Q4 2025

Assembly Report

CITY AND BOROUGH OF SITKA
ELECTRIC UTILITY DEPARTMENT
RON VINSON, ELECTRIC UTILITY DIRECTOR

TABLE OF CONTENTS

QUARTERLY SUMMARY

GENERAL OVERVIEW

Quarter three (Q4) was largely focused on FY27 budget development, contract development, regulatory compliance management, and continued operational & capital project management.

Significant effort was invested into ensuring that the FY27 draft operational and capital budgets were as accurate and reasonable as possible. Operational budget increases were aligned with inflation numbers that are being seen (2-3%). Capital project requests remain just under $4M and include a number of requests for additional funding for projects that are entering new phasing, and include a number of new projects that were previously identified in last year's CIP. Additionally, the department has included a request for a backhoe.

With the addition of our new Contract Manager (Allison Hackett), contracts and contractor solicitations have been moving forward efficiently. These efforts are largely focused on developing agreements with contractors to support many of the capital and operational projects that have been funded.

Calendar year end is a critical time of the year for regulatory compliance, as annual regulatory reporting and other requirements become due. Q4 included annual reporting for security and special reporting for security to our FERC regulators. In addition, annual DEC reporting was completed, and underwater cable environmental permitting was developed.

Throughout Q4 both operational and capital project development has continued to move forward. Typical preventative maintenance was executed as normal. Capital project movement included scoping and minor engineering for the Green Lake Excitation Replacement Project, Green Lake Dam Failure Detection installation, permitting and planning for CR0 underwater cable replacement, PLC Procurement for the Marine Street (Side A) replacement project, and initial preparation and painting of the Javis Fuel Storage System.

The E2C project that is being coordinated by the CBS Sustainability Coordinator (Bri Gable) continued to move forward in Q4 through further development of an environmental monitoring plan, a microgrid model, and a comprehensive risk assessment of the Utility. Hydrologists with the National Labs have sited and developed a plan for weather monitoring equipment around the Blue and Green Lake reservoirs and other water monitoring systems. Previous electric load and rainfall data are being assessed to build a reservoir model that can help plan for short term outlooks of rainfall for better reservoir management in conjunction with the microgrid model. Additionally, National Lab engineers have developed a course model of Sitka's grid using historical data. Using LIDAR scans and machine learning to extract pole heights, locations, and line configuration, the engineers are currently working on a fine-detail model, capable of simulating new loads, outages, and other events. The microgrid model and reservoir model will be used to improve operations through simulations that consider changes in load and rainfall availability and inform future projects. Further, National Lab engineers are developing a customized risk analysis tool to quantify risk of potential capital projects. This risk assessment tool, in conjunction with the models and other strategic planning efforts, will be used to create a robust long-term plan for the Electric Department.

Lastly, in Q4 the department encountered several minor equipment outages that were resolved. One more significant outage occurred following an unplanned automated closure of the B3 wicket gates. As such closures

could have a negative impact on the generator's integrity, the B3 unit was taken offline and inspection. This equipment will undergo a proving test during Q1 before it is brought back into service.

CURRENT CHALLENGES

Current challenges that the Department is facing include:

