

2022/2023 OVERVIEW



Accomplishments & Business Plan

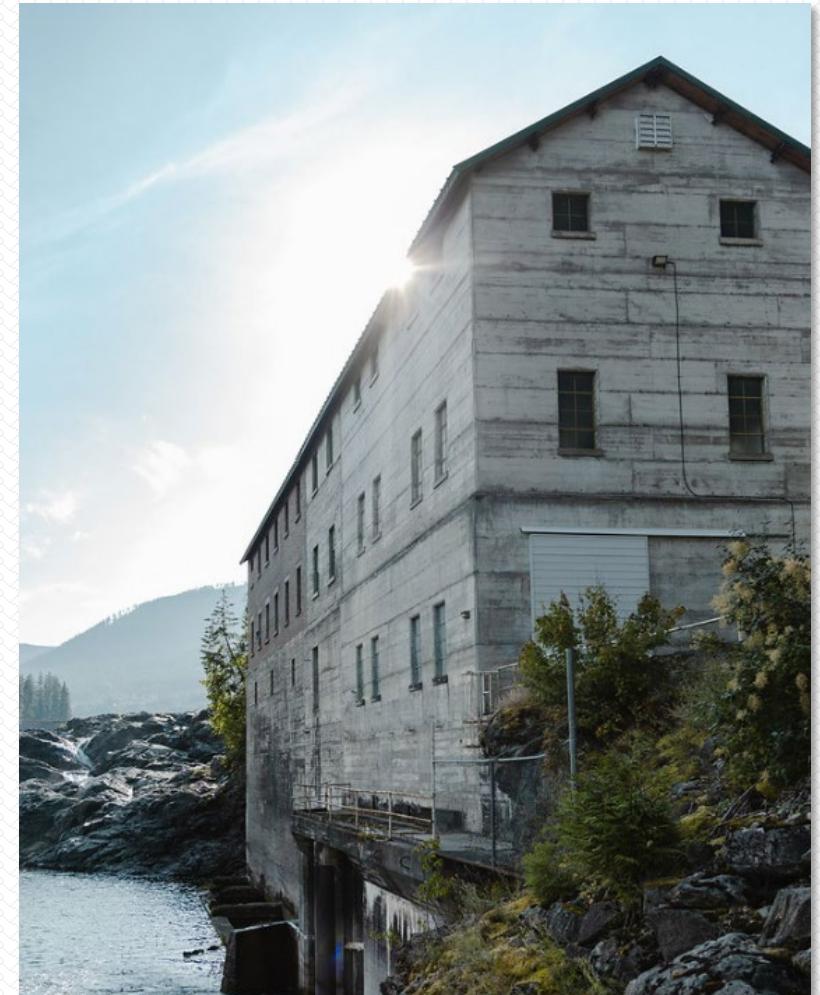
City of
NELSON



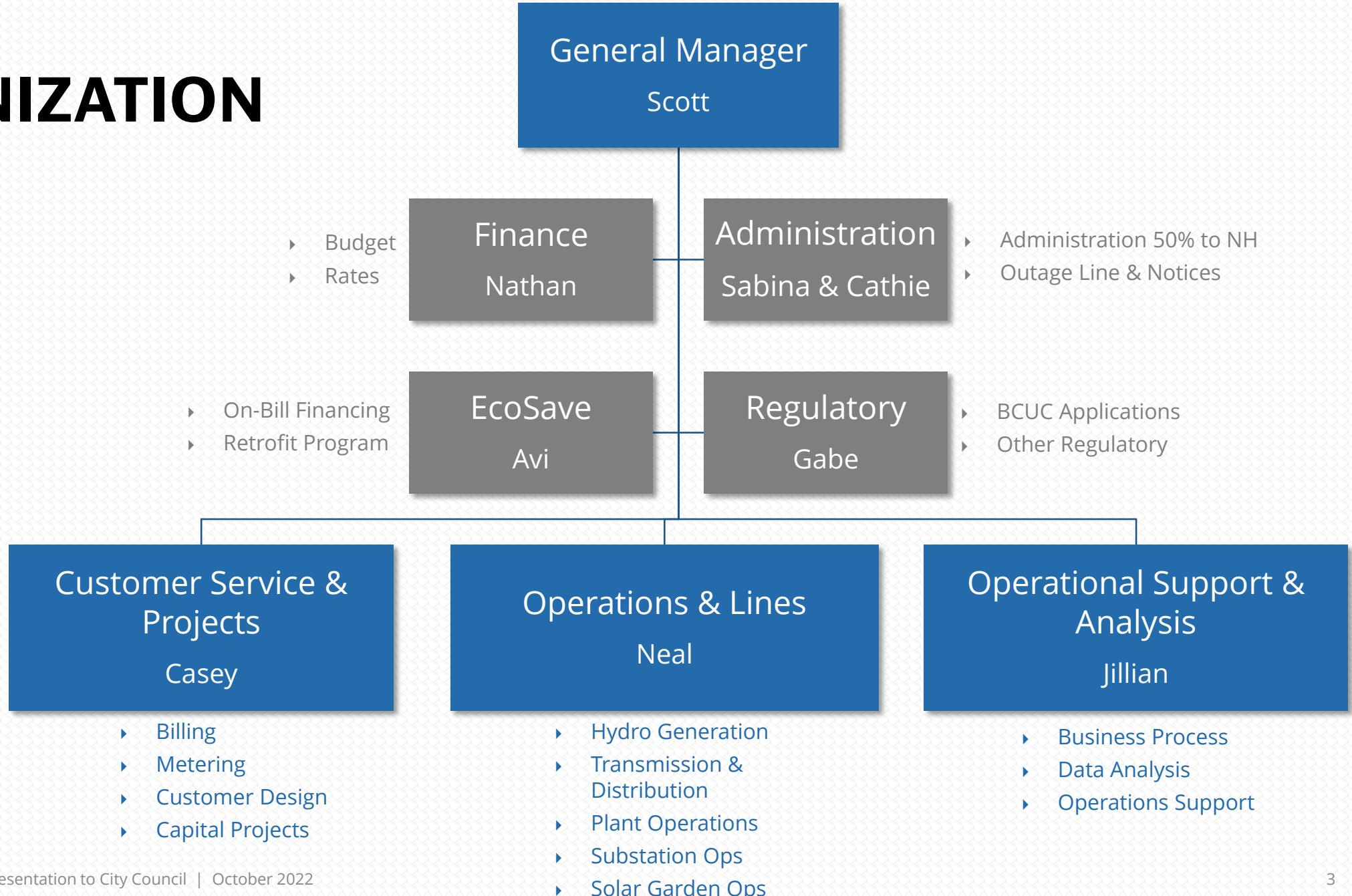
October 21, 2022

AGENDA

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



ORGANIZATION



INTRODUCTION

Our goal is to support the City of Nelson in being #1 in value for service.

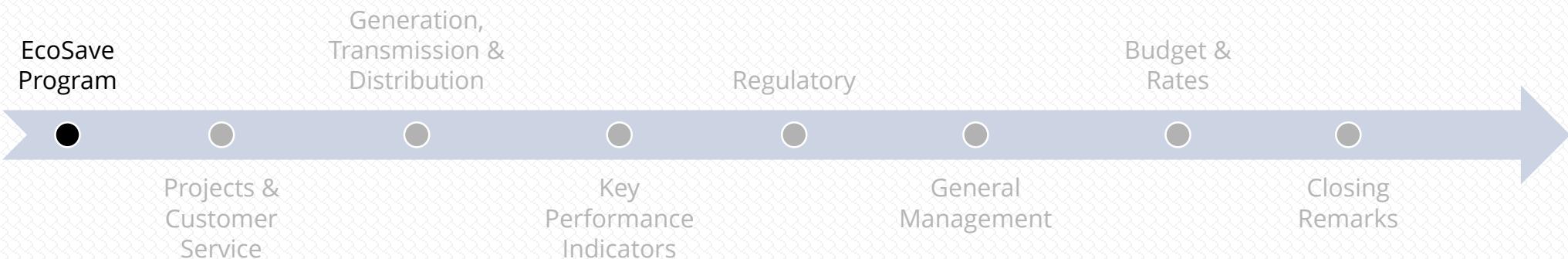
- Leverage engaged and inspired workforce to achieve operational excellence
- Focus on Customer Service, Communications and Reliability
- Modernization of systems and processes
- Support Nelson Next and other carbon reduction initiatives in our communities





EcoSave Program

Carmen Proctor & Avi Silberstein



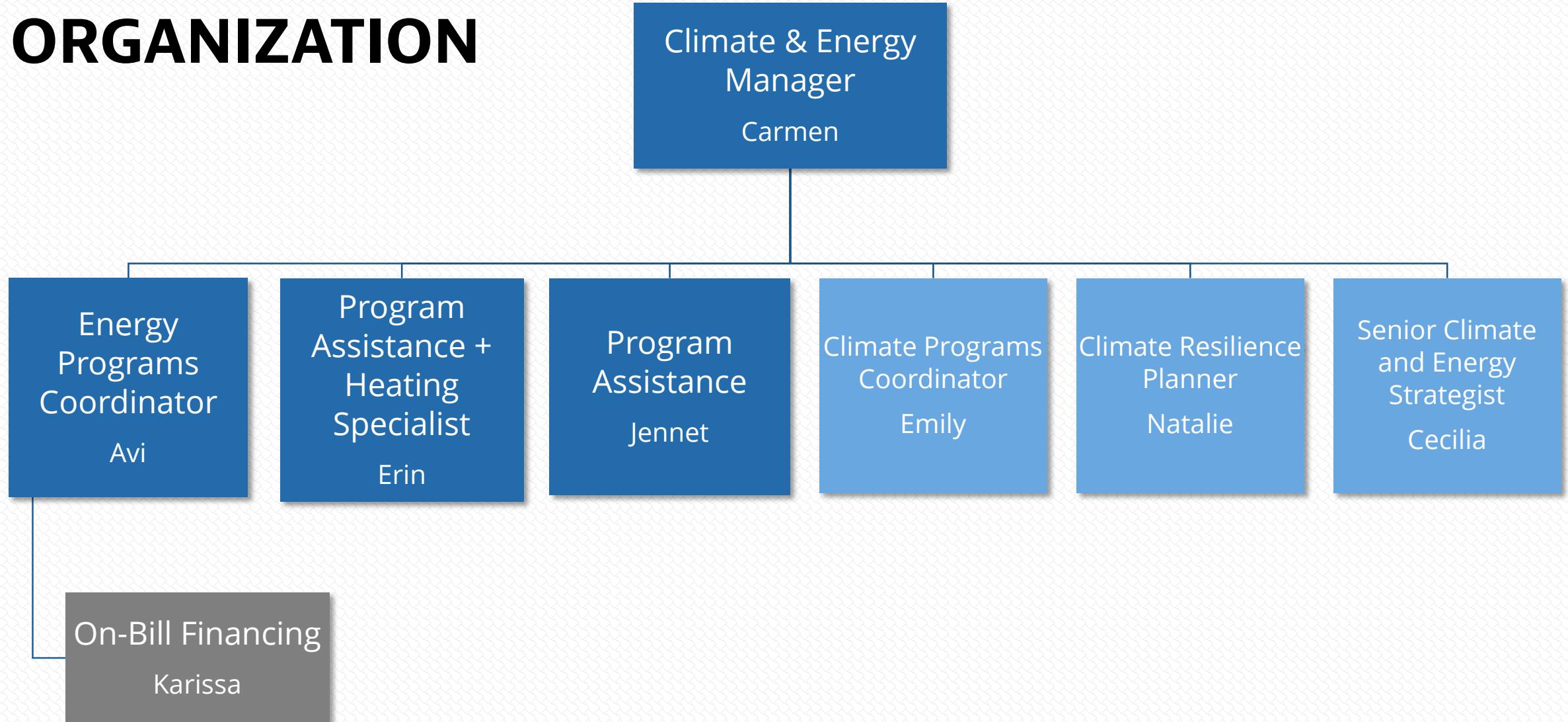
NELSON NEXT

Aspiration #2- *Infrastructure and buildings in Nelson are zero carbon and resilient.*

