**New Hampshire Electric Cooperative, Inc.**
**Minutes of the Meeting of the Engineering and Operations Committee**
**Zoom Meeting**
**March 13th, 2024, 9:30AM**

**Present:**

Committee Members: Tom Mongeon (Chair), Leo Dwyer, Jeff Morrill

Other Board Members: Madeline McElaney, Bill Darcy, Sharon Davis
NHEC Employees: Michael Jennings, Josh Mazzei, Dennis Western, Dustin Ryan, Jeanette Fecteau, Carla Munoz, Kristen Taylor, Alyssa Clemsen Roberts, Autumn Doan, Sonja Gonzalez, Kiana Pino (Recording)
Others Present:

**Meeting Called to Order**

Chair Mongeon called the meeting to order at 9:30 a.m.

**Agenda Review/Minutes Approval**

Chair Mongeon requested adding Topics for Future Meetings at the end. No other changes were made.

**Policy Review Board Policy No. B-25**

Mr. Jennings identified a change in the policy to change his title from “Vice President of Operations and Engineering” to “Vice President of Energy Delivery.” Upon motion by Mr. Morrill, seconded by Mr. Dwyer, it was

VOTED: The committee recommends that the Board of Directors approve Policy B-25: Service
 Territory Realignment as presented

**Safety Update**

Mr. Ryan reported on the 2023 metrics for Lost Time and Restricted Duty. There were 2 recordable incidents, 2 days away, restricted, or transferred (DART) incidents, and 6 preventable motor vehicle incidents. Mr. Ryan reviewed the 2024 Safety Initiatives concerning “Transbanker training”, a Safety Manual update, First Aid/CPR/AED training for all staff, active shooter training, job briefing and work observation form updates, rigging and lifting training, and defensive driving training for Mr. Ryan and Mr. Babcock to become trainers.

Discussion:

* Chair Mongeon asked about what assessments should be done regarding active shooter training and safety standards for NHEC facilities.
	+ Mr. Ryan identified safety protocols such as secure badge/locked doors access and noted that the new HQ facility will have additional built in security measures, such as a fence, that will address security concerns.
* Chair Mongeon asked if there have been incidents with upset public or members during restoration efforts.
	+ Mr. Ryan answered that he has not heard of it happening at NHEC regarding restoration efforts, but there have been incidents regarding other matters.

**Capital Construction Budget – 2023 Year End Results and 2024 Updates**

Mr. Western presented the recurring and elective over and under spending results regarding the 2023 Capital Construction Budget. For the total budget results, spending for recurring projects was over budget by 8.8% and elective projects was under budget by 23.3%. The underspending on elective projects is due to numerous factors including lead times and easement barriers.

Discussion:

* On the slide regarding new lines, Mr. Dwyer asked about the meaning of the budgeted dollar amount regarding the number of new consumers budgeted versus the number of consumers realized.
	+ Mr. Jennings noted that the full budget in the appendix reports these numbers were based on a budgeted 500 new consumers and 840 actual new consumers. This number is a representation based on work orders and will not necessarily match new member registrations.
* On the slide regarding meters, Chair Mongeon asked what the potential impact to members would be regarding meter supply issues.
	+ Mr. Western stated there was not a current risk to members and NHEC will be able to do meter work as planned. If the anticipated shipment is not delivered, then the risk will be reevaluated.
* On the slide regarding cable system upgrades, Chair Mongeon asked if this was over and above the Direct Burial Cable (DBC) project.
	+ Mr. Western confirmed it was.
* On the slide regarding joint use – cable TV, Mr. Dwyer asked if it the percentage of budget used should have been +137%.
	+ Mr. Western confirmed it should have been and will review the numbers.
* On the slide regarding new mobile substations, Mr. Dwyer asked if the total project is on budget.
	+ Mr. Western confirmed it is as of now but will check.
* On the slide regarding voltage regulator installation and capacitors, Chair Mongeon asked if these were based on a plan to address voltage issues.
	+ Mr. Western confirmed this project is based on a 10-year engineering plan to identify problematic areas and will continue to be evaluated. Mr. Western noted that there is still a long lead time on regulators, but the under-budget spending was not because of supply chain issues and determined some regulators were not necessary as budgeted.