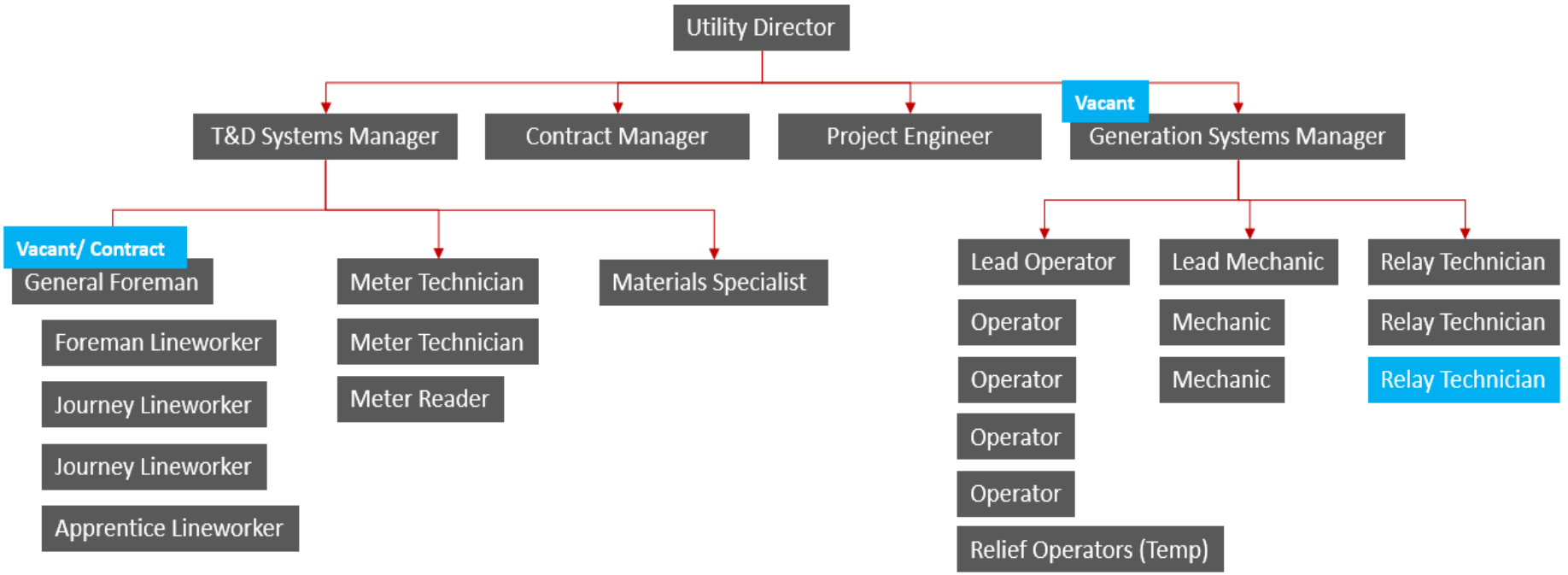
- Equipment deficiencies – (Continued) The Department has been rooting out historical deficiencies, as part of risk management. So far, a fair number of deficiencies have been identified and are being recorded for inclusion into the FY27 budget, or outright addressed with the FY26 budget.
- The department still has several unaddressed areas of safety management. These areas include lacking fall protection, lack of spill prevention, containment, and countermeasure (SPCC) plans, and several other areas. The 2025 Safety Audit is being finalized and will be used as guidance for a safety management framework to improve existing conditions. Additionally, fall protection risk will begin to be mitigated through upcoming contracted work that is anticipated to begin in Q4.
- Regulatory Compliance – Regulatory requirements continue to increase and increase burden on a workforce that is already at a full-time capacity. The department will continue to look for creative ways (contracting, tool or technology changes, process changes) to maintain foundational operation and maintenance activities while addressing the increased workload.
- Inventory Management – The Department is facing challenges with an aging and unsupported inventory management software. This has resulted in inaccurate Department inventory. This challenge is in the process of being mitigated through the implementation of an inventory module that the CBS has already procured to manage maintenance. More updates on this topic, to follow.

NEXT QUARTER LOOK AHEAD

During the coming quarter the Department is looking forward to kicking off and completing a number of critical utility projects and tasks including:

- ☐ Continued Budget Development
- ☐ Annual Safety Training
- ☐ Continued recruitment for Generation Systems Manager & General Foreman
- ☐ Recruitment for Student Assistants
- ☐ Award of Fall Protection Contract
- ☐ Marine Street (Side A) PLC Replacement (February)
- ☐ Annual Crane Inspection & Certification
- ☐ Replacement of defective or expired lights at Blue Lake Powerplant
- ☐ SCADA Backup Server Development
- ☐ Island Cable CR0 Permit Assignment from Feds and Installation
- ☐ Procurement of Long-Lead Equipment for Green Lake Excitation Replacement
- ☐ Solicitation of General Civil Engineering Firm for Various Projects
- ☐ Installation of Backup SCADA Network Switches

ELECTRIC DEPARTMENT ORGANIZATIONAL CHART



Key Notes:

- Full-Time Employees (positions): **26**
- Temp Employees: **5** (including relief operators)
- Vacant Positions: **3**
- General Foreman interviews ongoing; also have contractor support
- Generation Systems Manager position vacant

TOP CAPITAL PROJECTS

MARINE STREET SUBSTATION – SIDE A REFURBISHMENT

The Marine Street Substation is split into two sides, “A” and “B”, each of which provides system redundancy in the case that equipment failure occurs. This substation distributes electricity to most of the city and ensuring reliability through the A-B redundancy is critical to provide reliable power to the community. The relay replacement portion of this project was completed in June 2025. The refurbishment of side-A will continue in the Spring of 2026 with the replacement of the PLC and protective devices at the facility. Existing PLC and protective devices within the facility are dated to a point at which they are no longer active industry models and therefore are less likely to have support in the event of failure. Additional funding is to be requested through the mid-year supplemental appropriation request. These funds will ensure that specialized SCADA contracting can be paid for through proper capital funding methods.

GREEN LAKE DAM FAILURE DETECTION

This project is focused on installing failure monitoring systems at the Green Lake Dam, in alignment with FERC requests. This project will focus on installing dam monitoring cameras, improved elevation sensors, and failure alarming instrumentation to alert those that may be impacted by a failure event. Planning for this project began in the first quarter of 2025 and construction began in the fall of 2025. Final installation of conduit and camera are anticipated once temperatures allow for

GREEN LAKE POWERPLANT REFURBISHMENT – PHASES II & III

The scope of this project includes the refurbishment of both hydropower units at the Green Lake Powerplant. This project has been selected for Department of Energy funding through the 247 Program. The FY26 budget request will bring the CBS portion of the funding to $7M. The CBS received unofficial award from the DOE that the remaining $3M is likely to be funded through the DOE’s 247 program. Release of these funds are on hold due to Federal budgeting constraints.

