouts, the use of email, or call trees. The Company also maintains primary, secondary and in limited cases tertiary roles which allows for flexibility with scaling resources. However, larger incidents with specific needs may require the activation of a significant number of resources to manage an effective response. CL&P does not maintain a database to track employee activation which could result in the same employee being activated for multiple roles. [274] The use of a database could limit or eliminate availability confusion.

Additionally, frequently activating the same employees for every event including small ones can lead to fatigue and create skill gaps for employees who are not frequently activated. The use of a centralized database would assist with these activation challenges while also providing analytics so more effective employee rotation can be used. The Company stated that they are looking for better approaches for activation but did not provide any additional details.[275]

Recommendation: CL&P should develop an activation process that ensures employees are activated consistently for all events. CL&P should develop a database that indicates assigned and available resources including the role they are activated for.

2.9.3.2. Estimated Time of Restoration ("ETR")

Now more than ever, customers and municipalities are relying on ETRs to support decision making. CL&P has extensive documentation for ETR requirements including the type of messaging and ETR granularity for each phase of an incident. Additionally, role specific responsibilities are included throughout their documentation including, where required, within role descriptions.[276]

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[273] Response to FTI-045, Att. 2(AQ) (confidential).
[274] Interview with Director, Emergency Preparedness, Eversource Energy, May 15, 2023.
[275] Ibid.
[276] Response to FTI-045, Att. 1(CLP).

CL&P Planning Section role(s) is primarily responsible for coordinating ETRs to ensure they are compliant with applicable rules. This includes reviewing and obtaining approval from the Incident Commander and the President prior to distribution. The Planning Section role does not have a checklist for ETRs which is highlighted in a prior recommendation.[277]

YGS's and AWC-CT's ETR notification processes provide applicable messaging for restoration timeframes along with any customer required actions such as relighting requirements. YGS's ETRs are established by the Incident Commander to ensure a consistent message is delivered through the Incident Management Plan. The Communications, Regulatory and Community Liaison groups are responsible for notifying their government and regulatory contacts as necessary.[278]

AWC-CT stated that most outages are due to planned work and ETRs are included in their Action Plan, which is communicated through email, reverse 911, website alerts and through handouts left with impacted customers.[279]

2.9.3.3. Critical Needs Customer Notification

"Critical needs customer" notification is an important service for customers who require electricity for medical purposes. These customers are notified of pending outages and are provided additional details throughout the outage. CL&P details the process for notifying "Life Support Customers" ("LSC") within their ERP, which includes an applicable checklist of required actions and the process for each phase of an incident including pre- during- and post-incident. The ERP also includes the required timing of messaging and the type of communication to be delivered.

The Company monitors message delivery though reporting which includes voicemail left, picked-up, hung-up or a non-working number. During an incident the Company tracks the restoration status for these customers and reports them daily to their applicable municipality. The post-event messaging focuses on notifying customers of the restoration status and provides the option for a call back.[280]

2.9.4. Training

Emergency Response training can take many forms, including formal training, drills, and On-the-Job Training ("OTJ"). Each Company works to align an individual's blue-sky role to their Emergency Response role to limit the required training, however, there may be instances where it becomes necessary to staff roles with individuals without skills in the required tasks. This would typically occur mostly within CL&P.

To achieve readiness for this situation, CL&P maintains a robust training process which uses both eLearning and in classroom training to deliver applicable training modules. There are a total of 71 eLearning modules available. Each Emergency Response role has the required curricula identified within the ERP, and once a new employee is assigned an emergency response role the applicable curriculum is assigned to them. Existing employees are also required to complete role specific courses, and refresher training is made available when major events are forecasted. Employees and leadership are able to access training data through Microsoft PowerBI dashboard

[277] Ibid.
[278] Response to FTI-047.
[279] Ibid.
[280] Response to FTI-045.

reports so progress can be tracked as needed. A report of delivered training modules is also provided weekly from the Company's Learning Management System.[281]

YGS manages training based on requirements established through ERP roles. The Company designates "Gas Curriculum Building Blocks" which moves from baseline requirements to more advanced training for roles that require additional technical skills. This ensures that all employees have baseline training, and specific roles receive the additional training needed to perform their assignments. The Company also implemented exams for certain ICS leadership roles to assess competency. Similar to CL&P, YGS tracks training delivery and the result of exams through their Learning Management System.[282]

AWC-CT's three emergency response roles Director of Utility Operations, On-Call Manager, and Field Technician are aligned to employees' blue-sky role. Training includes a review of the On-Call Handbook, which is conducted during certain On-Call Manager Meetings, and through desktop exercises the Company conducts.[283]

2.9.5. Drills and After-Action Reviews

Electric Utility Emergency Response roles can be frequently activated, which provides opportunities for employees to remain current and ready. However, for the gas, water, and electric roles that are rarely activated, readiness can be achieved through emergency response drills. These drills can be expansive so many employees can participate, while certain, lesser-used processes are activated through functional exercises.

To achieve readiness, all three Companies conduct annual drills that simulate actual events, which for CL&P recently included a hurricane functional exercise, a focused damage assessment field drill, and GridEx that tested many of the Companies' major functional areas.

YGS recent drills include a hurricane and staging area exercise, level customer outage exercise, and a unified command full scale exercise in Danbury. These drills tested various functional areas of the Company.

AWC-CT drills focus mainly on Dam Emergency Action, with the most recent exercise performed in 2021. The Company documented the event through a third-party monitor, who also captured After-Action review items used for improvement purposes. The drill appeared to be effective but the Company has not performed another drill since 2021. The Company should consider conducting more frequent drills of a varying nature to ensure that response plans are tested and challenged.

Recommendation: AWC-CT should consider conducting annual drills which alternate between scenarios to test the effectiveness of the Company's readiness.

The Emergency Response Plans also define the required continuous improvement activities after each drill and event. This provides a mechanism for evaluating the response effectiveness by capturing issues through After-Action Reviews.[284]

[281] Response to FTI-053.
[282] Ibid.
[283] Ibid.
[284] Ibid.

Meaningful actions are captured in After-Action Reports with the goal of driving improvements in response plans and restoration performance. The Companies demonstrated good tracking and delivery methods for each document action.[285]

2.9.6. Regulatory Compliance

CL&P, YGS, and AWC-CT are all required to comply with various rules regarding Emergency Response processes defined in Public Act 12-148 and CGS § 16-11, which describes performance standard requirements, After-Action Reports, and road clearing requirements.[286] Our review of each Company's plans indicate general alignment to PURA regulations. Additionally, we reviewed a sample of each Company's After-Action Reports and determined they provide relevant action items and status. The CL&P and YGS supplied reports also provided additional details about each event including Company specific details for their respective exercises. These reports also indicate the Companies' focus on post event continuous improvement.[287]

2.9.7. Local Affiliation Agreements

Eversource stated that there are no affiliate agreements in place that specify the number of employees dedicated to Connecticut.[288]

[285] Response to FTI-051.
[286] https://www.cga.ct.gov/current/pub/chap_277.htm#sec_16-11
[287] Response to FTI-055.
[288] Response to FTI-045.

Chapter 3. Finance

Introduction

This chapter describes the Finance organizations of Eversource Energy ("Eversource") and their processes, policies, and practices to serve The Connecticut Light & Power Company ("CL&P"), Yankee Gas Services Company ("YGS"), and Aquarion Water Company of Connecticut ("AWC-CT") (collectively the "CT Companies").[1] Topics in this chapter include:

- Organizational and personnel structure;
- Treasury and Accounting organizations;
- Credit ratings;
- Capital structure and allowed returns; and
- Affiliate Transactions.

Findings

Organization and Structure

1. Eversource's electric and gas utility subsidiaries, which include CL&P and YGS, follow a centralized finance model within the shared service organization (the Eversource Energy Service Company, or "the EESC") providing financial services to each operating company, utilizing shared services leadership and subject matter experts, in addition to CT Company-dedicated personnel and leveraging cross-cutting experts where needed.

2. Aquarion Company ("Aquarion" – the ultimate parent company of AWC-CT) operates semi-independently regarding finance activities, with certain services such as Accounting and Rates and Regulation provided internally with dotted line reporting to EESC Vice Presidents, and others such as Treasury and Financing provided from EESC. Certain other functions such as Business Development are also provided from EESC to augment Aquarion's in-house function when additional expertise and resources are needed. On February 13, 2024, Eversource announced it is considering a potential sale of Aquarion and will launch a process to evaluate market interest.[2]

3. Following Eversource's shared service organizational model, the Eversource Executive Vice President and Chief Financial Officer's ("CFO") Finance organization has 10 Vice Presidents/Directors, reporting directly to the CFO, each responsible for a major Finance function.[3] Two of these Vice Presidents/Directors have indirect dotted-line reports from their counterparts in Aquarion, connecting equivalent functions across the organizations.

[1] For the purposes of this audit, the Aquarion Company, which encompasses Water Companies across three states, is referred to as a CT Company.
[2] "Eversource Energy Reports Full-Year Results Announces Exploration of Sale of Water Distribution Business," Eversource Press Release, February 13, 2024.
[3] The Finance organization will soon grow to 11 leaders when the current Eversource CFO's former Executive Vice President role is filled.

4. The Eversource CFO is a member of the seven-member Eversource Senior Team (the "Senior Team"), which is comprised of the Eversource Chief Executive Officer ("CEO") and Senior Leaders of six major shared service Departments: Operations, HR and IT, Finance, Customer Experience and Energy Strategy, Legal/Internal Audit/Energy Supply, and Corporate Relations and Sustainability. The Eversource CFO is the primary conduit between the various Finance and Regulatory functions and the broader Eversource Senior Team by bringing any pertinent financial or regulatory matters to the Senior Team's attention.

5. The various Finance groups interact frequently and work together on matters that require cross-team collaboration, such as rate cases. This includes interactions between Eversource and Aquarion.

Accounting and Treasury

6. Eversource maintains two distinct Accounting organizations to service the CT Companies due to the 2017 Aquarion acquisition. The much larger accounting group supports CL&P and YGS, while the smaller one services Aquarion. Each has its own distinct enterprise-wide resource platform. The financial benefits of consolidating these two organizations are unknown since Eversource has never analyzed the matter either at the time of acquisition or in the subsequent six years

7. According to management, performance of both Accounting and Treasury organizations is monitored by management at both the corporate scorecard level and via departmental goals and objectives, although the specifics of the latter were not shared with us. Unlike Treasury, Accounting failed to meet its only corporate scorecard objective (timeliness of the monthly close) in each of the most recent years for its non-Aquarion entities. However, its under-performance improved year-over-year and will disappear if the trend continues.

8. Internal audit testing, Sarbanes-Oxley ("SOX") testing, and a review of past audit adjustments in recent years identified some instances of discrepancies but resulted in no significant cause for concern in our opinion.

9. Neither Accounting nor Treasury participates in or relies upon external benchmarking studies outside of commercial paper benchmarking.[4]

10. Eversource prepares budgets and most variance reporting on a functional basis (i.e., Connecticut Electric Operations, Gas Operations) rather than on a subsidiary company basis. As such, operations and maintenance ("O&M") expense budget costs originate from multiple sources within Eversource.

11. Unlike Accounting services, Treasury services provided to the CT Companies have been consolidated into one group that serves all Eversource entities, including Aquarion.

12. CL&P, YGS, and AWC-CT primarily fund their operations from cash flows generated by their operations, issuance of long-term debt, and periodic net infusions of equity from their respective parents.

13. In the next five years, CL&P and YGS have a substantial amount of long-term debt maturing. Some of this is due to shorter durations of debt (5 to 10 years) that were issued by the two utilities in the past decade to take advantage, at least in part, of low interest rates. Research indicates that Eversource management was not alone in selecting these shorter durations of debt to issue during this timeframe, but the decision will result in a potential wave of near-term refinancing that will likely be at much higher interest rates.

[4] While Eversource asserts that it employs benchmarks when setting targets for the corporate scorecard, when asked to provide relevant information for Accounting and Treasury, it was not produced.

14. While management strives to achieve a dividend pay-out ratio of 60% for all CT Companies, equity balances are managed to comply with regulator-approved capital structures which currently range from 51% to 54% of total capital.

15. As the only CT Company that has experienced an outflow of equity funds in the past four years, CL&P may be indirectly funding the net equity infusions that have been made to some of its affiliates during this time, which include, but are not limited to, its two sister CT Companies, NSTAR Electric Company, and NSTAR Gas Company, in addition to the EESC.

16. CL&P and YGS rely on an inter-company revolving credit facility for short-term borrowings. Neither can lend funds under this arrangement. On the other hand, Aquarion's Connecticut subsidiary, the Aquarion Water Company of Connecticut ("AWC-CT"), borrows and lends short-term funds under the terms of the Aquarion money pool. Although each of the CT Companies has access to an external revolving credit facility, none of them have used it since the beginning of 2019.

17. None of the CT Companies have recognized a significant asset impairment in recent years, and we have little reason to believe that significant funds are being diverted from CL&P, YGS, or Aquarion to other affiliates to cover the few impairment losses that other entities have recorded during this time.

Rate Cases and Credit Rating

18. Energy utilities in Connecticut generally file rate cases every four years, however, CL&P and YGS have not since 2018. As a settlement condition of their 2021 agreement following Hurricane Isaias, CL&P agreed to a rate case stay-out period until 2024.

19. Eversource's Treasury organization makes all dividend payment recommendations for CL&P, YGS and AWC-CT in order to maintain appropriate capitalization ratios for each of the CT Companies.

20. CL&P and YGS have investment-grade credit ratings from the three major credit rating agencies; AWC-CT has an investment-grade credit rating by Moody's, as shown below in Figure 2.34 in Section 3.4.3.1.

21. The primary driver of the CT Companies' credit ratings is their regulatory environment, dictated by the actions of the Connecticut Public Utilities Regulatory Authority ("the PURA"), and the Federal Energy Regulatory Commission (the "FERC") for CL&P.

Electric and Gas Affiliate Relationships and Transactions

22. Eversource's affiliate transactions consist primarily of shared services provided by EESC to six energy utilities, including CL&P and YGS.

23. The cross subsidization risk normally associated with intercompany goods and services is mitigated in Eversource because its businesses are confined almost entirely to regulated electric, gas, and water utilities. This removes any economic incentive to overcharge the regulated business segment for shared services in order to minimize charges to the non-regulated segment. In addition, it is easier to develop reasonable procedures to allocate the cost of shared services in an enterprise consisting of utility companies with similar businesses, operations, and assets.

24. Shared services provided by the EESC accounted for more than 95% of the value of intercompany transactions between the CT Companies and affiliates during our 2020-2022 review period. Other than the centralized

services provided by the EESC, CL&P and YGS exchanged minor amounts of goods and services with each other and with other Eversource affiliates, primarily utilities in MA and New Hampshire ("NH"). Goods and services exchanged with other utilities consisted primarily of storm outage support, but also included minor amounts of transmission system and substation work, and minor exchanges of meters and transformers. Eversource's procedures require all goods and services exchanged between utilities to be priced on a fully distributed cost basis.

25. At the end of 2022, 3,650 (39%) of Eversource's 9,264 employees worked for the EESC. In addition to corporate management and administrative services traditionally provided by utility service companies, Eversource has integrated many utility services that can be provided centrally into the EESC, thereby obtaining related cost efficiencies. Among the utility operations provided in whole or in part by the EESC are customer, engineering, planning and some electric and gas operations.

26. Eversource describes the EESC as a cost accounting and tracking entity through which shared services are provided. Executive Vice Presidents head the major shared service organizations within the EESC and are responsible for management and decision making related to their organizations and their services. Other than the Eversource officers who serve as subsidiary management, the dedicated operating subsidiary management does not have a direct role in determining the services to be provided by the EESC or its allocations. This is at odds with EESC service agreements with CL&P and YGS, which state that services are provided "if and to the extent requested by" the operating companies.

27. Budgeting, cost tracking and management reporting for the EESC's service organizations and costs does not extend to operating subsidiary cost distributions. With the exception of the Customer Experience and Energy Strategy organization, EESC organizational budget presentations do not provide subsidiary-level budget, actual, and budget variance cost distribution amounts.

28. The EESC's cost distribution procedures appear adequate to ensure a reasonable distribution of costs among the six Eversource energy utilities. A significant percentage of the EESC's costs are directly charged to benefiting subsidiaries. Most EESC costs are either directly charged or are allocated using attributable allocation methods, such as number of customers, customer phone handling time, occupied floor space and employee labor.

29. A comparison of EESC cost distributions to the Eversource utilities with an average of several measures of utility size (number of customers and four measures of financial size) showed that the percentage of EESC utility charges allocated to the CT Companies closely approximated relative size.

Water Affiliate Relationships and Transactions

30. Aquarion and its subsidiaries operate as a self-contained group of companies, separate from and unintegrated with the Eversource Energy organization. Aquarion and its subsidiaries are not cost objectives in the EESC's shared services allocation process. Aquarion and Eversource have different information systems and accounting platforms. They each have their own policies and procedures. However, the EESC and Aquarion have a service agreement under which the EESC provides a relatively small amount of management services to Aquarion and its subsidiaries. The EESC also pays certain bills, mainly insurance, on behalf of Aquarion, for which it is reimbursed.

31. Aquarion's affiliate transactions consist primarily of: 1) various centralized services provided by AWC-CT, to parent Aquarion and to other regulated water utilities in Massachusetts and New Hampshire; 2) management

services provided by the EESC to Aquarion and its subsidiaries under the agreement discussed in the previous finding; 3) corporate management services directly charged and allocated by Aquarion to its subsidiaries (including AWC-CT, which is the actual service provider and charges them to Aquarion); and 4) administrative, customer and other services provided by AWC-CT to unregulated Aquarion subsidiary Homeowner Safety Valve ("HSV").[5]

32. Although Aquarion charges certain centralized management, administrative and support services to its regulated water companies, it does not operate under a service company model. Centralized services are not provided by Aquarion but rather by employees and vendors of AWC-CT. For many functions, including capital programs, corporate accounting, Human Resources ("HR") and various others, AWC-CT employees directly charge their costs to affiliate Aquarion subsidiaries or to parent company Aquarion. Employee and other costs incurred by AWC-CT, but not charged to an affiliate, automatically default to AWC-CT. In addition to direct charging procedures used exclusively for many shared activities, there are allocation processes to distribute certain AWC-CT-incurred customer and Information Technology ("IT") services to affiliates.

33. Aquarion has agreements governing the provision of shared services between "service company," defined as Aquarion Water Company ("AWC"), and three of Aquarion's regulated water utilities: Aquarion Water Company of New Hampshire ("AWC-NH"), Aquarion Water Company of Massachusetts ("AWC-MA") and Abenaki Water Company, Inc. ("Abenaki"). The reference in the agreements to AWC is vague. There is no service agreement between AWC and AWC-CT. AWC-CT houses the employees who actually provide shared services to Aquarion and its subsidiaries. There are also no service agreements governing the provision of intercompany services by AWC or AWC-CT to parent company Aquarion or to non-regulated affiliate HSV.

34. Aquarion has procedures providing for the distribution of indirect costs incurred by AWC-CT to other subsidiaries. This is important because indirect costs incurred by AWC-CT and not properly distributed to benefiting affiliates along with direct costs can become part of AWC-CT's regulated cost of service. Indirect costs include costs such as payroll taxes, employee benefits, and facilities costs.

Recommendations

Accounting and Treasury

1. As it relates to the Accounting and Treasury functions, we recommend that Eversource participate in formal benchmarking studies for the Accounting and Treasury organizations and obtain such information in the future as a tool to be used in identifying processes that could be improved and performed more cost effectively. If centrally managed and monitored, the acquisition of this type of information should be coordinated with the group responsible for identifying best practices throughout the Eversource organization.

2. We recommend review of EESC's capital structure used for fixed capital cost recovery in the next round of general rate cases for the CT Companies.

Electric and Gas Affiliate Transactions

3. We recommend that the EESC extend its budget and internal management reporting to the operating company level such that the reports show costs budgeted and distributed to utility subsidiaries and to their transmission and distribution business segments. As Eversource demonstrated with the data made available

[5] HSV was sold in 2024, after the primary period of analysis of this audit report.

for audit review, this information is readily available from the accounting system and is, in fact, already provided in high-level budget presentations for the Customer Experience and Energy Strategy organization. Production of budget and actual cost data at the operating company level will serve to highlight significant shifts, if any, in cost distributions between companies, and will provide a means to demonstrate to state regulators that costs charged by the service company which make up a substantial share of each regulated utility's cost of service are fairly and reasonably apportioned between individual Eversource utilities and their distribution and transmission business segments.

4. Service company agreements with the CT Companies are dated January 1, 2014 and reference the legacy service company, the Northeast Utilities Service Company ("the NUSC"), instead of the EESC. We recommend Eversource make appropriate revisions to these agreements to bring them up to date with respect to the services listed and to accurately reflect the service relationship between the EESC and operating companies. In particular, we recommend Eversource revise the agreement language stating that services are provided "if and to the extent requested" by the utility operating companies to more accurately reflect the fact that the EESC's services and costs are managed by the Executive Vice Presidents in the EESC's senior leadership organizations, and that other operating company managers do not have a role in determining how much of a service they purchase or EESC cost amounts budgeted for distribution to their utilities.

Water Affiliate Transactions

5. We recommend Aquarion adopt a service company model under which employees and vendors who provide shared products and services are separated from other AWC-CT employees and provide the services either through parent company the Aquarion Company, through Aquarion Water Company ("AWC"), or preferably, through an entity established for the purpose of providing centralized, shared services (akin to the EESC). The cost of centralized services shared by a group of utilities or provided for the benefit of the corporate group of companies as a whole, should not be incurred and charged from one of the benefiting utilities, primarily because any services not explicitly recognized as shared with affiliated utilities or as benefiting the corporate group as a whole will automatically default to the utility providing the service and incurring the cost. As Aquarion continues to grow through acquisitions, it becomes increasingly important to separate the services benefiting multiple subsidiaries or Aquarion as a whole from those provided only for the benefit of AWC-CT.

6. We recommend Aquarion bring its existing service agreements up to date and initiate agreements between all affiliates in which intercompany products or services are shared or exchanged, including, AWC-CT, HSV and Torrington. Aquarion should also ensure that all service agreements accurately identify the legal entities involved and the services provided.

7. Apart from and in addition to establishing a service company model for the provision of shared services, we recommend Aquarion develop cost allocation procedures for all significant centralized administrative and management functions to ensure the costs of these functions and their activities are properly distributed to all benefiting operating subsidiaries.

3.1. Organization and Structure

Finance in Eversource is a shared service under Eversource CFO and Executive Vice President John Moreira. The Finance group serves all of Eversource's subsidiaries, including all three CT Companies, in addition to the parent company and its non-regulated affiliates. The centralized Finance organization has standardized processes across the entire Eversource organization while also allowing operating company-dedicated staff to tailor their expertise to a given state or function. Despite Aquarion's general autonomy as a standalone entity, some of Aquarion's Finance functions are internal while others are directly charged from the EESC.

3.1.1. Key Authorities

Decision-making for Eversource's electric and gas utilities is subject to Eversource's Delegations of Authority, and for Aquarion, is subject to its Signature Authority levels.[6] Overall spending guidance is finalized as part of the long and short-term planning processes (see Chapter 1). These formal plans, approved by the Eversource Board of Trustees ("BOT"), drive the following year's business decisions and set parameters for spending decisions made within the operating companies' respective spending authorities.[7]

The Eversource CFO's organization is the ultimate decision-maker on when to file rate cases with input from the Senior Leaders and the Eversource CEO, using the Strategic Capital Plan and Long-Range Planning ("LRP") processes to first identify the need to file. Once the Eversource CFO determines the need to file a rate case with input from the various regulatory teams, the Distribution Rates team (described below in Section 3.1.2.6) begins the process, which culminates in a presentation to the Senior Team (Eversource CEO Joseph Nolan and his six direct reports), who give their final approval to file.[8]

3.1.2. Finance Group Overview

Eversource's Finance organization is structured as six groups underneath the Eversource CFO, John Moreira. Figure 3-1 below shows an abridged organizational chart highlighting both Eversource's shared service Finance organization under the Eversource CFO and the separate Aquarion Finance functions under the Aquarion Chief Operating Officer ("COO") Donald Morrisey, as of December 2022 with updates from interviews with key Eversource personnel. Figure 3-1 also depicts dotted-line reporting relationships between Eversource Finance staff and their Aquarion counterparts.

[6] Response to FTI-270; Response to FTI-023, Att. 2(ES); Response to FTI-016; Response to FTI-272.
[7] Response to FTI-284; Response to FTI-708.
[8] Interview with Vice President, Distribution Rates, Eversource Energy (Douglas Horton), June 12, 2023.

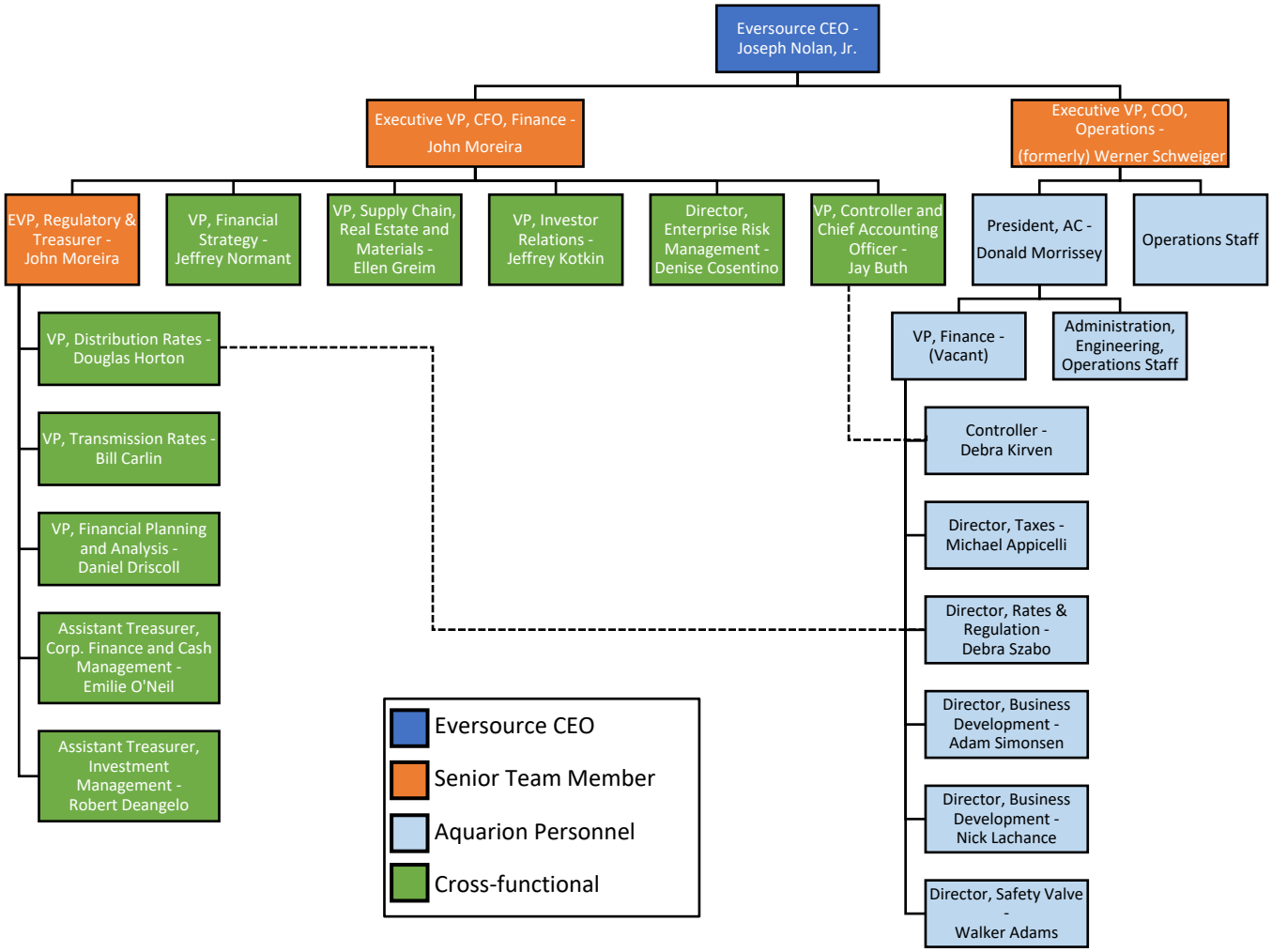

Figure 3-1 Abridged Eversource Finance Corporate Structure[9]

The Finance organization includes areas outside of traditional financial functionalities, namely Supply Chain and Real Estate, under a designated Vice President.[10] Finance functions under the Eversource CFO that serve all Eversource entities, excluding Aquarion, include Accounting, Enterprise Risk Management, and Regulatory, however, these functions may charge Aquarion occasionally if Aquarion temporarily requires additional resources. Certain Finance functions, such as Accounting, Taxes, Regulatory, and Business Development are in-house for Aquarion, and those leaders also report to their counterparts in the EESC in a dotted-line fashion where appropriate. Other Finance-related areas are outside the purview of the Eversource CFO, such as Internal Audit

[9] Note Jeffrey Kotkin has been recently replaced by Robert Becker as Director of Investor Relations; Ellen Greim has been recently replaced by Craig Dikeman as Vice President of Supply Chain, Real Estate and Materials; and Werner Schweiger has been replaced by Paul Chodak III. Response to FTI-001; Interview with Controller, Aquarion Company (Debra Kirven) May 9, 2023; Interview with Director, Strategic Financial Analysis, Eversource Energy (Mark Mueller), June 15, 2023; Response to FTI-284; Response to FTI-731, Att. 1(ES).

[10] Interview with Chief Financial Officer, Eversource Energy (John Moreira), April 17, 2023; Interview with Vice President, Supply Chain, Real Estate and Materials, Eversource Energy (Ellen Greim), May 10, 2023.

(including SOX Compliance) under the Executive Vice President, Legal, Internal Audit, Energy Supply, and Chief General Counsel Gregory Butler.[11]

3.1.2.1. Accounting

The Accounting Group is led by the Vice President, Controller and Chief Accounting Officer, Jay Buth, and covers the following areas:[12]

- Financial Reporting and Research;
- Corporate Accounting;
- Regulatory Accounting;
- Financial Report Preparation;
- Cost and General Accounting, Payroll, and Accounts Payable and Accounts Receivable;
- Affiliate Transactions;
- Fixed Asset Accounting;
- Inventory Accounting;
- Sundry/Special Billing;
- Taxes.

While some personnel in the organization are dedicated to the CT Companies, the majority of groups work across all three states. These groups are involved in the budget planning process and ensure accurate modelling of allocations, deferrals, and taxes. Regulatory Accounting is split by Connecticut and Massachusetts/New Hampshire. There are approximately eight people dedicated to Connecticut for Regulatory Accounting who often testify in rate cases, and work on New Hampshire issues as needed. This Regulatory Accounting group works together with the Regulatory Affairs group under James Hunt and the Legal department under Gregory Butler during rate cases, as is the case during recent Performance-Based Ratemaking ("PBR") dockets in Connecticut and Massachusetts, in matters related to the 2017 Tax Cuts and Jobs Act, as well as general rate cases and settlements.[13]

The Aquarion Controller has a dotted-line reporting relationship to Mr. Buth described below in Section 3.1.3.1.[14]

3.1.2.2. Enterprise Risk Management

The Enterprise Risk Management ("ERM") group is run by the Director of ERM and covers the following areas:[15]

- Corporate Insurance;
- Liability Claims;
- Risk Management.

[11] Response to FTI-001; Interview with Vice President, Chief Information Security Officer, Eversource Energy (Christopher Leigh), May 16, 2023.
[12] Response to FTI-725, Att. 7(ES). The Company provided supplemental information that was not included in the original response to reflect other areas that fall under Jay Buth. These include Fixed asset accounting, Inventory Accounting and Sundry/Special Billing in a
[13] Interview with Vice President, Controller and Chief Accounting Officer, Eversource Energy (Jay Buth), June 14, 2023.
[14] Interview with Controller, Aquarion Company (Debra Kirven) May 9, 2023
[15] Response to FTI-001; Response to FTI-725, Att. 10(ES).

This group covers all types of risks posed to Eversource, including cybersecurity, legislative, and financial, including offshore wind risks.[16] For more information on ERM, see Chapter 7.

3.1.2.3. Investor Relations

The Investor Relations group was led by the Vice President of Investor Relations, formerly Jeffrey Kotkin, and works to understand every jurisdiction and operating company.[17, 18] Responsibilities of the Investor Relations department include:[19]

- Running the annual investor meeting;
- Producing the Eversource Annual Report;
- Preparing narratives for earnings calls and presentations;
- Monitoring peer earnings results;
- Arranging institutional meetings.

While the Investor Relations group serves all aspects of the Eversource business, the group has recently focused on Connecticut following investor questions related to Hurricane Isaias and the state's regulatory environment. Part of the Investor Relations group's responsibility is to monitor the Environmental, Social and Governance ("ESG") and infrastructure funds that own Eversource stock, and to maintain strong relations with sell-side equity analysts. Mr. Kotkin served on the Edison Electric Institute ("EEI") inter-utility ESG and carbon reduction committee representing Eversource.[20]

3.1.2.4. Supply Chain, Real Estate and Materials

Supply Chain, Real Estate and Materials are led by Vice President, Ellen Greim,[21] who had also been in charge of Environmental Affairs until recently.[22, 23] The Vice President of Supply Chain, Real Estate and Materials' role currently includes coverage of:[24]

- Procurement;
- Supplier Relationship Management;
- Materials Management (logistics and planning);
- Real Estate and Facilities Management.

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[16] Interview with Chief Financial Officer, Eversource Energy (John Moreira), April 17, 2023.
[17] Mr. Kotkin retired in July 2023 and has been replaced by Robert Becker.
[18] Interview with Chief Financial Officer, Eversource Energy (John Moreira), April 17, 2023; Response to FTI-731, Att. 1(ES).
[19] Response to FTI-725, Att. 2(ES).
[20] Interview with Vice President, Investor Relations, Eversource Energy (Jeffrey Kotkin), June 23, 2023.
[21] Ellen Greim has recently been replaced by Craig Dikeman as Vice President of Supply Chain, Real Estate, and Materials.
[22] Although not conventionally under the Finance organization, Supply Chain and Property Management were placed under the purview of the Eversource CFO when Eversource's Chief Administrative Officer retired in 2016 and his responsibilities (Energy Supply, Environmental Affairs, Real Estate, Supply Chain) were split among the Finance and Legal Vice Presidents. Since 2019, Environmental Affairs has reported to the Vice President, Sustainability and Environmental Affairs, Catherine Finneran, who reports to the Executive Vice President, Corporate Relations, Sustainability and Corporate Secretary James Hunt. Response to FTI-695.
[23] Interview with Executive Vice President, HR and IT, Eversource Energy (Christine Carmody), April 27, 2023; "McHale retires as Eversource Executive Vice President, chief administrative officer." CapitalIQ, SPGlobal.com. Last accessed August 9, 2023.
[24] Response to FTI-725, Att. 1(ES); Interview with Vice President, Supply Chain, Real Estate, and Materials, Eversource Energy (Ellen Greim), May 10, 2023.

These different functions cover easements, right-of-way, facility maintenance and upgrades, and inventory management. These roles have Managers in all three states reporting to Ms. Greim, who is a centralized Eversource-level leader.[25]

3.1.2.5. Financial Strategy

The Financial Strategy group is led by a Vice President, Jeffrey Normant, who leads the Eversource LRP process. Mr. Normant's key responsibilities are:[26]

- Leading the LRP process to produce Eversource's 5-year financial plan;
- Leading M&A activities;
- Guiding overall Eversource Strategy informed by industry trends;
- Monitoring long-term financial performance.

Mr. Normant directs all Eversource departments to submit long-range planning templates for their organization that serve as inputs to the consolidated Eversource LRP (for more, see Chapter 1). Mr. Normant also tracks the financial implications of new regulatory policy and manages a 5-year forecast model that projects a long-term financial and regulatory outlook, including Merger and Acquisition ("M&A") analysis and regulatory needs that result from the LRP process. The resulting forecast serves as the foundation for the annual short-term Eversource Corporate Operating Plan, which is approved by the Eversource Board and presented to investors. As new legislation comes within Eversource's purview, Mr. Normant updates his financial models to accommodate new policy goals. Operations and other departments determine the programs to accomplish policy goals, and the Financial Strategy group will verify they are financially possible. Mr. Normant works across three jurisdictions and can apply best practices from related dockets in different states (Advanced Metering Infrastructure ("AMI") dockets for example).[27]

3.1.2.6. Finance, Regulatory, and Treasury groups

John Moreira was promoted to Eversource CFO in May 2022 from his role as Senior Vice President and Treasurer. Eversource intends to eventually fill his prior role,[28] however until then Mr. Moreira maintains responsibilities over the functions listed below.

Distribution Rates: The Distribution Rates group is one of the largest in the Finance organization, led by the Vice President of Distribution Rates Douglas Horton. The organization comprises:[29]

- Case Coordination and Docket Management;
- Regulatory Compliance;
- Rate and Load Forecasting;
- Revenue Requirements.

[25] Interview with Vice President, Supply Chain, Real Estate, and Materials, Eversource Energy (Ellen Greim), May 10, 2023.
[26] Response to FTI-725, Att. 3(ES).
[27] Interview with Director, Corporate Financial Strategy, Eversource Energy (Jeffrey Normant), June 27, 2023; Response to FTI-725, Att. 3(ES).
[28] Response to FTI-697.
[29] Interview with Vice President, Distribution Rates, Eversource Energy (Douglas Horton), June 12, 2023.

This group includes a Director of Revenue Requirements in each state who is fully dedicated to understanding the regulatory environment in their given jurisdiction, a new organizational model at the time of this audit.[30, 31] Mr. Horton has purview of all distribution rates, and the Aquarion Director of Rates and Regulation has a dotted-line reporting relationship to Mr. Horton.[32] Additionally, if the Vice President of Government Affairs and Community Relations (Timothy Ceurvels) under James Hunt's Corporate Relations, Sustainability & Corporate Secretary group determines that potential legislation may have financial concerns, he would notify both the Eversource CFO and Mr. Horton first.[33] The Distribution Rates team also begins the rate case process once the Eversource CFO has indicated the need to file a rate case.[34]

The Director of Regulatory Projects and Compliance, Christopher Plecs, reports to Mr. Horton and is responsible for docket coordination across all three states, ensures all deadlines are met, and keeps track of special projects to make sure that rates are aligned with requirements from rate cases.[35] This team works closely with the Legal group to monitor PURA dockets and Connecticut legislation,[36] and communicates details of new dockets to the broader Regulatory Affairs group.[37]

Mr. Horton serves on several Eversource steering committees, including the Future of Gas and AMI committees.[38]

Transmission Rates: The Transmission Rates group is led by Vice President, Transmission Rates and Regulatory Requirements, Bill Carlin. This group works separately from the Distribution Rates group and is responsible for FERC-regulated transmission matters. Mr. Carlin's team prepares annual transmission revenue requirements filings and testifies during rate settlements.[39]

Financial Planning and Analysis ("FP&A"): The largest group under Eversource CFO John Moreira is FP&A, led by Vice President Daniel Driscoll. This group leads the annual short-term financial planning process (Corporate Operating Plan) and performance analysis across Eversource.[40] The FP&A group coordinates bottom-up financial planning, such that one-year forward capital and O&M plans are developed by each specific group (e.g., Connecticut Electric and Gas Businesses) and consolidated into an overall Eversource-wide plan (see Chapter 1) after review by the BOT of the LRP at mid-year and approval of the Strategic Capital Plan. The Vice President of Financial Strategy, Jeffrey Normant, works closely with the FP&A group when leading the Eversource LRP process. Mr. Normant maintains a multi-year forecast that comprises potential mergers and other strategic actions, while the FP&A group through the Strategic Capital Plan process provides capital investment inputs to Mr. Normant's model.[41]

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[30] Before this change, there had been one director of revenue requirements shared between Connecticut and New Hampshire.
[31] Interview with Vice President, Distribution Rates, Eversource Energy (Douglas Horton), June 12, 2023.
[32] Response to FTI-284.
[33] Interview with Vice President, Government Affairs and Community Relations, Eversource Energy (Timothy Ceurvels), June 26, 2023; Response to FTI-725, Att. 5(ES).
[34] Interview with Vice President, Distribution Rates, Eversource Energy (Douglas Horton), June 12, 2023; Interview with Vice President, Regulatory Affairs, Eversource Energy (Kerry Britland), June 9, 2023.
[35] Interview with Vice President, Distribution Rates, Eversource Energy (Douglas Horton), June 12, 2023.
[36] Interview with Chief Financial Officer, Eversource Energy (John Moreira), April 17, 2023.
[37] Interview with Vice President, Distribution Rates, Eversource Energy (Douglas Horton), June 12, 2023.
[38] Interview with Vice President, Distribution Rates, Eversource Energy (Douglas Horton), June 12, 2023.
[39] Response to FTI-725, Att. 4(ES).
[40] Interview with Vice President, Financial Planning and Analysis, Eversource Energy (Daniel Driscoll), July 7, 2023.
[41] Interview with Chief Financial Officer, Eversource Energy (John Moreira), April 17, 2023; Interview with Assistant Treasurer, Corporate Finance and Cash Management, Eversource Energy (Emilie O'Neil), June 15, 2023; Response to FTI-725, Att. 6(ES).

Treasury (Corporate Finance and Cash Management): Corporate Finance and Cash Management is led by the Assistant Treasurer for Cash Management, Emilie O'Neil. This organization includes one Manager dedicated fully to Aquarion. This group covers Treasury operations, short- and long-term borrowing, and debt and liquidity management, which become key inputs into the Eversource LRP.[42] Ms. O'Neil determines and makes dividend recommendations by writing a memo to each of the Subsidiary Boards every quarter recommending dividend payments, who then approves them formally; these letters are reviewed and approved by the Eversource Controller Jay Buth to ensure the companies' ability to pay.[43] The Treasury group works closely with the FP&A group to track inflows and outflows of cash.[44] Ms. O'Neil's group also works closely with the Eversource CFO and Investor Relations group on long-range forecast information to disclose to rating agencies.[45]

Investment Management: A small group led by Assistant Treasurer Robert DeAngelo under the Eversource CFO covers asset management, including all investments for pensions and 401(k) plans.[46]

3.1.3. Aquarion

Some of Aquarion's Finance functions are internal under President and COO Donald Morrissey, while others are centralized within the EESC, as shown below in Figure 3-2. Aquarion's organizational chart depicts the Finance functions under a Vice President of Finance, however, at the time of this audit, that role was vacant and all Finance Directors reported directly to the Aquarion President Donald Morrisey as shown above in Figure 3-1.[47] In addition to Aquarion being directly charged time for shared service employees such as Treasury, Aquarion is also charged for an allocation of Eversource executives through a monthly management fee.[48]

Within Aquarion Organization	Charged from the EESC
• Corporate Control/Accounting • Taxes • Rates & Regulation • Business Development • Supply Chain	• Treasury • Investor Relations Additional services provided as needed: • Business Development (Mergers and Acquisitions) • Accounting and Taxes • Financial Strategy • Enterprise Risk Management and Claims • Investment Management • Corporate Performance Management • Budgeting, Forecasting, and Investment Planning

Figure 3-2 Summary of Finance Shared Services Internal to or Charged to Aquarion[49]

[42] Interview with Assistant Treasurer, Corporate Finance and Cash Management, Eversource Energy (Emilie O'Neil), June 15, 2023; Interview with Director, Corporate Financial Strategy, Eversource Energy (Jeffrey Normant), June 27, 2023.
[43] Interview with Assistant Treasurer, Corporate Finance and Cash Management, Eversource Energy (Emilie O'Neil), June 15, 2023.
[44] Interview with Chief Financial Officer, Eversource Energy (John Moreira), April 17, 2023.
[45] Response to FTI-317, Att. 2(ES); Interview with Vice President, Investor Relations, Eversource Energy (Jeffrey Kotkin), June 23, 2023; Response to FTI-588; Response to FTI-725, Att. 9(ES).
[46] Interview with Chief Financial Officer, Eversource Energy (John Moreira), April 17, 2023.
[47] Response to FTI-001; Interview with Controller, Aquarion Company (Debra Kirven) May 9, 2023; Interview with Director, Taxes, Aquarion Company (Michael Appicelli), May 10, 2023.
[48] Response to FTI-001; Interview with Controller, Aquarion Company (Debra Kirven) May 9, 2023; Response to FTI-117.
[49] Response to FTI-263; Response to FTI-723.

Unlike Eversource's Real Estate group, which is under the purview of the Eversource CFO's Finance organization, Aquarion's Real Estate group is combined with Engineering under a Vice President of Engineering and Real Estate, who reports directly to Aquarion President and COO Donald Morrisey.[50]

3.1.3.1. Accounting

The Accounting department is run by the Aquarion Controller, Debra Kirven, who has responsibility for:[51]

- Accounting;
- O&M Budget Development;
- Budget to Actuals Tracking (and reporting to Eversource);
- Financial Filings to State Regulators;
- Audited Financial Statements;
- Payroll;
- Fixed Assets;
- Accounts Payable;
- Revenue Analysis.

The Accounting group provides financial information needed by the Rates and Regulation group for compliance filings. Ms. Kirven's group also oversees the annual O&M budget development process (see Chapter 1 for more information on planning). Financial reporting to the Aquarion Board, however, is done by Aquarion President and COO Donald Morrisey. [52]

Ms. Kirven has a dotted-line reporting relationship to Jay Buth, the Eversource Controller and Chief Accounting Officer. Although Aquarion has its own accounting policy and procedures separate from Eversource, this informal reporting relationship allows alignment in standards between the two companies.[53]

3.1.3.2. Taxes

The Director of Taxes, Michael Appicelli, oversees all Finance- and Accounting-related aspects of Aquarion's taxes and maintains this data in SAP. Mr. Appicelli's responsibilities are:[54]

- Tax Accounting;
- SAP and Enterprise Resource Planning ("ERP") work for customer service and asset management;
- Maintenance of business plan models for each Aquarion utility;
- Supervision of 5-Year Planning process and forecasting.

Mr. Appicelli prepares tax information monthly to send to the Eversource Director of Taxes (Kevin Morrissey) in Jay Buth's group, who prepares Eversource-wide tax returns. Mr. Appicelli coordinates with Aquarion's ERM group during Eversource's annual risk assessment.[55]

[50] Response to FTI-263, Att. 2(AQ).
[51] Response to FTI-001; Interview with Controller, Aquarion Company (Debra Kirven) May 9, 2023.
[52] Interview with Controller, Aquarion Company (Debra Kirven) May 9, 2023.
[53] Response to FTI-001; Interview with Controller, Aquarion Company (Debra Kirven) May 9, 2023.
[54] Interview with Director, Taxes, Aquarion Company (Michael Appicelli), May 10, 2023.
[55] Interview with Director, Taxes, Aquarion Company (Michael Appicelli), May 10, 2023.

Mr. Appicelli also runs the long-term, capital 5-Year Planning process for Aquarion, which becomes an input to the broader Eversource LRP (see Chapter 1).[56] Mr. Appicelli works with the Eversource FP&A group when preparing inputs and assumptions for long-term forecasting, and again when integrating the Aquarion long-term forecast into the broader Eversource LRP. Mr. Appicelli builds business plan models for each Aquarion entity, including non-regulated entities and the holding company. For the state-specific water utilities, the models include line items for accounts amortizable such as regulatory assets and liabilities and include details on future rate case assumptions.[57]

3.1.3.3. Rates and Regulation

The Rates and Regulation group in Aquarion is run by Debra Szabo, who has a dotted-line reporting relationship to the Eversource Vice President of Distribution Rates, Douglas Horton.[58]

3.1.3.4. Business Development

The Business Development group within Aquarion is led by two Directors who are responsible for the identification, acquisition, and eventual integration and coordination of purchased new water systems.[59]

3.1.4. Eversource and Aquarion Finance Department Interactions

Aquarion operates as a standalone entity in charge of running its own business, however, it is still responsible for reporting its planned and actual financials to Eversource and maintaining alignment with Eversource's overall business and planning processes and strategy. Examples of common interactions of their finance functions include:

- **Planning and Budgets:** The Aquarion Controller provides Aquarion's Annual Capital and O&M Budgets to the Eversource FP&A group, while the Aquarion Director of Taxes creates and maintains Aquarion's long-term financial forecast that serves as an input to the Eversource LRP.
- **Dotted-Line Reporting:** There are several dotted-line reporting relationships between related Managers, including from the Aquarion Controller (Deb Kirven) to the Eversource Controller and Chief Accounting Officer (Jay Buth), and from the Aquarion Director of Rates and Regulation (Debra Szabo) to the Eversource Vice President of Distribution Rates (Douglas Horton).
- **M&A:** During transactions, the Aquarion President and COO Donald Morrisey and Aquarion Controller Debra Kirven will consult with the Eversource Controller and Chief Accounting Officer Jay Buth and his financial reporting and research group.[60]
- **Financial Reporting/Tax:** Aquarion provides Eversource's FP&A group with monthly budget variance reports for discussion.[61] They also provide inputs to Eversource's consolidated tax returns.[62]

[56] Response to FTI-001; Interview with Controller, Aquarion Company (Debra Kirven) May 9, 2023; Response to FTI-277; Interview with Director, Taxes, Aquarion Company (Michael Appicelli), May 10, 2023.
[57] Interview with Director, Taxes, Aquarion Company (Michael Appicelli), May 10, 2023.
[58] Response to FTI-284.
[59] Response to FTI-265.
[60] Response to FTI-001; Interview with Controller, Aquarion Company (Debra Kirven) May 9, 2023.
[61] Response to FTI-001; Interview with Controller, Aquarion Company (Debra Kirven) May 9, 2023.
[62] Interview with Director, Taxes, Aquarion Company (Michael Appicelli), May 10, 2023.

3.2. Accounting

Our review of this area primarily focuses on the general ledger accounting services provided to CL&P, YGS, and Aquarion between 2019 and 2022. In addition, we evaluate management's use of budgets to control costs and the manner in which income taxes are assigned among Eversource entities.

3.2.1. Organization

Unlike many other public utility holding companies, Eversource does not have one centralized department that has responsibility for the day-to-day accounting and financial reporting of all entities that comprise its consolidated operations. Rather, it has two separate accounting departments that stem from Eversource's acquisition of Aquarion in 2017.[63]

At the time of this corporate acquisition, Eversource made representations to its regulators that it had no plans to make substantial changes to its then-current employee levels.[64] Aquarion's IT system is run on SAP while Eversource uses Oracle.[65] Furthermore, management affirmed that it had no intention to make changes to the operational facilities of the combined company and expected to operate Aquarion with existing personnel. In approving the acquisition, the PURA found that concerns it had with Eversource's lack of experience in operating a water utility were mitigated by the fact that management planned to keep the Aquarion organization intact. In fact, given the indefinite nature of the company's commitment to maintain the existing organization, the PURA required that Eversource inform it of any prospective changes promptly.[66]

The end result is that AWC-CT and its sister water companies continue to maintain their own accounting department led by a controller located in Bridgeport, Connecticut. All other Eversource entities, including CL&P and YGS, are served by a shared services accounting department headed by the Vice President, Controller, and Chief Accounting Officer of the EESC located in Berlin, Connecticut. This separate assignment of responsibilities also includes the principal revenue and expenditure cycles of Aquarion and its electric and gas counterparts, CL&P and YGS (e.g., customer billing, third-party expenditures, payroll, etc.) although purchasing for both Aquarion and the EESC reports through a different organization, and Aquarion's Income Tax group is assigned to a Director of

[63] Eversource has overall responsibility for its consolidated financial results.
[64] Response to FTI-370, Att. 1(AQ). Joint Direct Testimony of John M. Moreira and Donald J. Morrissey in Docket No. 17-06-XX before the PURA (Response to FTI-370, Att. 1(AQ), p. 21).
[65] Interview with Vice President, Information Technology, Eversource (Ron Utterbeck), May 11, 2023.
[66] PURA Decision in Docket No. 17-06-XX, Response to FTI-370, Att. 2(AQ).

Taxes who reports directly to the President of Aquarion rather than the Aquarion Controller.[67] An abridged management organization chart for both departments is depicted in Figure 3-3 and Figure 3-4.

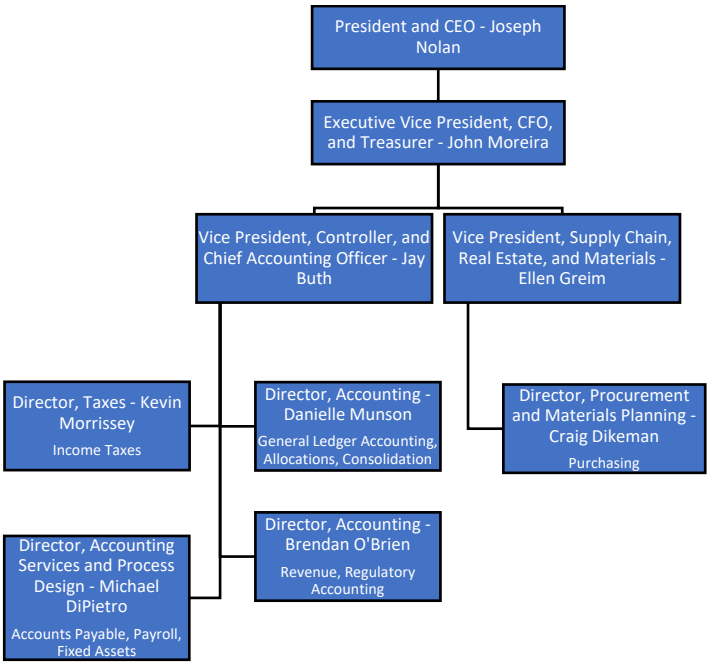


Figure 3-3 EESC Abridged Organizational Chart[68]

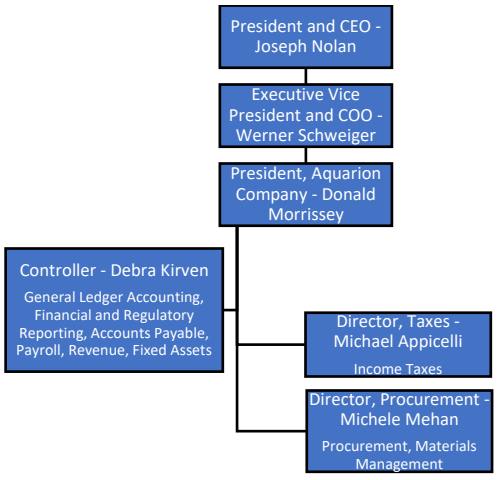


Figure 3-4 Aquarion Abridged Organizational Chart[69]

[67] Responses to FTI-113, Att. 4(ES) and 5(ES); Response to FTI-224; Response to FTI-236.
[68] Response to FTI-113, Att. 5(ES)
[69] Response to FTI-001; Response to FTI-113; Response to FTI-224; Response to FTI-236; Interview with Accounting Panel, March 15, 2023; Interview concerning Aquarion affiliate transactions and cost allocations.

In 2022, Eversource's Accounting organization consisted of approximately 141 personnel, including open positions.[70] All personnel in this group, with the exception of those assigned to revenue and regulatory accounting matters, have responsibilities that span all non-Aquarion entities. On the other hand, the Regulatory and Revenue Accounting team is organized to closely align with the various regulatory jurisdictions in which the electric and gas utilities operate.[71]

The Aquarion accounting group had 14 individuals in 2022.[72] The vast majority of Aquarion's accounting personnel serve all water operating utilities. Those that do not have responsibilities are state-specific.[73]

Eversource has never quantified any advantages or synergies in consolidating the two accounting organizations, either at the time of the acquisition or in the following six years.[74] However, one of the principal reasons given for maintaining separate organizations is that each group employs different enterprise-wide resource platforms.[75] In some cases, commitments to these disparate systems and software are 10 or more years.[76]

The extent to which Eversource and its CT Companies could save money by consolidating their Accounting organizations is unknown. While it is unusual, in our experience, for common back-office functions of acquired companies or merger partners not to be consolidated after an extended period of time, we also recognize that the Aquarion acquisition was not justified based on expectations of synergies the combined entity could generate. The one-time expense of system integration could either partially or completely offset savings associated with recurring labor, facility, and IT costs. Further analysis would be required to reach an informed decision, and for this reason, we do not advocate a change to the Accounting organizations that support CL&P, YGS, and Aquarion at this time.

3.2.2. Performance

3.2.2.1. Company-Monitored Performance

The only Accounting-specific performance metric tracked by Eversource on its corporate scorecard between 2019 and 2022 was the timeliness of the monthly close (referred to internally as "number of work days to close earnings"). Metrics, or key performance indicators (KPIs), chosen for the Corporate Scorecard are selected and aligned across multiple dimensions, including Customer, Community, Employee, Reliability, Clean Energy, and Financial. Targets are based on a combination of industry benchmarks, historical performance trends, operational budgets, and specific plans for business performance in key areas. Corporate Scorecards are updated monthly in the Executive Performance Review Package and reviewed by the Senior Team.[77] For more information on development of corporate metrics and corporate performance tracking, see Chapter 1. The company monitors the timeliness of Aquarion's monthly close separately from all other entities, including CL&P and YGS. The targeted and actual performance for the past four years for both accounting organizations is summarized in Figure 3-5 and

[70] Response to FTI-113, Att. 5(ES), some summing required. This count excludes the Purchasing group headed by the Director of Procurement and Materials Planning.
[71] Response to FTI-479.
[72] Response to FTI-224; Response to FTI-236. This count excludes the Purchasing group headed by the Director of Procurement – Aquarion Water Company. FTI-371 indicates that the Aquarion accounting group consists of 12 employees, including the Controller.
[73] Response to FTI-479.
[74] Response to FTI-225; Response to FTI-481.
[75] Response to FTI-123.
[76] Response to FTI-369.
[77] Supplemental Response to FTI-0226.

Figure 3-6. Amounts represent the monthly average for the year, and numbers presented in red are key performance metrics that were not achieved.

CL&P and YGS Accounting-Related Key Performance indicators 2019 - 2022				
Objective	**Key Performance Indicator**	**L/H (A)**	**Target**	**Actual**
2019:				
Timeliness in Producing Accounting Results	Work Days to Close Earnings	L	6.0	6.0
2020:				
Timeliness in Producing Accounting Results	Work Days to Close Earnings	L	6.0	7.3
2021:				
Timeliness in Producing Accounting Results	Work Days to Close Earnings	L	6.3	6.7
2022:				
Timeliness in Producing Accounting Results	Work Days to Close Earnings	L	6.2	6.3
(A) L = objective is to be lower or earlier than target, H = objective is to be higher or later than target				

Figure 3-5 CL&P and YGS Accounting-Related Key Performance Indicators, 2019-2022[78]

Aquarion Accounting-Related Key Performance indicators 2019 - 2022				
Objective	**Key Performance Indicator**	**L/H (A)**	**Target**	**Actual**
2019:				
Timeliness in Producing Accounting Results	Work Days to Close Earnings	L	6.0	6.0
2020:				
Timeliness in Producing Accounting Results	Work Days to Close Earnings	L	6.0	6.0
2021:				
Timeliness in Producing Accounting Results	Work Days to Close Earnings	L	6.0	6.0
2022:				
Timeliness in Producing Accounting Results	Work Days to Close Earnings	L	6.0	6.0
(A) L = objective is to be lower or earlier than target, H = objective is to be higher or later than target				

Figure 3-6 Aquarion Accounting-Related Key Performance Indicators, 2019-2022[79]

[78] Response to FTI-226, including supplements.
[79] Response to FTI-226, including supplements.

According to management, the Eversource Accounting organization, which is responsible for CL&P and YGS, failed to achieve its objectives in 2020, 2021, and 2022 for the following reasons:[80]

- **2020**: Various issues with IT systems, a large number of unvouchered liabilities associated with Hurricane Isaias, and the manual closing of Eversource Gas Company of Massachusetts ("EGMA") into Eversource's financial systems.
- **2021**: Various issues with IT systems and the initial EGMA financial close in Eversource's financial systems.
- **2022:** An unplanned additional workday for the May 2022 close.

The achievement of these metrics impacts the incentive compensation of the Vice President, Controller, and Chief Accounting Officer and his Directors.[81] Other employees' incentive compensations could be impacted, but not to the extent that operating metrics such as safety and reliability are factored into their compensation calculations.[82] According to management, achievement of departmental and individual employee goals impacts the incentive compensation of Accounting team members.[83]

Beyond this lone accounting metric captured in the corporate scorecard, management indicated that it also employed departmental measurement goals and objectives for the Accounting organization. These included 2022 goals such as:[84]

- Compliance with Securities and Exchange Commission ("SEC") reporting requirements;
- Compliance with debt reporting requirements;
- Compliance with federal and state regulatory reporting requirements;
- Supporting the replacement of the financial management consolidation system;
- Timely filing of state and federal income tax returns;
- Supporting regulatory filings, proceedings, and audits;
- Timely completion of all escheatment due diligence work and filings, if applicable;
- Completion of training of EESC employees concerning appropriate time and expense charging principles;
- Supporting emergency response and storm restoration, as needed;
- Supporting the Aquarion implementation of a new payroll time and attendance system at the beginning of the coming year;
- Supporting due diligence and integration of all water acquisitions;
- Timely monthly reporting for Aquarion;
- Paying employees in a cost efficient and timely manner;
- Paying vendors in a cost efficient and timely manner;
- Closing construction work orders in a cost efficient and timely manner;
- Billing (other/non-electric) customers in a cost efficient and timely manner;
- Ensuring compliance with all SOX controls and other legal requirements over financial reporting and transactional processing;
- Completion of the EGMA financial integration;
- Completion of the Workforce system upgrade; and

[80] Supplemental response to FTI-226.
[81] With the possible exception of Aquarion's controller.
[82] Accounting panel interview, March 15, 2023.
[83] Supplemental response to FTI-226.
[84] Ibid.

- Supporting Distribution, Transmission, Water, and Gas construction and interconnection strategies and processes.

Although few specifics were provided concerning the objective measurement of targeted or actual departmental performance in 2022, Eversource indicated that it successfully achieved each goal. Accounting departmental performance measurement goals or results were not provided for any other year.

While it is somewhat concerning that Eversource failed to achieve its self-imposed internal deadline for producing non-Aquarion corporate scorecard accounting results in any of the last four years,[85] it has closed the gap in under-performance in each of the past four years, and more importantly, it did not prevent Eversource's accounting group from meeting its required external filing deadlines in the one year it reported results to FTI (2022). For these reasons, we do not believe that the matter requires specific remediation at this time.

3.2.2.2. Other Measures of Performance Related to Connecticut Company Accounting

Perhaps the most straightforward measurement of the Accounting organization's effectiveness is to determine whether it has been successful in fairly presenting, in all material respects, the financial position, results of operations, and cash flows of CL&P, YGS, and Aquarion in accordance with U.S. generally accepted accounting principles ("GAAP"). That is the primary goal of the annual external audit of financial statements, and for each year from 2019 to 2022, each of the CT Companies was successful in accomplishing this.[86]

3.2.2.2.1. Internal Audits

Beyond this overarching objective, FTI has found that there are other common indicators of the performance of the Accounting function. The first one we will explore involves the recent results of certain internal audits. Although the responsibilities of Internal Audit groups of many companies have expanded in recent years to include the identification of corporate operational efficiencies and the independent assessment of various matters viewed as critical by management, the Internal Audit group continues to have the crucial responsibility of evaluating internal controls involving processes that directly or indirectly affect accounting matters. For more information on the Internal Audit group, see Chapter 1.

Internal audits can receive one of four different ratings: Controlled, Controlled with Opportunities for Improvement, Improvement Needed, and Unsatisfactory.[87] See Chapter 1 for more information on the definition of these ratings. Audit results indicate significant weaknesses in one or more of the following areas: those having significant effect on a major function or activity; management fraud; willful and serious violation of a policy or procedure; serious violation of a federal or state law or regulation; repeat violations; and other control weaknesses considered to have serious consequences.

In some cases, internal audits are not rated. Typically, this occurs when the area being analyzed has recently or is currently going through major changes or the scope of the review does not support a rating.[88]

As part of our review, we requested a listing of all recently completed internal audit reports and then identified those most likely to have a scope that involved CT Company accounting matters or other items of interest. For a full listing of all, see Chapter 1. That exercise resulted in the review of 25 internal audit project reports dating from

[85] Eversource has also lengthened the time it found acceptable in 2021 and 2022 compared to previous years (see Figure 3-5).
[86] Response to FTI-229, including supplements.
[87] Eversource's Internal Audit Manual (last revised on September 14, 2022): Section D-5.1 provided in response to FTI-211 Att. 1(ES).
[88] Response to FTI-363.

the beginning of 2019 to late 2022.[89] Of those 25 projects, 17 were assigned a rating, most of which are summarized in Figure 3-7. The Figure is limited to internal audit work that resulted in formal opinions.[90]

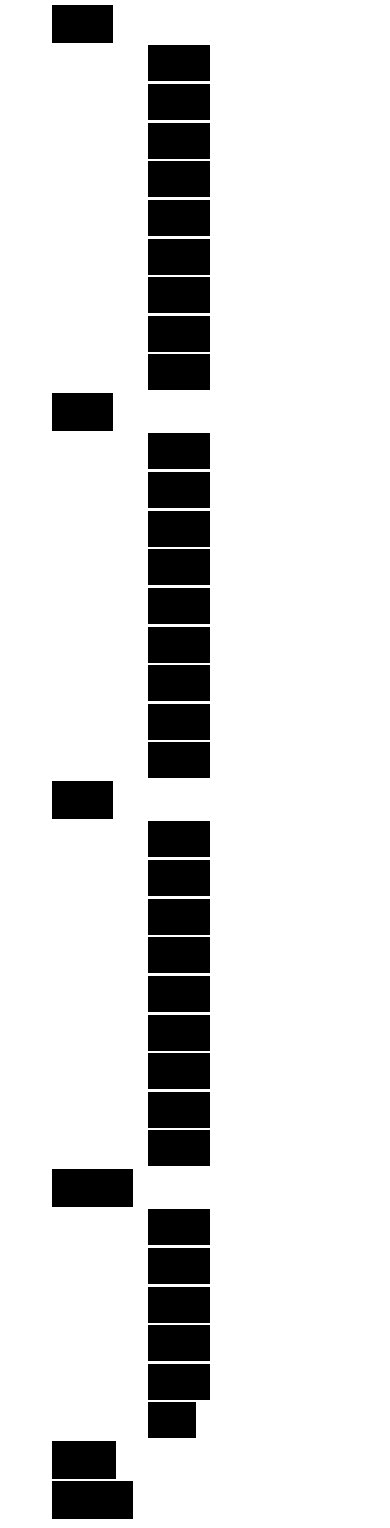
Eversource Internal Audit Reports Concerning CL&P, YGS, or Aquarion Accounting Matters 2019 - 2022			
Report No.	**Report Title**	**Opinion Rating (A)**	**Number of Opportunities for Improvement**
19-18	Property, Plant and Equipment (PPE) Audit	CWO	2
19-24	Enterprise Work and Asset Management (WAM) Gas Project Go-Live Audit	CWO	1
19-30	Aquarion Customer Payment Processing Audit	Controlled	1
19-48	Customer Payment Processing Audit	Controlled	0
20-08	Credit and Collection Vendor Audit	CWO	2
20-15	Accounts Payable Audit	Controlled	1
20-19	Procurement PO & Contract Audit	CWO	2
20-47	Aquarion Non-Revenue Water Audit	Controlled	1
21-04	CT Billing Audit	Controlled	1
21-05	Financial Disclosure Audit	Controlled	0
21-16	Allowance for Uncollectible Accounts Audit	Controlled	0
21-23	Gas Preventative Maintenance Audit	CWO	4
21-29	CT, WMA, EMA, and NH Billing Adjustments Audit	CWO	4
22-28	Corporate Scorecard Audit	Controlled	0
22-32	Connecticut Substation Maintenance 2022	CWO	2
(A) CWO = Controlled with Opportunities for Improvement			

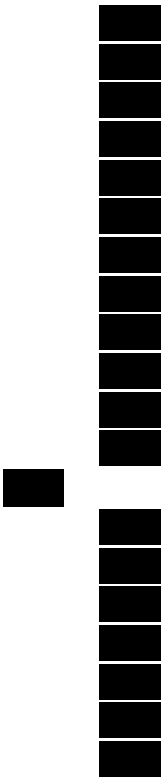
Figure 3-7 Eversource Internal Audit Reports Concerning CL&P, YGS, or Aquarion Accounting Matters[91]

None of the rated internal audits during this time period were assigned either of the two lowest ratings – "Improvement Needed" or "Unsatisfactory."[92] Of the remaining relevant internal audits, seven were rated as "Controlled with Opportunities for Improvement." The opportunities for improvement identified in these particular audits included:[93]

[redacted]

[redacted]





If Internal Audit issues a rating of "Improvement Needed" or "Unsatisfactory", the matter will be re-audited within 18 months. For other audit ratings, Internal Audit reviews management-provided updates on actions taken and follows up with requests for clarification if warranted.[96]

Since the beginning of 2019, Internal Audit has not repeated any opportunities for improvement associated with matters concerning accounting or internal control over financial reporting.[97]

3.2.2.2.2. Sarbanes-Oxley Act Testing

Another way to assess the performance of the Accounting organization is to review the results of recent testing designed to ensure that Eversource and its subsidiaries (if applicable) are complying with SOX. SOX was enacted in 2002 to provide oversight over public company Boards of Directors, corporate management, and public accounting firms in response to high-profile cases in the late 1990s and early 2000s involving corporate wrongdoing in which investors lost billions of dollars. One of the rules established by SOX (Section 404) was that each annual financial report (Form 10-K) contain an internal control report which affirms the responsibility of management to establish and maintain an adequate structure and procedures over internal controls related to financial reporting along with an assessment by management concerning the effectiveness of the associated internal control environment. In addition, the registered public accounting firm that issues the audit report for the company shall attest to the assessment made by management.

