

# 2024/2025 OVERVIEW



Accomplishments & Business Plan

*City of*  
**NELSON**

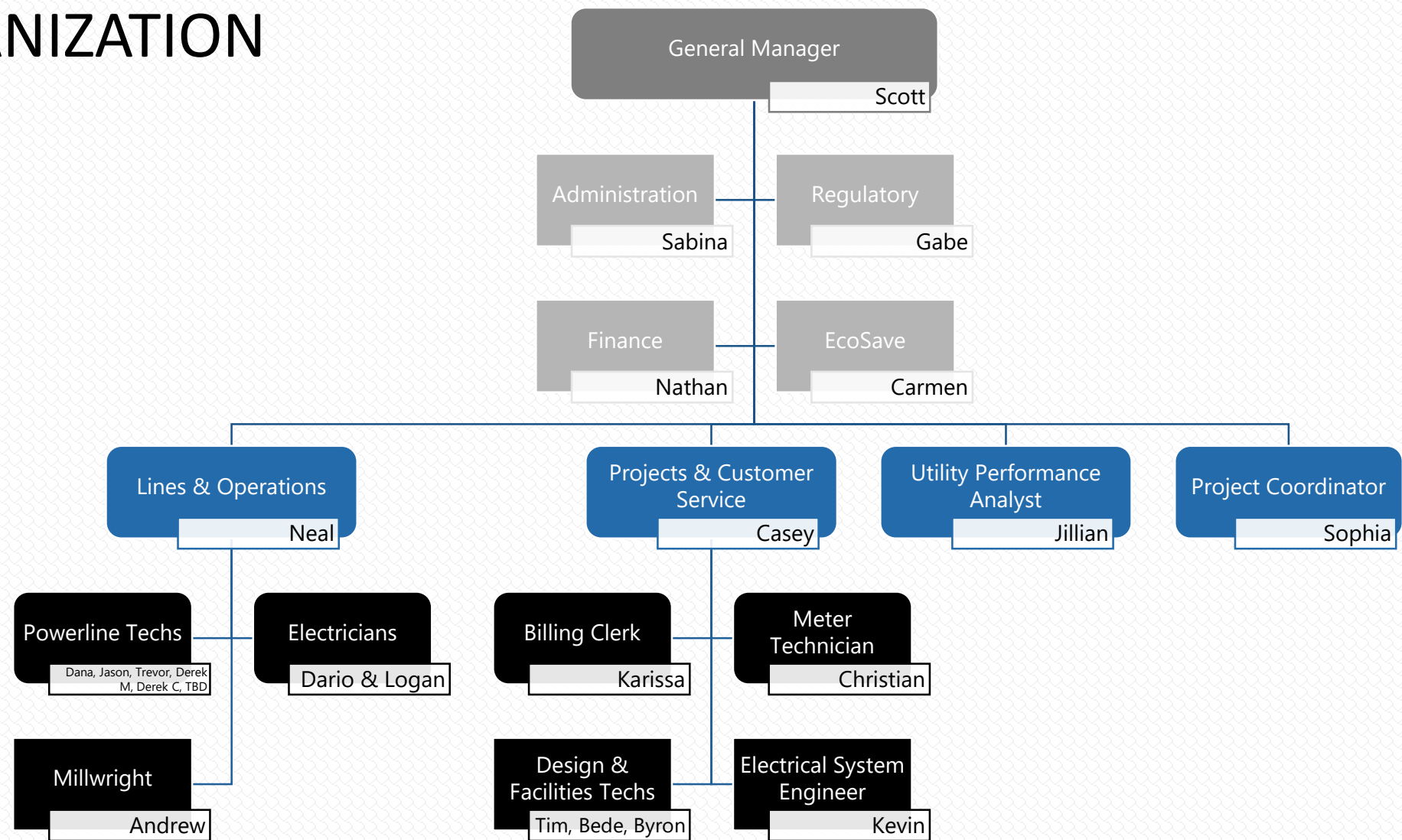
October 25, 2024

# AGENDA

- |   |         |
|---|---------|
| 1. Introduction                           | Scott   |
| 2. Budget and Rates                       | Scott   |
| 3. Regulatory                             | Gabe    |
| 4. Generation, Transmission, Distribution | Neal    |
| 5. Projects and Customer Service          | Casey   |
| 6. Key Performance Indicators             | Jillian |
| 7. EcoSave Program                        | Scott   |
| 8. General Management                     | Scott   |
| 9. Closing Remarks                        | Scott   |



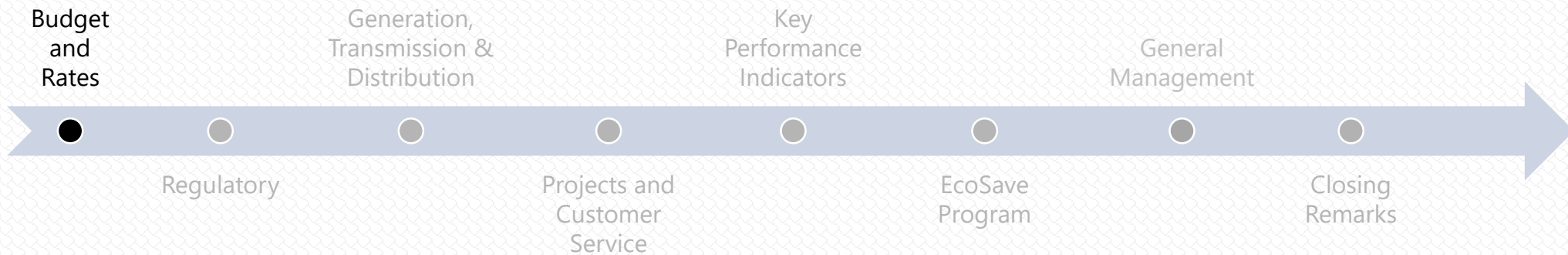
# ORGANIZATION





# Budget and Rates

Nathan Russ



# 2024 OPERATING BUDGET HIGHLIGHTS

## Revenue:

Residential customer consumption less than budgeted.

## Power Purchases:

Low freshet compared to average resulted in increased power purchases required to meet demand.

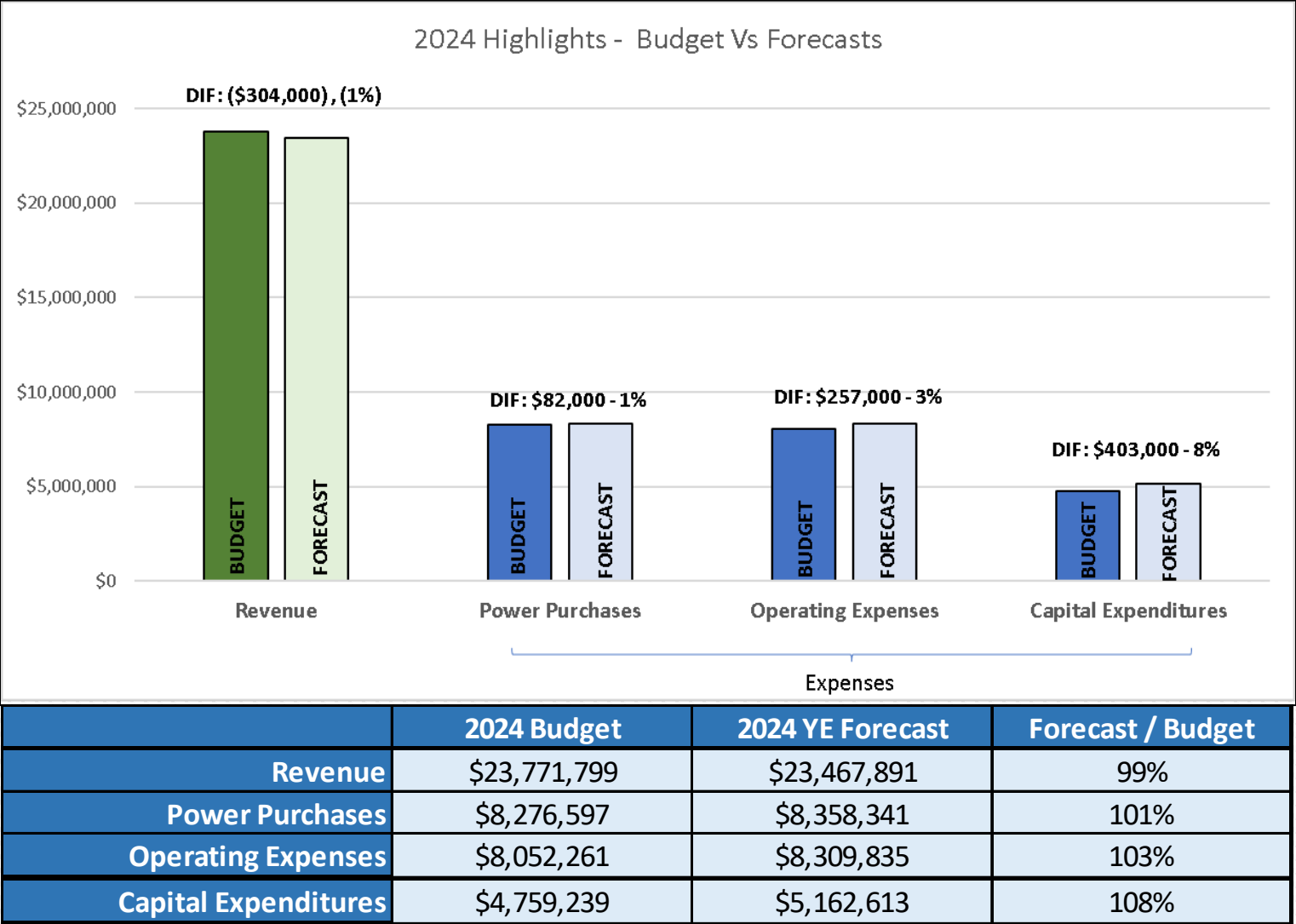
Higher demand charges due to weather event.

## O&M:

Higher than budgeted Vegetation Management: high vegetation growth year

## Capital:

Mill Street costs forecast exceed initial budget by 4.9% (within reasonable threshold given scope and multi-year timeline of project)



# 2024 OPERATING BUDGET HIGHLIGHTS – CONT.

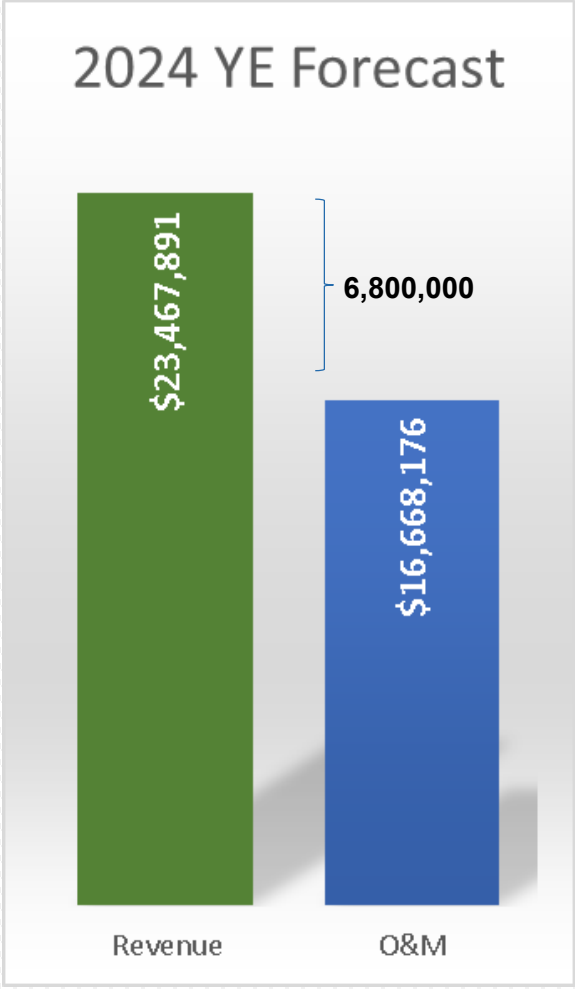
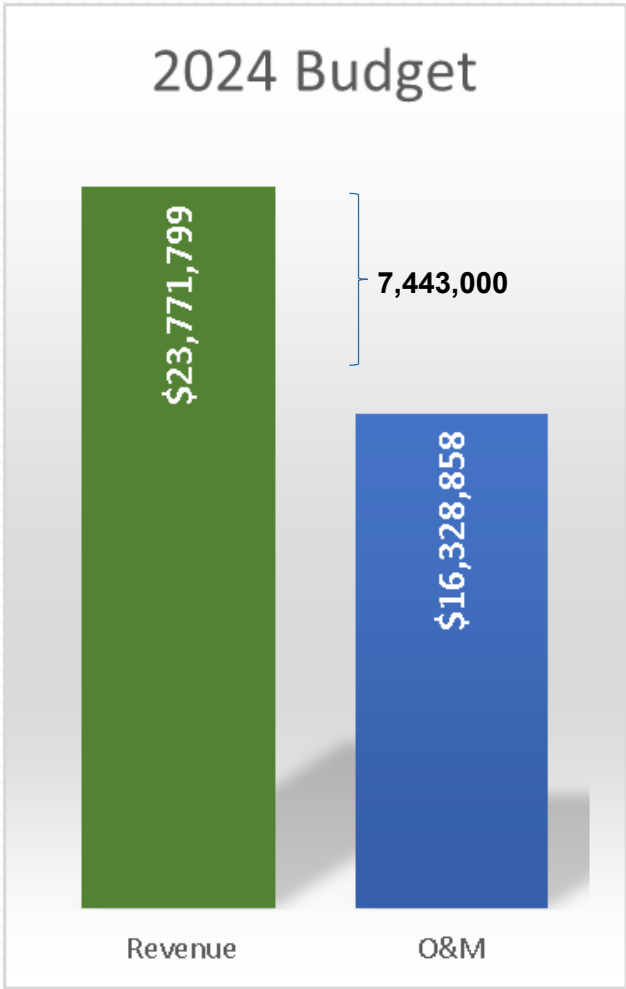
**Impact:**

Reduced revenue and increased expenses can lead to less contribution to reserves and return on equity than originally projected