- Team
- Regional Energy Efficiency Program (REEP)
- CRM (participant software)
- E-Bike Loans
- Outcomes for 2023



ORGANIZATION

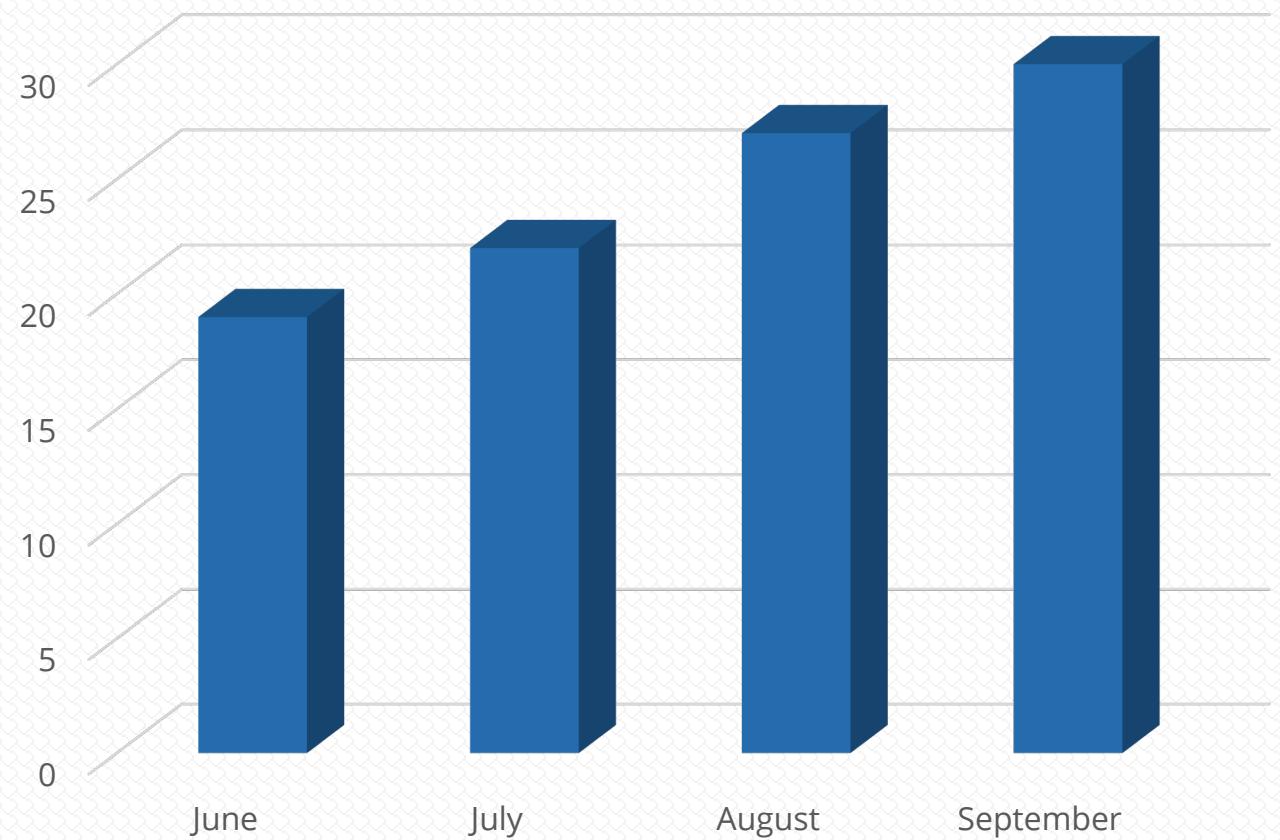


REGIONAL ENERGY EFFICIENCY PROGRAM (REEP)

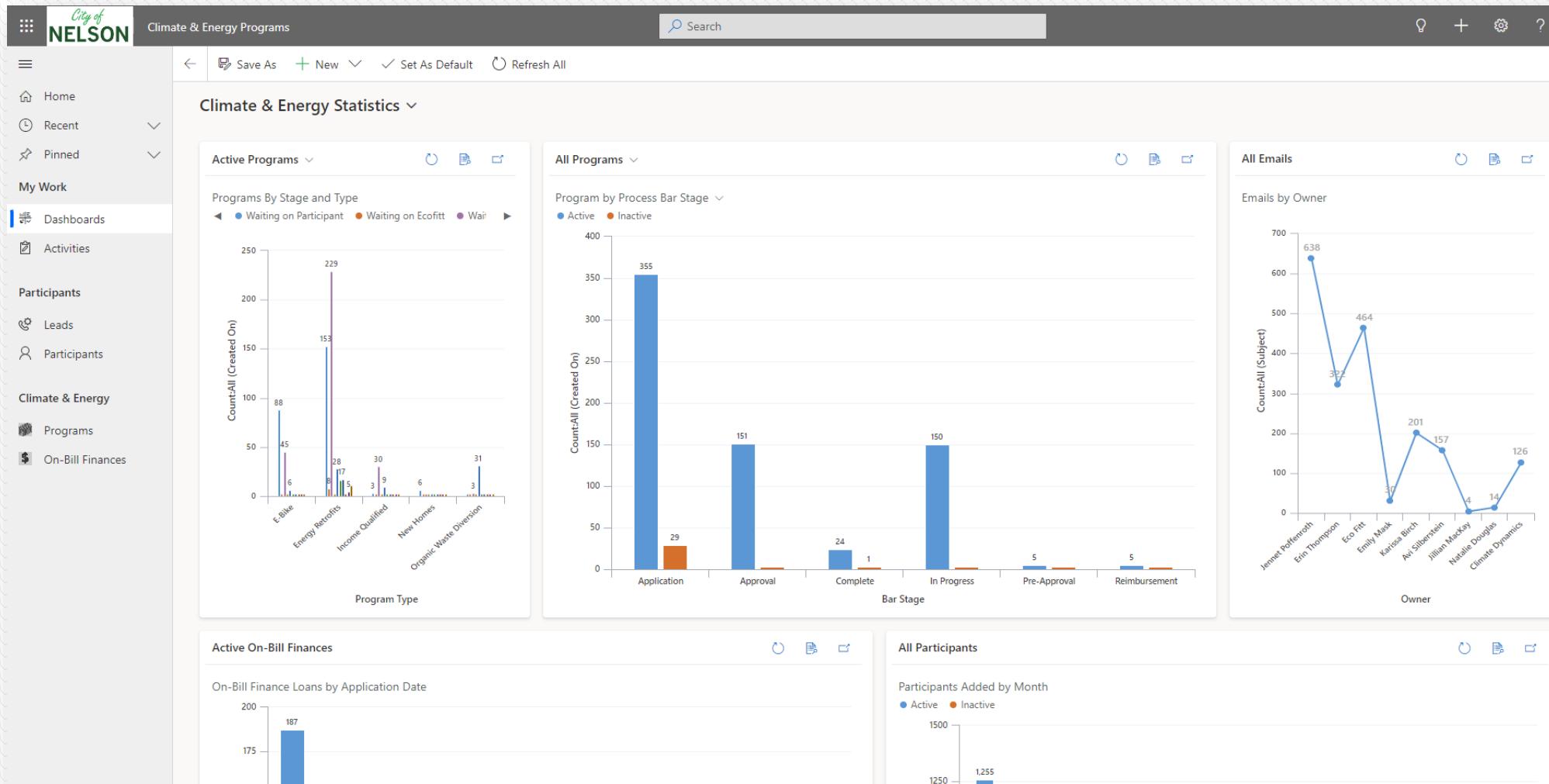
- 300+ registrants in 2022 (so far)
- Advocating for our residents
- Increased participant and contractor support
- CRM (participant software)