[96] Internal Audit panel interview, March 3, 2023; Response to FTI-449.
[97] Response to FTI-479.

At Eversource, the SOX business process testing group is comprised of three individuals who report directly to Ron Smith, the Vice President Internal Audit and Security, for independence and report indirectly to Tim Griffin, the Director – Accounting for proximity to accounting developments and/or transactions.[98]

The common stock of CL&P, YGS, and Aquarion is not publicly traded, so the rules related to SOX Section 404 do not apply to any of these utilities either individually or as a group. However, SOX Section 404 does apply to parent company Eversource. Our review of Eversource's Forms 10-K for the years 2019, 2020, 2021, and 2022 indicate that management determined that Eversource's internal controls over financial reporting were effective, and its external auditors concurred.[99]

Management's overall assessment of internal controls over financial reporting is based on detailed testing of key internal controls. The responsibility for this testing is assigned to a SOX Manager, who heads three full-time equivalent positions, all of whom are members of the Internal Audit group.[100]

SOX testing exceptions or failures are given one of three ratings. From least to most significant, these ratings are 1) deficiency, 2) significant deficiency, and 3) material weakness. As with most companies, these ratings conform to the definitions found in the Clarified Statement of Auditing Standards, AU-C Section 265.07,[101] which defines the terms as follows:

- **Deficiency:** A deficiency in internal control over financial reporting exists when the design or operation of a control does not allow management or employees, in the normal course of performing their assigned functions, to prevent, or detect and correct, misstatements on a timely basis.
- **Significant Deficiency:** A significant deficiency is a deficiency, or combination of deficiencies, in internal control over financial reporting that is less severe than a material weakness yet important enough to merit attention by those charged with governance.
- **Material Weakness:** A material weakness is a deficiency, or combination of deficiencies, in internal control over financial reporting, such that there is a reasonable possibility that a material misstatement of the entity's financial statements will not be prevented, or detected and corrected, on a timely basis.

Internal controls over financial reporting can either exist at the individual utility level or at the parent level, especially for those controls that are related to processes conducted by the shared service provider, the EESC. From 2019 to 2022, the number of SOX failures which impacted either CL&P, YGS, or Aquarion are summarized in Figure 3-8.

[98] Email correspondence from Chris Plecs sent on December 19, 2024.
[99] Response to FTI-229, including supplements. Management excluded from its assessment the internal controls of recently-acquired Eversource Gas Company of Massachusetts in 2020.
[100] Response to FTI-220.
[101] Response to FTI-367.

[redacted]

None of the SOX failures from 2019 to 2022 were considered significant deficiencies or material weaknesses. While a precise failure rate is not available due to the manner in which Eversource counts and performs sample testing, these failures represent a small percentage of total key business controls and key information technology general controls analyzed in a given year.[103]

The SOX group verifies that remedial action has taken place and is effective for all SOX deficiencies identified. Re-testing occurs when the process owner informs the SOX group that remediation has been completed and a sufficient amount of time has passed to sample test.[104] In many cases, the remediation of SOX failures occurs before the end of the year in which it is discovered.[105] For the remainder, all were remediated by the end of the first quarter of the calendar year following when they were identified. None of the SOX deficiencies had an impact on amounts disclosed in the company's financial statements.[106]

[redacted]

[103] Response to FTI-222; Response to FTI-368 Response to FTI-450 (Amended); Response to FTI-453.
[104] Response to FTI-452.
[105] Supplemental response to FTI-223, Att. 1(ES).
[106] Supplemental response to FTI-577.

[redacted]

[redacted]

3.2.3. Benchmarking

When asked to identify and provide copies of external benchmarking associated with the Accounting functions and related business cycles (e.g., revenue, purchasing, payroll, etc.) of the CT Companies, management indicated that it had not participated in any external benchmarking studies since January 1, 2019.[112] In addition, management stated that it had not relied upon nor used any accounting external benchmarking data during this same time period.[113] In our experience performing management audits in other jurisdictions, this is unusual for a time period that extends over four years. It also is in stark contrast to other areas of the company such as Internal Audit that take an active role in acquiring and using benchmarking information.

Most companies are interested in how their various functions are performing relative to similar companies for purposes of identifying areas that could be conducted in a more efficient manner or at a lower cost as well as to have a general understanding of new developments in technology and management practices. In the case of Eversource, if benchmarking is properly constructed, it might provide insight into the prevalence of maintaining and supporting multiple accounting organizations and information systems at recently merged or acquired companies, and whether this is ultimately the best long-term solution on the matter.

Recommendation: As it relates to the Accounting and Treasury functions,[114] we recommend that Eversource participate in benchmarking studies outside of commercial paper benchmarking for the Accounting and Treasury organizations and obtain such information in the future as a tool to be used in identifying processes that could be improved and performed more cost-effectively. If centrally managed and monitored, the acquisition of this type

[redacted]

[112] Response to FTI-227.

[113] Response to FTI-373. Benchmarking was also discussed in the Accounting panel interview conducted on March 15, 2023, and no relevant information was identified for additional review.

[114] Treasury will be discussed later in this chapter, but it also has no formal benchmarking data that was made available to the auditors.

of information should be coordinated with the group responsible for identifying best practices throughout the Eversource organization.

3.2.4. Budget Monitoring and Variance Reporting

Eversource evaluates corporate financial performance based on each department's budget performance rather than performance by utility company. Both CL&P and YGS have Boards of Directors who meet periodically to review performance to budget at a utility company level. Information from these reports is summarized in Figure 3-9 and Figure 3-10 below.

Connecticut Light & Power									
	2019			2020			2021		
($ in millions)	Actual	Budget	Variance	Actual	Budget	Variance	Actual	Budget	Variance
Total Operating Revenues	**3,232.6**	**3,195.9**	**36.7**	**3,547.5**	**3,358.0**	**189.5**	**3,637.4**	**3,657.5**	**(20.1)**
Operating Expenses:									
Energy Supply	1,188.2	1,131.7	56.5	1,369.2	1,080.5	288.7	1,393.0	1,335.9	57.1
Operations and Maintenance	548.8	514.2	34.6	569.3	573.5	(4.2)	629.4	604.8	24.6
Energy Efficiency	118.2	126.8	(8.6)	141.5	142.5	(1.0)	129.6	132.3	(2.7)
Depreciation	301.2	301.6	(0.4)	320.7	318.6	2.1	338.9	339.4	(0.5)
Amortization of Regulatory Assets, Net	51.6	78.9	(27.3)	58.4	156.4	(98.0)	99.0	95.3	3.7
Taxes other than Income Taxes	342.5	344.6	(2.1)	344.5	341.3	3.2	363.9	358.8	5.1
Total Operating Expenses	**2,550.5**	**2,497.8**	**52.7**	**2,803.5**	**2,612.9**	**190.6**	**2,953.7**	**2,866.6**	**87.1**
Operating Income	**682.0**	**698.1**	**(16.1)**	**744.0**	**745.1**	**(1.1)**	**683.7**	**790.9**	**(107.2)**
Note: May not foot due to rounding.									

Figure 3-8 CL&P Financial Results to Budget, 2019-2021[115]

CL&P's operating income was lower in 2019 due to higher distribution O&M from storm restoration efforts and bad debt expense, partially offset by higher transmission earnings driven by higher plant in service. Revenue and operating expenses were both substantially over budget due to fuel costs, which were passed through to customers in rates. High fuel costs were also the main driver of the 2021 operating expense variance, while revenues were impacted by CL&P's settlement agreement with the PURA.

Yankee Gas Services									
	2019			2020			2021		
($ in millions)	Actual	Budget	Variance	Actual	Budget	Variance	Actual	Budget	Variance
Total Operating Revenues	**555.6**	**538.7**	**16.9**	**544.0**	**587.2**	**(43.2)**	**609.2**	**620.9**	**(11.7)**
Operating Expenses:									
Energy Supply	235.0	218.7	16.3	196.8	230.8	(34.0)	235.2	235.5	(0.3)
Operations and Maintenance	117.1	110.0	7.1	124.5	121.3	3.2	123.0	120.9	2.1
Energy Efficiency	20.2	19.1	1.1	19.2	19.9	(0.7)	19.0	22.0	(3.0)
Depreciation	39.8	39.8	0.0	43.3	44.6	(1.3)	50.0	51.1	(1.1)
Amortization of Regulatory Assets, Net	(9.2)	1.2	(10.4)	(8.3)	2.4	(10.7)	(6.3)	(2.1)	(4.2)
Taxes other than Income Taxes	57.9	56.9	1.0	59.4	61.0	(1.6)	64.3	69.1	(4.8)
Total Operating Expenses	**460.8**	**445.7**	**15.1**	**434.9**	**480.1**	**(45.2)**	**485.2**	**496.6**	**(11.4)**
Operating Income	**94.9**	**93.1**	**1.8**	**109.1**	**107.1**	**2.0**	**124.0**	**124.3**	**(0.3)**
Note: May not foot due to rounding.									

Figure 3-9 YGS Financial Results to Budget, 2019-2021[116]

[115] Response to FTI-235, Att. 1 (ES).

[116] Response to FTI-112, Atts. 3 and 4.

YGS' operating income was generally consistent with budgeted amounts in all three years. Revenue and expense variances in 2019 and 2020 were largely driven by fuel costs. 2021 revenues were up sequentially from 2020 due to a scheduled distribution rate increase.

Aquarion's budget variance analysis includes key performance measurements (financial and non-financial), operating results with month and year-to-date figures compared to prior year and budget, Capital Expenditure ("CapEx") by major program area (month and year-to-date), and status of corporate initiatives. Financial information is provided for each Aquarion water utility subsidiary and for the consolidated entity are provided in Figure 3-11.

Aquarion Water Company of Connecticut									
	2019			2020			2021		
($ in millions)	Actual	Budget	Variance	Actual	Budget	Variance	Actual	Budget	Variance
Revenue	**184.6**	**184.5**	**0.1**	**189.6**	**194.0**	**(4.4)**	**193.2**	**195.0**	**(1.8)**
Labor	22.3	23.2	(0.9)	23.4	23.7	(0.3)	23.1	24.2	(1.1)
Other Taxes	16.4	17.0	(0.6)	17.5	17.7	(0.2)	18.2	18.5	(0.3)
Purchased Power	6.5	6.6	(0.1)	7.1	6.4	0.7	7.0	6.6	0.4
Pension	4.4	3.0	1.4	3.6	3.2	0.4	1.9	3.9	(2.0)
Retiree Medical	(0.8)	(0.9)	0.1	0.5	1.0	(0.5)	0.1	0.7	(0.6)
Medical	6.4	6.1	0.3	5.6	6.0	(0.4)	6.2	6.3	(0.1)
Chemicals	4.0	3.8	0.2	4.0	4.1	(0.1)	4.1	4.2	(0.1)
Main Break Costs	2.0	2.5	(0.5)	2.5	2.4	0.1	3.9	2.4	1.5
Depreciation & Amortization	44.8	45.5	(0.7)	42.5	46.1	(3.6)	44.2	45.3	(1.1)
AFUDC	(1.9)	(2.2)	0.3	(2.9)	(3.5)	0.6	(4.3)	(4.5)	0.2
All Other	21.0	21.6	(0.6)	21.6	21.5	0.1	22.6	22.0	0.6
Subtotal	**125.1**	**126.2**	**(1.1)**	**125.4**	**128.6**	**(3.2)**	**127.0**	**129.7**	**(2.7)**
EBIT	**59.7**	**58.3**	**1.4**	**64.2**	**65.4**	**(1.2)**	**66.4**	**65.3**	**1.1**

Note: May not foot due to rounding.

Figure 3-10 AWC-CT Financial Results to Budget, 2019-2021[117]

AWC-CT's actual results are generally consistent with budget in all three years. In 2019, pension expense was unfavorable due to actuarial adjustments, partially offset by labor expenses, which were favorable due to open positions and allocations to capital. Revenues in 2020 and 2021 were below budget due to the deferral of the rate case.

CapEx at all three CT Companies have increased since 2018 as shown in Figure 3-12. CL&P budgets have largely been flat over this period, although actual expenditures have exceeded budget by 8.5% or more in three of those years. YGS CapEx have been boosted by spending increases in safety and reliability programs, and the company has mostly spent up to budgeted amounts. Aquarion has consistently fallen well below budgeted CapEx during the period; however, its annual capital spend has nearly doubled in the four-year period. Impacted programs include main replacement (up $15 million), treatment plan improvements (up $24 million) and pump station upgrades (up $2 million). Figure 3-12 shows annual CapEx for CL&P, YGS, and AWC-CT.

[117] Response to FTI-234, Atts. 1-3(AQ).

($ in millions)	Capital Expenditures		
	CL&P	YGS	AWC-CT
2018			
Actual	474.02	155.22	58.90
Budget	420.95	176.75	90.10
Variance	53.07	(21.53)	(31.20)
2019			
Actual	502.27	171.32	72.70
Budget	432.95	197.75	96.20
Variance	69.32	(26.43)	(23.50)
2020			
Actual	478.81	217.30	90.80
Budget	483.44	204.61	116.60
Variance	(4.63)	12.69	(25.80)
2021			
Actual	488.34	237.21	112.40
Budget	450.04	239.62	143.90
Variance	38.30	(2.41)	(31.50)

Figure 3-11 CapEx by CT Company, 2018-2021 [118]

The CapEx figures above for CL&P and YGS represent operations capital only. Additional CapEx incurred by those companies would also include amounts allocated by other Eversource departments such as IT and Facilities Management. [119]

3.2.5. Income Taxes

The allocation of Eversource federal income tax to its associates [120] is currently subject to the terms of the Northeast Utilities Third Amended and Restated Tax Allocation Agreement dated April 10, 2012. Under this agreement, the parent is responsible for preparing and filing the consolidated federal income tax return for its participating subsidiaries, which include CL&P, YGS, and Aquarion. Allocations of federal taxes to associates are dependent on the nature of the tax owed or credit earned and are grouped into the following pools: [121]

- Consolidated tax exclusive of capital gains taxes, the alternative minimum tax, and the application or recapture of credits and the results of any special benefits;
- Capital gains taxes;
- General business credits;
- Special benefits;
- Net operating loss;
- The alternative minimum tax or credit;

[118] Response to FTI-032, Att. 2(CLP); Response to FTI-032, Att. 2(YGS); Response to FTI-477, Att. 1(AQ).
[119] Eversource budgeting panel interview, May 11, 2023.
[120] "Associate" is defined as any member company of the Parent Company's affiliated group that is included in the Parent Company's federal income tax return (obtained from the Northeast Utilities Third Amended and Restated Tax Allocation Agreement dated April 10, 2012 provided in the confidential attachment to the response to FTI-237).
[121] Response to FTI-237, Att. 1(ES) (confidential).

- Other federal taxes, benefits, and credits.

Perhaps most importantly, the allocation of federal taxes to any subsidiary is limited to and shall not exceed the federal income tax computed as if the subsidiary had filed its own separate return. Any resulting excess allocations are assigned to the parent.[122] This means that none of the CT Companies incur additional federal income tax obligations solely as a result of being a component of a larger holding company structure.

The same principle also applies to state income tax return obligations. The individual subsidiary tax obligation cannot exceed the income tax computed as if the subsidiary had filed its own separate return. [123]

The agreement has not undergone any substantive changes since the beginning of 2019 as evidenced by its effective date, and Eversource has not advocated any changes to the IRS regarding its income tax allocation methodology in recent years.[124] Management indicated that there have been no SEC comments on the tax allocation agreement, nor any SEC decisions addressing the agreement.[125] In addition, no federal or state regulator of the CT Companies has proposed any changes to the agreement since the beginning of 2019.[126]

While the fairness of any cost allocation methodology can be subject to differing opinions, in the case of Eversource's income tax allocation agreement, there is no evidence that any of the CT Companies is disadvantaged by being a participant, as each utility's tax obligation is capped at the amount it would otherwise pay if it had hypothetically filed a separate tax return. Given this, and the fact that no internal or external party has raised any recent concerns about the reasonableness of the methodology, we believe the resulting attribution of income tax obligations is equitable to CL&P, YGS, and Aquarion.

3.3. Treasury

Our review of this area will include an overview of the organization providing Treasury services to CL&P, YGS, and Aquarion as well as an assessment of its recent performance. In addition, we will give consideration to the long-term financing of the CT Companies in addition to the steps taken by each to ensure short-term liquidity. We will evaluate recent equity transactions to determine fund flows into and out of the state of Connecticut. Finally, we will review recent asset impairments to identify any potential issues that may arise for the CT Companies' and their ultimate parent's (Eversource) credit ratings.

3.3.1. Organization

In contrast to the two separate Accounting organizations that serve the Aquarion and non-Aquarion subsidiaries of Eversource, only one organization handles the Treasury responsibilities of the CT Companies. Treasury is part of the EESC and is led by the Assistant Treasurer, Corporate Finance and Cash Management who reports directly to the Executive Vice President, CFO and Treasurer.[127] This is depicted above in Figure 3-1.

[122] Section 10 of the Northeast Utilities Third Amended and Restated Tax Allocation Agreement dated April 10, 2012 provided as a confidential attachment to the response to FTI-237.
[123] Section 11 of the Northeast Utilities Third Amended and Restated Tax Allocation Agreement dated April 10, 2012 provided as a confidential attachment to the response to FTI-237 and the response to FTI-378.
[124] Response to FTI-238; Response to FTI-239.
[125] Response to FTI-237.
[126] Response to FTI-240. The FERC was provided a copy of the agreement during its Transmission Tariff Audit (Docket No. FA19-8) but proposed no changes.
[127] Response to FTI-241.

The Treasury organization consists of 11 individuals.[128] While the head of the organization (the Assistant Treasurer, Corporate Finance and Cash Management) is responsible for all Eversource entities, one of her direct reports focuses entirely on Aquarion matters, and the rest of the organization handles the remaining Eversource entities.[129] In essence, the employee handling Treasury matters for Aquarion prior to its 2017 acquisition by Eversource was absorbed into the existing EESC Treasury organization and continues to concentrate his efforts on the different water company subsidiaries.[130]

3.3.2. Performance

During the time period under review, the Treasury organization had two corporate scorecard performance metrics of which it had primary control. While neither of the metrics was specifically tied to CT Company performance either individually or as a group; CL&P, YGS, and Aquarion contributed to the achievement or non-achievement of each. The two Treasury metrics included in the corporate scorecard were the maintenance of an A-rated corporate credit rating and Eversource's relative performance in achieving favorable short-term borrowing rates.[131] The targeted and realized performance from 2019 to 2022 is summarized in Figure 3-13.

[128] Response to FTI-241.
[129] Response to FTI-588.
[130] Response to FTI-123; Interview with the Assistant Treasurer, Corporate Finance and Cash Management, Eversource Energy (Emilie O'Neil), April 24, 2023.
[131] Response to FTI-256. Underlying benchmarking data from Goldman Sachs was not made available for review.

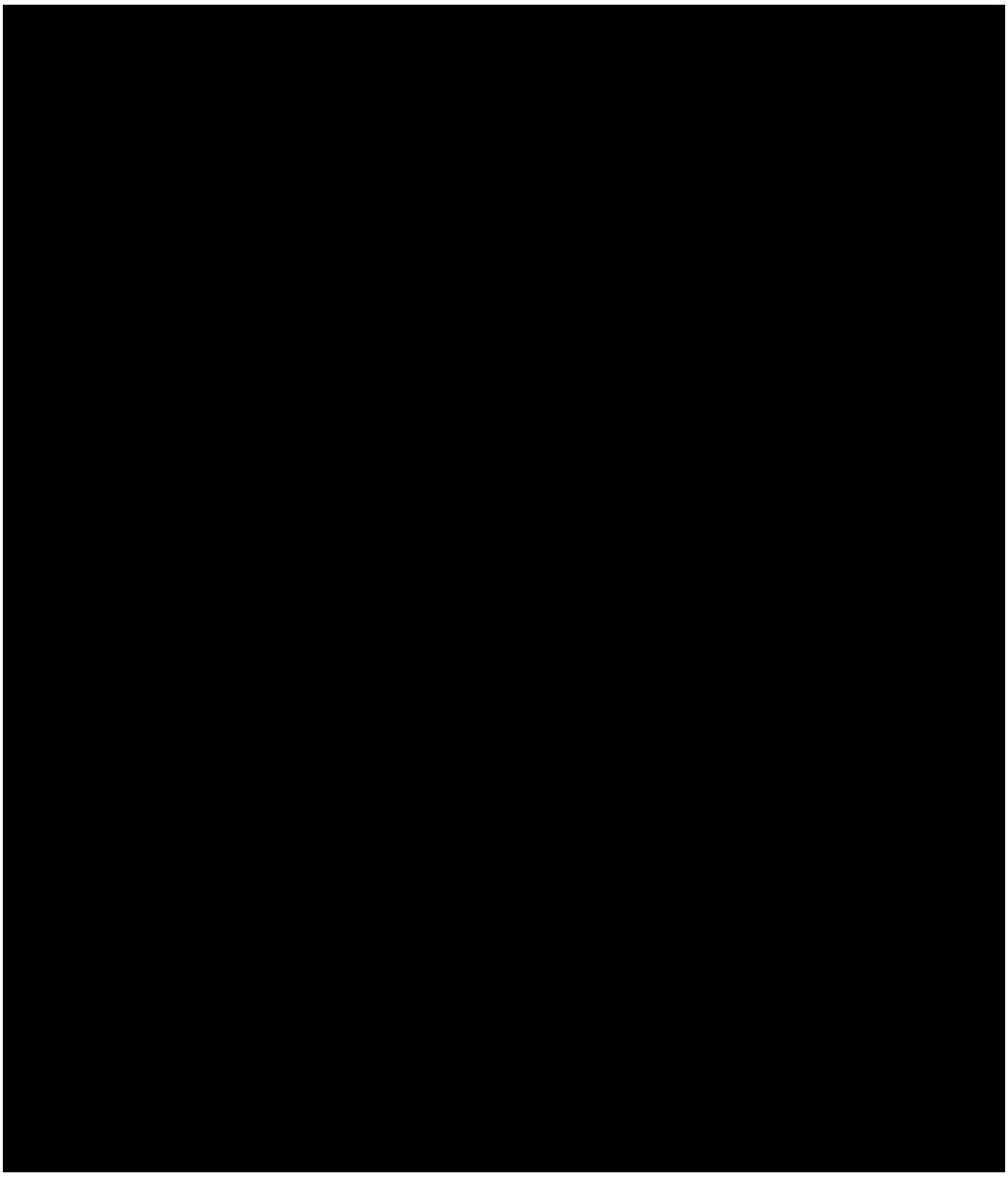


Figure 3-13 demonstrates that these two Treasury metrics were achieved in each of the past four years.

As with the Accounting metric, the Treasury metrics were selected and aligned across multiple dimensions. Targets were set at levels that took into consideration industry benchmarks, historical performance trends, operational budgets, and specific plans for business performance in key areas. The Senior Team monitored these metrics and others as part of the "Senior Team Package" of executive performance reviews. [133]

[133] Supplemental response to FTI-256.

In addition to the corporate scorecard metrics, the Treasury Department has departmental goals that are used, in combination with individual employee goals, to determine incentive compensation of Treasury team members. In recent years, these departmental goals included:[134]

- Issuing short-term and long-term debt in the most cost-effective manner to provide the lowest possible borrowing costs to customers;
- Issuing short-term and long-term debt to meet the financing needs of Eversource and its subsidiaries;
- Maintaining strong corporate credit ratings;
- Maintaining sufficient short-term debt credit facilities;
- Maintaining sufficient liquidity at all times;
- Complying with all aspects of the company's corporate credit policy.

Neither the specific targets nor the achieved results of these particular goals were provided by Eversource for any recent years. However, according to management, it has met all of its goals since the beginning of 2019.[135]

3.3.3. Benchmarking

Although management indicated that it closely monitors capital market conditions and peer financing transactions by continuously interacting with its current banking group as well as potential new banking partners, it has not relied on formal Treasury benchmarking studies since the beginning of 2019, and Eversource produced no examples of benchmarking studies in which it has participated during this time.[136]

We believe benchmarking data from similar companies would be useful in identifying areas that are lagging and could use improvement. Our recommendation concerning Accounting and Treasury benchmarking can be found in Section 3.2.3.

3.3.4. Long-Term Financing

As direct (CL&P) or indirect (YGS and AWC-CT), wholly owned subsidiaries of Eversource, none of the CT Companies raises funds by issuing equity to the public. Instead, the O&M and CapEx of the CT Companies is primarily financed through a combination of utility long-term debt issuances, parent capital contributions, and cash flows from operations.[137] Over the next four years, the sources of funding for each CT Company's CapEx are projected in Figure 3-14.

[134] Supplemental response to FTI-256.
[135] Response to FTI-256. At the time this response was provided, 2022 year-to-date results were not yet available.
[136] Response to FTI-257. The company asserts that it receives benchmarking data from Goldman Sachs on a quarterly basis regarding its commercial paper program. This information is used in Treasury KPIs. However, the data was not made available by the company for review by FTI.
[137] Response to FTI-259; Response to FTI-229, Atts. 1-3(all).

3.3.4.1. Long-Term Debt

The long-term debt outstanding issuances as of December 31, 2022 for CL&P, YGS, and AWC-CT is depicted in Figure 3-15.

CT Companies Long-Term Debt Outstanding As of December 31, 2022 (in thousands)					
Description	**Issue Date**	**Maturity Date**	**CL&P**	**YGS**	**AWC-CT**
1994 Series D, 1st Mortgage Bonds (7.875%)	10/12/94	10/01/24	$139,845		
2004 Series B, 1st Mortgage Bonds (5.750%)	09/15/04	09/15/34	130,000		
2005 Series B, 1st Mortgage Bonds (5.625%)	04/07/05	04/01/35	100,000		
2006 Series A, 1st Mortgage Bonds (6.350%)	06/07/06	06/01/36	250,000		
2007 Series B, 1st Mortgage Bonds (5.750%)	03/27/07	03/01/37	150,000		
2007 Series D, 1st Mortgage Bonds (6.375%)	09/17/07	09/01/37	100,000		
2013 Series A, 1st Mortgage Bonds (2.500%)	01/15/13	01/15/23	400,000		
2014 Series A, 1st Mortgage Bonds (4.300%)	04/24/14	04/15/44	475,000		
2015 Series A, 1st Mortgage Bonds (4.150%)	05/20/15	06/01/45	350,000		
2017 Series A, 1st Mortgage Bonds (3.200%)	03/10/17	03/15/27	500,000		
2018 Series A, 1st Mortgage Bonds (4.000%)	03/28/18	04/01/48	800,000		
2020 Series A, 1st Mortgage Bonds (0.750%)	12/01/20	12/01/25	400,000		
2021 Series A, 1st Mortgage Bonds (2.050%)	06/30/21	07/01/31	425,000		
Series I, 1st Mortgage Bonds (5.350%)	07/21/05	07/15/35		50,000	
Series L, 1st Mortgage Bonds (4.820%)	01/02/14	01/02/44		100,000	
Series M, 1st Mortgage Bonds (3.350%)	09/10/15	09/01/25		75,000	
Series N, 1st Mortgage Bonds (3.020%)	09/11/17	09/15/27		75,000	
Series O, 1st Mortgage Bonds (4.130%)	09/19/18	10/01/48		50,000	
Series P, 1st Mortgage Bonds (2.230%)	09/26/19	10/01/24		100,000	
Series Q, 1st Mortgage Bonds (3.300%)	09/26/19	10/01/49		100,000	
Series R, 1st Mortgage Bonds (2.900%)	09/15/20	09/15/50		70,000	
Series S, 1st Mortgage Bonds (1.380%)	08/31/21	08/15/26		90,000	
Series T, 1st Mortgage Bonds (2.880%)	08/31/21	08/15/51		35,000	
Series U, 1st Mortgage Bonds (4.310%)	09/08/22	09/01/32		100,000	
Series R Secured Notes Payable (6.875%)	12/01/98	11/01/28			5
Senior Unsecured Notes (4.290%)	08/15/12	08/15/32			60,000
Senior Unsecured Notes (3.750%)	05/04/15	05/04/35			46,000
Senior Unsecured Notes (4.000%)	04/30/13	04/30/33			35,000
Senior Unsecured Notes (4.400%)	02/21/12	02/21/32			30,000
Senior Unsecured Notes (3.670%)	07/01/16	07/01/36			25,000
Senior Unsecured Notes (3.570%)	09/01/17	09/01/37			30,000
Senior Unsecured Notes (4.070%)	07/29/13	04/30/33			15,000
Senior Unsecured Notes (6.430%)	06/29/04	06/29/34			8,500
General Mortgage Bonds (7.330%)	12/01/97	12/01/27			14,000
General Mortgage Bonds (9.290%)	04/01/91	04/01/31			4,500
General Mortgage Bonds (8.040%)	02/01/00	02/01/30			3,500
Senior Unsecured Notes (3.540%)	12/12/19	12/15/49			45,000
Senior Unsecured Notes (3.310%)	04/01/21	04/01/51			100,000
Senior Unsecured Notes (4.690%)	08/31/22	09/01/52			70,000
Total			**$4,219,845**	**$845,000**	**$486,505**
Interest rates represent the coupon rates.					
Excludes unamortized debt issuance costs, premiums, and discounts.					

Figure 3-12 CT Companies' Long-Term Debt Outstanding as of December 31, 2022[139]

In the past four years, the CT Companies have issued $1.535 billion of debt: $825 million by CL&P, $495 million by YGS, and $215 million by AWC-CT. A small portion of this newly issued debt was used to refinance maturing debt. Durations selected by management for this debt ranged from 5 to 30 years and were based on such considerations

[139] Response to FTI-259 Supplemental, Att. 1(ES).

as the current and forward yield curve, bank interest rate forecasts, and the utilities' pre-existing maturity schedule.[140]

The maturity schedule for the outstanding debt of CL&P, YGS, and AWC-CT as of December 31, 2022 is depicted in Figure 3-15.

CT Companies Scheduled Debt Maturities (in thousands)						
Year Range	CL&P		YGS		AWC-CT	
	Amount	% of Total	Amount	% of Total	Amount	% of Total
2023 - 2027	$1,439,845	34.12%	$340,000	40.24%	$14,000	2.88%
2028 - 2032	425,000	10.07%	100,000	11.83%	98,005	20.14%
2033 - 2037	730,000	17.30%	50,000	5.92%	159,500	32.78%
2038 - 2042	-	0.00%	-	0.00%	-	0.00%
2043 - 2047	825,000	19.55%	100,000	11.83%	-	0.00%
2048 - 2052	800,000	18.96%	255,000	30.18%	215,000	44.20%
Total	**$4,219,845**	**100.00%**	**$845,000**	**100.00%**	**$486,505**	**100.00%**

Figure 3-13 CT Companies' Scheduled Debt Maturities[141]

Figure 3-15 indicates that both CL&P and YGS have a significant portion of debt maturing in the next five years. Some of this is due to the historically low interest rates that these two utilities realized by issuing relatively short durations of debt in the past 10 years. It is unlikely that CL&P and YGS can refinance at similar rates in the next few years. Higher inflation rates and the increasing interest rates on all durations of Treasury obligations over the past three years[142] and the ramifications this has on corporate debt suggests that the CT Companies' cost of debt will increase unless interest rates decrease significantly in the next five years.

A review of debt durations chosen by the management of other northeastern U.S. utilities during the past 5 to 10 years reveals that Eversource's Treasury department was not alone in issuing relatively short-term debt, although to differing degrees. For example, many of Avangrid's and National Grid's utility subsidiaries financed well over half of their recent debt issuances with durations of 10 years or less. In the case of Avangrid, this included some of its Connecticut-based utilities. On the other hand, while Consolidated Edison's subsidiaries also issued 5- and 10-year duration debt in the past decade, this debt only represented approximately one-fourth to one-third of total debt issued.[143]

Like CL&P and YGS, some of the utility subsidiaries of these other companies have significant amounts of debt maturing in the next few years.[144] This indicates that Eversource Treasury management made decisions to issue shorter-duration debt in the past decade that were consistent with the management decisions of other companies even if the resulting debt maturities were concentrated in the next few years. Given Eversource management's

[140] Interview with Assistant Treasurer, Corporate Finance and Cash Management, Eversource Energy (Emilie O'Neil), April 24, 2023.
[141] Response to FTI-259 Supplemental, Att. 1(ES), some summing and calculations required.
[142] Daily treasury par yield curve rates obtained from the U.S. Department of Treasury website for the dates of June 1, 2020; June 1, 2021; June 1, 2022; and June 1, 2023.
[143] Derived from recent Forms 10-K of Avangrid, National Grid, and Consolidated Edison.
[144] For example, both Avangrid utility subsidiaries, New York State Electric & Gas and United Illuminating, have over 40 percent of their total long-term debt outstanding as of December 31, 2021 maturing within five years.

use of market data from investment bankers[145] who would likely be providing similar data to other companies, this result is not unexpected.

3.3.4.1.1. Long-Term Debt Attributes

A review of the debt issued by CL&P, YGS, and AWC-CT yields the following common attributes along with some critical differences.

None of the CT Companies under the ownership of Eversource have issued variable rate debt since the beginning of 2012.[146] By issuing fixed rate debt instead, these utilities have eliminated the instability of future cash flows to service debt and the potential impacts this could have on customer rates prior to debt maturity.

In the past 15 years, make-whole premiums associated with long-term debt issued by the CT Companies make it uneconomic to call debt early. Prior to that, call provisions were more pervasive in CT Company debt agreements. This "older" debt has been occasionally retired early by the utilities if market rates make it feasible to do so. However, none of the CL&P, YGS, or AWC-CT's long-term debt currently outstanding is callable.[147]

There are no cross-default provisions in any CT Company debt agreement that obligates a CT Company to repay the debt of its affiliates.[148]

Of the three CT Companies, CL&P is the only one that issues SEC-registered debt in the public market. Its larger-sized debt offerings ($300 million or more) make it cost-effective to do so. On the other hand, the smaller YGS- and AWC-CT-only issue debt in the private placement market. According to management, the cost effectiveness of debt issuances of $100 million or less are more suited for this market. In all cases, the PURA approves and the applicable utility Board of Directors authorizes the issuance of all long-term debt.[149]

As demonstrated in Figure 3-15 CL&P and YGS only issue secured debt. On the other hand, AWC-CT has outstanding debt that is both secured and unsecured. According to management, the only substantive AWC-CT secured debt outstanding is related to debt acquired in the 2002 American Water acquisition. Otherwise, AWC-CT has historically issued unsecured debt for the past 30 years.[150]

All other things being equal, while secured debt typically can be issued at lower interest rates than unsecured debt because it is viewed as less risky by investors since they have a claim on assets that can be sold if the borrower defaults while unsecured debtholders do not. However, there are practical reasons why a company usually cannot switch from issuing unsecured debt to issuing secured debt. First, a company would be faced with the predicament of convincing its existing debtholders to take a secondary position to new investors in the event of default. Secondly, many unsecured debt agreements prevent new secured debt from being issued. For these reasons, it is not surprising that AWC-CT continues to issue unsecured debt while its sister companies in Connecticut issue secured debt.

[145] Response to FTI-649.
[146] Response to FTI-590.
[147] Response to FTI-590.
[148] Response to FTI-650. Although the company's response was limited to utility affiliates, the request was not, and management identified no instances in which CT Companies would be obligated to pay the debt of non-utility affiliates.
[149] Response to FTI-260.
[150] Response to FTI-581.

3.3.4.2. Equity

Although CL&P, YGS, and AWC-CT do not issue equity to the public to raise additional funds, their respective parents periodically provide capital when needed. Figure 3-17 summarizes both these parent contributions and equity distributions made by the CT Companies in the past four calendar years.

CT Companies Selected Equity Transactions (in thousands)				
Category	**2019**	**2020**	**2021**	**2022**
CL&P:				
Capital Contributions Received	$125,000	$275,000	$200,000	$250,000
Dividends Paid	(341,800)	(69,500)	(341,400)	(292,400)
Net Equity Contributions (Distributions)	**(216,800)**	**205,500**	**(141,400)**	**(42,400)**
YGS:				
Capital Contributions Received	87,100	50,000	123,400	118,000
Dividends Paid	(36,400)	(39,600)	(41,200)	(51,200)
Net Equity Contributions (Distributions)	**50,700**	**10,400**	**82,200**	**66,800**
AWC-CT:				
Capital Contributions Received (A)	35,000	15,000	39,161	35,000
Dividends Paid	(22,300)	(17,500)	(27,500)	(27,343)
Net Equity Contributions (Distributions)	**12,700**	**(2,500)**	**11,661**	**7,657**
Note: None of the CT Companies paid distributions other than dividends during this time period. (A) 2021 includes $10,161 in conjunction with the purchase of New England Services Company				

Figure 3-14 CT Companies Selected Equity Transactions (in thousands)[151]

According to management, the CT Companies pay out approximately 60% of their earnings in the form of regular common dividends. However, management also monitors the respective equity balances of the utilities to ensure that they maintain an appropriate regulatory capital structure. This is accomplished through both capital contributions and special distributions.[152] Pursuant to the latest rate case orders for each of the CT Companies, the approved equity ratios range from 51.53% for AWC-CT to 53.99% for YGS; CL&P's equity ratio is approved at 53% (see Figure 3-21 below).[153] If circumstances do not allow both a dividend payout ratio of 60% and the maintenance of an appropriate capital structure, priority is given to maintaining the utility's capital structure.[154]

In addition, each of the CT Companies must comply with the terms of the revolving credit facility to which each is a party. Under the terms of that agreement, each utility must maintain a consolidated total debt to total capitalization ratio of no greater than 65% at the end of each fiscal quarter.[155]

Figure 3-17 demonstrates that YGS and AWC-CT have been net recipients of parent contributions over this four-year period while CL&P has been a net distributor of funds. Part of the capital contributions received by AWC-CT were used to purchase New England Services Company. The specific underlying reasons why CL&P had excess

[151] Response to FTI-248; Response to FTI-249; Response to FTI-250 (confidential).
[152] Response to FTI-246.
[153] Response to FTI-247, Atts. 1-3(all). The 53.99% equity ratio for YGS is specifically for rate year 2020. In the other two approved rate years it is slightly less (53.52% and 53.76%).
[154] Response to FTI-590.
[155] Response to FTI-246.

equity that it could distribute to its parent while YGS was a net beneficiary of equity funds during this time period were not disclosed by the companies.[156]

3.3.4.2.1. Use of CT Company Funds

As the only CT Company that has been a net distributor of equity funds in recent years, CL&P could have indirectly been the source of parent funding to both YGS and AWC-CT. However, the use of CL&P's distributions to parent cash reserves is not solely limited to CT Companies. Eversource also has subsidiaries in other jurisdictions as well as shared service organizations that might have benefited from CL&P's net distributions. Figure 3-18 summarizes the equity transactions of the most significant of these affiliates.

[156] Response to FTI-586.

Other Significant Eversource Subsidiaries Selected Equity Transactions (in thousands)				
Category	**2019**	**2020**	**2021**	**2022**
NSTAR:				
Capital Contributions Received	$180,000	$180,500	$260,000	$525,000
Dividends Paid	(181,800)	(262,000)	(283,200)	(287,600)
Net Equity Contributions (Distributions)	**(1,800)**	**(81,500)**	**(23,200)**	**237,400**
PSNH:				
Capital Contributions Received	225,000	25,000	160,000	210,000
Dividends Paid	(271,000)	(22,300)	(260,800)	(104,000)
Net Equity Contributions (Distributions)	**(46,000)**	**2,700**	**(100,800)**	**106,000**
NSTAR Gas Co:				
Capital Contributions Received	112,300	40,000	70,600	141,300
Dividends Paid	(21,600)	(38,000)	(40,000)	(50,000)
Net Equity Contributions (Distributions)	**90,700**	**2,000**	**30,600**	**91,300**
Hopkinton LNG Corp.:				
Capital Contributions Received (A)	43,000	75,000	57,000	-
Dividends Paid	-	-	-	-
Net Equity Contributions (Distributions)	**43,000**	**75,000**	**57,000**	-
EGMA:				
Capital Contributions Received (A)	NA	-	-	95,000
Dividends Paid	NA	-	(20,700)	(26,000)
Other Capital Distributions Paid (B)	NA	-	(176,300)	-
Net Equity Contributions (Distributions)	-	-	**(197,000)**	**69,000**
EESC:				
Capital Contributions Received	104,800	75,000	125,000	125,000
Dividends Paid	(16,600)	(22,600)	(40,200)	(34,200)
Net Equity Contributions (Distributions)	**88,200**	**52,400**	**84,800**	**90,800**

(A) Excludes non-cash equity infusions of $22,521 to Hopkinton LNG Corp. and $802,350 to EGMA in 2020.
(B) Excludes a non-cash equity adjustment of $8,630 in 2021.
NSTAR = NSTAR Electric Company
PSNH = Public Service Company of New Hampshire
NSTAR Gas Co = NSTAR Gas Company
EGMA = Eversource Gas Company of Massachusetts
EESC = Eversource Energy Service Company

Figure 3-15 Other Significant Eversource Subsidiaries Selected Equity Transactions (in thousands)[157]

[157] Response to FTI-248; Response to FTI-249; Response to FTI-250 (confidential).

A short description of each of the subsidiaries disclosed in the preceding table can be found in Chapter 1.

As can be seen in the preceding table; NSTAR Electric Company, NSTAR Gas Company, Hopkinton LNG Corp., and the EESC have all been net recipients of parent contributions during the past four years. In particular, the EESC received funding from its parent to fund asset investments, primarily those related to IT, and contributions to employee pension plans totaling approximately $316 million. Noteworthy EESC IT projects during the past six years include the Work Asset Management Systems, the Customer Outage System Upgrade, and Supply Chain Systems.[158]

EESC typically finances its capital investments and other funding requirements through a combination of internal funds, short term debt, long-term intercompany notes to Eversource and capital contributions as shown in the above table. The principal funding mechanism the last few years has been capital contributions which has increased the EESC equity ratio to higher levels than the equity ratios of the underlying utility subsidiaries. Eversource is currently in the process of issuing additional long-term intercompany notes at EESC to Eversource to align the EESC capital structure more closely with the underlying utility companies who pay the EESC bills. The existing base rates of the underlying utility companies include recovery of their allocation of EESC expenses including a capital recovery component covering depreciation, return and taxes component for fixed assets. The existing CT Company base rate recovery of EESC fixed capital costs are based on a capital structure more aligned with their regulatory approved structures.[159] The source of some of the cash infused into any of these affiliates could have been CL&P.

Recommendation: We recommend review of EESC's capital structure used for fixed capital cost recovery in the next round of general rate cases for the CT Companies.

3.3.5. Short-Term Liquidity

The CT Companies manage their short-term liquidity in a variety of ways. CL&P and YGS have the ability to borrow funds from Eversource through an inter-company revolving credit facility. On the other hand, Aquarion borrows and lends short-term funds subject to the Aquarion money pool arrangement. All three of the CT Companies are parties to an external revolving credit facility, which also serves as a backstop to Eversource's commercial paper program. This revolving credit facility is administered by Bank of America, N.A. and is comprised of 16 banks.[160]

3.3.5.1. Inter-Company Revolving Credit Facility

The inter-company revolving credit facility in which CL&P and YGS participate is the primary source of short-term borrowings for both utilities. Pursuant to this agreement, CL&P can borrow up to $600 million, and YGS can borrow up to $300 million from Eversource. AWC-CT's parent, Aquarion, also is a participant in the inter-company revolving credit facility with Eversource. Aquarion's borrowings are limited to $150 million, and the inter-company revolving credit facility is its sole source of short-term funding. Eversource cannot borrow from any of its subsidiaries under this facility, including the CT Companies.[161]

The borrowing rates that each participant pays under the inter-company revolving credit facility track the rates that Eversource pays on its commercial paper program. With the exception of funds lent the same day under the

[158] Response to FTI-585.
[159] Response to FTI-746, (supplemental).
[160] Response to FTI-242.
[161] Response to FTI-242; Response to FTI-588.

prime option, Eversource entities are charged different interest rates based on their individual credit ratings, with lower-rated entities charged a higher interest rate than higher-rated entities.[162]

The rates at which CL&P and YGS borrow under the inter-company revolving credit facility are lower than they could borrow under the external revolving credit facility.[163] As proof, management provided a daily listing of borrowing rates under both the inter-company and external revolving credit facilities from the beginning of 2021 to March 31, 2023. This listing supported the company's assertion that CL&P and YGS were obtaining least-cost financing by using the inter-company revolving credit facility.[164]

A summary of CL&P and YGS' use of the inter-company revolving credit facility is shown in Figure 3-19.

[162] Response to FTI-242; Response to FTI-589.
[163] Response to FTI-382.
[164] Response to FTI-579, Att. 1(ES).

CL&P and YGS Summary of Inter-Company Revolving Credit Facility Funds Borrowed (in thousands)										
Month	CL&P					YGS				
	Average Interest Rate	Maximum Funds Borrowed	Minimum Funds Borrowed	Average Funds Borrowed	Days Funds Borrowed	Average Interest Rate	Maximum Funds Borrowed	Minimum Funds Borrowed	Average Funds Borrowed	Days Funds Borrowed
January 2019	N.A.	$ -	$ -	$ -	0	2.74%	$ 190,200	$ 155,100	$ 168,948	31
February 2019	2.69%	$ 208,600	$ 28,700	$ 94,086	28	2.69%	$ 195,900	$ 167,700	$ 180,179	28
March 2019	2.67%	$ 261,600	$ 11,700	$ 121,748	31	2.67%	$ 185,400	$ 146,100	$ 167,826	31
April 2019	2.69%	$ 20,900	$ -	$ 697	1	2.69%	$ 170,000	$ 109,500	$ 133,410	30
May 2019	2.67%	$ 22,500	$ -	$ 1,871	6	2.67%	$ 165,000	$ 148,100	$ 157,665	31
June 2019	2.59%	$ 259,400	$ -	$ 31,330	10	2.58%	$ 186,100	$ 146,700	$ 157,953	30
July 2019	2.52%	$ 253,900	$ 101,300	$ 179,268	31	2.52%	$ 212,200	$ 179,900	$ 188,558	31
August 2019	2.35%	$ 313,200	$ 199,400	$ 233,394	31	2.35%	$ 247,400	$ 212,200	$ 228,735	31
September 2019	2.27%	$ 321,200	$ -	$ 145,290	21	2.29%	$ 238,200	$ 26,000	$ 195,817	30
October 2019	2.16%	$ 180,600	$ 1,400	$ 80,374	31	2.16%	$ 54,100	$ 22,800	$ 32,968	31
November 2019	1.88%	$ 125,700	$ 11,800	$ 65,697	30	1.88%	$ 122,500	$ 99,200	$ 107,793	30
December 2019	1.92%	$ 133,800	$ 10,700	$ 85,935	31	1.92%	$ 125,300	$ 104,500	$ 118,429	31
January 2020	1.94%	$ 106,000	$ -	$ 12,845	10	1.87%	$ 116,100	$ 93,700	$ 102,645	31
February 2020	1.77%	$ 163,800	$ 26,100	$ 82,179	29	1.77%	$ 115,900	$ 97,800	$ 108,410	29
March 2020	2.58%	$ 219,000	$ 13,100	$ 95,484	31	2.58%	$ 110,300	$ 57,800	$ 91,810	31
April 2020	1.52%	$ 313,400	$ 129,800	$ 199,957	30	1.52%	$ 109,900	$ 88,700	$ 100,080	30
May 2020	0.53%	$ 299,700	$ 173,100	$ 235,303	31	0.53%	$ 103,000	$ 88,600	$ 95,632	31
June 2020	0.25%	$ 293,800	$ 147,800	$ 213,883	30	0.25%	$ 99,400	$ 76,400	$ 84,183	30
July 2020	0.18%	$ 260,600	$ 116,400	$ 187,413	31	0.18%	$ 150,800	$ 96,500	$ 111,939	31
August 2020	0.11%	$ 332,000	$ 140,700	$ 221,132	31	0.11%	$ 189,100	$ 150,800	$ 170,977	31
September 2020	0.03%	$ 326,700	$ 127,300	$ 224,460	30	0.03%	$ 185,500	$ 110,800	$ 149,927	30
October 2020	0.14%	$ 309,500	$ 149,600	$ 208,035	31	0.14%	$ 158,900	$ 130,800	$ 142,155	31
November 2020	0.19%	$ 374,300	$ 211,200	$ 287,240	30	0.19%	$ 172,500	$ 153,200	$ 159,873	30
December 2020	N.A.	$ -	$ -	$ -	0	0.23%	$ 185,100	$ 164,300	$ 169,252	31
January 2021	N.A.	$ -	$ -	$ -	0	0.22%	$ 200,700	$ 174,500	$ 184,129	31
February 2021	N.A.	$ -	$ -	$ -	0	0.21%	$ 201,500	$ 175,100	$ 187,129	28
March 2021	0.22%	$ 32,100	$ -	$ 1,700	2	0.22%	$ 191,400	$ 134,700	$ 166,590	31
April 2021	0.23%	$ 127,900	$ -	$ 11,850	9	0.23%	$ 136,100	$ 113,600	$ 126,637	30
May 2021	0.22%	$ 127,900	$ 1,900	$ 56,652	31	0.22%	$ 134,900	$ 117,400	$ 125,948	31
June 2021	0.19%	$ 122,900	$ -	$ 58,950	28	0.19%	$ 136,800	$ 113,700	$ 122,323	30
July 2021	N.A.	$ -	$ -	$ -	0	0.19%	$ 152,100	$ 123,300	$ 134,177	31
August 2021	N.A.	$ -	$ -	$ -	0	0.18%	$ 202,000	$ 71,500	$ 170,616	31
September 2021	N.A.	$ -	$ -	$ -	0	0.18%	$ 128,000	$ 72,000	$ 90,843	30
October 2021	N.A.	$ -	$ -	$ -	0	0.17%	$ 109,400	$ 84,400	$ 94,423	31
November 2021	0.17%	$ 2,000	$ -	$ 67	1	0.18%	$ 142,300	$ 88,700	$ 112,497	30
December 2021	0.19%	$ 5,000	$ -	$ 323	2	0.24%	$ 147,300	$ 122,700	$ 131,810	31
January 2022	N.A.	$ -	$ -	$ -	0	0.28%	$ 141,600	$ 109,300	$ 122,261	31
February 2022	0.30%	$ 131,100	$ -	$ 4,682	1	0.25%	$ 137,900	$ 105,900	$ 122,093	28
March 2022	0.38%	$ 121,300	$ -	$ 23,677	10	0.65%	$ 152,900	$ 103,100	$ 120,681	31
April 2022	N.A.	$ -	$ -	$ -	0	0.95%	$ 130,700	$ 92,300	$ 112,240	30
May 2022	1.02%	$ 52,300	$ -	$ 3,952	5	1.07%	$ 138,500	$ 113,300	$ 124,287	31
June 2022	1.60%	$ 67,500	$ -	$ 7,767	8	1.37%	$ 152,700	$ 120,300	$ 128,717	30
July 2022	1.81%	$ 53,100	$ -	$ 8,713	7	1.88%	$ 208,400	$ 150,900	$ 166,639	31
August 2022	2.48%	$ 26,100	$ -	$ 4,565	8	2.49%	$ 252,700	$ 214,400	$ 225,742	31
September 2022	2.96%	$ 26,000	$ -	$ 1,500	2	2.82%	$ 250,200	$ 78,400	$ 175,883	30
October 2022	3.35%	$ 37,000	$ -	$ 3,094	4	3.42%	$ 110,100	$ 78,400	$ 86,716	31
November 2022	N.A.	$ -	$ -	$ -	0	4.12%	$ 132,500	$ 102,300	$ 114,060	30
Average interest rate is based on days that funds were borrowed. Average funds borrowed is based on the number of days in the month, including days when no funds were borrowed.										

Figure 3-16 CL&P and YGS Summary of Inter-Company Revolving Credit Facility Funds Borrowed (in thousands)[165]

Unlike CL&P, YGS always had an outstanding balance under its inter-company revolving credit facility during the 47 months ending November 30, 2022. In well over half of these months, YGS had short-term borrowings that exceeded $100 million every day of the month.

Since the beginning of 2019, none of Eversource's subsidiaries have defaulted or paid their loans back late under the inter-company revolving credit facility.[166]

3.3.5.2. Aquarion Company Money Pool

As noted previously, while Aquarion is party to the inter-company revolving credit facility with Eversource, AWC-CT is not. Instead, AWC-CT meets its short-term liquidity needs through the Aquarion money pool arrangement. Under this arrangement, all Aquarion subsidiaries have zero balance bank accounts, and Aquarion has a

[165] Response to FTI-381.

[166] Response to FTI-589.

concentrator bank account. All cash receipts and cash payments originating from subsidiary business either fund or are funded by the parent concentrator account. The resulting cumulative net activity determines whether each subsidiary, including AWC-CT, has borrowed or lent money to the parent on a particular day. This also distinguishes the Aquarion money pool arrangement from the previously discussed inter-company revolving credit facility. AWC-CT can both borrow and lend short-term funds under the Aquarion money pool, while CL&P and YGS only borrow funds under the inter-company revolving credit facility.[167]

The rate charged or earned by AWC-CT under the Aquarion money pool arrangement is based on the weighted monthly average rate that Aquarion pays to borrow daily from its parent, Eversource, pursuant to the inter-company revolving credit facility. All participants in the Aquarion money pool borrow and lend at the same rates irrespective of their credit ratings.[168]

A summary of the Aquarion money pool activity from January 2019 to November 2022 is depicted in Figure 3-20.

[167] Response to FTI-242; Response to FTI-588.
[168] Response to FTI-242; Response to FTI-589.

AWC-CT Summary of Money Pool Activity (in thousands)										
Month	Interest Rate	Borrowings from Eversource				Loans to Eversource			
		Maximum	Minimum	Average	Days Borrowed	Maximum	Minimum	Average	Days Lent
January 2019	2.74%	$ 35,696	$ 29,801	$ 33,298	31	$ -	$ -	$ -	0
February 2019	2.69%	$ 43,032	$ 38,555	$ 40,648	28	$ -	$ -	$ -	0
March 2019	2.67%	$ 41,681	$ 38,976	$ 40,373	31	$ -	$ -	$ -	0
April 2019	2.69%	$ 45,968	$ 42,935	$ 44,243	30	$ -	$ -	$ -	0
May 2019	2.67%	$ 48,301	$ 44,802	$ 46,637	31	$ -	$ -	$ -	0
June 2019	2.58%	$ 49,870	$ 45,441	$ 47,368	30	$ -	$ -	$ -	0
July 2019	2.52%	$ 56,718	$ 52,641	$ 54,752	31	$ -	$ -	$ -	0
August 2019	2.35%	$ 66,421	$ 61,307	$ 64,094	31	$ -	$ -	$ -	0
September 2019	2.22%	$ 66,600	$ 63,290	$ 64,835	30	$ -	$ -	$ -	0
October 2019	2.16%	$ 43,709	$ 40,620	$ 42,488	31	$ -	$ -	$ -	0
November 2019	1.88%	$ 42,533	$ 39,008	$ 40,778	30	$ -	$ -	$ -	0
December 2019	1.90%	$ 43,401	$ 311	$ 32,431	14	$ 2,755	$ 47	$ 1,565	17
January 2020	1.87%	$ 6,894	$ 534	$ 3,212	31	$ -	$ -	$ -	0
February 2020	1.77%	$ 10,133	$ 6,237	$ 8,282	29	$ -	$ -	$ -	0
March 2020	2.60%	$ 9,947	$ 7,152	$ 8,529	31	$ -	$ -	$ -	0
April 2020	1.51%	$ 15,522	$ 9,733	$ 12,244	30	$ -	$ -	$ -	0
May 2020	0.53%	$ 16,711	$ 13,008	$ 14,823	31	$ -	$ -	$ -	0
June 2020	0.25%	$ 57,011	$ 53,308	$ 55,278	30	$ -	$ -	$ -	0
July 2020	0.18%	$ 27,499	$ 23,205	$ 25,598	31	$ -	$ -	$ -	0
August 2020	0.05%	$ 34,443	$ 28,335	$ 31,767	31	$ -	$ -	$ -	0
September 2020	0.03%	$ 35,445	$ 27,875	$ 32,711	30	$ -	$ -	$ -	0
October 2020	0.14%	$ 35,055	$ 27,510	$ 30,800	31	$ -	$ -	$ -	0
November 2020	0.19%	$ 34,114	$ 28,198	$ 30,824	30	$ -	$ -	$ -	0
December 2020	0.24%	$ 44,449	$ 33,537	$ 41,129	31	$ -	$ -	$ -	0
January 2021	0.21%	$ 45,847	$ 36,088	$ 40,988	31	$ -	$ -	$ -	0
February 2021	0.21%	$ 49,493	$ 47,588	$ 48,571	28	$ -	$ -	$ -	0
March 2021	0.22%	$ 50,311	$ 45,326	$ 48,548	31	$ -	$ -	$ -	0
April 2021	0.23%	$ -	$ -	$ -	0	$ 10,255	$ 6,436	$ 9,009	30
May 2021	0.22%	$ -	$ -	$ -	0	$ 6,498	$ 2,547	$ 4,495	31
June 2021	0.18%	$ -	$ -	$ -	0	$ 6,978	$ 2,304	$ 4,793	30
July 2021	0.19%	$ -	$ -	$ -	0	$ 6,759	$ 2,170	$ 4,830	31
August 2021	0.18%	$ 6,324	$ 370	$ 3,939	30	$ 134	$ 134	$ 134	1
September 2021	0.18%	$ 7,917	$ 3,816	$ 5,920	30	$ -	$ -	$ -	0
October 2021	0.17%	$ 15,418	$ 10,656	$ 13,120	31	$ -	$ -	$ -	0
November 2021	0.18%	$ 20,063	$ 13,490	$ 17,549	30	$ -	$ -	$ -	0
December 2021	0.24%	$ 27,725	$ 14,993	$ 21,888	31	$ -	$ -	$ -	0
January 2022	0.28%	$ 35,198	$ 25,000	$ 32,064	31	$ -	$ -	$ -	0
February 2022	0.25%	$ 43,677	$ 35,048	$ 40,944	28	$ -	$ -	$ -	0
March 2022	0.65%	$ 48,682	$ 42,288	$ 45,864	31	$ -	$ -	$ -	0
April 2022	0.95%	$ 52,518	$ 48,542	$ 50,669	30	$ -	$ -	$ -	0
May 2022	1.07%	$ 59,048	$ 54,323	$ 56,835	31	$ -	$ -	$ -	0
June 2022	1.38%	$ 63,289	$ 57,118	$ 60,769	30	$ -	$ -	$ -	0
July 2022	1.88%	$ 75,819	$ 68,891	$ 71,792	31	$ -	$ -	$ -	0
August 2022	2.48%	$ 84,201	$ 7,732	$ 78,682	31	$ -	$ -	$ -	0
September 2022	2.82%	$ 12,323	$ 7,600	$ 10,660	30	$ -	$ -	$ -	0
October 2022	3.42%	$ -	$ -	$ -	0	$ 11,116	$ 3,868	$ 7,512	31
November 2022	4.12%	$ -	$ -	$ -	0	$ 6,293	$ 874	$ 3,168	30

Figure 3-17 AWC-CT Summary of Money Pool Activity (in thousands) [169]

As can be seen in the Figure 3-20 above, AWC-CT has largely been a borrower from the Aquarion money pool during the time frame summarized. The exceptions to this are the months shortly after Aquarion issues long-term debt and pays down its short-term obligations.[170]

[169] Response to FTI-381.

[170] Response to FTI-381.

Since AWC-CT never lends or borrows from other non-parent participants in the Aquarion money pool (i.e., other Aquarion utilities),[171] the creditworthiness of these other entities does not directly impact Aquarion from a counterparty risk perspective. However, the creditworthiness of Aquarion is worth noting. As shown in Figure 3-24, Aquarion's S&P outlook improved in 2022. This was due to Eversource announcing the potential sale of its offshore wind interest coupled with the company's ability to effectively manage regulatory risk.[172]

While Aquarion's credit ratings were lower than that of AWC-CT during the past three years, they still are considered investment grade. We therefore conclude that these money pool transactions between Aquarion and AWC-CT in recent years do not pose a substantial counterparty risk to AWC-CT as funds lent to Aquarion by AWC-CT are infrequent and generally for relatively insignificant amounts. If any of these variables were to change in the future, Aquarion might want to insist that borrowing and lending rates pursuant to the money pool arrangement take into account disparate credit ratings between parties, similar to the terms of the inter-company revolving credit facility.

3.3.5.3. External Revolving Credit Facility

As previously mentioned, all CT Companies, some of their utility affiliates, and Eversource are parties to a five-year $2 billion revolving credit facility which terminates on October 15, 2027. Each utility has a different borrowing limit under this credit facility with CL&P capped at $600 million, YGS capped at $300 million, and Aquarion capped at $100 million. This external revolving credit facility is administered by Bank of America, N.A. and is comprised of 16 banks, all of which have differing levels of loan commitments. This revolving credit facility also serves to backstop Eversource's commercial paper program.[173]

Since the beginning of 2019, none of the CT Companies have borrowed on their external revolving credit facility.[174]

3.3.6. Impairments

While the rules governing the U.S. measurement of assets and liabilities for financial statement purposes differs from one asset/liability category to another, the concept of fair value has been adopted for long-lived assets (property, plant, and equipment) that are no longer recoverable. Given the significance that these assets have for capital-intensive businesses such as utilities and power generators, it is important to understand what these write-downs of assets actually represent. In some cases, they represent a change in the business environment that few, if any, could anticipate. In others, they are an indication of the astuteness of past management decisions. Fair value is also a concept that is used in measuring goodwill and other assets. While not perfect, the quantification of asset impairments over time provides an estimate of the amount of consideration paid for an asset that has permanently been lost.[175]

Over the past six years, none of the CT Companies recorded a significant impairment of assets, including long-lived assets. However, management identified two instances in which affiliates of the CT Companies recorded impairments. One involved the 2019 write-down of project costs associated with a transmission line that would have served as an interconnection between the U.S.-Canadian border and Franklin, New Hampshire. This was done after a New Hampshire Supreme Court ruling affirmed a state regulatory agency's decision to deny the

[171] Response to FTI-381.
[172] Response to FTI-245, Att. 1(AQ) (supplemental).
[173] Response to FTI-242.
[174] Response to FTI-578.
[175] Increases in the fair value of previously impaired long-lived assets do not get recorded as a reversal of an impairment, so there are some instances in which historical impairments do not represent permanent losses.

project's siting application. The impairment recorded by an unregulated affiliate of the CT Companies was $239.6 million. The second impairment was recorded in 2018 and involved an investment in a joint venture to upgrade existing gas transmission pipeline infrastructure and to construct gas storage facilities. A combination of adverse regulatory rulings concerning the project and non-Eversource natural gas explosions caused considerable uncertainty around the viability of the project, and Eversource decided to record an other-than-temporary impairment of $32.9 million. This also was ultimately recorded by an unregulated affiliate of the CT Companies.[176]

Despite these recorded impairments by affiliates, in conjunction with our analysis of equity transactions discussed earlier in this chapter, there appears to be little evidence that significant funds are being diverted from the CT Companies to these particular unregulated entities to cover their losses.

[176] Supplemental response to FTI-255; Response to FTI-479.

3.4. Rate Cases and Credit Rating

Regulatory decisions such as rate cases are a key financial driver for utilities' financial performance. As part of a rate case filing, the utilities may petition for new allowed capital structure ratios, in addition to changes in the rates they charge customers, which in turn impact their credit ratings. According to Regulatory Research Associates ("RRA"), a group within S&P Global Market Intelligence, the Connecticut regulatory environment is more restrictive than its peers from an investor perspective. RRA recently dropped the PURA's rating in August 2023 from "Below Average/1" to "Below Average/2", putting it down into the second lowest possible category. Its existing low rating was due to stringent electric utility penalties following Hurricane Isaias in August 2020.[177] Its recent drop was in reaction to energy legislation enacted in June 2023 that gives more discretion to the PURA in establishing authorized Return on Equity ("ROE") in conjunction with legislation passed in 2020 that extended the deadlines for rate cases, merger reviews, and financing applications.[178] Despite this, the state of Connecticut is seen as favorable for allowing beneficial ratemaking features.[179] Credit rating agencies also evaluate the PURA's decisions, rating it similarly to RRA as "challenging" but with certain favorable ratemaking allowances.[180]

The beneficial ratemaking mechanisms in place for the CT Companies include revenue decoupling, various infrastructure or CapEx recovery riders, commodity recovery (pass-through revenue) for CL&P and YGS, and multi-year rate plans for CL&P and YGS. Additionally, the utilities have earnings sharing mechanisms: earnings above the allowed ROE for CL&P are used to recover deferred environmental remediation and storm costs, with the burden split evenly between shareholders and ratepayers, earnings above allowed ROE for YGS are used fully to recover environmental remediation deferred costs, and Aquarion's earnings above allowed ROE are shared equally between shareholders and ratepayers.[181]

3.4.1. Recent Rate Cases

The decision to file a rate case is made by the Eversource CFO with input from the operating company President, following approval from the Eversource Senior Team.[182] Rate cases are necessary based on the need to raise revenues when all cost saving options have been exhausted. Additional factors driving the choice to file a rate case include political or economic pressures such as the COVID-19 Pandemic or organizational readiness and resource availability delaying a filing.[183]

The Distribution Rates team initiates the rate case process once the Eversource CFO has indicated the need to file. This group will notify the relevant outside groups and begin working with the operating companies to draft a narrative for the regulator, considering the PURA's objectives. Then, the Connecticut "three-legged stool" collaborates to prepare a case to present to the Senior Team (see Chapter 1 for more information on the teams that interface most frequently with the PURA).[184]

The CT Companies have been awarded mostly above-average equity ratios and below-average ROEs in recent rate cases with the PURA, compared to national averages, as shown in Figure 3-21 below. However, credit agencies

[177] S&P Regulatory Research Associates, Connecticut PURA.
[178] S&P RRA Regulatory Focus, Recent events signal increased risk for Conn. utility investors.
[179] S&P Regulatory Research Associates, Connecticut PURA; Response to FTI-322, Att. 3(ES).
[180] Response to FTI-322, Atts. 1-3(ES).
[181] Response to FTI-322 Atts. 1-3(ES).
[182] Interview with Chief Financial Officer, Eversource Energy (John Moreira), April 17, 2023.
[183] Response to FTI-337.
[184] Interview with Vice President, Distribution Rates, Eversource Energy (Douglas Horton), June 12, 2023; Interview with Vice President, Regulatory Affairs, Eversource Energy (Kerry Britland), June 9, 2023.

have noted favorably that after decades of fully litigated rate cases, recent cases for CL&P and YGS have been completed via settlement.[185] AWC-CT's most recent rate case was completed in March 2023 (Docket No. 22-07-01) with a rate reduction and rejection of their proposed multi-year rate increase.[186]

	CL&P	YGS	AWC-CT	National Avg. (Electric)	National Avg. (Gas)	National Avg. (Water)	National Avg. (Electric)	National Avg. (Gas)	National Avg. (Water)
Filing date	11/22/2017	6/15/2018	8/26/2023	2018	2018	2018	2022	2022	2022
Closing date	4/18/2018	12/12/2018	3/15/2023						
Equity Capital %	53.00%	53.76%[187]	50.35%	49.02%	50.12%	52.41%	50.38%	51.38%	51.53%
Allowed ROE	9.25%	9.30%	8.70%	9.60%	9.59%	9.44%	9.54%	9.53%	9.61%

Figure 3-18 Recent Connecticut Company Rate Case Results vs. National Average[188]

While most gas and electric utilities in Connecticut file general rate cases at least every four years, the requirement under Connecticut General Statutes is more specifically that the PURA must conduct a "periodic review" of utility rates at least every four years, which can but does not necessarily have to be in the form of a general rate case. Additionally, CL&P is currently subject to a rate case stay-out provision following a 2021 settlement agreement that prevents CL&P from filing a general rate case until January 1, 2024;[189] this docket satisfied the requirement for a periodic review by the PURA.[190]

3.4.2. Capital Structure Alignment

On a quarterly basis, CL&P, YGS and AWC-CT each file their ROE performance to the PURA to stay aligned with their earnings sharing mechanism requirements.[191] In their quarterly filings, the CT Companies each file their actual equity ratios; capital structure is calculated on a 5-quarter average for CL&P and YGS, while measured at year-end for AWC-CT.[192] As shown in Figure 3-22 below, the CT Companies have generally stayed within a band of reasonableness of their allowed capital structures, however, for most quarters, they exceed their allowed equity ratio.