**Capital Construction Budget – 2024 Updates**

* Mr. Morrill asked what the percentage difference was between the 2023 and 2024 budget, if there was a change in the allocation of the dollars, and if Mr. Western has any concerns.
	+ Mr. Western answered that there would be a slight difference and the budget for the mobile substation may be reduced. A concern for 2024 would be lead times and availability for materials and resources, but there is a solid plan in place.
	+ Mr. Jennings added that the elective budget has been trending upwards due to new project initiatives. The DBC failures have decreased due to the DBC project, so that budgeted amount will also decrease.
	+ Ms. Clemsen Roberts added that the recurring budget increased by approximately 5.5% and the elective budget decreased by approximately 2.5%.
	+ Chair Mongeon asked for clarification on the type of resource concerns Mr. Western mentioned. Mr. Western clarified it was about personnel, not that there is not enough, but the challenge is in managing high demand at times which can lead to project delays.
* Mr. Dwyer asked how we account for inventory versus capital projects.
	+ Mr. Jennings clarified that the accounting method depends on the type of item. Special equipment, such as meters and transformers, are capitalized and hit the budget upon receipt. Other materials are not capitalized nor hit the budget until the work order has been completed.
	+ Chair Mongeon asked if labor used to install devices is also capitalized.
	+ Mr. Jennings and Ms. Taylor confirmed that labor is part of the cost that is capitalized when the special equipment is.
* Chair Mongeon asked about lessons learned for this budget.
	+ Mr. Jennings discussed that they review the trends and takeaways every year to be considered in the next budget. There is an upward spending trend on new services and a decreased trend in cable failures. One major challenge is if materials are delivered in January versus December, they can swing the budget significantly.
* Chair Mongeon asked about how staff feels regarding supply change issues. Are there any concerns regarding inventory or stocking?
	+ Mr. Jennings noted that NHEC staff “is comfortable with the uncomfortable situation,” supply chain issues have been mitigated as much as possible. The impact of lead times for most items, aside from the ones previously mentioned, have been decreasing to pre-pandemic rates, but the prices have not decreased.
* Chair Mongeon asked about NESC violations and if there is a fine.
	+ Mr. Jennings answered that these violations are typically noticed by NHEC and are addressed to ensure compliance with code.

**Strategic Plan Alignment**

Mr. Jennings discussed which strategic goals the E&O group is responsible for and how the following E&O projects meet these goals. The goal of reliability and efficiently modernizing the Distribution Grid is addressed by SCADA Expansion. The goal to optimize distribution plants to reduce outages and improve restoration time is addressed by the Transformer Replacement Program (TRP) and the DBC replacement project. The goal to implement data analytics and process improvements to identify opportunities and trends that affect reliability within the grid is addressed in the data analytics discussion on a later slide. The goal of maximizing grants awarded to the Cooperative for both electric and broadband are also addressed in a subsequent slide. The affordability goal of prioritizing projects with strong cost-benefit return to most members is not exclusively for E&O, but it will be considered and implemented throughout all the projects.

**DB (Direct Buried) Cable Replacement**

Mr. Mazzei discussed that the project continues to follow the goals meant to stay on track as outlined by Power Systems Engineers. These goals were met in 2023 and are on track to be exceeded in 2024.

**Supervisory Control & Data Acquisition (SCADA) Expansion**

Mr. Western reiterated that this project is to add SCADA to system feeder reclosers and regulators. These devices are essential for distribution automation programs. These provide critical data to the control center for decision making and grid optimization. Mr. Western discussed the expansion strategy for 2024, 2025, and 2026, and the implementation of a distribution management system (DMS) by 2028.

Discussion:

* Mr. Dwyer asked why 2026 has the same scale but half the cost as 2024 and 2025.
	+ Mr. Western answered that there are existing reclosers with these controls and only need to communication capabilities added to them.
	+ Mr. Dwyer asked if the equipment currently on the system is not being utilized to its fullest capacity. Mr. Western clarified that the data and protection is being utilized, but it is not being reported back to the control center in real time.
* Chair Mongeon asked what is the quantitative projected impact that DMS will have on reliability.
	+ Mr. Western answered that he does not currently have a quantitative number. From a high level due to the data and functionality of SCADA devices, the more that are installed the more reliable the system will be.