Regional Energy Efficiency Program
HOME RENOVATION

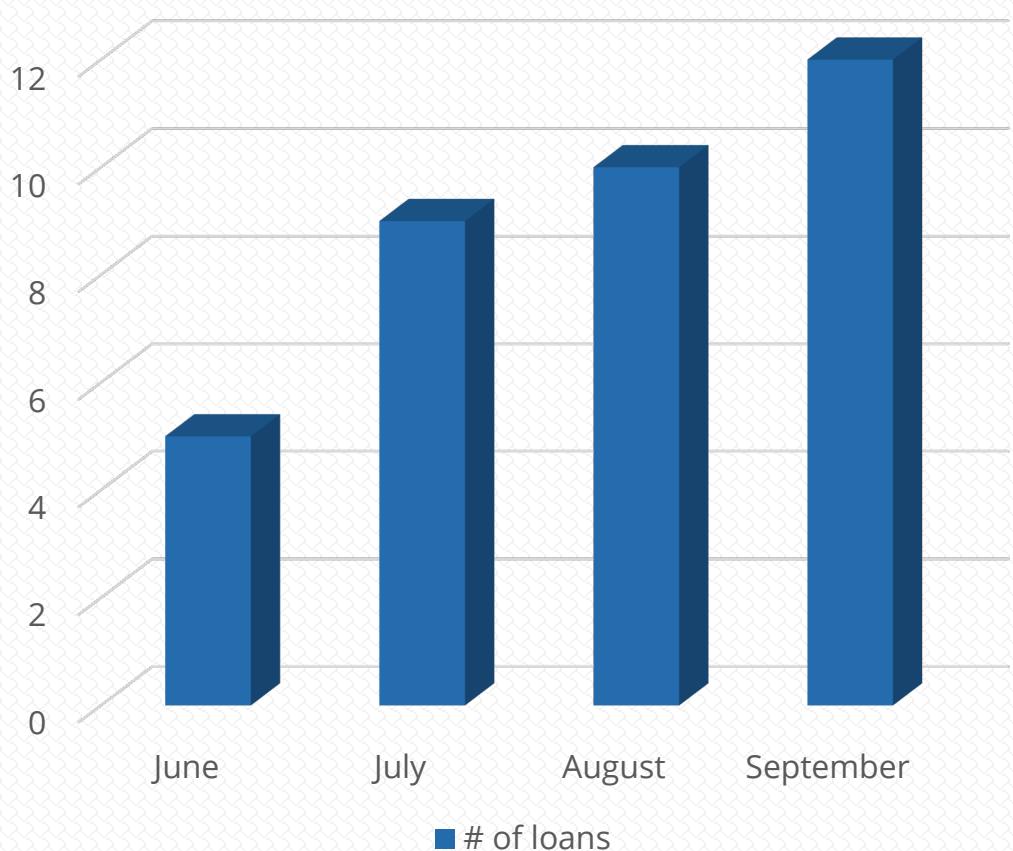


CRM – MICROSOFT DYNAMICS



ECOSAVE E-BIKE PROGRAM

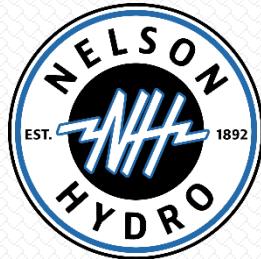
150 loans approved since inception



2023 OUTCOMES

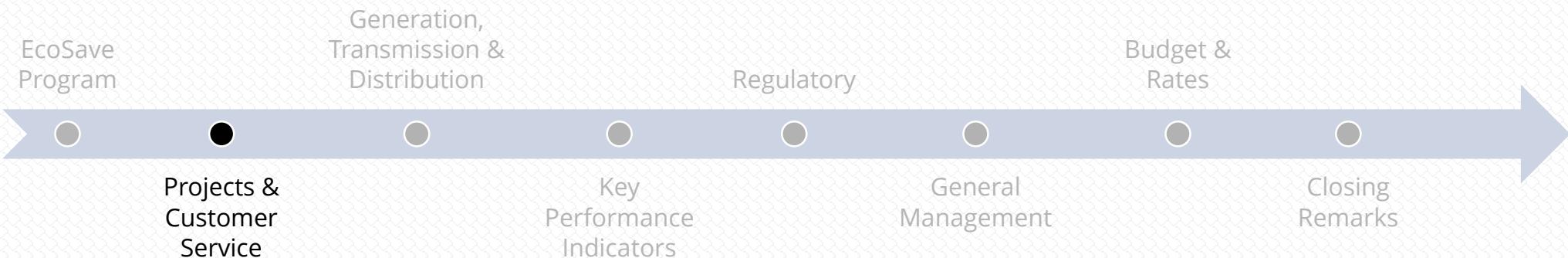
- We continue to offer superior support to residents interested in energy retrofits and those building new homes.
- Contractors are fully accessible to our residents, due to our continued advocacy and collaboration with regional and provincial bodies.
- REEP 2.0 receives funding, is scaled up and is implemented.
- Marketing and outreach efforts are increased and successful at boosting participation in our program.
- Retrofits are done on a deeper and whole-home basis, with consideration given to the embodied carbon of the materials they're choosing.
- Events are offered and well-attended.