[185] Response to FTI-322 Atts. 1-3(ES).
[186] PURA Press Release "PURA Orders Rate Decrease for Aquarion Water Customers" March 15, 2023; Final Decision, PURA Docket No. 22-07-01.
[187] YGS's rate case outcome granted a multi-year rate plan with a graduated equity ratio of 53.52% for year 1, 53.99% for year 2, and 53.76% for year 3. Year 3 concluded at the end of calendar year 2021. Response to FTI-247, Att. 1(YGS).
[188] Response to FTI-324, Atts. 1-7 (all); PURA Press Release "PURA Orders Rate Decrease for Aquarion Water Customers" March 15, 2023; Final Decision, PURA Docket No. 22-07-01; S&P CapIQ, "Water ROEs trend higher on small dataset".
[189] Eversource Energy, 2022 10-K; Response to FTI-323, Att. 5(ES) (confidential).
[190] Response to FTI-729.
[191] Response to FTI-330.
[192] Response to FTI-384.

Company	Allowed Capital Structure*	2020 Q1	2020 Q2	2020 Q3	2020 Q4	2021 Q1	2021 Q2	2021 Q3	2021 Q4	2022 Q1	2022 Q2	2022 Q3	2022 Q4
CL&P	53.00	55.07	54.74	55.19	55.59	55.78	55.44	55.14	54.80	54.86	55.04	55.71	56.31
YGS	53.76	54.17	54.22	53.60	54.64	55.50	55.83	55.06	55.18	55.58	55.48	55.20	55.67
AWC-CT	51.53**	53.52	53.12	53.51	54.01	53.81	53.91	53.60	54.02	52.86	51.99	54.44	53.47
Company	**Allowed ROE**	**2020 Q1**	**2020 Q2**	**2020 Q3**	**2020 Q4**	**2021 Q1**	**2021 Q2**	**2021 Q3**	**2021 Q4**	**2022 Q1**	**2022 Q2**	**2022 Q3**	**2022 Q4**
CL&P	9.25	9.10	8.93	8.61	9.03	8.86	8.66	8.87	9.09	9.59	9.74	9.08	8.33
YGS	9.30	9.69	9.94	9.98	9.26	8.94	9.24	9.39	9.28	9.23	8.83	9.06	9.18
AWC-CT	9.63***	8.86	9.15	9.14	8.68	9.18	8.94	8.94	7.70	7.83	7.92	6.80	7.04

* Cost of Capital method.
** Aquarion's authorized capital structure 3/15/2023 onwards is 50.35%.
*** Aquarion's target ROE 3/15/2023 onwards is 8.7%.
Note 1: CL&P and YGS measure capitalization on a 5-quarter average while AWC-CT's is measured at year end.
Note 2: Equity percentages measured against capitalization excluding short-term debt for CL&P and YGS; capitalization includes short-term debt for AWC-CT.

Figure 3-19 Quarterly Connecticut Company Capital Structure As Filed (%)[193]

To maintain alignment of their actual capital structure to their respective targets, the CT Companies coordinate the timing and amount of dividend payments, in addition to long-term debt issuances and equity infusions from the parent.[194] When determining the amount of dividends paid by the CT Companies, Eversource management places the highest priority on maintaining an appropriate utility capital structure.[195] The Treasury department assumes the main responsibility of managing these cash flows to uphold the correct capital ratio, targeting around 60% of earnings going to dividend payments.[196]

3.4.2.1. Equity Issuance

As explained above in Section 3.3, the CT Companies may receive long-term capital in the form of equity contributions to achieve or maintain appropriate capital structures. Eversource is the only entity that issues equity within the Eversource enterprise; CL&P, YGS, and Aquarion are wholly-owned direct or indirect subsidiaries of Eversource and therefore do not issue equity to a third party.[197] CL&P receives equity contributions directly from Eversource, while YGS receives equity contributions from Eversource that flow through YGS's parent Yankee Energy System, Inc., and AWC-CT receives equity contributions from Aquarion which flows through the AWC; Aquarion may receive equity contributions from Eversource.[198]

3.4.2.2. Debt Issuance

As explained above in Section 3.3.5, each CT Company's Board of Directors approves the maximum limit on short-term debt for their respective companies. The PURA does not authorize short-term debt limits. However, CL&P is regulated by the FERC and must obtain FERC authorization to issue short-term debt. Every two years, CL&P files an application with the FERC requesting short-term debt authorization after it has received the CL&P Board's

[193] Response to FTI-330, Atts. 1-11 (all); Response to FTI-384, Att. 1(ES); PURA Docket No. 86-09-06 and 86-09-06RE01; PURA Docket Nos. 76-03-07 (reports prior to Q2 2021) and 76-03-07RE01 (reports for Q2 2021 forward); Response to FTI-737.
[194] Response to FTI-384.
[195] Response to FTI-590.
[196] Response to FTI-267, Att. 7(ES); Interview with Assistant Treasurer, Corporate Finance and Cash Management, Eversource Energy (Emilie O'Neil), June 15, 2023.
[197] Response to FTI-259; Response to FTI-316.
[198] Response to FTI-319.

approval, which is approved by via order. As mentioned in 3.3.4.1.1 above, CL&P is the only CT Company that issues SEC-registered debt in the public market.[199]

The CT Companies issue their own long-term debt through external financing when cash is needed outside of their short-term debt issuance. Both Subsidiary Board and PURA approval is needed to issue long-term debt.[200] At year-end 2023, CL&P had not issued long-term debt since June 2021, YGS not since September 2022, and Aquarion not since August 2022.[201]

3.4.3. Credit Ratings

The CT Companies are each separately rated by credit rating agencies; however, their ratings are influenced by their parent Eversource, which is in turn influenced by all its subsidiaries, including utilities in other states and its unregulated business. As regulated utilities, the predominant factor in each of the company's credit ratings is the actions of their regulators, namely the PURA. For example, the four main factors considered in Moody's credit ratings are shown in Figure 3-23 below, with two of the four factors directly relating to the regulatory environment.

Rating methodology and scorecard factors

Exhibit 7
Methodology Scorecard Factors
Connecticut Light and Power Company (The)

Regulated Electric and Gas Utilities Industry Scorecard [1][2]	Current LTM 3/31/2023		Moody's 12-18 Month Forward View As of Date Published [3]	
Factor 1 : Regulatory Framework (25%)	**Measure**	**Score**	**Measure**	**Score**
a) Legislative and Judicial Underpinnings of the Regulatory Framework	A	A	A	A
b) Consistency and Predictability of Regulation	A	A	A	A
Factor 2 : Ability to Recover Costs and Earn Returns (25%)				
a) Timeliness of Recovery of Operating and Capital Costs	A	A	A	A
b) Sufficiency of Rates and Returns	A	A	A	A
Factor 3 : Diversification (10%)				
a) Market Position	Baa	Baa	Baa	Baa
b) Generation and Fuel Diversity	N/A	N/A	N/A	N/A
Factor 4 : Financial Strength (40%)				
a) CFO pre-WC + Interest / Interest (3 Year Avg)	5.5x	A	5.5x - 6x	A
b) CFO pre-WC / Debt (3 Year Avg)	17.3%	Baa	19% - 22%	A
c) CFO pre-WC – Dividends / Debt (3 Year Avg)	11.9%	Baa	10% - 14%	Baa
d) Debt / Capitalization (3 Year Avg)	38.6%	Aa	37% - 40%	Aa
Rating:				
Scorecard-Indicated Outcome Before Notching Adjustment		A3		A2
HoldCo Structural Subordination Notching		0		0
a) Scorecard-Indicated Outcome		A3		A2
b) Actual Rating Assigned		A3		A3

[1] All ratios are based on 'Adjusted' financial data and incorporate Moody's Global Standard Adjustments for Non-Financial Corporations.
[2] As of 3/31/2023(L)
[3] This represents Moody's forward view; not the view of the issuer; and unless noted in the text, does not incorporate significant acquisitions and divestitures.
Source: Moody's Financial Metrics™

Figure 3-20 Moody's Credit Rating Methodology: CL&P, June 2023[202]

[199] Response to FTI-319.
[200] Response to FTI-259; Response to FTI-260; Response to FTI-319.
[201] Response to FTI-259, Att. 1(ES).
[202] Response to FTI-727, Att. 2(ES).

3.4.3.1. Recent Credit Rating Changes

There had been no significant changes in credit ratings for any of the three CT Companies in recent years until late 2023 and in 2024. Eversource's credit rating by Moody's (October 2023) and Fitch (January 2024) were downgraded due to impairments related to its offshore wind business and the negative regulatory environment in Connecticut. Following this credit rating drop, on February 13, 2024, Eversource announced the sale of its 50% ownership interest in South Fork Wind and Revolution Wind to Global Infrastructure Partners, which will fully exit Eversource from the offshore wind business after its January 24, 2024 announcement to sell its 50% interest in Sunrise Wind to Ørsted.[203] S&P (December 2024) dropped its ratings for Eversource and its CT subsidiaries and Moody's dropped its ratings for AWC-CT due to the "pattern of adverse regulatory developments for investor-owned utilities operating in Connecticut."[204] Figure 3-24 below shows the past four years of credit ratings for the three CT Companies and their parent company, Eversource.

Company	S&P 6/2020	S&P 6/2021	S&P 6/2022	S&P 6/2023	S&P 1/2024	S&P 12/2024	Moody's 6/2020	Moody's 6/2021	Moody's 6/2022	Moody's 6/2023	Moody's 10/2023	Moody's 5/2024	Fitch 2020-2023	Fitch 10/2023	Fitch **** 1/2024
Eversource	A – (Stable	A – (Stable)	A – (**Pos.**)	A- (**Pos.**)	A – (**Watch**)	**BBB+** (**Stable**)	Baa1 (Stable)	Baa1 (**Neg.**)	Baa1 (**Neg.**)	Baa1 (**Neg.**)	**Baa2** (Neg.)	Baa2 (Neg.)	BBB+ (Stable)	BBB+ (**Neg.**)	**BBB** (**Stable**)
CL&P	A (Stable)	A* (**Neg.**)	A (**Pos.**)	A (Stable)	A (**Watch**)	**A-** (**Stable**)	A3 (Stable)	A3 (**Neg.**)	A3 (Stable)	A3 (Stable)	A3 (Stable)	A3 (**Neg.**)	A –*** (Stable)	A – (Stable)	A – (Stable)
YGS	A – (Stable)	A – (Stable)	A – (**Pos.**)	A – (**Pos.**)	A – (**Watch**)	**BBB** (**Stable**)	Baa1 (Stable)	Baa1 (Stable)	Baa1 (Stable)	Baa1 (Stable)	Baa1 (Stable)	Baa1 (Stable)			
Aquarion	A – (Stable)	A – (Stable)	A – (**Pos.**)	A – (**Develop.**)	A – (**Watch**)	NR**	Baa2 (Stable)	Baa2 (Stable)	Baa2 (Stable)	Baa2 (Stable)	Baa2 (Stable)	Baa2 (Stable)			
AWC-CT							A3 (Stable)	A3 (Stable)	A3 (Stable)	A3 (**Neg.**)	A3 (Neg.)	**Baa1 (Stable)**			
S&P National Average (Regulated Electric)				BBB+											
S&P National Average (Regulated Gas)				BBB+											
S&P National Average (Regulated Water)				A											

* S&P rated CL&P A (Negative) in May 2021, then revised its outlook to A (Stable) in October 2021 before issuing its current outlook of A (Positive) in May 2022.
** S&P lowered the ratings on Aquarion by two notches to BBB-, and then withdrew the ratings on Aquarion as per the issuer's request.
*** Fitch rated CL&P Negative on September 21, 2021 and then revised the outlook back to Stable April 8, 2022.
**** Fitch ratings have not changed from January to December 2024.

Figure 3-21 Past Four Years of Credit Ratings Issued to CT Companies by Major Agencies[205]

Upon review of three years of credit agency reports, the key factors affecting the CT Companies are its regulators (the PURA and the FERC), exogenous factors related to weather and global phenomena (the COVID-19 Pandemic), ESG considerations such as affordability and stakeholder opinion, and updates to Eversource's offshore wind projects. There was minimal impact on credit ratings from business choices of the utilities themselves. However, credit outlooks have changed in recent years in reaction to rate cases, other docket outcomes, and financial performance.

[203] "Eversource Energy Announces Pathway to Fully Exit its Offshore Wind Investments Pursuant to Agreement with Global Infrastructure Partners to Sell Revolution Wind and South Fork Wind Projects," Eversource Press Release, February 13, 2024.
[204] "Eversource Energy Issuer Credit Rating Lowered To 'BBB+' From 'A-'; Subsidiaries Ratings Also Lowered; Outlooks Stable" S&P Research Update, December 9, 2024.
[205] Response to FTI-322 Atts. 1-3(ES); Response to FTI-727, Att. 2(ES); Response to FTI-582, Att. 1(ES); EEI Q4 2022 Financial Update; S&P CapIQ Credit Ratings: Eversource Energy; "Fitch Downgrades Eversource to 'BBB', NSTAR Electric to 'A-'; Outlook Stable" Fitch Ratings, January 11, 2024; "Eversource Energy Subsidiaries Ratings Placed On CreditWatch Negative Following CreditWatch Placement Of Parent Rating" S&P Global Ratings, January 11, 2024; "Moody's Investors Service revised outlook on Eversource Energy to negative and affirmed at "Baa2" (LT- foreign currency) credit rating" CD Bonds, January 10, 2024; "Rating Action: Moody's Ratings downgrades Aquarion Water Co. of CT's Issuer rating to Baa1 and affirms Aquarion Company's Baa2 ratings; outlooks stable." Moody's Ratings, May 23, 2024; "Eversource Energy Issuer Credit Rating Lowered To 'BBB+' From 'A-'; Subsidiaries Ratings Also Lowered; Outlooks Stable" S&P Research Update, December 9, 2024.

- **CL&P outlook changed to Negative (May 2021-September 2021):** S&P, Moody's, and Fitch reduced CL&P's outlook to negative in 2021 following the PURA's initial decision following Hurricane Isaias, specifically its ROE penalty. The outlooks were reset to stable after publication of the settlement which had rescinded the penalties.[206]
- **Eversource Moody's outlook changed to Negative (June 2021):** Moody's reduced Eversource's outlook to negative following generally lagging financial performance compared to peers, coupled with high-risk offshore wind investments.[207]
- **Eversource S&P outlook changed to Positive (May 2022):** S&P revised the outlook for Eversource and all its Connecticut subsidiaries to positive following the parent company's announcement of plans to sell its stake in offshore wind and use the proceeds to fund its regulated business and pay down debt. These plans are expected to significantly reduce business risk.[208]
- **YGS S&P outlook changed to Positive (May 2022):** S&P changed their outlook for YGS in June 2022 to reflect their positive view of Eversource following their announcement to sell their offshore wind business, in addition to expectations that Eversource will maintain consolidated FFO to debt above 13% while managing its regulatory risk in Connecticut and Massachusetts.[209]
- **AWC-CT Moody's outlook changed to Negative (May 2023):** Aquarion's recent rate case outcome led Moody's to change AWC-CT's outlook from stable to negative following the PURA's rejection of AWC-CT's multi-year rate plan and decision to order a rate decrease.[210]
- **Aquarion S&P outlook changed to Developing (June 2023):** Aquarion's recent rate case caused S&P to revise their outlook to developing, indicating the rating agency may upgrade, downgrade, or affirm Aquarion's ratings over the next 12 months.[211]
- **Eversource Fitch outlook changed to Negative (October 2023):** Uncertainty surrounding the sale of Eversource's offshore wind projects under development, including the likelihood of a lower sale price and longer sale process, caused Fitch to lower Eversource's outlook to negative after New York regulators declined a request by Eversource/Ørsted to increase one of the projects' contracted power prices.[212]
- **Eversource Fitch rating dropped to BBB (January 2024), Eversource Moody's rating dropped to Baa2 (October 2023), Eversource and Subsidiaries S&P outlook changed to Watch (January 2024):** On January 8, 2024 Eversource announced that it expects to record impairment charges between $1.4 and $1.6 billion related to its offshore wind joint venture, significantly higher than analysts' expectations. Fitch ratings consequently dropped Eversource's rating to BBB from BBB+ Stable while Moody's dropped Eversource's rating to Baa2 Negative from Baa1 Negative. S&P responded by placing Eversource and its utility subsidiaries on CreditWatch Negative.[213]

[206] Response to FTI-322 Atts. 1-3(ES); Response to FTI-664 Att. 1(ES).
[207] Ibid.
[208] Response to FTI-322 Att. 1(ES).
[209] Response to FTI-726, Att. 1(ES).
[210] Response to FTI-727, Att. 2(ES); Response to FTI-728, Att. 1(ES).
[211] Response to FTI-728, Att. 1(ES).
[212] "Fitch Revises Outlooks for Eversource and NSTAR Electric to Negative; Affirms Ratings" Fitch Ratings, October 27, 2023.
[213] "Fitch Downgrades Eversource to 'BBB', NSTAR Electric to 'A-'; Outlook Stable" Fitch Ratings, January 11, 2024; "Eversource Energy Subsidiaries Ratings Placed On CreditWatch Negative Following CreditWatch Placement Of Parent Rating" S&P Global Ratings, January 11, 2024; "Moody's Investors Service revised outlook on Eversource Energy to negative and affirmed at "Baa2" (LT- foreign currency) credit rating" CD Bonds, January 10, 2024' Moody's Investors Service downgrades LT- foreign currency credit rating of Eversource Energy to "Baa2"; outlook stable Cbonds, October 30, 2023.

- **AWC-CT Moody's rating downgraded to Baa2 (May 2024):** On May 23, 2024, Moody's downgraded AWC-CT's rating due to its "weakening financial profile resulting from the utility's rate order last year, which included a reduced revenue requirement as well as lower returns" stating that "the Connecticut regulatory environment has become more challenging and less credit supportive for the state's regulated utilities."[214]
- **Eversource S&P rating downgraded to BBB+ (December 2024):** November 18, 2024, PURA issued a final rate case order for Avangrid subsidiaries Connecticut Natural Gas and Southern Connecticut Gas, that decreased both utilities' base rates. Combined with weakening financial measures, this regulatory activity caused S&P to downgrade Eversource and CL&P, YGS, and most other utility subsidiaries on December 9, 2024. As shown in Figure 3-24, S&P lowered YGS's issuer rating by two notches, citing that its business risk is strong "because all of its operations are subject to PURA regulation." Aquarion was also downgraded by two notches to BBB-, however, S&P later withdrew its rating altogether per company request. S&P reduced its group assessment for YGS and CL&P from core to strategic,[215] indicating they may receive less support from the parent citing "Eversource's public announcement that it is decreasing its capital spending for PURA regulated operations because of Connecticut's challenging regulatory construct."[216]

The primary business decision that has impacted credit ratings has been Eversource's offshore wind business ventures, which reduced both Fitch and Moody's ratings in January 2024 after changing the Fitch outlook for Eversource to negative in November 2023, and the Moody's outlook for Eversource to negative in June 2021 in tandem with the negative outlook placed on CL&P following Hurricane Isaias storm response repercussions. All three rating agencies have continued to cite risk related to the ownership interest in developing offshore wind projects, which requires the company to incur debt to fund construction while waiting for future cash flows when the project eventually goes in service. In February 2024, Eversource secured deals to fully exit its offshore wind business by selling its interest in projects to Global Infrastructure Partners and Ørsted.[217]

Utility CapEx has also been a consideration, which has led to the agencies citing concerns with YGS, in addition to noting reductions in YGS' ratio of cash flow from operations pre-working capital changes ("CFO pre-W/C") to debt being below 15%. Moody's has also pointed out reductions in AWC-CT's ratio of funds from operations as a concern for long-term financial strength.[218]

3.4.3.2. Affiliates and Credit Ratings

The actions of affiliates impact subsidiaries under the Eversource umbrella. What rating agencies call "porous" ring-fencing provides light separation between the parent and its affiliates. While each subsidiary issues its own long-term debt, Eversource manages its Treasury function centrally, with decisions for dividend payments issued

[214] "Rating Action: Moody's Ratings downgrades Aquarion Water Co. of CT's Issuer rating to Baa1 and affirms Aquarion Company's Baa2 ratings; outlooks stable." Moody's Ratings, May 23, 2024.
[215] S&P defines "Core" as Integral to the group's current identity and future strategy. The rest of the group is likely to support these entities under any foreseeable circumstances. Moody's defines "Highly Strategic" as almost integral to the group's current identity and future strategy. The rest of the group is likely to support these subsidiaries under almost all foreseeable circumstances.
[216] "Eversource Energy Issuer Credit Rating Lowered To 'BBB+' From 'A-'; Subsidiaries Ratings Also Lowered; Outlooks Stable" S&P Research Update, December 9, 2024.
[217] "Eversource Energy Announces Pathway to Fully Exit its Offshore Wind Investments Pursuant to Agreement with Global Infrastructure Partners to Sell Revolution Wind and South Fork Wind Projects," Eversource Press Release, February 13, 2024.
[218] Response to FTI-322 Atts. 1-3(ES); Response to FTI-664 Att. 1(ES); Response to FTI-726 Att. 1(ES).

from a consolidated department; Eversource is the sole source of equity in its organization. Changes in Eversource's outlook and financials are discussed in reporting for the subsidiaries and vice versa; however, actions in one subsidiary do not tend to directly affect its affiliates.[219]

3.4.3.3. Environmental, Social and Governance

Rating agencies track each entity's ESG scores, which tend to reflect only their own business operations.[220]

- **Environmental:** As regulated utilities, all three CT Companies tend to share the same ESG concerns, however, CL&P and YGS' environmental concerns are mitigated due to the fact that all commodity costs are a pass-through to customers. Aquarion's environmental risks are mitigated by its mainly self-supply of water that lessens its exposure to adverse climate events. There is some long-term environmental concern for YGS due to Connecticut's carbon reduction commitments, and for CL&P based on risk to climate events such as storms which require cost recovery.
- **Social:** Affordability and equity concerns are also shared among the utilities, while each have their own additional individual concerns: CL&P has risk of outages during extreme weather events, YGS has risk of gas explosions, and Aquarion has public health risk.
- **Governance:** Neither Eversource nor its subsidiaries have material governance concerns.

[219] Response to FTI-322 Atts. 1-3(ES); Response to FTI-664 Att. 1(ES).
[220] Response to FTI-322 Atts. 1-3(ES); Response to FTI-664 Att. 1(ES).

3.5. Eversource Affiliate Relationships and Transactions

The objective of this chapter is to document affiliate transactions by type and magnitude, review internal controls to ensure transactions are properly authorized, charged and recorded, and consider the impact of the relationships and transactions on the CT Companies. It is important to note that this was not a detailed affiliate transactions audit.

Eversource has two groups of companies with separate organizations providing shared services. The Eversource Energy utilities and related subsidiaries are centrally managed by, and services are shared through, the EESC. The Aquarion water utilities and related subsidiaries are owned by Eversource but managed by employees of AWC-CT and shared services are either charged by or allocated from AWC-CT to the other Aquarion companies.[221] Important categories of intercompany transactions include the following:

- **Centralized services provided to the Eversource Energy subsidiaries:** The EESC provides centralized management and administrative services primarily to Eversource's six electric and gas utilities, and to Eversource's relatively small non-utility subsidiaries.
- **Centralized services provided to Aquarion water subsidiaries:** Aquarion is the parent holding company which owns its subsidiaries and a separate non-regulated holding company (AWC) which owns its five regulated water subsidiaries. However, the majority of the management and administrative services (including customer service and IT) shared by the Aquarion companies are provided by AWC-CT; with a small portion of legal or consulting costs flowing through the Aquarion parent company.
- **Services directly charged by EESC to Aquarion:** EESC provides selected services to Aquarion and its subsidiaries. These are all directly charged. Aquarion is not a cost objective in EESC's corporate allocation process.

Eversource and Aquarion each have separate staffing organizations, processes, and procedures for aggregating and distributing the costs of shared services. Aquarion and its subsidiaries are not part of EESC's normal cost distribution process. The affiliate relationship between Eversource and Aquarion consists of 1) a fee charged by EESC to Aquarion for management and oversight, 2) relatively small direct charges for administrative services and 3) outside vendor payments (convenience payments), mainly for insurance, made by EESC on Aquarion's behalf. Additional information about transactions between EESC and Aquarion is included in a separate discussion below.

3.5.1. Electric and Gas Affiliate Relationships and Transactions

Figure 3-25 below summarizes intercompany transactions between the CT electric and gas utilities and their affiliates during the years 2019-2021.

[221] Aquarion does not have an entity similar to EESC, dedicated to providing services shared among its subsidiaries. Shared services are provided by employees of the CT utility, AWC-CT.

Provided By or To	Goods / Services Transferred	2019	2020	2021	Total
CL&P					
By EESC	Centralized Shared Services	$ 329,901,424	$ 365,712,763	$ 385,701,958	$ 1,081,316,145
By PSNH	Storm Outage Support, Transmission System Modification	842,366	5,964,308	558,141	7,364,815
By NSTAR Electric	Storm Outage Support	1,438,362	13,211,620	614,734	15,264,716
By YGS	Storm Outage Support	-	697,324		697,324
To PSNH	Meters (2019), Storm Support (2020)	(799,438)	(356,823)		(1,156,261)
To NSTAR Electric	Storm Outage Support (2019-2021), Transmission System Work (2019), Transformers & Meters (2020 & 2021), Substation Work (2020)	(15,158,803)	(12,607,237)	(10,773,972)	(38,540,012)
To YGS	Materials Handling	(251,986)	-	-	(251,986)
Totals (Net)		**$ 316,223,911**	**$ 372,621,955**	**$ 376,100,861**	**$ 1,064,946,727**
YGS					
By EESC	Centralized Shared Services	$ 68,747,346	$ 77,565,231	$ 79,926,701	$ 226,239,278
By CL&P	Materials Handling	251,986			251,986
By "Other"	Various	787,528	890,005	754,145	2,431,678
To "Other"	Various	(377,407)	(196,104)	(404,585)	(978,096)
To NSTAR Gas	Gas mutual aid	(474,610)			(474,610)
To CL&P	Storm Outage Support		(697,324)		(697,324)
Totals (Net)		**$ 68,934,843**	**$ 77,561,808**	**$ 80,276,261**	**$ 226,772,912**

Figure 3-22 Summary of CL&P and YGS Intercompany Transactions 2019-2021 [222]

As Figure 3-25 indicates, centralized shared services provided by the EESC account for most of Eversource's intercompany transactions activity. As such, these were the primary focus of our review.

3.5.1.1. Eversource Energy Service Company Organizational Structure

Key subsidiaries served by the EESC during the years 2020-2022 include the following: [223]

- CL&P: Connecticut electric distribution and transmission utility;
- YGS: Connecticut gas utility;
- NSTAR Electric: Massachusetts electric distribution and gas utility;
- NSTAR Gas: Massachusetts gas utility;
- EGMA: Massachusetts gas utility, formerly Columbia Gas of Massachusetts;
- Public Service of New Hampshire ("PSNH"): New Hampshire electric distribution and transmission utility.

Smaller amounts of EESC costs were also allocated or directly charged to minor subsidiaries Hopkinton LNG Corp. and Rocky River Realty Company. During the 2020-2022 review period, EESC also charged relatively more significant costs to the Eversource parent company, including $74.6 million in 2020, $52.2 million in 2021 and $38.7 million in 2022. As noted above, EESC also charges Aquarion for a management and oversight fee and relatively minor amounts for administrative services.

[222] Response to FTI-114, Atts. 1-3(CLP) and 1-3(YGS).
[223] Response to FTI-126, Atts. 1-3(ES).

3.5.1.2. *Eversource Energy Shared Company Staffing Organization*

The EESC includes Eversource's Senior Team. The EESC is organized into functions which report to the CEO and six senior leadership organizations, each headed by an Executive Vice President. Staffing from year end 2019 through year end 2022 is summarized below in Figure 3-26.

Senior Executive Organization	Functional Areas	End of Year			
		2019	2020	2021	2022
Chief Executive Officer	CEO's Office	3	3	5	4
	Total Office of the CEO	**3**	**3**	**5**	**4**
Chief Financial Officer	CFO's Office	2	2	1	1
	Accounting	135	137	138	141
	Finance, Regulatory & Treasury	194	198	207	215
	Supply Chain, Env Affairs, Property Mgt.	232	237	236	238
	Risk Mgt, Investor Relations	21	21	19	21
	Total Chief Financial Officer	**584**	**595**	**601**	**616**
Corporate Relations, Sustainability, Corp. Secretary	Environmental Affairs			65	66
	Govt. Affairs / Community Relations	147	189	96	93
	Regulatory Affiars			13	15
	EVP's Office & Other	5	12	15	16
	Total Corp Relations, Sustainability	**152**	**201**	**189**	**190**
Customer Experience & Energy Strategy	Customer Experience / Energy Strategy	1,111	1,080		
	Customer Operations / Digital Strategy			673	718
	Energy Efficiency			185	188
	EVP's Office & Other			167	140
	Energy Strategy/ Business Development	18			
	Total Cust. Experience & Energy Strategy	**1,129**	**1,080**	**1,025**	**1,046**
Human Resources & Information Technology	Human Resources, Incl. EVP's Office	80	90	86	93
	Information Technology	194	202	193	220
	Total Human Resources / Info Tech	**274**	**292**	**279**	**313**
Legal, Audit & Energy Supply	Energy Supply	52	58	55	56
	Internal Audit & Security	26	25	25	28
	Legal & General Counsel	53	54	47	47
	Total Legal, Audit & Energy Supply	**131**	**137**	**127**	**131**
Chief Operating Officer	Office of the EVP / COO	2	2	2	2
	Electric Operations	242	244	252	245
	Electric Engineering	213	268	290	375
	Gas Organization	140	264	274	364
	Business Process Improvement	64	29		
	Operations Services	72	81	79	74
	Safety	15	33	38	42
	Transmission & Offshore Wind	110	127	165	249
	Total Operations	**858**	**1,048**	**1,100**	**1,351**
EESC Staffing Totals		**3,131**	**3,356**	**3,326**	**3,651**

Figure 3-23 EESC Staffing Organization[224]

Significant staffing changes between 2019 and 2022 which may be relevant to affiliate transactions include:

[224] Response to FTI-113, SP02, Atts. 1-4(ES).

- Overall service company headcount grew by 520 employees (16.7%) from the end of 2019 to the end of 2022. Much of this can be attributed to growth in the Gas Operations, Electric Engineering, and Transmission organizations under the Eversource COO's senior leadership group.
- The Customer Experience and Energy Strategy organization was moved from Corporate Relations and Sustainability to a separate organization headed by its own Executive Vice President. It was the only one of the EESC's six senior leadership organizations to lose headcount during the years from 2019 through 2022.
- The Gas Business organization more than doubled, from 140 employees at the end of 2019 to 364 at the end of 2022. Much of this is due to the integration of employees from EGMA into the EESC after Eversource acquired EGMA in 2020.
- The Transmission & Offshore Wind organization's headcount also more than doubled, from 110 employees at the end of 2019 to 249 employees at the end of 2022.

3.5.1.3. Eversource Energy Service Company Management and Budgeting

Eversource stated that the EESC "functions only as a cost accounting and tracking entity through which all shared services are provided. [It] does not encompass a decision-making function outside the purview of the Senior Team." [225] Eversource also stated that the EESC operates with "direct oversight and control resting with executive leadership and with operating company Presidents, all actively participating in the decision-making framework" and that shared services organizations are responsible for the EESC's operating budgets and workplans. [226] The Senior Team is responsible for assuring that shared services functions are executed efficiently and that operating performance goals are achieved.

Eversource stated that operating company Presidents do not have a direct role in the EESC as a cost sharing entity or its allocations; rather, the Eversource COO has direct interaction with the shared services organization management teams. [227, 228] This is at odds with the statement in the EESC service agreements with CL&P and YGS which state that EESC's services are provided "if and to the extent requested by" the operating companies. [229] Eversource stated that monthly service company performance data is evaluated by the EESC leadership teams and by the operating company Presidents. However, apart from the Customer Experience and Energy Strategy organization, EESC's internal reporting (e.g., budgets and budget variance reporting) does not include a breakout of budgeted or actual shared services cost at the operating subsidiary level. [230]

Eversource cited the following controls to ensure the proper distribution of EESC costs: [231]

- Annual review of rate codes which drive shared services costs to operating companies.
- Comparison by the Corporate Accounting Allocations team of allocations performed within the accounting system to a manual calculation of charges eligible to be allocated.

[225] Response to FTI-117.
[226] Ibid.
[227] Ibid.
[228] For example, Eversource's COO conducts monthly workplan meetings with operating company Presidents and EESC Executive Vice Presidents, during which the status of annual financial operating plans is discussed.
[229] Response to FTI-115, Atts. 1 (AQ), (CLP) and (YGS).
[230] Review of budget presentations, Response to FTI-151 Atts. 1-15 and interview with EESC's Director of Accounting, Director, Investment Planning, Director, Investment Planning – Gas and Director, Budgeting and Financial Analysis, June 15, 2023.
[231] Response to FTI-117.

- A set of Monthly Monitoring Reports issued to EESC managers for each cost center showing the amount and percentage of O&M expense charged by Accounting Work Order ("AWO") to each operating company.[232]
- A Monthly Key Comparison Report showing the percentage of O&M expense charged to each subsidiary for the current and prior month, quarter to date, and the prior 12 months.
- A monthly executive summary prepared for the Vice President, Controller and Chief Accounting Officer showing a 13-month analysis of EESC O&M allocated to each operating company by each shared service unit at the Executive Vice President level, identifying month to month variances.

Recommendation: We recommend that the EESC extend its budget and internal management reporting to the operating company level such that that the reports show costs budgeted and distributed to utility subsidiaries and to their transmission and distribution business segments. As Eversource demonstrated with the data made available for audit review, this information is readily available from the accounting system and is, in fact, already provided in high-level budget presentations for the Customer Experience and Energy Strategy organization. Production of budget and actual cost data at the operating company level will serve to highlight significant shifts, if any, in cost distributions between companies, and will provide a means to demonstrate to state regulators that costs charged by the service company which make up a substantial share of each regulated utility's cost of service are fairly and reasonably apportioned between individual Eversource utilities and their distribution and transmission business segments.

3.5.1.4. Service Agreements

Eversource has service agreements dated January 1, 2014, between the NUSC and both CL&P and YGS.[233, 234] The agreements provide for services "if and to the extent requested by Associate Company."[235] The agreements list and describe centralized services by department, provide for annual operating budgets, monthly billing and payment and for review of compensation under the agreement by state and federal regulators. As described in the service agreements, examples of the bases for allocating the common costs of general services include revenues, customers, and a blend of net income and gross plant.

Recommendation: Service company agreements with the CT Companies are dated January 1 2014 and reference the legacy service company, the NUSC, instead of the EESC. We recommend Eversource make appropriate revisions to these agreements to bring them up to date with respect to the services listed and to accurately reflect the service relationship between the EESC and operating companies. In particular, we recommend Eversource revise the agreement language stating that services are provided "if and to the extent requested" by the utility operating companies to more accurately reflect the fact that EESC's services and costs are managed by the Executive Vice Presidents in the EESC's senior leadership organizations, and that operating company managers do not have a role in determining how much of a service they purchase or EESC cost amounts budgeted for distribution to their utilities.

[232] Eversource stated there are approximately 400 of these reports, each equating to a cost center.
[233] The NUSC is NU's legacy shared services company. It was replaced with EESC with the merger of Northeast Utilities and NSTAR.
[234] Response to FTI-115, Att. 1 (CLP & YGS).
[235] FTI-115, Atts. 1 (AQ), (CLP) and (YGS).

3.5.1.5. Cost Distributions to Subsidiaries

Figure 3-27 summarizes EESC cost distributions to subsidiaries for each Senior Team Executive Vice President's organization for the years 2020 through 2022 combined; percentages indicate the subsidiary's share of shared cost for a given row.[236]

Exec Vice President Organization (CCC Summary Point 18)		ES Parent	CL&P	YGS	EGMA	NSTAR Electric	NSTAR Gas	PSNH	Other Subs	Totals
Chief Operating Officer (449)	Amounts	$ 1,794,796	$ 200,804,560	$ 48,682,541	$ 24,444,574	$ 120,938,441	$ 41,376,411	$ 40,990,145	$ 1,581,483	$ 480,612,951
	Pcts.	0.4%	41.8%	10.1%	5.1%	25.2%	8.6%	8.5%	0.3%	100.0%
Chief Financial Officer (R51)	Amounts	2,154,537	83,589,031	14,074,348	6,191,046	116,801,448	19,119,390	31,052,399	1,531,569	274,513,768
	Pcts.	0.8%	30.4%	5.1%	2.3%	42.5%	7.0%	11.3%	0.6%	100.0%
Corp. Relations, Sustainability, Corp. Secy. (RCE)	Amounts	1,618,203	34,341,839	6,088,840	5,254,780	31,463,757	5,983,430	16,378,684	1,028,454	102,157,987
	Pcts.	1.6%	33.6%	6.0%	5.1%	30.8%	5.9%	16.0%	1.0%	100.0%
Cust. Experience & Energy Strategy (R54 & REE)	Amounts	765,982	108,745,789	16,428,901	2,619,717	134,281,320	21,919,948	40,272,365	209	325,034,231
	Pcts.	0.2%	33.5%	5.1%	0.8%	0	6.7%	12.4%	0.0%	100.0%
Human Resources & Info Tech (R53)	Amounts	1,395,886	120,827,550	26,452,599	20,957,622	147,509,406	28,717,254	51,682,648	4,034,927	401,577,892
	Pcts.	0.3%	30.1%	6.6%	5.2%	36.7%	7.2%	12.9%	1.0%	100.0%
Legal, Audit & Energy Supply (R52)	Amounts	1,354,813	23,421,676	5,244,433	2,772,196	28,448,786	5,187,273	8,308,114	557,993	75,295,284
	Pcts.	1.8%	31.1%	7.0%	3.7%	37.8%	6.9%	11.0%	0.7%	100.0%
Corporate Cost Areas (302)	Amounts	110,905,344	459,180,781	117,908,790	84,564,817	470,895,199	116,291,515	178,731,576	1,665,020	1,540,143,042
	Pcts.	7.2%	29.8%	7.7%	5.5%	30.6%	7.6%	11.6%	0.1%	100.0%
Other (S.P. 18 Not Specified)	Amounts	418,303	2,317,650	416,790	232,696	2,443,539	324,959	794,486	76,304	7,024,727
	Pcts.	6.0%	33.0%	5.9%	3.3%	34.8%	4.6%	11.3%	1.1%	100.0%
Totals	**Amounts**	**$ 120,407,864**	**$ 1,033,228,876**	**$ 235,297,242**	**$ 147,037,448**	**$ 1,052,781,896**	**$ 238,920,180**	**$ 368,210,417**	**$ 10,475,959**	**$ 3,206,359,882**
	Pcts.	**3.8%**	**32.2%**	**7.3%**	**4.6%**	**32.8%**	**7.5%**	**11.5%**	**0.3%**	**100.0%**

Figure 3-24 EESC Cost Distributions by Executive Vice President Organization[237]

We reviewed the reasonableness of the EESC's cost distributions among subsidiaries by comparing total costs distributed with an average of five measures of subsidiary size, as shown below in Figure 3-28.[238, 239] The review showed that the EESC's cost distributions closely align with operating subsidiary size. This is consistent with expectations for a corporate entity comprised primarily of transmission and distribution utilities with similar businesses and operations.

[236] We compared these with cost distributions shown in FERC Form 60, the Annual Report of Centralized Service Companies, and found that Form 60 showed costs that were approximately 12% higher overall than the costs provided in response to data request FTI-390. During our June 15, 2023 interview, the EESC's Director of Accounting stated that the data provided in FTI-390 excluded charges to AWOs set up within the operating subsidiaries to which service company employees may charge time and expenses, and also does not include EESC workorders used to sundry bill Aquarion. The total difference between the cost distributions provided in response to FTI-390 and those shown in FERC Forms 60 is approximately $146 million for the 2020-2022 period we reviewed.

[237] Response to FTI-390, SP01, Atts. 1-3(ES).

[238] Our measurement of subsidiary size is based on an average of customers, revenue, operating income, gross plant, and net plant, as documented in Eversource Financial Reviews posted on the company's website.

[239] We used cost distribution data from FERC Form 60, rather than the cost data provided by Eversource in response to FTI-390, primarily because, as explained in a footnote above, the amounts reported in FERC Forms 60 include all of the EESC's incurred costs, whereas data provided for audit analysis in response to FTI-390 excludes EESC costs charged to AWO belonging to operating subsidiaries.

Operating Company	2021			2022		
	EESC Cost Dist. per FF60 (1)	Avg of Size Measures	Diff	EESC Cost Dist. per FF60 (1)	Avg of Size Measures	Diff
CL&P	33%	35%	-2%	33%	35%	-2%
NSTAR Electric	34%	35%	0%	35%	33%	2%
PSNH	11%	12%	-1%	12%	13%	-1%
NSTAR Gas	7%	6%	1%	7%	6%	1%
YGS	7%	7%	0%	7%	6%	1%
EGMA	7%	6%	1%	6%	6%	0%
Totals	**100%**	**100%**		**100%**	**100%**	

FF60 = FERC Form 60.
Note 1: Cost distribution percentages are among utility subsidiaries only. Costs distributed to the ES parent organization and to other minor ES subsidiaries are excluded.

Figure 3-25 EESC Cost Distribution to Key Subsidiaries Compared with Subsidiary Size[240]

3.5.1.6. Eversource Energy Service Company Cost Allocation Procedures

Cost allocation procedures are documented in the EESC's Cost Charging and Allocation Manual. They provide for direct charging to the appropriate subsidiary when possible. Procedures establish a threshold of four hours per week (one tenth of a normal full-time week) for identifying and directly charging employee time to a subsidiary. The table below shows a relatively high (in our experience) 44% of total cost was directly charged to subsidiaries during the three-year review period from 2020 to 2022. This is despite the fact that the costs in the table exclude costs incurred by the EESC which are directly charged to AWOs established directly by subsidiaries.[241]

Costs that cannot be directly charged are distributed using attributable (the EESC's term is 'causal') and non-attributable, or subsidiary size-based (the EESC's term is 'common'), allocation methods. Approximately 16% of the EESC's costs during the review period were distributed with a purely non-attributable size-based allocator based on an average of gross plant and net income, with another 12% distributed based on subsidiary gross plant, also a method which is arguably non-attributable even though the EESC deems it to be 'causal.' Overall, while it is possible to argue about a few allocation design choices, such as the use of net income in the 'common' allocator, the EESC's process overall appears reasonable. This conclusion is based on the following:

- Overall, cost distribution procedures are straightforward and not unnecessarily complex.
- Procedures distribute a majority of the service company's costs using direct and attributable methods.
- The process does not distribute significant costs between dissimilar regulated and non-regulated business segments using unattributable allocation methods. The costs currently distributed to non-utility subsidiaries (a Liquified Natural gas ("LNG") business, an investment-based service company and a real estate company, among others) are relatively minor and do not currently pose a risk of being materially cross-subsidized by the utilities.

Figure 3-29 summarizes EESC cost distributions by method for the years 2020-2022.

[240] Response to FTI-126, Att. 3(ES).
[241] Given that approximately 12% of the costs shown in FERC Forms 60 were not included in the EESC cost data provided in FTI-390, and assuming that a majority or most of this cost charged to AWOs would have also been directly charged to subsidiaries, it is possible the overall rate of direct charging is as high as around 50%.

Type of Charge or Allocation	Distribution Method	Method Percent of Total	ES Parent	CL&P	YGS	EGMA	NSTAR Electric	NSTAR Gas	PSNH	Other Subs	Totals
Direct	Directly Charged	44%	$ 120,471,197 8%	$ 396,937,797 28%	$ 105,869,836 7%	$ 114,987,806 8%	$ 418,256,744 29%	$ 96,598,093 7%	$ 160,332,009 11%	$ 5,411,510	$ 1,418,864,991 100%
Causal	Customers	17%	- 	168,121,470 30%	43,297,699 8%	4,398,308 1%	215,832,478 39%	63,391,765 11%	63,569,329 11%		558,611,049 100%
Causal	Customer Handling Time	2%	- 	34,028,896 59%	4,542,511 8%	- 	7,198,997 12%	- 	12,014,985 21%	- 	57,785,389 100%
Causal	Facilities Floor Space	2%	48,405 	23,502,919 33%	4,177,745 6%	812,512 1%	23,960,268 34%	15,051,496 21%	3,475,337 5%	453,603 1%	71,482,285 100%
Causal	Labor & Labor Misc.	6%	(119,574) 0%	47,200,794 26%	12,923,406 7%	2,043,476 1%	77,751,927 43%	15,372,950 8%	26,920,746 15%	179,338 0%	182,273,062 100%
Causal	Gross Plant Assets	12%	- 	176,429,425 46%	31,811,372 8%	16,198,541 4%	101,307,086 26%	24,429,385 6%	37,413,376 10%	109,154 0%	387,698,339 100%
Causal	Other Methods (1)	1%	7,836 0%	11,590,186 37%	2,502,728 8%	663,606 2%	8,273,024 26%	1,775,373 6%	6,930,899 22%	9,174 0%	31,752,827 100%
Common	Gross Plant & Net Income (2)	16%	- 	175,417,389 35%	30,171,947 6%	7,933,198 2%	200,201,371 40%	22,301,117 4%	57,689,967 12%	4,176,951 1%	497,891,941 100%
Totals		**100%**	**$ 120,407,864**	**$ 1,033,228,875**	**$ 235,297,244**	**$ 147,037,448**	**$ 1,052,781,894**	**$ 238,920,180**	**$ 368,346,648**	**$ 10,339,729**	**$ 3,206,359,882**

Notes: (1) Other causal methods include invoices processed, revenue and vehicles. (2) A small percentage of common is allocated based on gross plant and net income averaged with customers.

Figure 3-26 EESC Cost Distributions by Distribution Method (2020-2022)[242]

EESC uses three-character "rate codes" to distribute costs. The first character identifies the method (as shown in the table above), and the two remaining characters identify the cost pool (the group of subsidiaries) that benefit from the costs. The Cost Charging and Allocation Manual identifies approximately 100 different rate codes, or allocation method/cost pool combinations.

3.5.1.7. Eversource Water Ventures

Eversource Water Ventures, Inc. ("EWV") is described in Eversource's 2020 SEC Form 10-K as the parent company of Aquarion. FERC Forms 60 show that the EESC charged approximately $14.6 million to EWV, primarily in 2020. The FERC Form 60 for 2020 shows that the EESC charged approximately $12.6 million to EWV in 2020. None of these charges are included in the EESC cost allocation data provided in response to data request FTI-390.[243] As discussed below, we performed a separate review of affiliate transactions involving Aquarion included in data responses provided by Eversource.[244]

3.5.1.8. North East Offshore

Through its subsidiary North East Offshore, Inc. ("NEO"), for the past several years Eversource has been developing offshore wind projects with its partner, Danish energy company Ørsted. On May 25, 2023, Eversource announced it was "pursuing an exit of the unregulated offshore wind business…"[245] Prior to this announcement, NEO was in the process of becoming a potentially significant non-regulated business segment. However, NEO was a development entity during the 2020-2022 review period and there were no material costs allocated from the EESC to NEO or to a related subsidiary. Approximately $45 million in direct charges from the EESC to the parent, shown in 2020-2022 FERC Forms 60, was omitted from the detailed EESC cost data provided in response to FTI-390.[246] These direct charges may have been related to NEO's development and construction activities in whole or in part. However, Eversource stated that all charges by the EESC to the parent organization during this period were retained by the parent (i.e., borne by shareholders) and none were further distributed to the electric and gas

[242] Response to FTI-390, SP01, Atts. 1-3(ES).

[243] As discussed in another footnote above, Eversource did not provide EESC data for charges to AWOs established by subsidiaries or the EESC workorders used to sundry bill Aquarion as they are not allocated charges.

[244] Response to FTI-507 provided data for Aquarion affiliate transactions which suggest that much of the amounts shown in FERC Form 60, but not included in the EESC cost data provided in FTI-390 could relate to income tax and interest on commercial paper charged by Eversource to Aquarion.

[245] Eversource News Release, May 25, 2023, Eversource.com.

[246] Based on a comparison of data in 2020-2022 FERC Forms 60 and data in the response to FTI-390 SP01, Atts. 4-6(ES).

utilities.[247] As such, it appears that activities associated with NEO did not affect shared services costs charged to CT Companies.

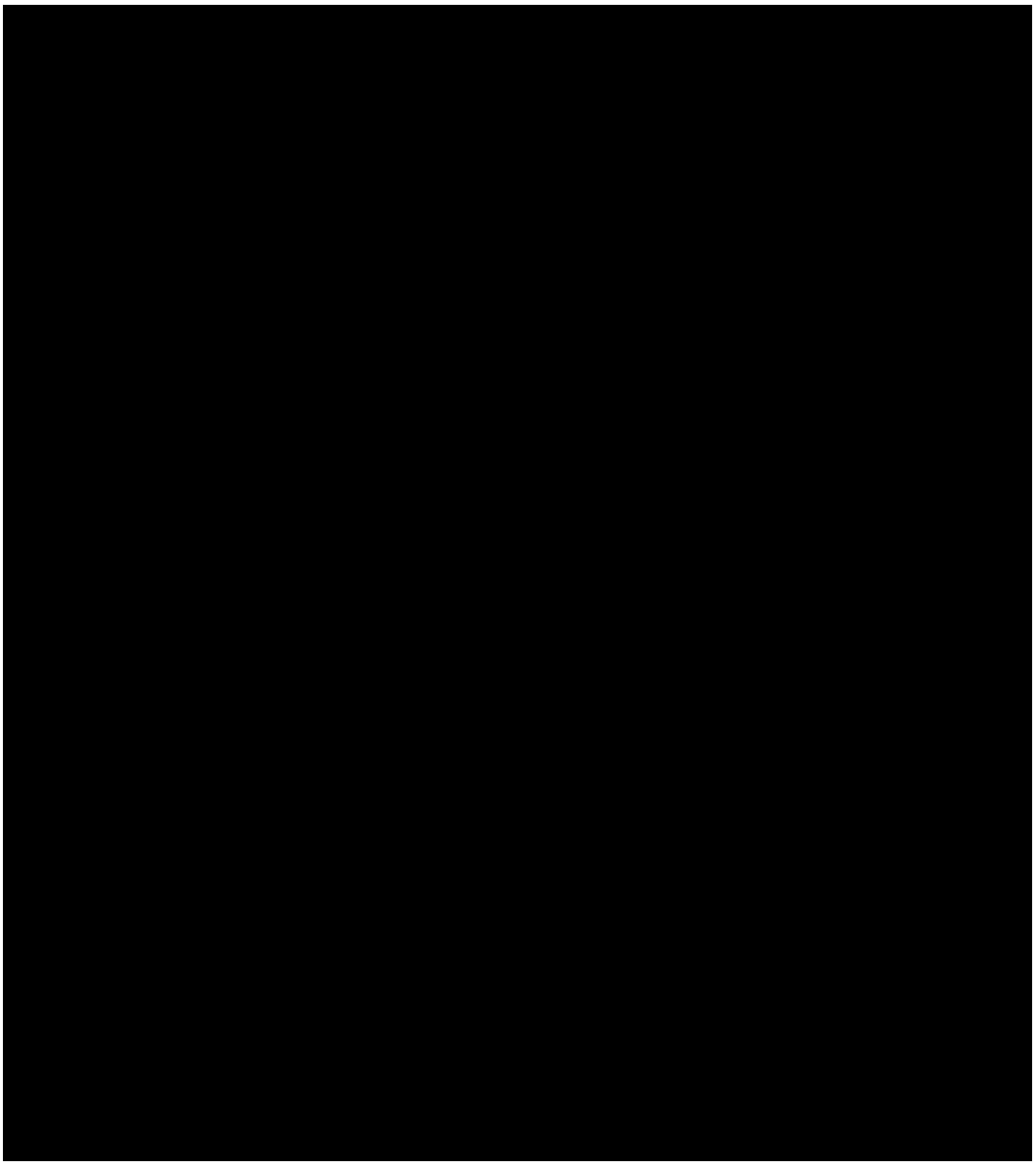
3.5.2. Water Affiliate Relationships and Transactions

Although owned by Eversource, Aquarion operates autonomously and has little management or operational interaction with its parent company. Eversource and Aquarion have different accounting platforms (SAP for Aquarion and Oracle for Eversource) and they do not share accounting data. The only direct reporting relationship between them is Aquarion's President, who reports to the Eversource COO. As discussed below, Eversource charges a management fee for its oversight of Aquarion and pays some vendor bills on behalf of Aquarion. Aquarion's legal structure at the end of 2022 is shown in Chapter 1.[248]

3.5.2.1. Aquarion Staffing Organization

Figure 3-30 summarizes Aquarion's staffing organization by subsidiary.

[247] Interview, EESC Directors of Accounting, Investment Planning, Investment Planning – Gas and Budgeting and Financial Analysis, June 15, 2023.
[248] Response to FTI-262, Att. 1(AQ).



3.5.2.2. Aquarion Intercompany Services and Charges

Aquarion and its subsidiaries are not managed under a service company model. Intercompany services consist primarily of centralized management, administrative and technical services provided by employees of AWC-CT and directly charged or allocated to affiliates (mainly other water companies), and corporate costs incurred by parent company Aquarion, consisting primarily of charges from parent Eversource to Aquarion. Costs incurred by Aquarion, including the management fee and vendor costs charged by EESC and centralized corporate services (provided by AWC-CT and charged to Aquarion), are allocated to subsidiaries, with an average of around 90% allocated to AWC-CT.

Even though shared services are actually provided by employees of AWC-CT, they are described in intercompany agreements as services provided by "service company" AWC to the following companies: [250]

- AWC-MA, dated April 25, 2002;
- AWC-NH, dated April 25, 2002;
- Abenaki, dated December 1, 2021.

As discussed below, there are no intercompany service agreements covering subsidiaries AWC-CT or HSV.

3.5.2.3. Service Agreements

Intercompany agreements between "service company" AWC and three of Aquarion's water utilities (AWC-NH, AWC-MA, and Abenaki) provide for accounting, communications, financial, HR, information systems, operations, customer, rates and revenue, and various other services as "water company and service company may agree, provided, however, that water company may perform the service with its own personnel [or] engage another company or person to provide . . . such services on its behalf." Compensation for services provided are documented in the agreements as follows: [251]

- All costs of personnel provided "for 'Water Company or in common with other Water Companies shall be charged . . . based on actual time spent as reflected in . . . time sheets' [or] other acceptable means of determination."
- When identifiable as being provided for one Water Company, charges shall be charged directly to the Water Company.
- The costs of services provided "in common with similar services to other Water Companies . . . which cannot be identified [with] a particular Water Company, shall be allocated among all Water Companies so served."
- Charges for officers and employees include "a percentage sufficient to cover the benefits overhead of Service Company." The benefit overhead covers employee benefits (pension, medical, 401(k), and others) and payroll taxes.
- Charges for officers and employees also include a "per hour support charge…sufficient to cover the costs for support personnel" (clerical personnel) and the "costs associate with office space and equipment."

The agreements provide for monthly payment "as soon as practicable after the last day of such month," and state "Water Company shall be provided a summary thereof on a monthly basis . . . in sufficient detail to show separately the charge for each class of service rendered." The water utilities and regulatory authorities also have a stated right to inspect the books and records of the Service Company. [252]

We requested all active service agreements between AWC-CT and affiliates. [253] The data response included agreements between AWC (identified as the "service company") and water utilities AWC-NH, AWC-MA, and Abenaki. The response did not include an agreement between AWC and AWC-CT. The reference to AWC is vague.

[250] Response to FTI-115, Atts. 2-4(AQ).
[251] Response to FTI-113, Atts. 2-4(AQ), Service Agreements Article II, Payment for Services, and Article III, Charges for Overhead.
[252] Response to FTI-113, Atts. 2-4(AQ), Service Agreements Article IV, Billing Procedures and Books and Records.
[253] Request FTI-115.

It might be taken to refer to the Aquarion parent, to the regulated utility holding company AWC Holdco or to AWC-CT, the entity with the employees who actually provide the shared services.

In addition, the data response did not include service agreements covering the following companies for which accounting data showed there were intercompany transactions:

- Parent company Aquarion: AWC-CT charges the parent company for services it provides that benefit Aquarion and its subsidiaries as a whole.
- Non-regulated subsidiary HSV: AWC-CT provides management, administrative and customer services to HSV.
- Torrington: Aquarion completed its acquisition of Torrington in October 2022 and AWC-CT began charging it for services in 2022.

Setting aside the issues with service agreements, the practical effect of AWC-CT, rather than a separate shared services organization, providing and charging for shared services is that AWC-CT will automatically absorb any costs not identified and charged as attributable to an affiliate. An arrangement in which AWC-CT is both the provider and the beneficiary of shared services requires that it identify, flag, and properly distribute the costs of every product and service it provides from which an affiliate also benefits.

Recommendation: We recommend Aquarion adopt a service company model under which employees and vendors who provide shared products and services are separated from other AWC-CT employees and provide the services either through parent company the Aquarion Company, through Aquarion Water Company ("AWC"), or preferably, through an entity established for the purpose of providing centralized, shared services (akin to the EESC). The cost of centralized services shared by a group of utilities or provided for the benefit of the corporate group of companies as a whole, should not be incurred and charged from one of the benefiting utilities, primarily because any services not explicitly recognized as shared with affiliated utilities or as benefiting the corporate group as a whole will automatically default to the utility providing the service and incurring the cost. As AWC continues to grow through acquisitions, and potentially through the expansion of its non-regulated services, it becomes increasingly important to separate the services benefiting multiple subsidiaries or Aquarion as a whole from those provided only for the benefit of AWC-CT.

Recommendation: We recommend Aquarion bring its existing service agreements up to date and initiate agreements between all affiliates in which intercompany products or services are shared or exchanged (including AWC-CT, HSV, and Torrington). Aquarion should also ensure that all service agreements accurately identify the companies involved and the services provided.

3.5.2.4. Transactions Among the Aquarion Companies

As noted above, intercompany transactions within Aquarion consist almost entirely of centralized management and administrative services provided by AWC-CT to its affiliates. Intercompany charges associated with these services are summarized in Figure 3-31 below.

Intercompany Charges for Services Provided by AWC-CT to Aquarion Companies				
Company / Function	**2019**	**2020**	**2021**	**2022**
Provided by AWC-CT to AWC-MA				
Allocated customer service	213,784	156,355	75,385	83,615
Allocated IT expenses	550,015	285,471	150,229	182,285
Direct labor charged from CT	433,399	226,021	117,827	260,109
Payroll overhead - taxes	59,647	37,580	20,201	32,824
Payroll overhead - benefits	388,153	197,387	98,851	143,892
Building overhead	89,085	69,243	46,415	49,848
Total AWC-MA	**1,734,083**	**972,057**	**508,908**	**752,573**
Provided by AWC-CT to AWC-NH				
Allocated customer service	89,382	78,989	80,435	68,294
Allocated IT expenses	262,527	192,457	213,732	198,512
Direct labor charged from CT	135,986	96,168	110,674	160,018
Payroll overhead - taxes	21,792	18,886	22,048	24,077
Payroll overhead - benefits	141,825	99,313	107,950	105,605
Building overhead	49,830	43,113	54,762	47,428
Total AWC-NH	**701,342**	**528,926**	**589,601**	**603,934**
Provided by AWC-CT to Abenaki and Torrington				
Allocated customer service	-	-	-	23,781
Allocated IT expenses	-	-	-	56,009
Direct Labor charged from CT	-	-	-	12,745
Payroll overhead - taxes	-	-	-	6,770
Payroll overhead - benefits	-	-	-	29,675
Building overhead	-	-	-	15,746
Total Abenaki & Torrington	**-**	**-**	**-**	**144,726**
Provided by AWC-CT to HSV				
Allocated customer service	-	6,984	7,157	7,003
Direct Labor charged from CT	28,057	26,226	28,790	31,140
Payroll overhead - taxes	2,245	2,099	2,303	2,491
Payroll overhead - benefits	14,590	14,508	14,808	13,911
Building overhead	21,308	20,596	20,885	21,208
Total HSV	**66,199**	**70,414**	**73,944**	**75,753**
Provided by AWC-CT to Aquarion Parent				
Direct Labor charged from CT	101,040	46,158	58,438	57,102
Payroll overhead - taxes	8,083	3,693	4,675	4,568
Payroll overhead - benefits	52,541	19,386	22,791	19,986
Building overhead	19,154	8,406	13,970	12,001
Total Aquarion Parent	**180,817**	**77,642**	**99,873**	**93,657**
Total All Affiliates	**2,682,441**	**1,649,038**	**1,272,326**	**1,525,917**

Figure 3-27 Intercompany Charges for Services Provided by AWC-CT to Affiliates[254]

Intercompany charging procedures are documented in Aquarion's Accounting and Finance Manual Policies 22a – Intercompany Transactions and 22b – Allocations.[255] Many shared services, including administrative services benefiting Aquarion as a whole, are directly charged by AWC-CT employees to affiliates. However, Policy 22b describes the following assessment processes for the allocation of certain types of cost:

- **Customer Service Assessment Cycle 'CS':** An SAP process to allocate AWC-CT customer service and lab (water quality testing) costs in account 901 along with associated payroll and building overhead costs to the regulated water companies. Customer service costs, in particular call center costs, are allocated among the regulated water companies based on number of customers.
- **Information Technology Assessment Cycle 'IT':** An SAP process to allocate AWC-CT IT labor costs in account 906 and associated payroll and building overhead costs among the regulated water companies.

[254] Response to FTI-114, SP01, Att.1.

[255] Response to FTI-510, Atts. 1(AQ) and 2(AQ).

- **Payroll Overhead Assessment Cycle 'CTLABR':** An SAP process to assess payroll overheads associated with AWC-CT administrative and general labor in account 920 directly charged to affiliate companies.
- **Building Overhead Assessment Cycle 'CTLBLDG'**: An SAP process to assess building overheads (rent, depreciation, etc.) for the Lindley Street, Monroe and Main Street facilities and associated with AWC-CT administrative and general labor in account 920 directly charged to affiliate companies.

Aquarion's Controller stated that depreciation and other capital costs associated with AWC-CT assets used for the benefit of affiliated companies (the SAP Customer Information System, for example), are also allocated to affiliates.[256] However, how this is accomplished does not appear to be documented in Allocations Policy 22b.

Non-regulated subsidiary HSV uses AWC-CT's customer contact center but is not a cost objective in the customer service assessment process described above. Allocations Policy 22b states that beginning in 2021 Aquarion began calculating a separate customer service charge for HSV based upon "0.003% of labor" using a manual calculation outside the assessment process described above.[257] Aquarion stated this percentage is based on customer phone calls to Customer Service Representatives ("CSRs").[258] As shown above, this calculation results in a customer contact center charge of approximately $7,000 annually to HSV.[259]

Recommendation: Apart from and in addition to establishing a service company model for the provision of shared services, we recommend Aquarion develop cost allocation procedures for all significant centralized administrative and management functions to ensure the costs of these functions and their activities are properly distributed to all benefiting operating subsidiaries. Using the employees of AWC-CT to provide services that benefit multiple operating subsidiaries or benefit Aquarion as a whole, with no systematic cost allocation procedure (other than direct charging) increases the probability that some common costs will not be properly recognized and will be borne solely by AWC-CT.

3.5.2.5. Costs Allocated by the Aquarion Parent Company to Subsidiaries

Although it has no employees and does not act as a service company, the Aquarion parent serves as a collection point for certain costs benefiting Aquarion as a whole, including a management fee charged to Aquarion by the EESC (discussed below), shared corporate management, administrative and outside provider services provided by AWC-CT and charged to Aquarion, and certain employee benefits costs incurred and paid for directly by Aquarion.

Costs incurred and collected by the Aquarion parent company are allocated to its subsidiaries based on a Massachusetts formula. During our 2019-2022 review period, between 86% and 91% of these costs, including the costs charged by AWC-CT for the corporate services it provided to the parent, were allocated back to AWC-CT. The remaining amounts, between 9% and 14%, were allocated to other Aquarion subsidiaries. These costs and allocations are summarized in Figure 3-32 below.

[256] Interview, Debra Kirven, Aquarion Controller, May 26, 2023.
[257] Response to FTI-510, Att. 2(AQ).
[258] We asked why the number of customers is used as an allocation basis for the utilities, while a measure of phone calls is used only for HSV. In response to FTI-641-A, Aquarion stated as follows: "The work performed by [CSRs] for the regulated water utilities is significantly greater than the work that is performed by CSRs for HSV. Prior to 2020 the CSRs did not handle any work for HSV. If Aquarion used the number of customers for HSV (approximately 66,000 as of 12/31/22), a disproportionate amount of costs would be allocated to HSV."
[259] Interview, Debra Kirven, Aquarion Controller, May 26, 2023.

Intercompany Charges from Aquarion Company (Parent) to Subsidiaries				
Function	**2019**	**2020**	**2021**	**2022**
EESC Management Charges	649,596	816,843	778,536	777,622
Audit and Consulting Fees	111,504	97,709	163,368	133,871
Legal Costs	3,662	7,320	5,294	24,378
Employee Benefits	429,039	150,716	60,228	(286,320)
Internal Salaries	101,040	46,158	58,438	57,102
Internal Payroll Taxes	8,083	5,264	4,258	4,568
D&O Insurance	16,251	20,511	42,566	36,756
Other	32,491	21,769	43,193	22,904
Total Management Allocation	**1,351,665**	**1,166,289**	**1,155,881**	**770,881**
Pct. alllocated to AWC-CT	85.98%	91.34%	91.33%	86.51%
Amounts allocated to AWC-CT	**1,162,121**	**1,065,289**	**1,055,666**	**666,874**
Pct. alllocated to Other Affiliates	14.02%	8.7%	8.7%	13.5%
Amounts allocated to Other Subs	**189,544**	**101,001**	**100,215**	**104,007**

Figure 3-28 Aquarion Parent Functional Costs and Cost Allocations[260]

Aquarion's Massachusetts Formula distributes costs based on an average of subsidiary revenues, plant, and payrolls. In theory, it should provide a reasonable distribution of non-attributable parent company costs among Aquarion's regulated water companies. However, we did not attempt to audit the formula in detail to determine, for example, whether AWC-CT's payroll costs or plant attributable to Aquarion as a whole or to other subsidiaries was removed, as it should be, from payroll and plant counted in the formula as belonging to AWC-CT.