FERC COMPLIANCE

The scope of this project includes continuing the FERC relicensing process for the Green Lake Development. This project also includes the development of FERC Part 12D reporting for Blue Lake and Emergency Action Plan (EAP) updates for the Blue Lake and Green Lake Developments. During this quarter, FERC-requested studies moved forward. Requested studies have been underway throughout 2025 and continued in Q3. A cultural and historical study was conducted in Q3. Additionally, a recreational study was continued throughout Q3.

METER REPLACEMENT PROJECT

The scope of this project includes the replacement of existing revenue meters to facilitate remote meter reading. This improvement will improve meter data collection and reduce the potential for meter read error. Some of the procured equipment for this project began to arrive in Q4 of 2025 and final deliveries are anticipated through Q1 of 2026. Final project planning and initial construction is anticipated to follow in late Q1 or early Q2 of 2026.

Legend:					
	Meeting Objectives		At Risk of Missing Objectives		Missing Objectives

NSRAA WATER TURNOUT PROJECT

The scope of this project is to develop a new water turnout to meet water commitments to NSRAA. During this quarter the Department and NSRAA collaborated to refine design concepts for the proposed water turnout. The proposed design would combine two existing water lines that are in poor condition. This will reduce the overall asset liability associated with the existing turnout point. Efforts were focused on developing project design contract during Q4. Design and procurement of isolating valve are anticipated in the first half of 2026.

69kV DISCONNECT SWITCH REPLACEMENT PROJECT

The scope of this project includes the replacement of eleven (11) 69kV disconnect switches that are beyond their life expectancy and prone to increased failure rates. Funding for these replacements was obtained through reallocation of existing switchyard upgrade funding. New switches have a one-year lead time. Installation is anticipated to occur next spring (2026). These devices appear to be on-schedule.

REFERBISH GREEN LAKE SPARE TRANSFORMER

The scope of this project includes the testing and re-gasketing of one single-phase power transformer that serves as a spare unit for the Green Lake Powerplant. This unit currently serves as a spare and is critical to be operational. Recent evaluations have indicated that the transformer may have gas leak issues. This underwent a temporary repair during Q2 and is anticipated to have a permanent replacement of defective components in Spring of 2026.

REPLACE GREEN LAKE UNIT EXCITATION

The scope of this project includes the full replacement of the unit excitation controls, cabinets, and associated transformers at the Green Lake Powerplant. Existing unit excitation has outdated components and has experienced age and design related failures at an undesirable frequency. Replacement of the system will improve reliability associated with Green Lake unit start-ups. This reliability will help unit startup times, as such, provide a better service to rate-payers. Efforts were focused on developing the design and materials procurement contract in Q4. Equipment is expected to be ordered in Q1 of 2026 and then be install in Q4 of 2026.