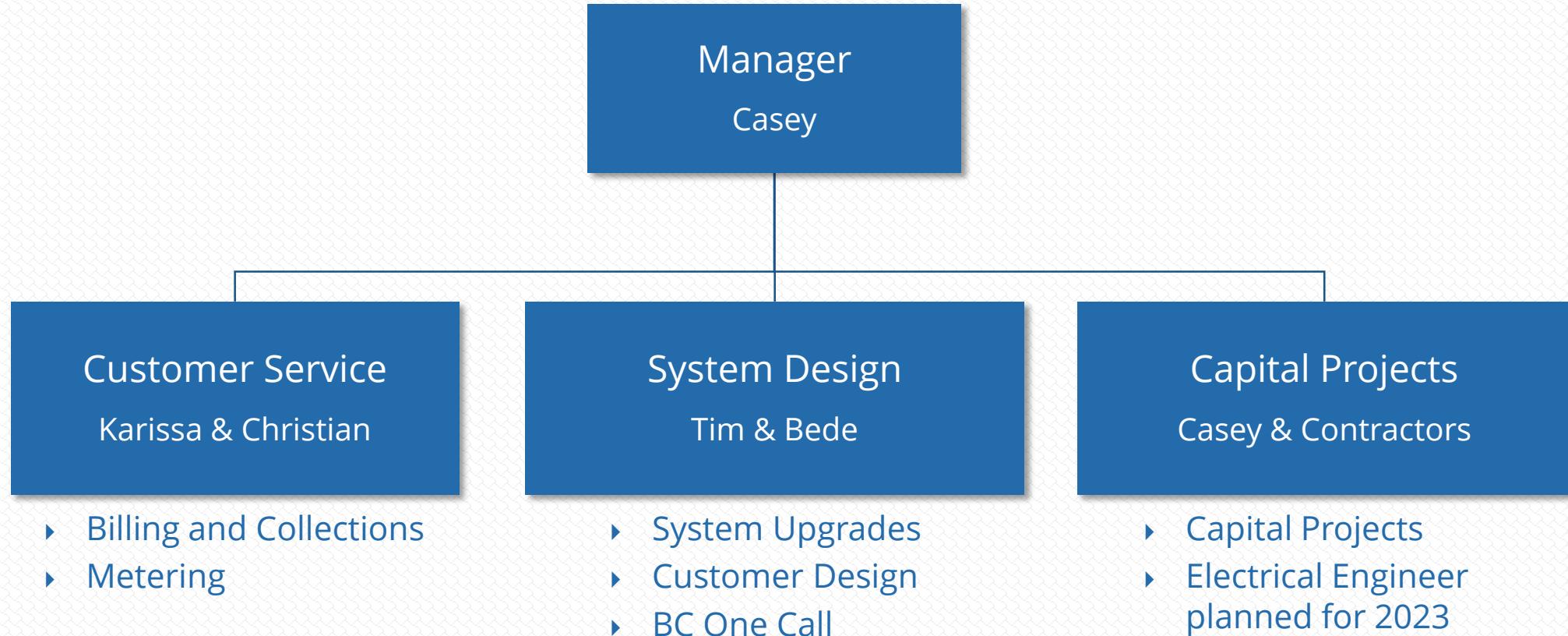


Projects and Customer Service

Casey Smit, P.Eng., PMP, MBA

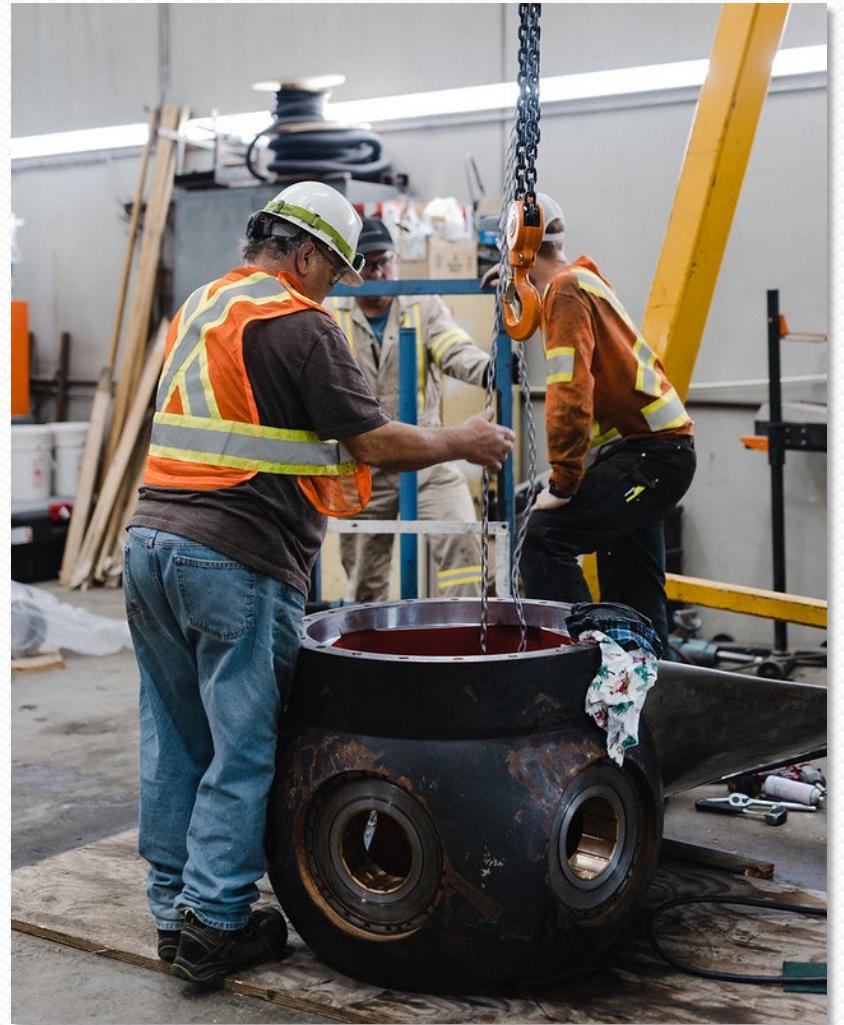


ORGANIZATION

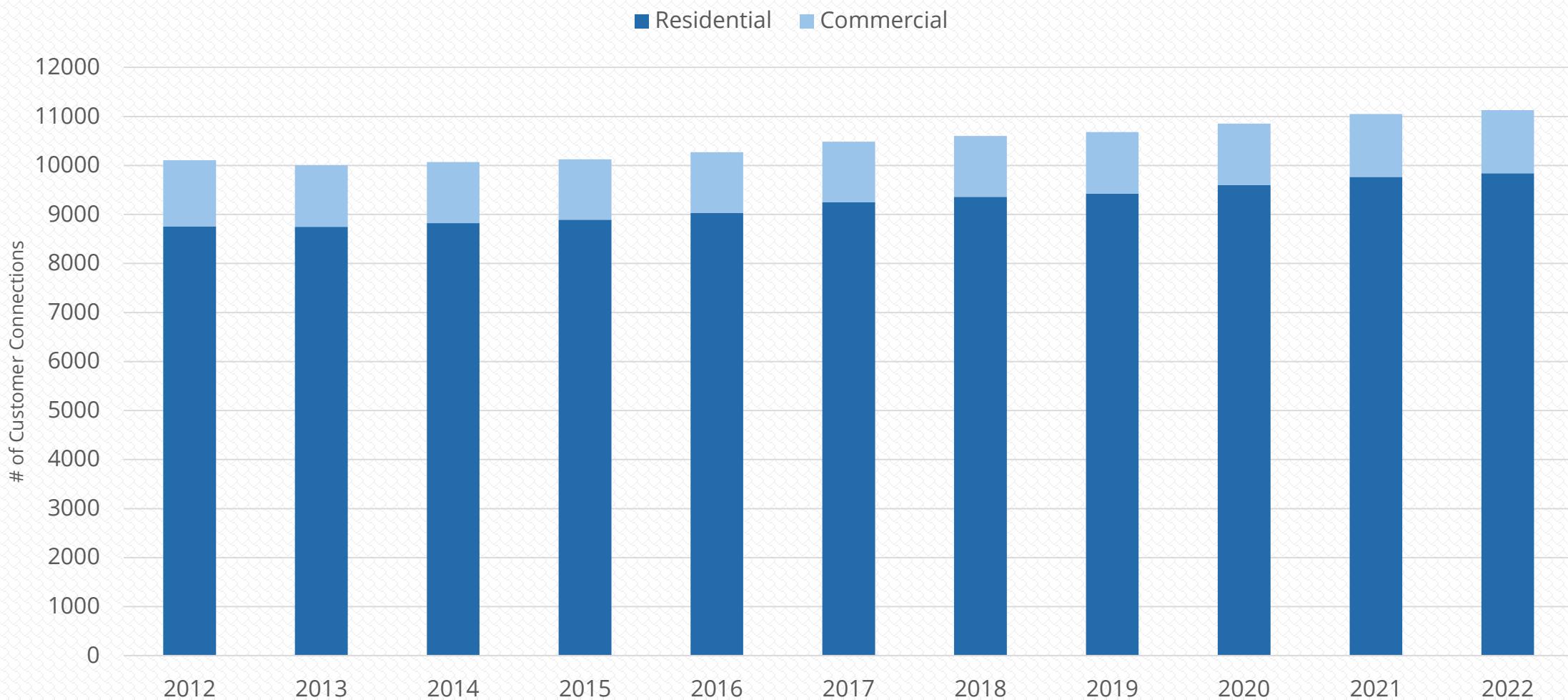


SAFETY

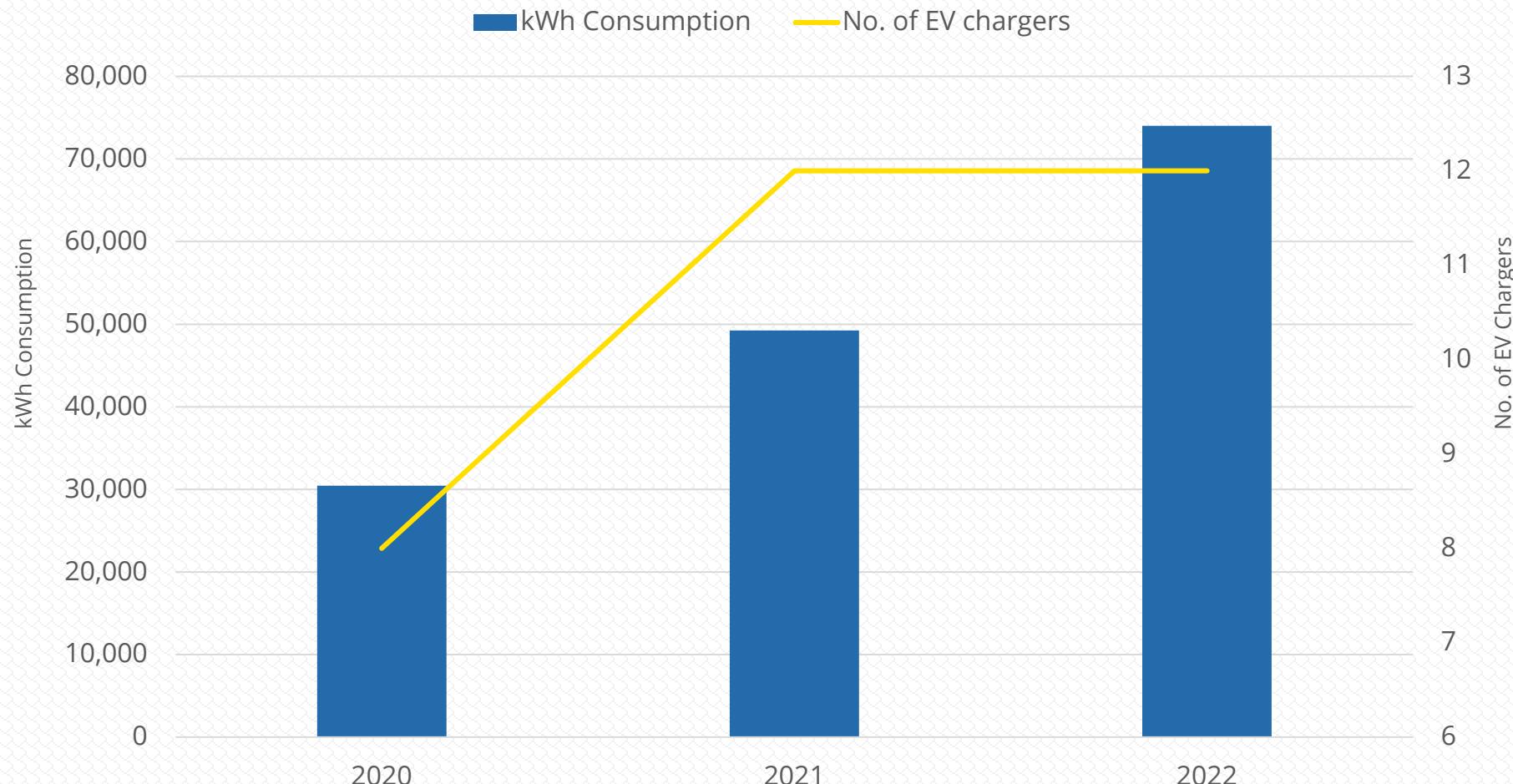
- No Lost Time Injury (LTI)
- No First Aid Injuries



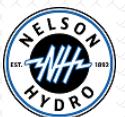
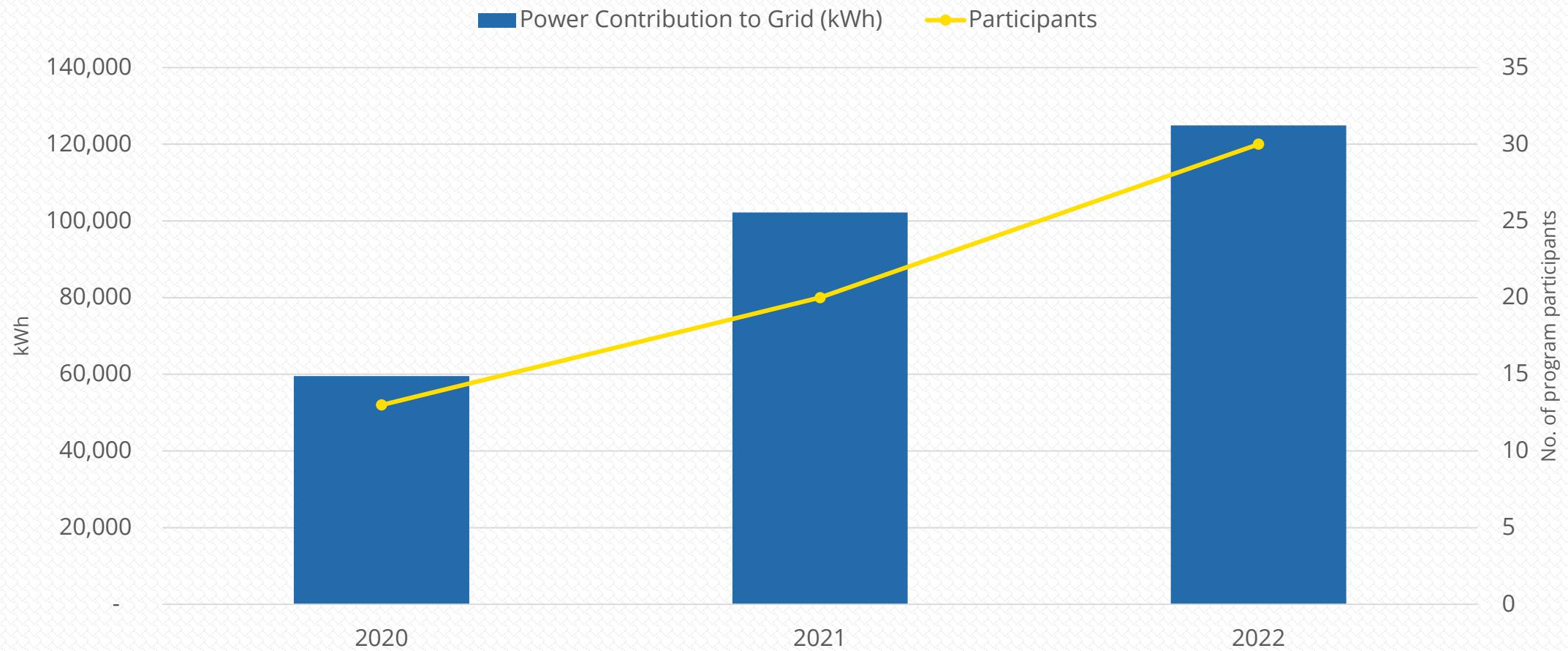
CUSTOMER GROWTH