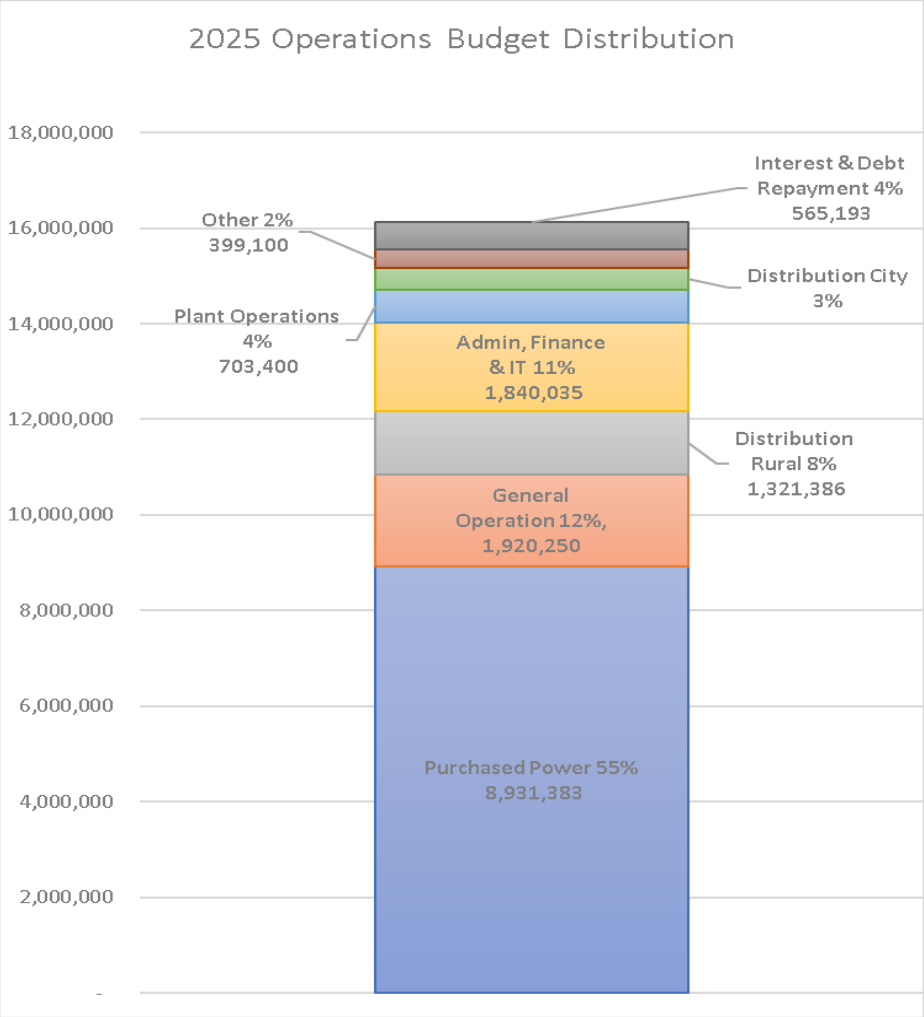
**Risk Mitigation:**

Rural Variance Deferral Accounts allow for recovery of \$230K of revenue and \$96K of expenses (estimated) or 50% of shortfall between budget and forecast.

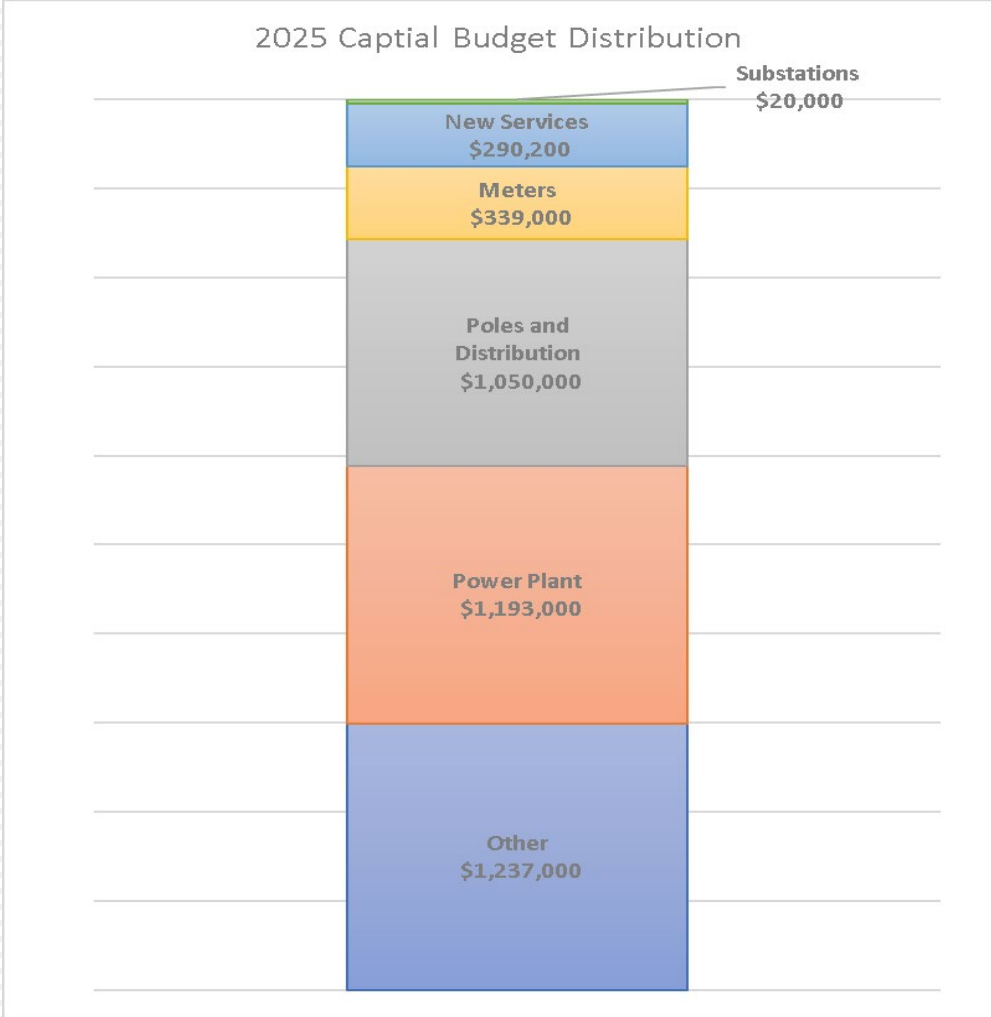
The remaining shortfall is managed with the Hydro reserve balance and rate adjustments as required.



# O&M AND CAPITAL COST DISTRIBUTION 2025



Does not Include Water License Costs



# 2025 BUDGET COMPARISON

Revenue:

Increased Revenue Requirement to:

- Offset increased Power Purchase costs
- Return on asset base (rural)
- Ensure capital reserve health

Power Purchases:

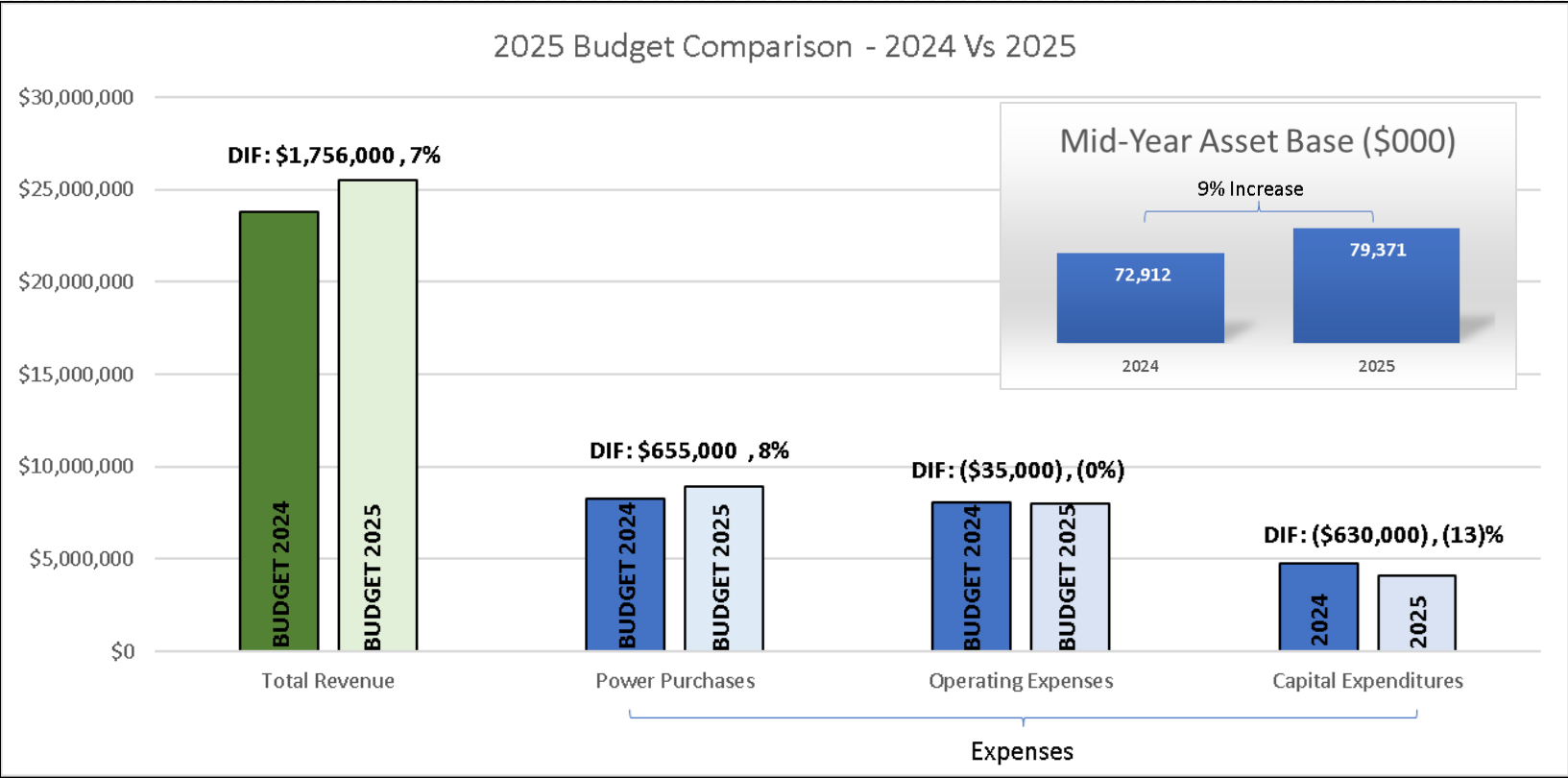
- 5.3% rate increase from FortisBC expected
- Higher demand charges than budgeted in 2024

O&M:

- Optimized budget to ease rate burden
- Fewer non-capital maintenance activities planned

Capital:

- Mill Street project completion in 2024, fewer Capital project costs anticipated for 2025



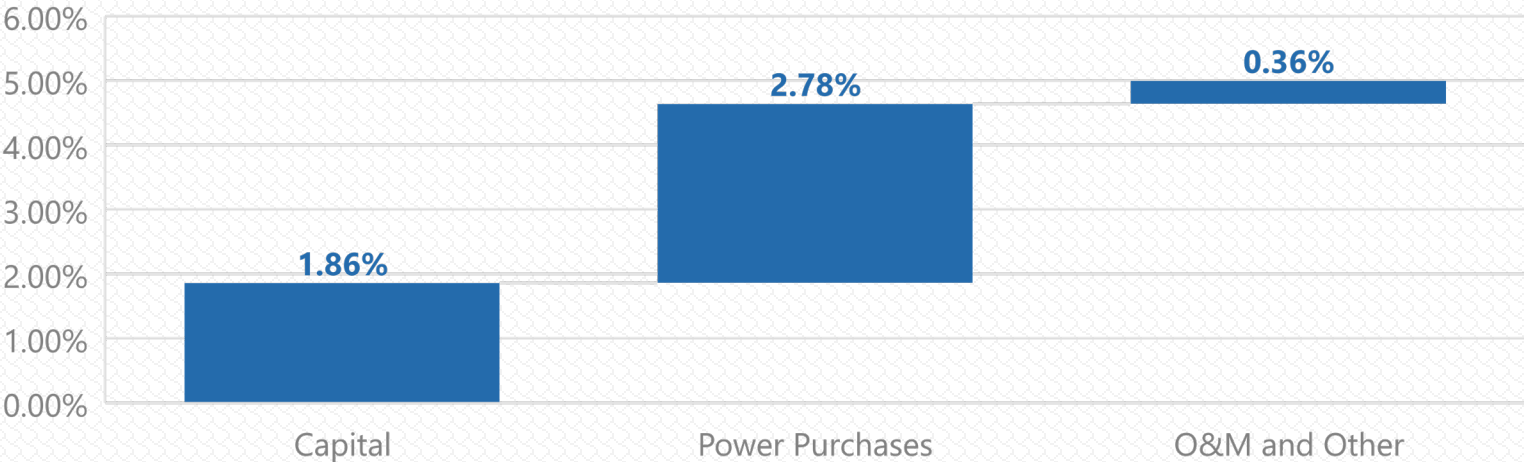
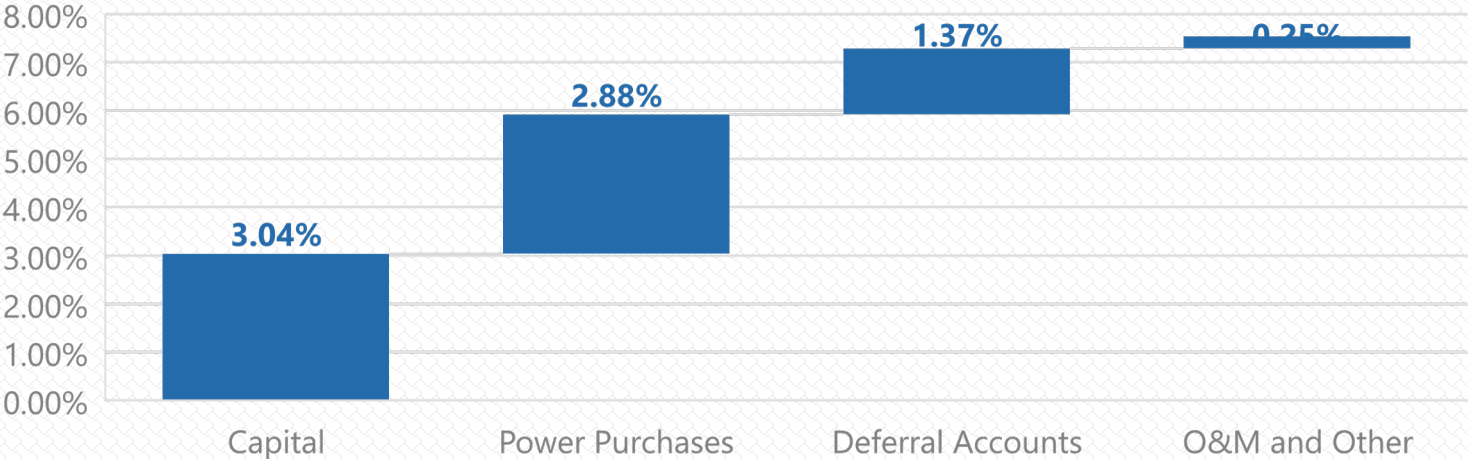
	2024 Budget	2025 Budget	2024 Fcst. Vs 2025 Budg.
Total Revenue	\$23,771,799	\$25,528,259	107%
Power Purchases	\$8,276,597	\$8,931,383	108%
Operating Expenses	\$8,052,261	\$8,016,817	100%
Capital Expenditures	\$4,759,239	\$4,129,282	87%