HSV's cost allocation under the formula is reduced because it has little or no plant (e.g., the contact center it uses is owned primarily by AWC-CT) and because it has relatively low internal payroll, given that its customer field operations are handled by contractors whose salaries are not counted as payroll in the Massachusetts formula. However, even if the formula's allocation to HSV is based solely on HSV's revenues (approximately 2.5% of total Aquarion revenues) with no weight attributed to plant or contractor payroll, the 1 to 1.5% additional amount of parent cost that probably should be allocated does not materially affect AWC-CT given HSV's relatively small size. Figure 3-33 shows allocation percentages.

Aquarion Massachusetts Formula Subsidiary Distributions				
Subsidiary	**2019**	**2020**	**2021**	**2022**
Aquarion Parent	0.01%	0.01%	0.01%	0.01%
NESC				0.02%
AWC-CT	85.98%	91.34%	91.33%	86.51%
AWC-MA	8.62%	3.08%	3.09%	3.70%
AWC-NH	4.11%	4.38%	4.39%	4.03%
Abenaki				0.35%
Torrington				4.18%
HSV	1.28%	1.19%	1.18%	1.21%
Totals	**100.00%**	**100.00%**	**100.00%**	**100.00%**

Figure 3-29 Aquarion Massachusetts Formula Allocation Percentages[261]

[260] Response to FTI-555, Att. 1(AQ).
[261] Ibid.

3.5.2.6. *Eversource Energy Service Company Charges to Aquarion*

The following two tables summarize the charges from the EESC to Aquarion and from the EESC to AWC-CT. These amounts are all directly charged.[262] As noted above, Aquarion is not part of the EESC's corporate allocation process and, although there is a management fee charged for Eversource oversight, there are no EESC allocations for shared services to Aquarion or its subsidiaries[263] because Aquarion is managed and operates independently from Eversource's electric and gas utility businesses. Direct charges are shown in Figure 3-34 and Figure 3-35 below.

Intercompany Charges from EESC to Aquarion Company				
Function	**2019**	**2020**	**2021**	**2022**
Officer Services	432,000	528,792	463,553	470,580
Other EESC Employee Services	212,663	277,733	295,705	286,754
Convenience Payments	186,423	158,421	84,814	76,625
Totals	**831,086**	**964,946**	**844,072**	**833,959**

Figure 3-30 EESC Direct Charges to Aquarion[264]

Intercompany Charges from EESC to AWC-CT				
Function	**2019**	**2020**	**2021**	**2022**
EESC Employee Services		139,061	164,875	247,437
Convenience Payments	391,179	890,631	1,481,171	1,368,273
Totals	**391,179**	**1,029,692**	**1,646,046**	**1,615,710**

Figure 3-31 EESC Direct Charges to AWC-CT[265]

3.5.2.6.1. Eversource Energy Service Company Services Directly Charged to Aquarion

The EESC has a service agreement to provide Aquarion "if and to the extent requested," Accounting, Finance, Internal Audit, Legal, Treasury and "such other services Aquarion may request."[266] The agreement provides for the EESC's "officers and other employees," at Aquarion's request, to serve as officers or representatives of Aquarion "without charge." Aquarion agrees to compensate the EESC "the cost . . . of such services . . . including reasonable compensation for necessary capital as permitted by applicable rules and requirements of FERC."[267] Cost is defined under the "Nature of Charges" section of the agreement and includes "direct charges," "overhead expenses" and "charges for specific services obtained from third parties on behalf of Aquarion." The agreement provides for monthly invoicing. During the review years 2019 through 2022, the EESC also directly charged AWC-CT for certain services.

[262] The amounts in the first two rows of these tables (officer services and other EESC employee services) should equal the EESC management charges from the Aquarion Parent Functional Costs and Cost Allocations table above. The amounts in these tables come from different data responses. The differences, while relatively small, are unexplained.
[263] Response to FTI-352.
[264] Response to FTI-507, Att. 1(AQ).
[265] Ibid.
[266] Response to FTI-115, Att. 1(AQ), Service Contract Between Eversource Energy Service Company and Aquation Company, p.1.
[267] In practice, management services are provided by Eversource to Aquarion based on the parent-subsidiary relationship between the two companies, not based on requests for such services.

3.5.2.6.2. Eversource Energy Service Company Convenience Payments on Behalf of Aquarion

Convenience payments shown in Figure 3-34 and Figure 3-35 above are vendor payments made by the EESC on behalf of Aquarion and its subsidiaries. For the most part these represent payments for insurance. Directors' and officers' insurance is charged to Aquarion and allocated to AWC-CT and others in the process discussed above. However, most is workers' compensation, property, crime, fiduciary, umbrella, vehicle, and cyber insurance, and most of these insurances are directly charged to AWC-CT.[268] Altogether, convenience payments charged to AWC-CT grew from a little under $400,000 in 2019 to almost $1.5 million in 2021 and almost $1.4 million in 2022. Eversource stated that insurance convenience payments increased because a majority of them had been paid for directly by Aquarion but were consolidated and purchased by Eversource on Aquarion's behalf beginning in 2020.[269]

3.5.2.6.3. Other Eversource Energy Service Company Charges to Aquarion

The EESC charged and credited Aquarion for various amounts between 2019 and 2022. These charges and credits included income tax, interest on commercial paper, and, in 2022, a credit reimbursing Aquarion $1.37 million for acquisition costs incurred in the Torrington acquisition. Aquarion stated that the Torrington acquisition costs were credited against costs the parent incurred; as such, they do not appear to have affected AWC-CT.[270]

Income taxes are charged or credited to Aquarion at the corporate level and represent Aquarion's estimated share of consolidated Eversource tax payments. The EESC's assignment of Aquarion's estimated share of net consolidated income tax expense is not charged or credited to AWC-CT.[271] Income tax expense for AWC-CT is calculated separately and tax payments are settled with Aquarion to match current tax expense.

Aquarion was charged approximately $4.8 million for interest on commercial paper during the years 2019 through 2022.[272] Aquarion stated this is interest on short-term borrowings from Eversource and reflects interest rates Eversource pays for its commercial paper program. Aquarion charges the same rates of interest to its subsidiaries as it pays to Eversource.

[268] For example, in 2022 over 95% was directly charged to AWC-CT.
[269] Response to FTI-645.
[270] Response to FTI-644.
[271] Response to FTI-507, Att. 1(AQ); Response to FTI-644.
[272] Analysis of response to FTI-507, Att. 1(AQ).

Chapter 4. Human Resources

Introduction

This chapter reviews the Human Resources ("HR") function and procedures of Eversource Energy, Inc. ("Eversource") and its Connecticut subsidiaries: Connecticut Light & Power ("CL&P"), Yankee Gas Services Company ("YGS") and the Aquarion Company ("Aquarion") (collectively, the "CT Companies".[1] This chapter covers the following topics:

- HR Organization;
- Compensation and Benefits;
- Labor Relations;
- Workforce Planning;
- Training and Development.

Findings

HR Organization

1. The Eversource HR organization is organized into five main operating groups. Aquarion has a separate HR function led by a Director of HR who reports to an executive within Aquarion.

2. The Executive Vice President of HR is also responsible for Eversource's Information Technology ("IT") organization.

3. Eversource's HR group has met most of its key performance metrics over the past few years, with the exception of employee staffing and retention. Aquarion uses separate HR performance metrics and has seen worsening results in the last two years, most notably with employee safety measurements.

Compensation and Benefits

4. Eversource and Aquarion's non-union compensation structures use salary bands with a midpoint salary and maximum and minimum salaries in each band that are 15%-20% above and below the midpoint. CL&P and YGS employee salaries average very close to the midpoint in each grade. The salaries for the majority of Aquarion positions are also close to the midpoint, but approximately 40% are closer to the salary band minimum or maximum.

5. Eversource and Aquarion offer different incentive compensation plans. Each has a short-term plan available to all non-union employees and a long-term plan available to Director levels and above. Incentive compensation expenses charged to each CT Company did not materially change between 2019 and 2022.

[1] For the purposes of this audit, the Aquarion Company, which encompasses Water Companies across three states, is referred to as a CT Company.

6. Eversource met or exceeded nine of ten target performance metrics for incentive compensation in 2022. Short-term plan targets are a mix of financial and operational measures, while the long-term plan is tied to earnings growth and shareholder return. Eversource also substantially exceeded overall targets in 2019-2021.

7. Eversource and Aquarion offer benefit packages commensurate with other large utility companies, both in the breadth of benefits available and in coverage levels.

8. In 2021, Eversource ranked 7 of 13 utility peers for benefit programs for its salaried workforce and 5 of 13 utility peers in the union ranking. The combined non-union employee benefit program value was 100.19% of the average value, where the utility group ranged from 88.05% to 111.93%.

Labor Relations

9. CL&P has union contracts with three bargaining units: field operations and support employees ("Teal Book"), distribution system operators, and transmission system maintainers and operators. YGS and Aquarion each have contracts with one bargaining unit for field employees. A new contract covering Customer Service Representatives ("CSRs") was initiated with the Eversource Energy Service Company ("EESC") in 2021.

10. Annual wage increases in the past two years have been 3% for each Connecticut union contract, except for Teal Book employees, who received a 3.5% general wage increase in 2022. The increases have been below consumer price inflation; however, they have been slightly larger than the 2.5% annual increases applied to management salary bands during the period. Although inflation trends appear to be easing, the gap between increases in consumer prices and wages over the past two years could introduce more risk in future wage negotiations with Eversource's unions.

11. Eversource appears to maintain effective working relationships with labor unions at the CT Companies.

12. With the exception of incentive compensation, Eversource and Aquarion management and represented employees participate in similar benefit plans, including medical and retirement plans, resulting in larger groups for greater cost efficiency. While pension plans have been frozen for many years, Eversource offers a company-funded contributory retirement plan, K-Vantage, in addition to 401(k) programs with matching funding.

13. The number of grievance claims from CL&P and YGS union employees filed annually has been relatively consistent since 2019, and none have reached arbitration, pointing to a strong working relationship with the unions. Aquarion reported no grievance claims since 2019. CL&P and YGS management hold frequent meetings with union officials covering topics such as work planning, training, and safety.

Workforce Planning

14. Vacancy rates at all three CT Companies and the EESC increased in 2022, consistent with industry trends. Higher vacancies are being caused by higher voluntary separations and retirements. Retention of CSRs has been particularly difficult for Eversource in the last two years. The CSR attrition rate was 9.94% in 2022 but is expected to ease somewhat in 2023.

15. A recent increase in retirements has led to the de-aging of Eversource's workforce. Eversource has seen a 5% decrease in the age 55+ cohort, while the proportion aged 19-44 has increased 10%.

16. Eversource has identified workforce acquisition and retention as a key enterprise risk. Eversource tracks relevant Key Risk Indicators ("KRIs") and has developed and implemented several mitigation initiatives such as a new talent acquisition strategy to improve hiring outcomes.

17. Succession planning at Eversource is performed by HR in collaboration with Eversource departmental leadership. Eversource has identified critical roles that are used in evaluating the workforce to identify "key talent" individuals and those who are ready for promotion. Aquarion does not have a formal succession planning program.

18. External contractor spending has been relatively flat at each of the CT Companies. Spending at the EESC has increased over the past couple of years due to the increased use of temporary labor and higher IT consulting expenses.

19. Non-storm overtime costs were slightly over budget at CL&P and YGS in 2022 but were consistent with previous years. Planned overtime is generally used to manage workload peaks.

Training and Development

20. CL&P and YGS technical training is provided by separate groups located within the Operations Services department. New hires in both electric and gas craft positions are trained using Time Merit Progression programs ("TMPs") consisting of on-the-job apprenticeships supported by formalized classroom training programs.

21. Eversource tracks required training issuances and completions in its learning management software. Tracking report data is incorporated into monthly scorecards for each Executive Vice President. CL&P and YGS have had near-100% training completion rates each of the past four years. Aquarion does not centrally track or report employee training.

22. Responsibility for monitoring the licensing of Eversource employees is decentralized based on functional area. Operations Services groups (Training and Fleet Services) oversee some federal and state licensing of employees. However, occupational licenses required by meter service mechanics are not monitored. Aquarion assigns monitoring of licenses to individual departments who use spreadsheets to capture licensing information.

23. Both CL&P and YGS have implemented enhanced training programs for field supervisors, many of whom are hired into the companies from outside the utility industry. Other recent improvements include a new curriculum for field engineering to address technology changes at CL&P and redesigns of pressure management and construction apprenticeship coursework at YGS.

Recommendations

HR Organization

1. Aquarion should expand their HR Key Performance Indicator ("KPI") tracking to include more metrics that are consistent with Eversource's corporate priorities, such as diversity hirings.

Workforce Planning

2. Aquarion employees should be incorporated into Eversource's succession planning program, where key talent is identified.

Training and Development

3. Aquarion should ensure that the SuccessFactors system, scheduled for implementation in 2024, will allow it to track the issuance and completion of training programs offered throughout the organization and provide sufficient monitoring capabilities to ensure Aquarion's training objectives are met.

4. Eversource should implement monitoring systems for all employees who require licenses to perform job functions, including occupational licenses. Aquarion should centralize license monitoring within HR and implement tracking system improvements such as those contemplated in SuccessFactors.

4.1. Organization and Structure

4.1.1. Eversource Human Resources Roles and Responsibilities

HR consists of five organizational groups headed by the Executive Vice President of HR and IT, Christine Carmody, who reports directly to the Eversource President and Chief Executive Officer ("CEO"), Joseph Nolan (see Chapter 1 for overall organizational structure). The executive leader of HR also oversees the IT function. From an organizational standpoint, the two functions are not typically combined, which is not considered a best practice. Given the prominence of IT's role in utility organizations, the head of IT should report directly to the Eversource CEO or Eversource Chief Operating Officer ("COO"). The IT organization is discussed further in Chapter 7. Figure 4-1 below shows the leadership of Eversource's HR function.

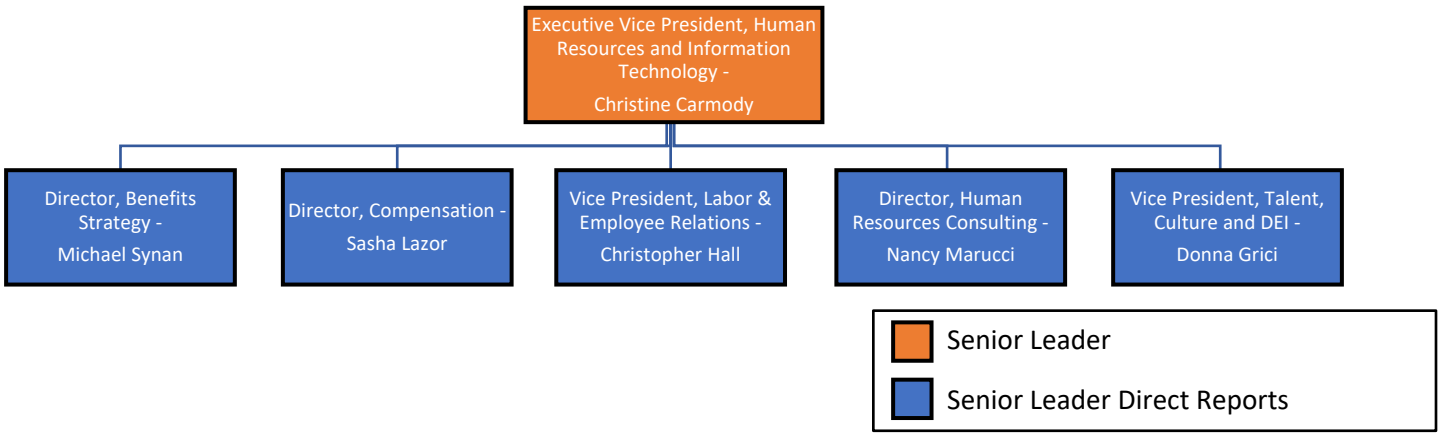


Figure 4-1 HR Organizational Leadership[2]

At the end of 2022, the HR department consisted of 88 staffed positions supporting Eversource's electric and gas utility subsidiaries in Connecticut, Massachusetts, and New Hampshire. The primary roles and responsibilities of each group are summarized below.[3]

Labor and Employee Relations

This group oversees Eversource's labor relations programs, policies, and procedures and leads the negotiation of collective bargaining agreements. It also administers grievance procedures including arbitrations and assists all levels of management on labor matters.

This group also supports management and employees regarding the implementation and guidance of employee relations policies, practices, and applicable laws. It provides investigation and consultation support regarding employee relations issues and administers corporate training and communication programs.

[2] Response to FTI-113, Att. 7(ES).
[3] Response to FTI-159.

Compensation

The group is responsible for the design, development, analysis, implementation, and administration of broadband and executive compensation programs (base pay and variable pay programs). It also conducts job analysis, job description development, job evaluation, and wage/salary survey activities.

Benefits, Leave Administration, and HR Operations

The Benefits group designs and develops benefits strategies and programs in retirement, health, and welfare areas that align with business objectives and meet legal requirements for all employee levels.

The Leave Administration group develops and oversees the administration of all leave programs related to the occupational and non-occupational employee absence programs. It manages compliance activities related to the Family Medical Leave Act, state-specific leave programs, and worker's compensation, as well as compliance with the Department of Energy's Federal Motor Carrier Safety Administration, Pipeline and Hazardous Materials Safety Administration, and other federal, state, and regulatory mandates.

The HR Operations group maintains the HR data within its IT systems, including the intranet HR portal, and manages the response team that addresses employee HR questions or issues.

Talent, Culture, and Diversity, Equity and Inclusion ("DE&I")

This group plans, directs, and implements the human capital, culture, engagement, and DE&I strategies. This includes talent acquisition, talent development, talent management/succession planning, high potential development, employee engagement, leadership development, foundational and technology training, and organizational change management for technology implementation.

HR Consulting

The group has a team of HR business partners who collaborate with Eversource departments to develop and drive a performance culture that is aligned with the Eversource corporate philosophy and direction. A business partner is dedicated to CL&P and another directly supports gas operations at all Eversource utility subsidiaries. Business partners are also assigned to Electric Engineering and Operations Services, which support CL&P operations.

4.1.2. Aquarion Human Resources

Aquarion's HR department is led by Brian Csizmadia, Director of HR, who reports to Lucy Teixeira, Aquarion's Vice President of Administration. The department is staffed with three full-time employees ("FTEs"). One has partial HR duties in addition to corporate KPI data collection and reporting. They are employed by Aquarion Water Company of Connecticut ("AWC-CT") but support all Aquarion water utility companies and provide all HR services, including compensation, benefits, labor relations, training, compliance, recruitment, and succession planning.

4.1.3. Human Resources Performance Metrics

The Eversource HR team uses KPIs to evaluate performance in a variety of areas. These KPIs and their results are shown in Figure 4-2.

In general, Eversource has met its performance targets. The target for one metric, Workforce Representation – Females, was lowered in 2022 after failing to be achieved in the prior three years. However, nearly all of the other KPI targets related to DE&I, including Diversity of Hires and Diversity Slate of Candidates for job openings, have been strengthened in the past few years, with Eversource meeting the higher thresholds.

The most apparent trend from Eversource's KPI results is the difficulty in talent retention, which is an industry-wide issue. Three of the four metrics that were missed as of October 2022 relate to workforce hiring and retention with performance worsening considerably in 2021 and 2022 (post-pandemic). Workforce retention is discussed more fully later in this chapter.

Aquarion also uses KPIs to measure performance, although with fewer and different metrics than Eversource. Aquarion's KPIs do not include DE&I or labor relations metrics (Aquarion has a small union workforce) but do include several metrics related to employee safety. The safety function is part of Aquarion's HR organization.

Recommendation: Aquarion should expand their HR KPI tracking to include more metrics that are consistent with Eversource's corporate priorities, such as diversity hirings.

Aquarion has seen a deterioration in safety metrics over the past couple of years, most notably in Occupational Safety and Health Administration ("OSHA") Incident Rate and Lost Time Incident Rate. Aquarion eased the employee turnover performance target during the pandemic years as the retention rates worsened.

4.2. Compensation and Benefits

4.2.1. Salaries and Wages

4.2.1.1. Salary Structure

Compensation policies and procedures at Eversource and Aquarion, while similar, are administered separately. Positions are defined by role and scope, essential functions, required technical knowledge, skills, education, and licenses or certifications necessary to successfully accomplish business tasks in a safe and compliant manner. At Eversource, a grading structure is used to classify each position for compensation purposes. Each grade has one or more salary bands within the matrix:[6]

- Director – 2 salary bands;
- Manager – 2 salary bands;
- Tech Lead/Supervisor – 2 salary bands;
- Individual Contributor – 3 salary bands;
- Non-Exempt Technical – 4 salary bands;
- Non-Exempt Clerical – 4 salary bands.

[6] Response to FTI-152, Att. 2(ES).

Aquarion does not assign positions to a job grade. Instead, Aquarion applies a salary band to each position.

The pay ranges used by Eversource and Aquarion contain a minimum, midpoint, and maximum salary. The compensation range found within each pay grade provides some variability in base compensation that considers many factors, including experience, performance, and seniority. Since 2019 Eversource's base salary range in each grade varied by 30%, with the minimum/maximum values at plus- or minus-15% of midpoint. Aquarion's ranges were slightly broader than Eversource, with minimum and maximum salaries varying by 20% from the midpoint.[7]

Employees receive merit increases based on annual performance assessment scores. However, salary bands are also adjusted to account for wage inflation. Between 2019 and 2022, salaries in all bands increased 2.5% annually at Eversource. Aquarion salary bands increased 2.8% in 2022, 1.9% in 2021 and variably between 2%-3% per position in 2020. Each employee's placement within the salary band varies based on their job requirements and historical merit increases. Taken as a whole, compensation within each band clusters near the median salary, as shown for CL&P, YGS, and the consolidated Eversource company in Figure 4-4.

Eversource, CL&P, YGS
Overall Position within Salary Bands

	Average Salary to Median											
	2019			2020			2021			2022		
Level	Eversource	CL&P	YGS	Eversource	CL&P	YGS	Eversource	CL&P	YGS	Eversource	CL&P	YGS
Director	98.1%	94.8%	94.6%	101.2%	97.7%	97.5%	100.8%	97.4%	97.2%	101.2%	97.8%	97.6%
Manager	102.4%	100.3%	101.6%	102.1%	100.0%	101.4%	101.4%	99.3%	100.6%	101.3%	99.1%	100.5%
Supervisor	100.7%	101.4%	100.8%	100.6%	101.3%	100.6%	100.6%	101.3%	100.7%	100.1%	100.8%	100.2%
Individual Contributor	99.9%	102.7%	101.4%	99.6%	102.4%	101.1%	99.6%	102.3%	101.1%	98.3%	101.0%	99.8%
Non-Exempt	105.0%	102.7%	102.5%	104.8%	102.4%	102.3%	104.2%	101.8%	101.7%	104.2%	101.9%	101.7%
Overall	**101.2%**	**100.4%**	**100.2%**	**101.7%**	**100.8%**	**100.6%**	**101.3%**	**100.4%**	**100.3%**	**101.0%**	**100.1%**	**100.0%**

Figure 4-2 Overall Salary Position Within Salary Bands[8]

The data above implies that actual salary increases awarded through the merit process have not materially diverged from Eversource's expectations based on its salary band adjustments.

Aquarion provided a different evaluation of their salary banding. An analysis of actual salaries for management employees to the median by position yielded the following, based on October 2021 information.

Median Range	No. of Employees	% of Total
> 110%	27	20.8%
100% - 110%	29	22.3%
90% - 100%	49	37.7%
< 90%	25	19.2%
Total	**130**	**100.0%**

Figure 4-3 Aquarion Management Salaries to Median Values[9]

[7] Response to FTI-199, Att. 1(ES/AQ) (confidential).
[8] Response to FTI-632, Att. 1(ES).
[9] Response to FTI-154, Att. 1(AQ).

While the majority of Aquarion management positions were near the midpoint, there were a significant number of employees that fell well above and below the median salary for their position.

4.2.1.2. Salary Benchmarking

Eversource relies on multiple compensation surveys to ensure that compensation levels are competitive with the market. Survey sources from the utility and general industry sectors include Willis Towers Watson and Mercer, although no formal studies were provided that compared Eversource salaries to market data. FTI benchmarked a job category from the 2022 Mercer study in Figure 4-6.

Level	Eversource Salary Band (A)			Market	% of
	Min	Mid	Max	Median (B)	Midpoint
Director	$ 184,323	$ 216,850	$ 249,378	$ 200,043	92.2%
Manager	$ 133,110	$ 156,600	$ 180,090	$ 156,850	100.2%
Supervisor	$ 110,075	$ 129,500	$ 148,925	$ 119,526	92.3%
Individual Contributor	$ 81,288	$ 95,633	$ 109,978	$ 97,936	102.4%
(A) Averge of all salary bands within each level (B) FTI selected the job title, "General Technical Project/Program Manager" from the Mercer Survey for comparison as this position would be relevant to CL&P and YGS.					

Figure 4-4 Eversource Market Salary Comparison, 2022[10]

Eversource's Compensation Policy states that it strives to be competitive within 10% of the overall market median for comparative companies in the utility industry.[11] While the Mercer study is not utility industry specific, the analysis above indicates that, for the sampled job category, Eversource met its objective of market comparability.

At Aquarion, each position is graded on a points scale based on job requirements and responsibilities. Aquarion obtains market data from a consultant that provides data on a comparable points scale. Figure 4-7 compares Aquarion's salary grades for selected positions to market data.

Job Description	Aquarion Salary Band		Market Data (A)		Variance
	Points	Midpoint Salary	Points	Average Salary	
VP Ops & Utility Innovation	1,142	$ 222,800	1,158	$ 231,200	3.8%
Mgr. Water Resources & Infrastructure	677	$ 153,100	674	$ 150,500	(1.7%)
Manager Water Quality	571	$ 134,500	566	$ 132,900	(1.2%)
Manager Supply & Pumping	479	$ 118,300	478	$ 117,500	(0.7%)
Supervisor Water Quality Field Ops	406	$ 105,500	404	$ 103,400	(2.0%)
(A) Weighted combination of data from "All Connecticut" and "All Energy/Utlities".					

Figure 4-5 Aquarion Market Salary Comparison, 2022[12]

The consultant report sources the market data to Korn Ferry. Aquarion's salary bands are designed to closely adhere to the market data it obtains.

[10] Response to FTI-199, Att. 1(ES) (confidential); Response to FTI-567, Att. 3(ES) (confidential).
[11] Response to FTI-152, Att. 2(ES).
[12] Response to FTI-199, Att. 1(AQ) (confidential); Response to FTI-633, Att. 3(AQ) (confidential).

4.2.2. Incentive Compensation

Eversource and Aquarion offer short-term incentive compensation awards to non-union employees under separate plans. Eversource sets metrics based on consolidated operating and financial results, while AWC-CT's plan is specific to the performance results of the Aquarion Company. Employees at the Director level and above in both Aquarion and AWC-CT are also eligible for long-term incentive awards. Eversource uses a mix of performance stock and restricted shares, while Aquarion has a cash-based plan. Incentive compensation expenses are summarized in Figure 4-8.

Incentive Compensation Expense, 2019-2022				
	Plan Year			
	2019	**2020**	**2021**	**2022**
Eversource				
Short-Term AIP	$ 56,808,577	$ 55,181,937	$ 58,751,968	$ 64,999,575
Long-Term Incentives	$ 17,124,500	$ 15,361,600	$ 16,956,600	$ 16,335,000
Total	**$ 73,933,077**	**$ 70,543,537**	**$ 75,708,568**	**$ 81,334,575**
Amounts Allocated to:				
CL&P	$ 15,828,293	$ 15,093,765	$ 13,563,973	$ 15,329,926
YGS	$ 3,532,687	$ 3,203,366	$ 2,738,764	$ 3,490,162
Aquarion				
Short-Term AIP	$ 1,404,779	$ 1,096,803	$ 1,225,596	$ 1,422,625
Long-Term Incentives	$ 537,625	$ 910,364	$ 1,153,288	$ 730,342
Total	**$ 1,942,404**	**$ 2,007,167**	**$ 2,378,884**	**$ 2,152,967**

Figure 4-6 Eversource Incentive Compensation Expense, 2019-2022[13]

Incentive compensation expenses at both Eversource and Aquarion have remained largely unchanged over the past few years. Short-term incentive compensation at Eversource has likely been affected by recent corporate acquisitions, which have increased Eversource's overall headcount. The plans are described more fully in the following sections.

4.2.2.1. Short-Term Incentive Plans

Eversource establishes a funding pool for its annual incentive plan ("AIP") based on the achievement of consolidated financial, operational and strategic goals. Incentive program awards to individual employees and employee groups are determined based on their eligible pay and target incentive levels, which progressively increase through the salary bands. The amounts are then adjusted up or down to use available funding based on management's assessment of their individual performance and contribution to overall results. Figure 4-9 provides an overview of the Eversource AIP structure.

[13] Response to FTI-571, Att. 5(ES/AQ).

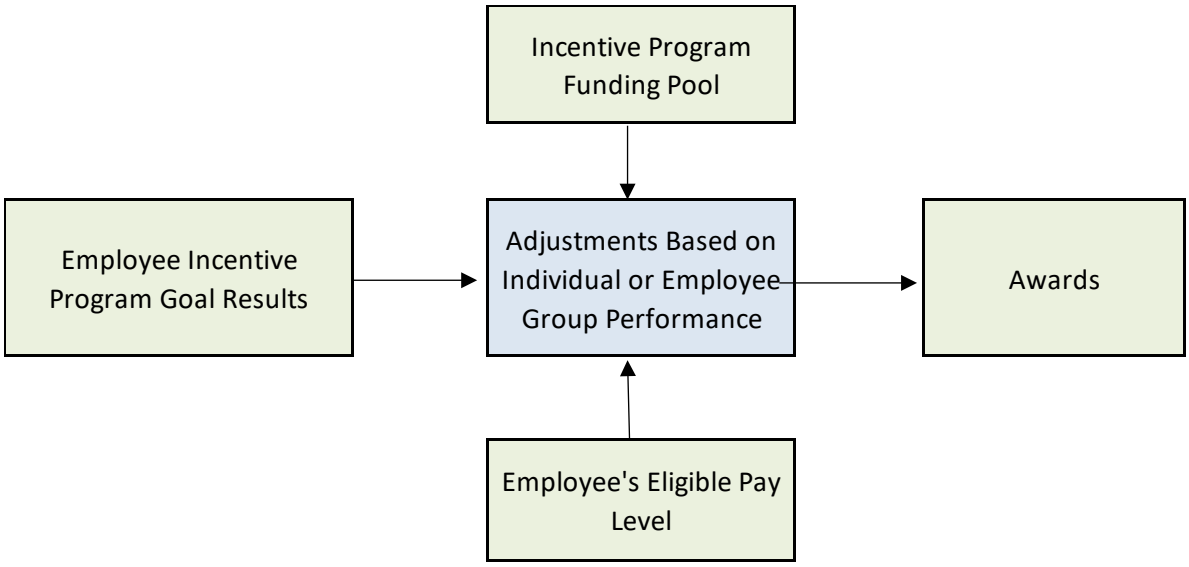


Figure 4-7 Eversource Annual Incentive Compensation Process Diagram[14]

Corporate performance goals are approved annually by the Eversource Board of Trustees Compensation Committee. The AIP is based 70% on financial performance and 30% on operational performance, with specific goals established in each overall area. Many of the goals require performance that exceeds industry standards, peer performance, or other external benchmarks in order to be achieved. The results are measured on a scale ranging from 50% to 200% of target achievement. The results of the 2022 AIP assessment are shown in Figure 4-10.

[14] Response to FTI-155, Att. 1(ES).

Category	2022 Goal	Performance Result	Assessment
Financial Performance Goals (70%)			
EPS	$4.06 per share	Non-GAAP EPS was $4.09 per share	170%
Dividend Growth	Increase dividend beyond industry average	Increased by $0.14 exceeding median industry average	160%
Strategic Growth Initiatives	Advancement of key strategic projects and regulatory outcomes	Successful integration of acquisitions; completion of rate cases; renewal project advancements	170%
Operational Performance Goals (30%)			
Reliability - Avg. Months Between Interruptions (MBI)	Achieve MBI of within 17.2 to 19.2 months	MBI was 19.5 months	175%
Days Away Restricted Time (DART)	1.0-1.4 DART	1.0 Dart	50%
Gas Service Response	95%-97% on time	97.8% on time	175%
Diverse Leadership	40%-45% diverse hires or promotions	45.1% diverse hires or promotions	175%
Sustainability Ranking	85th to 97th percentile vs. U.S. peer companies	89.5th percentile	125%
Enhance Customer Experience	Continued enhancement and efficient execution of Emergency Response Plan, CIS, and other programs	Implementations were successful and other customer facing enhancements were deployed.	125%
Clean Energy	Successfully advance and execute clean energy initiatives	Received permits for wind and solar projects; advanced electric vehicle infrastructure program; received national awards	150%
Overall Performance (based on weighted results)			**164%**

Figure 4-8 Eversource 2022 AIP Assessment[15]

AIP funding in recent years has been at the upper end of the range: 160% in 2021, 161% in 2020 and 188% in 2019. While payout percentages have declined overall since 2019, the high achievement levels over a multi-year period could indicate that performance targets could be strengthened.

Aquarion's short-term incentive plan mirrors Eversource's plan, but, as noted above, considers performance only for the water companies owned by Aquarion. Features of the plan include:[16]

- Incentivizing employee behavior towards achievement of goals and objectives outlined in business plans, such as financial achievement, customer service, and product quality;
- Ensuring the compensation structure supports Aquarion's ability to attract and retain employees;
- Weightings are 70% financial and 30% operational (similar to Eversource);
- Payouts are based on a sliding scale from 0% - 200% of target based on company results and employee performance appraisals.

Aquarion uses slightly different metrics that are tailored to its business. For example, because it is an Eversource subsidiary, Aquarion uses net income rather than earnings per share. Aquarion's performance categories are shown in Figure 4-11.

[15] Eversource Energy, Inc. 2023 Proxy Statement, p. 51-53.
[16] Response to FTI-155, Att. 1(AQ) (confidential).

Financial Performance		
	Category	**Overall Weighting**
Financial Performance	Net Income	70%
	Investment in Capital Expenditures	
	Strategic Initiatives and Regulatory Outcomes	
Operational Performance		
	Category	**Overall Weighting**
Service Quality	Service Quality Complaints	30%
	First Call Resolution	
	Transform the Customer Experience	
Product Quality	Water Quality Complaints	
	Water Quality Compliance	
Other	DART Rate	
	PMVA Rate	
	SIF (Serious Injury & Fatality)	
	Employee Turnover %	
	Diversity for promotion & new hires	
	Main Break Restoration Time	
	Non-Revenue Water	
	Environmental Compliance Index	

Figure 4-9 Aquarion Incentive Compensation Performance Goals[17]

4.2.2.2. Long-Term Incentive Plans

Eversource's Long-term Incentive Program ("LTIP") is intended focuses primarily on longer-term strategic goals and executive retention. The program bases awards on results over a forthcoming three-year period against predetermined targets. In 2022, incentive awards were issued for the 2020-2022 measurement period based on targets that were set in 2020. In addition, 2022 LTIP targets were authorized for the 2022-2024 measurement period. Like the AIP, the LTIP is overseen and approved by the Eversource Board of Trustees Compensation Committee (see Chapter 1 for more information on Eversource Boards and Committees).

The LTIP uses performance shares and restricted shares in a 75%-25% ratio for senior executives. Directors are eligible only for performance shares. Share grants are based on a percentage of annualized salary at the time of the grant, measured in dollars, with escalating percentages based on the seniority of the position. There are two performance measurements, both financial: Average Diluted Earnings per Share Growth ("EPSG") and Relative Total Shareholder Return ("TSR") measured against the performance of companies that comprise the Edison Electric Institute ("EEI") Index. The metrics form a matrix from which actual performance is determined.[18]

[17] Ibid (confidential).

[18] The percentages inside the grid represent LTIP award payouts as a percentage of targeted awards for various combinations of achieved EPSG and TSR.

2022-2024 Long-Term Incentive Program Performance Share Potential Payout										
	Three-Year Relative Total Shareholder Return Percentiles									
Three-Year EPS Growth	**Below 10th**	**20th**	**30th**	**40th**	**50th**	**60th**	**70th**	**80th**	**90th**	**Above 90th**
10.00%	110%	120%	130%	140%	150%	160%	170%	180%	190%	200%
9.00%	100%	110%	120%	130%	140%	150%	160%	170%	180%	190%
8.00%	90%	100%	110%	120%	130%	140%	150%	160%	170%	180%
7.00%	80%	90%	100%	110%	120%	130%	140%	150%	160%	170%
6.00%	70%	80%	90%	100%	110%	120%	130%	140%	150%	160%
5.00%	60%	70%	80%	90%	100%	110%	120%	130%	140%	150%
4.00%	40%	50%	70%	80%	90%	100%	110%	120%	130%	140%
3.00%	20%	40%	60%	70%	80%	90%	100%	110%	120%	130%
2.00%	-	10%	40%	60%	70%	80%	90%	100%	110%	120%
1.00%	-	-	20%	30%	50%	60%	80%	80%	100%	110%
0.00%	-	-	-	10%	20%	30%	40%	50%	60%	70%
Below 0%	-	-	-	-	10%	20%	30%	40%	50%	60%

Figure 4-10 Eversource LTIP Performance Share Award Matrix[19]

The EPSG target was strengthened beginning with the 2021-2023 plan. Growth rates in prior periods started at 0.5% and peaked at 9.5%, but now range from 1% to 10%. The 2020 – 2022 LTIP was completed on December 31, 2022. The actual performance level achieved was a three-year ESPG of 5.8% and a three-year TSR in the 45th percentile, resulting in a performance share issuance at 108% of target. Award levels in prior years were 156% of target in both 2020 and 2021, and 150% of target in 2019.

Each restricted share unit entitles the holder to receive one common share at the time of vesting, which occurs in equal installments over three years. The number of shares is computed as a percentage of salary, multiplied by the performance achievement percentage (as illustrated in Figure 4-9). The payout is converted to common share equivalents by dividing the grant value by the average stock closing price over the previous 10 trading days prior to the date of the grant. Restricted share unit grants at the 100% target level were approved for 2020, 2021, and 2022.[20]

Aquarion's LTIP provides employees at the Director level and above with annual cash grants that vest after a three-year period. The plan used two metrics in 2022 and prior years:

- Rate Base Growth (70% weighting);
- Net Income Growth (30% weighting).

The measurements were revised for 2023. Net income growth has been eliminated and replaced with a series of operational metrics (i.e., service and water quality complaints and main break restoration of service). The new metric is weighted at 30%.

4.2.3. Employee Benefits

Eversource and Aquarion offer benefit packages commensurate with other large utility companies, both in the breadth of benefits available and in coverage levels. A summary of insurance benefits provided by Eversource is shown in Figure 4-13.

[19] Eversource Energy 2023 Proxy Statement, p. 56.
[20] Ibid, p. 57.

Employee Benefits - Insurance Programs	
Benefit Offering	**Description**
Medical Plan	Offers two PPO plans and a Saver plan that qualifies as a high-deductible health plan allowing for HSA contributions. Prescription drug coverage is also provided.
Dental Plan	Two dental coverage options are offered with different benefit levels.
Vision Plan	Routine vision care benefits, including medically necessary treatments relating to eye disease or injury.
Flexible Spending Accounts	Employees may elect to participate in a health FSA or dependent care FSA and use payroll deductions to fund the accounts.
Long-Term Disability	Eversource provides all eligible employees with a level of LTD coverage at no cost, with benefits varying by utility subsidiary and union membership. Certain employees have the option to increase coverage with an additional premium charge.
Life and AD&D	Employees may elect to purchase life insurance and AD&D insurance for themselves and for their dependents.

Figure 4-11 Eversource Employee Benefit Insurance Program Summary[21]

Aquarion offers medical, prescription, dental and vision plans to their employees. In addition, they offer life insurance coverage at no cost to the employee, as well as sick leave and short-term and long-term disability programs.

Most Eversource employees participate in defined contribution plans, although longer-tenured employees remain eligible for defined benefit pension plans. Pension plans were closed to new management employees by 2006 and union employees by 2011, with actual dates varying by utility company and pension plan.[22]

Eversource currently administers two retirement plans that apply to both union and non-union employees. The first is a traditional 401(k) in which employees may make pre-tax contributions to a traditional plan or post-tax contributions to a Roth 401(k) account. Eversource provides a 100% company match up to 3% of salary and a 50% match of up to 8% of salary for legacy employees of NSTAR.

Eversource also makes non-elective employer contributions under a separate retirement program known as K-Vantage, which was established when Eversource froze its pension plans. Contribution amounts are determined using a funding formula based on the employee's age plus years of service.

K-Vantage Contribution Formula	
Age Plus K-Vantage Service	**% of K-Vantage Pay**
Less than 40	2.5%
40 or more but less than 60	4.5%
60 or more	6.5%

Figure 4-12 Eversource K-Vantage Contribution Formula[23]

[21] Response to FTI-152, Att. 7(ES).
[22] Interview with Compensation & Benefits panel, Eversource Energy, May 25, 2023. Management noted that a small group of EGMA employees with a cash balance plan were recently added to the Eversource pension in connection with that utility's acquisition.
[23] Response to FTI-152, Att. 4(ES).

As with other employee benefits, Aquarion's retirement program is separate from Eversource's. Aquarion has a 401(k) defined contribution plan for union and non-union employees with a higher company match (100% up to 6% of salary), but no other program such as Eversource's K-Vantage. Aquarion does not have any defined benefit retirement programs for employees union employees hired after 2009 and management employees hired after 2011..

Eversource uses Willis Towers Watson's BenVal Survey to benchmark its benefit offerings with the utility segment of the study and comparable revenue group. The BenVal survey is conducted every other year, with the latest survey conducted in 2021. The most recent survey results are summarized below.[24]

- In 2021, Eversource ranked 7 of 13 utility peers for benefit programs for its salaried workforce and 5 of 13 utility peers in the union ranking. The combined non-union employee benefit program value was 100.19% of the average value, where the utility group ranged from 88.05% to 111.93%. The combined union employee-benefit program value was 101.16% of the average value with the utility group range from 87.14% to 112.16%.
- In 2019, Eversource's combined value for the non-union benefit program was 102.85% of the average value with the utility group ranging from 89.09% to 112.88%. The union employee-benefit program value was 110.19% of average with the utility group ranging from 82.03% to 133.62%.

4.3. Labor Relations

Labor relations at CL&P and YGS are overseen by Eversource's Vice President of Labor and Employee Relations. The labor relations function is headed by a Labor Relations Manager, who is responsible for eastern Massachusetts utilities, and a Labor Relations Director, who is responsible for all other Eversource utilities, including CL&P and YGS. Labor relations responsibilities at Aquarion are assigned to the Director of HR.

4.3.1. Labor Contracts

Union employees at CL&P and YGS are represented by the International Brotherhood of Electrical Workers ("IBEW") while Aquarion employees are represented by the Utility Workers Union of America. The contracts are listed below in Figure 4-15 along with their contract expiration dates.

Summary of Connecticut Utility Union Contracts							
			Employee Count				Contract
Company	Bargaining Unit	Covered Employee Groups	12/31/19	12/31/20	12/31/21	12/2/22	Expiration
CL&P	IBEW Locals 457 and 420	"Teal Book" employees including meter reading, field operations, maintenance and operations support	1,069	1,105	1,095	1,111	6/1/2026
CL&P	IBEW Local 457	Distribution system operators ("DSO")	46	34	41	41	10/1/2024
CL&P	IBEW Local 457	CONVEX employees - transmission system maintenance and operations	32	34	32	33	9/1/2024
Eversource Energy Services Co.	IBEW Local 457	Customer service representatives	-	-	180	170	4/1/2024
YGS	IBEW Locals 457 and 420	Administrative, system maintenance, meter reading, operations support	298	304	308	325	12/1/2026
Aquarion	Utility Workers Union Local 384	Utility operations, maintenance	24	24	24	24	3/31/2020
Employee Count Totals			**1,469**	**1,501**	**1,680**	**1,704**	

Figure 4-13 Summary of Unions, Company Organizations, and Number of Employees[25]

[24] Response to FTI-567.

[25] Response to FTI-190; Response to FTI-190, Att. 1(CLP/YGS).

Material changes to the union contracts (other than salaries, benefits, and reimbursement rates) in the past few years have included the following:[26]

- A new bargaining unit for CSRs was established in July 2021 at Eversource's Windsor, Connecticut customer contact center.
- Field Communications Support and Meter Reading Support positions, which had not previously been covered under union agreements, were added to the Teal Book agreement in 2019. Additional changes included revisions to rest time eligibility, enhancements to the Line Helper TMP, and expansion of the Response Specialist and Reliability Shift Electrician organizations to 24/7 coverage.
- Certain maintenance and operational positions at YGS' Liquified Natural Gas ("LNG") facility were added to the union contract in December 2018.
- In the December 2022 agreement, YGS and its union implemented a shift schedule for nighttime and weekend coverage for Meter Service employees and established an 18-month Field Training Program for Meter Service, Maintenance, and Construction departments.
- Exempt employees covered under the CONVEX contract moved to a "fixed step" pay scale from a "pay for performance" mechanism beginning in September 2017. [27]

Represented water utility employees in Connecticut are covered under an agreement between AWC-CT and the Utility Workers Union of America (AFL-CIO Local No. 384). Aquarion's union agreement expired on March 31, 2020, but has remained in force through agreement letters which extended the term through March 31, 2023. An updated agreement was expected to be executed by the end of June 2023.[28]

4.3.2. Management-Union Relationships

Eversource appears to maintain effective working relationships with labor unions at the CT Companies. The CL&P labor agreement with Teal Book employees sets forth a joint labor-management committee to address work issues. Although this committee hasn't been formalized with meeting agendas or minutes, the intent of this contract provision is achieved through other contacts. Union leadership meets at least once per month with Operations Vice Presidents and Directors to discuss topics such as the work plan and workforce development and training. Union leadership also participates in a monthly safety meeting with Labor Relations and Safety Department management. In addition, union leaders attend annual meetings with Operations leadership and the Labor Relations group to review the accomplishments of the previous year and discuss the business plan for the upcoming year.

YGS and union leadership meet at least quarterly on a variety of topics similar to those covered by the Teal Book joint committee. Union leaders also attend monthly safety meetings and participate in annual reviews with YGS management, similar to CL&P.

Aquarion does not have recurring formal meetings with its union but engages union leadership on a periodic basis to review safety, labor relations, and any other open items.[29]

[26] Response to FTI-603.
[27] The collective bargaining agreement for transmission system operators and engineering technicians is with Connecticut Valley Electric Exchange ("CONVEX").
[28] Response to FTI-604.
[29] Response to FTI-602.

4.3.3. Union Wages and Benefits

Eversource monitors union settlements within the industry and geographic area to benchmark wages within its service territories. Wage increases over the past few years, shown in Figure 4-16 below, are generally consistent year-to-year and are stipulated in multi-year labor agreements.

Annual Union Wage Increases, 2019-2022				
	General Wage Increase (1)			
Union Contract	**2019**	**2020**	**2021**	**2022**
Teal Book (CL&P)	3.25%	3.00%	3.00%	3.50%
CONVEX (CL&P)	2.75%	2.75%	3.00%	3.00%
DSO (CL&P)	2.75%	2.75%	3.00%	3.00%
YGS	3.00%	3.00%	3.00%	3.00%
Aquarion	3.00%	3.00%	3.00%	3.00%
(1) Effective dates vary by contract. Amounts reflect wage increases that were implemented in each calendar year.				

Figure 4-14 CT Company Union Wage Increases, 2019-2022[30]

Wage increases for CSRs at the Windsor customer contact center are determined using a pay-for-performance model, rather than a flat wage increase.

Although inflation trends appear to be easing, the gap between increases in consumer prices and wages over the past two years could introduce more risk in future wage negotiations with Eversource's unions.

Union employees at the CT Companies participate in the same benefit plans as management employees, with the exception of incentive compensation programs. Combining union and management employees into a single participant group maximizes cost efficiencies for insurance offerings, although Aquarion's benefit offerings are not integrated with Eversource.

Eversource union employees have access to a 401(k) program with company match, as well as the K-Vantage Plan, which provides additional employer retirement payments into a contributory plan. Aquarion union employees' retirement benefits are provided through a 401(k) with employer match. Defined benefit pension plans have been frozen for new Eversource employees since at least 2016.

4.3.4. Time Reporting and Approvals

CL&P, YGS, and EESC union employee time is recorded in Eversource's Workforce time entry system in different ways. Field employees use the ClickMobile system, which records start and stop times for each work order. ClickMobile interfaces directly with Workforce to record time per work order. Company timekeepers will then "finish" the time entered in this manner to record incidentals such as meals. Union employees who do not use ClickMobile submit a manual timesheet (on paper or electronically) that a timekeeper inputs directly into Workforce. Also, some union employees (including CONVEX and Distribution System Operator ("DSO") employees) input their time directly into Workforce, without using a timekeeper. Finally, CSRs at the Windsor, Connecticut call center do not submit time in Workforce because their work distribution rarely changes. Default time codes interface directly into Workforce each week and only require an edited timesheet for overtime or

[30] Response to FTI-599.

unplanned work changes. Aquarion employees (union and non-union) directly enter their time into the same system, SAP SuccessFactors.[31]

Time reports are reviewed and approved by operations supervisors or managers in virtually all cases. Payments to union employees outside of this process are rare and would include grievance settlements and safety equipment reimbursements.

4.3.5. Performance Reviews

Union employees at all utilities, including Aquarion, are evaluated annually on criteria such as safety, quantity and quality of work, teamwork, dependability, customer focus, and initiative. Employee reviews are captured in Workday (for CL&P and YGS) or SuccessFactors (for Aquarion).

The annual wage increase for Windsor customer contact employees and eligibility for promotions within CSR job classifications are based on performance ratings. For other union positions, performance ratings do not impact compensation.

4.3.6. Grievance Claims

Grievance claims at Eversource's CT Companies have declined in each of the past two years. On average, between 2019 and 2021, one claim was filed per 36 union employees annually at CL&P, while YGS averaged 1 grievance annually per 34 employees. Aquarion has not had a grievance claim since 2017.[32] Grievances by year and union contract are summarized in Figure 4-17.

[31] Response to FTI-601.
[32] Response to FTI-157.

Grievances most often relate to denials of meals or overtime, or use of contractors and employee discipline. While many of the claims are resolved in a timely manner, discipline issues typically take longer to formally resolve. Most of the open claims from 2021 and earlier periods are disciplinary issues, and while the underlying issues have been addressed, they cannot formally be closed without union approval.[34]

4.4. Workforce Planning

4.4.1. Workforce Planning Overview

Workforce planning for CL&P and YGS is accomplished as part of the annual budget process, which aligns the requirements of the business with the financial outlook. The integration of workforce and financial planning mitigates constraints on future staffing levels because prioritized operational needs (including staffing levels) are incorporated into the annual planning process.[35]

The workforce planning process is a proactive approach that considers business strategy and future talent requirements. In addition to annual budgeting, the process goes beyond current needs to cover longer-term, multi-year planning. HR works in conjunction with the Eversource utilities annually to confirm business strategy, projected attrition, talent implications, talent gaps and strategies to fill those gaps. As a result of this process, insights are gained across the organization to make strategic decisions on organizational design, redeployment, and outsourcing.[36]

Workforce requirements at Aquarion are reviewed by the Aquarion President. The total labor costs and headcount are reviewed at the consolidated level as part of Aquarion's total operating and capital plans. Aquarion has had a consistent headcount related to its ongoing operations for many years, with increases related primarily to acquisitions. Temporary workload increases due to capital projects, targeted maintenance programs, or system redesigns are typically addressed through contractors.[37]

4.4.2. Workforce Status

Authorized workforce levels at the CT Companies have remained stable over the past few years except at the service company, where acquisitions have driven headcount increases to support new subsidiaries. Although each of the CT companies employed more persons in 2022 than 2019, vacancy rates have increased at all companies except YGS. Staffing levels are summarized in Figure 4-18.

[34] Interview with Vice President, Labor and Employee Relations, Eversource Energy (Christopher Hall), May 9, 2023.
[35] Response to FTI-164.
[36] Response to FTI-163.
[37] Ibid.

Vacancy Rates by Company, 2019-2022				
	December 31,			
	2019	2020	2021	2022*
CL&P:				
Open Postions	49	38	54	66
Filled Positions	1,343	1,386	1,381	1,417
Total Authorized Positions	1,392	1,424	1,435	1,483
Vacancy Rate	**3.6%**	**2.7%**	**3.9%**	**4.7%**
YGS:				
Open Postions	49	13	20	17
Filled Positions	374	404	400	385
Total Authorized Positions	423	417	420	402
Vacancy Rate	**13.1%**	**3.2%**	**5.0%**	**4.4%**
EESC:				
Open Postions	226	277	457	614
Filled Positions	3,135	3,365	3,336	3,554
Total Authorized Positions	3,361	3,642	3,793	4,168
Vacancy Rate	**7.2%**	**8.2%**	**13.7%**	**17.3%**
Aquarion:				
Open Postions	9	2	-	21
Filled Positions	307	308	329	319
Total Authorized Positions	316	310	329	340
Vacancy Rate	**2.9%**	**0.6%**	**0.0%**	**6.6%**
* CL&P, YGS and EESC: Open positions as of 11/30/22 and staffed positions as of 9/30/22. Aquarion: 2022 data as of 9/30/22.				

Figure 4-15 CT Utility and EE Service Company Vacancy Rates, 2019-2022[38]

Vacancy rates have grown modestly at all CT Companies but increased considerably at the EESC. The vacancies were most acute in the IT and Customer Service areas. The root cause of the increase in vacancy rates is a large increase in employee resignations and retirements, as shown in Figure 4-19, whose trends largely mirror the open vacancies.

[38] Response to FTI-113, Atts. 1-4(ES); Response to FTI-158, Att. 1(ES/AQ).

Employee Separations, 2019-2022				
	2019	**2020**	**2021**	**2022 ***
CL&P:				
Involuntary	13	12	18	13
Voluntary (non-retirement)	18	10	26	27
Retirements	42	39	57	54
Total	**73**	**61**	**101**	**94**
YGS:				
Involuntary	9	2	8	5
Voluntary (non-retirement)	11	4	8	6
Retirements	8	8	4	13
Total	**28**	**14**	**20**	**24**
Aquarion:				
Involuntary	3	18	5	6
Voluntary (non-retirement)	7	10	18	25
Retirements	16	16	9	9
Total	**26**	**44**	**32**	**40**
EESC				
Involuntary	38	31	38	44
Voluntary (non-retirement)	106	98	231	272
Retirements	96	80	139	148
Total	**240**	**209**	**408**	**464**
* 2022 data through November.				

Figure 4-16 CT Company and EESC Employee Separations, 2019-2022[39]

Eversource's analysis of workforce trends in September 2022 noted the following:[40]

- The acceleration in retirements has led to a 5% decrease in the proportion of the workforce aged 55+ at a consolidated Eversource level, while the proportion aged 19-44 has increased 10%. Ages 55+ represented 40% and 25% of the workforces at CL&P and YGS, respectively.
- Prior to 2020, Eversource experienced attrition rates around 6%. The pace of retirements increased during the pandemic (2020-2021), but at the consolidated Eversource level, voluntary separations overtook retirements in 2022. The 2022 enterprise-wide attrition rate was 9.94% and is expected to ease to 8.3% in 2023 due to changing economic conditions.[41] Attrition rates at CL&P and YGS remain elevated from 2019 and earlier periods, although at lower levels than Eversource's consolidated results.
- Aquarion's attrition rate for 2022 was 10.5% and the projected attrition rate for 2023 is expected to be in the 8-10% range. It has been in this range since 2020 due to the higher retirements due to an aging workforce. Aquarion expects the attrition to continue in this range for the next few years.[42]

The elevated attrition has received attention at the corporate level. Eversource has identified and continues to monitor an enterprise risk related to its workforce:

[39] Response to FTI-193.
[40] Response to FTI-156, Att. 4(ES); Response to FTI-617, Att. 1(CLP/YGS).
[41] Response to FTI-618.
[42] Ibid.

Challenges in acquiring, retaining and engaging diverse, capable talent in critical roles to safely execute our business plan in a competitive talent marketplace.[43]

The risk encompasses both employee retention and diversity, with KRIs that include staffing FTEs, retention (company-wide) and key talent, new hires, and CSR retention. The April 2023 update showed that all KRIs were on target, with the exception of the latter metric. While key talent retention met expectations, trailing 12-month new hire attrition was 5.1%, above the 4% target, and the CSR turnover rate was 29.5% versus a target of 22%. Eversource noted that CSR turnover in 2023 was trending lower from a 31.4% rate at the beginning of the year.[44]

Eversource has developed mitigating initiatives to address the workforce enterprise risk. In November 2022, Eversource released its Enterprise Talent Acquisition Strategy to optimize the hiring process across the organization. The plan encompasses activities to meet the following strategic priorities:

- Proactively partner with the business to meet talent requirements;
- Update branding to attract and retain top talent to Eversource;
- Leverage new technologies and data to increase optimal outcomes;
- Enhance current sourcing pipeline to develop a strong applicant pool;
- Focus on business and candidate experience.[45]

Furthermore, Eversource has added and improved employee benefit offerings for 2023. Non-union benefit changes include adoption and fertility coverage, select Paid Time Off ("PTO") increases, and increased tuition reimbursements. Enhancements available to all employees include medical plan coverage for hearing aids, identity theft protection, and discounted home and automobile insurance offerings.[46]

4.4.3. Succession Planning

Eversource uses an enterprise-wide annual talent review process that identifies high-potential talent and critical impact roles, including those at CL&P and YGS. A critical impact designation could be due to a high degree of technical expertise, a long training lead time, a skillset with market scarcity, a high turnover risk, or an essential role in executing business strategy. The positions identified as critical roles have not changed since 2019. Aquarion uses similar criteria to identify critical positions.[47]

[43] Response to FTI-623, Att. 1(ES) (confidential).
[44] Response to FTI-623.
[45] Response to FTI-624, Att. 2(ES).
[46] Response to FTI-625, Atts. 1-2(ES).
[47] Response to FTI-177.

Eversource Critical Roles		
CL&P	**YGS**	**Aquarion**
Distribution Engineer	Gas Distribution Mechanic	Supply Operations
Engineering Director	Gas Distribution Tech	Distribution
Engineering Manager	Gas I&R Tech	Water Quality
Engineering Supervisor	Gas Meter Service Mechanic	Information Technology
P&C Engineer	Gas Ops Director	
Substation Design Engineer	Gas Ops Manager	
Substation Technical Engineer	Gas Ops Supervisor	
System Planning Engineer		
Telecom Engineer		
Transmission Line Engineer		
Electric Ops Director		
Electric Ops Manager		
Electric Ops Supervisor		
Field Engineer		
Overhead Craft		
Stations Craft		
T&D Dispatch Supervisor		
T&D Dispatcher		
Test Technician		
Underground Craft		

Figure 4-17 Eversource Critical Roles[48]

In addition to role-based evaluations, Eversource's succession planning evaluates employees using a comprehensive, spreadsheet-based model. Management employees assess their direct reports using an HR-provided template in seven areas:[49]

- Performance
- Potential
- Critical Role
- Retention Risk
- Talent Indicator
- Readiness
- Mobility

The assessments are used to identify "key talent" in the organization, which is ultimately the decision of departmental leadership in their respective areas. Eversource defines key talent as "high potential employees with medium/high performance in their job, who demonstrate leadership and want to learn and do more – potential successors and cross-functional contributors."[50]

HR uses tools such as tuition assistance programs, paid internships, and other pipeline development programs to foster growth in workforce technical skills and competencies. In addition, key talent may receive growth opportunities such as stretch assignments, high-impact cross-functional team memberships, senior management interaction and exposure, targeted coaching and feedback, and diverse learning experiences.[51]

[48] Response to FTI-177; Response to FTI-622, Att. 1(ES).
[49] Response to FTI-621, Att. 2(ES) (confidential).
[50] Ibid.
[51] Response to FTI-177.

Talent assessments are usually performed every 18 months but were paused in 2020 due to the COVID-19 pandemic. The succession planning process has not materially changed in the last few years. The following observations were made during the 2022-23 key talent assessment:[52]

[redacted]

Aquarion does not have a formalized process for succession planning.[54] The last succession planning exercise occurred in 2017 and led to the creation of an internship program in the Supply Operations Division. Since 2018, the program has resulted in 15 full-time permanent hires throughout the organization.[55]

Recommendation: Aquarion employees should be incorporated into Eversource's succession planning program, where key talent is identified.

4.4.4. Contractor Workforce

CL&P's Integrated Planning and Scheduling group, with input from Engineering and the Field Operations/Projects groups, determines internal/external resource allocations. A gap analysis is conducted to assess internal crew availability. Work is assigned until the internal resource schedule is full, with the balance of the work outsourced to contractors. Projects over $250,000 follow a competitive bid solicitation process involving contractors from Eversource's preferred vendor program (known as Contractor of Choice).

YGS utilizes internal employees to perform many routine ongoing maintenance and operating activities. Third-party contractors support seasonal construction needs, perform routine compliance leak survey inspections, and assist with the installation of meter protection and planned cast iron bell joint encapsulations. The use of third-party contractors enables YGS to align the total number of resources needed to complete its annual work plans with a combination of full time and seasonal workers and address temporary peaks in workload. Contractors are also used when specialized equipment is required.

Aquarion's internal workforce has remained at constant levels for many years, other than the increases related to acquisitions. As a result, contractor usage provides supplemental resources for discrete projects, such as required meter changes and dunning, which also have a regulatory compliance component. Aquarion also hires contractors for certain project work that requires a specialized skill that is difficult to source or not available internally. Additionally, Aquarion has for many years utilized construction contractors to provide services related to main breaks, which allows Aquarion crews to focus on breaks across its territory. Aquarion has agreements with several construction contractors to ensure there is sufficient coverage across its service territory to respond to breaks in a timely and cost-efficient manner. Contractor expenditures are summarized in Figure 4-21.

[52] Response to FTI-621, Att. 3(ES) (confidential).
[redacted]
[54] Response to FTI-621.
[55] Response to FTI-176.

Contractor Expenditures, 2019-2022 YTD				
(in thousands)	**CL&P**	**YGS**	**Aquarion**	**EESC**
2019	$ 487,520	$ 179,891	$ 1,153	$ 692,385
2020	$ 408,445	$ 152,904	$ 935	$ 758,465
2021	$ 516,981	$ 163,883	$ 1,035	$ 947,207
2022 (to Nov.)	$ 497,482	$ 178,813	$ 776	$ 1,018,919

Figure 4-18 Contractor Expenditures, 2019-2022 YTD[56]

Contractor costs for all three CT Companies have been relatively flat during the past three years. Costs at the EESC rose, in part due to expanded use of Randstad, a vendor that supplies and manages temporary labor across Eversource's various utility subsidiaries. In addition, IT contractor services increased during the period, as did prescription drug expenses, which are self-insured by Eversource. CL&P and YGS have not increased contractor usage due to internal workforce limitations (such as during the pandemic). Aquarion has recently seen a rise in temporary workforce usage due to increased employee turnover.[57]

4.4.5. Connecticut Company Overtime

CL&P and YGS overtime budgets are designed to minimize its use where possible. The number of internal resources employed by CL&P or YGS is based upon forecasted work volumes. Overtime is used primarily to manage workload peaks. CL&P and YGS use discretion in deciding whether to staff incremental work with internal resources on overtime or use outside contractors.[58]

The Investment Planning group prepares biweekly and monthly overtime reports for CL&P and YGS, comparing budget and actual overtime for review by Operations group leadership. On a monthly basis, overtime data is presented to the CL&P and YGS Presidents and the Eversource Senior Team (including the Eversource COO) that compares year-over-year capital and expense overtime and premiums paid, as well as a budget to actual comparison. In addition, various ad hoc analysis is done throughout the year as requested by CL&P and YGS leadership.[59]

Aquarion employees work overtime on a rotating basis, based on previously accumulated overtime. Overtime may be incurred in plant operations, meter reading, periodic meter changing, credit, garage maintenance, or on special projects. Department Directors evaluate the work planned for a particular year and determine the resourcing needed to accomplish their goals, and whether existing staffing (with overtime) is adequate. Headcount increase requests are discussed with the departmental Vice President and the HR Director. The President of Aquarion approves any headcount additions.[60]

Aquarion began tracking overtime as a KPI in 2022. As part of the payroll budget process, each department leader is responsible for budgeting overtime.

Overtime results for all CT Companies are summarized in Figure 4-22.

[56] Response to FTI-192, Att. 1(ES/CLP/YGS/AQ).
[57] Response to FTI-172.
[58] Response to FTI-169.
[59] Response to FTI-196.
[60] Response to FTI-169.

Overtime Expense to Budget, 2019-2022												
	2019			2020			2021			2022		
(in millions)	Actual	Budget	Variance	Actual	Budget	Variance	Actual	Budget	Variance	Actual	Budget	Variance
CL&P:												
O&M	$ 11.3	$ 10.6	$ 0.7	$ 7.1	$ 9.0	$ (1.9)	$ 9.2	$ 8.1	$ 1.1	$ 8.3	$ 7.8	$ 0.5
Capital	$ 9.6	$ 8.6	$ 1.0	$ 6.4	$ 9.6	$ (3.2)	$ 7.9	$ 7.2	$ 0.7	$ 10.5	$ 8.2	$ 2.3
Total - CL&P	**$ 20.9**	**$ 19.2**	**$ 1.7**	**$ 13.5**	**$ 18.6**	**$ (5.1)**	**$ 17.1**	**$ 15.3**	**$ 1.8**	**$ 18.8**	**$ 16.0**	**$ 2.8**
YGS:												
O&M	$ 3.5	$ 3.0	$ 0.5	$ 2.7	$ 3.1	$ (0.4)	$ 2.5	$ 3.1	$ (0.6)	$ 3.3	$ 2.3	$ 1.0
Capital	$ 3.3	$ 2.2	$ 1.1	$ 3.3	$ 2.3	$ 1.0	$ 3.8	$ 3.3	$ 0.5	$ 4.4	$ 3.7	$ 0.7
Total - YGS	**$ 6.8**	**$ 5.2**	**$ 1.6**	**$ 6.0**	**$ 5.4**	**$ 0.6**	**$ 6.3**	**$ 6.4**	**$ (0.1)**	**$ 7.7**	**$ 6.0**	**$ 1.7**
Aquarion:												
O&M	$ 1.8	$ 1.5	$ 0.3	$ 2.3	$ 1.8	$ 0.5	$ 2.0	$ 1.9	$ 0.1	$ 2.2	(A)	(A)
(A) Aquarion did not provide OT budget amounts for 2022.												

Figure 4-19 Overtime Expense to Budget, 2019-2022[61]

CL&P reported that budget overages in 2022 for Operations and Maintenance ("O&M") overtime were caused by shift coverage, emergent work, and safety compliance, while the capital overtime variance was due to emergent and damage work. YGS O&M overages related to leak repair, odor response, and LNG work. Customer-driven work accounted for capital overtime variance at both CL&P and YGS in 2021.

4.5. Training and Development

4.5.1. Training Organization

The technical training function at CL&P and YGS is housed within Eversource's departments. Training programs for field employees report through the Vice President of Operations Services, while systems operations training reports through the Vice President of Electric Systems Operations. Staffing levels for field training are shown in Figure 4-23.