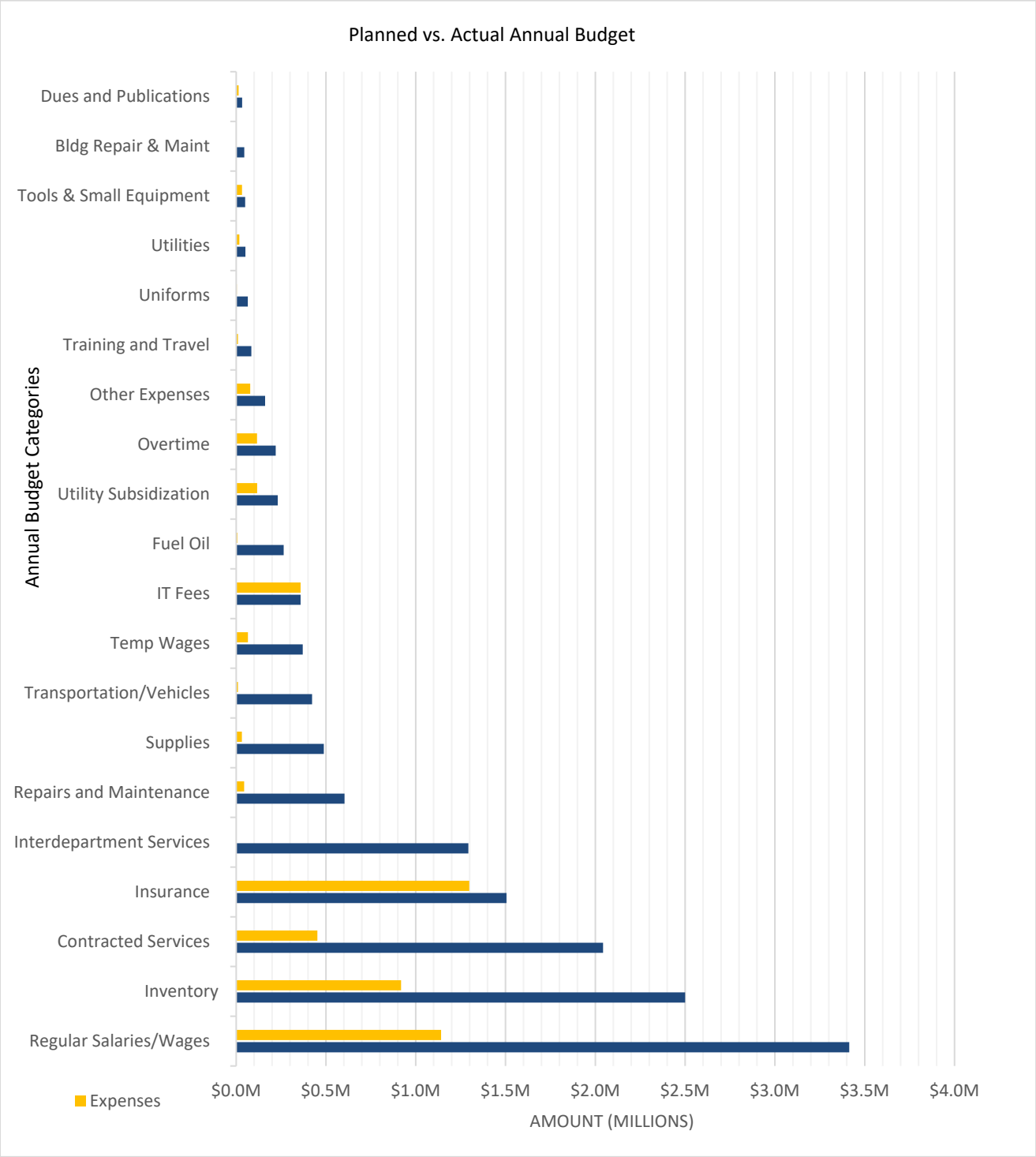
REPLACE CR0 (SUBMARINE DISTRIBUTION CABLE) FROM O'CONNEL BRIDGE TO ALEUTSKI IS.

The scope of this project includes the full replacement existing underwater cable that currently stretches between the O'Connell Bridge to Aleutski Island. The existing underwater cable is beyond its service life and degraded. The said underwater cable is the initial run of distribution cable that serves many of the electrified islands south of Japonski Island. Replacing the cable will additionally include a significant amount of permitting to meet requirements mandated by the US Army Corps of Engineers, the NOAA, and DNR. This project is currently being synchronized with the CBS Sea Walk Project to ensure that project phases do not impact island reliability. Environmental permitting application for this project was submitted for Federal review in early Q4. Permitting is anticipated in Q1 of 2026. Construction will follow shortly after permitting is approved.

Legend:		
Meeting Objectives	At Risk of Missing Objectives	Missing Objectives

BUDGET

The following chart outlines operational encumbrances, expenses, and remaining budget through 01/13/2026
The budget is currently 45% expended (cost); the budget year is currently 56% expended (time)



KEY OPERATIONAL PROJECTS

Project Description	Scope	Schedule	Budget
Inventory Management Updates	Review inventory management tools and processes. Make improvements where deficiencies exist.	Process updates still underway. Utility is anticipated to be fully on new inventory management system by end of Q2 2026	Under Budget
Solicit T&D Support Services	Solicited T&D Work Order Management services to assist with customer jobs and lineman support	Solicited services are being used to supplement line crew as needs arise.	Under Budget
Quarterly Preventative Maintenance	This quarter's maintenance included brushing and vegetation management, battery testing, thermal imaging, and dam inspections	These tasks were all completed on-time	On Budget
Transformer Recycling Roundup	Collected, inventoried, and prepared decommissioned transformers for recycling	Temp hire is being assigned to this project. Anticipated completion in Q1 2026	TBD
GIS Data Collection	Continued collection of GIS data for utility poles, transformers, vaults, and lines	GPS Collection equipment was delayed, but arrived at end of 2025. Work anticipated to continue through Q2 2026	N/A
Student Assistant Program	Student assistants engage in assisting with department projects, undergoing educational training, and safety training	Recruitment and recruitment planning scheduled for Q1 2026	N/A
Safety and Security Training	Staff undergo annual safety and security training	Safety and security training scheduled to occur in Q1 and Q2 2026	N/A