# 2025 RATE INCREASE BREAKDOWN

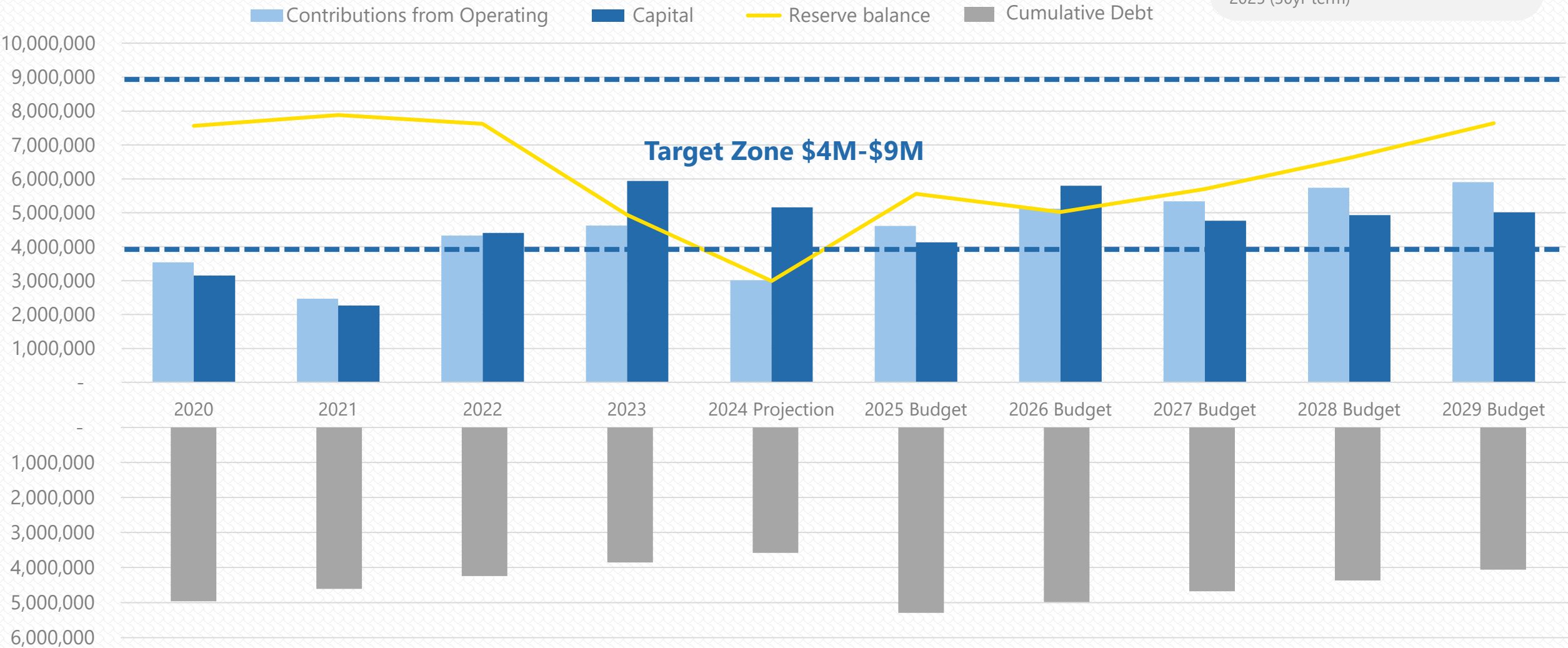
Rural Rate Increase: 7.54%  
or  
\$10.55/month (1,000kWh)

Urban Rate Increase: 5.00%  
or  
\$6.56/month (1,000kWh)



# HYDRO CAPITAL RESERVE

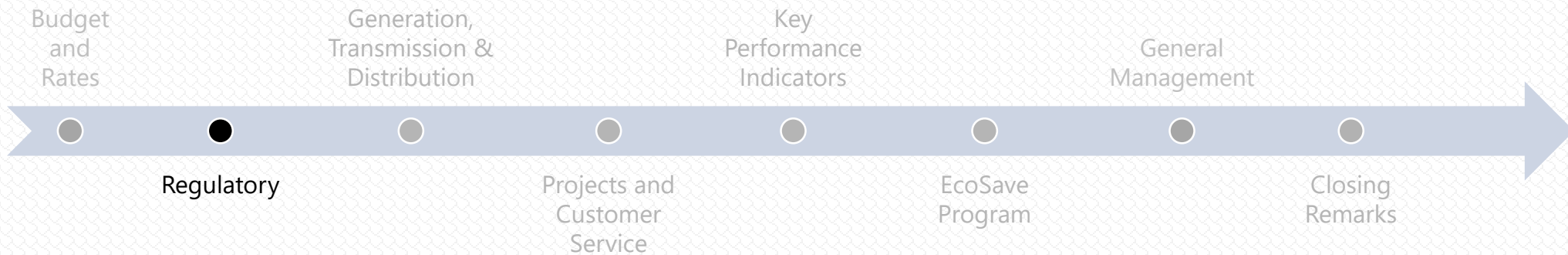
Rural Rate Increase: 7.54%  
Urban Rate Increase: 5.00%  
Dividend: Return on Equity (\$3.90M)  
Scenario includes \$2M of new debt in 2025 (30yr term)





# Regulatory

Gabe Bouvet-Boisclair



# BCUC APPLICATIONS & PROCEEDINGS – CURRENT/COMPLETED

- 2024 Revenue Requirements Application – Completed
- Regulatory Efficiency Initiative – Completed
- Terms and Conditions of Service – Completed
- Generic Cost of Capital (GCOC) Phase 2 – Ongoing
- FortisBC 2025-27 Rate Setting Framework – Ongoing

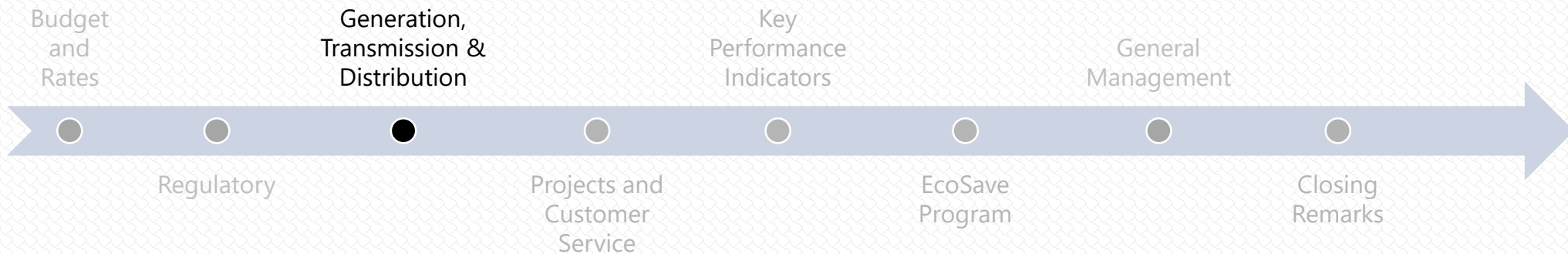


**bcuc**  
British Columbia  
Utilities Commission

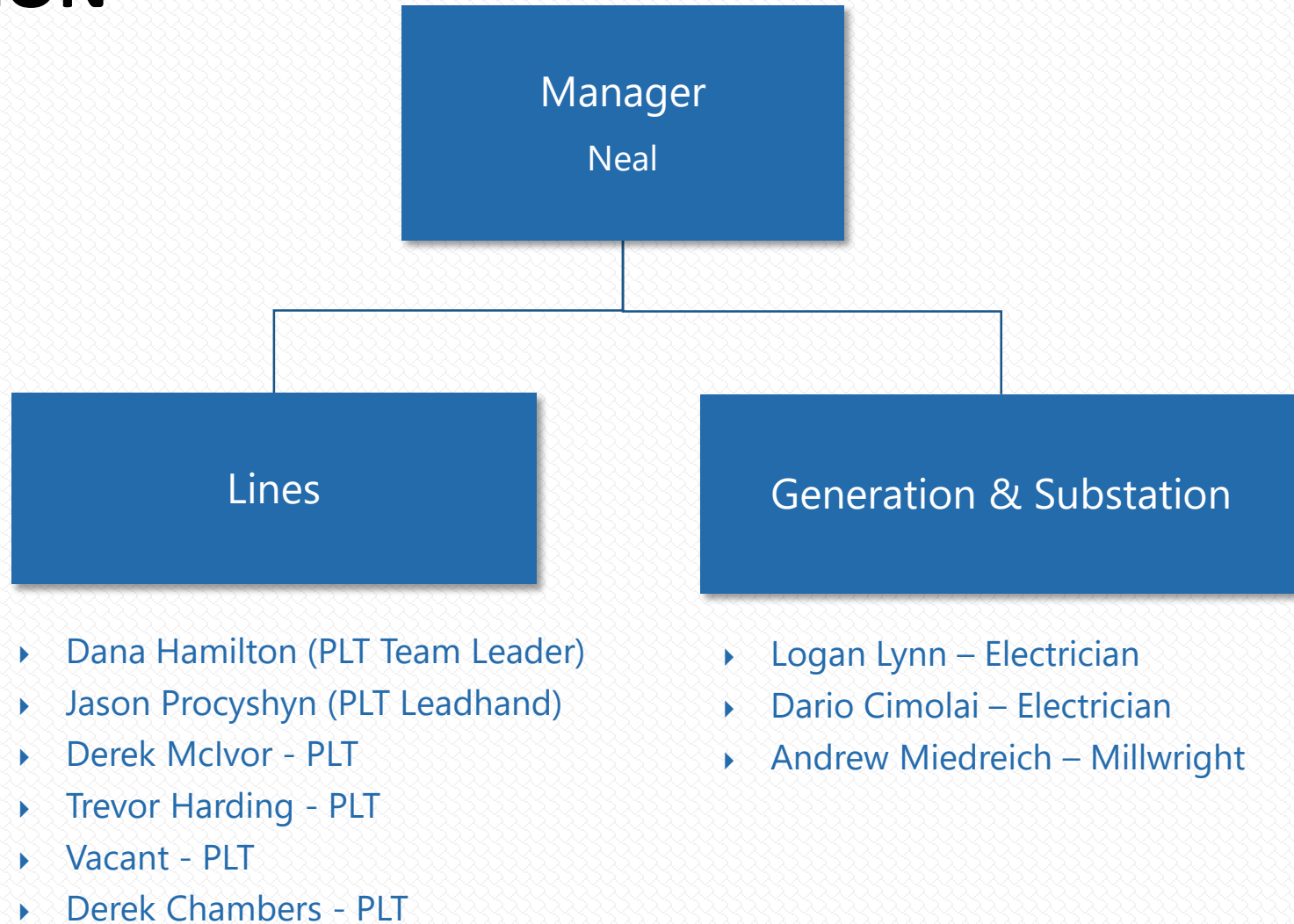


# Generation, Transmission and Distribution

Neal Dermody



# ORGANIZATION



# SAFETY

- 3 Lost Time Incidents
- Dam Safety Review - completed and submitted to province
- Dam Safety Management Plan – capital projects started
- Safety Audit Deficiencies – ongoing work
- Electrical Safety Program - implementation
- System Safety and Lock-out (SSL) – completed and rolled out to staff

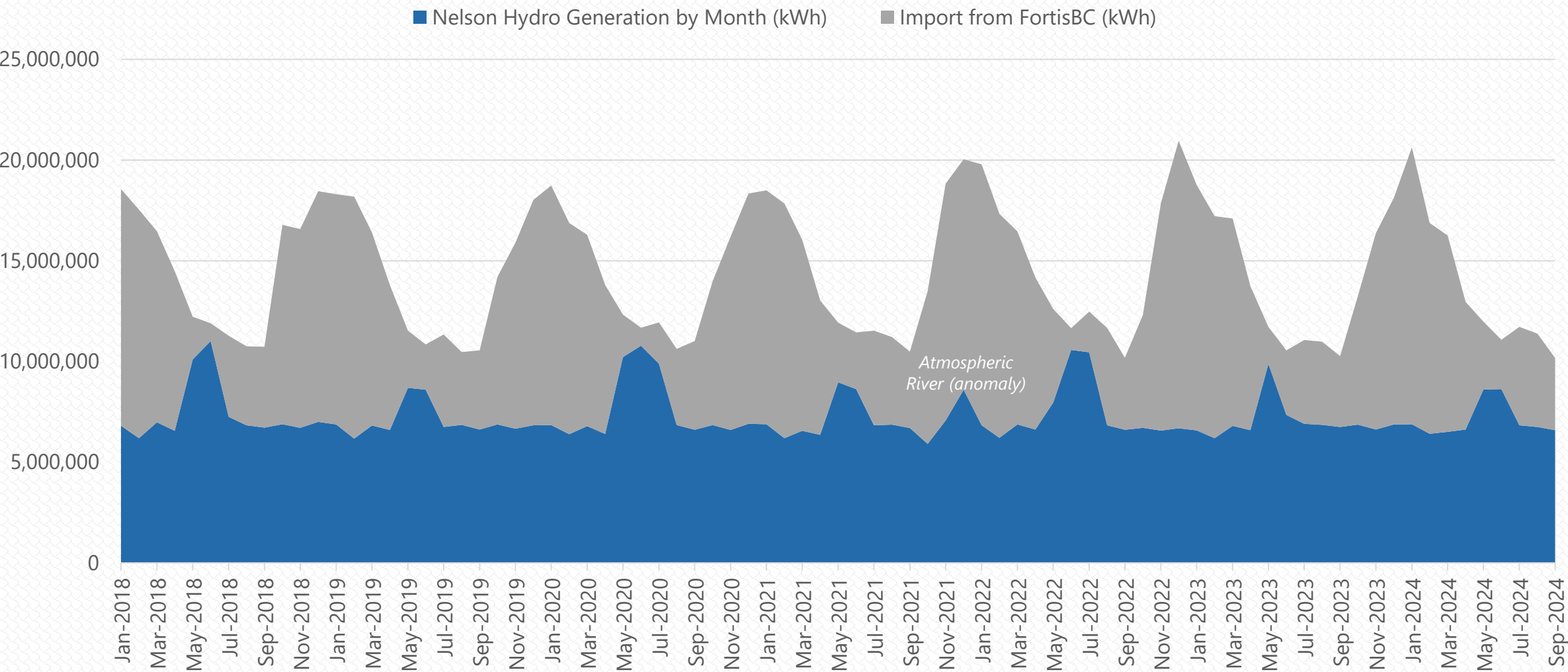


# SOLAR GENERATION

- Solar Energy Production in June 2024 well below 2023 due to a Gateway Failure.
- Required maintenance is increasing.
- Structural frames holding panels will require attention due to wood deformation.