Field Training Personnel (CT Elec. & Gas Utilities)			
Position	**CL&P Field**	**YGS Field**	**Electric Systems Ops**
Director	1	1	1
Manager	3	2	-
Supervisor	21	8	4
Total	**25**	**11**	**5**
Note: Director and Manager positions may also support utilities outside Connecticut.			

Figure 4-20 Field Training Personnel (CT Elec. & Gas Utilities)[62]

At CL&P, the Director of Field Training oversees field training programs, supported by two Managers. The Electric Training organization is responsible for the training and qualifications of all CL&P employees in Overhead, Underground, Electric Meter Service, Stations, and Electric Design groups. This organization also provides training for Field Testing and Communications and one position dedicated to supervisory training.

[61] Response to FTI-167; Response to FTI-620; Response to FTI-167, Att. 1(AQ); Response to FTI-575, Att. 1(AQ).

The Gas Training organization, led by a Director and two dedicated Managers, is responsible for the training and qualifications of approximately 400 YGS employees in Maintenance, Construction, Meter Service, Instrumentation and Regulation ("I&R"), Damage Prevention and Engineering, and Operator Qualification ("OQ"). Two additional managers outside of Connecticut also partially support YGS training activities.

The System Operations Training group manages the technical training requirements for the CL&P Distribution Operators, who are individuals that need the ability to switch and tag on the Eversource electrical system, and individuals who require access to the Outage Management System. The training organization has four dedicated instructors that oversee and implement the applicable training programs in Connecticut.[63]

Aquarion does not have a centralized training program. The HR Department requires training for compliance and non-compliance training on an annual basis The individual departments are responsible for providing their own set of training based on the group's individual needs and requirements for their specific licenses and qualifications.[64]

4.5.2. Training Course Content

4.5.2.1. New Hire Training

CL&P uses TMPs for new hire training. TMPs provide the skills to achieve qualified mechanic or technician status through a formal apprentice training program. The length of the program varies by discipline from 48 to 96 months. The TMP is comprised of on-the-job training supported by formalized training programs. TMPs are used for the following disciplines:

- Overhead Lineworker;
- Underground Splicer;
- Substation Electrician;
- Field Engineering;
- Field Communications Automation Specialist;
- Electric Meter Mechanic / Installer.

YGS also uses TMPs for new hires with no Heating, Ventilation, and Air Conditioning ("HVAC") background covering the following disciplines:

- Construction Technician A;
- Construction Technician B and C;
- Corrosion Technician Damage Prevention Specialist;
- Distribution / Maintenance and Construction Mechanics;
- Meter Repairer.

Additionally, YGS has a New Hire Program that applies to employees being hired into Meter Service Mechanic positions who already possess licenses in appliance repair or a related field. These employees must satisfactorily perform all tasks outlined in the Gas Meter Service TMP, but on an accelerated timeframe that may not include some of the formal training and apprenticeship requirements of the TMP.

[63] Response to FTI-182.
[64] Ibid.

The initial training program for a new system operator is a combination of instructor-led classroom, self-paced study, and practical on-the-job training that occurs over a two-year period. The instructor-led portion of this program is approximately 16 weeks long. On-the job training leverages a qualification card to track progress and completion of this card determines when a new operator is qualified. The qualification process includes a written, practical, and oral examination of the prospective operator.

Switching and tagging is covered in a one-day class and also uses a requirements card that verifies an individual meets the prerequisites and on-the-job training requirements to switch and tag on the Eversource system, consistent with OSHA requirements.

Aquarion meter readers and field service workers are provided with training specific to systems, service territory, Customer Relationship Management ("CRM") system, work orders, and other relevant technical training. New field technicians work side by side with senior technicians to understand the processes, workflow, and geography. Meter Readers require less time to train due to automated meter reading processes. Training is performed by Senior Meter Readers and Supervisors to ensure accurate capture of meter reads.[65]

4.5.2.2. Refresher Training

The Electric Training Department uses several methods to develop content for annual refresh training. Knowledge testing of fully qualified employees and trouble testing areas in formal training programs may generate topics for the following year's refresher training. The Training team also partners with the Safety department to discuss trends and incidents observed in the previous year. Finally, new tools, equipment, processes, or procedures that may have been recently introduced are considered in the curriculum. Refresher training is provided to the following employee groups:

- Qualified Overhead Lineworker;
- Qualified Underground Splicer;
- Substation Electrician;
- Electric Meters.

For YGS, the Gas Training department meets with the Safety department and Pipeline Safety Management Systems ("PSMS") Incident Investigation Team to discuss trends and incidents that had been observed in the previous year. The team also analyzes the Non-Compliant Observations data provided by the Quality Control ("QC") team. Additional details about the Company's QC process is detailed in Chapter 2. Trouble testing areas and new processes are also considered. Annual refresh training is provided to Gas Distribution Technicians and Meter Service Technicians and includes three core topics in accordance with the Eversource OQ plan: leak investigation, prevention of accidental ignition, and pressure testing of mains and services.

DSO refresher training is provided during blocks of time established three to four times per year. Topics are chosen based on observed needs identified by control room management or the training department, skill gaps identified for new equipment or software tools coming online, or a predetermined coverage cycle. Switching and tagging qualification requires completion of a computer-based training annually and an instructor-led training class every 30 months.

Aquarion provides refresher training every one to three years, based on employee regulatory and licensing requirements by position. This training includes confined space certification training (including CPR), lock out/tag

[65]Response to FTI-182; Response to FTI-194.

out procedures, hazardous communication training, forklift training, and Distribution II and III license renewal education (30 hours every three years).[66]

4.5.3. Training Software and Reporting

CL&P and YGS use a Learning Central software program known as Sum Total to track training programs and maintain employee training history. All training programs are tracked in the Sum Total application. Training can be taken by employees through several methods:

- Assigned training from Sum Total;
- Assigned training from a solution other than Sum Total;
- In-house instructor-led training;
- Employee elective training.

Annual regulatory training such as OSHA safety, first aid, and blood-borne pathogens are examples of mandatory training courses provided in Sum Total. Once training is assigned, the employee receives an email requesting that the specified course be taken. Once completed, this training is then marked as complete in Sum Total and remains on the employee's transcript. Mandatory courses, including those in the apprenticeship TMPs, require post-course exams and minimum scores to successfully complete.

If the assigned training is from another solution (HR uses Skillsoft for corporate training) or the employee is required to take in-house, instructor-led training, course completion records are uploaded to Sum Total and appear on the employe's transcript. The uploaded information includes course description/curriculum, date provided and attendance.[67]

Sum Total contains a library of training courses that employees may elect to complete. Course completion is recorded as outlined above.

Sum Total is administered and maintained on behalf of all Eversource companies within the Gas Training organization by the Manager of Training Programs and Compliance and her team. In addition, the group provides management reports on compliance training for gas and electric field employees using data generated from Sum Total, which is summarized in Figure 4-24. The data is sent to the corporate performance team for inclusion in monthly operations reports, which are aligned by CT Company President.[68] Eversource has strong controls over monitoring and reporting of field employee training, as evidenced by the high course completion rates shown below.

[66] Ibid.
[67] Response to FTI-184; Interview with Training Panel, Eversource Energy, May 24, 2023.
[68] Response to FTI-185; Interview with Training Panel, Eversource Energy, May 24, 2023.

Mandatory Training Completion, 2019-2022				
	Assigned	**Completed**	**Not Completed**	**Completion %**
2019:				
E-Learning Courses	14,406	14,374	32	99.78%
Instructor-Led Courses	5,756	5,744	12	99.79%
2019 Total	**20,162**	**20,118**	**44**	**99.78%**
2020:				
E-Learning Courses	16,760	16,740	20	99.88%
Instructor-Led Courses	3,530	3,483	47	98.67%
2020 Total	**20,290**	**20,223**	**67**	**99.67%**
2021:				
E-Learning Courses	20,369	20,352	17	99.92%
Instructor-Led Courses	6,518	6,463	55	99.16%
2021 Total	**26,887**	**26,815**	**72**	**99.73%**
2022:				
E-Learning Courses	18,831	18,831	-	100.00%
Instructor-Led Courses	4,255	4,249	6	99.86%
2022 Total	**23,086**	**23,080**	**6**	**99.97%**
Note: Training data prior to 2022 was compiled by corporate businesss unit. The table above includes results for CT/MA electric and all Eversource gas utilites.				

Figure 4-21 Mandatory Training Completion Rates, 2019-2022[69]

Aquarion does not have a centralized process or software application to track training programs.[70] A health and safety compliance training metric, based on the percentage of course completion, was included on performance scorecards beginning in 2021. Aquarion reported 100% completion in 2021 and was on track for meeting the target in 2022 as of October. Aquarion did not report on training in their December 2020 scorecard, and in prior years measured the number of training hours by employee.[71]

Health and safety training is administered at Aquarion though the HR department but does not represent the entirety of training provided to field employees, notably the technical training provided through operating departments. Aquarion is in the process of implementing a HR information system, SuccessFactors, expected to go live in 2024, in order to provide improved functionality and visibility to Aquarion's training programs.

Recommendation: Aquarion should ensure that the SuccessFactors system, scheduled for implementation in 2024, will allow it to track the issuance and completion of training programs offered throughout the organization and provide sufficient monitoring capabilities to ensure Aquarion's training objectives are met.

4.5.4. Employee Licensing and Certifications

Eversource and Aquarion have decentralized oversight of employee licensing, with monitoring responsibilities primarily assigned to Eversource departments, as shown in Figure 4-25.

[69] Response to FTI-185, Atts. 4-6(ES); Response to FTI-573, Att. 1(ES).
[70] Response to FTI-184.
[71] Response to FTI-276, Att. 1(AQ).

Summary of Licensing and Certification Requirements				
	Job Classification(s)	**Required License or Certificate**	**Department Oversight**	**Tracking System Used**
CL&P	Electricians, Linemen, Storeroom	Forklift (OSHA)	Electric Operations (Technical Training)	Learning Central
	Electricians, Storeroom, Mechanics	Hoisting & Rigging (Fed or State)	Electric Operations (Technical Training)	Learning Central
	Transmission System Operators	NERC Transmission Operator Certification	Electric Operations (Technical Training)	Database
	Building Maintenance Mechanics	HVAC & E1/E2	*Not provided*	*Not provided*
	Various operations employees	CDL Drivers License	Fleet Services	Lotus Notes - Driver Qualification Database
	Meter Service Mechanics	CT Occupational License (Plumbing/HVAC)	*Not provided*	*Not provided*
	Vegetation Management (various roles)	DEEP Commercial Arborist License or Right-of-Way Pest Control	Vegetation Management	Excel spreadsheet
YGS	Distribution Mechanics	CDL Drivers License	Fleet Services	Lotus Notes - Driver Qualification Database
	Meter Service Mechanics	CT Occupational License (Plumbing/HVAC)	None - self monitored	None
	Mechanics (Pressure) and Welders	Hoisting & Rigging (Federal)	Gas Support and Training	Learning Central
Aquarion	Cross Connection Inspectors	Backflow Prevention Inspector & Tester Licenses	Operations	Excel spreadsheet
	Operators, Operations Supervisors and Managers	Water Operator Certification	Supply Operations	Excel spreadsheet
	Distribution Supervisor and General Foreman	Distribution Certification	Supply Operations	Excel spreadsheet
	Treatment Operators	Treatment Plant License	Supply Operations	Excel spreadsheet
	New Hartford Operators	Waste Water Treatment Certificate	Engineering & Planning	Excel spreadsheet
	Forsters	DEEP Certification	Operations	Excel spreadsheet
	Watershed Maintenance Technicians	CDL Drivers License	Operations - Watershed Management	Excel spreadsheet
	Laboratory Services Supervisor	Environmental Laboratory Director (CT)	Operations - Quality	Excel spreadsheet

Figure 4-22 Employee Licensing and Certification Requirements[72]

For CL&P and YGS, the Technical Training groups track licensing for activities that are addressed through new hire and refresher training, such as hoisting and rigging. Licensing information is retained in Sum Total. The Gas Training group also monitors OQ licensing, which is provided for several dozen individual tasks, in a separate database, Energy World Net E3. Commercial driver's licenses, required to operate certain maintenance vehicles, are tracked by the Fleet Services group, which manages those assets. However, there appears to be no centralized oversight of licensing for Meter Service Mechanics, who require occupational licenses from the state of Connecticut.

Furthermore, Aquarion has no centralized procedure for license monitoring for water supply and treatment employees. Each Aquarion department is responsible for tracking licenses of its employees, and the only tools

[72] Response to FTI-185.

used are Excel spreadsheets. Aquarion is "in the process of evaluating the certification module of SuccessFactors and is planning on implementing this information system in 2024."[73]

Recommendation: Eversource should implement monitoring systems for all employees who require licenses to perform job functions, including occupational licenses. Aquarion should centralize license monitoring within HR and implement tracking system improvements such as those contemplated in SuccessFactors.

4.5.5. Training Program Enhancements

CL&P and YGS have initiated several new training programs and enhancements since 2018, including the creation of the TMPs for craft positions. In addition, the following programs have been added:[74]

- In 2019, a five-year curriculum development plan was put in place for the Field Engineering/Test and Field Communications departments as rapid technology advancements impacted the utility industry. Previously, technical training was delivered on-the-job with ad hoc formal sessions scheduled when necessary.

- In 2021, the Operations, Safety, and Training groups partnered to create Safe Work Instructions ("SWIs"). Technical and Field Training incorporate SWIs in their daily training and on-the-job training ("OJT") tasks. SWI instructions are designed to improve safety and resource availability by providing step-by-step work instructions for the most common Electric Operations work tasks in the Overhead, Underground, Stations, and Meters areas.

- Beginning in 2020, training programs specifically for Electric Operations Supervisors were developed. The Electric Supervisor Training Program was designed to give new-hire supervisors who either did not have an industry background or had knowledge gaps a series of courses covering foundational information for system construction, operation, and maintenance.

- Likewise, YGS implemented a Gas Supervisor Training Program ("GSTP") in 2019. The GSTP provides the opportunity for new Field Supervisors, QC Specialists and Project Managers to learn the skills and gain the knowledge necessary to direct and oversee the work being performed in the field. As employees move through the 12-month program they are eligible to attempt the associated OQ Evaluation in each content area.

- YGS is in the process of redesigning coursework in its Pressure Management/Instrumentation and Regulation and Maintenance and Construction Apprentice programs, with some modules completed in 2022 and full implementation expected in 2023.

There have been no material changes to Aquarion's training program over the past five years.

Eversource made substantial changes to its training program delivery as a result of the COVID-19 pandemic. Starting in March 2020, nearly all HR Development and Enterprise Training ("D&ET") shifted to virtual courses, with system enhancements made to facilitate the transition. D&ET training now uses a hybrid approach utilizing both virtual and in-person options to meet company, departmental, and individual employee training needs.

[73] Response to FTI-626.
[74] Response to FTI-187.

Essential safety and technical training continued during the COVID-19 pandemic, but in-person classes were modified to comply with Centers for Disease Control and Prevention ("CDC") guidelines such as social distancing, outdoor classes whenever possible, and cleaning protocols. CL&P and YGS supervisor training programs moved to virtual classes during the pandemic and have remained virtual or hybrid. Aquarion suspended all in-person training during the pandemic and has also transitioned to coursework that leverages video technology.[75]

4.5.6. Training Expenses

Pandemic-related effects are evident in the training costs per employee at CL&P, where non-essential field training was curtailed or moved to virtual settings. Both CL&P and YGS were implementing TMPs beginning in 2019, which increased training commitments at both companies. As shown in Figure 4-26, the financial impact of these programs was more apparent in 2021.

	2019	2020	2021
CL&P	$ 6,450	$ 4,365	$ 6,502
YGS	$ 1,977	$ 2,200	$ 3,191

Figure 4-23 Eversource Average Training Cost per Employee[76]

YGS training costs per employee are lower due to differences in the TMPs. For example, gas training programs have a higher proportion of field apprentice work and less classroom training.[77]

AWC-CT was likewise impacted by the pandemic, evidenced by significantly reduced compliance training expenses in 2020. Figure 4-27 shows AWC-CT-wide training expenses, as Aquarion's current information systems do not track training at the individual level.

Year	Compliance Training	Non-Compliance Training	Total
2019	$ 21,928	$ 84,144	$ 106,072
2020	$ 9,309	$ 107,420	$ 116,729
2021	$ 59,091	$ 88,090	$ 147,181
2022	$ 71,075	$ 63,838	$ 134,913

Figure 4-24 AWC-CT Training Expenses, 2019-2022[78]

Compliance training conducted by the HR department was suspended early in the pandemic but has since recovered and expanded. Non-compliance training was higher in 2020 due to enterprise wide Plus 1 Customer Service training.[79]

[75] Response to FTI-188.
[76] Response to FTI-186.
[77] Interview with Training Panel, Eversource Energy, May 24, 2023.
[78] Response to FTI-629.
[79] Ibid.

Chapter 5. Customer Service

Introduction

This chapter reviews Eversource Energy, Inc.'s ("Eversource") and subsidiary Aquarion Company's ("Aquarion") customer service operations in Connecticut. It is divided into topical areas, including management and organization, customer contact operations, metering and billing, customer complaints and Low-Income programs. Although Aquarion is an Eversource subsidiary, its customer service management, organization, and operations are separate from those of Eversource's electric and gas utility subsidiaries.[1] As such, each topical area is discussed separately for Eversource and Aquarion.

Over the past decade, utility customer service has generally become more efficient and more automated, but also more complex, particularly in areas such as customer contact operations, service billing, and payment and metering. Utilities have increased their focus on an improved customer experience, including keeping customers better informed, providing expanded digital access to accounts through websites and applications, refining complaint handling processes, implementing programs to better identify and assist lower-income customers, and improving programs to assist customers with energy planning and conservation.

Findings

Eversource Electric & Gas Utilities

Management and Organization

1. Eversource customer service is centrally managed by employees in the Eversource Energy Service Company ("EESC"). Its functions and activities are integrated across utilities to the extent currently feasible. Complete integration of customer service operations across all utilities is constrained by the legacy information systems which continue to serve the utilities; by regulatory, operational, and knowledge base differences; and by existing agreements with different union groups.

2. The Eversource customer service organization has recently been given more responsibility for corporate strategy and industry competitiveness. Since 2019, Eversource has added two new customer service executive positions, one responsible for Energy Strategy and Policy, and the other responsible for developing Eversource's solar programs. The new Vice President of Energy Strategy and Policy is described as a "key member of [Eversource's] leadership team," and is responsible for developing an approach to make Eversource a leading "utility of the future" and improving Eversource's competitive position. Since 2019, Eversource also added two new Director positions both of which are responsible for the implementation of the OMNI customer system.

[1] Throughout the topical discussion below, Eversource refers to the electric and gas utilities and Aquarion refers to the water utilities owned by Aquarion Inc., which in turn is owned by Eversource.

Customer Contact Operations

3. Eversource has four customer contact centers, each serving one or more of its utilities. These include Manchester, New Hampshire serving Public Service New Hampshire ("PSNH"); Springfield, Massachusetts serving Eversource Gas of Massachusetts ("EGMA"); Westwood, Massachusetts serving NSTAR Electric and NSTAR Gas, and Windsor, Connecticut serving Connecticut Light & Power ("CL&P"), Yankee Gas Service ("YGS") and Western Massachusetts Electric Company ("WMECO"). There is some ability for the Windsor contact center to support the Manchester contact center and vice versa; however, integration of all utilities into a single virtual contact center is currently constrained by union agreements, employee training and knowledge limitations with respect to specific utilities, and different information systems serving specific utilities or groups of utilities.

4. There are no current plans to combine the individual contact center operations into a unified virtual call center for all Eversource utilities. Among other issues, Eversource stated that the possible future integration of all utilities under one customer information system ("CIS") will be influenced by the implementation of Advanced Metering Infrastructure ("AMI") in Connecticut and New Hampshire.

5. Due primarily to Customer Service Representatives ("CSRs") being trained to work with specific utilities, the Windsor contact center has relied on separate CSR groups and call queues for CL&P, YGS, and WMECO. However, with recent cross-training, it is expected that these will be merged into a single call queue, making Windsor a fully integrated contact center. The scheduled "go live" date for the integration is October 2023.

6. Eversource implemented a new SAP-based CIS for EGMA in 2023. The NSTAR utilities in Eastern Massachusetts are expected to implement the same system in 2024.[2] Notwithstanding the constraints of union agreements and the need to cross-train customer contact staff, this suggests the Springfield and Westwood centers will eventually be consolidated into a virtual call center.

7. All Eversource contact centers experienced staffing reductions between the end of 2019 and the end of 2022. During this period, the Windsor contact center, which serves CL&P and YGS, experienced a 25% reduction in staffing, including a 24% reduction in CSRs. CSRs are a primary point of utility interface with customers.

8. A comparison of 2019 customer contact key performance indicators ("KPIs") (the last full pre-COVID-19 pandemic year) with 2022 (the first full post-COVID-19 pandemic year) shows that telephone performance in Connecticut deteriorated across several important indicators. Average speed of answer ("ASA") increased from 91 seconds in 2019 to 176 seconds in 2022. The 90-second CSR service level (the percentage of calls requesting to speak with CSRs that are answered within 90 seconds) decreased from 75% to 64%. The call abandonment rate ("CAR") increased from 2.2% in 2019 to 3.7% in 2022. Average call handling time ("AHT") increased by almost a minute. Eversource cited a decrease in customer contact staffing and changes to (increases in) the live call guidance required of contracted CSRs handling credit calls as reasons for deteriorating telephone metrics.

[2] Interview with Senior Vice President, Customer Operations and Digital Strategy, Eversource Energy, (Jared Lawrence); Vice President, Customer Operations, Eversource Energy, (Jessica Cain); Vice President, Solar Programs, Eversource Energy, (Andrew Belden); Director, Electric Service Support and Distributive Generation, Eversource Energy, (Warren Boutin); Director, Strategic and National Accounts, Eversource Energy, (Peter Barsamian), March 1, 2023.

9. Of the telephone performance indicators noted in the previous finding, in Connecticut, Eversource sets and measures performance against a scorecard target only for the service level. There are no performance targets maintained for ASA, AHT, or CAR.

10. Between 2019 and 2022, performance scores from post-contact customer surveys declined for three of four call categories. Overall telephone experience scores, measured on a scale of 1-10, declined for CL&P non-credit calls (8.58 to 7.97), YGS non-credit calls (8.59 to 8.22), and YGS credit calls (7.69 to 7.48), while overall telephone experience scores for CL&P credit calls improved from 7.02 to 7.64. Generally, the internal details associated with the surveys declined or improved in concert with the overall experience scores.

Metering, Billing and Collection

11. Nearly all Eversource meters in Connecticut use automated meter read ("AMR") technology. Most of these rely on radio transmission of data to a device in a vehicle driven within range of the meter.

12. CL&P and YGS meter reading routes are integrated. Meter Readers and support staff (supervision, route coordination, and data management) are employees of the EESC. At the end of 2022, Eversource had 19 Meter Readers dedicated to Connecticut electric and gas operations, down from 22 readers at the end of 2019. Meter Installers and Meter Service Mechanics moved under EESC in October 2023.

13. As a member of the Edison Electric Institute ("EEI"), Eversource participates in the DataSource benchmarking process.[3] With an average meter read rate of [redacted]

14. At the time of our audit Eversource had not implemented AMI in any of its utilities. The Massachusetts Department of Public Utilities ("MA DPU") has approved a plan for Eversource to deploy electric AMI in Massachusetts beginning in 2025. At the time of our audit, a plan for AMI deployment for CL&P was under consideration by the Connecticut Public Utilities Regulatory Authority ("PURA"). Eversource has no current plans to deploy AMI in New Hampshire. Eversource has no current plans to deploy AMI for YGS.

15. Eversource's existing AMR meter system in Connecticut produces read rates of around 99% with a meter reading force of approximately 25 employees. Any savings from eliminating employee meter reading under AMI will depend on whether AMI extends to both electric (CL&P) and gas (YGS), given that meter reading for both utilities is currently integrated. In addition to reduced meter reading costs, Eversource expects AMI to deliver a number of additional benefits that AMR meters cannot provide, including enhanced system voltage regulation, reduced theft of service, better and earlier detection of outages, faster storm restoration, advanced rate options, and a reduction in greenhouse gas emissions.

16. Eversource's estimated bill percentage [redacted] This is consistent with a system in which nearly all meters are automatically read and with a properly functioning meter data system. In Connecticut, Eversource

[3] Eversource provided limited, confidential, and redacted benchmarking data in response to FTI-420. The data shows how Eversource ranks within the participant group, but in accordance with non-disclosure agreement, it does not provide information about other participating utilities or how they ranked.

has relatively low rates of implausible bills (e.g., bills flagged as out of tolerance) and bills that need to be canceled and rebilled, indicating that Eversource's legacy "C2" CIS accurately calculates customer bills.

[redacted]

18. CL&P and YGS' rate of accounts receivable over 60 days and net write-off percentage were adversely affected by the COVID-19 pandemic. Both metrics began to normalize in 2022, however, for the year 2022, CL&P's receivables over 60 days for "non-tracked" accounts remained more than double the level experienced prior to the COVID-19 pandemic.

[redacted]

Complaint Management

20. Two Regulatory Affairs Specialists ("RASs") in the Regulatory Affairs department manage the PURA's and other agencies' complaints for CL&P, YGS, and WMECO. The RASs report to the Manager, Regulatory Affairs.[4] Two other RASs are responsible for regulatory and other agency complaints in Eastern Massachusetts and New Hampshire. They report to a separate Manager of Regulatory Affairs.

21. Eversource maintains an Executive Complaints group consisting of a Supervisor of Executive Inquiries and two Consultants. The group is responsible for investigating and resolving customer complaints directed to Eversource executives in all three states, complaints registered with the Better Business Bureau, and escalated complaints that originate in customer contact centers or in the field.

22. The Regulatory Affairs and Executive Complaint groups meet with each other periodically to examine selected complaints, assess causes, and identify opportunities for process improvements. The work product from these meetings consists primarily of a worksheet that identifies suggested performance improvements, assigns a process owner, and notes the status and description of improvements implemented.

23. Eversource does not maintain metrics or performance targets for regulatory or executive complaints. Based on statistics maintained by the PURA, Eversource has a lower rate of regulatory complaints per thousand customers than Avangrid. Primarily, because a majority of regulatory complaints can be traced to problems customers have with *paying* bills, and because bill payment assistance programs have been expanded in recent years, both Eversource and Avangrid have experienced a decline in the rate of complaints registered with the PURA since 2019, the last full year prior to the COVID-19 pandemic.

Low-Income and Medical Protection Programs

24. Eversource maintains two key arrearage forgiveness programs ("AFPs") to assist Low-Income customers in Connecticut. The Matching Payments Program ("MPP") protects participating customers from involuntary shutoff while they are paying down past-due bills over a 12-month period. Customer payments are matched

[4] The Regulatory Affairs group is part of the Corporate Relations and Sustainability &organization, not the Customer Experience and Energy Strategy organization.

by Eversource until the account reaches a zero balance. CL&P operates the New Start Program,[5] which pays 1/12th of past due electric bill balance for each month the customer pays a levelized bill for current usage. Both programs provide for automatic annual renewal and there are several ways customers can apply for the programs, including online, through customer inquiry staff, or through a Community Action Agency ("CAA").

25. Eversource tracks total enrollment, the automatic enrollment rate, and the "success rate" (percentage of customers who successfully pay their past due balances with matching assistance) for the MPP. It does not currently track metrics relating to Aquarion's Customer Assistance Program ("CAP").

26. Low-Income programs for all Eversource utilities are administered centrally by a Manager of Low-Income Programs who reports to the Director of Credit and Collections. The Credit and Collections team assists with program administration. Outreach activities include information provided during outbound collection telephone calls, emails, letters and bill inserts, webinars and live outreach events, and radio and newspaper advertising.

Aquarion

Management and Organization

27. Aquarion's customer service operations are integrated for all water utilities and are conducted by employees of Aquarion Water Company of Connecticut ("AWC-CT"). Aquarion operates a single call center in Monroe, Connecticut, owned by AWC-CT, which serves Connecticut, Massachusetts ("AWC-MA"), and New Hampshire ("AWC-NH") water utility customers and the customers of Aquarion's non-regulated appliance repair subsidiary.

28. Apart from customer data relating to Low Income Rate Assistance Program qualification, Aquarion and Eversource do not share customer service management, operations, or data. There is currently no expectation that electric and gas customer service operations will be integrated with those of the water utilities.

Customer Contact Operations

29. Aquarion conducts customer contact operations for all of its Connecticut, Massachusetts, and New Hampshire water utilities from a contact center located in Monroe, Connecticut, north of Bridgeport. Operations for all three states are integrated into a single call queue, and approximately 17 CSRs who are employees of AWC-CT trained to handle call traffic for all Connecticut, Massachusetts, and New Hampshire utilities. Aquarion has two CSRs outside the Monroe facility in Gilford, New Hampshire and Hampton, New Hampshire. These CSRs handle walk-in customers for water utilities in New Hampshire, which include AWC-NH and Abenaki Water Co. ("Abenaki"). Aquarion currently relies on employee CSRs and does not use contracted CSRs. At the time of the audit, Aquarion employed two Spanish-speaking CSRs and contracts with a translation service which is used, as needed, to service customers who speak languages other than English and Spanish.

30. AWC-CT uses a SAP-based CIS which integrates with its telephone system and has been upgraded over time. In 2022, Aquarion added a CSR chat feature that can be used for keyboard-based customer interaction during periods of high telephone traffic. At the time of our audit, Aquarion was investigating the possibility of adding chatbot technology.

[5] The New Start Program is scheduled to end in November 2024.

31. Aquarion handled approximately the same number of customer telephone calls in 2022 as it handled in 2017. Key telephone metrics, including ASA, AHT, and CAR all have associated performance targets and were relatively stable throughout the 2017-2022 period.

Metering, Billing and Collection

32. Nearly all of Aquarion's meters utilize AMR technology. Consistent with this, AWC-CT has a meter read rate averaging approximately 99%.

33. Aquarion's billing and collection activities are integrated for Connecticut, Massachusetts, and New Hampshire. All billing and collection employees work for AWC-CT and any employee efforts deemed to benefit utilities in Massachusetts and New Hampshire are either allocated or directly charged to the utilities in those states.

34. AWC-CT's billing metrics reveal a low rate of corrected bills, consistent with a system which properly calculates customer bills. However, AWC-CT's implausible bill rate (between 6% and 7% in most years) appears high compared with its low corrected bill rate.[6]

35. AWC-CT's account delinquencies were adversely affected by the COVID-19 pandemic. During the COVID-19 pandemic, residential customers were able to continue receiving service without making payments after collection activities were suspended. Average accounts in arrears over 90 days doubled in 2020 compared with the years 2017 through 2019, and almost doubled again in 2021. Although collection efforts resumed in 2022, customers can now avoid shutoffs with smaller down payments on unpaid balances. Partly as a result of less stringent requirements to have disconnected accounts turned on, the average number of accounts in arrears more than 90 days remained high in 2022, and slightly exceeded the average for 2021.

Complaint Management

36. AWC-CT has few complaints referred by the PURA or other outside agencies. It records and manages a larger number of mostly non-escalated complaints internally. These are logged by CSRs in Aquarion's SAP-based CIS. AWC-CT has substantially reduced the number of internally recorded complaints in the largest category, high bill investigations, by improving CSR training and using better scripts to help customers self-identify leaks.

Low-Income and Medical Protection Programs

37. AWC-CT maintains a CAP under which water customers with incomes up to 75% of median household income may receive a bill credit of between $50 and $250. The federally-funded Low-Income Household Water Assistance Program ("LIHWAP") provides a credit of up to $1,000 but is set to expire at the end of September 2023.

38. In March 2023, the PURA approved the Low-Income Rate Assistance Program ("LIRAP"), which provides a 15% bill credit for AWC-CT customers with income at or below 60% of the state median income. Eligible customers must be an owner-occupier or a tenant. LIRAP bill credits are not available to landlord accounts.

39. AWC-CT co-manages and administers the CAP and LIHWAP programs with Operation Fuel, an organization which provides emergency heating assistance to Connecticut utility customers, as well as with other

[6] We have no data to compare this with other water utilities. It may be because customer leaks and unattended lawn watering can occasionally cause high (implausible) bills that nevertheless accurately reflect usage.

Community Action Agencies. Outreach includes bill inserts, website postings, and information provided by CSRs in the customer inquiry and collection functions.

Recommendations

Customer Contact Operations

1. We recommend Eversource establish performance targets for ASA, AHT, and CAR telephone metrics in Connecticut. These metrics currently lack targets and performance has deteriorated in the post-COVID-19 pandemic period compared with 2019. While the targets should consider current operating conditions, they should also consider results achieved before the COVID-19 pandemic. We recommend targets based on levels achieved in 2019, the most recent pre-pandemic year.

2. Until CSR employee staffing levels return to levels needed to maintain acceptable Connecticut telephone performance (i.e., pre-COVID-19 pandemic performance levels), and to the extent the integration of utility-specific CSR groups into a single queue later this year may create additional temporary performance issues, we recommend Eversource increase the level of support provided by third-party vendor Alorica to the Windsor, Connecticut contact center's non-credit call operations to achieve improvements in performance. This assumes that Eversource is already exploring solutions such as the increased use of technology (e.g., chat features) as a way of improving telephone performance and is evaluating individual CSR performance as it is permitted to do under its 2021 contract with the Windsor, Connecticut contact center's union employees.

Metering, Billing and Collection

3. We recommend Eversource take steps to improve customer adoption of levelized (budget) billing, [redacted] Customers on levelized billing (budget billing) plans are less likely overall to fall into payment delinquency due to occasional high seasonal bills.

4. E-bills are significantly less costly than paper bills. We recommend Eversource review the procedures AWC-CT has used to achieve an e-bill adoption rate exceeding 50% and determine whether it might apply similar procedures to achieve better e-bill adoption rates for CL&P and YGS.

Complaint Management

5. We recommend Eversource develop a scorecard performance target rate for customer complaints referred to Eversource in Connecticut by the PURA. The scorecard target should be applicable to the Regulatory Affairs department. The target should be informed by actual experience in the post-COVID-19 pandemic environment, during which complaints have declined due to improved programs for low-income customers and lower numbers of accounts disconnected for non-payment.

Low-Income and Medical Protection Programs

6. We recommend AWC-CT develop metrics to track participation and customer renewal of participation in its Low-Income programs, including its new LIRAP program.

5.1. Customer Service Organization and Management

This section discusses the Eversource and Aquarion customer service organizations, responsibilities, and activities. Eversource's electric and gas and Aquarion's water organizations are separately managed and operated. They utilize different CIS systems. There is no integration of management, organization or information systems between them, apart from the occasional information sharing and coordination activities to ensure consistent application of certain policies.

5.1.1. Eversource

5.1.1.1. Management Organization

Eversource's customer service business unit, formally named Customer Experience and Energy Strategy,[7] is headed by an Executive Vice President reporting to the Eversource President and Chief Executive Officer ("CEO"). The management and most operations are integrated in the EESC. The management organization at the end of 2019 and 2022 is summarized in Figure 5-1.

Eversource Energy Customer Operations Management Organization			
December 31 2019			
Name	**Position Title**	**Location**	**Supervisor**
Joseph Nolan	Executive Vice President, Customer and Corporate Relations	Boston, MA	Judge, James
Conner, Penelope	Senior Vice President and Chief Customer Officer	Westwood, MA	Nolan, Joseph R
Cain, Jessica B	Vice President, Customer Operations	Berlin, CT	Conner, Penelope
Barsamian, Peter A	Director, Energy Services	Westwood, MA	Conner, Penelope
Belden, Andrew C	Director, Customer Solar Program	Westwood, MA	Conner, Penelope
Belken, Kurt P	Director, Customer Experience Strategy	Westwood, MA	Conner, Penelope
Boutin, Warren R	Director, Electric Service Support& Distributive Generation	Westwood, MA	Conner, Penelope
Connolly, Jeanne F	Director, Digital Strategy and Channel Management	Westwood, MA	Conner, Penelope
Moreira, Barbara A	Director, Meter Reading and Field Operations	New Bedford MA	Cain, Jessica B
Carloni, Lisa M	Director Billing Payments and Meter Data Services	Westwood, MA	Cain, Jessica B
McGrath, Timothy W	Director, Contact Centers	Windsor CT	Cain, Jessica B
Plecs, Christopher A	Director, Credit and Collections	Westwood, MA	Cain, Jessica B
December 31 2022			
Name	**Position Title**	**Location**	**Supervisor**
Conner, Penelope	Executive Vice President, Customer Experience and Energy Strategy	Westwood, MA	Nolan, Joseph R
Lawrence, Jared A	Senior Vice President, Customer Operations and Digital Strategy, Chief Customer Officer	Westwood, MA	Conner, Penelope
Belden, Andrew C	Vice President, Solar Programs	Westwood, MA	Conner, Penelope
Kranenburg, Roger	Vice President, Energy Strategy and Policy	Westwood, MA	Conner, Penelope
Cain, Jessica B	Vice President, Customer Operations	Berlin, CT	Lawrence, Jared A
Barsamian, Peter A	Director, Energy Services	Westwood, MA	Conner, Penelope
Baten, Cherna M	Director, Meter Reading and Field Operations	Berlin, CT	Cain, Jessica B
Belken, Kurt P	Director, Voice of the Customer and Customer Experience Strategy	Westwood, MA	Lawrence, Jared A
Boutin, Warren R	Director, Electric Service Support and Distributive	Westwood, MA	Conner, Penelope
Carloni, Lisa M	Director, Billing, Payments and Meter Data Services	Southborough MA	Cain, Jessica B
Jones, Elizabeth N	Director, Customer Digital and Technology Strategy	Manchester NH	Lawrence, Jared A
McGrath, Timothy W	Director, Contact Centers	Windsor CT	Lawrence, Jared A
Moreira, Barbara A	Director, Meter Reading and Field Operations	New Bedford MA	Belken, Kurt P
O'Brien, Shamus	Director, Voice of the Customer and Customer Experience Strategy	Manchester NH	Lawrence, Jared A
Rice, Brian J	Director, Customer Solar Program	Westwood, MA	Belden, Andrew C
Traynor, Daniel M	Director, Credit and Collections	Windsor CT	Cain, Jessica B

Figure 5-1 Eversource Customer Service Management Organization[8]

[7] In 2019 and 2020 the group was named Customer Operations and Digital Strategy. For simplicity, we refer to it as the customer service organization, or customer service, throughout this chapter.

[8] Response to FTI-113, Atts. 1-4(ES).

Between the end of 2019 and 2022, Eversource increased the number of customer service Vice President positions from three to five and the number of Directors from nine to eleven, a sign that Eversource views customer service as increasingly important to the competitiveness of its utility business. A new position, the Vice President of Energy Strategy and Policy, was added in 2021. This position is described as a "key member of [Eversource's] leadership team with responsibility for the development of Eversource's approach to be a leading "utility of the future" to improve Eversource's competitive position, respond to market and customer needs, and create shareholder value."[9]

Eversource added two new Directors responsible for the OMNI/new CIS implementation effort.

5.1.1.2. Functional Organization

Eversource's customer service organization is led by Penelope Conner, Executive Vice President of Customer Experience and Energy Strategy. It is divided into several dozen smaller organizations which break along the lines of both functional and geographic responsibility. To facilitate an understanding of key customer service staffing, activities, and responsibilities, we classified organizations by function.[10] Customer Experience and Energy Strategy groups and headcounts are depicted in Figure 5-2.

[9] Response to FTI-397, Att. 2(ES).

[10] "Functional Area" as shown in the table is not a defined category or data field in Eversource's organizational hierarchy. Classifications are based on audit analysis of organization names, employee reporting relationships, cost centers, and job profiles (job titles).

Eversource Customer Operations - Staffing by Company and Function					
Company	Functional Area	Employees, End of Year			
		2019	2020	2021	2022
Eversource Energy Service Company	Billing, Remittances & Meter Data Mgt	187	183	173	182
	Business Accounts	44	44	44	43
	Contact Center Operations	413	357	322	313
	Credit & Collections	56	56	49	47
	Customer Resolution & Reg. Compliance	34	34	33	41
	Electric Service Support	47	46	50	55
	Energy Supplier Services	6	6	6	7
	Executive (VP & above & Exec. Assists.)	4	4	9	10
	Field and Meter Operations	74	71	73	76
	Operations Support	57	67	57	55
	Renewables & Distributed Generation	18	27	24	29
	Subtotal	**940**	**895**	**840**	**858**
Connecticut Light & Power	Field and Meter Operations	45	38	42	37
	Renewables & Distributed Generation			6	5
	Subtotal	**45**	**38**	**48**	**42**
Eversource Gas Massachusetts	Billing, Remittances & Meter Data Mgt		15	16	14
	Contact Center Operations		66	60	47
	Credit & Collections		8	8	7
	Customer Resolution & Reg. Compliance				5
	Field and Meter Operations		22	25	21
	Operations Support		1		
	Subtotal	**-**	**112**	**109**	**94**
NSTAR Electric	Field and Meter Operations	73	67	69	70
	Subtotal	**73**	**67**	**69**	**70**
Public Service New Hampshire	Field and Meter Operations	44	42	46	42
	Renewables & Distributed Generation			1	1
	Subtotal	**44**	**42**	**47**	**43**
Western Mass. Electric	Field and Meter Operations	22	22	18	15
	Subtotal	**22**	**22**	**18**	**15**
Total Customer Operations Staffing		**1,124**	**1,176**	**1,131**	**1,122**

Figure 5-2 Eversource Customer Service Staffing by Company and Function[11]

- **Billing, Remittances and Meter Data Management:** This group includes employees focused on the "meters to cash" process. A Director and three Managers of Billing and Data Management (located in Berlin, Connecticut, Westwood, Massachusetts, and Manchester, New Hampshire) are responsible for producing customer bills and maintaining accurate billing and other information in the CIS. Over half the positions are CSRs who analyze and process bills and interface with customers. Seven Representatives of Meter Data based in Berlin, Connecticut support metering projects and processes, process meter data exceptions, and assist with meter data collection, warehousing, and presentation.
- **Business Accounts:** This group includes Account Executives and Senior Account Executives responsible for establishing and maintaining customer relationships with commercial, industrial, and municipal customers, and with large customers in particular. The employees represent Eversource's products and services, manage contracts and pricing, and are responsible for customer retention and attracting new customers. Employees are based in several locations, including Hartford, Stamford, Norwalk, and several other Connecticut cities.
- **Contact Center Operations:** This group consists primarily of CSRs and workforce planning employees at four contact centers. CSRs are responsible for initiating service turn-on and -off, managing customer credit, and other customer inquiries. In addition to the employees shown in the above table, Contact Center

[11] Response to FTI-113, SP02, Atts. 1-4(ES).

Operations includes approximately 90 contracted CSRs working for third-party vendor Alorica. Alorica CSRs focus primarily on credit-related inquiries, while employee CSRs handle non-credit related inquiries.

- **Credit & Collection:** Led by a Director of Credit and Collections, this group manages accounts receivable and is responsible for minimizing past due balances and uncollectible accounts. This includes managing the vendor relationship with Alorica, which provides CSRs who handle customer credit inquiries. Organizational groups include Credit Planning and Analysis and Credit and Collection Operations.
- **Customer Resolutions:** This group consists of employees working to resolve customer complaints and other customer issues in Westwood, Massachusetts; Springfield, Massachusetts; Manchester, New Hampshire; and Windsor, Connecticut. The group is staffed primarily by Senior CSRs and Customer Resolutions Specialists. It includes two employees who support the Executive Inquiry Team.
- **Electric Service Support:** This group consists of Electric Service Support Center Technicians who fulfill customer requests for installations, upgrades, and removals and Customer Service Engineers who act as liaisons for business customers to facilitate end use applications. It also includes three Senior Account Executives who serve as contacts for customers with larger electric loads (over 750 kW).
- **Energy Supplier Services:** This group includes a Manager of Electric Energy Supplier Services, four Account Executives who maintain relationships with energy suppliers who compete with Eversource for retail customers, and two Meter Operations Specialists who support activities related to supplier metering.
- **Executive Management:** This includes executive management positions (Vice President, Senior Vice President, and Executive Vice President) and support staff (Executive Assistants).
- **Meter Reading and Field Operations:** Headed by a Director of Meter Reading and Field Operations, this group includes four Managers (field operations, gas meter services, meter systems and data management, and revenue and quality assurance). Approximately 20 Supervisors oversee approximately 250 positions performing meter reading, meter installation and repair, meter service administration and coordination, field collection, and revenue assurance.
- **Meter Operations:** Headed by a Director of Meter Operations, this group includes four Managers (field operations in each state, and an engineering & support group. Approximately 17 supervisors oversee 160 positions performing meter installations, exchanges, removals, and communication troubleshooting. Meter ordering, testing, and inventory management are also addressed in this department.
- **Operations Support:** This group is inclusive of all positions providing support to the various areas described above. It consists of Managers, Project and Product Managers, Product Owners, Coordinators, Consultants, and Analysts in the areas of customer experience, employee training, product management and support, quality assurance, service delivery, business and technical solutions, business change support, digital content, operations and strategy, social care quality, and telephone strategy and communications support.
- **Renewables and Distributed Generation:** This group consists of two Directors (one of Customer Solar Programs and one of Electric Service Support and Distributive Generation). At the end of 2022, the group had seven Managers (Community Solar Resilience, Distributed Generation, Electric Service Support, and Renewable Programs Operations) reporting to the Directors. The group includes Account and Senior Account Executives, Analysts and Senior Analysts, Program Managers, and Administrators responsible for Eversource's solar and distribute generation programs.

5.1.1.3. Integration of Eversource Customer Service Across Electric and Gas Utilities

Customer service is managed centrally by employees working for the EESC. At the end of 2022, approximately 80% of its employees worked for the EESC. Major exceptions included employees of EGMA who continued working for

EGMA after its acquisition late in 2020, and certain meter and field collection employees who remain as employees of the utilities they serve. These exceptions appear to be due primarily to contract issues which currently inhibit the consolidation of some union employees into the EESC.

Eversource is expected to integrate telephone operations within the Windsor customer contact center, which serves CL&P, YGS, and WMECO, into a virtual center with a single call queue by October 2023.[12] The further integration of customer contact into a single virtual center for all Eversource utilities is currently constrained by different CIS systems, union contracts, and the need for employee cross-training. Additionally, Eversource indicated that eventual integration of contact center operations under a single CIS platform "will be influenced by AMI implementation plans in Connecticut and New Hampshire, which are not yet known in either jurisdiction."[13]

Eversource acquired the assets of Columbia Gas Company of Massachusetts, known post-acquisition as EGMA, on October 9, 2020. As part of the Asset Purchase Agreement, former owner NiSource performed or assisted with certain transition services through most of 2022. Eversource indicated that all EGMA Customer Operations and Digital Services functions were integrated into the Eversource management structure, but the employees will remain as employees of EGMA.[14]

Eversource's technology plan for EGMA is to identify applications that correspond as closely as possible to former Columbia Gas or NiSource applications and convert the data into the corresponding Eversource system, with the exception of the CIS system. Eversource implemented a new SAP-based CIS for EGMA in 2023. The conversion consists of six major projects. Eversource stated that the cost of conversion was directly charged to EGMA. Eversource is implementing this same CIS in NSTAR Electric and NSTAR Gas, which suggests that NSTAR's and EGMA's customer contact operations will eventually be fully integrated.

5.1.2. Aquarion

Aquarion and its water utilities operate independently from Eversource and its electric and gas utilities. Eversource's oversight of Aquarion's customer service consists primarily of high-level administrative and management support. Aquarion's customer service operations are not dependent on and do not report through Eversource's customer service organization.

5.1.2.1. Customer Service Management Organization

Aquarion's customer service organization is headed by Lucy Teixeira, Vice President of Administration. Ms. Teixeira currently reports to Donald Morrissey, Aquarion's President. Customer Service employees reporting to Ms. Teixeira are listed in Figure 5-3. As Vice President of Administration, Ms. Teixeira is also in charge of Human Resources, Information Technology ("IT"), and Corporate Communications.

[12] Interview with Senior Vice President, Customer Operations and Digital Strategy, Eversource Energy, (Jared Lawrence); Vice President, Customer Operations, Eversource Energy, (Jessica Cain); Vice President, Solar Programs, Eversource Energy, (Andrew Belden); Director, Electric Service Support and Distributive Generation, Eversource Energy, (Warren Boutin); Director, Strategic and National Accounts, Eversource Energy, (Peter Barsamian), March 1, 2023.

[13] Response to FTI-592. The response further noted that the PURA has an active and ongoing docket evaluating AMI implementation for CL&P.

[14] Response to FTI-474.

December 31 2019				
Name	**Position Title**	**Employing Company**	**Location**	**Supervisor**
Lucia Teixeira	Vice President, Administration	AWC-CT	Bridgeport, CT	Charles Firlotte, President & CEO
Donna Parlatore	Director, Business Process Improvement	AWC-CT	Bridgeport, CT	Lucia Teixeira
Karen Mastrianni	Manager, Customer Relations	AWC-CT	Monroe, CT	Lucia Teixeira
Susan Muro	Manager, Customer Service	AWC-CT	Monroe, CT	Lucia Teixeira
Kerri Russell	Supervisor, Billing	AWC-CT	Monroe, CT	Lucia Teixeira
Maria Fannell	Supervisor, Collections	AWC-CT	Monroe, CT	Lucia Teixeira
September 30 2022				
Name	**Position Title**	**Employing Company**	**Location**	**Supervisor**
Lucia Teixeira	Vice President, Administration	AWC-CT	Bridgeport, CT	Donald Morrissey, President
George Logan	Director, Community Relations	AWC-CT	Monroe, CT	Lucia Teixeira
Kerri Russell	Manager, Billing Operations	AWC-CT	Monroe, CT	Lucia Teixeira
Maria Fannell	Manager, Collections	AWC-CT	Monroe, CT	Lucia Teixeira
Nicole Williams-Barr	Supervisor, Service	AWC-CT	Bridgeport, CT	Lucia Teixeira
Leticia Hernandez	Supervisor, Meter Reading	AWC-CT	Bridgeport, CT	Lucia Teixeira

Figure 5-3 Aquarion Customer Service Management Organization[15]

5.1.2.2. Functional Organization

Approximately 20% of Aquarion's employees work in the customer service organization, and nearly all work for AWC-CT. Aquarion's customer contact and billing operations are based in a facility in Monroe, Connecticut. Field services are based in nearby Bridgeport, Connecticut. Aquarion's employees are assigned to "organizational units." Customer service staffing by company and organizational unit is shown in Figure 5-4.

Organizational Unit	**Year End (1)**			
	2019	**2020**	**2021**	**2022**
AWC-CT				
Billing Department	6	8	1	1
Billing Services			9	8
Call Center		15	16	16
Collections	9	9	8	9
Customer Service Support	1			
Customer Services	16	2	2	1
Customer Services , IT & HR	4	3	3	3
Meter Reading	7	8	8	8
New Services	2	2	2	2
Service	18	18	19	20
AWC-CT Subtotals	**63**	**65**	**68**	**68**
AWC-NH				
Customer Service NH	2	2	2	2
Customer Service - Abenaki			1	1
AWC-NH Subtotals	**2**	**2**	**3**	**3**
Totals	**65**	**67**	**71**	**71**
Note 1: Staffing totals are year end, except for 2022 which is as of September 30 2022.				

Figure 5-4 Aquarion Staffing by Organizational Unit[16]

[15] Response to FTI-113, Atts. 1-4.

[16] Response to FTI-113, Atts. 1-4(AQ).

5.1.2.3. Integration of Aquarion Customer Service Across Water Utilities

Aquarion's customer service is centrally managed and operated for all water utilities. Nearly all customer service is performed by employees of AWC-CT. Aquarion uses one contact center with one call queue for all of its water utilities and for its unregulated homeowner warranty subsidiary. Billing and collection is also conducted by AWC-CT employees on behalf of all water utilities. As described more fully in the Affiliate Transactions section of Chapter 3, customer service costs incurred by AWC-CT which are deemed to benefit AWC-MA and AWC-NH are directly charged or allocated to those utilities. The three employees in the AWC-NH organizational units in Figure 5-4 are non-union customer contact employees (one CSR and two Customer Service Team Leads) located in local offices in New Hampshire.

5.2. Customer Contact Center Operations

5.2.1. Eversource

Eversource has four customer contact centers serving its electric and gas utilities:

- Windsor, Connecticut: primarily serving CL&P, YGS, and WMECO;
- Westwood, Massachusetts: primarily serving the NSTAR companies;
- Manchester, New Hampshire: primarily serving PSNH;
- Springfield, Massachusetts: serving EGMA.

Eversource added the Springfield, Massachusetts center in 2020 with the acquisition of Columbia Gas.

5.2.1.1. Contact Center Staffing

Contact center operations for all states and utilities are centrally managed by the Director, Contact Centers, based in Windsor, Connecticut. Employees at the Springfield center work for EGMA. All other contact center management and union employees work for the EESC. In addition to employees with direct customer contact responsibility, in 2022 there were approximately 25 staff in various other cost centers performing management and support functions, including workforce and program management and analytics.[17] All four contact centers experienced staffing reductions between the end of 2019, just prior to the COVID-19 pandemic, and the end of 2022. Staffing by location and cost center as of the end of 2019 and 2022 is summarized in Figure 5-5.[18]

[17] Classification as other Contact Center staff in is based on audit analysis of the Eversource customer service organization from data provided in response to FTI-113. At the end of 2022 these included the Director of Contact Centers, several Managers of Contact Centers, a Manager of Workforce Planning and Performance Analytics, and various Senior Consultants, Consultants and Associate Consultants of Customer Service. They were from the following five cost centers: 03C – Credit Call Center, 05R Call Center Director, 09Z, Customer Resolutions Group, 104, Call Center Workforce Planning and 116 CIS CG.

[18] In addition to employees responsible for customer contact, there are certain other customer service functions housed in the contact center locations. For example, some meter dispatch and back-office credit and collection employees also work at the Windsor, Connecticut location. These employees are not included in Figure 5-5.

ES Contact Center Staffing by Location and Utilities Served										
Location (Cost Ctr No.)	**Manchester NH (11F)**		**Springfield MA (10C)**		**Westwood MA (444)**		**Windsor CT (12X)**		**Other Locations**	
Utilities Served =>	**PSNH**		**EGMA**		**NSTAR**		**CL&P, YGS, WMECO**		**Support Functions**	
Positions	**2019**	**2022**	***2020 (1)***	**2022**	**2019**	**2022**	**2019**	**2022**	**2019**	**2022**
Director	-	-	-	-	-	-	-	-	1	1
Managers	1	1	1	1	1	1	1	1	2	6
Supervisors	6	4	5	4	9	7	7	7	1	2
Customer Svc. Reps. & Associates	97	72	55	41	144	97	128	95	-	-
Others	-	1	5	1	2	2	1	-	12	16
Totals	**104**	**78**	**66**	**47**	**156**	**107**	**137**	**103**	**16**	**25**
Note 1: EGMA was acquired in October 2020.										

Figure 5-5 Eversource Contact Center Staffing by Center and Utilities Served[19]

In general, each contact center serves the utilities indicated in Figure 5-5. Different CIS systems in the legacy Northeast Utilities and NSTAR subsidiaries are the primary factor currently preventing additional integration of customer contact operations among all Eversource centers and utilities. However, cross-center support is provided as follows:[20]

- The Windsor, Connecticut center serving CL&P, YGS, and WMECO supports PSNH;
- The Westwood, Massachusetts center serving the Eastern Massachusetts utilities supports EGMA;
- The Manchester, New Hampshire center serving PSNH supports CL&P, YGS, and WMECO.

Eversource implemented a new SAP-based CIS for EGMA in 2023 and the NSTAR utilities in Eastern Massachusetts are expected to implement this system in 2024.[21] Notwithstanding the constraints of cross-training and union agreements, this suggests the Springfield, Massachusetts and Westwood, Massachusetts centers will eventually be consolidated into a single virtual call center.

Eversource stated that, due to employee training limitations, the Windsor, Connecticut contact center has operated with separate groups of CSRs and call queues for each utility served, but that these would be merged into a single call queue (effectively a single virtual call center).[22] At the time of our interview, the expected "go live" date for this change was October 2023.

5.2.1.2. Use of Contracted Agents

Eversource utilizes third-party vendor Alorica to handle credit and collection traffic (credit calls). As necessary, Alorica can also support customer calls in non-credit areas normally handled by employee CSRs. Calls are routed to Alorica through the automatic call distribution system, normally based on whether the customer has a past due balance or indicates an interest in a credit program through the interactive voice response unit ("IVR").[23] As of October 2022, Eversource stated that Alorica provided a daily average of 86 CSRs in support of credit and

[19] Response to FTI-113, SP02, Atts. 1-4(ES).

[20] Interview with Senior Vice President, Customer Operations and Digital Strategy, Eversource Energy, (Jared Lawrence); Vice President, Customer Operations, Eversource Energy, (Jessica Cain); Vice President, Solar Programs, Eversource Energy, (Andrew Belden); Director, Electric Service Support and Distributive Generation, Eversource Energy, (Warren Boutin); Director, Strategic and National Accounts, Eversource Energy, (Peter Barsamian), March 1, 2023.

[21] Id.

[22] Id.

[23] Id.

collection and a daily average of 47 CSRs supporting supplemental billing and payment transactions. Alorica represented approximately 41% of contact center staffing in support of Connecticut utility customer service.[24]

5.2.1.3. Contact Center Performance Metrics

Figure 5-6 summarizes key contact center performance metrics maintained for the CT Companies.

Performance Indicator	Call Category	Performance Targets	2017	2018	2019	2020	2021	2022
Calls Answered by CSRs	Non-Credit	N/A	1,664,441	1,829,766	1,577,901	1,506,841	1,340,665	1,419,532
	Credit		760,886	710,227	706,885	411,671	388,664	517,343
	CT Total		2,425,327	2,539,993	2,284,786	1,918,512	1,729,329	1,936,875
Total Calls Offered	Non-Credit	N/A	4,168,498	4,622,803	4,108,858	4,311,451	3,430,637	3,648,266
	Credit		1,181,769	1,247,201	1,098,812	619,160	570,565	786,596
	CT Total		5,350,267	5,870,004	5,207,670	4,930,611	4,001,202	4,434,862
Average Speed of Answer for CSR Calls (Seconds)	Non Credit	None provided	102	99	92	178	146	191
	Credit		96	284	90	55	55	136
	CT Total		100	151	91	152	126	176
CSR Average Handle Time for CSR Calls (Minutes)	Non-Credit	None provided	6.0	6.0	6.2	6.6	6.6	6.8
	Credit		7.1	9.8	9.1	8.3	10.6	11.2
	CT Total		6.4	7.1	7.1	7.0	7.5	7.9
90 Second Service Level for CSR Calls (1)	Non Credit	90 sec. target 66% in 2017; 75% 2018 & 2019. 120 sec. target 70% 2020-2023	73%	72%	74%	*62%*	*66%*	*57%*
	Credit		81%	56%	78%	*91%*	*91%*	*82%*
	CT Total		75%	68%	75%	*68%*	*72%*	*64%*
Call Abandonment Rate for Total Calls (IVR + CSR Calls)	Non-Credit	None provided	2.0%	2.3%	1.9%	5.2%	3.1%	3.6%
	Credit		5.9%	10.1%	3.3%	1.9%	2.0%	4.1%
	CT Total		2.9%	4.0%	2.2%	4.8%	3.0%	3.7%
Percentage of Calls Contained in the IVR	Non Credit	None provided	58%	58%	60%	60%	58%	57%
	Credit		30%	33%	32%	32%	30%	30%
	CT Total		52%	53%	54%	56%	54%	53%
Percentage of Calls Handled by CSRs	Non-Credit	None provided	40%	40%	38%	35%	39%	39%
	Credit		64%	57%	64%	66%	68%	66%
	CT Total		45%	43%	44%	39%	43%	44%
First Call Resolution	CT Total	85%, non-credit, 2018 only	82%	83%	73%	74%	80%	85%
CSR Satisfaction Survey	CT Total	4.9 in 2021, 4.89 in 2022	not done	not done	4.86	4.86	4.86	4.85
Note 1: In 2020 ES changed the service level from measuring credit call performance from 90 seconds to 120 seconds. This data reflects the 90 second service level for all years to maintain comparability.								

Figure 5-6 Eversource Connecticut Customer Contact Performance Indicators[25]

The telephone metrics shown above are divided into "credit" and "non-credit" categories. Credit calls are those in which the caller indicates interest in credit programs or service protections or has a past due balance in the CIS. As noted above, credit calls are handled by contracted Alorica CSRs. Non-credit calls are all other calls, including move-in and move-out requests, certain billing questions, and others. These are handled primarily by employee CSRs, with some support from contracted CSRs.[26]

5.2.1.4. Telephone Performance Targets

The only customer contact telephone metric for which we could determine Eversource consistently maintained performance targets in Connecticut was the 90-second and 120-second service levels. Eversource maintained targets for after-call customer satisfaction surveys during the years 2021 and 2022.[27] Eversource does not appear

[24] Response to FTI-130.

[25] Response to FTI-411, Att. 1(ES); Response to FTI-418, Att. 1(ES); Response to FTI-594, Att. 1(ES); Response to FTI-636, Att. 2(ES).

[26] Response to FTI-636.

[27] Based on analysis of response to FTI-594, Attachment 1(ES).

to have maintained performance targets for several important telephone metrics which experienced performance deterioration during the three years ending 2022, including ASA, AHT and CAR.

5.2.1.5. Evaluation of Eversource's Customer Contact Performance in Connecticut

The number of calls offered and answered by CSRs has decreased in recent years. For example, the number of non-credit calls answered by employee CSRs on behalf of Connecticut customers was 10% lower in 2022 than in 2019. Normally a decrease in call volume would be expected to improve telephone performance. However, during this period CSR staffing in the Windsor contact center decreased by 26%, more than twice as much as call volume decreased.[28] Partly as a result, several Connecticut telephone performance metrics deteriorated between 2019 (the most recent pre-COVID-19 pandemic year) and 2022. The following metrics showed a decline in performance:

- **Average Handle Time (AHT):** The AHT for non-credit calls handled by employees increased by about 30 seconds, from 6.2 minutes in 2019 to 6.8 minutes in 2022. The AHT for credit calls handled by contracted CSRs increased much more significantly, rising by two minutes (from 7.1 to 9.1) between 2017 and 2019, and by another two minutes (from 9.1 to 11.2) between 2019 and 2022.

Eversource cited "multiple changes in CSRs' live call guidance" beginning in 2019 as a primary reason for the 2019-2022 increase in AHT for credit calls handled by Alorica.[29] Eversource stated that CSR interaction with customers has been guided by various PURA directives since the Energy Affordability Docket and the onset of the COVID-19 pandemic.[30]

- **Average Speed of Answer (ASA):** The ASA for non-credit calls handled by employee CSRs increased from 92 seconds to 191 seconds. The ASA for credit calls handled by Alorica CSRs increased from 55 seconds to 136 seconds.

- **90-Second Service Level:** The 90-second service level for calls handled by employee CSRs decreased from 74% to 57%. The 90 second service level for calls handled by Alorica CSRs improved slightly, from 78% to 82%, even though Eversource eased its performance target for these calls from 90 to 120 seconds.

- **Call Abandonment Rate (CAR):** The overall CAR increased from 2.2% in 2019 to 3.7% in 2022. The CAR for calls handled by Alorica CSRs increased from 3.3% to 4.1%. The CAR for employee-handled calls nearly doubled, from 1.9% to 3.6%.

The ASA, the 90-second service level, and the CAR in Connecticut all deteriorated between 2019 and 2022, with the exception of the 90 second service level for credit calls handled by Alorica, which improved slightly. The decline in service level performance for employee-handled non-credit calls appears to be largely due to "the great resignation," which Eversource cited as the primary reason for deterioration in the CAR metric.[31] The 26% CSR staffing reduction in the Windsor, Connecticut contact center probably also explains much of the decline in ASA performance. The significant decline in ASA performance for credit calls handled by Alorica

[28] Percentage decrease in employee CSR (non-credit) telephone calls: 1 – (1,419,532 / 1,577,901) = 10%. Percentage decrease in Windsor center CSRs 1 – (95 / 128) = 26%. The percentage decrease in CSRs assumes that EGMA (Columbia Gas) had the same number of CSRs at the end of 2019 as it did at the end of 2020.

[29] Alorica began handling Eversource credit calls in 2018. Prior to the vendor was iQor (Response to FTI-470-A). The increase in AHT from 2017-2019 was most likely due primarily to the ramp-up in training for new Alorica agents.

[30] Response to FTI-470.

[31] Response to FTI-470.

occurred entirely between 2021 and 2022. Eversource cited heavier call volumes due to the resumption of collection activity following the COVID-19 pandemic as the main cause.[32] The ASA for credit calls should begin to normalize in 2023 as the initial wave of post-pandemic collection activity is completed.

- **Calls Contained in the IVR:** The percentage of calls contained in the IVR and handled by CSRs was nearly the same in 2022 as in 2019.

The IVR is one of several digital platforms available for customer self-service. The others are the Eversource website and a mobile app. Eversource cited a shift in self-service traffic from the IVR toward the web and the mobile app as a reason for stagnation in the percentage of calls contained in the IVR.[33] Eversource also noted customers wishing to complete a new payment arrangement after April 2020 may no longer do so in the IVR, but they may use the website, or speak with a CSR.[34]

- **First Call Resolution ("FCR"):** The FCR metric shown in the table above declined from 83% in 2017 to 73% in 2019. It then improved to 85% in 2022.

This metric does not appear to measure FCR from a customer perspective.[35] A second FCR metric, discussed below, is obtained from responses to surveys sent to randomly selected customers. It does appear to measure customer FCR, but it is not the same as the metric labeled "First Call Resolution" in the table above.

Recommendation: We recommend Eversource establish performance targets for ASA, AHT, and CAR telephone metrics in Connecticut. These metrics currently lack targets and performance has deteriorated in the post-COVID-19 pandemic period compared with 2019. While the targets should consider current operating conditions, they should also consider results achieved before the COVID-19 pandemic. We recommend targets based on levels achieved in 2019, the most recent pre-pandemic year.

Recommendation: Until CSR employee staffing levels return to levels needed to maintain acceptable Connecticut telephone performance (i.e., pre-COVID-19 pandemic performance levels), and to the extent the integration of utility-specific CSR groups into a single queue later this year may create additional temporary performance issues, we recommend Eversource increase the level of support provided by third-party vendor Alorica to the Windsor, Connecticut contact center's non-credit call operations to achieve improvements in performance. This assumes that Eversource is already exploring solutions such as the increased use of technology (e.g., chat features) as a way of improving telephone performance and is evaluating individual CSR performance as it is permitted to do under its 2021 contract with the Windsor, Connecticut contact center's union employees.

5.2.1.6. Customer Satisfaction Metrics

5.2.1.6.1. Stella Connect

During the years 2019 through 2022 Eversource maintained a post-telephone call survey emailed to customers known as the Stella Connect survey, intended to solicit "near-real-time customer feedback immediately after a

[32] Response to FTI-636.
[33] Response to FTI-470.
[34] Id.
[35] Eversource stated that to calculate this metric it "determines if the caller's problem or issue is resolved by relying on the expertise of the Quality Assurance Program call evaluators," [who listen] to the interaction and [evaluate] the result of the call based on information revealed during the interaction. The FCR status of the call is determined and evaluated based on . . . assessing if the [CSR] took all appropriate steps to resolve the customer's contact." Notably, the "resolved" status of a call is not based on customer responses and does not consider previous contacts the customer may have initiated.

customer's live-call conversation with a [CSR]."[36] The survey rated satisfaction on a scale of 1 (worst) to 5 (best) and provided almost one hundred customer responses per CSR per month.[37] CSRs sent the survey to customers at the conclusion of any call that was not transferred, escalated, or deemed to be an emergency. One of the purposes of the survey was to hold CSRs accountable for their individual results, in terms of both their 1-5 rating and the percentage of calls surveyed[38] At the summary level, the survey produced nearly identical overall annual satisfaction results of between 4.85 and 4.86 for CL&P and YGS in all of the four of the years it was used.

