ISO-NE Responses August 25, 2023

NECPUC State Agencies' Questions to ISO-NE regarding 2024 Budget

1) Please provide the latest copy of ISO-NE's FERC Form 1.

   A copy of ISO-NE's 2022 FERC Form 1 is attached.

2) Please provide the most recent copy of ISO-NE's Form 990.

   A copy of ISO-NE's 2022 IRS Form 990 is attached.

3) Metrics. Given the transition of the system and expected changes ISO-NE operations, will ISO-NE be changing/modifying its metrics, best practices and/or KPIs? Explain.

   Yes. ISO-NE's metrics either: (1) measure performance against achieving our strategic goals; (2) measure risk tolerance for identified risks in light of available resources; or (3) measure compliance with various regulatory requirements. For example, as described in Appendix 3 of the August 11, 2023 presentation titled "ISO New England Proposed 2024 Operating and Capital Budgets" (the "Budget Presentation")[1], the ISO lists the strategic goals that are measured by various metrics. As new goals are added, the metrics are updated. Similarly, as risks change (e.g., cyber risks grow) and regulatory requirements are added (e.g., FERC's new Order No. 2023), the ISO's metrics change.

4) Complexity. Detail how complexity:

   a) Drives ISO-NE work load; and
   b) Changes ISO-NE operations.

   ISO-NE's operating environment will become increasingly complex as:

   - The number of assets in New England will grow to hundreds of thousands/one-million-plus in number
   - Many of these assets are behind-the-meter (BTM), changing how the transmission and distribution system operate and interact with each other
   - More non-dispatchable weather-dependent resources interconnect
   - Load and load patterns change with increasing amounts of solar PV and the region transitions to electric transportation and home heating

   This complexity will increase the workload in ways that are straightforward (e.g., higher volume of asset registrations and transmission interconnections to study and manage), and less straightforward (e.g., changes to adapt the markets and operating procedures, including forecasting, to the aforementioned growth in complexity). New employees and new skills will be needed to meet the challenges.

   For more detail on the effects of system complexity on the ISO-NE workload, please reference slides 15-29

[1] The presentation was presented to the NEPOOL Budget and Finance Subcommittee and can be found at 6_isone_2024_proposed_op_cap_budget.pdf (iso-ne.com)

from the Budget Presentation.

5) Job Benchmarking Study. Detail the results of the job benchmarking study. Provide a description and an example of how the results were used to modify ISO-NE salaries.

In 2022, in response to necessary growth, increased turnover, and greater difficulty attracting critical talent required to achieve our strategic objectives, ISO-NE Human Resources initiated a multi-year competitive compensation benchmarking project with our independent compensation consulting firm Mercer. The first roles studied in 2022 included many of our most technical Engineering, Analyst, and IT roles.

We discovered that our base salaries were below market, and requested a higher salary adjustment budget for 2023 than in prior years so that we could begin to address deficits. We will continue to measure the market competitiveness of the salaries of this first group of employees to ensure we can attract and retain the talent required to achieve our strategic objectives.

We are currently in the process of conducting Phase 2 of the analysis, covering an additional 200+ employees. Based on the Phase 1 results, our understanding of the talent market, and our growth objectives, we have projected a need for additional salary adjustment funding in the 2024 budget.

In 2024, we will conduct Phase 3 of the analysis, covering all remaining employees, and plan to make any necessary compensation changes in 2024, which will affect both the 2024 and 2025 salary budgets.

6) Inverter-Based Resources. Describe inverter-based resources, including how they differ from other resources and why they impact ISO-NE operations.

Most traditional resources, or synchronous generators, produce Alternating Current (AC) power. This is accomplished by mechanically spinning a rotating assembly at a constant speed in a magnetic field, which naturally creates AC power. Many clean resource technologies, such as solar and wind, produce Direct Current (DC) power. Batteries also charge and discharge DC power. These resources require an electronic power converter known as an "inverter" to convert DC power to AC power, and are broadly referred to as Inverter-Based Resources (IBRs) because of this.