# HYDRO GENERATION & IMPORT



# VEGETATION MANAGEMENT – 2024 WORK COMPLETED



# 5 YEAR VEGETATION MANAGEMENT PLAN (2025-2029)

Year	Northshore (Rural)	Southshore (Rural)	City (Urban)	Common (60kV)
2025	\$451,250	\$175,000	\$131,250	\$87,500
2026	\$495,688	\$180,250	\$135,188	\$90,125
2027	\$510,558	\$185,658	\$139,243	\$92,829
2028	\$525,875	\$191,227	\$143,420	\$95,614
2029	\$541,651	\$196,964	\$147,723	\$98,482

# POWER PLANT

- Generation annual maintenance complete for G5. G2, G3, and G4 upcoming in the Fall.
- Fabricating machine guards and railings to meet WSBC requirements.
- Power plant vegetation subscription complete for rock face. Ready for 2025.



# LINES & SUBSTATION

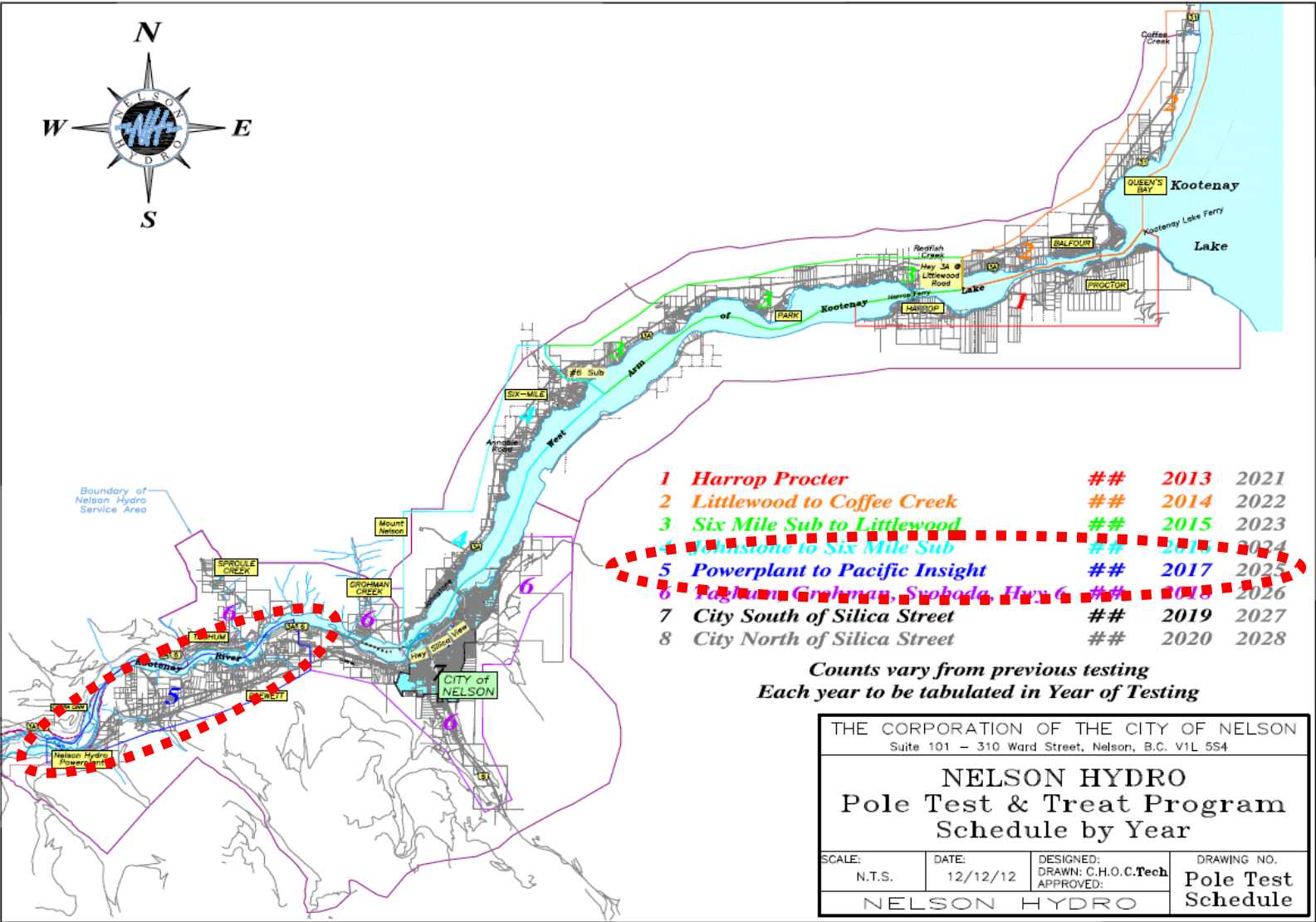
- 619 poles tested for Test & Treat
- 72 poles scheduled for replacement before December 31
- 1 vacant PLT position. Offer pending
- Planned Maintenance completed 6-Mile, Taghum, and Bonnington



# TEST & TREAT ⇒ POLE REPLACEMENT (2025)

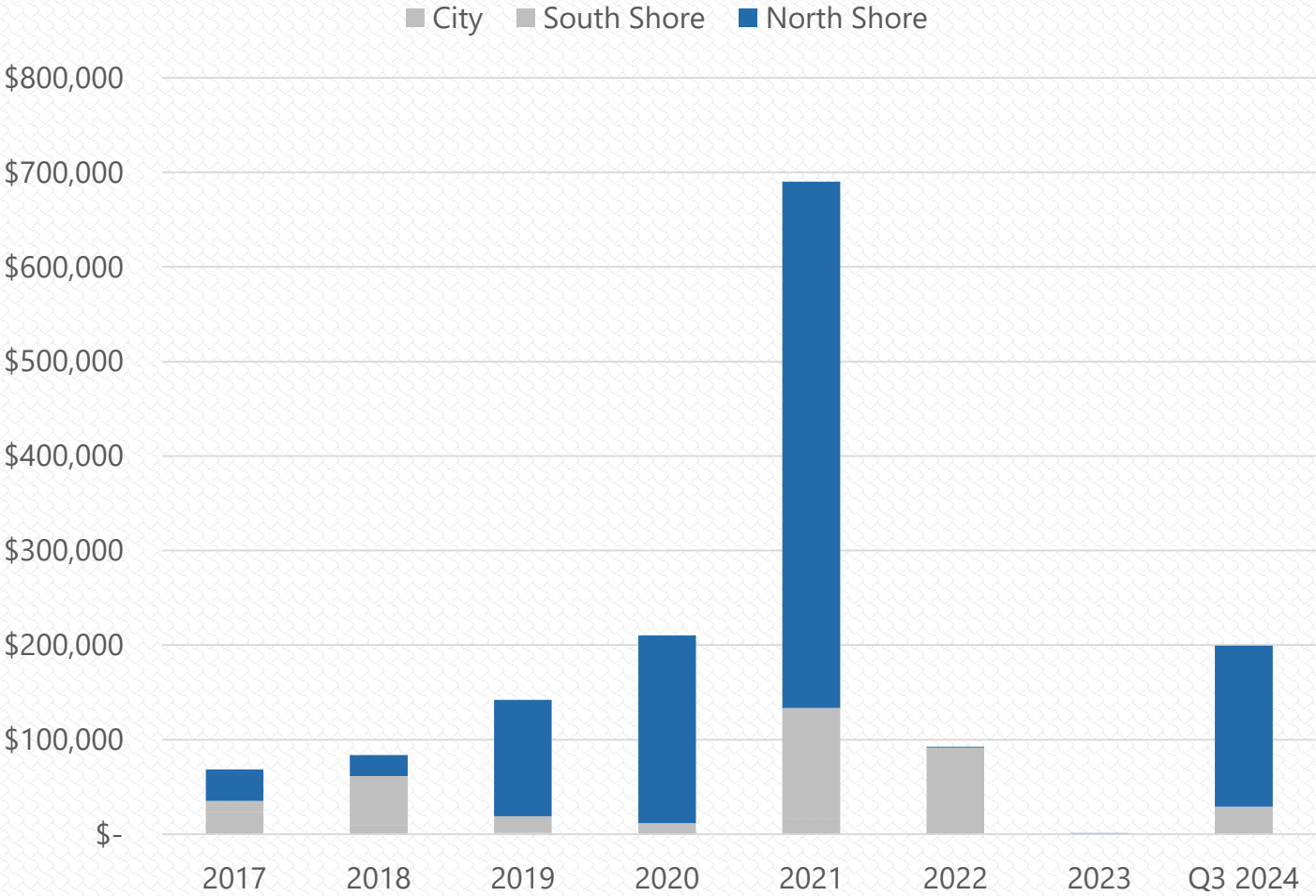


Nelson Hydro Pole Count - Feb. 8 2023			
Region	Test Area	Poles by Area	Poles by Region
NS	Area 1	709	
NS	Area 2	883	
NS	Area 3	852	
NS	Area 4	873	3317
SS	Area 5	941	
SS	Area 6	1012	1953
CITY	Area 7	999	
CITY	Area 8	969	1968
		TOTAL	7238

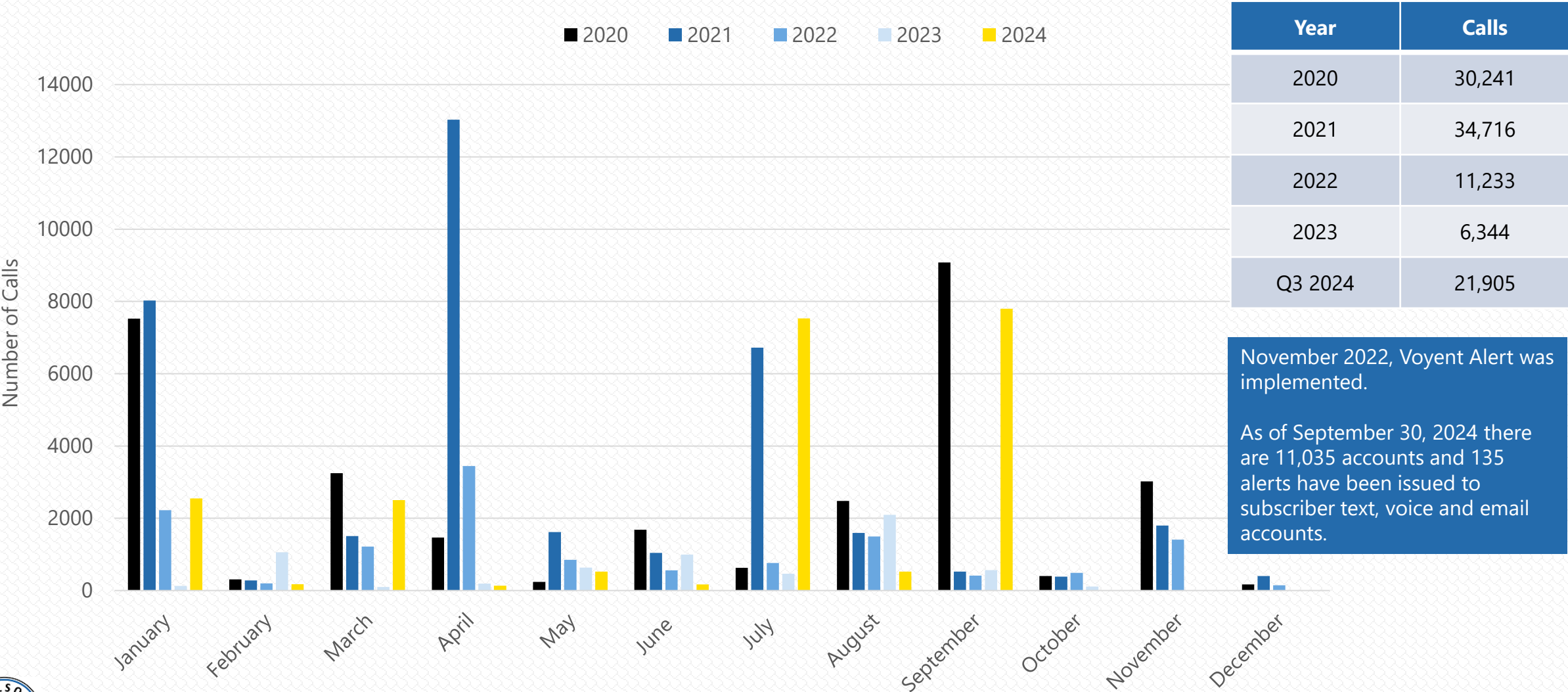


# MAJOR STORM EXPENSE

- 2024 three major storms (Jul 25, Sep 25, Sep 29).
- As the Vegetation Management Program becomes more mature, it should maintain the current CEA metrics which are trending positively.