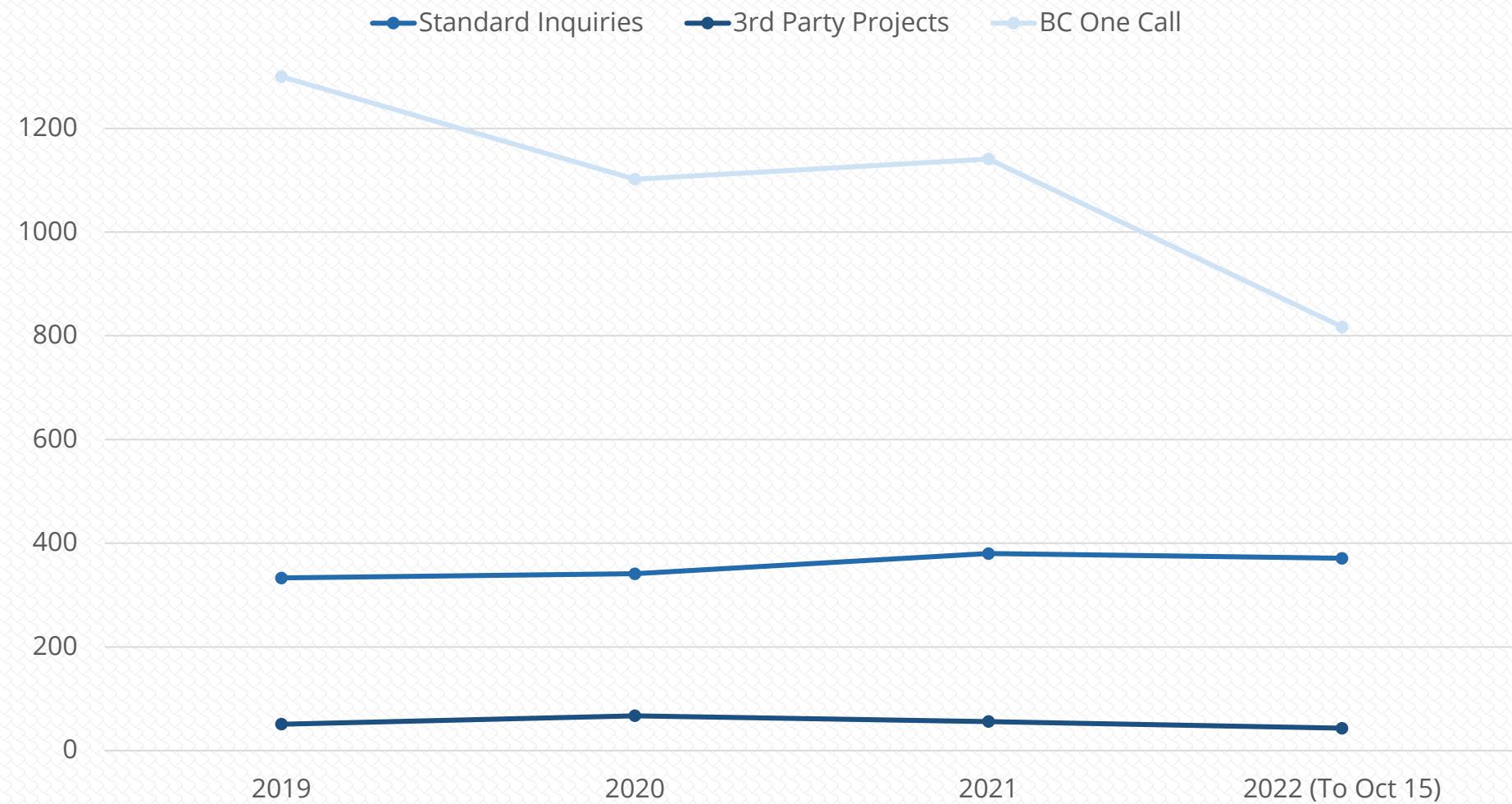
EV CHARGERS



NET METERING PROGRAM



CUSTOMER WORK ORDERS



CUSTOMER PROJECTS

- Seniors development at 611 Vernon St. (125 units)
- Apartment building development at 514 Victoria St. (46 units)
- Development at 266 Baker St. (11 residential and 11 commercial)
- Mount St. Francis site at 902 11th Street
- Service for 45 Government Rd.



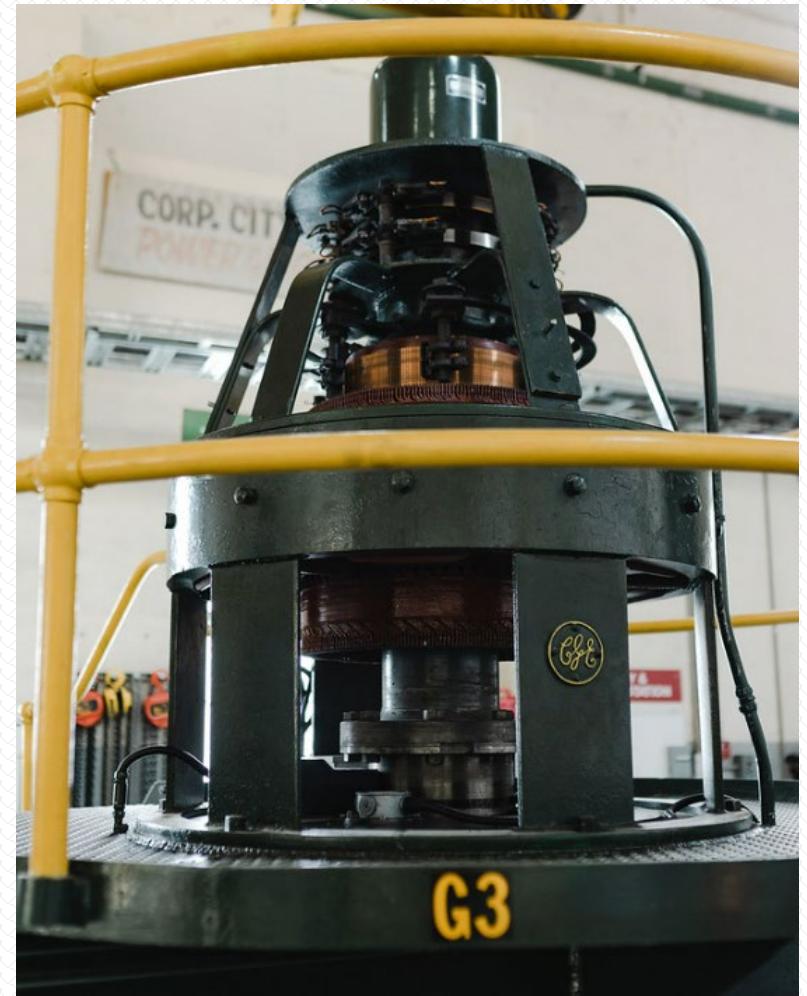
CAPITAL PROJECT HIGHLIGHTS

- Power Plant Back-up Generator
 - Commission in parallel with the G5 Overhaul
- Vault Lid Replacement
 - Complete by Year End
- Battery Bank Replacement
 - Installation will stretch into 2023
- Peak Demand management Study
 - Complete



2023 CAPITAL PROJECTS

- Mill St Substation Upgrade Project
- G3 & G4 Excitation System Replacement
- Dam Safety Projects
- Increase commonly required equipment inventory



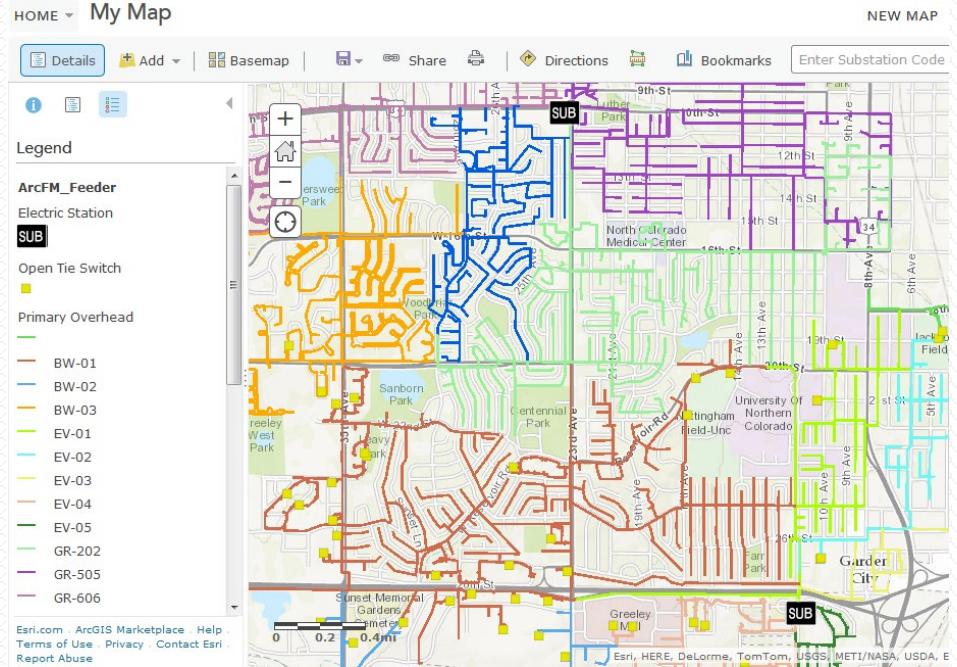
STRATEGIC CAPITAL

- Advanced Metering Infrastructure (AMI) Project
 - Scoping and business case completed (2022)
 - Project plan refinement, customer engagement and procurement processes to fully define the project for 2024 budget approval (2023)
 - Submit a Certificate of Public Convenience an Necessity (CPCN) to BCUC
- Asset Management
 - Policy in place and \$60,000 in grants received (2022)
 - Asset condition assessed and management plans developed (2022)
 - Computerized Maintenance Management Software purchase and implementation (2023)



STRATEGIC CAPITAL

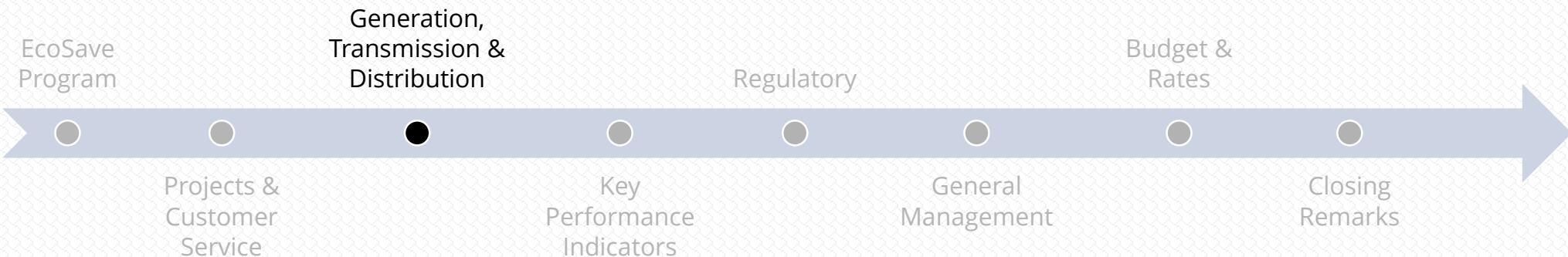
- Geographic Information System (GIS)
 - Scoping and business case in progress (2022)
 - Digital Lock-Out Board - Plan & Solution (2023)
 - Integration with other digital systems (2024-25)
- Battery Energy Storage Project
 - Application for ICIP / CleanBC grant submitted (2022)
 - Grant award expected in September 2023.
 - If grant not successful, then refocus on either the Coffee Creek transformer or the new FortisBC intertie at 6-Mile (2023-2027)