5.2.1.6.2. Post-Contact Customer Phone Survey

Eversource maintains another post-contact transaction survey which, among other things, is designed to measure customers' "overall telephone customer service experience with [Eversource]" on a scale of 1-10.[39] Data is solicited via an email sent to randomly selected customers who have completed a telephone interaction, including those who have had an interaction with the IVR. The survey includes detailed questions about the interaction, including a question about "overall experience" and a question about FCR. Results are summarized separately for credit (contracted CSR) and non-credit (employee CSR) calls. Metrics from this survey are shown in Figure 5-7. It is interesting to observe that FCR scores for CL&P's non-credit calls and for YGS' credit calls both declined by 11-12 basis points between 2019 and 2022, while FCR scores for CL&P's credit calls improved by about 5 basis points.

CL&P and YGS Post-Transaction Customer Survey				
Metric / Utility	**2019**	**2020**	**2021**	**2022**
Employee CSRs (Non-Credit Calls)				
Overall Experience (1-10)				
CL&P	8.58	8.29	8.24	7.97
YGS	8.59	8.59	8.50	8.22
First Call Resolution %				
CL&P	74.6%	69.0%	64.7%	61.9%
YGS	73.9%	75.5%	69.3%	69.6%
Contracted (Alorica) CSRs (Credit Calls)				
Overall Experience (1-10)				
CL&P	7.02	7.70	8.24	7.64
YGS	7.69	8.31	8.22	7.48
First Call Resolution %				
CL&P	53.3%	62.4%	64.7%	58.4%
YGS	61.6%	65.3%	69.4%	50.3%

Figure 5-7 CL&P and YGS Post Contact Customer Phone Experience Survey Results[40]

Except for CL&P credit calls, survey details show customers' perceptions of CSR courtesy, knowledge, and information clarity declined between 2019 and 2022, but in most cases not significantly. Except for CL&P credit calls, customers generally rated their telephone experience as slightly more difficult in 2022 than they rated it in 2019. Customers indicated they were placed on hold a little more often in 2022 than in 2019, although the on-hold percentage for CL&P credit calls improved by about 5 basis points.

[36] Response to FTI-417.
[37] Id.
[38] Response to FTI-412.
[39] Response to FTI-417.
[40] Response to FTI-418, Atts. 1-2(ES).

5.2.1.7. Contact Center Benchmarking Data

Eversource provided information from the DataSource benchmarking process, redacted to protect the identity of other participating utilities.[41] The table below summarizes redacted customer contact data for 2021. The data is based on electric and gas utilities in Connecticut, Massachusetts, and New Hampshire, excluding EGMA. It also excludes Aquarion's water utilities. With data from all three states, the benchmarking data is not directly comparable to the Connecticut-only performance indicators from the table above.[42,43] Eversource is benchmarked against a relatively small group of investor-owned multi-utilities from across the United States.[44]

[redacted]

Observations from review of benchmarking results and related follow-up data responses include:

[redacted]

- Consistent with the decline in the 90 second service level for Connecticut non-credit calls, 30-second service level data for all calls (CSR and IVR only) declined from 85.4% in 2019 to 77.4% in 2022 for CL&P. For YGS, the same 30 second "all calls" service level declined from 84.1% to 70.6%.[46]
- The 2021 ASA for employee CSRs was significantly poorer than the participant median and significantly longer than the ASA for contracted CSRs.
- [redacted]

[41] Response to FTI-420, Att. 1(ES) (confidential) (redacted).
[42] Response to FTI-636.
[43] 2021 was the most recent data available. Eversource placed similarly within the peer group in 2019 and 2020 for cost and contractor CSR call metrics. However, the Call Abandonment Rate and the ASA for employee CSRs deteriorated relative to peers between 2019 and 2021.
[44] Response to FTI-500. Eversource stated that utility participants range in size from 100,000 to "nearly 6 million" customers. According to data in public financial reports, Eversource had approximately 4.1 million electric and gas customers at the end of 2021.
[45] Response to FTI-420, SP01, Att.1 (confidential) (redacted).
[46] Response to FTI-636, Att. 1(ES).

5.2.1.8. *Employee Training*

Eversource stated that its Networks Technical Training Organization provides training for all newly hired customer service employees using a combination of instructor-led classes and videos. Training includes instruction, various materials, job aids, and hands-on exercises. Eversource provided program lists showing two phases of CRC progression training for United Illuminating ("UI") and Connecticut Natural Gas ("CNG") / Southern Connecticut Gas ("SCG") employees, each with modules including metering and revenue protection, billing, security deposits, payment, rates, disconnection and reconnection, financial and medical hardship, call handling and escalation, outage calls, and scripts.

5.2.2. Aquarion

Aquarion's customer service organization is divided into Call Center, Field and Metering, Collection, and Billing Services organizational groups.

5.2.2.1. *Call Center Technology and Staffing*

Aquarion's contact center is located north of Bridgeport in Monroe, Connecticut. CSRs are cross-trained to handle customer telephone traffic for Connecticut, Massachusetts, and New Hampshire through a single call queue.[47] Two of Aquarion's CSRs speak Spanish and Aquarion has access to a translation service to assist customers with other languages when needed. Aquarion's website has both English and Spanish pages, and bill insert newsletters are provided in both English and Spanish. Aquarion also has CSRs in Gilford and Hampton, New Hampshire. These employees handle walk-in customers for AWC-NH and Abenaki.[48] Figure 5-9 summarizes customer contact staffing at the end of 2019 and as of September 30, 2022.

Aquarion has an SAP-based CIS integrated with its telephone system. The telephone system employs an IVR. Aquarion stated that the CIS has been continuously upgraded over time. Aquarion implemented a chat feature in 2022 that can be switched on for use during periods of high telephone traffic.[49]

Aquarion Call Center Department Staffing				
Position	**AWC-CT**		**AWC-NH**	
	12/31/19	**9/30/22**	**12/31/19**	**9/30/22**
Manager, Customer Experience / Supervisor GIS (1)	1	1		
Supervisor, Customer Service	1	1		
Team Leader & Trainer	2	2		
Customer Service, Team Lead			1	2
Customer Service Representative	12	13	1	1
Totals	**16**	**17**	**2**	**3**
Note 1: The Supervisor of Customer Service continued to report to the same individual in 2022, but organizational data shows the employee's title changed from Manager of Customer Experience to Supervisor of GIS.				

Figure 5-8 Aquarion Contact Center Staffing[50]

[47] Interview with Vice President, Administration, Aquarion Company (Lucy Teixeira), April 11, 2023.
[48] Id.
[49] Id.
[50] Response to FTI-113, Atts. 1-4(AQ).

5.2.2.2. Contracted Agents

Aquarion does not currently use contracted agents in its customer contact function.[51]

5.2.2.3. Contact Center Performance

The following table summarizes Aquarion's contact center telephone performance for Connecticut, Massachusetts, and New Hampshire combined.

Performance Indicator	Targets	2017	2018	2019	2020	2021	2022
Total Calls		289,607	287,744	305,190	271,997	267,446	291,412
Call Answer Speed (seconds)	50	44	36	44	44	44	47
Call Handling Time (minutes)	4.5	4.3	4.1	3.8	4.10	4.25	4.20
Call Abandonment Rate	4.0%	2.8%	2.5%	3.5%	3.0%	2.5%	3.4%
Pct. Calls Contained in the IVR (1)		41%	44%	43%	48%	50%	48%
Pct. Calls Completed by CSRs (1)		56%	53%	54%	49%	47%	48%
First Call Resolution	93.0%	97.0%	97.0%	97.0%	98.3%	98.8%	98.6%
Note 1: Audit-calculated based on call data provided.							

Figure 5-9 Aquarion Customer Contact Performance Indicators[52]

5.3. Metering, Billing and Collection

5.3.1. Eversource

5.3.1.1. Meter Operations

Eversource's Connecticut electric (CL&P) and gas (YGS) meter reading operations are integrated in the EESC and read routes are combined for the two utilities.[53] Meter reading is conducted by EESC employees. Eversource does not employ contractors to read meters. Meter Technicians (Installers and Mechanics) work for the EESC as of October 2023. Figure 5-11 shows the year-over-year head count of meter operations employed by the EESC and CL&P.

Eversource Connecticut Meter Operations Staffing					
Job Profile	Employing Company	Year End			
		2019	2020	2021	2022
Director, Meter Reading & Field Operations	EESC				1
Manager, Meter Systems / Data Mgt.		1			
Meter Operations Specialist / Coordinator					2
Meter Reading Supervisor		1	1	1	1
Meter Readers / AMR Driver		22	21	21	19
Representative, Mobile Meter Reading		2	2	2	2
Meter Service Installer / Installer Helper	CL&P	21	15	14	11
Electric Meter Service Mechanic		19	18	17	15
Totals		**66**	**57**	**55**	**51**

Figure 5-10 Eversource Meter Operations Staffing, EESC and CL&P[54]

[51] Interview with Vice President, Administration, Aquarion Company (Lucy Teixeira), April 11, 2023.
[52] Response to FTI-404, Att. 1(AQ).
[53] Response to FTI-147.
[54] Response to FTI-113, SP02, Atts. 1-4(ES).

Eversource's meter types are summarized in Figure 5-12. As of December 2022, over 99% of combined electric and gas meters were read with automated devices, either walk by or drive by. At the time of our audit, neither CL&P nor YGS had installed AMI technology. AMI is separately discussed below.

Meter Type	2019	2020	2021	2022 (1)
CL&P				
AMR	1,210,185	1,220,292	1,280,551	1,292,346
AMI	-	-	-	-
Other	66,520	62,280	7,285	7,352
Totals	**1,276,705**	**1,282,572**	**1,287,836**	**1,299,698**
YGS				
AMR	228,986	244,710	253,696	256,936
AMI	-	-	-	-
Other	-	-	-	-
Totals	**228,986**	**244,710**	**253,696**	**256,936**
Note 1: As of December 1, 2022.				

Figure 5-11 CL&P and YGS Meters by Type[55]

Figure 5-13 summarizes CL&P and YGS meter read rates.

Utility	2017	2018	2019	2020	2021	2022
CL&P	99.26%	99.26%	99.30%	99.24%	99.31%	99.31%
YGS	98.55%	98.70%	98.90%	98.94%	98.87%	98.69%

Figure 5-12 CL&P and YGS Meter Read Rates[56]

Eversource's 2022 overall Connecticut read rate, weighted by number of electric and gas meters, was 99.21%. In 2021 [redacted]

5.3.1.2. Advanced Metering Infrastructure

5.3.1.2.1. Advanced Metering Infrastructure Status in Connecticut

At the time of our audit, Eversource had not received the PURA's approval to deploy AMI in Connecticut. CL&P filed a proposal for AMI with the PURA which had not been ruled on at the end of 2022.[58] There is currently no AMI proposal for YGS, but Eversource stated that if the PURA approves AMI for CL&P, YGS will participate in a study to understand the synergies and efficiencies obtainable from a consolidated electric and gas deployment.[59] In its April 2022 Brief filed with the PURA, Eversource requested approval of its AMI Plan, which includes "a cost

[55] Response to FTI-146.

[56] Response to FTI-131, Att.1(ES). [redacted]

[58] On October 2, 2019, the PURA issued an Interim Decision in Docket No. 17-12-03RE02, "PURA Investigation Into Distributed System Planning of the Electric Distribution Companies – Advanced Metering Infrastructure," which established a framework to investigate AMI implementation. Eversource filed a brief on behalf of CL&P on April 29, 2022 which concluded "there will never be a better time to deploy AMI for Connecticut customers" based in part on the passage of a federal infrastructure bill that would enable "a substantial cost share on behalf of Connecticut customers."

[59] Eliminating the need to have employees read meters, whether manually or using AMR technology, is one of the important synergies that can be realized from AMI. These synergies cannot be fully realized if CL&P uses AMI while YGS continues to conduct meter reading by rolling trucks.

recovery path [to] enable full-scale deployment of AMI as the optimal implementation strategy."[60] The Plan includes nine components and is predicted to require five years to implement. It is not within the scope of this audit to evaluate Eversource's AMI Plan in detail; however, we note that Eversource expects to receive the following benefits:[61]

- Enhanced Volt-VAR optimization (VVO);[62]
- Reduced greenhouse gas emissions;
- Reduced meter reading costs;
- Reduced bad debts;
- Reduced energy theft;
- Avoided capital expenditures;
- Improved outage restoration and early outage detection;
- Advanced engineering analysis capability;
- Advanced rate options;
- Targeted Conservation and Load Management programs;
- A reduction in "no trouble found" responses to trouble calls.

Other benefits noted in the brief include automation of service request fulfillment (e.g. remote turn-on and turn-off) and the elimination of equipment and software costs associated with AMR. The Plan as shown in the April 2022 brief included nominal capital costs of $482 million over six years ($377 per customer), nominal O&M costs of approximately $455 million ($355 per customer) over 20 years, and net present value savings of $115 million ($90 per customer) over 20 years.[63]

5.3.1.2.2. Advanced Metering Infrastructure Status in Massachusetts and New Hampshire

Eversource stated that on November 30, 2022, the MA DPU approved a budget for capital and O&M costs through 2028 for several "preauthorized categories of core AMI investments," including AMI electric meters, a communications network, a Meter Data Management System ("MDMS"), CIS, cybersecurity, and project management.[64] At the time of our audit, Eversource was in the procurement phase of implementation. Cost recovery is subject to budget caps and time deadlines. Eversource expects to begin installing electric AMI meters in Massachusetts in the first quarter of 2025 and complete AMI deployment by the end of 2027.

Eversource stated it currently has no plans to deploy electric AMI meters in New Hampshire or AMI for any of its gas or water utilities.[65]

[60] Response to FTI-148, Att. 1, Brief of Connecticut Light & Power d/b/a Eversource Energy, p.2.
[61] Response to FTI-148, Att. 1, Brief of Connecticut Light & Power d/b/a Eversource Energy, Cost-Benefit Analysis Overview, p.22.
[62] VVO is the management of system voltage and reactive power flow (power flow back from destination to source), the primary purpose of which is to reduce system losses and, consumption and demand.
[63] Response to FTI-148, Att. 1, Brief of Connecticut Light & Power d/b/a Eversource Energy, Cost-Benefit Analysis Overview, p.26. Amounts per customer are based on 1.28 million CL&P customers as reported in Eversource's 2022 SEC Form 10K.
[64] Response to FTI-399.
[65] Response to FTI-149.

5.3.1.3. Billing

Eversource has approximately 180 employees dedicated to billing and meter data management. All of these employees work for the EESC. Different cost center groups are focused on specific utilities, given the differences in CIS systems, state regulations, and tariffs. EESC billing staffing and Connecticut billing metrics are summarized in Figures 5-13 and 5-14.

Eversource Billing, Data Mgt & Remittances Staffing				
Cost Center	Year End			
	2019	2020	2021	2022
090 Business Change Support			3	
110 Billing & Data Mgt.	60	57	42	48
116 CIS CG				2
118 Director Billing, Pmt & Meter Services	3	4	3	3
11D Billing & Data Mgt.	87	88	43	49
11M Meter Systems and Data Mgt.			21	22
434 Billing & Data Mgt. CT	28	25	53	46
RDT Payments Print & Data Mgt.	9	9	8	11
Totals	**187**	**183**	**173**	**181**

Figure 5-13 Eversource Billing Staffing by Cost Center[66]

CL&P and YGS Implausible Bills and Adjusted Bill Metrics				
Metric / Utility	**2019**	**2020**	**2021**	**2022**
Total Bills				
CL&P	15,172,207	15,253,313	15,362,295	15,417,870
YGS	2,859,438	2,882,558	2,948,160	2,963,871
Implausibles Pct. of Bills				
CL&P	0.91%	0.90%	0.89%	0.95%
YGS (1)	0.50%	0.46%	0.49%	2.24%
Cancel / Rebill Pct. of Bills				
CL&P	0.49%	0.48%	0.43%	0.41%
YGS	0.60%	0.56%	0.51%	0.57%
Pct. Estimated Bills				
CL&P	0.38%	0.49%	0.43%	0.49%
YGS	not tracked	not tracked	not tracked	not tracked
Cost per Bill (ES Total)	$ 0.60	$ 0.64	$ 0.65	not available
Customers on Budget Billing (ES Total)	3.5%	3.8%	3.7%	not available
E-bills (CL&P + YGS)	29.81%	32.31%	34.47%	37.04%
Note 1: ES stated that 2022 gas implausible reads were high due to incorrectly formatted April weather data that failed to populate heating degree day data fields.				

Figure 5-14 CL&P and YGS Billing Metrics[67]

The cost per bill in the above table is for Eversource utilities in Connecticut, Massachusetts, and New Hampshire combined and comes from DataSource benchmarking results. [68] [redacted]

The percentages of estimated bills for Connecticut were similar to what was reported in the benchmarking process for Eversource overall. Benchmarking results show [redacted]

[66] Response to FTI-113, SP02, Atts. 1-4(ES).
[67] Response to FTI-504, FTI-418; Response to FTI-420, SP01, Att. 1(ES).
[68] Response to FTI-420, Att. 1(ES), (confidential) (redacted).

[redacted]

We did not obtain data for levelized billing (budget billing) specific to CL&P and YGS.[69] However, benchmarking results show that [redacted]

Recommendation: We recommend Eversource take steps to improve customer adoption of levelized (budget) billing, which benchmarking data showed Eversource was underperforming relative to peers. Customers on levelized billing (budget billing) plans are less likely overall to fall into payment delinquency due to occasional high seasonal bills.

Recommendation: E-bills are significantly less costly than paper bills. We recommend Eversource review the procedures AWC-CT has used to achieve an e-bill adoption rate exceeding 50% and determine whether it might apply similar procedures to achieve better e-bill adoption rates for CL&P and YGS.

5.3.1.4. Credit & Collection

As discussed elsewhere in this chapter, much of Eversource's outbound collection calling is handled by contracted agents from third-party vendor Alorica. At the end of 2022, the EESC had 34 Customer Operations employees dedicated to credit and collection activities. Cost center 11K, Credit and Collections Operations, consists primarily of CSRs who perform collection duties.

Eversource Credit & Collection Staffing				
Cost Center	Year End			
	2019	2020	2021	2022
03C Credit Call Center	3	2	3	2
03V Credit & Collections Director				1
10H Credit & Collections Hardship		1	8	9
11B Credit Planning & Analysis	5	5	8	7
11K Credit & Collection Operations	25	23	17	15
11W MA Credit & Collect	1	1		
Totals	**34**	**32**	**36**	**34**
Totals	**221**	**215**	**209**	**215**

Figure 5-15 Eversource Credit and Collection Staffing[71]

Eversource suspended collection activities in Connecticut in response to the COVID-19 pandemic. Specifically:[72]

- All outbound collection activity was halted, resulting in suspension of shutoff notices and cancelation of all shutoffs;
- Third-party collection efforts for closed accounts were suspended;
- Legal collection activities stopped;
- Deposits on accounts with past due balances were refunded;

[69] Our requests for key customer service metrics for CT (FTI-131, FTI-418, FTI-504 and others) did not include a specific request for levelized billing data.

[redacted]

[71] Response to FTI-113, SP02, Atts. 1-4(ES).

[72] Response to FTI-415.

- Extended payment plans were offered in accordance with PURA requirements. These were $0 down payment plans with a 24-month payment period.

Eversource stated that the COVID-19 pandemic's impact was greater for CL&P than for YGS because two peak usage seasons were affected (summer 2020 and summer 2021), whereas only one peak season was affected for YGS (winter 2020-2021). As shown below, collection metrics for CL&P deteriorated in 2020 and 2021 and began to improve in 2022, when residential collection procedures began to return to normal. Delinquent receivables for YGS non-tracked customer accounts improved in 2022, but the net write-off percentage and delinquent receivables for tracked accounts continued to deteriorate in 2022.

Utility	2017	2018	2019	2020	2021	2022
Delinquent Receivables Pct. of Lagged Revenue (Tracked / Non-Tracked Accounts) (1):						
CL&P	43% / 11%	48% / 13%	55% / 12%	69% / 41%	64% / 43%	26% / 29%
YGS	45% / 48%	38% / 45%	48% / 49%	52% / 87%	50% / 102%	79% / 41%
Net Write-offs As A Pct. of Revenue:						
CL&P	0.56%	0.58%	0.60%	0.48%	0.96%	0.56%
YGS	1.08%	1.42%	1.51%	1.27%	1.33%	1.57%
Involuntary Disconnections						
CL&P	53,831	73,456	77,926	14,183	4,293	28,331
YGS	7,938	7,288	6,211	1,304	1,011	5,639
Note 1: All receivables rom 61 days and older divided by revenue from two months prior.						

Figure 5-16 CL&P and YGS Collection Metrics[73]

Even though residential collection activities resumed in 2022, the number of involuntary disconnections was significantly below pre-COVID-19 pandemic levels. Delinquent receivables (60 days and older) as a percentage of revenue also remained elevated for YGS compared with pre-pandemic levels, but for CL&P it was below the levels experienced prior to the COVID-19 pandemic.

Results from [redacted]

[redacted]

[redacted]

[73] Response to FTI-415, Att. 1(ES).
[74] Response to FTI-420, Att. 1(ES) (redacted) (confidential).

[redacted]

[redacted]

5.3.2. Aquarion

5.3.2.1. Meter Operations

At the end of September 2022, Aquarion had one Meter Supervisor, seven Meter Readers, and one Meter Tester and Technician in Connecticut. Seven meter readers are responsible for collecting water usage data.[79] Virtually all meters are walk-by or drive-by AMR meters.

Meter Type	2019	2020	2021	2022 (1)
AMR	191,623	192,151	199,388	209,849
AMI	-	-	-	-
Touchpad Remote	117	91	87	66
Manual	28	21	14	9
Total	**191,768**	**192,263**	**199,489**	**209,924**
Note 1: As of December 1, 2022.				

Figure 5-17 AWC-CT Meters[80]

As shown in Figure 5-19, AWC-CT's read rates are consistent with the rates expected from AMR meters.

Utility	2017	2018	2019	2020	2021	2022
AWC-CT	99.06%	99.00%	99.06%	98.72%	98.42%	99.15%

Figure 5-18 AWC-CT Meter Read Rates[81]

5.3.2.2. Billing and Collection

Aquarion's billing and collection activities are integrated for Connecticut, Massachusetts, and New Hampshire. All employees work for AWC-CT. Activities deemed to benefit utilities in Massachusetts and New Hampshire are allocated or directly charged to those utilities. Figure 5-20 summarizes billing and collection staffing.

Job Profile	Year End			
	2019	2020	2021	2022(1)
Manager, Billing Operations	-	1	1	1
Supervisor, Billing	1	1	1	1
Billing Specialist & Sr. Billing Specialist	5	6	7	6
Billing Analyst	-	-	1	1
Billing Total	**6**	**8**	**10**	**9**
Manager, Collections	-	1	1	1
Supervisor, Collections	1	-	-	1
Collections Administrator	2	2	2	2
Collections Paralegal	1	1	1	1
Collections Representative	4	4	4	4
Account Specialist, Field Investigation	1	1	-	-
Collections Total	**9**	**9**	**8**	**9**

Figure 5-19 Aquarion Billing and Collection Staffing[82]

[redacted]

[80] Response to FTI-146.

[81] Response to FTI-131, Att. 3(AQ); Response to FTI-418, Att. 1(ES).

[82] Response to FTI-113, Atts. 1-4(AQ).

Staffing in the billing function increased with the addition of a Manager and a Billing Analyst. In 2020, Aquarion split technical and people management requirements into separate positions. A Manager of Billing Operations position was added to focus on the technical aspects of billing, freeing up the Supervisor of Billing (a non-union position) to focus on people management.[83] As shown below, the total number of Connecticut bills was approximately 14% higher in 2022 than in 2017. Collection staffing remained steady during this period.

Figure 5-21 summarizes key billing metrics for AWC-CT. Notably, the percentage of implausible bills dropped by a little more than 20% from 2017 to 2018 and then leveled off. The percentage bills issued in electronic rather than paper form improved steadily from 2018 through 2022. By 2021, at 52%, AWC-CT's e-bill adoption rate was significantly better than the 37% rate reported for CL&P and YGS.

Billing Metrics	2017	2018	2019	2020	2021	2022
Bills Processed	2,312,834	2,511,948	2,507,921	2,540,402	2,497,834	2,631,700
Bills Corrected	3,252	4,246	4,938	6,067	8,206	5,312
Corrected Bill Pct.	0.14%	0.17%	0.20%	0.24%	0.33%	0.20%
Implausibles	209,428	172,752	171,931	181,570	156,111	166,051
Implausibles Pct. of Processed	9.1%	6.9%	6.9%	7.1%	6.2%	6.3%
E-bill Pct.	32.9%	37.0%	41.2%	47.9%	52.1%	54.4%

Figure 5-20 AWC-CT Billing Metrics[84]

Aquarion's collection function is responsible for managing accounts receivable, collecting overdue account balances, managing payment agreements for accounts with deferred balances, managing involuntary disconnection and reconnection activity, and various customer account management activities. Key metrics for Connecticut are shown in Figure 5-22. Notably:

- The number of accounts in arrears more than tripled during the COVID-19 pandemic and continued to increase in 2022.
- The number of deferred payment agreements increased more than tenfold during the pandemic and continued to increase in 2022.
- Service disconnection dropped by more than three-fourths during the first year of the pandemic and increased to new highs in 2022 as normal collection and disconnection procedures resumed.
- The reconnection percentage for involuntarily disconnected accounts has improved since prior to the COVID-19 pandemic.

[83] Interview with Vice President, Administration, Aquarion Company (Lucy Teixeira), April 11, 2023.
[84] Response to FTI-407, Att. 1(AQ).

Collection Metrics	2017	2018	2019	2020	2021	2022
Avg. Accts in Arrears Over 90 Days	1,356	1,531	1,243	2,667	4,337	4,637
Payment Arrangements:						
Active Arrangements	1,785	1,720	1,649	6,998	25,629	30,564
Failed Arrangements	621	980	826	2,216	2,688	3,702
Failed Arrangement Pct.	35%	57%	50%	32%	10%	12%
Involuntary Disconnections:						
Disconnections	1,861	2,280	2,561	531	1,225	2,987
Reconnections	1,479	1,687	2,032	514	1,055	2,732
Reconnect Pct.	79%	74%	79%	97%	86%	91%

Figure 5-21 AWC-CT Collection Metrics[85]

During the COVID-19 pandemic, residential water customers with past due balances were able to continue receiving service without making payments on the past due balances.[86] Collection activities significantly increased in 2022, as Eversource had obtained permission to resume involuntary service disconnection of residential accounts. Prior to the COVID-19 pandemic, the lesser of $1,000 or 100% of the past due amount was required to restore disconnected service. Post-COVID-19 pandemic, this has been reduced to 50% of the overdue balance.[87] In addition, customers can now avoid shutoff by paying as little as $25 or 5% of their overdue balance, with a deferred payment agreement.[88] This has resulted in a much larger number of customers enrolling in deferred payment plans, as shown above.

5.4. Complaint Management

5.4.1. Eversource

Eversource refers to outside complaints as "escalated" complaints. In Connecticut, most of these originate from the PURA, which refers the complaints it receives to Eversource for investigation and resolution. Eversource divides complaints into the following two categories.

- **Regulatory Complaints:** These are referred primarily from the PURA and the resolution process is managed by the Manager of Regulatory Affairs in the Regulatory Affairs department.[89] Two RASs manage the complaint process in Connecticut and Western Massachusetts.[90,91] All complaints are logged in the CIS system and are pre-assigned to a RAS based on Issue Type (Billing, Deposits, General, Service Quality, etc.). A five-business day response is standard, during which Eversource responds to the referring agency with resolution or a plan to resolve.[92] Responses can be communicated by email or telephone.

- **Executive Complaints**: As the name implies, these complaints are sent to executives, usually by mail or email. The Director of Customer Strategy is responsible for management of executive complaints.

[85] Response to FTI-408, Att. 1(AQ).
[86] Ibid.
[87] Ibid.
[88] Ibid.
[89] Interview with Director, Customer Strategy, Eversource Energy (Shamus O'Brien); Manager, Regulatory Affairs, Eversource Energy (Lisette Andino); Manager, Regulatory Strategy, Eversource Energy (Veronica Thomas); Regulatory Relations Specialist, Eversource Energy (Tracy Kelsey), April 6, 2023.
[90] Ibid.
[91] Two additional Regulatory Affairs Specialists, who report to a different Manager, are responsible for similar complaint processes in New Hampshire and Eastern Massachusetts.
[92] Response to FTI-133.

Investigation and resolution of complaints is managed by a Supervisor of Executive Inquiries, with the assistance of a Consultant and Associate Consultant of Customer Service.[93,94]

5.4.1.1. Regulatory Complaints

Although most regulatory complaints are sourced from the PURA, complaints also come from the Attorney General's office and internally from the Governmental Affairs department.

Source	2019	2020	2021	2022
Attorney General	48	44	56	82
ES Governmental Affairs	191	247	132	145
Office of Consumer Services	2	1		
PURA Electric	2,186	831	501	
PURA Gas	418	90	95	
PURA Unspecified				692
Totals	**2,845**	**1,213**	**784**	**919**

Figure 5-22 Eversource's Connecticut Regulatory Complaints by Source[95]

It can be difficult to consistently classify complaints by type or cause, primarily because they can arise from multiple issues.[96] The themes uniting most regulatory complaints in most utilities are bill payment difficulty and related service disconnection.

Eversource has a data system which tracks customer interactions by case type (complaints, inquiries, follow-ups on prior complaints and compliments). Each customer interaction is also classified by issue type, several of which align with the PURA's complaint classifications, and by category.[97] There is significant overlap between issue type and category, and apart from the 'general information' issue type, it is not clear what purpose is served by having both issue type and category data fields as they are presently used**.** The table below summarizes Connecticut regulatory complaints by issue type.

[93] Interview with Director, Customer Strategy, Eversource Energy (Shamus O'Brien); Manager, Regulatory Affairs, Eversource Energy (Lisette Andino); Manager, Regulatory Strategy, Eversource Energy (Veronica Thomas); Regulatory Relations Specialist, Eversource Energy (Tracy Kelsey), April 6, 2023; Response to FTI-113, SP02, Atts. 1-4(ES).

[94] There are relatively few executive complaints. Executive complaint investigation and resolution is only one of a wide range of duties assigned to the Supervisor and two Consultants.

[95] Response to FTI-429, Atts. 1a-1c and 2(ES).

[96] For example, a customer may be involuntarily disconnected but may also have a high bill and problems with a payment arrangement. One representative might identify this complaint as a service termination issue, another as billing issue, and a third might classify it as a payment arrangement issue.

[97] PURA issue types include Billing, Termination, General Information, Credit, Outage, Payment Arrangement, Meter Test, and others. Categories include Assistance Programs, Billing, Budget Billing, Tree Trimming, Assistance Programs, Outage, Payment Arrangement, Meter Test Result, and others. In some cases, category contains a further breakdown of issue type, but in other cases, it is the same.

Issue	2019	2020	2021	2022
Billing	294	362	287	348
General Information	278	267	349	312
Payment Arrangment	961	104	41	53
Service Installation	64	35	22	27
Service Quality	36	18	18	32
Service Termination	1,093	86	16	89
Others	119	341	51	58
Totals	**2,845**	**1,213**	**784**	**919**

Figure 5-23 Eversource's Connecticut Regulatory Complaints by Issue Type[98]

During the 2019-2022 period, there were 42 separate categories for general information complaints. The most frequent were maintenance (19%), tree trimming (13%), billing (6%), move-in and move-out (5%), customer service (4%), and disconnection (4%).

5.4.1.2. Executive Complaints

Eversource averages about one complaint per week addressed to an executive from Connecticut customers. Executive complaints appear to receive more scrutiny than individual regulatory complaints. Eversource stated they are addressed from "beginning to end" by a team consisting of a Supervisor and two Consultants.[99] The additional scrutiny may be due partly to the lower frequency and higher visibility of the complaints; however, it also appears that executive complaints are more likely to involve unique circumstances that present opportunities for process improvement. Eversource stated the employees responsible for executive complaints work cross-organizationally with different stakeholders to research, perform root cause analysis, and resolve the complaints.[100]

Eversource CT Executive Complaints by Category				
Category	**2019**	**2020**	**2021**	**2022**
Billing	11	26	12	20
Claims	1	2	3	3
Credit	31	7	3	7
Customer Service	3	2	7	5
Energy Efficiency Loan	1	-	-	-
Field	11	21	19	11
Gas Ops	8	3	1	1
Meter Ops / Install	3	-	-	2
New Customer Connect	-	-	2	-
Outage	3	7	5	5
Service Termination	3	-	-	-
Tree Trimming	3	-	-	-
Totals	**78**	**68**	**52**	**54**

Figure 5-24 Eversource's Connecticut Executive Complaints by Category[101]

[98] Response to FTI-429, Atts. 1a-1c and 2(ES).

[99] Interview with Director, Customer Strategy, Eversource Energy (Shamus O'Brien); Manager, Regulatory Affairs, Eversource Energy (Lisette Andino); Manager, Regulatory Strategy, Eversource Energy (Veronica Thomas); Regulatory Relations Specialist, Eversource Energy (Tracy Kelsey), April 6, 2023.

[100] Response to FTI-455.

[101] Response to FTI-455, Att. 1(ES).

The circumstances leading to executive complaints tend to be less predictable than regulatory complaints, most of which arise from issues involving ability to pay bills. The executive complaint report, or database, is maintained separately from the data collected in the CIS. It contains a more formal complaint description, customer complaint excerpts, and a description of process improvement opportunities. It makes note of whether employees involved in the processes giving rise to the complaint could benefit from coaching to avoid similar problems in the future.

5.4.1.3. Cross-Organizational Process Improvement Efforts

Eversource stated that the Connecticut Regulatory Affairs Team and Voice of the Customer and Executive Complaints Team began meeting monthly in 2022 to identify trends in complaints and opportunities for process improvements.[102] Each meeting focused on "two specific preventable complaints so that the organization could address root causes and ultimately, reduce complaints."[103] Eversource provided a report cataloging complaints discussed in meetings held from April 2022 through April 2023 in which the teams identified suggested process improvements, assigned a "process owner" for follow-through, and noted what improvements were implemented and when.[104]

5.4.1.4. Metrics and Performance Measurement

Eversource stated it does not maintain any management performance targets relating to Connecticut customer complaints.[105] A common performance metric relating to customer complaints is the complaint rate per thousand customers. We were able to calculate this metric by utilizing the PURA's Complaint Scorecard. We compared Eversource's Connecticut complaint rates for the years 2019 through November 2022 to those of Avangrid. The comparison demonstrates:

- Both Eversource and Avangrid experienced significant decreases in the number of complaints per thousand customers as a result of operational changes resulting from the COVID-19 pandemic, primarily in the area of involuntary shutoff and collection policies.
- In 2022, the first post-COVID-19 pandemic year, both Eversource and Avangrid experienced a rise in complaints, primarily due to a resumption of certain collection activities and limited involuntary service disconnection activity.
- Both utilities have much lower complaint rates in 2022 than they had in 2019.
- Prior to the COVID-19 pandemic, Avangrid outperformed Eversource as measured by complaints per thousand customers, but coming out of the COVID-19 pandemic in 2022, Eversource outperformed Avangrid.

[102] Response to FTI-140.
[103] Response to FTI-457.
[104] Response to FTI-591, Att. 1(ES).
[105] Response to FTI-456.

PURA Customer Complaint Rates for CT Electric & Gas Utilities								
Company / Segment	2019		2020		2021		2022	
	Complaint	Rate / 1000 Cust.	Complaint	Rate / 1000 Cust.	Complaint	Rate / 1000 Cust.	Complaint	Rate / 1000 Cust.
Eversource								
CT Electric	1,855	1.47	1,089	0.86	402	0.32	518	0.44
CT Gas	265	1.10	74	0.30	84	0.34	94	0.41
Eversource CT	**2,120**	**1.41**	**1,163**	**0.77**	**486**	**0.32**	**612**	**0.44**
Avangrid								
CT Electric	263	0.78	195	0.57	120	0.35	150	0.48
CT Gas	536	1.39	122	0.31	137	0.35	340	0.94
Avangrid CT	**799**	**1.10**	**317**	**0.43**	**257**	**0.35**	**490**	**0.73**

Figure 5-25 Comparison of Eversource and Avangrid PURA Complaint Rates for Connecticut[106]

Recommendation: We recommend Eversource develop a scorecard performance target rate for customer complaints referred to Eversource in Connecticut by the PURA. The scorecard target should be applicable to the Regulatory Affairs department. The target should be informed by actual experience in the post-COVID-19 pandemic environment, during which complaints have declined due to improved programs for low-income customers and lower numbers of accounts disconnected for non-payment.

5.4.2. Aquarion

AWC-CT has few complaints referred from the PURA or other external parties. During a period of nearly four years, January 2019 through October 2022, the PURA referred only 14 customer complaints. AWC-CT stated that customers are provided with information necessary to contact the PURA should they wish to file a regulatory complaint with them. A contact number is available on Aquarion's website.[107]

In addition to the small number of regulatory complaints, Aquarion internally logs customer interactions in certain categories as complaints. These are reviewed to understand patterns and implement process improvements.[108]

Category	2019	2020	2021	2022
General Complaint	217	116	14	7
High Bill Investigation	1,295	470	543	427
High Pressure	53	33	30	34
Leak @ Coupling	8	5	2	2
Leak @ Meter	240	202	269	248
Low Pressure	287	187	262	213
No water	249	153	229	275
Noisy Meter	28	25	23	27
Outage	231	264	343	277
Road Repair/Pave	92	71	46	46
Totals	**2,700**	**1,526**	**1,761**	**1,556**

Figure 5-26 AWC-CT Customer Contacts Recorded Internally as Complaints[109]

[106] Response to FTI-140, Att. 1(ES); Response to FTI-428, Att. 1(ES).
[107] Interview with Vice President, Administration, Aquarion Company (Lucy Teixeira), April 11, 2023.
[108] We asked why complaints dropped by more than 90% in the "General" category. During our interview on April 6, 2023, Lucy Teixeira, Vice President of Administration, stated that this was because CSRs had been incorrectly coding customer interactions and that this was corrected in 2021.
[109] Response to FTI-431, Atts. 1-4(AQ).

The largest category of internally recorded complaints, which explains most of the decline in total complaints between 2019 and 2022, is high bill investigations. Aquarion stated these are down substantially because they are logged as a high bill investigation complaint only when a service call is necessary, and that more thorough, improved customer service scripts have helped CSRs assist customers in self-identifying leaks, thereby avoiding many service calls.[110]

5.4.2.1. Customer Advocate

Aquarion opened a Customer Advocate and Social Media Support Coordinator position in October 2022. The Customer Advocate position reports to the Manager of Customer Experience. Among the key duties are:[111]

- Responsible for escalated customer complaints, ensuring complaint validity and monitoring the gravity of complaints;
- Liaison between Aquarion and regulators (primarily the PURA, Office of Education("EOE") in Connecticut, Massachusetts, and New Hampshire with regards to customer inquiries and complaints and regulatory compliance;
- Conduct inter-departmental research to resolve complex customer issues and complaints.

Other duties involve outage reporting and communications and social media communications management. The position was filled early in 2023.[112]

5.5. Low-Income, Hardship and Medical Protection Programs

5.5.1. Eversource

5.5.1.1. Low-Income Programs

Eversource offers two arrearage forgiveness programs ("AFPs") for customers who have difficulty paying their energy bills.[113] Eligibility for both programs requires an income of 60% or less of Connecticut median income based on household size.

- **Matching Payments Program**: The MPP is funded through the utilities' system benefits charge ("SBC") and is administered in accordance with Connecticut General Statutes. Customers are protected from involuntary shutoff year-round and past-due balances are reduced through a matching payment. To be eligible for the MPP, customers must apply for and ultimately must be eligible for the Connecticut Energy Assistance Program ("CEAP").[114] Customers must enter into a 12-month amortization agreement in which Eversource matches customers' payments and the amount of awarded CEAP down to a zero balance. Customers must use Eversource as their primary source of energy for heating.[115]

- **New Start Program**: New Start is an electric program available to CL&P customers with a balance of $100 or more that is at least 60 days in arrears. Eversource describes New Start as an arrearage management plan. Like the MPP above, it is funded through the SBC.[116] Customers enter into a 12-month amortization

[110] Interview with Vice President, Administration, Aquarion Company (Lucy Teixeira), April 11, 2023.
[111] Response to FTI-459, Att. 1(AQ).
[112] Interview with Vice President, Administration, Aquarion Company (Lucy Teixeira), April 11, 2023.
[113] Response to FTI-144, Atts. 1-2(ES).
[114] Ibid.
[115] Response to FTI-463.
[116] Response to FTI-461. Note: The New Start program will be ending in November 2024.

agreement to pay their monthly average bill. For each payment made, 1/12th of the balance in arrears at the time of enrollment is forgiven.

5.5.1.1.1. Program Administration and Outreach

Low-income programs are administered by the Manager of Low-Income Programs and overseen by the Director of Credit and Collections. The Manager administers the programs for all utilities in Connecticut, Massachusetts, and New Hampshire.[117] Program administration is supported by the Credit and Collections team, which assists with customer notifications and by the Digital Strategy and IT team, which delivers customer alerts by email and text.[118] Contracted CSRs who perform collection activities receive program training and assist by offering program information during customer calls.[119]

Customers can inquire and apply for both the MPP and New Start through Eversource during a live call or through a CAA. The CAA can enroll the customer with Eversource using a secure online portal. CL&P customers may enroll in New Start online by themselves at Eversource.com. Customers can enroll into the appropriate AFP during calls with CSRs. Eversource also periodically receives electronic files from CAAs of customers who have applied for CEAP. Eversource recently entered into a data sharing agreement with the Connecticut Department of Social Services ("DSS") under which customers who prequalify as financial hardship may consent to have DSS share validation of benefits eligibility with the utilities, which clears the way for AFP approvals.[120]

Customers have up to 60 days after applying for participation in the MPP or New Start to submit proof of financial hardship. This can be done by visiting a CAA, through the Eversource website, by fax, or by mail.

Low-income outreach efforts include the following:

- **Automated Messaging:** Eversource's outbound automated collection messaging, in addition to reminding customers about overdue bills, also informs them that they may qualify for the MPP. Customers already enrolled in the MPP receive reminder calls to make monthly payments to remain active and eligible for matching payments.

- **Written Communication:** Emails, letters, bill inserts, messaging, and social media posts are used to inform customers about AFPs, the Winter Protection Plan ("WPP"), Energy Efficiency programs, and CEAP.[121] Depending on the specific communication, these include telephone numbers and/or links to Eversouce.com and to CAAs. Eversource stated that these are available in both English and Spanish and most of the examples provided contained examples in both languages.

- **Community-Distributed Information:** Fact sheets are distributed to customers and to municipal, community, and other government leaders. Eversource stated that it had officials designated to receive program communications in each of the towns it serves.[122] Eversource targets November, which is Heating Awareness Month, for much of this communication.

[117] Interview with Director, Credit and Collections, Eversource Energy (Daniel Trainor); Manager, Low-Income Programs, Eversource Energy (Teresa Washington), April 5, 2023.
[118] Response to FTI-144, Atts. 1-2(ES).
[119] Ibid.
[120] Ibid.
[121] Response to FTI-144, Atts. 1-5(ES).
[122] Interview with Director, Credit and Collections, Eversource Energy (Daniel Trainor); Manager, Low-Income Programs, Eversource Energy (Teresa Washington), April 5, 2023.

- **Webinars and Live Outreach Events:** Eversource partners with CAAs and others to educate customers and other interested parties about its low-income programs. The Manager of Low-Income Programs stated that approximately 15 events were done in 2022 and, at the time of our interview, Eversource had an event scheduled in Bloomfield for April 6, 2023.[123] In most cases, Eversource's Low-Income team partners with people from other groups, such as the Energy Efficiency group or with CAAs, to maximize customer exposure to its programs.

- **Paid Advertising:** Eversource advertises low-income programs on the radio and in newspapers. Ads are produced in English and Spanish and geo-targeted to communities which tend to have larger customer percentages with past due bills.[124]

5.5.1.1.2. Automatic Enrollment and Renewal

MPP: Although the MPP is often enrolled in by customers with arrearages, an arrearage balance is not necessary to participate. Each year in November, Eversource automatically renews MPP enrollments for customers who participated in the prior plan year and whose CEAP energy payments have been applied to their account.[125]

New Start: In April 2022, Eversource received approval from the PURA to automatically enroll electric customers into the New Start program.[126] To qualify for automatic enrollment, in addition to normal enrollment conditions ($100 or more in arrears for 60 days or more), the following additional conditions apply:

- The customer must be an active, residential customer of CL&P;
- The customer's financial hardship status must be verified;
- The customer cannot also be enrolled in a flexible payment plan or the MPP.

Eversource stated its compliance with this order in a letter dated May 16, 2022, indicating it had automatically enrolled 22,785 electric customers into the New Start program.[127]

5.5.1.1.3. Low-Income Program Performance Metrics

Eversource tracks the number of MPP automatic enrollees, the number of customers participating from November through April (Phase 1, the period during which enrollment can occur). Eversource calculates the percentage of enrollees who were auto-enrolled on November 1, and the success rate, or the percentage of customers who applied for and qualified for the MPP and made required payments through Phase 1. As required by the PURA, Eversource attempts to achieve a 65% success rate.[128]

Eversource did not provide metrics for New Start.

[123] Ibid.
[124] Response to FTI-144, Atts. 1-2(ES).
[125] Response to FTI-463.
[126] Docket 21-07-01, "Application of the Connecticut Light and Power Company and Yankee Gas Services Company . . . for Approval of Arrearage Forgiveness Program 2021-2022," Order No. 28, April 20, 2022.
[127] Letter from Eversource to Jeffrey Gaudiosi, Executive Secretary of the PURA, dated May 16, 2022.
[128] Response to FTI-464.

Metric	2018-2019	2019-2020	2020-2021	2021-2022
CL&P				
Auto Enrolled on Nov. 1	11,657	11,243	14,110	10,893
Participation Thru Phase 1	15,842	14,386	15,557	14,331
Auto Enrollment Pct.	74%	78%	91%	76%
Success Rate	55%	62%	52%	62%
YGS				
Auto Enrolled on Nov. 1	10,721	10,583	13,189	10,009
Participation Thru Phase 1	14,801	14,006	14,711	14,320
Auto Enrollment Pct.	72%	76%	90%	70%
Success Rate	45%	55%	46%	45%

Figure 5-27 Eversource's Connecticut Matching Payment Program Metrics[129]

Recommendation: We recommend AWC-CT develop metrics to track participation and customer renewal of participation in its Low-Income programs, including its new LIRAP program.

5.5.1.2. Medical Protection

Eversource maintains account information in its CIS for electric and gas customers with certified medical conditions to protect the accounts from involuntary disconnection. It maintains additional information for electric customers who require electric-powered life support equipment and provides outreach to such accounts during outage events. Beyond these medical protections, Eversource maintains a Safety Net program under which customers may designate a third party to receive a reminder notice when a bill is overdue.

5.5.1.2.1. Medical Certification

When customers notify Eversource of a medical condition in the home, a CSR adds a medical profile to the customer's account record. This generates a letter explaining the benefits of certifying the medical condition and outlining additional communication provided to households with electric-powered life sustaining equipment. In order to become certified, the customer must provide their medical provider with instructions. When certified through the online portal, the account record is updated immediately. When certification is received via fax or mail, account records are updated within one or two business days.[130]

Once certified, the customer account record is updated with the appropriate attribute ("life threatening" or "serious illness") and an expiration date, as indicated by the care provider. Accounts for which Eversource has been notified of a medical condition which has not been certified are classified in CIS as "serious illness non-documented."[131]

5.5.1.2.2. Medical Protection Classification

The CIS tracks the following classifications for electric customers with medical protection status, all of which must be certified by a licensed medical provider and renewed annually:[132]

- **Serious Illness**: A regulatory protection preventing service disconnection during the winter months (November through April). A serious illness account is not eligible for life support status.
- **Life Threatening Illness:** A regulatory protection preventing service disconnection regardless of season.

[129] Response to FTI-464, Att. 1(ES).
[130] Response to FTI-145.
[131] Ibid.
[132] Ibid.

- **Life Support:** A life-threatening condition which also requires electric-powered medical equipment in the home.

To qualify as life support, the account must be certified to designate the medical condition as life-threatening and as requiring electric powered equipment. Life support accounts receive additional outreach support during outage events, including:

- Eversource contacts life support customers with information about the outage;
- Eversource tracks the account's service status during an outage event;
- Community liaisons monitor internal reports for life support customers who could be affected by the outage;
- If Eversource cannot reach a customer, it will notify a point of contact within the municipality and notify them of the address, so the municipality can perform a wellness check if deemed necessary.

5.5.1.2.3. Safety Net

Eversource has a Safety Net program under which customers who may have trouble keeping track of their utility bills and payments may designate a third party to receive a reminder notice when a bill is overdue and electric service is in danger of being shut off or energy supplier service is in danger of being cancelled.[133]

5.5.2. Aquarion

5.5.2.1. Low-Income Programs

Aquarion maintains the following programs for its low-income customers in Connecticut.

- **Customer Assistance Program (CAP)**: Under the CAP, customers may apply for assistance in the form of a "one-time credit" of between $50 and $250.[134] Customers with household incomes up to 75% of the state median income are eligible.[135] The program is renewed annually, so customers may apply once per year.
- **Low-Income Household Water Assistance Program (LIHWAP)**: This program provides a one-time credit of up to $1,000.[136] Funding for LIHWAP is provided by the federal government and the program is set to end on September 30, 2023, unless an extension is provided. At the time of our audit, Eversource did not have information about whether the program would be extended.[137]

- **Low-Income Rate Adjustment Program (LIRAP):** The LIRAP program was approved on March 15, 2023.[138] It will provide a 15% bill credit to residential customers who meet income eligibility requirements (60% of the state median income based on household size). The water bill must be in the tenant's name to qualify (i.e., it will not be applied to landlords). The credit will appear as a separate line item on the customer's bill.

[133] Ibid.
[134] Response to FTI-144, Att. 3(ES).
[135] Response to FTI-462.
[136] Response to FTI-144, Att. 3(ES).
[137] Interview with Vice President, Administration, Aquarion Company (Lucy Teixeira); Director, Customer Service, Aquarion Company (Andrea Millard); Manager, Customer Service, Aquarion Company (Susan Muro), April 5, 2023.
[138] Response to FTI-462.

5.5.2.1.1. Program Administration and Outreach

CAP and LIHWAP: Aquarion co-manages and administers the CAP and LIHWAP programs with the assistance of Operation Fuel. It pays Operation Fuel about $15,000 a year for them to assist with both programs, thereby avoiding the need to hire an additional employee. Aquarion stated that Operation Fuel is well positioned to assist in that they qualify people for various energy and fuel assistance programs.[139] Customer outreach includes bill inserts, website posting and communication by CSRs who perform customer payment and collection duties.[140]

LIRAP: Aquarion's plan is to communicate the availability of LIRAP through Operation Fuel and other CAAs that administer similar programs.[141] Aquarion will also use bill inserts, social media, the monthly newsletter, its website, and an initial press release to publicize the program.[142]

5.5.2.2. Medical Protection

Aquarion's medical protection program prevents residential accounts with certified medical hardships from involuntary disconnection [143] It is managed by the Customer Services Collection Manager, who also has responsibility for service terminations. Like Eversource, Aquarion requires certification from a medical provider. Outreach for medical protection includes bill inserts, website posting, and communication by CSRs who collect customer payments.[144]

[139] Interview with Vice President, Administration, Aquarion Company (Lucy Teixeira); Director, Customer Service, Aquarion Company (Andrea Millard); Manager, Customer Service, Aquarion Company (Susan Muro), April 5, 2023.
[140] Response to FTI-144, Att. 3(ES).
[141] Decision, Docket 22-07-01, Application of Aquarion Water Company of Connecticut to Amend Its Rate Schedule, Decision, March 15, 2023, p.126.
[142] Ibid.
[143] Response to FTI-145.
[144] Response to FTI-144, Att. 3(ES).

Chapter 6: External Relations

Introduction

This chapter evaluates the organization(s) responsible for External Relations and the activities performed to support the communities served by the Connecticut Operating Companies ("CT Companies") of Eversource Energy ("Eversource"), which includes Connecticut Light and Power ("CL&P"), Yankee Gas Service ("YGS") and Aquarion Water Company of Connecticut ("AWC-CT"). FTI's review of this area encompasses the following topics: interactions between the CT Companies and external stakeholders which includes the development and delivery of relevant information, relationship management between the state and communities served, and how charitable giving is considered and funded to support both the CT Companies' and stakeholder needs.

Findings

1. External Relations is provided on a shared service basis with leaders located in either Connecticut or Massachusetts, with many of the activities for CL&P and YGS provided by employees who are located within Connecticut.
2. A "strategic structure" was recently implemented by Eversource to focus on the needs of underserved and environmental justice communities within Connecticut.
3. The supplied list of charitable investments for all three CT Companies contains a wide cross section of organizations and locations across the state that have received these investments.
4. AWC-CT External Relations activities are exclusively managed within the Company which includes the review and implementation of the Communications plan. There is little regular interaction or coordination with Eversource's External Relations activities.

6.1. Introduction to External Relations

"External Relations" is an umbrella term for the activities used to manage relationships and the delivery of information to stakeholder groups including investors, government and regulatory entities, community members, and customers. This is achieved through the combined delivery of communications, marketing, public relations, and relationship management. The Corporate Communications and Community Relations and Sustainability group for CL&P and YGS, and AWC-CT's Corporate Communications and Community Relations group are responsible for these activities.[1]

Jim Hunt, reporting to Joe Nolan, Chairman President & CEO of Eversource, is the Executive Vice President of Corporate Communications and Community Relations and Sustainability ("Corporate Communications"). Reporting to Mr. Hunt are several groups who manage a variety of communications activities and channels used to distribute information and promote CL&P, YGS, and Eversource. These groups include Strategic Communications, Corporate Citizenship & Equity, Sustainability and Environmental Affairs, Regulatory Affairs, Government Affairs, and Community Relations, all of which are managed by Vice Presidents who report to Mr.

[1] Response to FTI-0056.

Hunt. While this is a shared service with leaders located in either Connecticut or Massachusetts, many of the activities for CL&P and YGS are provided by employees who are located within Connecticut.

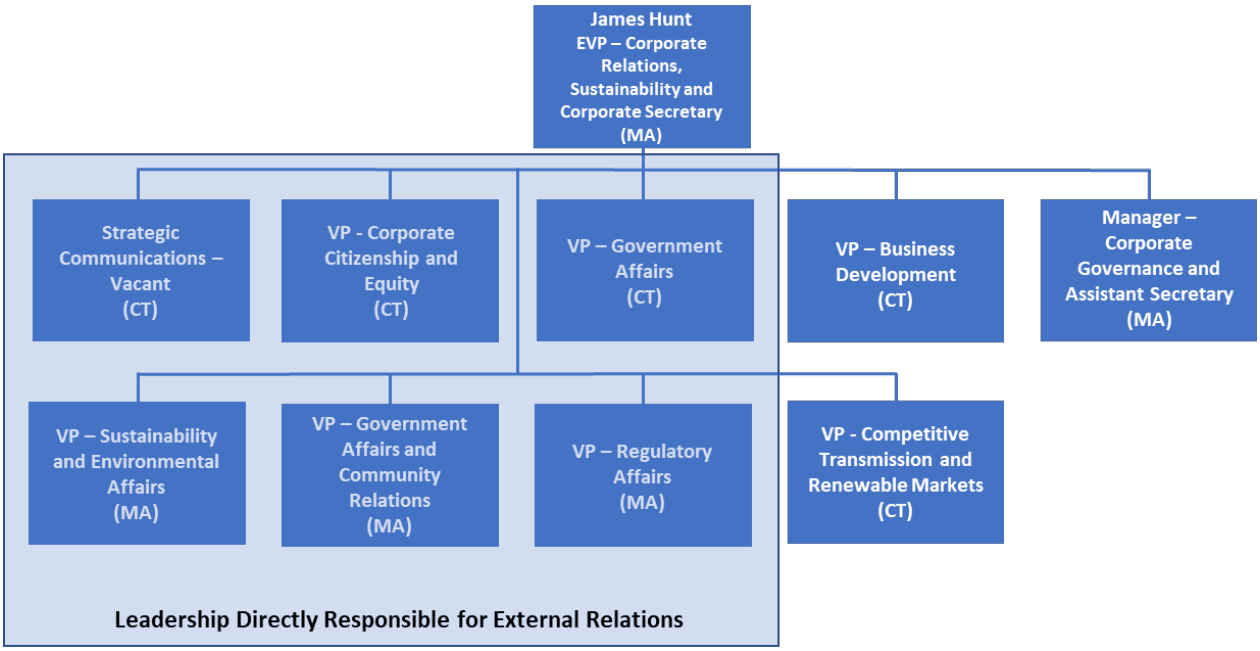


Figure 6-1 CL&P and YGS External Relations Organizational Structure[2]

AWC-CT's Administrative group is led by Lucy Teixeira, Vice President Administration, who reports to Donald Morrissey, President of Aquarion Water Company. Within Ms. Teixeira's group are two direct reports, a Director of Community Relations and a Director of Corporate Communications who both lead the individuals responsible for the Company's External Relations activities.

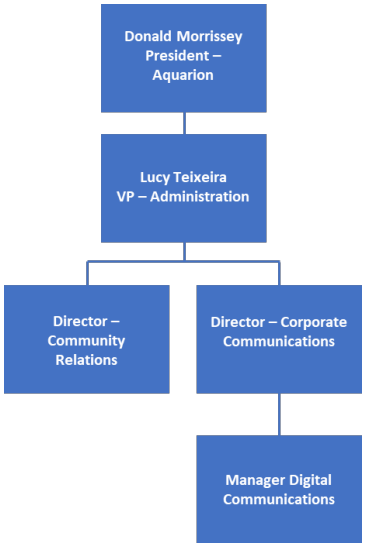


Figure 6-2 AWC-CT External Relations Organizational Structure[3]

[2] Response to FTI-0001, Att. 1.
[3] Response to FTI-0001.

6.1.1. Organization Overview for Connecticut Light & Power and Yankee Gas Services

The Corporate Communications group is an integrated team that is responsive to a variety of needs, with specific details provided below:[4]

While the "Strategic Communications" group is considered the face and voice of Eversource, Steve Sullivan, the President of CL&P, and Bill Akley, the President Gas Distribution (includes YGS) are their respective company's primary points of contact.[5,6] Corporate Communications provides support to Mr. Sullivan and Mr. Akley which may include messaging and other valuable insights as they perform their duties.[7] Other services provided include Customer Communications, Employee Communications, Media Relations & Social Media, Creative Services, Business Unit Support and Emergency Response.

The *"Corporate Citizenship and Equity"* group is focused on the Companies' philanthropic activities within Connecticut. This includes providing grants to local non-profits that support the Companies' communities while also promoting Eversource's brand. This group also coordinates the employee volunteer program which provide resources for a variety of local programs and causes. A "strategic structure" was also recently implemented to focus on the needs of underserved and environmental justice communities within Connecticut.[8]

The *"Sustainability and Environmental Affairs"* group is responsible for managing the relationship between the Companies and their regulatory stakeholders which includes state regulators and consumer advocates. This group serves as a primary point of contact and coordinate within the Companies to respond to individual requests for information.[9] They also provide information concerning topics that are important to the state including emergency response plans, energy efficiency, customer assistance and payment programs, capital programs for both gas and electric, among others.

The *"Government Affairs"* group is responsible for working with state officials which includes the governor, state, and local legislators to work though proposed and existing laws that affect the Companies. They are also responsible for providing insight and awareness to the leaders and employees within each Company.

The *"Community Relations"* group interacts with local officials including Mayors, Selectperson, city and town Managers, Councils, Boards, and Commissions along with Emergency Response personnel. This group is the direct link between the Companies and Communities by providing relevant information and addressing any concerns that are raised by these Communities.

6.1.2. Organization Overview for Aquarion Water Company of Connecticut

AWC-CT's Corporate Communications and Community Relations group provides external communications, government relations, and media relations services. Community Relations and Corporate Communications activities are divided among two Directors who report to Ms. Teixeira. The group internally and externally provides support to the functional departments within the Company and delivers key information and details about operations and programs at AWC-CT.[10]

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[4] Response to FTI-0056.
[5] Interview with President, Connecticut Light & Power (Stephen Sullivan), March 27, 2023.
[6] Interview with President, Gas Distribution (William Akley), March 29, 2023.
[7] Response to FTI-056.
[8] Ibid.
[9] Interview with Interview with Vice President, Government Affairs, Eversource Energy (Peg Morton), July 11, 2023.
[10] Response to FTI-056, Att. 1 (AQ).

6.1.3. External Relations Practices at Connecticut Light & Power and Yankee Gas Services

External Relations activities are coordinated through a tiered approach that begins with understanding leadership's priorities for the Companies. Once these priorities are established, the Corporate Communications group synthesizes them into a communications plan which is used to guide the group's activities. The plan coordinates each functional area's activities by establishing a baseline that is used by the Companies' governance to monitor and measure on progress throughout the year.

The Strategic Communications group is the single point of contact responsible for developing and implementing the plan, along with providing applicable messaging. Each communications channel owner which includes media, calls centers, digital communications (i.e., email, web, etc.), community relations, and others tailor each message, with the tone, content, and delivery method deemed appropriate for each stakeholder group.[11]

There are approximately 20 employees who are directly responsible for interacting with each community within Connecticut. The Companies works to maintain a ratio of 1 employee for 15 communities, with each employee maintaining a continued relationship for continuity purposes. These employees are responsible for delivering their subset of the plan, and for coordinating other community and company communication needs.[12]

The governance overseeing these activities is multilayered beginning with weekly meetings conducted with Mr. Hunt and his staff to discuss any emergent topic or issues. This team also meets monthly to specifically discuss the progress of the plan and any other initiatives. At the highest level, Eversource leadership meets quarterly to discuss progress, performance, and attainment of corporate goals. There are also more informal "face-to-face" meetings that are conducted to ensure coordination between the Companies and Mr. Hunt's team.[13]

The effectiveness of plan delivery is monitored through a typical set of measures which include click-through rates for emails, clicks and page views for the website, and weekly trend reports for social media..[14]

6.1.4. External Relations Practices for Aquarion Water Company of Connecticut

AWC-CT activities are coordinated through department specific business plans that are developed annually. The output of the plan includes the goals and objectives for each department. The Company provided the following details concerning their plans' guiding objectives through their discovery response:[15]

- Serve all Aquarion departments in improving the customer experience through the utilization of professional communications planning and execution skills;
- Track and respond to the impacts of the COVID-19 pandemic on our service areas and the changing needs and behaviors of customers, municipal officials, regulators and other constituencies;
- Help the company ensure adequate water supplies to all customers by promoting water efficiency and twice weekly irrigation;
- Maintain and expand compliance with sprinkler irrigation schedules wherever they are established;
- Raise customer understanding of the costs and complexities of maintaining infrastructure and a safe, reliable supply for all service areas;

[11] Response to FTI-059.
[12] Interview with Executive Vice President, Corporate Relations, Sustainability and Interim Chief Operating Officer, Eversource Energy (James Hunt), April 25, 2023.
[13] Response to FTI-056.
[14] Response to FTI-791.
[15] Response to FTI-056, Att. 1.

- Associate the company with positive events and activities;
- Assist in responses/communications to unplanned service interruptions and other short-term issues".

The Company also identifies their target stakeholders so they can tailor messaging and delivery methods to best serve individual needs while delivering on these objectives.

Government Relations activities are coordinated with Eversource Energy, AWC-CT's Municipal Liaisons and Outreach Campaigns to promote relationships with community officials. The Company focuses on each municipalities' CEO, fire department and department of public works.[16] While the Company does not have employees directly assigned to specific communities due to the lack of regular utilization, they proactively reach out to leaders including when there are potentially disruptive projects.[17]

The Company recently has invested in digital communications, identified as an area of opportunity, to assist with extending their overall reach through social and other digital media.[18]

Since, Ms. Teixeira manages a small team there is no real need for formal governance to review messaging or outcomes based on their plan, however, the Company maintains metrics to assist with evaluating their communication effectiveness. These metrics include social media engagement, email analytics, and website engagement. The metrics provided were detailed and include the appropriate level of information including click rates, impressions, views, reactions, comments, etc.[19]

Specifically, the Company's monitors click rates, bounce rates, and unsubscribe rates for email, which all indicated normal trends. The Company's social media engagement metrics also align to industry trends which typically range between one to five percent. There are also no concerning issues with website traffic, with daily results being consistent throughout the reviewed period.[20]

6.2. Charitable Giving

CL&P and YGS jointly coordinate their charitable giving ("giving") by providing funding for programs, organizations or initiatives that support at least one of five focus areas including:[21]

- Community Wellness and Basic Human Needs
- Education
- Clean Energy and Environmental Stewardship
- Diversity, Equity and Inclusion
- Economic, Community and Workforce Development, with a focus on underserved, under-resourced, and environmental justice communities.

CL&P and YGS accept giving requests which are considered and vetted through criteria that considers alignment to Company objectives including supporting work within their communities. This ensures that funding "provides

[16] Ibid.
[17] Interview with Vice President Administration, Aquarion Water Company (Lucy Teixeira), June 23, 2023.
[18] Ibid.
[19] Response to FTI-762.
[20] Ibid.
[21] Response to FTI-057.

the opportunity to position Eversource Energy positively" either through building existing relationships or creating new ones.[22]

AWC-CT also provides giving funding to organizations throughout their service territory. They first consider the organizations they have previously provided funding to establish their overall funding baseline. Any new giving requests are considered through an evaluation committee which is mandated to fund requests that serve the "well-being of the community".[23]

In certain exceptional circumstances, each Company may elect to give organizations more one annual donation, for example, provide a general annual contribution to a program with supplemental funding provided to sponsor specific events held throughout the year.[24]

The supplied list of investments for all three CT Companies contains a wide cross section of organizations and locations across the state that have received these investments.[25] The Company highlighted that as a result of the enactment of Public Act 23-102 and recent rate-case decisions, their overall strategy to giving remains, however, the giving budget for 2025 may be impacted by reductions due to their diminished ability to raise capital for system investments.[26]

6.3. Coordination between Aquarion Water Company of Connecticut and the other Eversource Companies

AWC-CT's External Relations activities are exclusively managed within Ms. Teixeira's group which includes the review and implementation of the Communications plan. Ms. Teixeira noted there is little regular interaction or coordination with Mr. Hunt's organization.[27]

[22] Ibid.
[23] Interview with Vice President Administration, Aquarion Water Company (Lucy Teixeira), June 23, 2023.
[24] Response to FTI-057, C.
[25] Response to FTI-057, Att. 1 (CL&P).
[26] Response to FTI-057, C.
[27] Ibid.

Chapter 7. Support Services

Introduction

This chapter evaluates the Support Services provided to the Connecticut Operating Companies ("Companies" or "CT Companies") of Eversource Energy ("Eversource"), which includes Connecticut Light & Power ("CL&P"), Yankee Gas Services Company ("YGS") and Aquarion Water Company of Connecticut ("AWC-CT"). These services include Enterprise Risk Management ("ERM"), Legal, Asset Management, Information Technology ("IT") and Cybersecurity, and Regulatory Compliance.

Findings

Enterprise Risk Management

1. Eversource's ERM function is led by the Director of ERM, who also oversees Eversource's corporate insurance and liability claims functions and reports to the Eversource Executive Vice President and Chief Financial Officer ("CFO"). Risk management governance is assigned to the Eversource Board of Trustees' ("BOT") Finance Committee, which receives formal ERM updates annually.

2. Eversource has an executive Risk Committee comprised of leadership from a diverse group of functional areas and is chaired by the Eversource CFO. The Risk Committee meets quarterly and actively participates in selecting the subset of risks to be designated as enterprise risks.