# CALLS TO OUTAGE INFORMATION LINE



# 2025 OPERATIONS & LINE

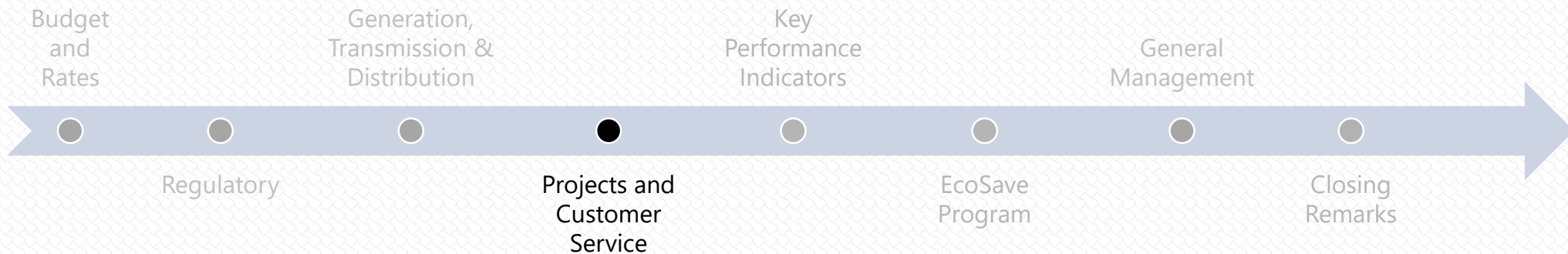
- Asset Management Framework aligns:
  - Dam Emergency Plan (DEP), Operations, Maintenance and Surveillance Plan (OMS), and Dam Safety Management Plan (DSMP) -> **COMPLETED**
  - Preventative Maintenance (PM), Computerized Maintenance Management System (CMMS), Equipment Health Rating, and Reliability Centered Maintenance. -> **ONGOING**
- Rollout Training for the CoN Electrical Safety Program Policy, Tools, System Safety & Lockout Program