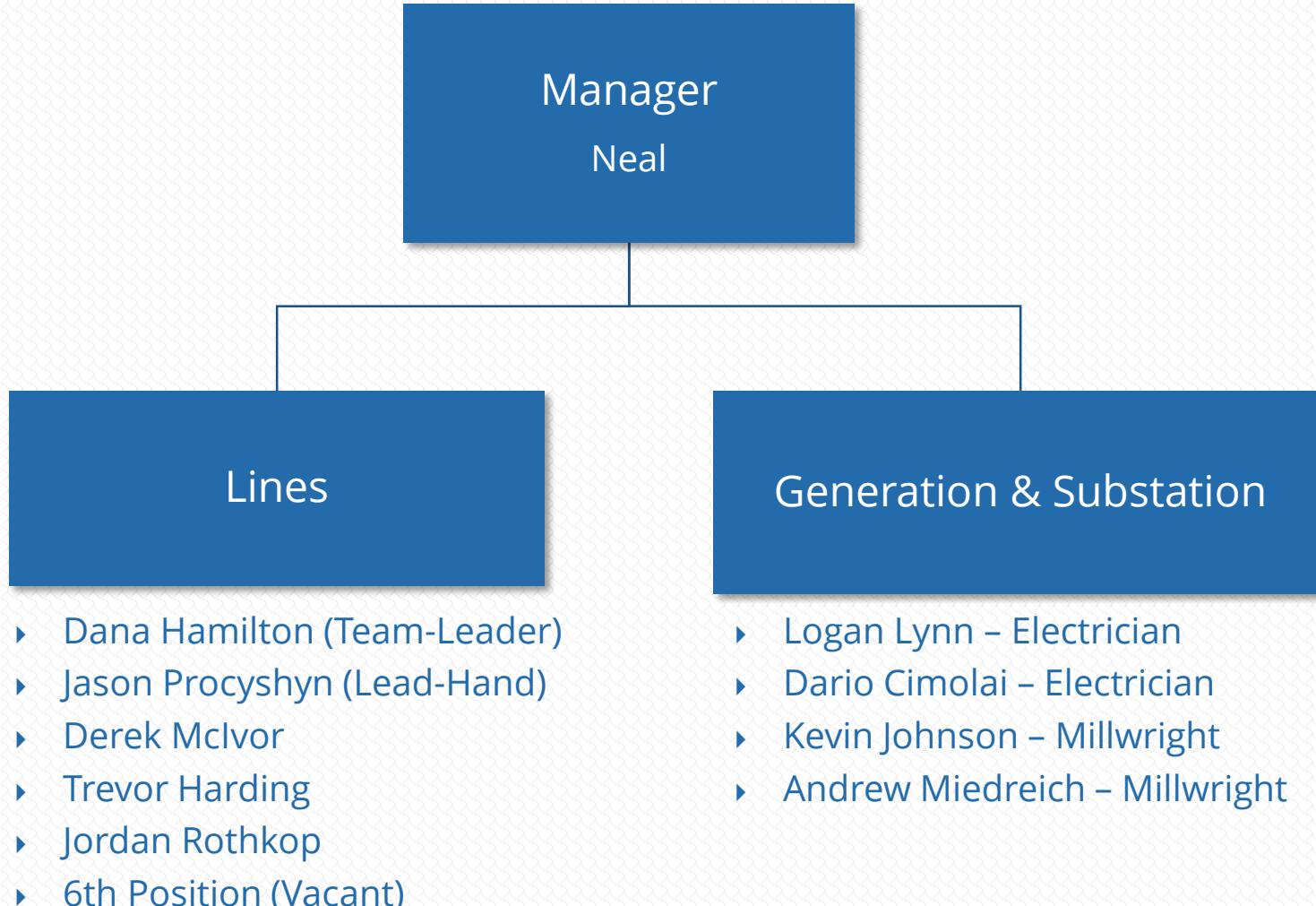


Generation, Transmission and Distribution

Neal Dermody



ORGANIZATION



SAFETY

No Lost Time Incidents

- 1 Near Miss at Bonnington GS, Brake Knock-out tool failed and broken part fell into close proximity to energized equipment.
- Dam Safety Review for Bonnington Generating Station underway. Completion by December 31st, 2022.
- Heavy Metal Hygiene Safety Gap Analysis Report
- City of Nelson Electrical Safety Committee was established and work is ongoing for the development of the City of Nelson Electrical Safety Program.
- System Safety and Lock-out program audited and changes being made to fill the process gaps identified.



STAFF TRAINING

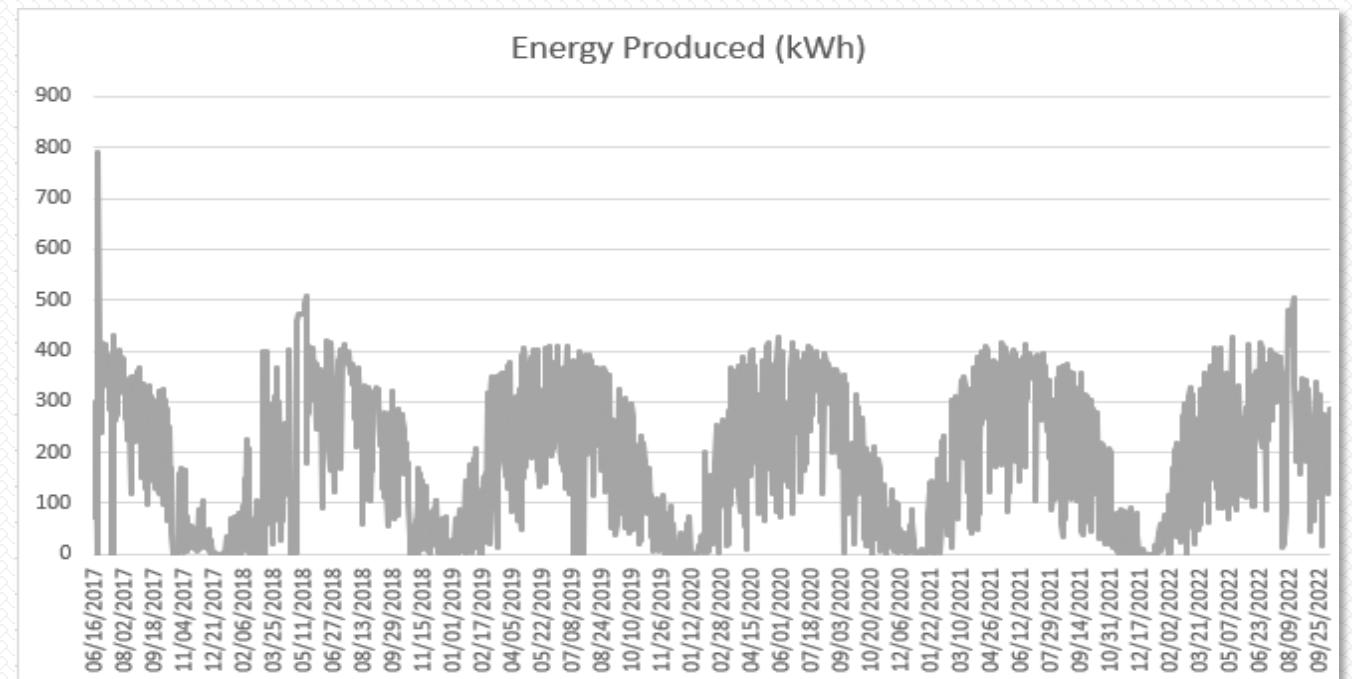
- CYME System Model training for Operations Management & Designers to work in Distribution System model, this will enable future load studies, protection coordination and arc flash assessments. Scheduled for November 2022.
- Developing formalized safety, regulatory and trades specific training with the assistance of the “SafeTapp” application.



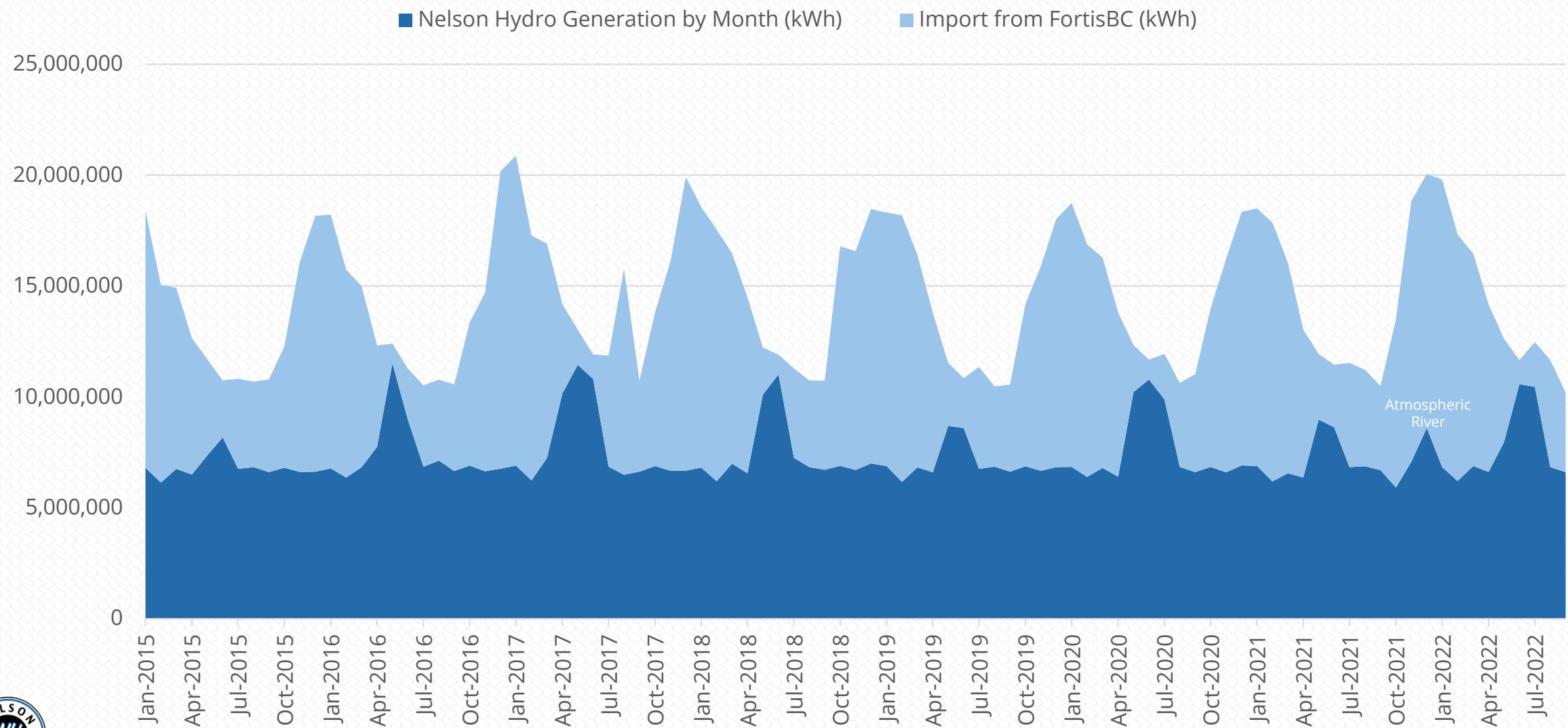
TRAINING MATRIX

SOLAR GENERATION

- Solar Energy Production continues to be steady following seasonal trends.
- Required maintenance is minimal.
- Need to address training NH electricians on the intricacies of the installation.
- Invest in “Critical Spares” or long lead-time components. Costs anticipated are minimal.