Legend

- Meeting Objectives
- At Risk of Missing Objectives
- Missing Objectives

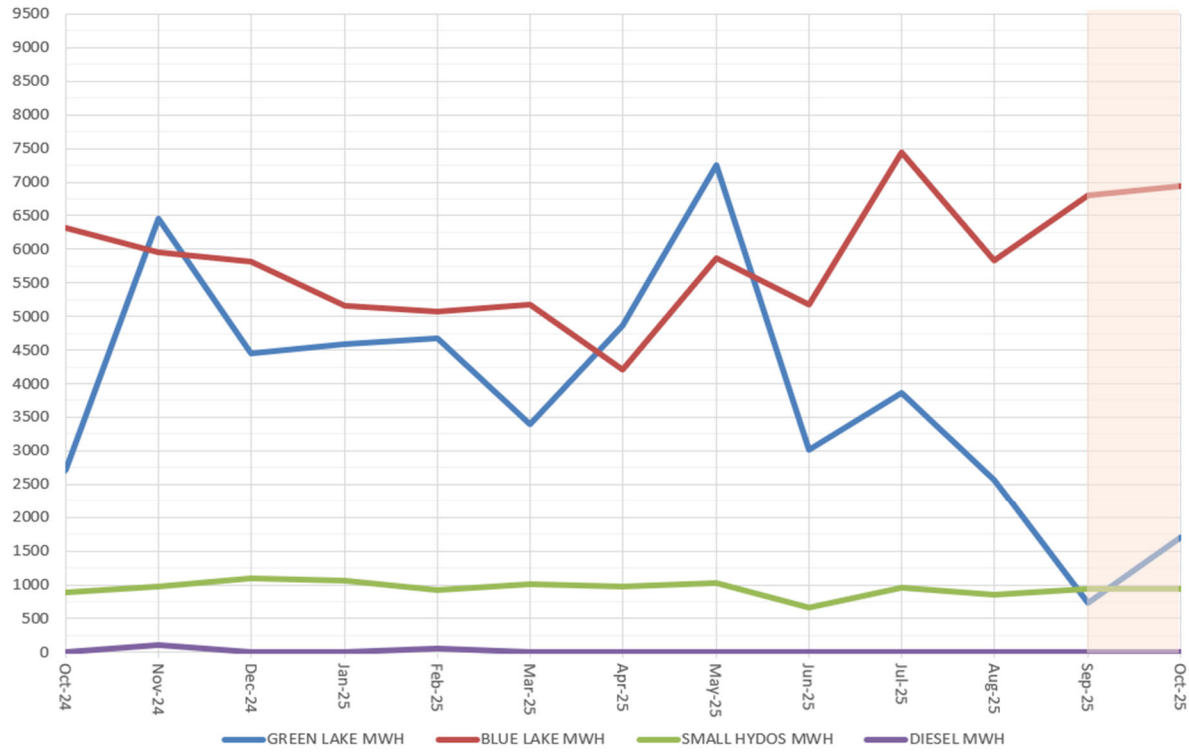
PERFORMANCE MEASURES

UNIT POWER GENERATION – OCTOBER 2025

Performance Measure: generation (by type & unit) possible vs. actual. Total MWH produced: 9556.6MWH

Generation Unit	Generation Type	Possible Generation	Actual Generation
Green Lake Unit 1	Hydropower (8.0MW)	5,952 MWH	554.2
Green Lake Unit 2	Hydropower (9.6MW)	7,142 MWH	1138.9
Blue Lake Unit 3	Hydropower (7.5MW)	5,580 MWH	1780.0
Blue Lake Unit 4	Hydropower (7.5MW)	5,580 MWH	1821.0
Blue Lake Unit 5	Hydropower (7.5MW)	5,580 MWH	3343.0
Blue Lake Fish Valve Unit	Hydropower (1.4MW)	1,042 MWH	919.6
Jarvis Unit 1	Diesel (backup)	Non-Op	Non-Op
Jarvis Unit 2	Diesel (backup)	1,860 MWH	0
Jarvis Unit 3	Diesel (backup)	1,860 MWH	0
Jarvis Unit 4	Diesel (backup)	3,348 MWH	0
Jarvis Unit 5	Diesel (backup)	9,672 MWH	0

Monthly Generation Production by Plant (MWH by Date)