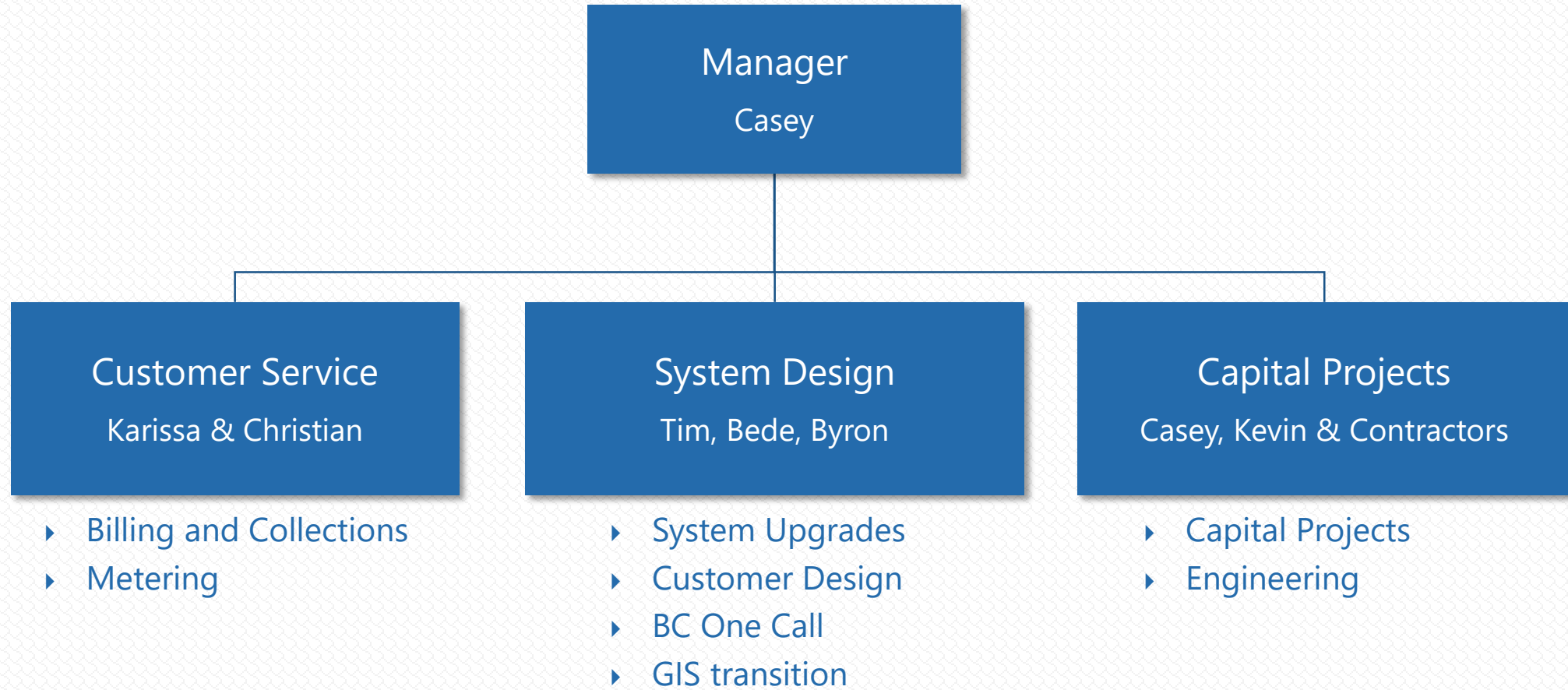


# Projects and Customer Service

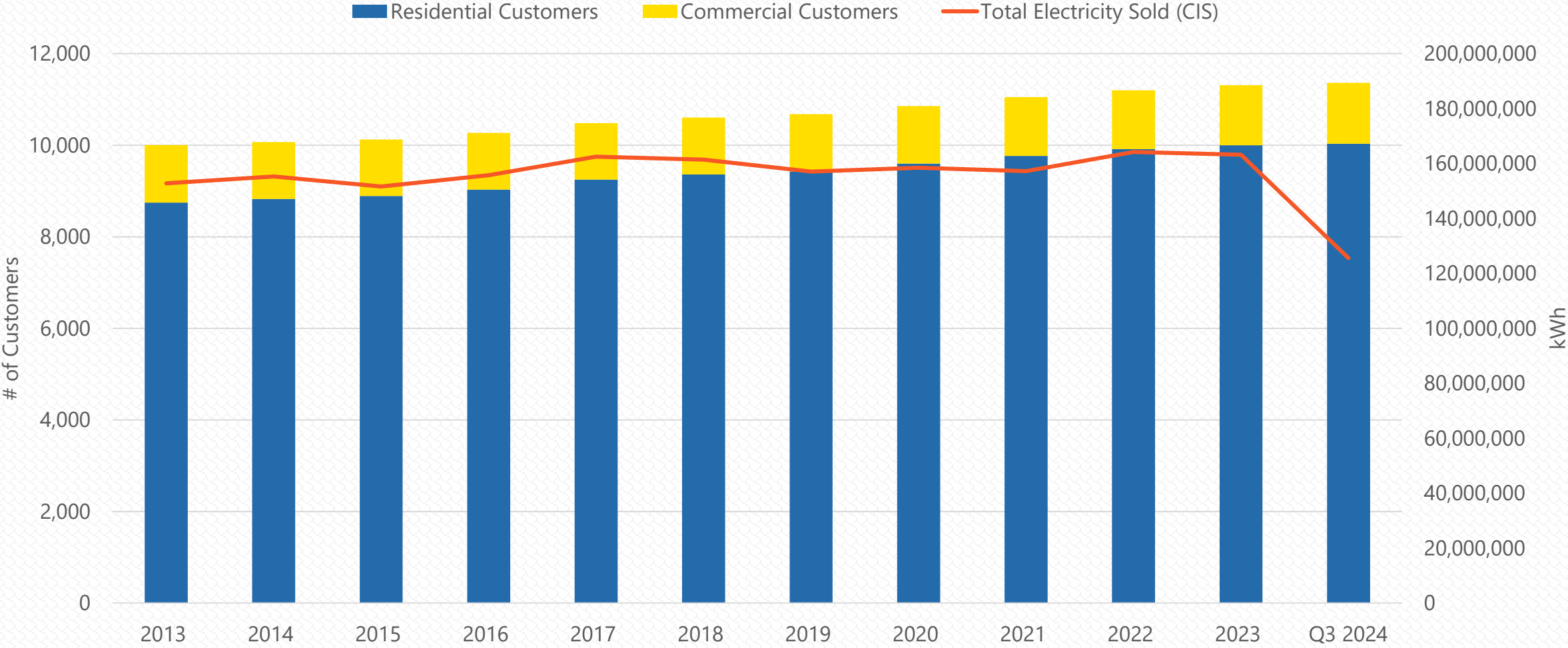
Casey Smit, P.Eng., PMP, MBA



# ORGANIZATION

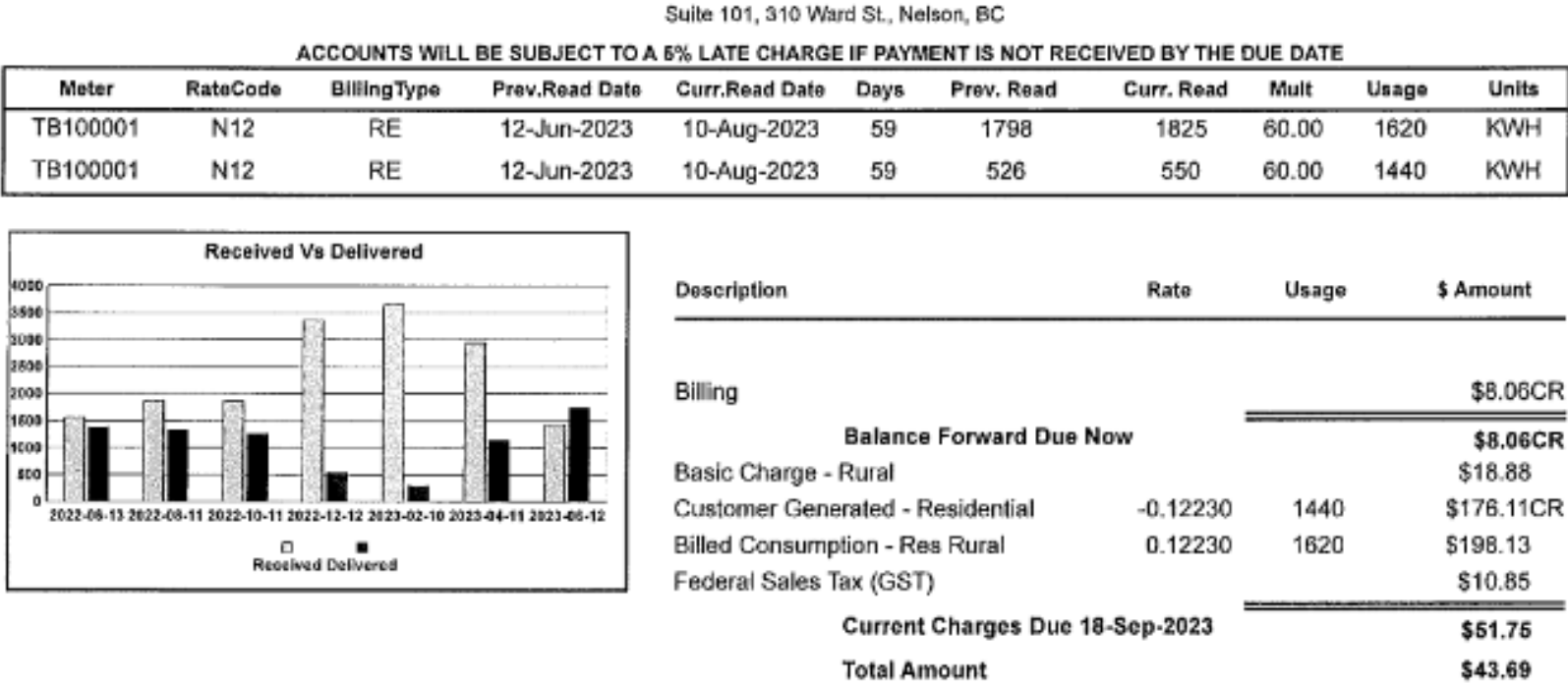


# CUSTOMER GROWTH

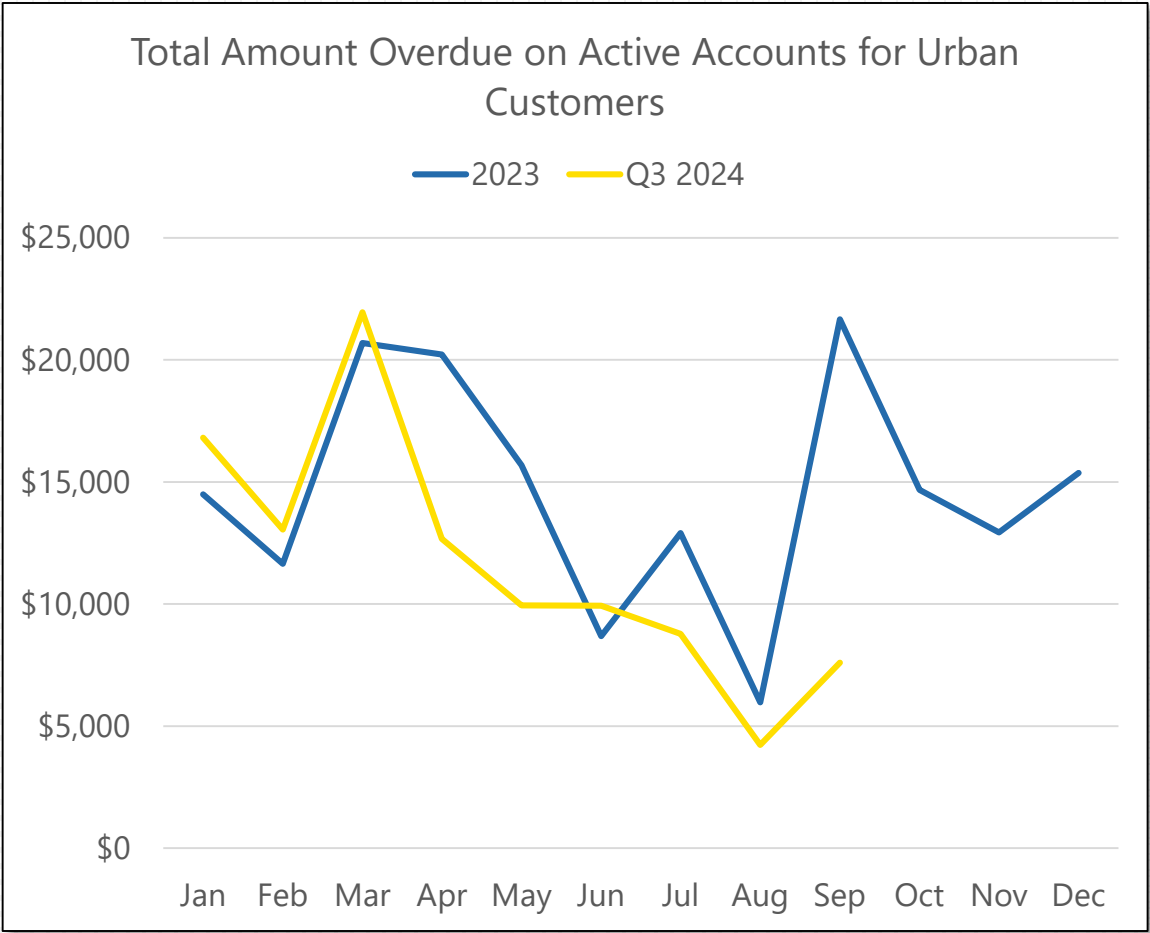
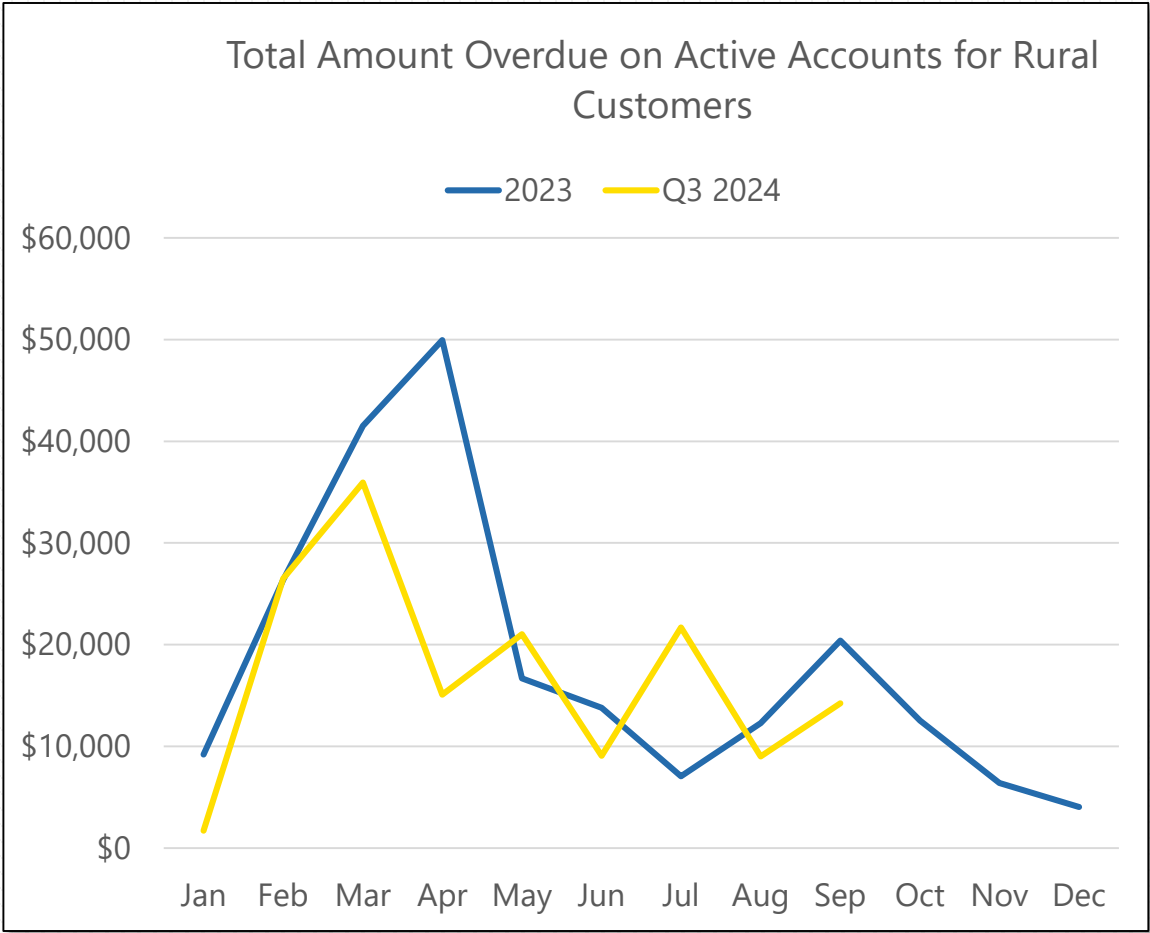


# BILLING

- Cost-of-living credit disbursement
- 32% E-billing enrollment (+4%)
- By-law update
- Service and metering guide
- Residential demand monitoring



# BILLING



# CUSTOMER PROJECTS

- 390 standard inquiries and projects
- 1,000 BC One Call requests
- 611 Vernon St. (125 residential)
- 902 11<sup>th</sup> Street (Institutional)
- 900 Lakeside Dr. (Multi phase, 125 units)
- Kootenay Lake Ferry electrification
- Granite Point Redevelopment
- Railtown housing (59 units)



# CAPITAL PROJECTS

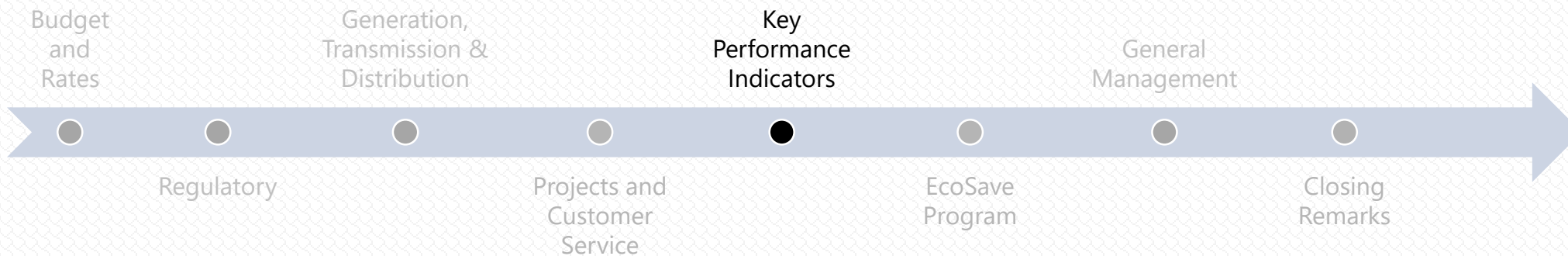
- Mill St. Substation upgrade
- Geographic Information System (GIS)
- SCADA
- Dam safety projects
- Mt. Nelson line replacement
- Pressure vessel replacements
- Generating Station / BON asset updates
- Transmission maintenance planning





# Key Performance Indicators

Jillian MacKay



# BALANCED SCORECARD

Key Performance Indicators (KPIs) measure business performance. All data is to the end of Q3 2023.

## FINANCIAL

Measures our financial performance comparing actual spend to budget.



## CUSTOMERS

Measures new job inquiries and our response time as well our progress on capital projects.



Measures our outage duration and frequencies and availability factor for each of the generating units.



## OPERATIONS

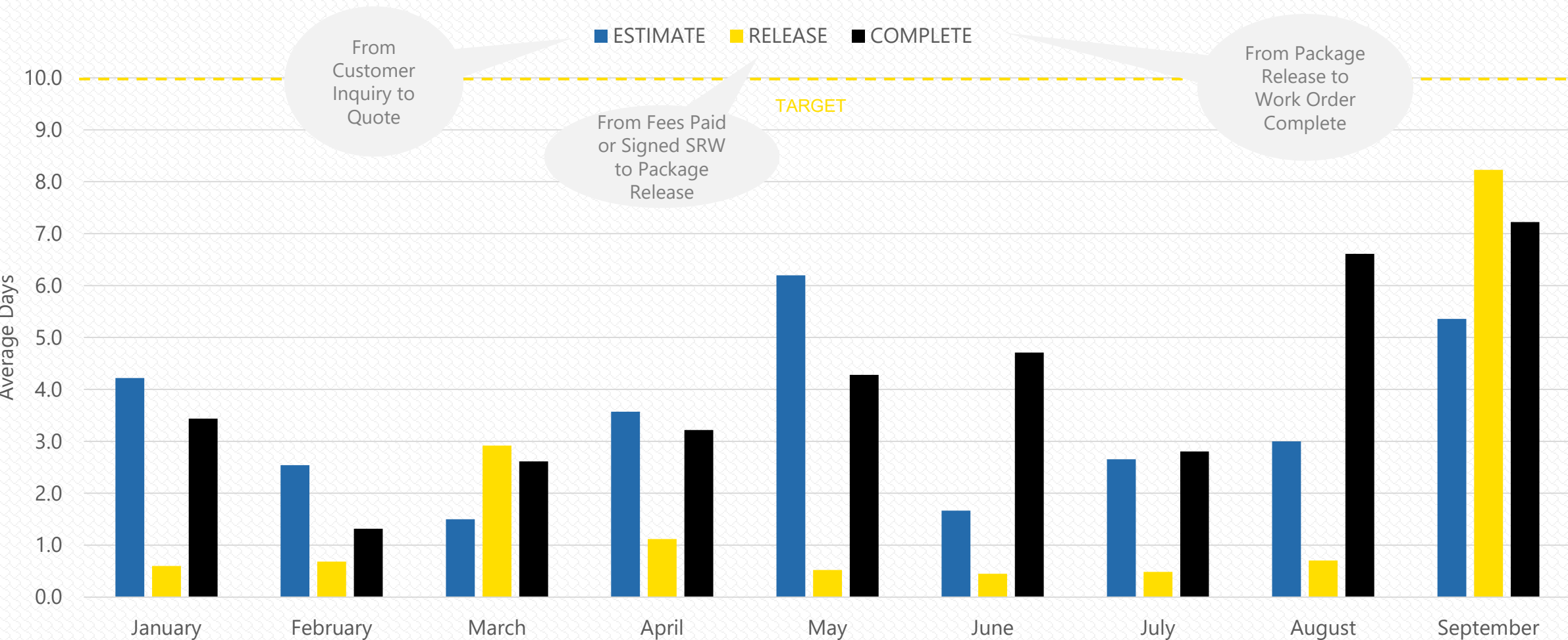
Measures our number of incidents, near misses, and compliance to regulations.

## SAFETY & COMPLIANCE



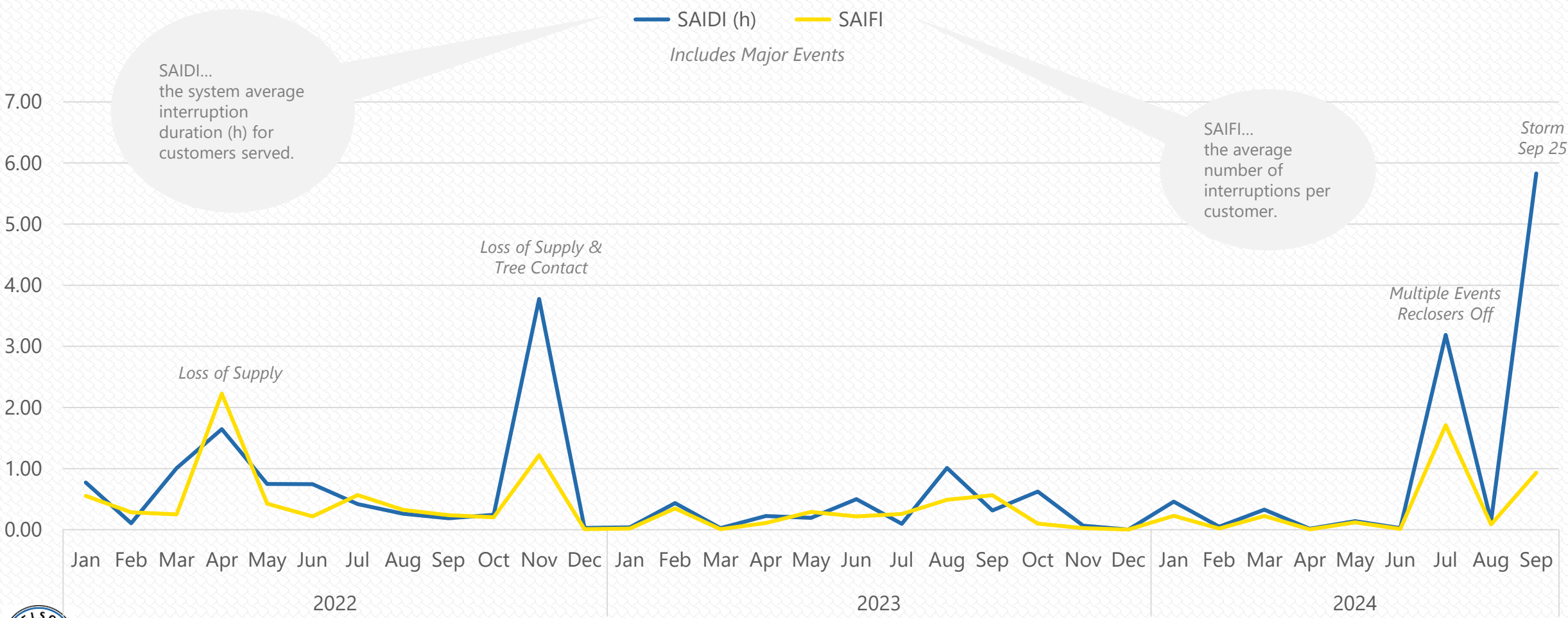
# CUSTOMER PERSPECTIVE

Nelson Hydro assists customers with new or changes to existing electrical services within its service territory.



# OPERATIONS PERSPECTIVE

SAIDI and SAIFI are Reliability Indicators used by Electric Power Utilities across North America.