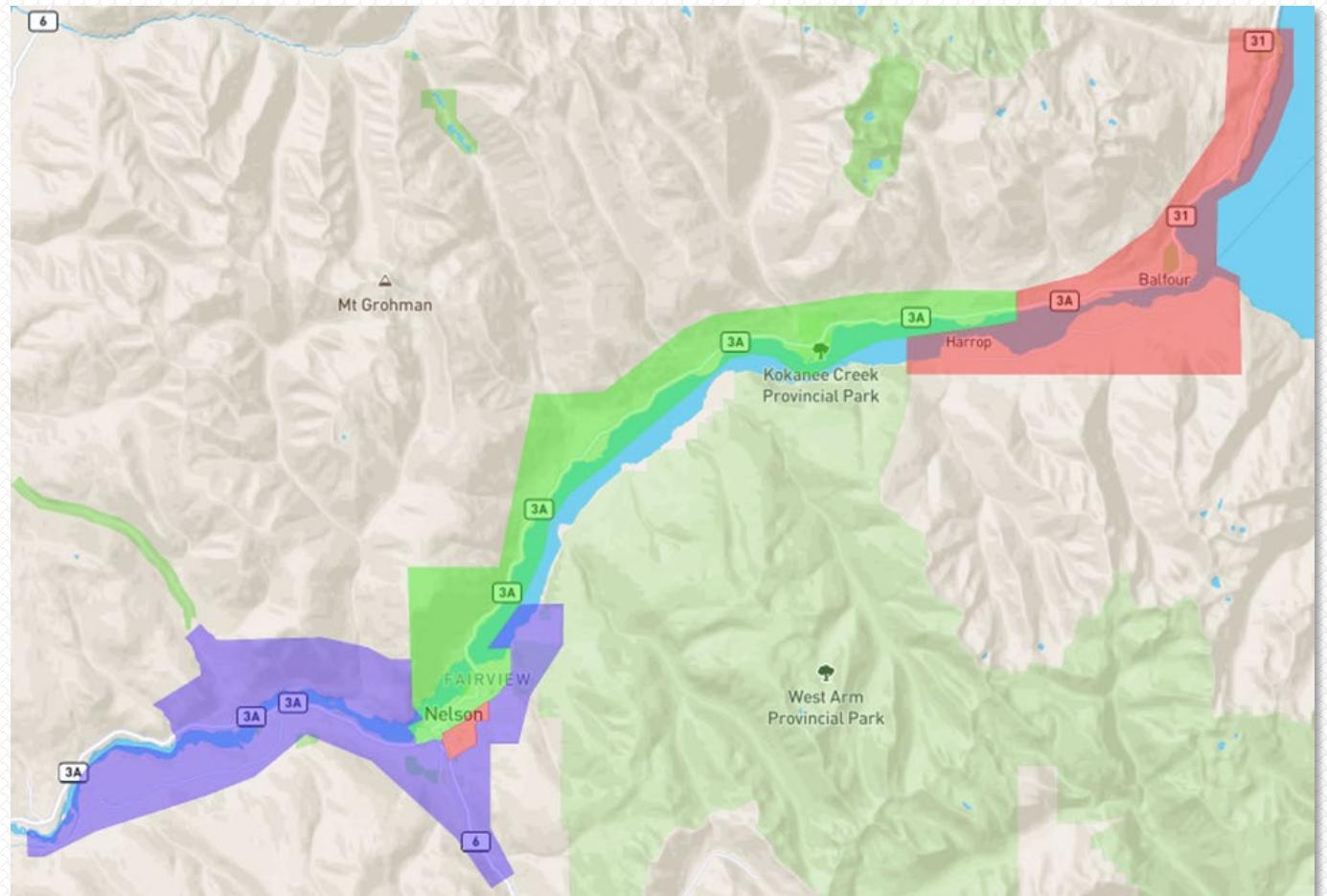


ENERGY CONSUMPTION



5-YEAR VEGETATION MANAGEMENT PLAN

- To be effective, the Integrated Vegetation Management Plan needs to be dynamic.
- The plan will be reviewed and updated annually to reflect changes in the system, best management practices and resources.
- Adjustments will be made to the program based on the results.
 - Staff and Contractor Expenses
 - Outage Cause, Frequency, Duration
 - Information on Major Events