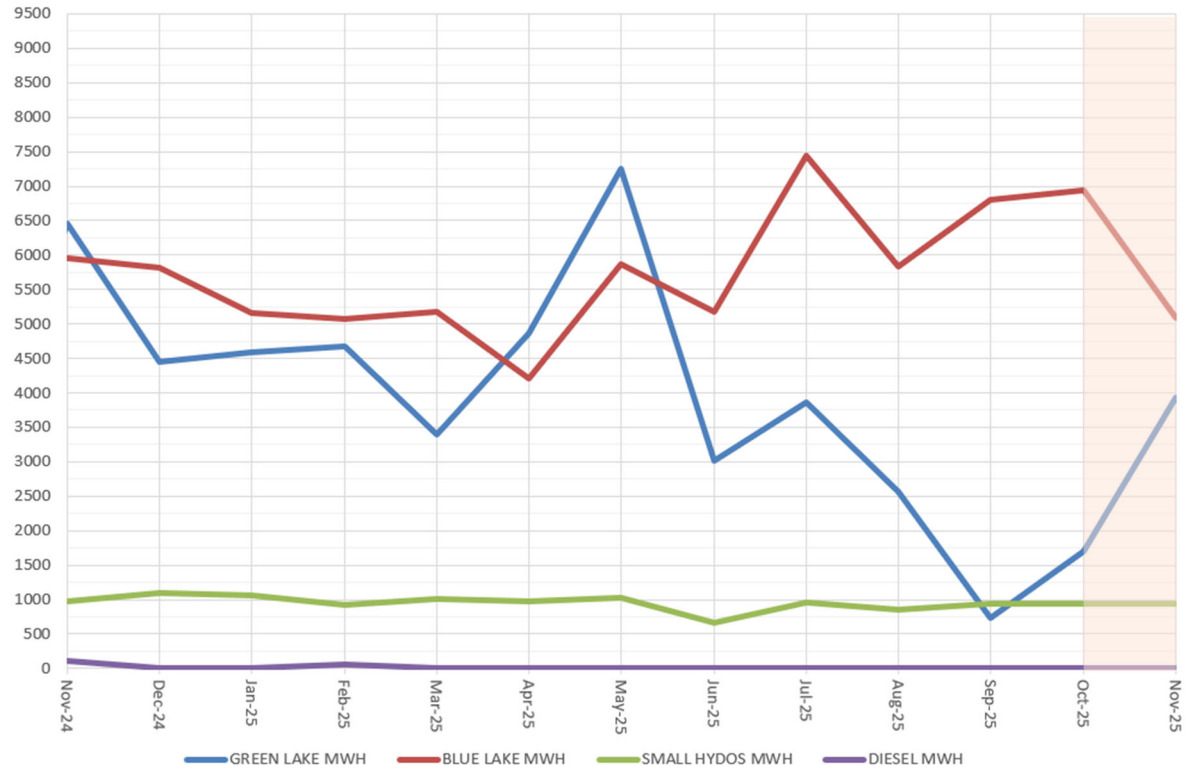


UNIT POWER GENERATION – NOVEMBER 2025

Performance Measure: generation (by type) possible vs. actual. Total MWH produced: 9990.1MWH

Generation Unit	Generation Type	Possible Generation	Actual Generation
Green Lake Unit 1	Hydropower	5,952 MWH	1610.7
Green Lake Unit 2	Hydropower	7,142 MWH	2323.0
Blue Lake Unit 3	Hydropower	5,580 MWH	1261.0
Blue Lake Unit 4	Hydropower	5,580 MWH	2426.0
Blue Lake Unit 5	Hydropower	5,580 MWH	1406.0
Blue Lake Fish Valve Unit	Hydropower	1,042 MWH	963.4
Jarvis Unit 1	Diesel (backup)	Non-Op	Non-Op
Jarvis Unit 2	Diesel (backup)	1,860 MWH	0
Jarvis Unit 3	Diesel (backup)	1,860 MWH	0
Jarvis Unit 4	Diesel (backup)	3,348 MWH	0
Jarvis Unit 5	Diesel (backup)	9,672 MWH	0

Monthly Generation Production by Plant (MWH by Date)