3. Risk identification and assessment is performed annually through workshops with operating areas, meetings with business liaisons, and reviews with executive sponsors. Eversource uses quantitative risk scores in the development stage, however, business and enterprise risks are not determined solely based on those scores.

4. Mitigation plans are required for all enterprise and business risks. Eversource's mitigation plans are sufficiently detailed, and many of the business risks include multiple mitigation activities. Plans are updated twice per year and reviewed by the Risk Committee at least semiannually.

5. Enterprise risks are monitored using Key Risk Indicators ("KRIs") and are assigned a status rating based on KRI performance against predetermined targets. Eversource reported 10 enterprise risks relevant to its regulated utility business in the fourth quarter of 2022. Five were categorized as "on watch" based on KRI results that were below target.

6. The ERM group is a member of several external organizations, including the ERM committee of the Edison Electric Institute ("EEI") and the American Gas Association ("AGA"). The Risk Committee & Finance Committee receives an annual update entitled, "Industry View on Top Risks" that shows the top ten risks from the most recent EEI/AGA survey and relative risk rankings over the past three years. According to the 2022 report, each of the top utility industry risks were also Eversource risks.

Legal

7. Eversource Energy's Legal organization uses a centralized shared services model where all legal matters for CL&P, YGS, and AWC-CT are managed under the same organization. Legal resourcing is provided mostly

though internal counsel at CL&P and YGS, while AWC-CT has recently relied more on external than internal counsel.

8. Cost management for external counsel is achieved through the use of fixed fee, success-based fees, and by the Company exercising their right to pick specific attorneys. They also regularly negotiate rates with law firms.

Asset Management (Real Estate, Fleet, and Inventory Management)

9. (Real Estate) Real Estate vendor contracts are structured through a competitively bid multi-year Master Services Agreement which provide long-term pricing hedges. Each service request must be competitively bid by approved vendors to promote cost control.

10. (Fleet) Each Company determines when a new vehicle is needed by using certain milestones such as vehicle age, mileage or condition as qualifiers. For example, AWC-CT stated that once a vehicle reaches 100,000 miles they proactively review the vehicle's repair history and perform a condition assessment to determine the need for replacement.

11. (Fleet) CL&P and YGS had no particular challenges sourcing vehicles during the COVID-19 Pandemic related supply chain shortages, but AWC-CT had to make alternative arrangements due to sourcing challenges.

12. (Fleet) CL&P and YGS both service and repair vehicles using on-site Company garages while AWC-CT utilizes vendors.

13. (Fleet) None of the Companies provided metrics that tracked overall vehicle utilization.

14. (Fleet) CL&P, YGS and AWC-CT all had challenges with Preventable Motor Vehicle Accidents ("PMVA") in 2022. Several actions were implemented to mitigate this challenge, however, given their recency we were unable to assess their impact.

15. (Inventory Management) The Companies actively review material standards to drive consistent practices across the lines of business through Eversource's Tri-State Standards Group.

16. (Inventory Management) To promote crew efficiency, CL&P had a prior practice of pre-loading materials on trucks. In 2020 and 2021 the Company pre-loaded material approximately 50% of the time. This service dropped off in 2022 due to interface issues between the Company's work management system and the material pre-loading system. The Company noted that they are working on reestablishing this valuable practice where practical.

17. (Inventory Management) AWC-CT's requirement to sole sourcing metering equipment results in supplier risk. The Company stated they understand this risk and manage it by assessing other vendors' ability to supply meters should the need arise.

18. (Inventory Management) CL&P and YGS both experienced supply chain issues resulting from COVID-19 related disruptions, which resulted in extended lead and unpredictable delivery times. AWC-CT did not have similar issues.

Information Technology and Cybersecurity

19. CL&P and YGS both receive IT services from Eversource's centralized IT group. AWC-CT has their own IT organization with a consultative link to Eversource's IT group. This separation exists to account for the

differences between the Companies' Enterprise Resource Planning applications, specifically Eversource Energy's (includes CL&P and YGS) use of Oracle and AWC-CT's use of SAP.

20. The Companies' use internal IT employees to develop less routine strategic applications which typically have special requirements. Third-party employees/vendors are used for standard applications.

21. IT projects are developed from a robust IT Roadmap development process at both CL&P and YGS. We were unable to determine if AWC-CT uses similar process.

22. CL&P's and YGS's historical spend indicates that most IT expenses are Operational ("OpEx") rather than Capital ("CapEx"). In comparison, AWC-CT has a balanced CapEx and OpEx spend profile.

23. The Companies maintain an "Off-Cycle" Project Request Process to allow priority projects to be authorized outside of the normal business planning cycle.

24. CL&P and YGS provided documentation for eight sample projects which had undergone a scope change. Each reviewed project had a sufficient level of project detail and rationale for each change.

25. The responsibility for Eversource's day-to-day management of Cybersecurity falls under Christopher Leigh, Vice President and Chief Information Security Officer, who reports to Ron Utterbeck, Vice President of Information Technology ("IT") and Chief Information Officer ("CIO"). AWC-CT's Cybersecurity Organization reports to the Company's Director of IT. AWC-CT's Day-to-day cybersecurity activities are the responsibility of the Technical Service Manger and two direct reports.

26. Eversource's and AWC-CT's cybersecurity groups are coordinated through a cybersecurity governance counsel where on a standing basis operational concerns, organizational and staffing issues, cybersecurity vulnerabilities and projects are discussed.

27. The Companies' cybersecurity performance management measures, scorecards, and review processes are consistent with industry practice.

28. The Companies maintain several cybersecurity incident response documents that cover a range of potential cyber related emergencies and include details on recovery processes.

29. Communication protocol for cybersecurity incidents could not be established for various agencies including Public Utilities Regulatory Authority ("PURA").

30. CL&P's Independent Board members were interviewed and they indicated the Company provided information and training concerning cybersecurity.

31. "Click rates" for phish tests range between 3 to 7% for Eversource and 3 to 11% for AWC-CT. For an organization the size of Eversource the industry average click rate is approximately 6%.

Recommendations

Legal

1. The Company should perform a formal cost study to determine the effectiveness of their resourcing strategy including the utilization and cost of external counsel. In addition, the Company should promote additional oversight of external counsel by ensuring that the lawyer overseeing the work is not the only person reviewing

the need and charges provided by external counsel which will help mitigate against any instances of conflict of interest.

Asset Management (Real Estate, Fleet, and Inventory Management)

2. (Real Estate) The three Companies should implement improvements to their real estate budget management process which should include the development of an attainable budget that is appropriately managed throughout the year using a portfolio management process.

3. (Fleet) Eversource should work with AWC-CT to implement a new vehicle sourcing synergy. This could assist with additional cost savings and help mitigate against future supplier issues. However, this recommendation should be only implemented if significant benefits can be realized, and therefore is not intended to create any undue administrative burden for the sake of a consistent process.

Information Technology and Cybersecurity

4. AWC-CT should implement a similar, but scaled, version of the Eversource Energy IT Roadmap development process. This will allow for a clear link between business imperatives and the applications developed to improve performance. This will assist the Company with prioritizing projects with the highest impact on business performance through a transparent and repeatable process.

5. The Companies should make improvements to the IT CapEx forecasting process to more accurately reflect actual spend. This will allow for more accurate portfolio management and in-year tracking of expenses.

6. AWC-CT did not demonstrate the development or use of IT project management documentation to ensure consistent delivery practices. If they do not already exists, the Company should develop project documentation by consulting with Eversource's IT group for best practices and other support.

7. Given the documentation provided by the Companies, they should update their cybersecurity risk register to include risk scoring (likelihood and severity) and mitigation actions which is consistent with Eversource's ERM practices.

8. The Companies should consider conducting a third-party cybersecurity maturity assessment to provide a independent evaluation of the Companies' cybersecurity operations and compliance to applicable rules and regulations.

9. The Companies should update their cybersecurity incident response plans to provide details about the communication protocols for all applicable federal, state and other industry groups. These plan should also be updated to include information concerning the approach and structure for after action reviews. Additionally, AWC-CT should benchmark Eversource and other utilities' plans to include more tactical response details for a variety of scenarios.

10. The Company should consider revoking access to email systems and/or the Company network should an employee fail multiple phishing attempts after previous manager interventions. If not already in place, non-compliance to cybersecurity training should also result in revocation of computer access until such training is complied with.

7.1. Risk Management

ERM comprises a set of processes for the identification and mitigation of key risks. In this section we review Eversource's ERM program in relation to industry practices, risks specific to the CT Companies, and mitigation process to determine if key risks have been identified and quantified.

7.1.1. Risk Management Organization

Risk management responsibility resides within Eversource's Finance organization. The leader of the ERM function, the Director, ERM, reports to the Eversource CFO, John Moreira. The Director also oversees Eversource's corporate insurance and liability claims functions, as shown in Figure 7-1.

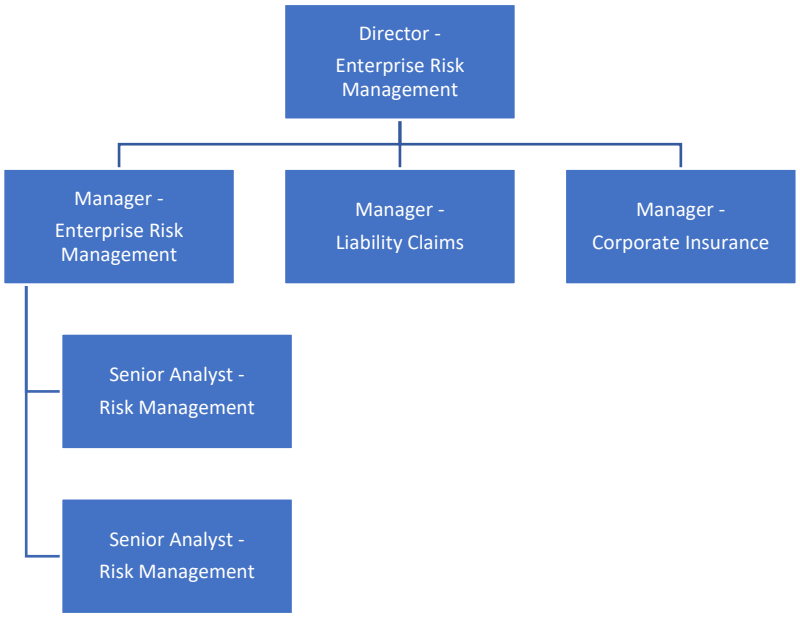


Figure 7-1 Eversource Risk Management Organization Chart[1]

Identification and assessment of business risks is coordinated by the Manager of Enterprise Risk and the ERM Department staff, comprised of one full-time Senior Analyst and one Senior Analyst who works part time on ERM, in addition to having corporate insurance responsibilities.[2]

Risk management is governed internally through Eversource's internal Risk Committee (discussed in more detail below) and at the Eversource BOT level through the Finance Committee. The Director of ERM provides detailed reports on the top risks to the Eversource BOT's Finance Committee annually.

7.1.2. Networks Risk Committee

Eversource's Risk Committee meets quarterly, or more frequently if needed, and consists of senior officers of Eversource. The Risk Committee is responsible for ensuring that Eversource is managing its principal enterprise-wide risks, as well as other key risk areas such as operations, emergency response, environmental, sustainability, information technology (including cybersecurity), compliance, and business continuity. The Risk Committee is chaired by the Eversource CFO, John Moreira.

[1] Response to FTI-113, Att. 5(ES).
[2] Interview with the Director of ERM, Eversource Energy, March 28, 2023.

Figure 7-2 lists the current members of the Risk Committee.

Eversource Risk Committee Members as of 4/5/23	
Risk Committee Member	**Membership Date**
Executive Vice President and Chief Financial Officer (Committee Chair)	Since Inception
President of Gas Distribution	Since Inception
President of Transmission	Added in Q2 2022
Vice President of Energy Efficiency	Added in Q3 2021
Senior Vice President of Customer Operations and Digital Strategy	Added in Q1 2023
Chief Customer Officer	Added in Q1 2023
Senior Vice President of Information Technology and Chief Information Officer	Since Inception
Vice President of Government Affairs & Community Relations	Added in Q3 2021
Vice President, Controller, and Chief Accounting Officer	Since Inception
Vice President of Internal Audit and Security	Since Inception
Deputy General Counsel and Corporate Compliance Officer	Since Inception
President of CL&P *	Added in Q1 2023
President of Aquarion	Added in December 2018
Vice President of Energy Strategy & Policy Development	Added in December 2018
Vice President of Supply Chain, Real Estate & Materials	Added in Q1 2022
Vice President of Talent, Culture, and Organization Development	Added in Q2 2017
Director of Enterprise Risk Management	Since Inception
* The Electric President representative is a rotating position among the three states.	

Figure 7-2 Eversource Risk Committee Members as of April 2023[3]

7.1.3. Risk Policy

The ERM program is governed by the Eversource Risk Management Policy. The policy states:

> *It is Eversource's vision to have an integrated enterprise risk assessment process at the company that assures the timely, periodic assessment of risk, that facilitates the management and monitoring of risk by business units and corporate and shared services groups and that encourages regular reporting on the status of risk management by business units and corporate and shared services groups.*[4]

[3] Response to FTI-514, Att. 1(ES).
[4] Response to FTI-202, Att. 1(ES).

The policy does not describe the specific procedures to be used in performing risk assessments. It sets the expectations of Eversource employees, describes risk management principles in general, and establishes the reporting requirements to executive management (including the Risk Committee) and the Eversource BOT.

The policy requires all Eversource employees to familiarize themselves with exposures related to the operations of their respective organizations, employ practices that do not result in unacceptable risk exposures, and work within the risk framework established by the ERM group and other assurance functions.[5]

The Risk Committee is responsible for policy updates and has the authority to provide interpretations of policy provisions.

7.1.4. Risk Identification and Assessment

The ERM program is conducted on an annual cycle, beginning with a series of workshops with departmental leadership to identify risks within their organizations. The process continues with risk scoring, mitigation plan development, and risk reporting. A timeline of the risk assessment process is shown in Figure 7-3.

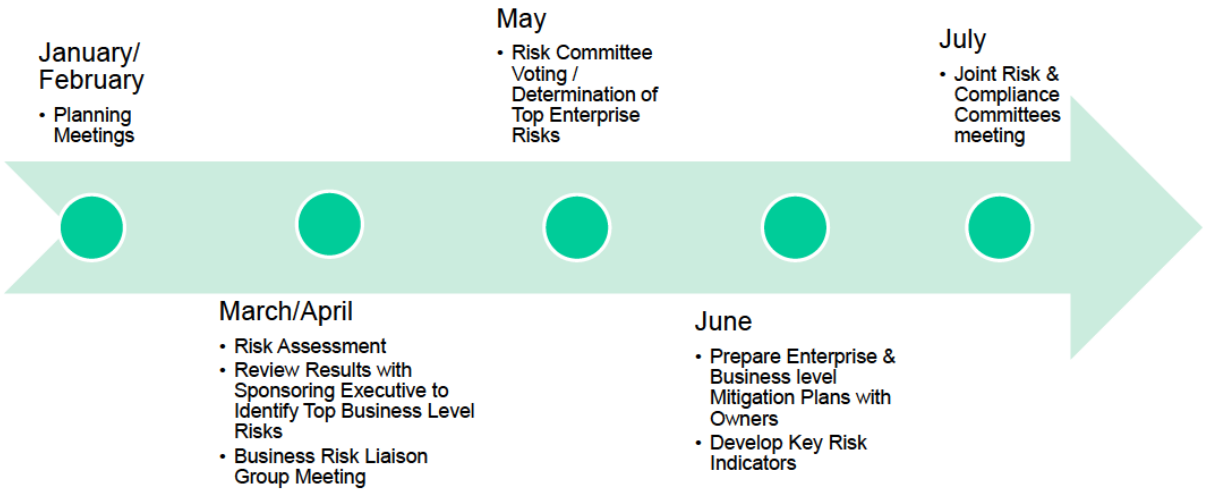


Figure 7-3 Enterprise Risk Management Process Timeline[6]

7.1.4.1. Risk Identification

The ERM group acts as a moderator for the operating groups during the workshop process. Departments are responsible for identifying risks pertinent to their organization. With the ERM team's guidance, management rates each risk on their likelihood of occurrence and impact to Eversource. Likelihood scores range from 1 (remote, <10%) to 5 (almost certain, >90%). Impact scores are based on guidelines developed by the ERM team, as shown in Figure 7-4. Eversource records one impact score based on management's overall assessment that considers all focus areas.

[5] Ibid.

[6] Response to FTI-514, Att. 1(ES).

	Impact Guide				
Focus Area	Score = 1 No or Minor Impact	Score =2 Moderate Impact	Score = 3 Major Impact	Score = 4 Severe Impact	Score = 5 Worst Case Impact
STRATEGIC	Does not impact a strategic objective	Minor negative impact/slight delay to achieving strategic objective	Moderate delay / partial implementation of a strategic objective is achieved	Major delay / significant part of the strategic objective is not implemented	Failure to implement a strategic objective that impacts stock price
REPUTATION	No/minor regulatory, or legislative comments/actions	Combination of public criticism and praise with a potential for regulatory/ legislative action	Criticism does not result in regulatory/legislative reaction but degrades reputation	Criticism increases pressure for legislative/regulatory action w/ potential for civil and/or criminal penalties/fines	Criticism results in negative legislative/regulatory action with civil and/or criminal penalties/fines
OPERATIONAL	No negative impact due to outages/the ability to operate our system	Short outage or temporary impairment of the ability to operate a local area of our system	Short outage, temporary impairment of the ability to operate a district of our system	Lengthy outage or loss of the ability to operate several districts of our system	Significant, lengthy outage or loss of the ability to operate our system
CUSTOMERS (Perception impacting J.D. Powers scores)	No or minor impact to customers' perception of Eversource	Negative impact to a small group of customers' perception of Eversource	Negative impact to a moderate group of customers' perception of Eversource	Negative impact to a large group of customers' perception of Eversource	A significant, adverse impact to all customers' perception of Eversource
FINANCIAL	$0 to $2M impact to ES budget	$3M to $5M impact to ES budget	$6M to $15M impact to ES budget	$16M to $25M impact to ES budget	>$25M impact to ES budget
ENVIRONMENT / SAFETY	No negative impact on safety or the environment	Environmental, health or safety violations issued to the company	Environmental, health or safety near misses that could have resulted in injury to an individual or environmental damage	Incident resulting in injury to an individual or correctable environmental damage	Incident resulting in severe injury or death to an individual or irreparable environmental damage

Figure 7-4 Eversource Risk Impact Guidelines[7]

In addition to known risks, the ERM program identifies emerging risks through participation in benchmarking groups both within and outside the utility industry, discussions with management, and in consultation with outside advisors.[8] These risks are addressed with management during workshop sessions or directly with the Risk Committee. The risk descriptions and scoring are captured in the ERM group's risk management information system, Archer.

While a composite risk score (the sum of likelihood and impact ratings) is calculated, it is solely used to rank risks across the Eversource organization as a prioritization. The outcome of the workshops is the identification of top business risks and enterprise risks within each department. The risk score is one input into those determinations.[9] The results are reviewed with the business area's sponsoring executive to validate the business risks identified and identify risk owners.

7.1.4.2. Risk Mitigation

Mitigation plans are required for all business and enterprise risks. According to the ERM policy, risk mitigation plans "outline the actions undertaken to reduce, eliminate, or transfer risks to meeting objectives or goals."[10] Depending on the risk, the mitigation plan may be assigned to multiple owners across functions and departments at the Vice President or Director level in most cases. Eversource's mitigation plans are sufficiently detailed, and many of the business risks include multiple mitigation activities. The plans are updated twice per year and are reviewed by the Risk Committee at least annually.

[7] Response to FTI-515, Att. 2(ES).
[8] Response to FTI-201.
[9] Interview with the Director of ERM, Eversource Energy, March 28, 2023.
[10] Response to FTI-202, Att. 1(ES).

7.1.4.3. Enterprise Risk Determination

Once the workshops are completed, the ERM group holds a meeting with business group liaisons to review the results of all risk assessments and recommend themes and trends for Risk Committee consideration of top enterprise risks. Risk Committee members are first surveyed on their perspectives, then they meet to formally identify and endorse the enterprise risks. Enterprise risks could be business risks that impact multiple operating areas (thus creating an enterprise-level impact), business risks in one functional area that affect the entire enterprise, or emerging risks that were not previously identified as business risks.

7.1.4.4. Key Risk Indicators

The assessment process for each enterprise risk includes the identification and measurement of KRIs, a leading industry practice. A KRI may be a quantitative or qualitative metric that provides insight into the probability that an unfavorable outcome will occur or the severity that the risk poses. Some KRIs are Key Performance Indicators ("KPIs") that Eversource tracks monthly. Target scores are developed for all KRIs and compared to actual results quarterly. Enterprise risks contain several KRIs, each with an assigned weighting. KRIs are assigned a rating in one of the following categories:

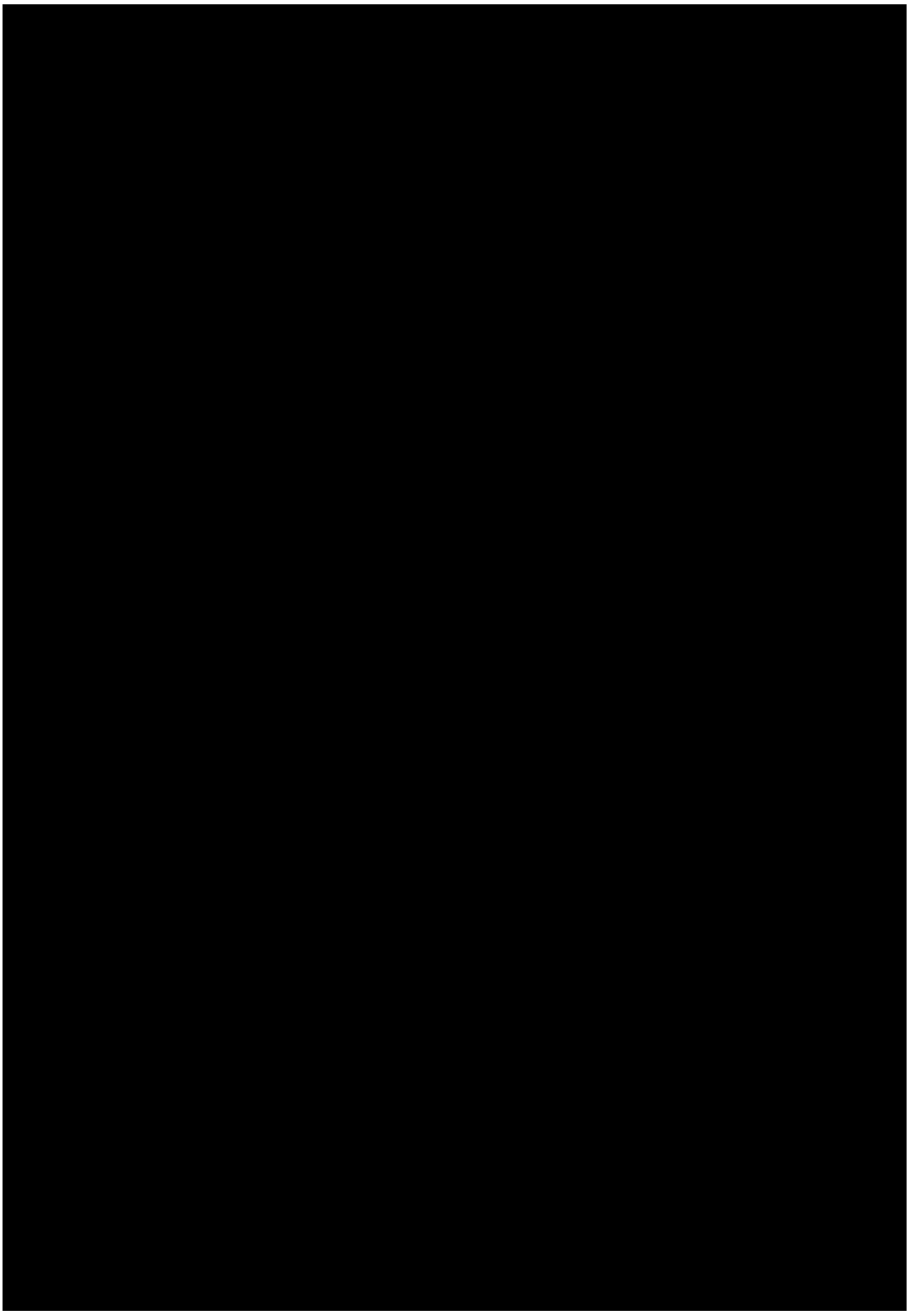
- On Target (actual results are within target rating);
- On Watch (actual results do not meet target rating);
- Occurred (actual results indicate an unfavorable outcome is occurring).

An overall status is assigned to enterprise risk using one of the three designations above. The status is determined based on the weighted KPI results. For example, if more than 50% of weighted metrics are "on watch" the risk status will likewise be "on watch."[11]

7.1.5. Eversource Enterprise Risks

As discussed above, enterprise risks are determined annually through the assessment process, with status updates based on KRIs performed quarterly. 2022 enterprise risks, with status assessments as of October 2022, are shown in Figure 7-5.

[11] Response to FTI-396.



[redacted]

[redacted]

[redacted]

7.1.6. External Benchmarking

The ERM group participates in or is a member in several external organizations, including the ERM committee of the EEI/AGA, which focuses specifically on the utility industry. Eversource's affiliations include:[14]

- ERM EEI/AGA Task Force (Founding member/Previous Board Member);
- Center for Excellence in ERM at St. John's University (Member);
- PwC Power and Utilities Risk and Assurance Roundtable (Member);
- Deloitte Power and Utilities Enterprise Risk Management Roundtable (Member/Planning Committee 2022);
- NY ERM Leadership Council (Member);
- NC State/Protiviti Enterprise Risk Management Initiative (Risk Survey Participant);
- World Economic Forum Global Risk Report (Risk Survey Recipient);
- The Risk Management Society ("RIMS") (Member).

Eversource's ERM group received the RIMS Award of Distinction in 2021 and its risk maturity model was recognized for Leadership in Advanced ERM from RIMS in 2017 and 2018.[15] RIMS is a recognized as national leader in risk management represented by many multinational companies. The awards earned by Eversource indicate it employs nationally recognized ERM best practices.

The Eversource BOT's Finance Committee receives an annual update titled, "Industry View on Top Risks" that shows the top ten risks from the most recent EEI/AGA survey and their relative rankings over the past three years. According to the 2022 report, each of the top utility industry risks are also Eversource risks.[16]

7.2. Legal

Eversource Energy's Legal organization uses a centralized shared services model where all legal matters for CL&P, YGS, and AWC-CT are managed under the same organization. Gregory Butler, Executive Vice President and Chief General Counsel who reports to Joe Nolan, President and Chief Executive Officer of Eversource Energy is responsible for this organization, see Figure 7-6. Mr. Butler has two direct reports, Duncan MacKay and Elizabeth Maldonado, who are responsible for Regulatory and Shared Services respectively.

Mr. MacKay's Regulatory group is responsible for Compliance and Legal Administration, Corporate and SEC matters, Federal and State Regulatory Affairs, and Labor Employment & Benefits. Ms. Maldonado's Shared Services group provides services to the functional areas within the Company including; Environmental & Real

[redacted]

[14] Response to FTI-517.
[15] Ibid.
[16] Response to FTI-205, Att. 3(ES) (confidential); Response to FTI-395.

Estate, Procurement Energy Supply, Information Technology, Cyber Security & Customer Service. Ms. Maldonado's team also provides the Companies' litigation and dispute resolution services.

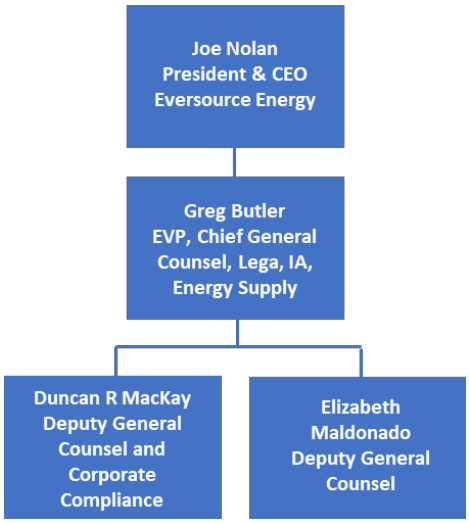


Figure 7-5 Legal Group Organizational Structure [17]

7.2.1. Resourcing Strategy

A mix of both internal and outside counsel comprise the Companies' legal team. Mr. Butler indicated that his strategy is to perform most work using internal counsel, however, he also recognizes this is not always most effective, especially for matters that are non-routine and require a specific or specialized skillset to properly manage, or require a significant number of resources, as the legal department's staffing is based on steady-state workload and not spikes or peaks in work. [18]

CL&P's and YGS's heavy reliance on Internal Counsel is reflected in utilization reports that indicate Internal Counsel's to External Counsel's hourly ratio is nearly three to one, see Figure 7-7. While the internal legal team provides baseline legal support to AWC-CT, there is a reliance on External Counsel due to several factors including the fact the legal department absorbed the AWC-CT legal workload without expanding its number of attorneys, and AWC-CT had relationships with firms that were established prior to the Eversource merger, see Figure 7-7. AWC-CT also used external counsel extensively to support their most recent rate case, and to backfill an accelerated loss of employees during 2021.[19] Eliminating some of these factors would likely skew the ratio to a more balanced use of resources.

[17] Response to FTI-061, Att. 1 (ES).
[18] Response to FTI-062.
[19] Interview with Executive Vice President and Chief General Counsel, Eversource Energy (Gregory Butler), April 13, 2023.

Legal Counsel Hours by Resource Type			
Operating Company	**Internal Hours**	**External Hours**	**Ratio (Internal : External)**
CL&P	15722	5622	2.8 : 1
YGS	3704	1347	2.7 : 1
AWC-CT	822	1694	0.5 : 1
Total	**20248**	**8663**	**2.3 : 1**

Figure 7-6 Legal Counsel Hours by Resource Type[20]

7.2.2. Cost Management

While Eversource stated they have not performed formal studies to evaluate the cost effectiveness of their resourcing model, it reviews its fully-loaded internal costs for internal counsel and compares that to the average hourly rates of its external counsel in combination with legal workload to determine where work may be more cost-effectively performed with internal (as opposed to external) counsel.. The Company stated that they proactively work to identify areas where outsourcing may be more cost effective. This begins with evaluating existing workload and matter type trends. Once an employee departs, the Companies evaluate if current workload and trends warrant an internal backfill or if outside counsel would be more cost efficient. [21]

This is performed informally two to three times a year, usually during the budget development process where productive hours are analyzed to establish utilization levels. Employee utilization is tracked through a spreadsheet that highlights productive and non-productive time.[22] This also assists with increasing utilization for employees with low utilization. The Company will also consider their internal vs outsource model to determine if any other adjustments are necessary.

Cost management for external counsel is achieved through the use of negotiated discount fee arrangements and alternative fee arrangements, such as fixed fee, and success-based fees, and by the Company exercising their right to pick specific attorneys. They also regularly negotiate rates with law firms whether for a one-off matter or if a firm seeks to become a preferred vendor, including using requests for proposals among several competing law firms. This provides a regular scan of the market to assist with determining prevailing rates.

The Companies' internal counsel serve in a "Gate-Keepers" capacity for all of external counsel's work activities. This provides oversight so that work is focused on required activities, and only approved work is paid. The Gate-Keepers are also responsible for determining if sufficient internal capability exists to perform the work, or if outside counsel is necessary.[23]

These practices are documented through the Companies' "Eversource Energy Legal Department 2023 Guidelines and Billing Requirement for Outside Counsel."[24] The oversight in place and regular review of the Companies' resourcing model aligns to industry best practices.

Recommendation: The Company should perform a formal cost study to determine the effectiveness of their resourcing strategy including the utilization and cost of external counsel. In addition, the Company should promote additional oversight of external counsel by ensuring that the lawyer overseeing the work is not the only

[20] Response to FTI-061, Att. 1 (ES).
[21] Interview with Executive Vice President and Chief General Counsel, Eversource Energy (Gregory Butler), April 13, 2023.
[22] Response to FTI-549.
[23] Response to FTI-062.
[24] Response to FTI-548, Att. 1 (ES).

person reviewing the need and charges provided by external counsel which will help mitigate against any instances of conflict of interest.

7.3. Asset Management

For this chapter, Asset Management is a broad term used for the real estate, fleet, and inventory management services provided to support CL&P, YGS, and AWC-CT's. These are necessary services that support each Companies' ability to build, operate, and maintain their electric, gas and water systems.

7.3.1. Real Estate

CL&P and YGS's real estate services are provided by a team led by Ellen Greim, Vice President of Supply Chain & Property Management. She reports to John Moreira, Executive Vice President and CFO. Reporting to Ms. Greim is a Director of Real Estate and Property Management ("REPM") who leads a shared real estate function for Eversource's CT Companies (excluding AWC-CT). Reporting to the Director is a Manager of Facility Operations who is located in Connecticut, see Figure 7-8.

Figure 7-7 Real Estate (Facility Operations) Organization for CL&P and YGS[25]

Facility management for AWC-CT is the responsibility of Daniel Lawrence the Vice President of Engineering and Real Estate who has a Manager of Facilities & Fleet Services reporting to him. Mr. Lawrence is a direct report of Donald Morrissey, the President of AWC, see Figure 7-9.

[25] Response to FTI-061, Att. 1 (ES).

Figure 7-8 Real Estate (Facilities) Organization for AWC-CT[26]

7.3.1.1. Cost Containment and Budget Analysis

CL&P's and YGS's annual real estate budget is prepared through consultation with each business area that has real estate needs and responsibilities. The goal is to develop a consolidated list of projects and upgrades, supported through the use of a third-party testing service, which aligns to business priorities. Leases and licenses are treated as expense and any property purchases are funded by the Real Estate and Finance groups.

The real estate budget is then established through the "Long-Range Planning Process" and "Corporate Operating Plan" which includes defined processes, governance and review policies used to refine and finalize the consolidated list of projects and upgrades. Once the annual Corporate Operating plan is approved, the portfolio of projects and programs may begin as required.[27]

Each Company is then responsible for sourcing the services used to manage their properties. Vendor selection follows the Companies' procurement policies for "Of choice contractors" to provide routine services. Vendor contracts are structured through a competitively bid multi-year Master Services Agreement which provides long-term pricing hedges. Additional cost competitiveness is provided through a Request for Proposal requirement for each service request. Once a vendor is selected, the Companies meets regularly with them to ensure service quality and delivery.[28]

Each Company had challenges with developing and managing a Real Estate budget that aligns to annual spending needs, see Figure 7-10. While they stated these issues were due to COVID-19 pandemic related challenges, budget attainment throughout the 5-year review period was consistently challenged. This presents an opportunity for cross-company improvement by sharing and implementing best practices including, at a minimum, the development of a portfolio management process which supports emergent or emergency issues.[29]

[26] Response to FTI-061, Att. 1 (ES).
[27] Response to FTI-065.
[28] Response to FTI-067.
[29] Response to FTI-677.

Building Asset Management CapEx 2017-2021 (Thousands)										
	2017		2018		2019		2020		2021	
Co	Plan	Actuals	Plan	Actuals	Plan	Actuals	Plan	Actuals	Plan	Actuals
CL&P	5,500	3,900	10,500	11,100	6,400	8,100	6,400	8,100	21,200	21,700
YGS	2,100	600	2,500	1,700	300	1,600	700	1,500	1,600	2,900
AWC-CT	205	203	222	195	203	216	199	268	181	222
Total	**7,805**	**4,703**	**13,222**	**12,995**	**6,903**	**9,916**	**7,299**	**9,868**	**22,981**	**24,822**
Var %	**-39.7%**		**-1.7%**		**43.6%**		**35.2%**		**8.0%**	

Figure 7-9 Real Estate 5-year CapEx Budget vs. Actuals, 2017-2021 [30]

Recommendation: The three Companies should implement improvements to their real estate budget management process which should include the development of an attainable budget that is appropriately managed throughout the year using a portfolio management process.

7.3.2. Fleet

Fleet Management for both CL&P and YGS are managed through Eversource Energy's Operations Services group, led by Stephen Driscoll, Vice President Operations Services. Mr. Driscoll reports to Eversource's Chief Operating Officer, see Figure 7-11.[31] Reporting to Mr. Driscoll is a Director of Fleet Operations who leads two Managers of Transportation (one each for Connecticut and Massachusetts), two Analysts, Asset Manager, Administrator of Transportation regulations, and Fleet Registration Coordinator. This organizational structure aligns to Eversource's philosophy of a centralized Vice President and Director, with Managers embedded in and responsible for State or Operating Company needs.[32]

[30] Response to FTI-060.
[31] Response to FTI-699.
[32] Response to FTI-064.

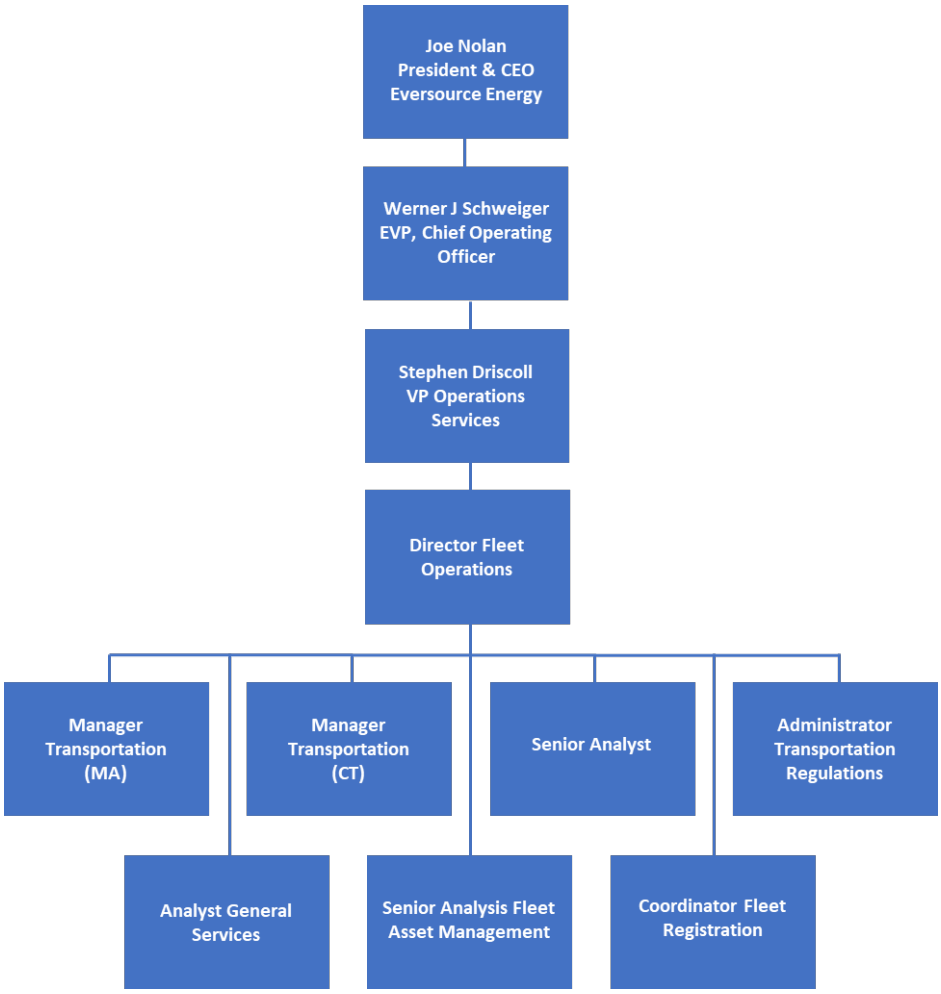


Figure 7-10 Organization Responsible for CL&P and YGS Fleet Management [33]

AWC-CT's Fleet is managed under Dan Lawrence, Vice President of Planning and Real Estate. Fleet responsibilities are provided by the Manager of Facilities and Fleet Services see Figure 7-12. AWC-CT stated that Mr. Driscoll monitors the health of his organization by overseeing monthly capital spend, the development of capital plans, the effectiveness of forecasting fuel prices, and the management of the fleet purchase program.[34]

[33] Response to FTI-064.

[34] Interview with Vice President of Real Estate and Engineering and Planning (Daniel Lawrence), Aquarion Company, May 17, 2023.

Figure 7-11 Organization Responsible for AWC-CT Fleet Management [35]

Each Companies' Fleet budget is included in the annual Corporate Operating Plan, which is developed by consulting with the appropriate stakeholder groups to develop a list of projects and upgrades that align to key business needs. The budget then undergoes various phases of review following the Long-Range planning process until a final business plan is adopted.[36]

7.3.2.1. Vehicle/Equipment Sourcing and Maintenance Strategy

Each Company determines when a new vehicle is needed by using certain milestones such as vehicle age, mileage or condition as qualifiers. For example, AWC-CT stated that once a vehicle reaches 100,000 miles they proactively review the vehicle's repair history and perform a condition assessment. They use this information to develop a recommended retirement date which, once reached, is reevaluated to determine if replacement is warranted or if the vehicle should remain in service.

Once a new vehicle is needed, CL&P and YGS source them through suppliers with pre-negotiated contracts. AWC-CT sources vehicles through a fleet purchase Competitive Assistance Program ("CAP"). Each Company establishes standards for each vehicle type, but they have sourcing flexibility for least cost and supply chain purposes.

CL&P and YGS stated there have been no particular challenges with vehicle sourcing when employing this strategy, however, AWC-CT had challenges. Specifically in 2021 and 2022 the Company's CAP was unable to secure the requested number of vehicles, which required them to purchase from a local Connecticut dealership. Of the 27 vehicles requested, the Company stated that 14 were filled. To account for this shortage, the Company has implemented a policy of extending the life of vehicles through repairs they ordinarily would not make, and by purchasing light-duty vehicles to serve in the role of medium-duty vehicles where appropriate.[37]

Maintenance and repair work is performed using on-site Company garages which optimizes repair and allows for equipment readiness for improved uptime.[38]

[35] Response to FTI-001.
[36] Response to FTI-066.
[37] Response to FTI-070.
[38] Response to FTI-542.

The Companies are taking a cautious approach toward implementing vehicles with a reduced carbon footprint. Both CL&P and YGS have been purchasing vehicles with Jobsite Energy Management Systems which allows equipment and tools that are typically driven by a vehicle's internal combustion engine to operate with little to no use of the engine. This can result in a notable reduction in the amount of fuel used and resulting emissions. Additionally, all three Companies purchase hybrid light-duty vehicles where possible.[39]

Overall, the Companies' vehicle sourcing and asset management strategies are consistent with industry practices, including the approaches used through the COVID-19 pandemic. However, there is an opportunity for the Companies to work more closely together to realize supplier synergies for common light-duty vehicles and certain medium and heavy-duty vehicles. This could help generate additional saving and sourcing benefits especially for AWC-CT.

Recommendation: Eversource should work with AWC-CT to implement a new vehicle sourcing synergy. This could assist with additional cost savings and help mitigate against future supplier issues. However, this recommendation should be only implemented if significant benefits can be realized, and therefore is not intended to create any undue administrative burden for the sake of a consistent process.

7.3.2.2. Vehicle/Equipment Utilization Optimization

The Companies track vehicle and equipment utilization at the department level through Fleet Operations. This information is managed through the Companies' respective Fleet Management systems and includes information about miles driven, speed, idle time, harsh driving events and in the case of AWC-CT miles per gallon and seat belt usage.[40]

FTI recognizes that monitoring and managing vehicle utilization within a utility requires a careful balance. Some groups may have an inconsistent need, while other alternatives such as requiring employees to use their own vehicle can be more costly or less desirable. FTI requested the metrics used by each Company to monitor and manage utilization, however, they only provided vehicle count and in the case of AWC-CT average fleet age by vehicle type.[41,42] The lack of comprehensive metrics made it impossible to evaluate if they leverage utilization data to make informed decisions concerning vehicle counts.

7.3.2.3. Preventable Motor Vehicle Incident Damage

Preventable motor vehicle accident ("PMVA") damage is a significant source of unplanned expense, which is costly for both the repair and additional costs due to property damage or injured persons if one of the Companies is determined at fault. Implementing programs to reduce PMVI damage can reduce this expense and potential reputational risk.

The most effective method for controlling PMVA costs is by simply eliminating their occurrence. The Companies' PMVI KPIs showed increases in the number of accidents in 2022, see Figure 7-13. AWC-CT also has consistently high rates when compared to CL&P and YGS over the 5-year review period. AWC-CT stated they are working with the parent company by having a safety representative attend their "Breakfast Financial Meeting" to discuss this trend and possible solutions. They also introduced rearview mirror alignment stations which assists with improving backing visibility and blind spots. CL&P and YGS stated that the increased PMVAs were being mitigated

[39] Response to FTI-068.
[40] Response to FTI-542.
[41] Response to FTI-542, Att. 1 (ES).
[42] Response to FTI-542, Att. 2 (ES).

through a Smith Driving course program.[43, 44] All PMVI reduction efforts are monitored through safety committees and individualized scorecards that have been issued to departments with fleets.[45] However, since these initiatives were recently implemented it is difficult to evaluate their impact until more data is available, but past experience with similar initiatives have proven effective.

Preventable Motor Vehicle Accidents (per 1 million miles)					
Company	**2018**	**2019**	**2020**	**2021**	**2022 thru (Q3)**
CL&P	2.1	1.7	1.8	1.1	2.3
YGS	1.6	2.5	3	1.1	2.1
AWC-CT	7.3	2.4	4	4.4	5.1

Figure 7-12 Preventable Motor Vehicle Incident KPIs[46]

CL&P and YGS repairs most PMVA damage internally using Company technicians. This assists with cost containment by allowing the Company to identify cost effective repair solutions while decreasing vehicle downtime.

AWC-CT outsources their vehicle repair through vendors who are pre-evaluated. The Company requires, prior to any work commencing, a detailed estimate which is reviewed and approved. Further cost containment is achieved by using recycled or aftermarket parts which are usually less expensive than Original Equipment Manufacturer parts.[47]

7.3.3. Inventory Management

Inventory Management at CL&P and YGS is the responsibility of the Director of Material Logistics and the Director of Procurement and Material planning. These Directors report to Ellen Greim, Vice President of Supply Chain Real Estate and Materials, see Figure 7-14. Ms. Greim reports to John Moreira the CFO for Eversource Energy. Within this organization are Material Logistics Managers and Procurement Managers who are dedicated to CL&P and YGS.

AWC-CT manages their own Inventory Management organization which reports to the Vice President of Finance. The Director of Procurement manages three employees who are responsible for purchasing the equipment used to support operations at AWC-CT, see Figure 7-14.

[43] Interview with President, Connecticut Light & Power (Stephen Sullivan), March 27, 2023.
[44] Interview with President, Gas Distribution (William Akley), March 29, 2023.
[45] Interview with President, Aquarion Company (Donald Morrissey), April 5, 2023.
[46] Response to FTI-060.
[47] Response to FTI-071.

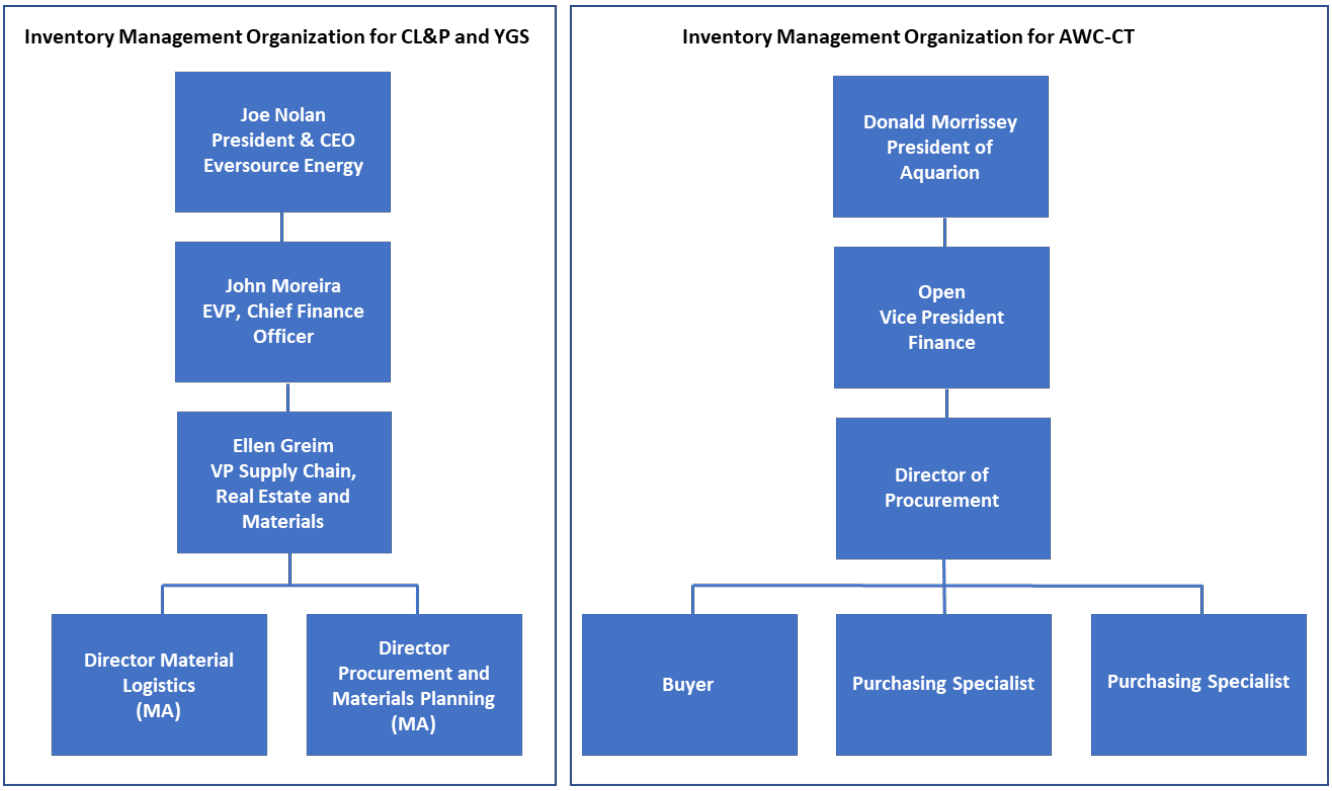


Figure 7-13 Organizations Responsible for Inventory Management [48]

CL&P and YGS use similar inventory management processes to order, receive, warehouse, and issue materials. These processes are used for all material ordered by the Companies.

Material purchasing is coordinated through Eversource's Procurement group who ensures that sourcing aligns to Company procurement practices, which includes sourcing material through a competitive bid process. Vendors are required to provide material based on each Company's standards. The Companies actively review these standards to drive consistent material practices across the lines of business through Eversource's Tri-State Standards Group, which can help the Companies realize synergistic savings and improve warehousing needs.[49,50]

CL&P and YGS use centralized and local warehousing with the goal of delivering and storing material close to the work location when needed. Materials needed for future use are stored in centralized warehouses and packaged for projects when needed. Inventory levels are managed through an accurate count that is assured through random daily counts and the use of vending machines. Access to inventory is strictly controlled which also helps maintain accurate inventory counts. Once material reaches certain preestablished levels, they are proactively reordered.[51]

To promote crew efficiency, CL&P has a practice of pre-loading materials on trucks. In 2020 and 2021 the Company pre-loaded material approximately 50% of the time. This service dropped off in 2022 due to interface issues

[48] Response to FTI-001.
[49] Response to FTI-072.
[50] Interview with Senior Vice President, Engineering, Eversource Energy (Aftab Khan), June 14, 2023.
[51] Interview with Vice President, Supply Chain and Property Management, Eversource Energy (Ellen Greim), May 10, 2023.

between the Company's work management system and the material pre-loading system. The Company noted that they are working on reestablish this valuable process where practical.[52]

The AWC-CT inventory management process varies depending on the type of inventory, with specific details provided below:[53]

- **Water Meters:** Are sole sourced because the meter reading software is tied to the meters. Inventory needs are established for a 5-year period, which is regularly monitored through weekly delivery and inventory levels. Inventory counts are performed once a year.
- **Water Main Replace and Repair equipment:** Are sourced through a formal bid process that requires a minimum of three bidders. Award is based on the vendor providing the best value using preestablished criteria. Engineering and Planning monitor inventory levels and place orders based on needs. The Procurement group is responsible for conducting inventory counts twice a year.
- **Chemicals:** Are sourced through a formal bid process that requires a minimum of three bidders. Award is provided to the vendor providing the best value using preestablished criteria. Inventory levels are assessed at the end of each month.

AWC-CT's requirement to sole source metering equipment results in supplier risk. The Company stated they understand this risk and manage it by assessing other vendors' ability to supply meters should the need arise. They also meet regularly with their sole source vendor to evaluate their ability to fill orders. This arrangement has existed for approximately 15 years with no current issues.[54]

AWC-CT's inventory levels and warehousing needs are minimized due to the extensive use of contractors who are required to supply their own materials for capital projects. This along with low theft risk has resulted in little to no inventory count deviations.[55]

7.3.3.1. COVID-19 Pandemic Supply Chain Mitigation Plan

CL&P and YGS both experienced supply chain issues resulting from COVID-19 related disruptions, which resulted in extended lead times and led to unpredictable delivery times. The Companies responded by increasing their inventory levels and by sourcing materials from alternative suppliers. They also worked with Engineering to determine if alternative materials could serve as a substitute to increase supplier diversity. The Companies also increased the inventory levels for emergency response equipment/materials and are extending their material planning process from one to three years out.[56]

AWC-CT did not experience similar COVID-19 related supply chain impacts, but they worked with their vendors to order materials in bulk with sufficient lead time to satisfy their needs. Additionally, materials that were previously ordered on a just-in-time basis prior to the COVID-19 pandemic are now order in advance of need.[57]

[52] Response to FTI-676.
[53] Response to FTI-072.
[54] Interview with Director, Procurement, Aquarion Company (Michelle Mehan), May 8, 2023.
[55] Ibid.
[56] Response to FTI-072.
[57] Ibid.

7.4. Information Technology and Cybersecurity

This section examines the IT and Cybersecurity practices within the Companies.

7.4.1. Organization Overview

CL&P and YGS both receive IT services from Eversource's centralized IT group. AWC-CT has their own IT organization with a consultative link to Eversource's IT group. This separation exists to account for the differences between the Companies' applications which have not been fully integrated. For example Eversource Energy (includes CL&P and YGS) uses Oracle and AWC-CT uses SAP to support a variety of functions.[58]

7.4.1.1. Organizational Structure (Connecticut Light & Power and Yankee Gas Services)

Eversource's centralized IT organization is led by Ron Utterbeck, Vice President of Information Technology ("IT") and Chief Information Officer ("CIO"), who reports to the Chris Carmody, Executive Vice President of HR and IT, see Figure 7-15. Mr. Utterbeck has six direct reports who manage all aspects of Eversource Energy's IT including their Cybersecurity practice. This leadership team's responsibility includes the following:[59]

- **Project Management Office ("PMO") and Next Gen Delivery:** The PMO is responsible for ensuring consistent delivery of IT capital projects. This include establishing the approaches/methodologies used by Project Managers for IT project delivery. The IT expense budget is also managed by this group.
  The Next Gen delivery team within this group is responsible for developing and implementing new approaches for IT delivery methods and technology such as Testing and Quality Assurance, the utilization of the application delivery approach, DevOps practices and tools, Cloud Automation and Monitoring.
- **Chief Information and Security Officer:** Is responsible for Eversource's cybersecurity needs and supports the relationship with AWC-CT's cybersecurity group. His team is responsible for risk identification and management, security architecture, security operations, incident monitoring and response, compliance to applicable local, state, federal and industry groups, threat management, and intelligence. Cybersecurity is evaluated separately in the following subsection.
- **IT infrastructure:** Is responsible for the hardware that supports the Companies' IT infrastructure including servers, routers, end user computers, video conferencing, backup systems, and wired and wireless networks.
- **Applications (Development and Management):** This function is supported by four IT directors who have specific roles that support the development and management of IT applications. This function is responsible for the IT application development strategy and its implementation which includes new application development, deploying new vendor supplied applications, cloud based applications, and the on-going management of existing applications through the use of internal and third-party resources.

The Companies' use internal IT employees to develop less routine strategic applications which typically have special requirements. Third-party employees/vendors are used for standard applications. Third-parties can also be used to augment resources used for strategic applications when a specialized skill set is needed.

All IT work is coordinated through a tiered IT Governance structure which begins with weekly meetings led by Mr. Utterbeck. This meeting reports on the status of the various functions including operations, budget, capital project status, cybersecurity, audit and compliance, and other activities. There are additional meetings and steering

[58] Interview with President, Aquarion Company (Donald Morrissey), April 5, 2023.
[59] Response to FTI-073.

committees which are used to conduct more focused reviews of capital project status, vendor performance, and incident reviews.

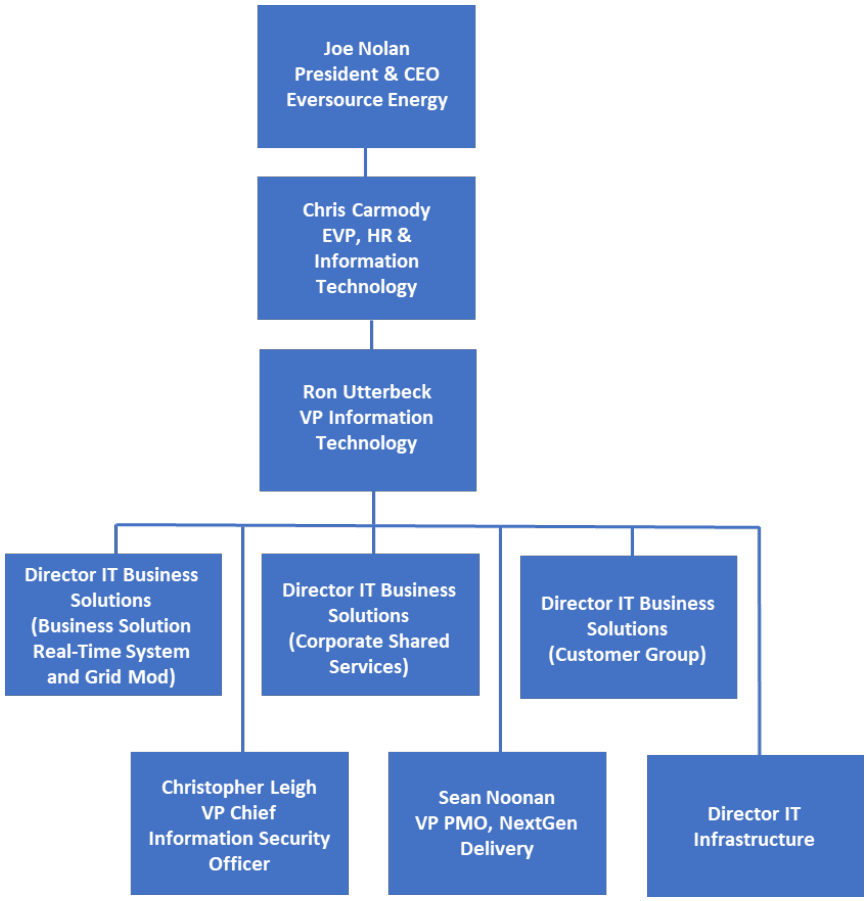


Figure 7-14 Eversource Energy IT Group Organizational Structure [60]

7.4.1.2. Organizational Structure (Aquarion Water Company of Connecticut)

AWC-CT's IT Organization, led by the Director of IT, reports to Lucy Teixeira, Vice President of Administration, see Figure 7-16. The Director has five direct reports who are responsible for supporting the Company's IT needs. However, as previously discussed, AWC-CT IT occasionally consults with Mr. Utterbeck organization, but with a more formal link for their cybersecurity operations.

The primary responsibilities of AWC-CT's IT organization include the following:[61]

- **Application Development:** This function supports the Company's development and management of IT applications including SAP, GIS, Laboratory Information Management System ("LIMS") and mobile. This includes requirements development, application development, quality assurance testing, and release management. The group also maintains the database systems and interfaces used between systems/applications.

[60] Ibid.
[61] Response to FTI-073.

- **Technical Services:** Is responsible for the Company's hardware infrastructure including servers, routers, storage, security networks, telephone and IT networks. They are also responsible for SAP Basis which supports various SAP applications.
- **End User Services:** Is responsible for supporting the Company's use of applications such as SAP, GIS, LIMS, MS Office, web, email. They also support the Company's end-user hardware including desktops, laptops, tablets, printers and scanners.
- **Project Management Office:** Is responsible for managing the IT portfolio and projects, including the cloud-based solutions.

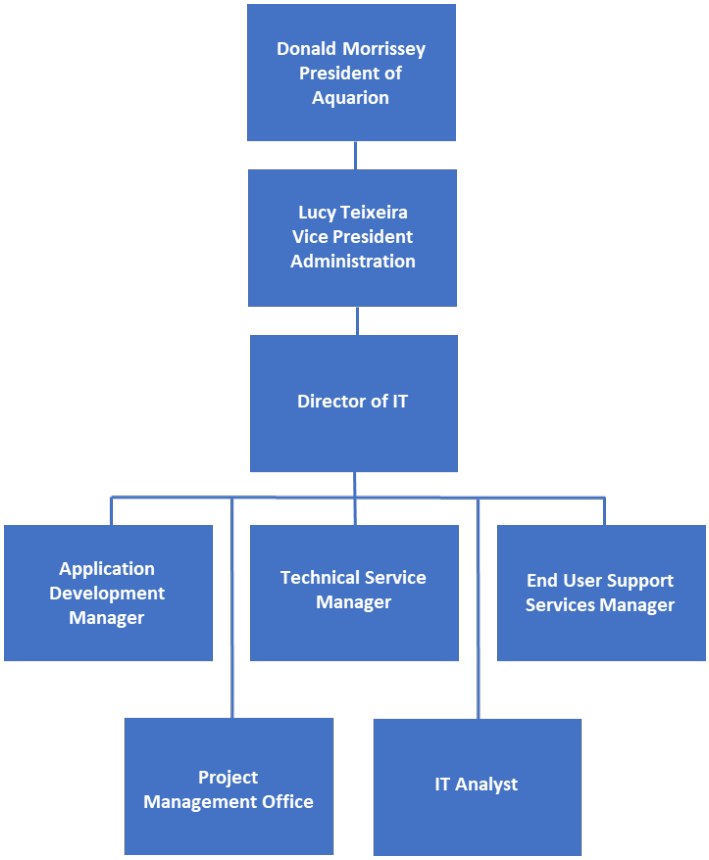


Figure 7-15 AWC-CT IT Group Organizational Structure [62]

7.4.2. Information Technology Budget Development Process

7.4.2.1. Development Process for Capital Projects

CL&P, YGS, and AWC-CT's IT budget development practice is typical of the industry, which begins with the collection of project requests from the end-users, typically called "demand". New programs/projects ("projects") are identified through this process as either necessary to solve a business need or are required for regulatory and compliance purposes. CL&P and YGS representatives are included in Eversource's annual Business IT-Roadmap

[62] Ibid.

development sessions which begin at the second quarter of each year, see Figure 7-17. Projects can also be recommended during the Companies' capital budget development process.

AWC-CT follows a similar practice, with new projects recommended by the business or IT which are then coordinated by the PMO. The consolidated list of projects then undergoes review through the Company's capital prioritization process. Any project can also be considered outside of this process should there be a critical need to not wait.[63]

The IT-Roadmap development sessions conducted by Eversource IT (benefiting CL&P and YGS) contain many of the components and considerations used across the industry to brainstorm and build a cohesive IT plan. This includes linking IT needs to "Business Imperatives" that are prioritized through the lens of both strategic and operational business considerations, see Figure 7-17. This planning process is exhaustive and results in a recommended IT portfolio that is segmented by Lines of Business, Business Imperatives, enterprise services (e.g. Regulatory, Supply Chain, Environment, Enterprise Risk Management, etc.). Each portfolio has an implementation timeline which coordinates the timing and priority of projects.

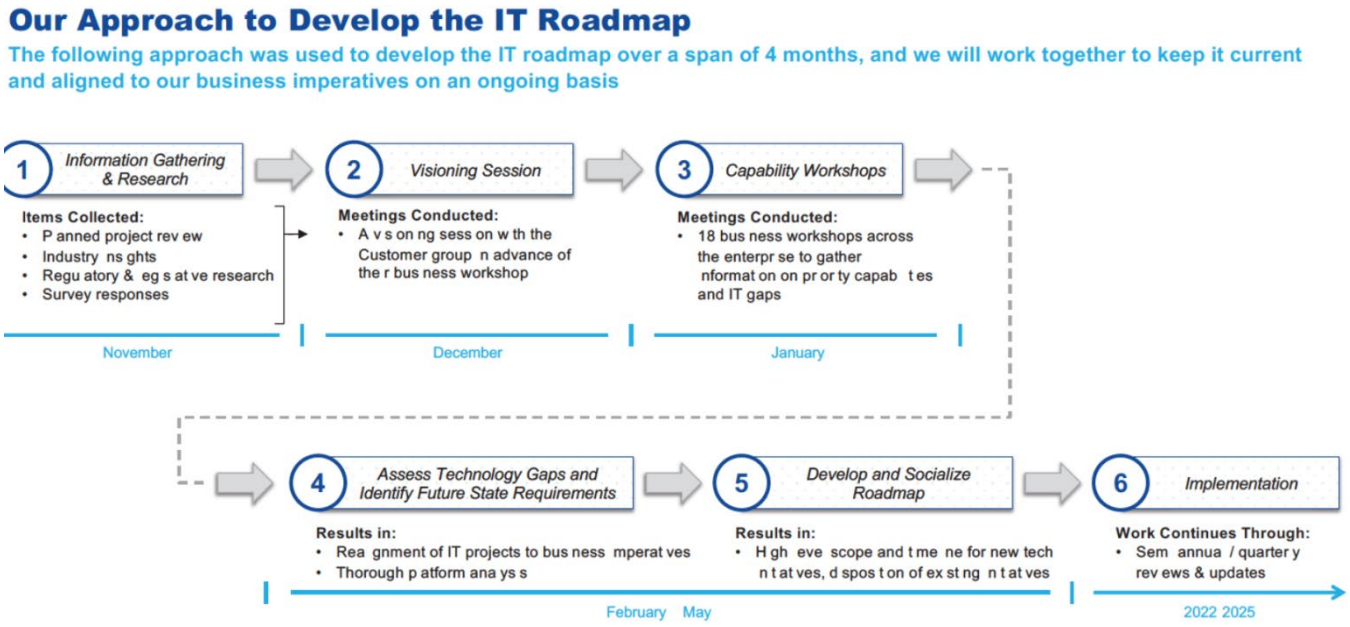


Figure 7-16 Eversource Energy IT Roadmap Development Process [64]

While AWC-CT also maintains an IT roadmap, it was unclear if it was developed through a similar formal process that links business imperatives and/or priorities. AWC-CT's roadmap is categorized by business category, such as Business Systems, Data Management and Reporting, Infrastructure & Operations, and Security & Risk Management. The Company stated that projects are reviewed with stakeholders through their councils and committees, and the finalized product is reviewed and approved at the IT Steering Committee.[65]

Once initial funding authorization is achieved, IT projects for the Companies are further developed by representatives from IT Business Solution, and/or IT Technology, and the Company/Function sponsoring the

[63] Response to FTI-074.
[64] Response to FTI-082.
[65] Ibid.

project. During the project development phase, each Company reviews project alternatives which considers solutions such as in-house application development rather than purchasing a vendor provided solution. These alternatives are evaluated against their ability to satisfy the project's business case and the alternative's cost savings. The Companies all demonstrated their use of alternatives through relevant examples.[66]

Once a project solution is finalized, those greater than $500k follow the APS01 Project Authorization Policy process used for all Eversource Capital Projects which are reviewed through the governance process as shown in Figure 7-18. Note: Steps to the right of the dashed line are only for projects over $25m:[67]

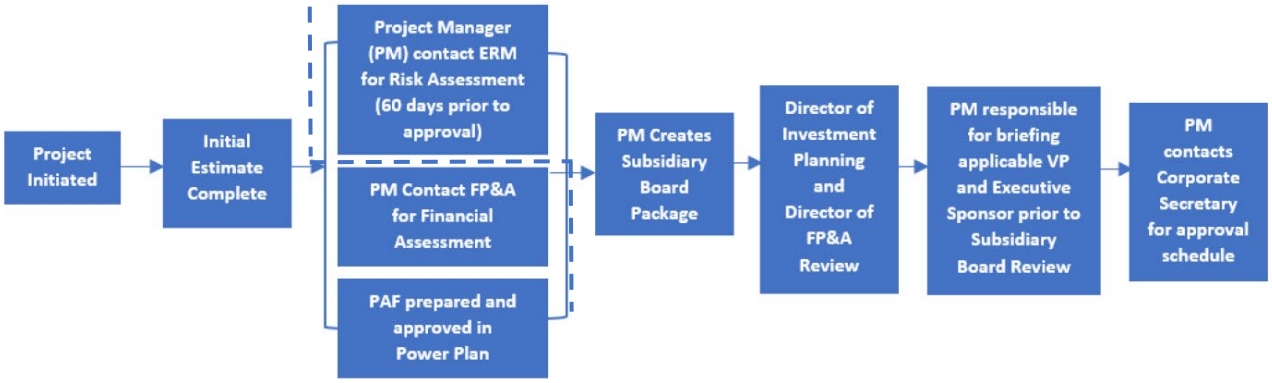


Figure 7-17 Eversource Energy IT Project Development Process [68]

The forecasted spend for approved projects is included in each annual business plan(s) until projects are fully implemented.