IBRs lack many of the intrinsic behaviors of synchronous generators. Their behavior is almost entirely defined by control algorithms. These behavioral differences can present novel challenges to power system stability and reliability, given their lower fault current capability that can result in larger voltage fluctuations on the grid, the need for higher fidelity simulation practices, and the lack of an inherent inertial response. As IBR development continues to increase, ISO Operations must understand these evolving challenges and optimally solve them to ensure both a reliable and efficient power system for New England.

7) Transition to Clean Resources. Does ISO-NE see itself as accommodating the transition to clean resources or also helping drive it? Explain.

ISO-NE is fully committed to working with the New England states and NEPOOL to achieve the region's goals for a clean energy system that is reliable and efficient. As ISO-NE's vision states, we are working "to harness the power of competition and advance technologies to reliably plan and operate the grid as the region transitions to clean energy." The work we do in fulfilling our three critical responsibilities is helping enable the reliable interconnection and operation of renewable energy in the region. ISO New England has been a leader in facilitating the growth of demand resources and clean technologies through enhancements to

long-term and short-term forecasting and modeling tools, system studies and implementation of rule changes to allow for greater participation in the wholesale markets. For more information on how our work is enabling a clean and reliable transition, please see our strategic plan.[2]

8) Future Budget Levels. Are the proposed budget levels reflective of a transitory process that will diminish once the transition is complete? Explain.

The budget reflects increases necessary to successfully transition to the clean energy future as well as catch up on inflation costs that were higher than previously budgeted. While the inflationary pressures will subside, there will still be a need to increase resources in the foreseeable future. At this point we are still assessing what may be needed for a post-transition paradigm.

9) Standards. Does ISO-NE have standards that it strives to meet? For instance, what made ISO-NE decide the transmission que system needed to be changed? If so, provide those standards and explain their rationale.

ISO-NE meets the standards of the Federal Energy Regulatory Commission, the North American Electric Reliability Corporation, and the Northeast Power Coordinating Council, all of which are mandatory. In addition, the ISO has adopted a number of standards in its operating and planning procedures. The ISO is taking steps to modify its interconnection queue in compliance with the rulemaking issued by the Federal Energy Regulatory Commission.

10) Transmission Expansion. What mechanisms/processes does ISO-NE have in place to ensure that transmission expansion is accomplished efficiently? Is ISO-NE satisfied with these mechanisms/processes? Explain.

As the Regional Transmission Organization for New England, ISO-NE is the independent entity responsible for regional system planning, and for coordinating with transmission owners within the region and with neighboring systems. Since 2002, ISO-NE's regional system planning process has facilitated approximately $12 billion in regional investments across all six New England states, providing a robust, reliable, and resilient transmission system. The benefits of this investment in the region go beyond reliability and include market efficiency, reduced out-of-market reliability costs, and facilitation of the transition to clean energy.

ISO-NE carries out its regional planning responsibility in accordance with a comprehensive, open and transparent regional system planning process. Through this process, ISO-NE develops plans for the region's networked transmission facilities to address future system needs. The transmission planning study process begins with the development of a study scope and the identification of key inputs for conducting a needs assessment to determine the adequacy of the power system to maintain reliability while promoting the operation of efficient wholesale electric markets in New England. After the results of a needs assessment are made available for stakeholder input, the potential transmission system solutions are evaluated thoroughly to identify the solutions that offer the best combination of electrical performance, cost, future system expandability, and feasibility to meet the needs identified. These study efforts may be in the form of a solutions study or a competitive solicitation, depending on the timing of reliability needs. The development of transmission to address market-efficiency and public policy needs also is subject to the competitive solution process. The identification of the preferred transmission solution, whether developed through a solutions study or competitive solution process, is subject to stakeholder review and input before

[2] Strategic Plan (iso-ne.com).

the ISO finalizes its determination.

This robust process provides for increased sharing of information on identified needs and evaluation of solutions, leading to informed, efficient and cost-effective decisions on transmission expansion. Among the information shared is the identification of the location and nature of potential problems on the system so that generation, merchant transmission, or load can potentially develop and implement market-based solutions to the identified needs. Market responses, such as new generation pending in the interconnection queue, are included in the planning studies to assess their effects on identified needs. If a market response addresses an identified need, the transmission solution is set aside, thereby reducing the need for, and costs associated with, more transmission.