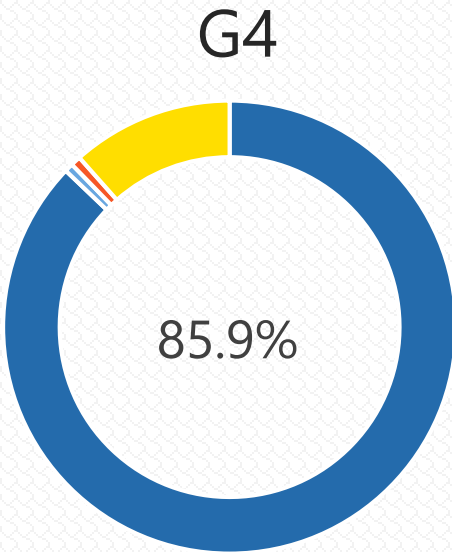
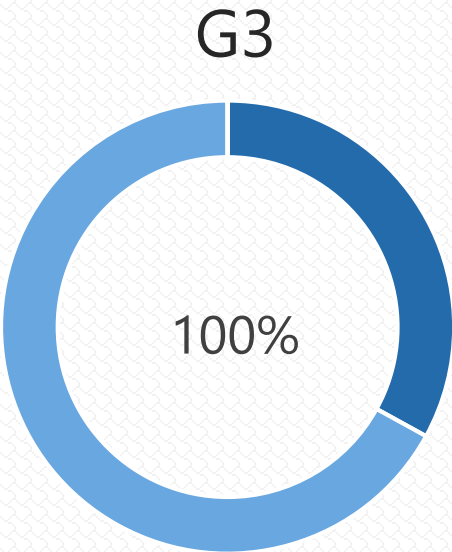
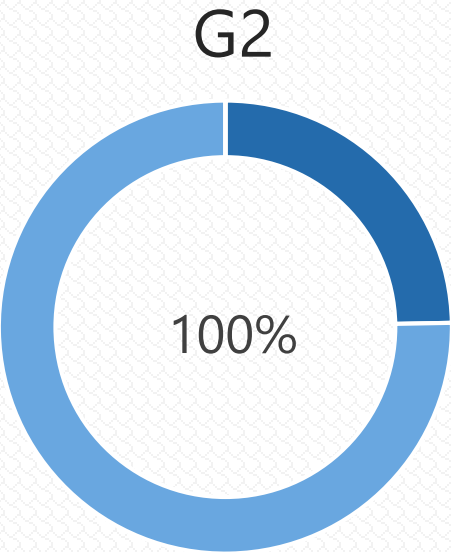


# OPERATIONS PERSPECTIVE

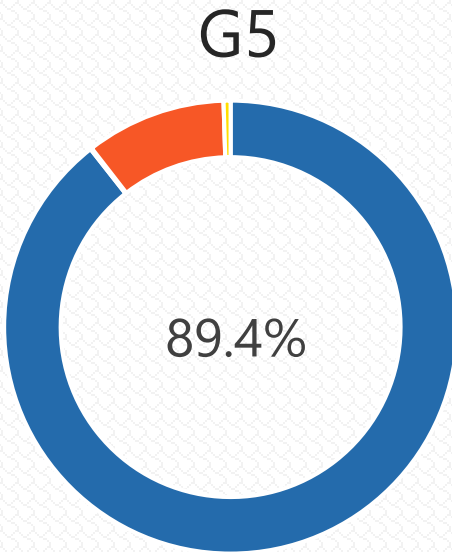
Generating Station Availability Factor helps us monitor the health of our generating assets.

Availability Factor (%) =  
Total Available Hours /  
Total Number of Hours  
in Period

Available (Running)   Available (Not Running)   Scheduled Out   Forced Out



*Exciter Installation*



*Bearing Over Temperature*

2024 data is to September 30<sup>th</sup>.

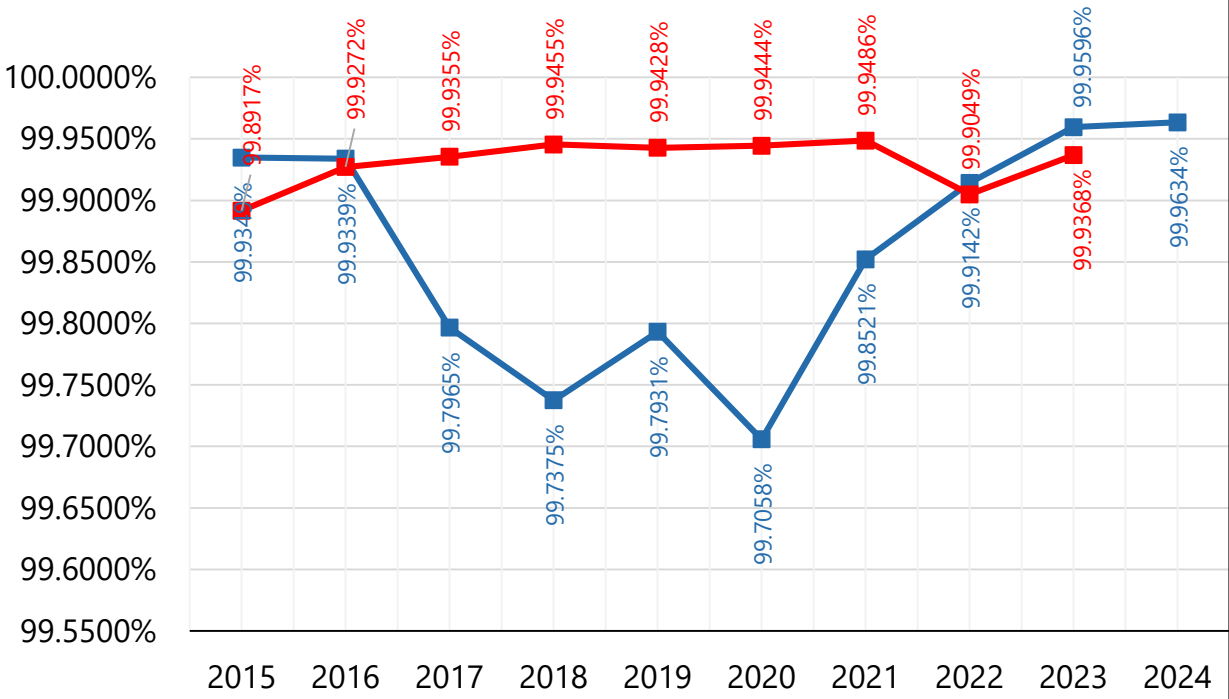


# INDEX OF RELIABILITY & SAIDI/SAIFI

Nelson Hydro Index of Reliability

Some Years Contain Major Events

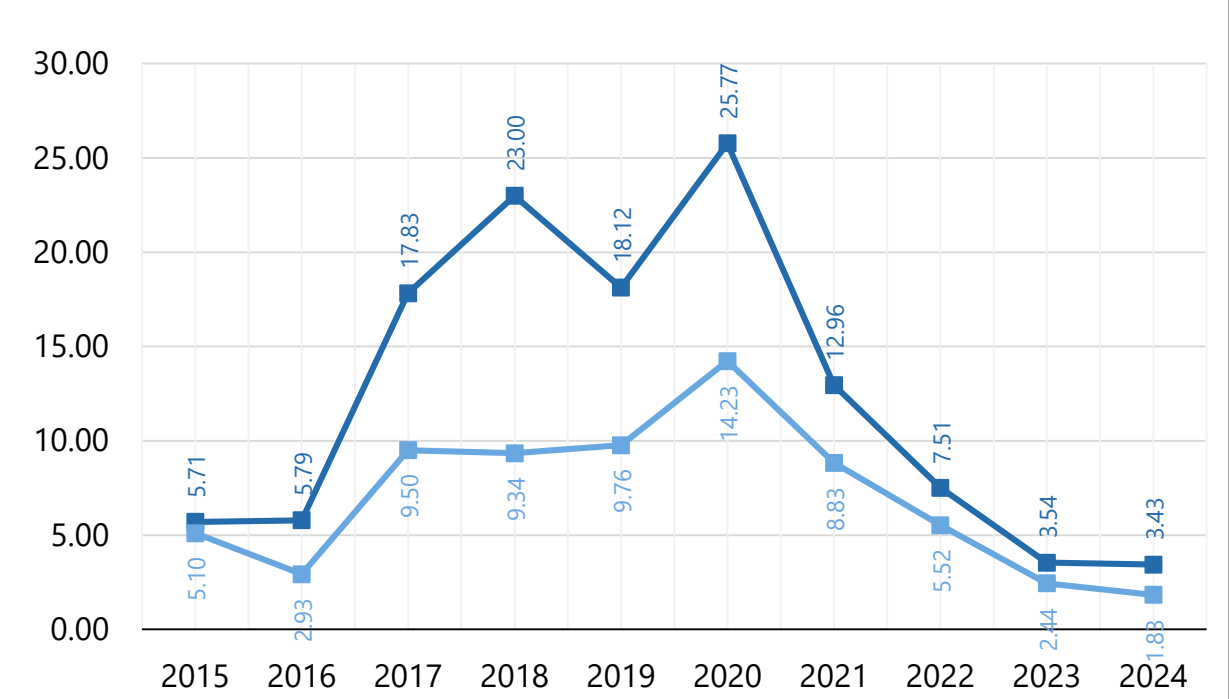
■ NH IOR ■ CEA IOR



Nelson Hydro SAIDI and SAIFI

Some Years Contain Major Events

■ NH SAIDI ■ NH SAIFI



2024 data is to September 30<sup>th</sup>.



# CANADIAN ELECTRICAL ASSOCIATION DEFINITIONS

## ***Adverse Environment***

Customer interruptions due to equipment being subjected to abnormal environment such as salt spray, industrial contamination, humidity, corrosion, vibration, fire or flooding.

## ***Adverse Weather***

Customer interruptions resulting from rain, ice storms, snow, winds, extreme ambient temperatures, freezing fog, or frost and other extreme conditions.

## ***Equipment Failure***

Customer interruptions resulting from equipment failures due to deterioration from age, incorrect maintenance, or imminent failures detected by maintenance.

## ***Foreign Interference***

Customer interruptions beyond the control of the utility such as birds, animals, vehicles, dig-ins, vandalism, sabotage and foreign objects.

## ***Human Element***

Customer interruptions due to the interface of the utility staff with the system such as incorrect records, incorrect use of equipment, incorrect construction or installation, incorrect protection settings, switching errors, commissioning errors, deliberate damage, or sabotage.

## ***Lightning***

Customer interruptions due to lightning striking the Distribution System, resulting in an insulation breakdown and/or flash-overs.

## ***Loss of Supply***

Customer interruptions due to problems in the bulk electricity supply system such as under frequency, load shedding, transmission system transients, or system frequency excursions.

## ***Scheduled Outage***

Customer interruptions due to the disconnection at a selected time for the purpose of construction or preventive maintenance.

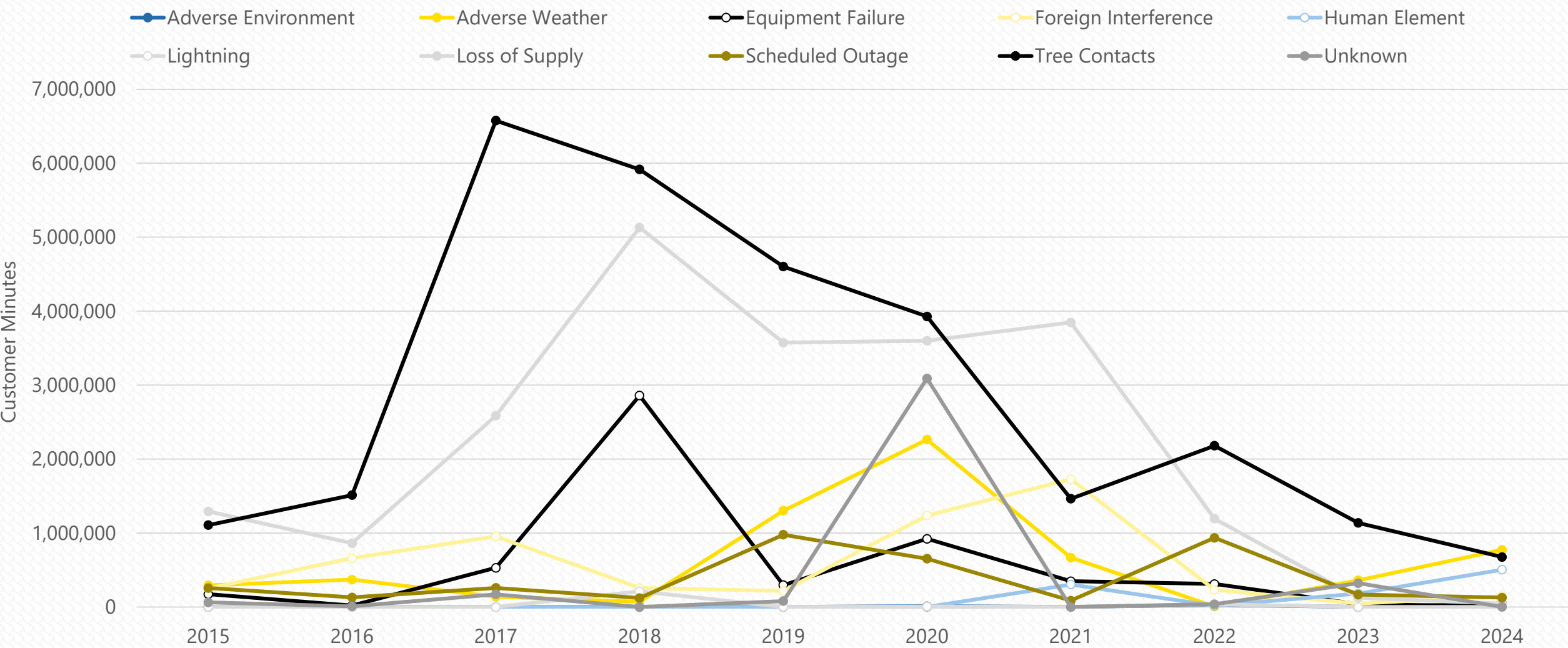
## ***Tree Contacts***

Customer interruptions caused by faults due to trees or tree limbs contacting energized circuits.