Recommendation: AWC-CT should implement a similar, but scaled, version of the Eversource Energy IT Roadmap development process. This will allow for a clear link between business imperatives and the applications developed to improve performance. This will assist the Company with prioritizing projects with the highest impact on business performance through a transparent and repeatable process.

7.4.2.2. Other Information Technology Expenses

Other IT Capital and operating expenses (not derived from a capital project) follow the Corporate Operating Plan development process. These expenses are usually from supporting existing IT infrastructure, including applications, storage, hardware, end user support, telecom, and other non-project related costs. These costs are developed from a historical expense review with known future cost added to create a complete budget.

7.4.2.3. Information Technology Historical Budget Review

A review of CL&P's and YGS's historical spend indicates that most IT expenses are Operational ("OpEx") rather than Capital ("CapEx"). These expenses are centrally derived (as a shared service) and are allocated to CL&P and YGS as required. AWC-CT alternatively has a balanced CapEx and OpEx spend profile. OpEx for the three Companies remained mostly within tolerances over the review period, see Figure 7-20.

The Companies' CapEx plan to actual variances, however, were significant and are partially the result of an accounting adjustment the Company made in 2019 and 2021 for projects that span over multiple years, see Figure

[66] Response to FTI-076.
[67] Response to FTI-074.
[68] Response to FTI-074, Att. 2 (ES).

7-19 and Figure 7-20. However, no other causes were established, and given the wide range of variance FTI recommends the Companies improve their IT budget management process.

Recommendation: The Companies should make improvements to the IT CapEx forecasting process to more accurately reflect the actual spend for these Companies. This will allow for more accurate portfolio management and in-year tracking of expenses.

IT Capital Plan vs Actuals									
	CL&P			YGS			AWC-CT		
Year	Actual	Plan	Variance	Actual	Plan	Variance	Actual	Plan	Variance
2018	$ 1,409,253	$ 2,280,000	-38.2%	$ 937,626	$ 140,000	569.7%	$4,235,875	$4,830,000	-12.3%
2019	$ 929,510	$ 520,000	78.8%	$ (144,568)	$ 350,000	-141.3%	$3,639,325	$4,410,000	-17.5%
2020	$ 1,391,553	$ 100,000	1291.6%	$ 2,743,713	$ 170,000	1513.9%	$3,128,329	$5,265,000	-40.6%
2021	$ 2,538,772	$ 470,000	440.2%	$ 483	$ 2,900,000	-100.0%	$4,758,754	$5,266,000	-9.6%
2022	$ 2,151,281	$ 1,410,000	52.6%	$ 1,275,861	$ -	-	$8,063,525	$4,765,000	69.2%

Figure 7-18 CapEx IT Budget vs. Actuals (5 years), 2018-2022 [69]

IT OpEx Plan vs Actuals									
	CL&P			YGS			AWC-CT		
Year	Actual	Plan	Variance	Actual	Plan	Variance	Actual	Plan	Variance
2018	$ 23,651,013	$ 22,590,000	4.7%	$ 5,821,246	$ 5,840,000	-0.3%	$5,594,052	$5,957,997	-6.1%
2019	$ 24,525,535	$ 23,670,000	3.6%	$ 6,296,036	$ 6,110,000	3.0%	$5,756,374	$6,159,997	-6.6%
2020	$ 25,194,220	$ 24,700,000	2.0%	$ 7,132,596	$ 6,610,000	7.9%	$5,998,934	$6,518,769	-8.0%
2021	$ 26,186,108	$ 23,860,000	9.7%	$ 7,565,251	$ 7,540,000	0.3%	$6,217,721	$6,318,976	-1.6%
2022	$ 29,356,396	$ 25,380,000	15.7%	$ 8,675,366	$ 7,950,000	9.1%	$6,421,803	$6,666,207	-3.7%

Figure 7-19 OpEx IT Budget vs. Actuals (5 years), 2018-2022 [70]

7.4.3. Information Technology Program and Project Management

IT project delivery is complex and requires the coordination of multiple internal and external teams through well designed governance, processes, and transparent reporting. Projects must be aligned to a clear business need, and prioritized in a manner that considers each project's importance so that finite resources are allocated to the projects with the greatest business impact. Effective project delivery methods must be in place using industry best practices so projects are delivered within scope, cost, and schedule as committed to the business, regulators, and customers.

A group of projects is called a portfolio, and portfolio management is the process of managing all projects that are either being developed, executed, or in the process of closeout collectively. Portfolio management occurs at a high level, so if a priority project is forecasted to overrun other projects can be delayed or slowed so the Capital Budget can remain within targets. Similarly, the portfolio management process can determine the steps needed to advance a new priority project outside of the normal business cycle without impacting the approved Corporate Operating Plan. CL&P and YGS manage their portfolio through three primary levels:[71]

[69] Response to FTI-298.
[70] Ibid.
[71] Response to FTI-081.

- **Overall IT PMO Portfolio:** This is the aggregate view of all IT projects so that any decisions concerning changes can be evaluated across all projects. This aggregate review also provides an indicator of overall health.
- **Business Area Portfolio:** Allows for business level oversight and decision making so the business can make changes or updates without impacting the overall portfolio.
- **Project Execution Governance:** Focuses on each project and their execution so specific issues can be managed so they have little to no cascading impact of the portfolio.

CL&P and YGS both maintain an "Off-Cycle" Project Request Process to allow priority projects to be authorized outside of the normal business planning cycle. The requested off-cycle project undergoes review through an "EBTC" meeting which reviews documentation and the proposed off-sets to the existing portfolio. Once approved, the Corporate Operating Plan is updated to reflect the project addition, see Figure 7-21.[72]

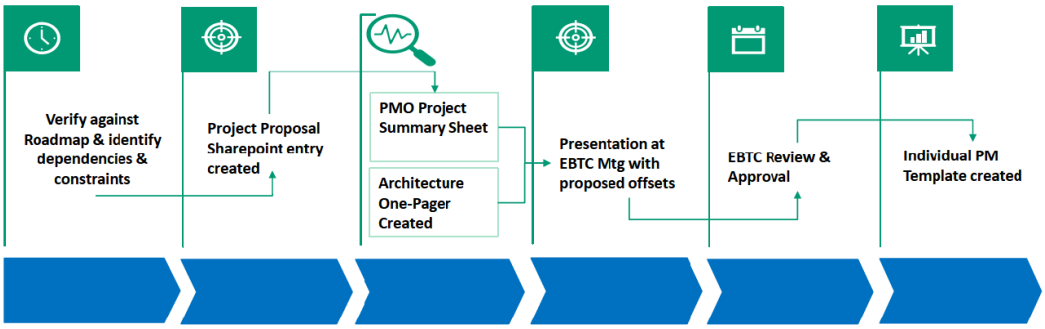


Figure 7-20 Eversource Energy IT Project Development Process [73]

AWC-CT manages their portfolio by evaluating requests once their size and prioritization are determined to balance the use of Aquarion resources. Their business applications are then evaluated to determine their status including if they should be replaced, retired or consolidated with another application. This allows the Company to prioritize new IT programs with obsolete applications in a balanced manner. They also maintain an "Off-cycle" Project request process but did not provide additional details. [74]

7.4.3.1. Project Management

The implementation of an approved project is the responsibility of an IT project manager. Best practices include the use of documented project management policies and procedures such as "playbooks" to ensure consistent and repeatable outcomes. This also assists with ensuring that consistent project documentation exists to support activities such as project auditing, status reporting, or transferring a project to another project manager.

Project management policies/practices should be tailored based on the methodology/approach used since each approach including Waterfall, Agile, and any hybrids have different requirements and documentation needs. Waterfall methodology has been widely used historically for large projects which require delivery in one or a few major releases. Agile has gained in popularity and is an incremental release approach that provides smaller releases which allows the business to realize certain benefits sooner. Combining these approaches is also possible with the distinct benefits of each allowing for more effective IT project delivery.

[72] Response to FTI-081, Att. 2(ES).
[73] Response to FTI-081, Att. 2(ES).
[74] Response to FTI-081.

CL&P and YGS demonstrated a reasonable level of documentation for their project management practices and policies. AWC-CT, however, did not provide any documentation and stated that they do not follow a specific methodology. [75]

CL&P and YGS provided documentation for eight sample projects which had undergone a scope change. FTI evaluated how these changes were managed and the completeness of documentation. Each reviewed project had a sufficient level of project detail and also provided the rationale for each change. All necessary approvals were obtained allowing for proper oversight prior to preceding with the change. [76]

Recommendation: AWC-CT did not demonstrate the development or use of IT project management documentation to ensure consistent delivery practices. If they do not already exists, the Company should develop project documentation by consulting with Eversource's IT group for best practices and other support.

7.4.3.1. Project Governance

The assurance of project approvals and oversight is achieved through governance which is designed as a hierarchical structure that allows for decision making and approvals from the appropriate delegation of authority. This section focuses on the governance used to manage projects as they move through the development process.

CL&P, YGS, and AWC-CT have similar approaches to governance including a similar hierarchy that is used to provide oversight, see Figure 7-22 and Figure 7-23. The governance is designed to provide specific layers of oversight as each project advances. This begins with the intentional design of the project organization which has a project manager, steering committee and project sponsor. The project organization reporting to the project manager is responsible for the day-to-day management of each project and they can make course corrections within the approved scope when necessary. The steering committee(s), when needed, provides regular oversight for issues that cannot be managed at the project manager level. This could include technical issues or other issues that may lead to schedule and/or cost impacts. The Project Sponsor is the seniormost leader who is responsible for the project and is usually the end-user. They typically assist with major issues that require senior leadership approval including major changes to scope, schedule and cost.

Approved projects that require changes to scope, schedule or cost, have those changes reviewed and approved by the project's Executive Steering Committee. Since contingency funding is part of the approved project funding, the project's ESC has the authority to approve changes that allow the project to remain within the authorized capital funding. Should a project's changes require a supplemental PAF approval, then the corporate project authorization process is followed to authorize additional funds before the ESC approved project changes are funded. The EBTC is not required to reauthorize a project. However, it is informed on the status of the overall capital project portfolio and any projects impacting the forecast. [77]

[75] Response to FTI-079.
[76] Response to FTI-080.
[77] Email correspondence from Chris Plecs sent on December 19, 2024.

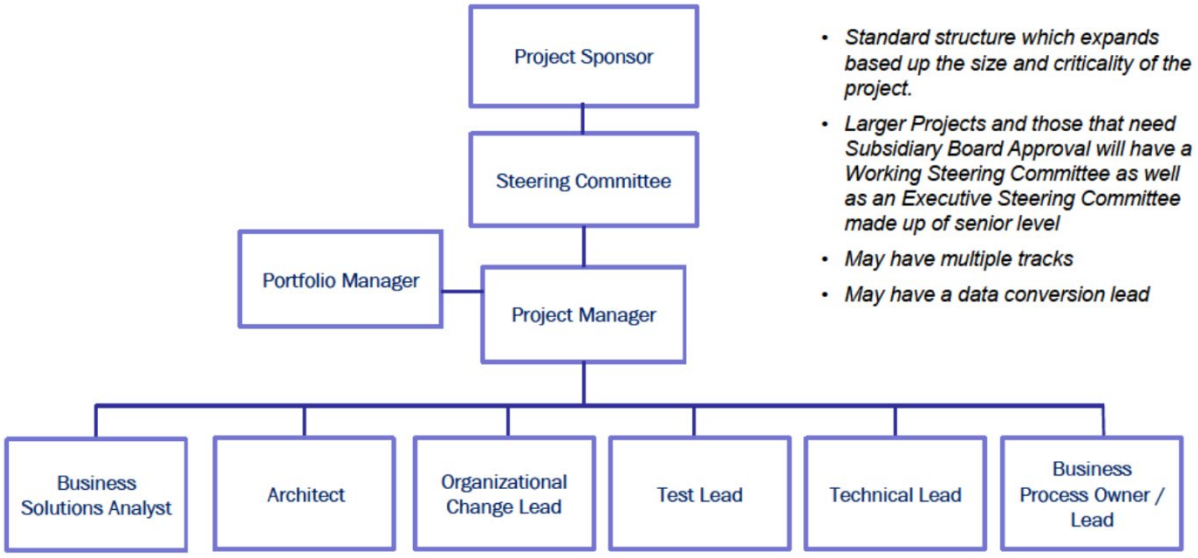


Figure 7-21 Eversource Energy IT Governance. [78]

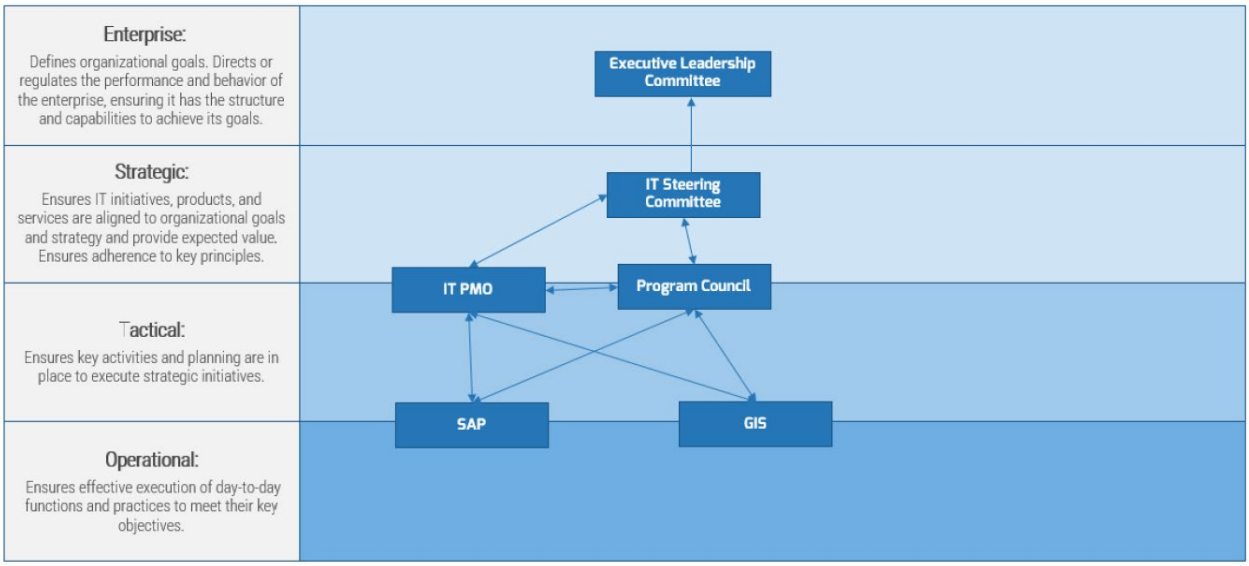


Figure 7-22 AWC-CT IT Governance. [79]

7.4.4. Cybersecurity

CL&P and YGS's cybersecurity activities are managed within the Eversource's IT group, see Figure 7-24. The responsibility for the day-to-day management of Cybersecurity falls under Christopher Leigh Vice President and Chief Information Security Officer who reports to Mr. Utterbeck. Mr. Leigh has several direct reports who are responsible for cybersecurity projects, and for monitoring and the tactical response to cybersecurity events. The

[78] Response to FTI-078, Att. 1(ES).
[79] Response to FTI-080.

group also interacts regularly with the other organizations including, for example, Physical Security, Human Resources and the IT group for new IT projects. [80]

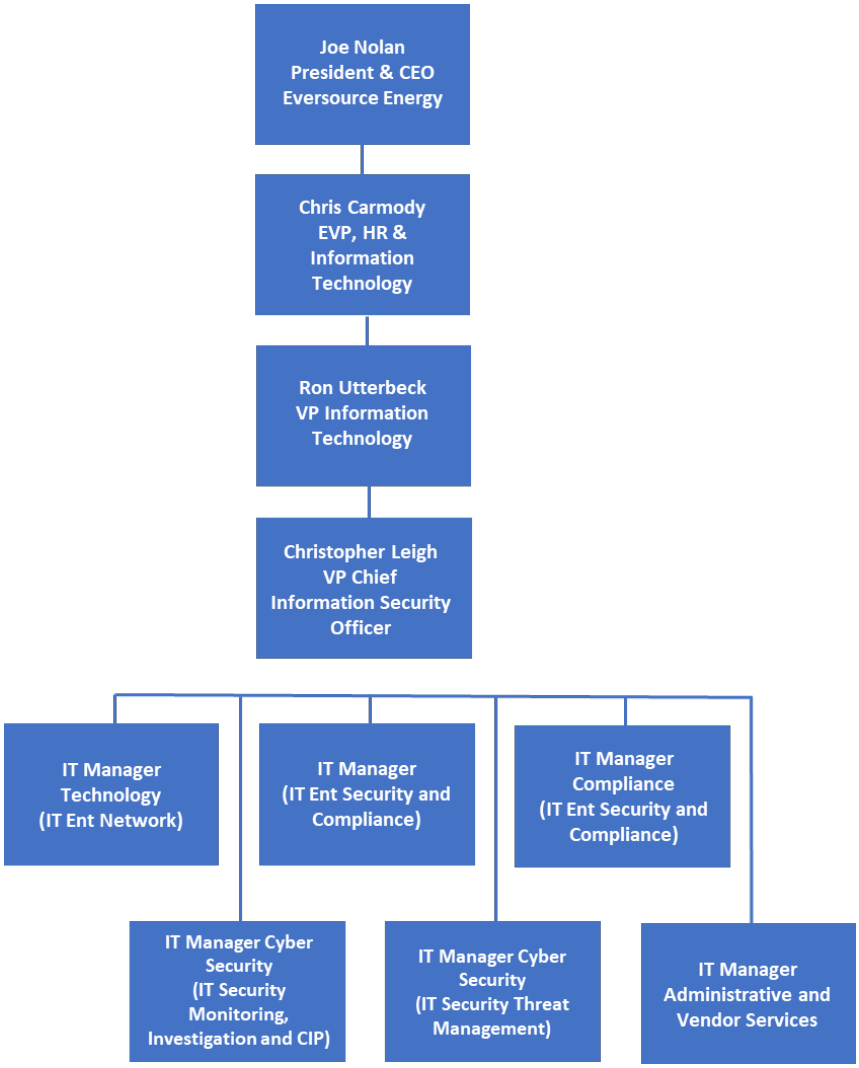


Figure 7-23 Eversource Cybersecurity Group Organizational Structure [81]

AWC-CT's Cybersecurity Organization reports to the Company's Director of IT, see Figure 7-25. Day-to-day cybersecurity activities are the responsibility of the Technical Service Manger and two direct reports. Despite their relative independence, Eversource's and AWC-CT's cybersecurity groups are coordinated through a cybersecurity governance counsel where on a standing basis operational concerns, organizational and staffing issues, cybersecurity vulnerabilities and projects are discussed. They also coordinate data privacy and threat

[80] Response to FTI-083.
[81] Response to FTI-077.

management activities, and share details about past incidents. AWC-CT also adopted Eversource Energy's ERM so they are now on common platform to identify, share, and manage cyber risk.[82,83]

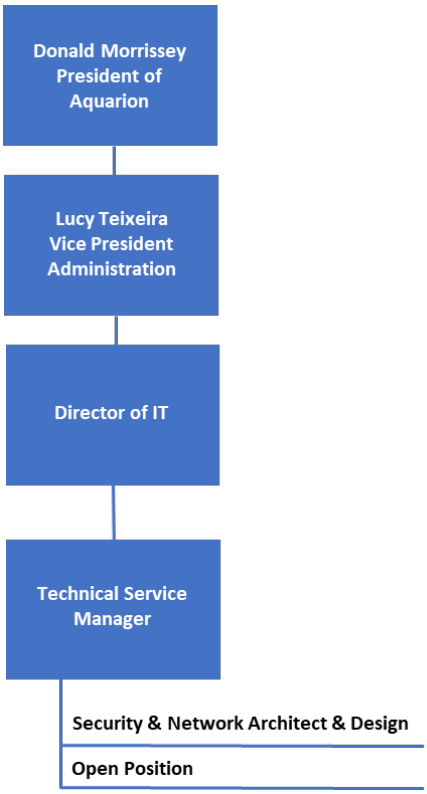


Figure 7-24 AWC-CT Cybersecurity Group Organizational Structure [84]

The three Companies also coordinate their cyber and physical security risks and activities. This is especially critical since these risk areas often have similar threat vectors. Coordination is managed through their cyber governance, ad hoc audits, and they informally share information about topical events.[85]

7.4.4.1. Budget Development, Threat Management, and Initiative Development

To manage the complexity of cybersecurity activities, a Cybersecurity Plan was developed based on risk planning, vendor management, and the Companies' cybersecurity model. These risks and threats are sourced through Intelligence-gathering activities by utilizing several sources of information including through employees who have Top Security clearance. These employees are able to access sensitive intelligence through government agencies. The Companies also have access to a shared secured facility, along with other northeastern based utilities, where they can identify current key indicators, threat vectors, and share information.[86]

The risk identified through these practices are assessed to determine their need to be included in the Companies' risk register. Our review of the register includes relevant cybersecurity issues and challenges, however they do not include a description of mitigation actions and timeline to implement these actions. It was also unclear how

[82] Response to FTI-083.
[83] Interview with Director, IT, Aquarion Company, June 29, 2023.
[84] Response to FTI-077.
[85] Interview with Vice President Chief Information Security Officer, Eversource Energy (Chris Leigh), May 18, 2023
[86] Ibid.

each risk ranked in terms of severity or possible impact which is typically provided through some form of an indicator.

Recommendation: Given the documentation provided by the Companies, they should update their cybersecurity risk register to include risk scoring (likelihood and severity) and mitigation actions which is consistent with Eversource's ERM practices.

The Companies had previously conducted cybersecurity maturity assessments which is tool that is used to identify areas of opportunity and evaluate compliance. Typically, initiatives are created from these assessments to improve capabilities or address non-compliance, however, the Companies no longer conduct these assessments. The Companies believe that key benefits have already been realized from past assessments and additional incremental improvements can be made without conducting them regularly. The last assessment was conducted in 2016 and did not produce any significant issues.[87] FTI understands the Companies' rationale, however, we would suggest that given the time since the last assessment, conducting a third-party assessment would either assure or highlight deficiencies with their current controls, compliance and assumptions.

Recommendation: The Companies should consider conducting a third-party cybersecurity maturity assessment to provide an independent evaluation of the Companies' cybersecurity operations and compliance to applicable rules and regulations.

7.4.4.1.1. Budget Development

CL&P and YGS develop their annual cybersecurity budget using their current-year budget as a baseline. The baseline budget includes day-to-day cybersecurity activities such as monitoring and responding to threats, identifying and mitigating risks, compliance to policies and regulations, training, any carryover projects, and others. Additional costs are added to the baseline from initiatives that are created to close any gaps or make improvements as identified through the Cybersecurity Plan.

While following the same process as the IT group overall, the Cybersecurity group's budget is developed independently from IT's. Mr. Utterbeck serves in an oversight role to vet Cybersecurity budget items prior to advancing to the next step of the annual budget development process. This practice assures that IT priorities do not overrule Cybersecurity priorities, while allowing for leadership oversight.[88]

A review of the Companies' historical cybersecurity spend indicates that most expenses are OpEx rather than CapEx. This is not unusual within the industry, with many cybersecurity derived expenses being related to on-going operations and less so for new capital projects and programs. The Companies' budget to plan variances are significant, though CL&P and YGS have more recently improved, Figure 7-26 and Figure 7-27.

Recommendation: The Companies should make improvements to the cybersecurity forecasting process to more accurately reflect the actual spend for these Companies. This will allow for more accurate portfolio management and more accurate in year tracking of these expenses.

[87] Response to FTI-814, Att. 1 (ES).
[88] Ibid.

Cybersecurity Capital Plan vs Actuals									
	CL&P			YGS			AWC-CT		
Year	Actual	Plan	Variance	Actual	Plan	Variance	Actual	Plan	Variance
2018	-	-	-	-	-	-	$62,360	$200,000	-68.8%
2019	-	-	-	-	-	-	$175,093	$200,000	-12.5%
2020	-	-	-	-	-	-	$138,354	$200,000	-30.8%
2021	-	-	-	-	-	-	$151,574	$200,000	-24.2%
2022	-	-	-	-	-	-	$285,871	$200,000	42.9%

Figure 7-25 CapEx Cybersecurity Budget vs. Actuals (5 years), 2018-2022 [89]

Cybersecurity O&M Plan vs Actuals									
	CL&P			YGS			AWC-CT		
Year	Actual	Plan	Variance	Actual	Plan	Variance	Actual	Plan	Variance
2018	$ 2,001,817	$ 1,498,433	33.6%	$ 391,907	$ 400,924	-2.2%	$135,681	$157,626	-13.9%
2019	$ 1,777,430	$ 1,561,444	13.8%	$ 476,786	$ 421,313	13.2%	$244,589	$265,993	-8.0%
2020	$ 2,782,793	$ 2,352,227	18.3%	$ 766,905	$ 707,195	8.4%	$219,637	$270,875	-18.9%
2021	$ 2,789,850	$ 2,565,113	8.8%	$ 821,724	$ 814,038	0.9%	$338,302	$303,658	11.4%
2022	$ 2,641,376	$ 2,734,971	-3.4%	$ 955,848	$ 898,825	6.3%	$481,710	$341,270	41.2%

Figure 7-26 CapEx Cybersecurity Budget vs. Actuals (5 years), 2018-2022 [90]

7.4.4.2. Performance Management

Quantitative measurement, which removes subjectivity, is best used to measure the performance of an initiative or activity. To achieve this, CL&P and YGS's Cybersecurity group maintains metrics, reports and associated scorecards that include: Security Operations Center ("SOC") Incident Summary, Threat Intel Summary, SOC Incident Summary, Threat Intel Summary, Vulnerability Scan Summary, UNITE, and others. These measures are reviewed regularly by leadership including at the Companies' Monthly and Quarterly Business Reviews. AWC-CT also has similar metrics that are reviewed internally. [91]

FTI's analysis of the Companies' scorecard and reporting indicate good structure and effective communication of performance trends. These trends also indicate that good controls are in place to mitigate any potential risk and threat vectors with no obvious gaps or performance issues.[92]

Overall, the Companies' performance management measures, scorecards, and review processes are consistent with industry practices. The areas monitored include intelligence, security alerts, vulnerabilities, and human factors such as phishing tests and compliance to annual training. Reports and scorecards are appropriate and the results indicate good performance management.

7.4.4.3. Emergency Response Plans, Drills and Reporting

Threats or intrusions that escalate to a level that requires a response are managed through a series of incident response plans including the Eversource All Hazards Emergency Response Plan, Eversource Cyber Security Plan, Personal Information Incident Response Plan, Responding to a Ransomware Attack, Eversource IT Security

[89] Response to FTI-077.
[90] Ibid.
[91] Response to FTI-367.
[92] Response to FTI-444.

Incident Response Plan, and the AWC-CT Information Technologies Incident Response Plan. These plans cover a range of potential cyber related emergencies and include details on recovery processes. The Eversource plans are divided by high impact categories where event specific details are provided. Each plan has a similar general layout which includes the following:[93]

- **Role and responsibilities:** Details about who is involved and their individual responsibilities
- **Notifications and Communications:** Includes who to notify internally and externally where required
- **Incident Response:** Provides the tactical response plan for a cybersecurity event

The Eversource Cybersecurity Plan provides a board set of details for day-to-day operations, general incident response, threat management and overall program management structured through the following format:[94]

- **Concept of Operations:** Discusses approaches to Cybersecurity including the frameworks followed and areas of compliance.
- **Risk Management:** Discusses Risk Management approaches which align to the Eversource Energy's ERM framework.
- **Asset, Change and Configuration Management:** Establishes approaches to asset management including asset tracking and maintenance (i.e. patch updates) to support good cybersecurity hygiene.
- **Identity and Access Management:** Discusses the controls used to manage access to company systems and information.
- **Threat and Vulnerability Management:** Details the plans and processes used to monitor and manage various cybersecurity threat vectors.
- **Situational Awareness:** The methods and approaches used to monitor and log events.
- **Information Sharing and Communications:** The forums that the Companies participate in to share information including within the industry, expert groups and government agencies.
- **Event and Incident Response, Continuity of Operations:** Provides a high level process overview for an event response.
- **Supply Chain and External Dependencies Management:** Discusses the controls and risk management methods used to manage procurement-based risk such as purchasing equipment.
- **Workforce Management:** Discusses how to manage the workforce responsible for cybersecurity including their capabilities, skillset development, and risks.
- **Cybersecurity Program Management:** Discusses the management of the cybersecurity program including the planning, governance, and approaches.

Each plan evaluated follows a logical flow which allows for quick reference as an event develops. The tactical response plans include contact flows that assist with determining who to notify for a variety of needs and concerns. These plans also include sample communications scrips so that information is provided in a timely manner. However, a communication protocol could not be established for the various agencies including Public Utilities Regulatory Authority ("PURA"). While there is a reference to the North American Electric Reliability Corporation ("NERC") notification standard operating procedure for the Incident Response Plan, there were no other references provided. These plans should include details about communicating with authorities so

[93] Response to FTI-083.
[94] Response to FTI-083, Att. 1(ES).

requirements are clear pursuant to NERC Critical Infrastructure Protection ("NERC-CIP") requirements, the Connecticut PURA rules, and other applicable rules and regulations.[95]

AWC-CT's response plan is at a high level and does not provide the same level of useful detail as the Eversource Plan, including details about their monitoring practices, response processes, and information about after action reviews (Eversource Plans also lack detail about after action reviews).

Recommendation: The Companies should update their cybersecurity incident response plans to provide details about the communication protocols for all applicable federal, state and other industry groups. These plan should also be updated to include information concerning the approach and structure for after action reviews. Additionally, AWC-CT should benchmark Eversource and other utilities' plans to include more tactical response details for a variety of scenarios.

Conducting regular drills supports readiness and plan awareness so that an actual response is met with coordinated activities. The Cybersecurity group achieves this by participating in Eversource's annual storm response drill, National Guard's Cyber Yankee training event, Department of Energy's Liberty Eclipse exercise, North American Electric Reliability Corporation's GRIDEX, and internal tabletop exercises..[96,97, 98] We believe that the participation in these drills is critical and are encouraged by Cybersecurity group's t continued participation to ensure readiness.

7.4.4.4. Cybersecurity Training

An IBM report noted that 60% of all cybersecurity attacks are perpetrated by someone inside of a company. Of that number, one quarter, or 15% of all cybersecurity attacks, were due to inadvertent access by an employee. [99] Therefore, the primary goal of any security team should be to consider and prepared for the people side of cybersecurity. FTI believes this begins with engaging the Eversource Energy Board and senior leaders so they understand their role and key cyber risks.

The Cybersecurity group stated they meet with the Eversource Energy Board three times a year to discuss various cybersecurity topics including risk metrics, threat landscape, risk and mitigation. They also provide training on topical areas that are relevant to cybersecurity including Russian threats, low level cyber attacks and best practices for treating cybersecurity risks. [100] CL&P Independent Board members were interviewed and they indicated the Company provided information and training concerning cybersecurity. [101]

The employees within CL&P and YGS are also provided topical training which is tracked through the Companies' Learning Management System ("LMS"). This training includes: [102]

- **Annual Security Awareness Training:** Required of all employees and contractors which includes topics that change each cycle. The most recent topic included social engineering.

[95] Response to FTI-083.
[96] Interview with Vice President Chief Information Security Officer, Eversource Energy (Chris Leigh), May 18, 2023
[97] Interview with Director, IT, Aquarion Company, June 29, 2023.
[98] Email correspondence from Chris Plecs sent on December 19, 2024.
[99] https://hbr.org/2016/09/the-biggest-cybersecurity-threats-are-inside-your-company.
[100] Response to FTI-088.
[101] Interview with Independent Directors, CL&P Board of Directors (Chandler Howard, Patrick McGrath, and Ian Nicholson), July 12, 2023.
[102] Response to FTI-089.

- **New Hire Training:** Includes two courses, including IT security awareness fundamentals and Social Engineering
- **Phish Awareness:** Bi-monthly simulations are conducted for all employees and contractors with email. Any employees who click on the test emails receive additional training

Compliance and performance is tracked through the Companies' LMS and other metrics. This includes Phishing results with current "click rates" ranging between 3 to 7% for Eversource and 3 to 11% for AWC-CT. For an organization the size of Eversource the industry average click rate is approximately 6%.[103] The Companies stated they work to improve these results through a progressive approach that mitigates reoccurrence through manager intervention, which occurs after three failed attempts. A review of training compliance indicated a number of "active" employees who had not completed training.

To tighten current controls, the Company should consider limiting access to employees who have had multiple failed tests and/or are not complaint with training, which is an industry best practice.

Recommendation: The Company should consider revoking access to email systems and/or the Company network should an employee fail multiple phishing attempts after previous manager interventions. If not already in place, non-compliance to cybersecurity training should also result in revocation of computer access until such training is complied with.

7.5. Regulatory Compliance

This audit report provides details throughout concerning CL&P, YGS, and AWC-CT regulatory compliance and reporting activities. This includes but is not limited to: System Performance, Accounting and Finance, and Emergency Response. Details about the organization and governance for the Regulatory Affairs group are detailed in Chapter 1.

[103] https://mytechdecisions.com/network-security/phishing-click-rates-mean-more-training-awareness-are-needed/

Appendix 1: Rates Handbook

The Connecticut Light & Power Company ("CL&P"), Yankee Gas Services Company ("YGS"), and the Aquarion Water Company of Connecticut ("AWC-CT") are regulated electric, natural gas, and water utilities. The Connecticut Public Regulatory Authority ("the PURA") authorizes and determines the electric, gas, and water rates they can charge customers.

When CL&P, YGS, or AWC-CT determine they need a new revenue requirement, they file a general/base rate case before the PURA for a change in rates. While most Connecticut utilities file general rate cases at least every four years, the specific requirement under Connecticut General Statutes § 16-19 is that the PURA must conduct a "periodic review" of utility rates at least every four years, which can but does not necessarily require a formal general rate case.[1] Additionally, CL&P is currently subject to a rate case stay-out provision following a 2021 settlement agreement that prevents the utility from filing a general rate case until January 1, 2024;[2] this agreement satisfied the requirement for a periodic review by the PURA.[3]

In a general/base rate case proceeding before the PURA, a utility requests an updated revenue requirement and new tariffs/rates for their various customer classes. Utility staff provide testimony to support their request for a new revenue requirement and tariffs/rates. PURA staff and the Commission as well as intervenors cross-examine utility witnesses and provide their own testimony to support their positions versus the utility's. The PURA makes a final determination on the utility's revenue requirement request, including the final allocation (via rates) of the revenue requirement to the various customer classes.

In addition to general rate case filings/proceedings, some rate components are adjusted via the Rate Adjustment Mechanism ("RAM") filing, which is an annual true-up exercise providing the calculations of the utility's over- or under-recovery of certain cost categories and modifying those rate components charged to customers accordingly.

Below, by Eversource subsidiary, are key components of their electric, natural gas, and water rates.

Connecticut Light & Power

CL&P is an electric distribution company ("EDC"). CL&P is the electric transmission and distribution infrastructure owner for their service territory and is regulated by the PURA. CL&P does not own generation resources or participate in the competitive supply market. Instead, electricity supply is a competitive market with many different suppliers. CL&P conducts competitive auctions for electricity supply on behalf of the PURA. Customers may opt for CL&P-provided "standard service," or they may select one of many alternate electric suppliers. If an alternate supplier exits the electricity market for any reason, CL&P becomes the provider of "last resort service for those customers."

CL&P's residential electricity bills are divided into two parts: electric supply, and electric delivery. Some charges are fixed monthly, while others are volumetric and depend on a customer's electricity usage.

[1] Chapter 277, Connecticut Department of Energy and Environmental Protection Public Utilities Regulatory Authority Office of Consumer Counsel Miscellaneous Provisions, Sec. 16-19a.
[2] Eversource Energy, 2022 10-K; Response to FTI-323, Att. 5(ES) (confidential).
[3] Response to FTI-729.

1) Electric Supply
   a) **Generation Service Charge ("GSC"):** Volumetric (per kWh) fee for electric energy procured by CL&P for standard or last resort service. Generation service is open to competition from all electric suppliers who qualify under ISO-New England rules. Customers can choose their electric supplier or opt for CL&P's "Standard Service." The PURA regulates the standard and last resort service auctions on CL&P's behalf and approves the final results. Once the auction results are published, CL&P bills and collects estimated supply costs from customers, subject to a true-up. Electricity supply costs are fully recovered from customers as a direct pass-through cost.

2) Electric Delivery
   a) **Customer Service Charge:** A monthly fixed customer fee for delivery of electricity over its poles and wires to a customer home or business covering costs related to billing, meter reading, and customer service.
   b) **Distribution Charge per kWh:** A volumetric (per kWh) fee for delivery of electricity over its over poles and wires to a customer home or business covering the cost of owning and maintaining the distribution infrastructure.
   c) **Transmission Adjustment Charge ("TAC"):** A volumetric (per kWh) fee that allows CL&P to fully recover the transmission costs billed to it by ISO-New England to deliver electricity over ISO-New England's high-voltage power lines.
   d) **Competitive Transition Assessment ("CTA"):** A volumetric (per kWh) fee that allows recovery of stranded generation investments and the principal, interest, and other expenses associated with rate reduction bonds issued to recover or finance such stranded generation investments or to sustain funding of conservation and load management and renewable energy investment programs.
   e) **Revenue Decoupling Mechanism ("RDM"):** A volumetric (per kWh) fee that allows CL&P to recover or pass back to customers the difference between actual revenues received versus the approved allowed revenue requirement. The mechanism is fully reconciling and results in either a charge for under-collections or credit on customer bills for over-collections.
   f) **Electric System Improvements ("ESI") Charge:** A fully reconciling volumetric (per kWh) fee to recover CL&P investments that strengthen or modernize the electric grid.
   g) **Combined Public Benefits Charge:** A fully reconciling volumetric (per kWh) fee that collects the costs of the following three programs:
      i) Conservation Charge and Conservation Adjustment Mechanism: Programs that promote energy conservation and efficiency.
      ii) Renewable Energy Charge: Funds investment programs that promote the use of renewable or environmentally friendly fuel sources, such as solar power, wind power, fuel cells, methane gas from landfills, biomass, trash-to-energy, and hydropower.
      iii) System Benefits Charge: Funds public-interest costs such as public education, hardship protection, and low-income programs.

      All program costs for i. through iii. are pre-approved by the PURA for recovery prior to spending.
   h) **Federally Mandated Congestion Charge ("FMCC"):** A fully reconciling volumetric (per kWh) delivery (all customers) and generation (standard service customers only) fee imposed by the Federal Energy Regulatory Commission ("FERC") that recovers costs defined in Public Acts 03-135 and 03-221 associated with the FERC's Standard Market Design ("SMD"). CL&P reconciles the total applicable revenues billed to

total actual expenditures, semiannually. The reconciliation recovers or refunds, with interest calculated at CL&P's cost of capital used for its distribution rate, any under- or over-collection.

Figure A2-1 summarizes each CL&P rate component, method of, and frequency of adjustments.

Supply/Delivery	Rate Component	Adjusted Via	Frequency
Supply	Generation Service Charge	RAM filing	Biannual (standard service) Quarterly (last resort service)
Delivery	Customer Service Charge	General Rate Case	Reviewed not more than every 4 years
Delivery	Distribution Charge per kWh	General Rate Case	Reviewed not more than every 4 years
Delivery	Transmission Adjustment Charge	RAM filing	Annual true-up
Delivery	Competitive Transition Assessment	RAM filing	Annual true-up
Delivery	Revenue Decoupling Adjustment	RAM filing	Annual true-up
Delivery	Electric System Improvements Charge	RAM filing	Annual true-up
Delivery	Combined Public Benefits Charge	RAM filing	Annual true-up
Delivery	Federally Mandated Congestion Charge	RAM filing	Annual true-up

Figure A1-1 Rate Component Adjustments, CL&P

Note that distribution charges are changed through a general rate case proceeding based on a final PURA-approved revenue requirement. The final PURA-approved annual revenue requirement targets are then reconciled with actuals through the annual RDM reconciliation as part of the annual RAM filing.

Yankee Gas Services

YGS is a local gas distribution company ("LDC") that owns and maintains infrastructure for delivery of end-use natural gas. YGS' gas delivery to customers is regulated by the PURA, but gas supply, similar to electric supply, is a competitive market. Customers may opt for LDC-provided gas supply, or they may select an alternate supplier. YGS purchases and stores natural gas supplies to help buffer price fluctuations and provide customers with stable and affordable bills.

YGS' residential natural gas bills consist of volumetric supply and delivery charges, monthly fixed customer charges, and additional charges for system maintenance and special programs.

1) Gas Supply
   - **a) Purchased Gas Adjustment ("PGA"):** A fee that collects the total cost of gas purchased by YGS, subject to market price, such that gas supply is a fully reconciling direct pass-through cost to ratepayers.
   - **b) Sales Service Charge:** A volumetric (per Ccf) fee designed to recover unique costs specific to those customers that receive their gas supply directly from YGS.

2) Gas Delivery
   a) **Customer Charge:** A monthly fixed customer fee designed to recover YGS' basic administrative expenses associated with maintaining and servicing a customer account.
   b) **Delivery Charge:** A monthly fee for moving natural gas across YGS' distribution lines to a customer's home or business.
   c) **Conservation Adjustment Mechanism ("CAM"):** A fully reconciling fee that collects the costs of natural gas conservation programs available to customers.
   d) **Gas System Improvement ("GSI") Charge:** A fully reconciling charge to recover the annual difference between PURA-approved and actual capital expenditures for upgrading the gas distribution system, including the Distribution Integrity Management Program ("DIMP") Charge used to recover expenses related to any pipeline replacement for cast iron and bare steel mains and services each year.
   e) **Revenue Decoupling Mechanism ("RDM"):** A fully reconciling charge or credit that collects or refunds the difference between the approved annual revenue requirement with actual distribution revenues collected.

New natural gas customers are subject to a "System Expansion" rate structure, denoted in the tariff by the suffix "-SE" (e.g., 02-SE denotes a Residential Service Heating customer under the System Expansion rate structure). System Expansion customers are subject to higher charges for the same rate components; however, some System Expansion program costs are borne by existing customers through the following mechanism:

- **System Expansion Reconciliation Mechanism ("SER"):** A charge or credit applied to existing customers to further collect expenses not covered by System Expansion ("SE") rates related to expanding the natural gas system and converting customers to natural gas.

Figure A2-2 illustrates each YGS rate component, method of, and frequency of adjustments.

Supply/ Delivery	Rate Component	Adjusted Via	Frequency
Supply	Purchased Gas Adjustment	PGA Filing	Rates change monthly based on market conditions. Invoices reconciled in annual true-up
Supply	Sales Service Charge	General Rate Case	Reviewed not more than every 4 years
Delivery	Delivery Charges (Customer Charge, Delivery Rate)	General Rate Case	Reviewed not more than every 4 years
Delivery	Conservation Adjustment Mechanism	CAM Filing	Annual true-up
Delivery	Gas System Improvement Charge	GSI Filing	Annual true-up
Delivery	Revenue Decoupling Mechanism	RDM Filing	Annual true-up
Delivery	System Expansion Reconciliation Mechanism	SER Filing	Annual true-up

Figure A1-2 Rate Component Adjustments, YGS

Aquarion Water Company of Connecticut

AWC-CT maintains a full system of drinking water supply, water distribution, and wastewater infrastructure, including water reservoirs, mains, fire hydrants, leak detection equipment, service connections, curb valves, and

taps. AWC-CT rates are based upon the cost of both treating and delivering water to customers. Service rates vary by region, water meter size (basic service charge), and usage. AWC-CT's basic service charge is rendered on a per diem basis and changes depending on the number of days in the bill period.

AWC-CT's water bills consist of volumetric supply charges, monthly fixed customer charges, a revenue adjustment mechanism, an infrastructure surcharge, and additional charges for fire protection.

1) Water Supply
   a) Water Consumption Charge: A volumetric (per Ccf) fee that collects the total cost of supplying water by AWC-CT. Together with the Basic Service Charge, the Water Consumption Charge recovers AWC-CT's full cost of service.

2) Water Delivery
   a) Basic Service (Minimum Service) Charge: A monthly fixed customer fee based on the size of the customer's meter designed to recover AWC-CT's cost of service, in combination with the Water Consumption Charge.
   b) Revenue Adjustment Mechanism: A volumetric (per Ccf) fee that reconciles annual revenues to the revenue requirement approved by the PURA.
   c) Water Infrastructure and Conservation Adjustment ("WICA"): A percentage-based surcharge that funds the replacement of aging water distribution infrastructure. The total WICA surcharge falls between 5-10% plus an annual reconciliation rate. The WICA surcharge may change during the year depending on infrastructure improvements and approval by the PURA. Legislation limits the surcharge increase to 5% in any given year and 10% overall between full rate cases. For increases beyond these amounts, AWC-CT must apply for a general rate case.
   d) Fire Protection Charge: A fee for private or public access to large volumes of water to protect buildings and occupants from fire. Private fire protection (i.e., hydrants or mains located on a private property) is billed by service size or per hydrant, while public fire protection (i.e., hydrants or mains located on public property) is billed per inch foot of mains.

Together, the Consumption and Basic Service charges encompass base rate recovery, or the full cost of service.[4] Figure A2-3 illustrates each AWC-CT rate component, method of, and frequency of adjustments.

Supply/ Delivery	Rate Component	Adjusted Via	Frequency
Supply	Consumption Charge	General Rate Case	Not more than every 4 years
Delivery	Basic Service Charge	General Rate Case	Not more than every 4 years
Delivery	Revenue Adjustment Mechanism	RAM Filing	Annual true-up
Delivery	Water Infrastructure and Conservation Adjustment	WICA Filing	Annual true-up
Delivery	Fire Protection Charge	General Rate Case	Not more than every 4 years

Figure A1-3 Rate Component Adjustments, AWC-CT

[4] Response to FTI-325.

Appendix 2: Merger Order Conditions

A.1. 2012 Merger Order Conditions: Northeast Utilities-NSTAR

On April 2, 2012, the Connecticut Public Regulatory Authority ("the PURA") issued a Decision to approve the Northeast Utilities-NSTAR merger on the basis of a settlement agreement ("2012 Settlement") between Northeast Utilities ("NU"), NSTAR, the Connecticut Office of the Attorney General, and the Connecticut Office of Consumer Counsel.[1]

Most of the provisions of the 2012 settlement were executable upon the transaction closing, or in the years immediately following the closing. There are no ongoing merger reporting requirements that continue to apply today. All settlement commitments have been met.[2]

Below is a table of Eversource's compliance status with the provisions of the 2012 Settlement.

Article 1: Financial Benefits	
1.1. Merger Rate Credit: NU shall provide a one-time, non-recoverable $25 million rate credit to customers of The Connecticut Light and Power Company ("CL&P") to be applied on the first billing cycle in the next billing month following the closing of the Proposed Transaction.	Testimony in Docket No. 14-05-06 confirms disbursement of the $25M rate credit.
1.1.1. The rate credit will be allocated to CL&P retail customer classes (i.e., residential, commercial, and industrial) based upon their proportional share of the monthly customer charges and will appear on the bill as a uniform dollar amount credit for each separate customer class as a separate line item, along with an explanatory bill message. All customers within a retail customer class shall receive the same rate credit dollar amount.	Complied
1.2. Distribution Rate Freeze: CL&P shall forego its right under Conn. Gen. Stat. § 16-19 to implement a requested general increase in its distribution rates prior to December 1, 2014 (the "Base Rate Freeze Period"), and its distribution rates shall be frozen through that date.	CL&P complied with this provision in its Application to Amend Rates in Docket No. 14-05-06 effective December 1, 2014.
1.2.1. Only the distribution rates shall be subject to the freeze. Other retail rate components, including rate reconciling mechanisms, formula rates and other adjustment mechanisms now in place or pending approval by the Authority as of the date of this Settlement Agreement shall not be affected by this Settlement Agreement. CL&P shall not file for approval of or propose new formula rates, tariffs, or other charges, including but not limited to earning sharing mechanisms, capital trackers, or revenue decoupling mechanisms, during the Base Rate Freeze Period ("Prohibited Filings"), unless specifically mandated by the terms of this Settlement Agreement or by statutes enacted after the date of this Settlement Agreement. Prohibited Filings shall not include filings made pursuant to Article 1, § 1.2.2, and Article 4, §§4.1 and 4.3.	Complied
1.2.2. Exogenous Costs: During the Base Rate Freeze Period, distribution rates may only be adjusted up or down by the Authority due to exogenous factors	Complied

[1] Final Decision, Docket No. 12-01-07 "Application for Approval of Holding Company Transaction Involving Northeast Utilities and NSTAR." April 2, 2012.

[2] Response to FTI-688.

that are outside the Companies' control ("Exogenous Costs"). CL&P may seek and the Authority may grant Exogenous Cost recovery in the event and only to the extent that the revenue requirements of CL&P are affected by more than $3 million annually as the result of changes in law, taxes, administrative requirements or accounting standards adopted after the date of this Settlement Agreement, provided such accounting standards are adopted by entities that are independent of the Companies and have authority to issue such standards, or as the result of other events outside the Companies' control that cause CL&P to incur extraordinary and unanticipated expenses for the provision of safe and reliable electric service to the extent necessary to provide such service. Eligibility for Exogenous Cost recovery or rate credit shall be determined by the Authority, consistent with the purposes of this Settlement Agreement and any applicable PURA precedent.	
1.3. Rate Reviews: CL&P must make application for new rates to go into effect as of the end of the Base Rate Freeze Period (December 1, 2014). CL&P will propose an earnings sharing mechanism in that rate filing. CL&P also shall make application for a rate amendment within three years after the Base Rate Freeze Period, with new rates to go into effect no later than December 1, 2017.	CL&P complied with this provision in its Application to Amend Rates in Docket No. 14-05-06 effective December 1, 2014, which included an earnings sharing mechanism.
Article 2: Advancing State Energy Goals	
2.1. Energy Efficiency and Related Initiatives: NU shall work with the Department of Energy and Environmental Protection ("DEEP") to develop a targeted plan to advance Connecticut's interests in the areas of: (a) expanded energy efficiency programs, including but not limited to low-income energy efficiency programs and a small business energy efficiency strike force; (b) electric vehicles; (c) microgrids (d) renewable projects; and (e) other related areas consistent with the Governor's energy policy goals. A special emphasis shall be placed on increasing the number of qualified minority contractors providing energy efficiency services. NU shall provide a one-time, nonrecurring, and nonrecoverable payment of $15 million for implementation of the plan during the Base Rate Freeze Period. NU shall establish a segregated account for these funds, to be disbursed at the direction of DEEP for projects in the plan described herein.	Complied
2.2. CL&P Collaboration: CL&P will collaborate with DEEP to develop microgrid infrastructure in the CL&P service territory, including the trips and transfers necessary to isolate portions of the grid and a pilot set of distributed generation sites. CL&P will work cooperatively and in good faith with DEEP to resolve any legal or financial issues that may arise in fostering the development of micro grids in support of state resiliency efforts. CL&P will promote and enhance the capabilities of the Center for Storm and Power System Resiliency at the University of Connecticut. CL&P also will collaborate with DEEP to invest in the development and deployment of an initial suite of public electric vehicle charging stations.	Complied
Article 3: Corporate Headquarters, Civic Involvement and Employment	
3.1. Commitments: The Settling Parties acknowledge the critical importance of continuity of headquarters and executive presence in Connecticut after the merger. The Settling Parties acknowledge that under the Companies' merger	

agreement, headquarters functions will be located in Massachusetts as well as Connecticut. The Settling Parties further acknowledge the critical importance of continuity of charitable and civic involvement, as well as employment practices. Therefore, in order to maintain continuity, for a period of no less than seven years after closing of the Proposed Transaction, the Companies commit that:	
3.1.1. NU will maintain principal Board and Executive offices and functions in Hartford, Connecticut, and will provide staffing and executive presence consistent with the continued presence of such offices and functions.	Complied
3.1.2. NU will not sell the current headquarters office at 56 Prospect Street, Hartford, Connecticut.	Complied
3.1.3. NU will maintain the headquarters of CL&P, Yankee Gas Service Company ("Yankee Gas") and the Transmission Business in Connecticut.	Complied
3.1.4. NU Call Center operations currently conducted in Windsor, Connecticut will remain in their current location, or at another location in Connecticut.	Complied
3.1.5. CL&P, Yankee Gas, and the NU Foundation shall maintain levels and types of charitable cash donations and civic commitments consistent with typical past practice over the five years preceding the merger, provided that the overall financial performance during the commitment period is comparable to pre-merger levels. CL&P, Yankee Gas and the NU Foundation shall provide 60-days' notice to the Authority and the other Settling Parties prior to any material reduction in the aggregate, premerger level and type of charitable donations and civic commitments due to financial performance.	Complied
3.1.6. Reductions in the Connecticut employee work force in connection with the achievement of merger synergies shall be made on a fair and equitable basis and will not be disproportionate to other jurisdictions in which the merged entity conducts operations, either with respect to the number of reductions or with respect to the relative number of high-compensation versus low-compensation positions. The determination of what is "disproportionate" among jurisdictions shall take into account the relative size of the Companies' pre-merger operations in each of the jurisdictions.	Complied
3.1.7. In the event of a facility closing or layoff of employees in Connecticut, NU shall provide 30 days' notice of such action to the Attorney General, OCC and the Authority, including a demonstration of how any such closing or layoffs are consistent with the standards of equity, fairness and proportionality set out in§ 3.1.6.	Complied
3.1.8. In order to promote stability of employment among CL&P line workers, CL&P will work with local community colleges in Connecticut to develop a line worker apprenticeship program, and the Companies will ensure, consistent with the commitments made by their witnesses in Docket No. 12-0 1-07, that the aggregate number of line workers will not be reduced as a result of the Transaction, either in Connecticut or in Massachusetts.	Complied
3.1.9. Nothing in this Settlement Agreement shall be interpreted to abridge existing labor agreements.	Complied
3.2. Open Space Land: NU makes the following commitments with respect to open-space land: (a) Upon closing of the Proposed Transaction, NU agrees to extend the term of the April 12, 2000 open space land	Complied

memorandum of understanding ("MOU") between NU and the Department of Environmental Protection, as predecessor to DEEP, for a period of 10 years from the current MOU expiration date of July 1, 2014, and further commits to evaluate and consider additional substantive changes to the MOU that may be proposed by DEEP in connection with such extension; (b) within 12 months of the closing of the Proposed Transaction, NU shall form an irrevocable NU preservation land trust, and within 24 months of the closing, shall transfer into said trust the following properties, currently owned by Rocky River Realty: • King's Island, Enfield/Suffield, Connecticut (approximately 188 acres) • Skiff Mountain, Sharon, Connecticut (approximately 723 acres) • Hanover Road, Newtown, Connecticut (approximately 57 acres) • Barlett Road, Waterford, Connecticut (approximately 13 acres) NU commits to work with DEEP to explore opportunities to ensure and/or expand public access to the properties held by the NU preservation land trust for passive recreation, where such public access is appropriate and consistent with any existing use of these properties in support of NU's business activities; and (c) NU shall work cooperatively and in good faith with the State of Connecticut and appropriate historical and cultural stakeholders to preserve the property known as the "Venture Smith Homestead."	
Article 4: Improving System Performance	
4.1. System Resiliency: CL&P shall, within 90 days of the closing of the Transaction, submit to the Authority a multi-year plan and cost recovery mechanism for $300 million of spending in additional distribution system resiliency. The program shall be subject to the Authority's review and approval. CL&P will be allowed recovery, through the systems benefits charge, federally mandated congestion charge (FMCC) or similar mechanism, of the revenue requirements associated with such program at its weighted average cost of capital, with revenue requirements associated with up to $100 million of such spending recoverable during the Base Rate Freeze Period. The total revenue requirements recoverable during the Base Rate Freeze Period, to be collected beginning January 1, 2013, shall not exceed $25 million.	Complied in a 2015 cover letter to begin a multi-year expanded system resiliency plan, Docket No. 12-07-06, "Application of The Connecticut Light and Power Company for Approval of its System Resiliency Plan: Motion/Application to Re-Open the Docket"
4.2. Storm Response: NU shall commit to maintain parity of service to each state within its service territory, such that the allocation of resources for restoration efforts following major storms shall be made fairly and equitably based on operational needs, system requirements and relative number of outages. NU will file with the Authority upgraded practices and policies relating to mutual aid by September 1, 2012. The CL&P Emergency Response Planning Process will at all times be subject to review and approval by the Authority.	Complied
4.3. Recovery of 2011 Storm Costs: CL&P will file with the Authority a request for recovery of costs associated with Tropical Storm Irene and the October 2011 snowstorm ("2011 Storm Costs") net of insurance proceeds and the storm reserve fund. Such request will be subject to review and approval by the Authority in an adjudicatory proceeding. However, CL&P will limit its recovery to an amount $40 million less than the total 2011 Storm Costs ("$40 million write-down"). Nothing in this Agreement shall restrict any party from	Complied in Docket No. 13-03-23 "Petition of The Connecticut Light and Power Company For Approval to Recover Its 2011-2012 Major Storm Costs"

advocating, or the Authority from determining, an appropriate level of 2011 Storm Cost recovery that is lower than 2011 Storm Costs less the $40 million write-down. At the end of the Base Rate Freeze Period when new rates are implemented, any 2011 Storm Costs approved by the Authority for recovery will be recovered in rates consistent with standard cost review and recovery practice of the Authority over a six-year recovery period.	
4.4. Service Quality: CL&P and Yankee Gas shall commit to improve non-storm and storm-related service quality performance. Failure to at least maintain service quality performance consistent with historical averages over the last 10 years shall subject the companies to such penalties as may be within the Authority's jurisdiction and as may be imposed by the Authority from time to time for failure to maintain service quality.	Complied
Article 5: Equity and Transparency	
5.1. Accounting for Goodwill: The transaction value recorded on the books of NSTAR LLC (the post-closing holding company that will be the sole shareholder of NSTAR Electric and NSTAR Gas) upon the close of the Proposed Transaction will include goodwill as defined under Generally Accepted Accounting Principles ("GAAP"). The Settling Parties agree that the goodwill resulting from the Proposed Transaction will not be recorded on the books of the operating companies post-merger, including CL&P and Yankee Gas, unless required by a change in the rules or directives of the Securities Exchange Commission or a change in GAAP. If so required, the operating companies shall quantify the goodwill and its effects recorded on the financial books of account and shall exclude that amount, or any write-down thereof, from any ratemaking calculation used to set customer rates, tariffs or charges, and such amount would be excluded from the calculation of the earned rates of return or the debt-to-equity ratio of CL&P or Yankee Gas.	Complied
5.2. Net Book Value of Utility Assets: In completing the Proposed Transaction, CL&P and Yankee Gas shall not make any accounting adjustment that has the result of increasing the net book value of utility assets for ratemaking purposes.	Complied
5.3. Accounting Treatment and Future Ratemaking of Merger-Related Costs: No transaction costs incurred to negotiate, draft, or execute the merger agreement, or to obtain the regulatory and shareholder approvals required to consummate the Proposed Transaction, shall be recorded on the books of CL&P or Yankee Gas. Any future recovery of transaction and integration costs is subject to Authority review and approval in a future rate proceeding. Parties are free to support or oppose such recovery in full or in part. Merger-related payments made to officers leaving the employ of NSTAR, NU, any of the temporary or surviving entities engaged in the proposed merger transactions, the operating companies, or their successors (together, the "post-merger organization") in the category of "change of control" payments, or to executives remaining with the post-merger organization in the category of "retention payments," shall be recorded at the parent company level upon the merger close and shall not be eligible for recovery as a merger-related cost or otherwise from customers.	Complied

5.4. Cape Wind and Other Massachusetts Initiatives: The Settling Parties agree that CL&P and Yankee Gas shall bear none of the costs associated with commitments made by the Companies or their Massachusetts operating companies with respect to the Cape Wind project or other Massachusetts initiatives in settlement agreements filed in Massachusetts related to the Proposed Transaction, and no such costs shall be recovered from CL&P or Yankee Gas customers.	Complied
Article 6: Department Approvals and Other Conditions	
6.1. Settlement Approval: The Settling Parties assert that, if the Authority does not approve this Settlement Agreement in its entirety on or before April 2, 2012, this filing shall be deemed to be withdrawn and shall not constitute a part of the record in any proceeding or used for any other purpose.	Complied
6.2. Merger Approval: The Settling Parties agree that the Proposed Transaction is consistent with Connecticut law and the public interest. This Settlement Agreement is contingent upon the Authority's simultaneous approval of this Settlement Agreement and the Proposed Transaction on or before April 2, 2012.	Complied

Section IV.B. of the Decision approving the NU-NSTAR merger mandates six Orders, all of which Eversource has met.[3,4,5] These Orders are as follows:[6]

1. No later than June 29, 2012, NU shall provide the Authority a letter stating that the merger has been completed together with copies of closing documents on the stock exchange.

2. No later than June 29, 2012, NU shall notify the Authority that no material modifications were made to the terms and conditions of the merger agreement.

3. No later than July 31, 2012, NU shall file with the Authority a worksheet detailing the amounts of fees incurred for the stock exchange transaction.

4. No later than July 31, 2012, NU shall file with the Authority a worksheet showing transaction costs incurred, exclusive of the stock exchange fees but inclusive of financial advisory, accounting, and legal fees, to consummate the merger.

5. Yankee Gas shall submit to the PURA Gas Pipeline Safety Unit, any and all material changes or revisions to its operating procedures, maintenance procedures or construction standards, no later than 10 days prior to their implementation. If an unforeseen circumstance does not allow for that notification,

[3] FTI-267, Attachment 2 (ES) provides reports dated April 18, 2012, associated with Orders 1 and 2, and reports dated July 31, 2012 associated with Orders 3 and 4, both from Docket No. 12-01-07 Decision dated April 2, 2012.
[4] Response to FTI-267, Att. 3(ES) provides reports associated with Order 5 from Docket No. 12-01-07 Decision dated April 2, 2012 and reports dated June 6, 2014, September 22, 2014, April 14, 2015, and December 29, 2015.
[5] Response to FTI-267, Att. 4(ES) provides compliance filings to the PURA dated April 30, 2015, April 29, 2016, and April 28, 2017 associated with Order No. 6 from Docket No. 12-01-07 Decision dated April 2, 2012.
[6] Final Decision, Docket No. 12-01-07 "Application for Approval of Holding Company Transaction Involving Northeast Utilities and NSTAR." April 2, 2012.

Yankee shall telephonically notify the Gas Pipeline Safety Unit as soon as possible. This order shall remain in effect until the Authority issues its final Decision in Yankee's next rate application.

6. No later than April 30, 2015, and annually thereafter until April 30, 2017, the Companies shall file a Merger Savings Report, similar in form to the DTE 99-19 merger savings report, prepared for the period 2012 through year end 2014. Such report shall include a summary comparison of forecasted savings to actual savings and explanation of the variances.

In PURA's investigation of Tropical Storm Isaias, Docket No. 20-08-03, the Authority found that Eversource had not complied with Section III.C., of the Decision approving the NU-NSTAR merger. Specifically, PURA determined that Eversource's "pivot crews" were not available to respond in Connecticut, which is a finding that Eversource vigorously contested. PURA subsequently issued two directives pertaining to the use of affiliate crews:

- Section III.1 required the electric distribution companies to update their Emergency Response Plans, including an updated matrix with the number of total, internal, and external resources to be available at the onset of a storm, as well as the peak number of crews expected during the storm restoration process for each event level.
- Section III.4 directed the electric companies to include in their storm preparedness resource acquisition activities the ability to acquire enough line resources and liaisons sufficient to dedicate one of each to any potentially affected municipality in its territory who requests such.

Eversource has complied with both of these directives.[7] Eversource was assessed a civil penalty via Order Nos. 1 and 2, which Eversource paid on August 18, 2021.[8]

A.2. 2017 Merger Order Conditions: Eversource-Macquarie Utilities (incl. Aquarion)

In Section V.B. of the Decision approving the Eversource-Macquarie Utilities/Aquarion merger when Eversource acquired Aquarion Water Company of Connecticut ("AWC-CT"), the PURA issued six Orders that Eversource has complied with since the transaction closed.[9] These Orders are as follows:

1. Upon closing, the Applicants shall abide by the commitments, made during this proceeding and summarized below:

- AWC-CT's operational facilities shall continue to be located in Connecticut;
- Eversource shall enable AWC-CT to continue to execute on its capital investment plan effectively and efficiently;
- Eversource shall not seek recovery of acquisition premium from ratepayers;
- AWC-CT will not propose rate changes as a result of the request;
- Eversource shall maintain or improve customer service, water-service reliability and water quality at AWC-CT at affordable rates;
- No substantial changes shall be made to current employee levels or existing operational facilities of AWC-CT;

[7] Response to FTI-688.
[8] Eversource's Order No. 1 and Order No. 2 compliance filings to the PURA are dated August 18, 2021.
[9] Response to FTI-267, Atts. 7-9(ES).

- Eversource shall provide AWC-CT employees with a total compensation package that is market-based and competitive and shall maintain existing employee policies and plans at AWC-CT that are consistent with policies and plans offered by Eversource;
- AWC-CT employees shall be provided increased opportunities for growth and advancement;
- Eversource shall honor collective bargaining agreements;
- Eversource shall maintain or increase community support and charitable giving efforts in the franchise areas;
- The combined companies will maintain its commitment to efficiency, sustainability and environmental stewardship;
- AWC-CT shall maintain a corporate presence in southwest Connecticut, recognizing the need to maintain a presence in Bridgeport; and
- AWC-CT shall develop and propose in its next rate case a low income program that could best benefit its customers in need.

2. Upon closing, the Applicants shall notify the Authority within 30 calendar days following the departure, reassignment or significant change in responsibilities of any individual who was in an executive position of AWC-CT, of date of the change and the reason it occurred. This reporting requirement expires three years from the effective date of the merger.

3. No later than ten business days after the closing, the Applicants shall notify the Authority that no material modifications were made to the terms and conditions of the Purchase Agreement as specified in the Application.

4. No later than ten business days after the closing, the Applicants will provide a calculation of the acquisition premium that reflects balances at the time of the closing of the transaction.

5. No later than ten business days following the completion of the accounting for the transaction, the Applicants shall file with the Authority all journal entries resulting at that point.

6. No later than 45 business days after the closing, the Applicants shall submit to the Authority, a schedule of all actual expenses related to this transaction indicating the payee, the amount and a brief description of the expense.