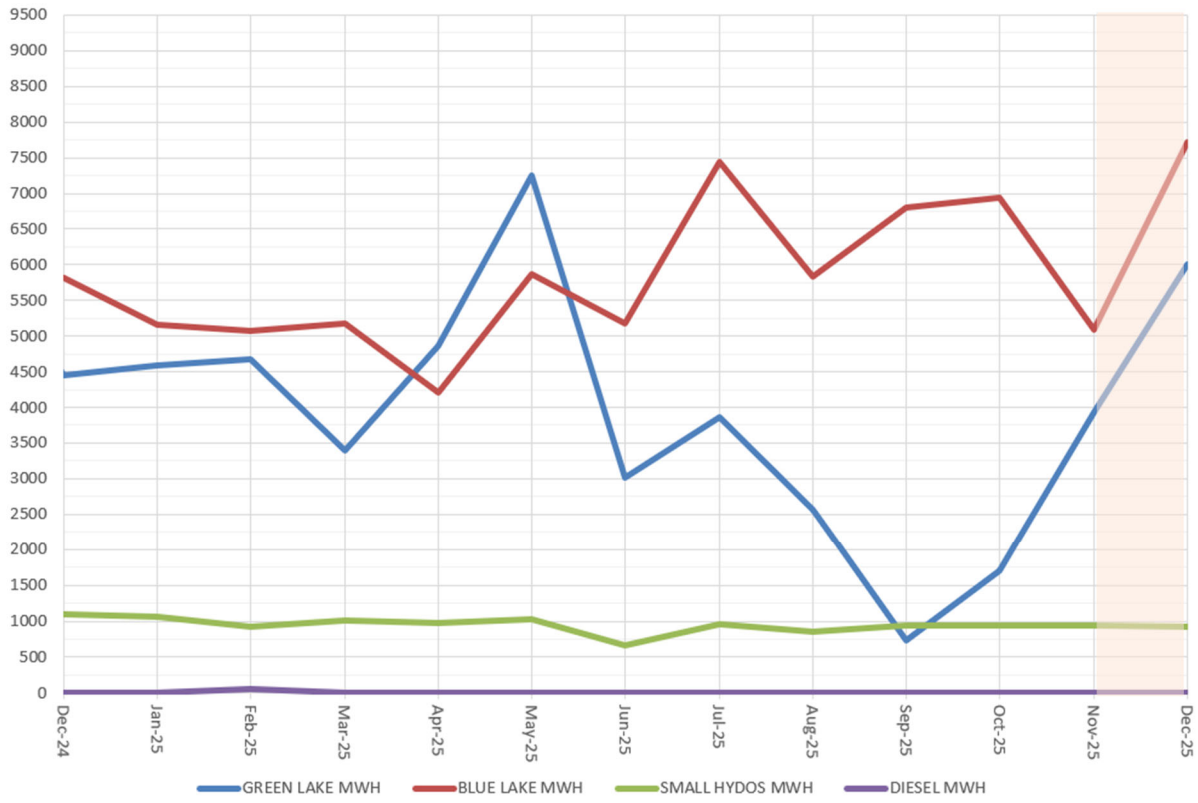


UNIT POWER GENERATION – DECEMBER 2025

Performance Measure: generation (by type) possible vs. actual. Total MWH produced: 14659.46MWH

Generation Unit	Generation Type	Possible Generation	Actual Generation
Green Lake Unit 1	Hydropower	5,760 MWH	509.48
Green Lake Unit 2	Hydropower	6,912 MWH	5503.98
Blue Lake Unit 3	Hydropower	5,400 MWH	0
Blue Lake Unit 4	Hydropower	5,400 MWH	3607
Blue Lake Unit 5	Hydropower	5,400 MWH	4119
Blue Lake Fish Valve Unit	Hydropower	1,008 MWH	920
Jarvis Unit 1	Diesel (backup)	Non-Op	Non-Op
Jarvis Unit 2	Diesel (backup)	1,860 MWH	0
Jarvis Unit 3	Diesel (backup)	1,860 MWH	0
Jarvis Unit 4	Diesel (backup)	3,348 MWH	6.8
Jarvis Unit 5	Diesel (backup)	9,672 MWH	0

Monthly Generation Production by Plant (MWH by Date)



DIESEL GENERATION USE

This performance measure monitors the use of diesel fuel for power generation. The Electric Utility Department operates and maintains five diesel powered generators as backup power suppliers to support the communities energy demands when hydropower units become unavailable. Often these backup units are used to supplement power when the hydropower units or transmission lines are taken offline for maintenance. There are also times when these units are operated as a part of their maintenance procedures. It is a goal of the Electric Utility Department to minimize diesel generator use to in-turn reduce related emissions and reduce ratepayer costs.

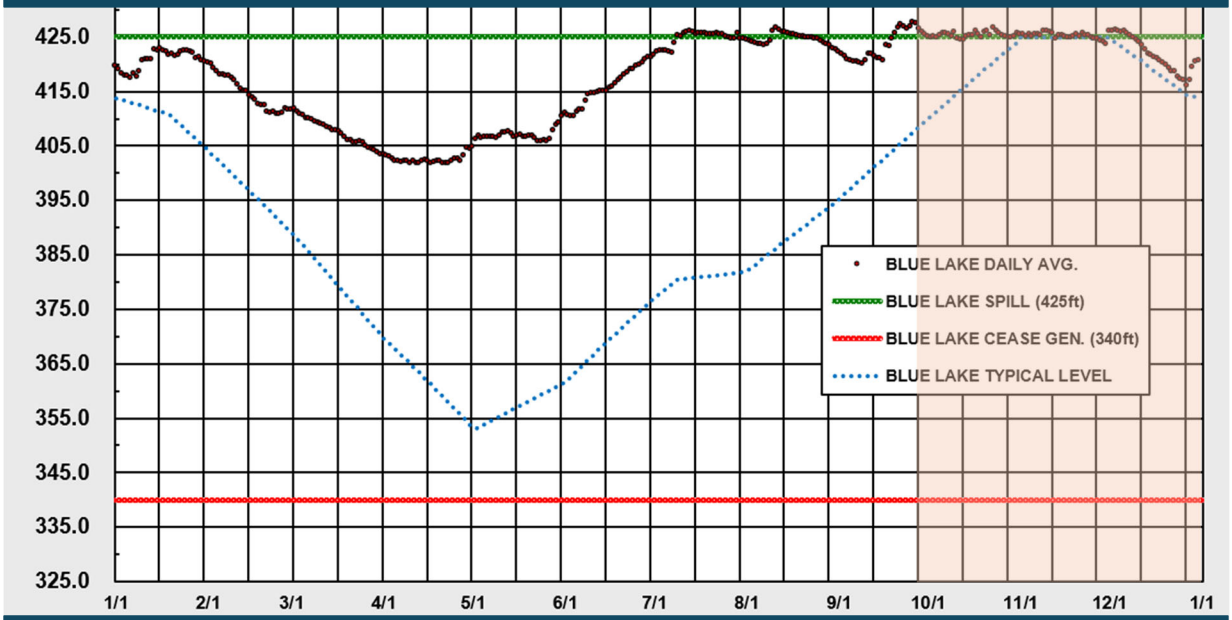
Diesel operation was limited to quarterly maintenance run times to ensure that equipment was operable and to perform routine testing.