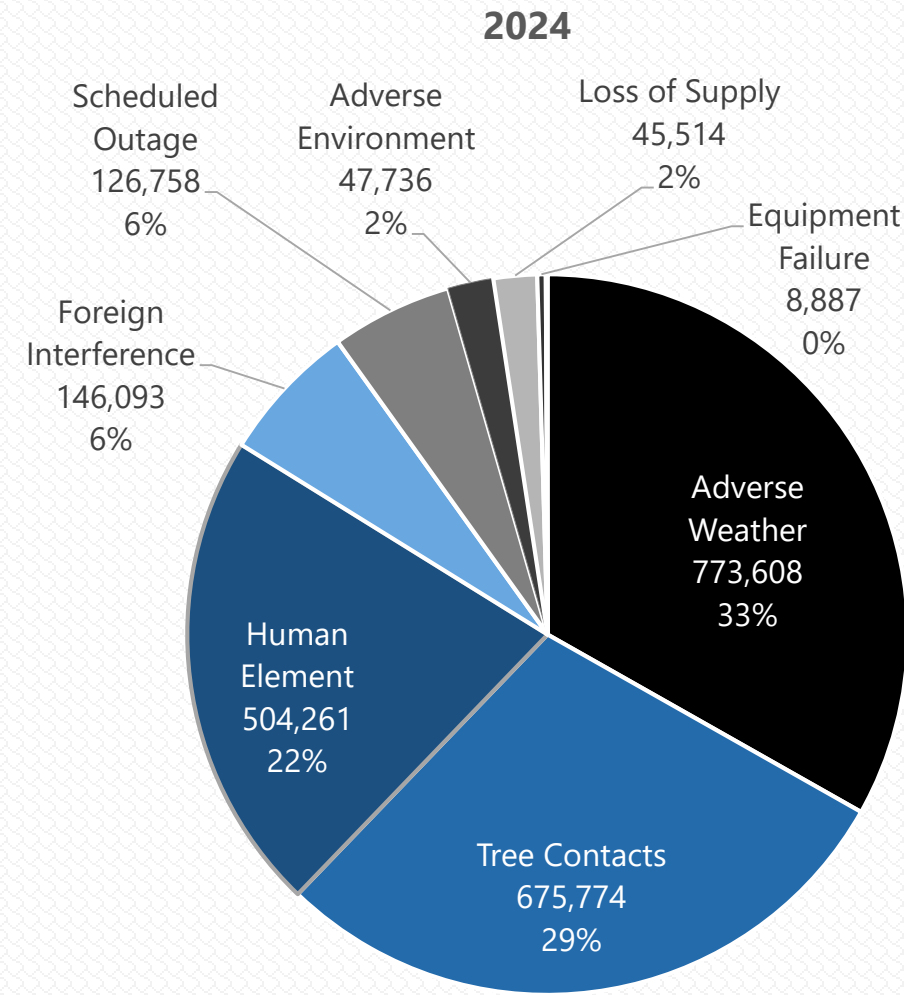
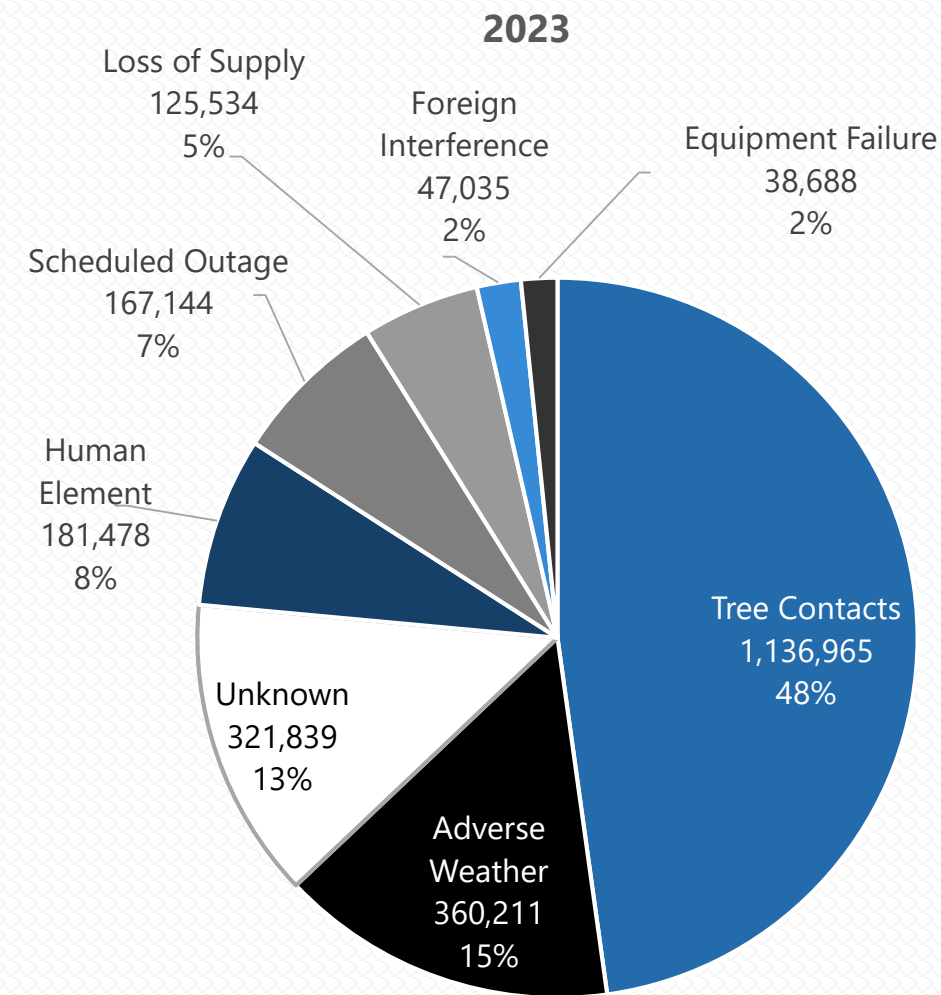
## ***Unknown***

Customer interruptions with no apparent cause or reason could have contributed to the outage. Only to be used when all other reasons do not apply or the cause is legitimately unknown.

# OUTAGES BY CAUSE WITH CUSTOMER MINUTES



# OUTAGES BY CAUSE WITH CUSTOMER MINUTES



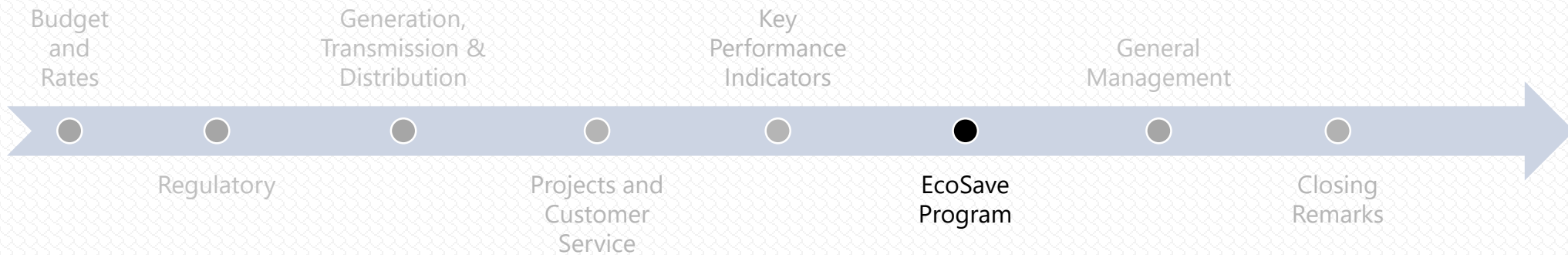
2024 data is to September 30<sup>th</sup>.





# EcoSave Program

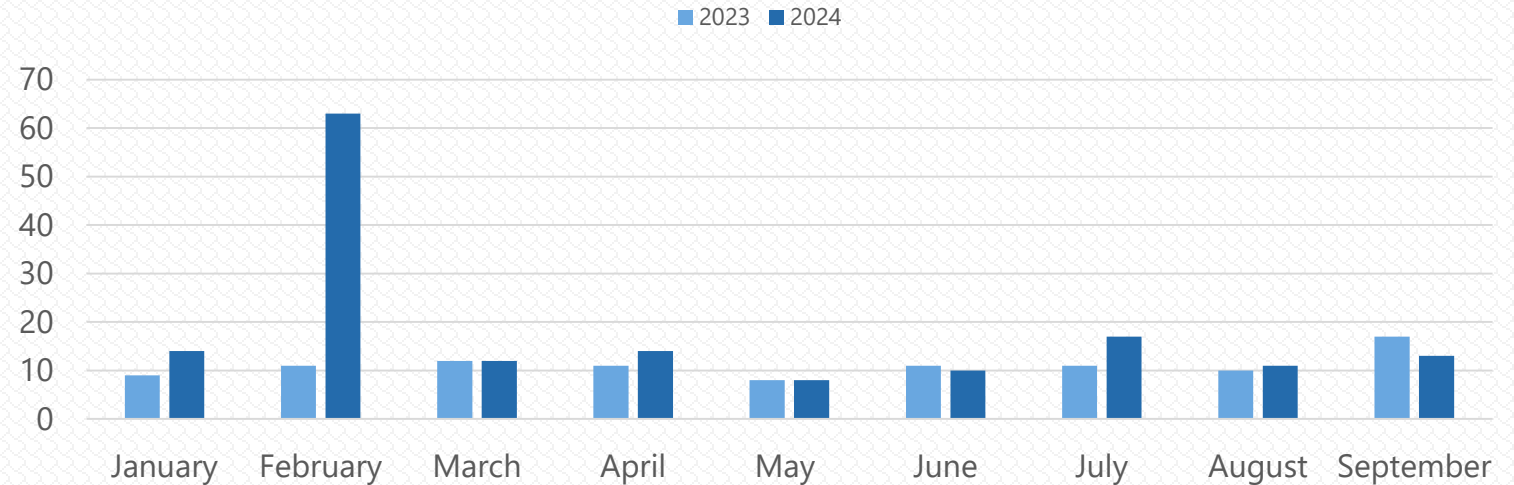
Scott Spencer



# REGIONAL ENERGY EFFICIENCY PROGRAM

- 2024 February increase result from Canada Greener Homes program ending
- Working to increase participation and funding.
- Higher rebates available to those who install heat pumps.

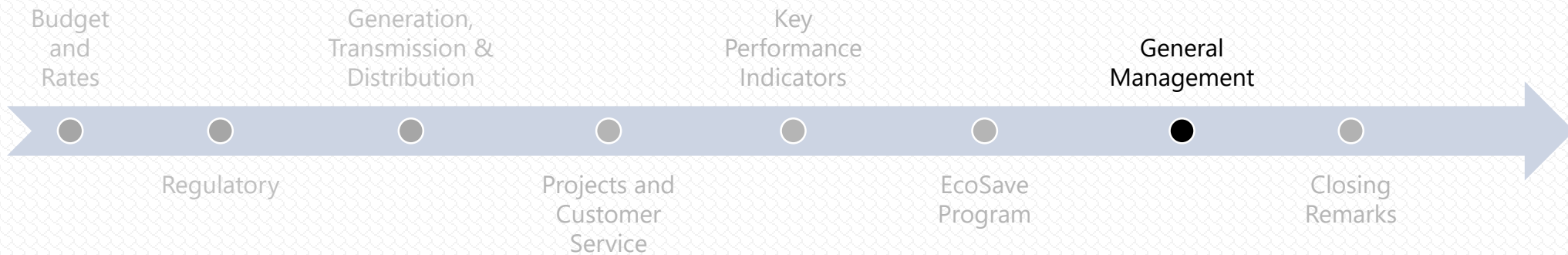
REEP Registrations to end of Q3 2024  
for Nelson Hydro Customers





# General Management

Scott Spencer



# MANAGEMENT HIGHLIGHTS

- Regulatory proceedings more streamlined
- BC Hydro Water Rights Agreement Arbitration
- Dam Safety Projects progressing
- Telus Joint Use Agreement signed
- Engaging with local First Nations
- Collaborating with other BC Municipal Electric Utilities

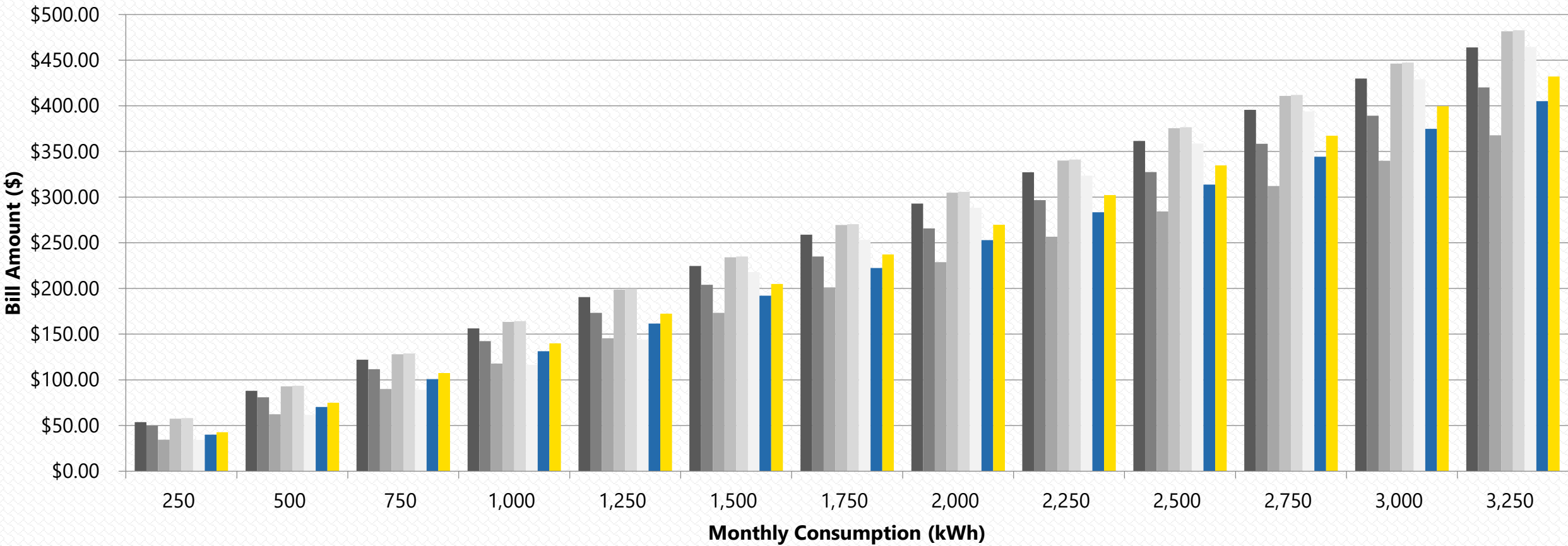


# RATE INCREASE COMPARISON



# 2024 RESIDENTIAL RATE COMPARISON

Summerland 2024    Penticton 2024    New Westminster 2024    Grand Forks 2024  
FortisBC 2024    BC Hydro 2024    Nelson Hydro Urban 2024    Nelson Hydro Rural 2024



# RECOMMENDATIONS

- Approve the 2025 Operations and Capital Budgets as presented
- Support the BCUC Revenue Requirements Application for a 7.54% Rural General Rate Increase
- Support a 5.00% Urban General Rate Increase



# CLOSING REMARKS

- Great Team
- Customer Service Focus
- Good Communications
- Better Reliability
- Process Efficiency