Beyond assessing reliability, market-efficiency and public policy transmission needs, the ISO has been working closely with the New England states to conduct longer-term scenario-based studies to identify potential future needs, e.g., the 2050 transmission study. The first phase of this effort focused on the development and implementation of rules to authorize the ISO to conduct state-led scenario-based transmission planning studies that rely on the states to determine the range of scenarios, drivers, inputs, assumptions and timeframes for use in the studies. The second phase entails the development of rules to enable the states to select and fund transmission upgrades identified in the longer-term studies. In addition to the longer-term studies, the ISO has had discussions with the New England states, transmission owners and regional stakeholders on potential enhancements to the planning process to optimize projects to meet future needs.

While the regional planning process has resulted in substantial benefits for New England, significant additional transmission will be needed for a reliable and clean energy future. ISO-NE will continue to identify enhancements to planning processes to ensure that any new infrastructure is aligned with the region's goals and that such infrastructure is developed efficiently and economically.

Questions from the Connecticut Office of Consumer Counsel (CTOCC)

CTOCC-1 Slide 38. Provide the employee incentive compensation target amounts since 2021.

ISO New England currently administers two incentive compensation plans that both provide for non-fixed payments: an annual performance incentive plan and a long-term incentive plan. We assume you are asking for the amounts that are budgeted by the ISO for employee incentive compensation. In 2021 through 2023, the ISO budgeted for incentive compensation in amounts that began at 5.6% of non-exempt employees' salaries. For 2024, the ISO has budgeted amounts beginning at 6.5% of non-exempt employees' salaries.

CTOCC-2 Slide 38. Provide the results of the compensation study review and what adjustments to the incentive compensation target is recommended in the current budget.

See the response to NECPUC Question no. 5 and CTOCC-1. The ISO has proposed an increase in the incentive payment pool for 2024 of $2.561 million.

CTOCC-3 Provide the document distributed to new employees detailing the incentive compensation plan.

Employees are eligible for a discretionary bonus based on corporate and personal performance. The policy is not a public document.

CTOCC-4 Slide 67. Based on the method shown, is it effectively assumed that the target date for the nine 2023 positions and twenty 2024 positions to be hired is January 1, 2024? When will the recruitment and hiring process begin for these additional positions?

For the thirty-two positions included in the 2023 budget, it is expected the majority of those positions, including the nine noted on slide 67, will be filled by January 1, 2024 with openings expected for normal vacancy.

We expect to recruit for the forty-one positions included in the 2024 budget over the course of that year, with funding included for an average of twenty positions. Due to the time required to recruit and hire for these openings, many of which are technical positions, we did not include full funding for all forty-one positions in the 2024 budget.

CTOCC-5 Slide 71. Provide detailed workpapers showing the calculation of actual and projected depreciation expenses for the periods presented.

Please refer to pages 71-73 of the Budget Presentation, which detail the depreciable lives and other capital asset accounting guidelines for the calculation of depreciation expense.

In addition, Footnote 1, page 52, of the ISO's Annual Financial Report (see https://www.iso-ne.com/static-assets/documents/2023/03/2022_financial_statements.pdf) contains additional information regarding the method of calculating depreciation expense for ISO-NE.

CTOCC-5 Slide 75. Provide detailed capital budgets for 2023-2025.

See Appendix 8 starting on Slide 150 of the 2023 budget presentation for the detailed 2023 capital budget at 7_isone_2023_proposed_op_cap_budget_update_09_29_2022.pdf (iso-ne.com).

See Appendix 7 starting on Slide 164 of the 2024 budget presentation for the detailed 2024 capital budget at 6_isone_2024_proposed_op_cap_budget.pdf (iso-ne.com).

A detailed 2025 capital budget has not yet been developed.

CTOCC-6 Slide 75. Provide variance reports comparing actual to budgeted capital expenditures for the period 2020-2023 to date.