**Transformer Replacement Program (TRP)**

Mr. Western discussed the plan for the next 5 years for the continuation of TRP which aims to minimize future outages by replacing end-of-life equipment with new equipment that is less likely to fail.

**Data Analytics**

Ms. Gonzalez discussed that the new initiative on data analytic efforts focuses on doing an inventory of data, tools, and reports. This is to help understand what data needs to be analyzed and produced to improve reliability. This effort will be made to help create a 4-year plan to fully develop a data analytics platform.

Discussion:

* Chair Mongeon asked who in the industry we would use as a benchmark for our data analytics platform.
	+ Ms. Gonzalez answered that there have been conversations with NRECA and other co-ops for collaboration, but IT has not yet found the best platform to use as a model for NHEC.
* Mr. Dwyer asked what type of major data sets NHEC has.
	+ Ms. Gonzalez confirmed two major ones are the general ledger and GIS, which are both in iVue. There are also smaller but critical spreadsheets used as data sets. Part of doing a data inventory is getting a better understanding of these data sets and where they are located.
* Chair Mongeon asked about data analytics being a subset to a knowledge management program (KMP).
	+ Ms. Clemsen Roberts clarified that the development of a KMP would be done by the People and Culture department. She also added that this will be part of the strategic plan in coming years.
	+ Ms. Munoz reviewed some of the current projects that will serve as the foundation for this program such as realigning job descriptions, cross functional training, and identifying individuals that can aid in succession planning.
	+ Ms. Gonzalez added that IT is responsible for data security and business continuity, so their role will be more focused on securing that information rather than developing the plan.

**Strategic Topic – Mutual Aid & Storm Response**

Mr. Ryan reviewed the incident command system, which is a standardized management tool for emergencies and non-emergencies. He then reviewed the four stages of utility management response which are preparedness, response, recovery, and mitigation.

Chair Mongeon asked Mr. Jennings about the difference between reliability and resilience. Mr. Jennings noted that this will be discussed more in depth at the next board meeting, but reliability is more about restoration, and resilience is the ability to stay running.

**Grant Funding Update**

Mr. Jennings discussed the grant portion of the strategic plan and the actions taken to support this such as developing a grant team to track, report, and prioritize grants. Mr. Jennings reviewed the status of the grants NHEC has or will apply for such as the Energy Improvements in Rural and Remote Areas (ERA), Rural and Municipal Utility Advanced Syber Security (RMUC), 40101(d) Formula, FEMA (Federal Emergency Management Agency), and various broadband grants.

Discussion:

* Mr. Darcy asked if the RMUC was a national or state grant and what NHEC applied for.
	+ Mr. Jennings answered that it is a national program and NHEC applied to receive funding to further utilize broadband infrastructure for cybersecurity and for SCADA deployment. The intent was to use the funds to scale out what NHEC is already intending to do.
	+ Ms. Clemsen Roberts added there is more information in her January CEO report.
* Chair Mongeon asked about NHEC’s financial commitment in partnering with Eversource through the GRIP (Grid Resilience and Innovation Partnerships) program to deliver a new transmission line to the north country.
	+ Mr. Jennings answered that due to the grant money and Eversource’s funds, NHEC does not have a financial commitment.
* Ms. Clemsen Roberts addressed Mr. Dwyer’s question from a prior board meeting regarding the monetary amount from FEMA.
	+ Mr. Dwyer asked if this would be reported as an account receivable.
	+ Ms. Taylor clarified that the claim declared was booked as a deferred debit and the claims recently declared do not have receivable set up until the FEMA process has been completed.
* Mr. Darcy asked if NHEC has submitted applications for FEMA 406 mitigation funding.
	+ Mr. Mazzei confirmed an application has been submitted for the RA11 circuit.

**Outstanding Items**

Mr. Jennings commented that on the list of strategic topics to go through, “Reliability vs resiliency” is on the list and can be discussed at the next E&O committee meeting or other items can be discussed.

**Topics for Future Meetings**

Chair Mongeon suggested reviewing plans for the distribution system such as the 10-year engineering plan.

**Adjournment**

Mr. Morrill motioned to adjourn, seconded by Chair Mongeon. Chair Mongeon adjourned the meeting at 11:00 a.m.