First Quarter 2025 Totals		
Generation Unit	**Operating Hours**	**Fuel Used (gal.)**
Jarvis Unit 1	Unit Decommissioned	n/a
Jarvis Unit 2	0	0
Jarvis Unit 3	0	0
Jarvis Unit 4	3	439
Jarvis Unit 5	1	172

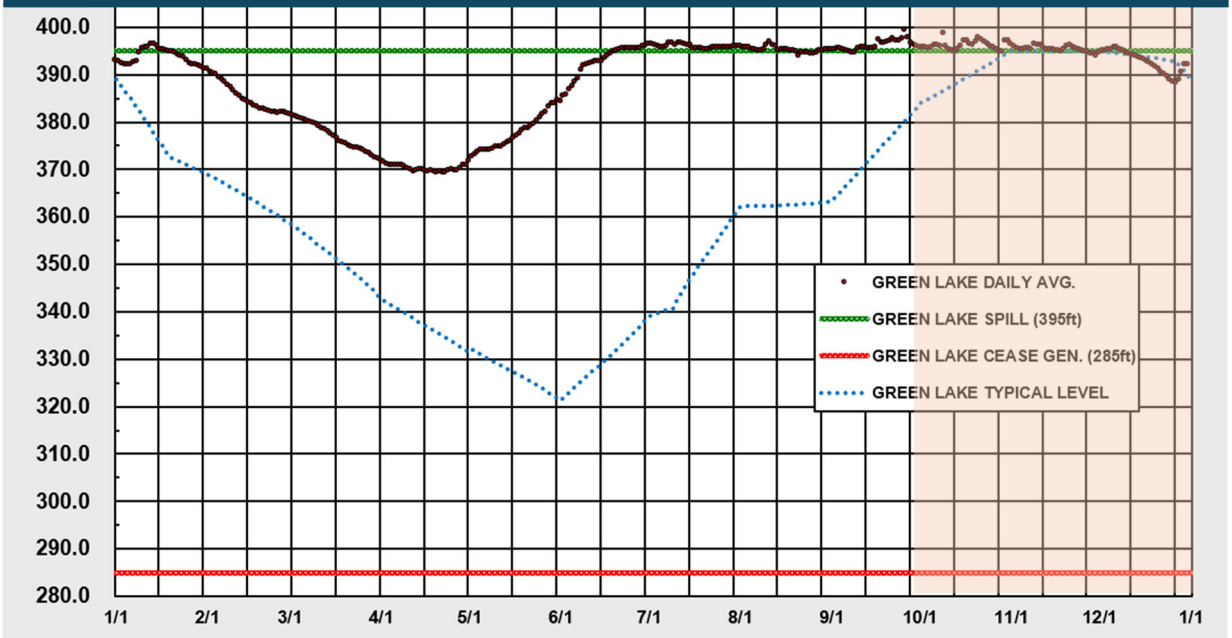
WATER PLANNING OUTLOOK

This performance measure monitors the lake elevation levels and identifies where current levels are currently. It is the Departments goal to manage water use in a manner that ensures renewable power production and minimized use of diesel backup generation. Managing water to ensure that levels remain within the Rule Curve (Typical Level – as indicated by the blue line in the graphs), helps guide responsible use of water.

Blue Lake Reservoir Level vs Rule Curve



Green Lake Reservoir Level vs Rule Curve



PEAK LOADS BY DATE

This performance measure monitors the maximum, measured load demand experienced each day. The Utility Department has the ability to produce approximately 34 megawatts (MW) of electricity when all hydropower units are properly operating. The Electric Utility Department closely monitors peak loads to identify load trends for demand analysis.