On a quarterly basis, ISO-NE prepares capital budget reports that are reviewed with the NEPOOL Budget & Finance Subcommittee and filed with the Federal Energy Regulatory Commission. These quarterly reports explain changes in capital budget amounts in addition to information on each capital project that has been chartered for that quarter. Below are the links to each of these quarterly filings back to 2020:

- Q1 2020 - capital_budget_q1_2020.pdf (iso-ne.com)
- Q2 2020 - capital_budget_filing_q2_2020.pdf (iso-ne.com)
- Q3 2020 - capital_budget_filing_q3_2020.pdf (iso-ne.com)
- Q4 2020 - capital_budget_q4_2020.pdf (iso-ne.com)
- Q1 2021 - capital_budget_q1_2021.pdf (iso-ne.com)
- Q2 2021 - cap_budget_q2_2021.pdf (iso-ne.com)
- Q3 2021 – Microsoft Word - Capital Budget Filing Letter Q3 2021.doc (iso-ne.com)
- Q4 2021 - q4_2021_qtrly_budget.pdf (iso-ne.com)
- Q1 2022 - Capital Budget Filing Letter Q1 2022 (iso-ne.com)
- Q2 2022 - cap_budget_qtrly_filing_q2_2022.pdf (iso-ne.com)
- Q3 2022 - cap_budget_qtrly_filing_q3_2022.pdf (iso-ne.com)
- Q4 2022 - capita_budget_qtrly_filing_q4_2022.pdf (iso-ne.com)
- Q1 2023 - q1_2023_qtrly_budget_filing.pdf (iso-ne.com)
- Q2 2023 - q2_2023_capital_budget_filing.pdf (iso-ne.com)

CTOCC-7 Slide 92. Indicate the level of contingency funds previously included in past annual budgets. If this is a new line item, please provide rationale for including it in the budget at this time. If not included as a separate line item in prior year budgets, explain how any contingency factors were applied in setting past budgets.

Contingency funds have always been reported as a separate line item in ISO-NE's budget. Below is the five-year history of the contingency fund budget amount:

2020: $1.8 million
2021: $1.8 million
2022: $2.7 million
2023: $2.7 million
2024: $2.7 million

CTOCC-8 Slide 111. Is the 4.0% Promotional/Equity Increase Budget for 2024 considered a "catch-up" increase? Was the 1.75% Promotional/Equity Increase a "catch-up" increase?

As described on slide 38 of the Budget Presentation, the 2024 budget includes three components to base compensation amounts:

- 4.0% for annual merit increases targeted for the entire ISO-NE employee population (this is reflected in the chart on slide 111)
- 4.0% for targeted promotional/equity increases to cover employees in the 2nd and 3rd phases of the job-specific benchmarking survey described on slide 109 (this is reflected in the chart on slide 111)
- 2.0% for targeted equity/promotion increases given in 2023, primarily funded from contingency funds (in 2023), that covered employees in the 1st phase of the job-specific benchmarking survey as described on slide 109

The targeted equity/promotion increases described in the second and third bullets above would be considered "catch-up" increases to level set base salaries with market amounts.

CTOCC-9 Slide 29. What are the projected costs associated with compliance with FERC's interconnection order?

We are still reviewing the order.

CTOCC-10 Regarding the "expanding interconnection queue," does ISO-NE also account for any potential downward impacts in queue volume as a result of the FERC interconnection order?

See response to CTOCC-9.

CTOCC-11 Does ISO-NE anticipate needing an extension for compliance with FERC's interconnection order and, if so, are there any costs associated with that?

We are still discussing the need for an extension internally and with the other U.S. ISOs/RTOs. The work would be done internally and therefore would be absorbed by the 2023 operating budget.

CTOCC-12 What are the additional effects on staffing, if any, associated with the addition of the Environmental Justice position that is under consideration?

No additional effects.

CT-OCC-13 Provide an estimated projection of the level of increase in energy resources (DERAs) integrated into ISO markets due to FERC order 2222.

We do not have a projection for DERA participation in ISO markets due to Order 2222. The rules for DERAs do not become effective until November 1, 2026, and aspects of our compliance proposal are still subject to FERC review.