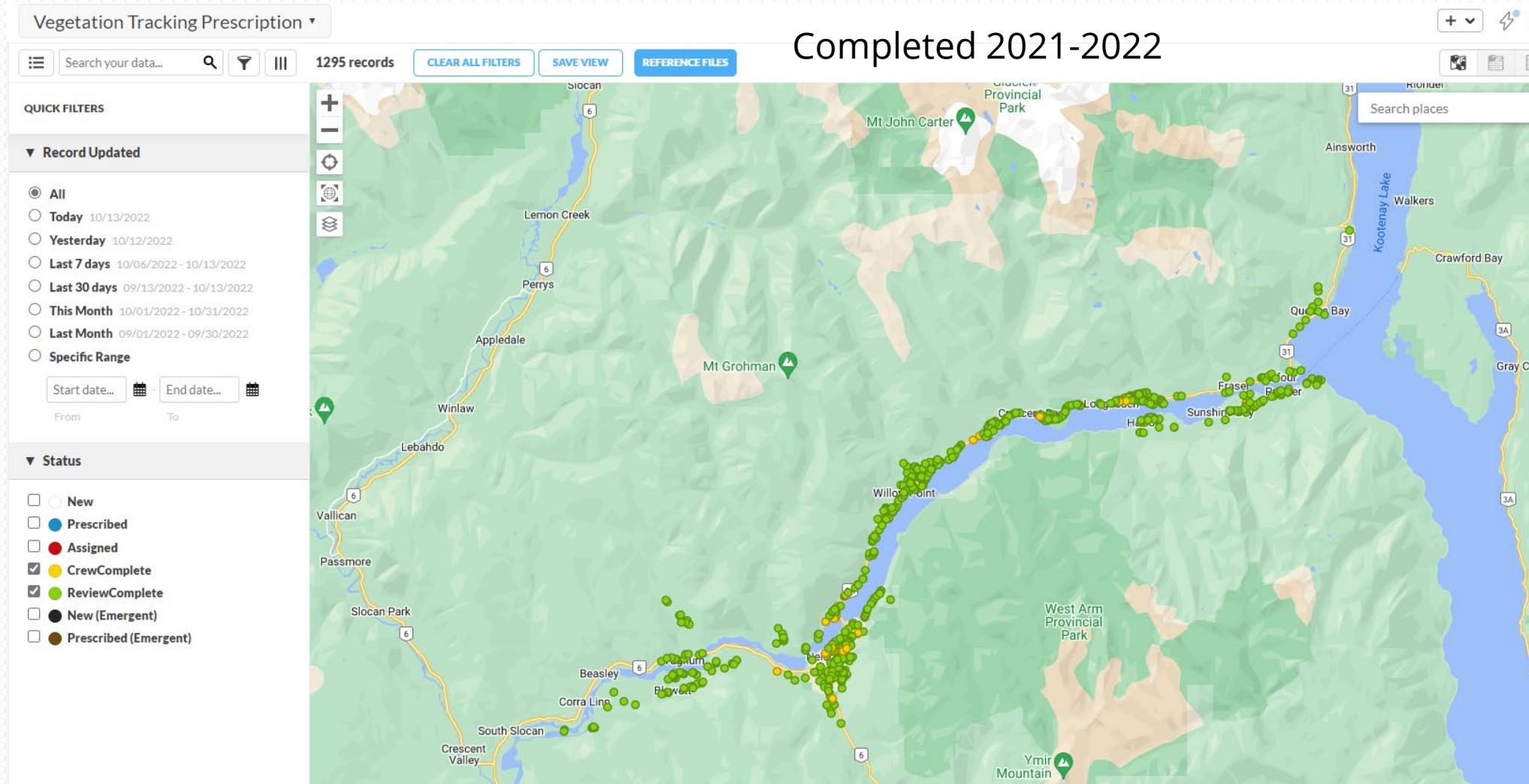


Three Year Cycle Map: Zone 1 - Purple, Zone 2 - Green, Zone 3 - Red

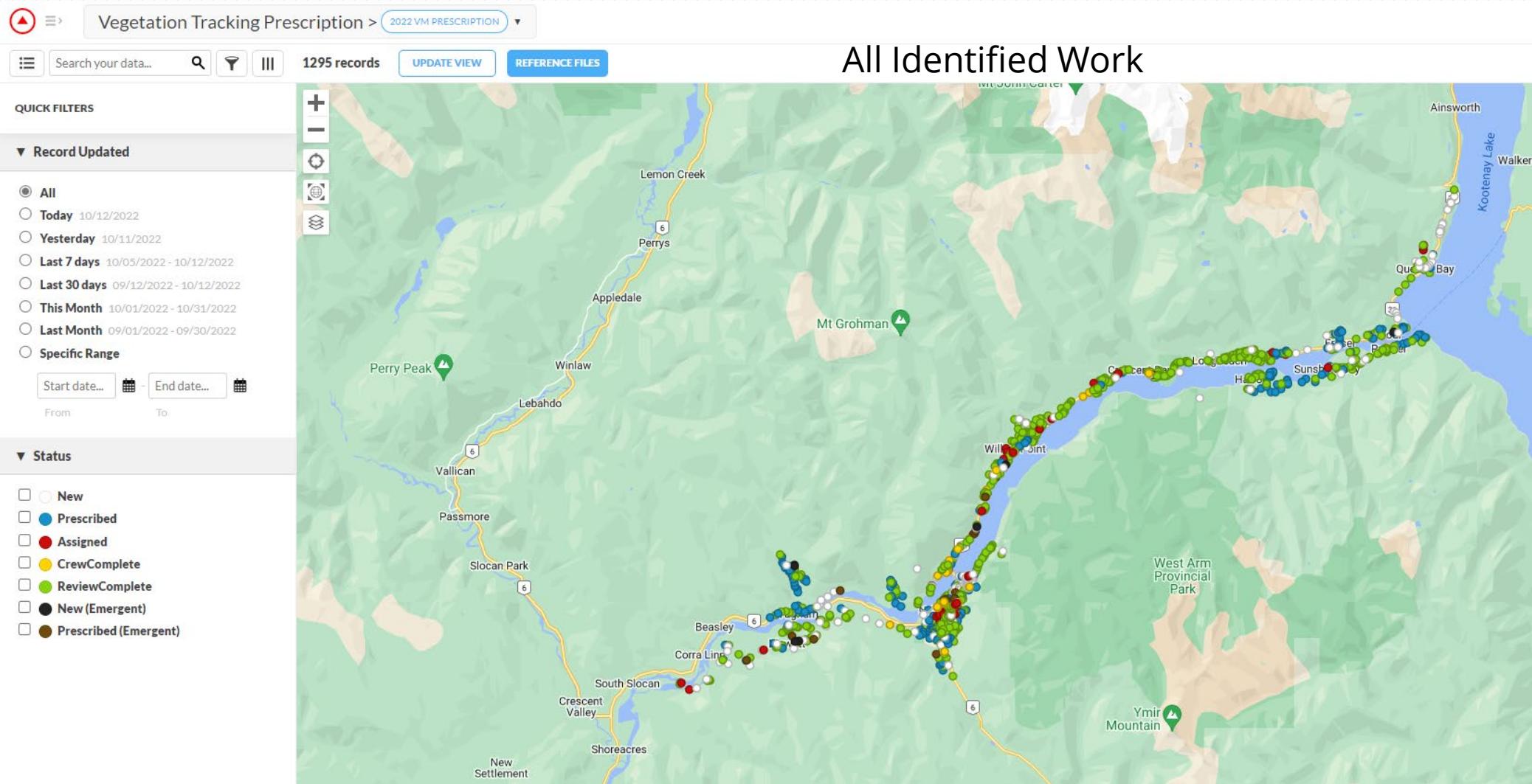
5 YEAR VEGETATION MANAGEMENT PLAN

Year and Budget	Focus Zone	Major Focus Zone	Priority Corridor Zone 1 & 3 (60kV Trans. Lines)	Brushing / Application Non-Focus Zones	Hazard Tree Felling Non-Focus Zones	Emergent Spots Non-Focus Zones
<u>2022</u> \$850,000	2 - Green (West end of Johnston Rd. to Redfish Creek. Fairview and Downtown)	50% \$425,000	10% \$85,000	10% \$85,000	20% \$170,000	10% \$85,000
<u>2023</u> \$885,000	1 - Purple (South Shore and Rosemont, Grohman Creek, Taghum)	55% \$486,750	8% \$70,800	8% \$70,800	20% \$177,00	9% \$79,650
<u>2024</u> \$678,000	3 - Red (Redfish to Coffee Ck., Harrop/Procter, Uphill City)	60% \$406,800	6% \$40,680	6% \$40,680	20% \$135,600	8% \$54,240
<u>2025</u> \$691,000	2 - Green (West end of Johnston Rd. to Redfish Creek. Fairview and Downtown)	65% \$449,150	5% \$34,550	5% \$34,550	20% \$138,200	5% \$34,550
<u>2026</u> \$712,000	1 - Purple (South Shore and Rosemont, Grohman Creek, Taghum)	70% \$498,400	5% \$35,600	5% \$35,600	20% \$142,400	0% \$0

VEGETATION PRESCRIPTION TRACKING & REPORTING

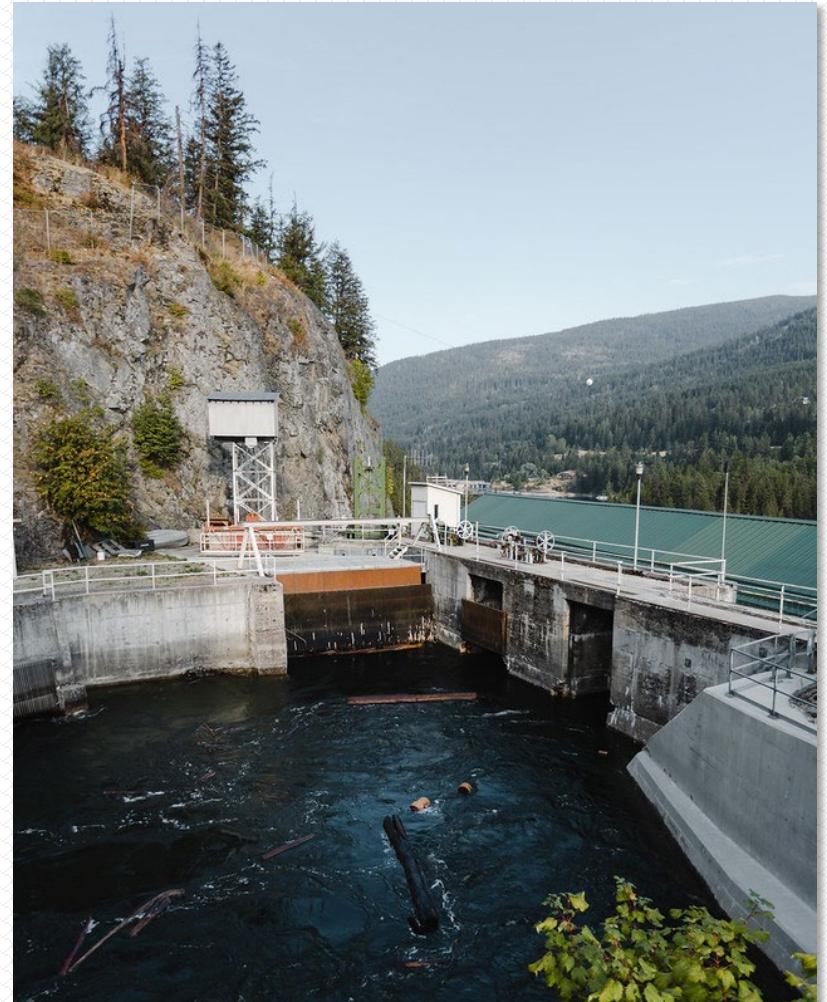


VEGETATION PRESCRIPTION TRACKING & REPORTING



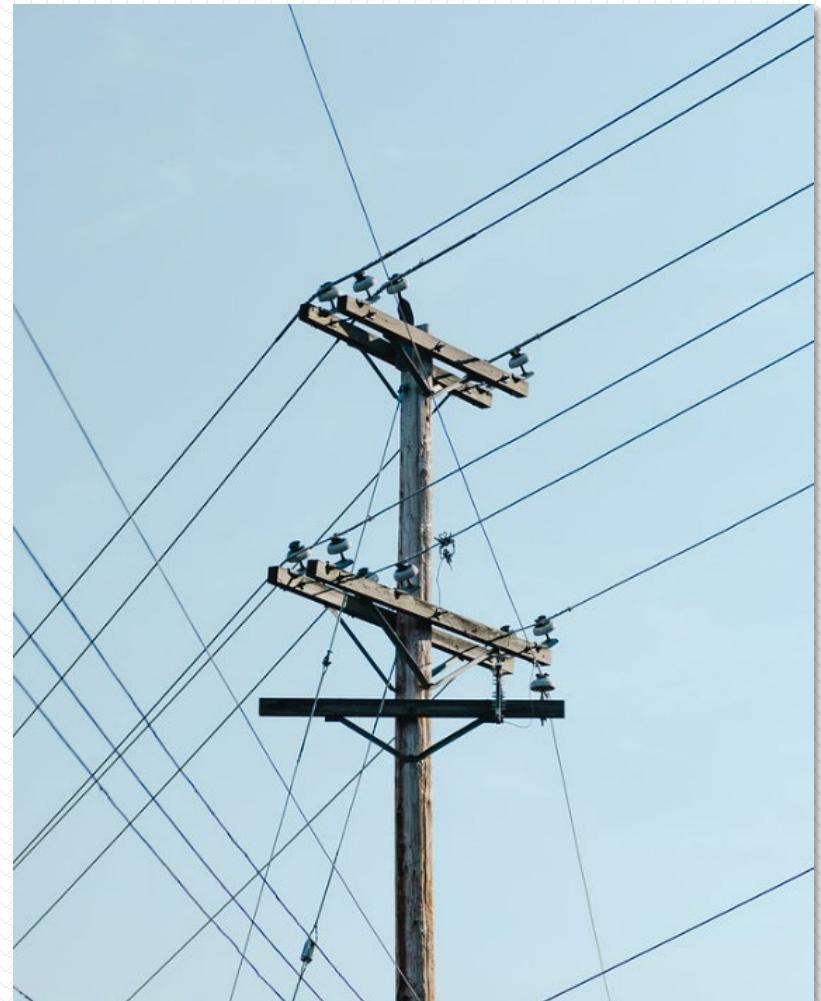
POWER PLANT

- G5 Turbine Major overhaul in progress, timely work as many worn parts have been discovered.
- G2 Turbine Linkage replaced
- Forebay Debris Removal



LINES

- 2022 Test & Treat. 2022 Pole Replacement Tender & Award. Scheduled completion before December.
- Northshore Volt VAr Optimization (VVO) scheduled implementation in November 2022. Wireless challenges on the Northshore are delaying completion.
- CYME® System Model: Protection Coordination, Arc Flash Assessment, Settings Adjustment for Staff Safety, On-going.
- Review of NH Vehicle Fleet aligned to Line Department Vision 2024.



SUBSTATION

- Awarded 2021 Transformer Tender to EATON and still waiting on delivery of transformers.
- 2022 Transformer Tender awarded.
- Obsolete oil-filled equipment has been removed from Mill St substation.
- Preventative Maintenance deferred to 2023 as a result of schedule pressure



TEST & TREAT ⇔ POLE REPLACEMENT

- 8 Year Pole Test & Treat Cycle eastern half of the Northshore was identified for testing.
 - 123 poles to be replaced
 - 3,908m of copper replaced
- Tenders were significantly over budget however still room in the capital budget to complete work this year.

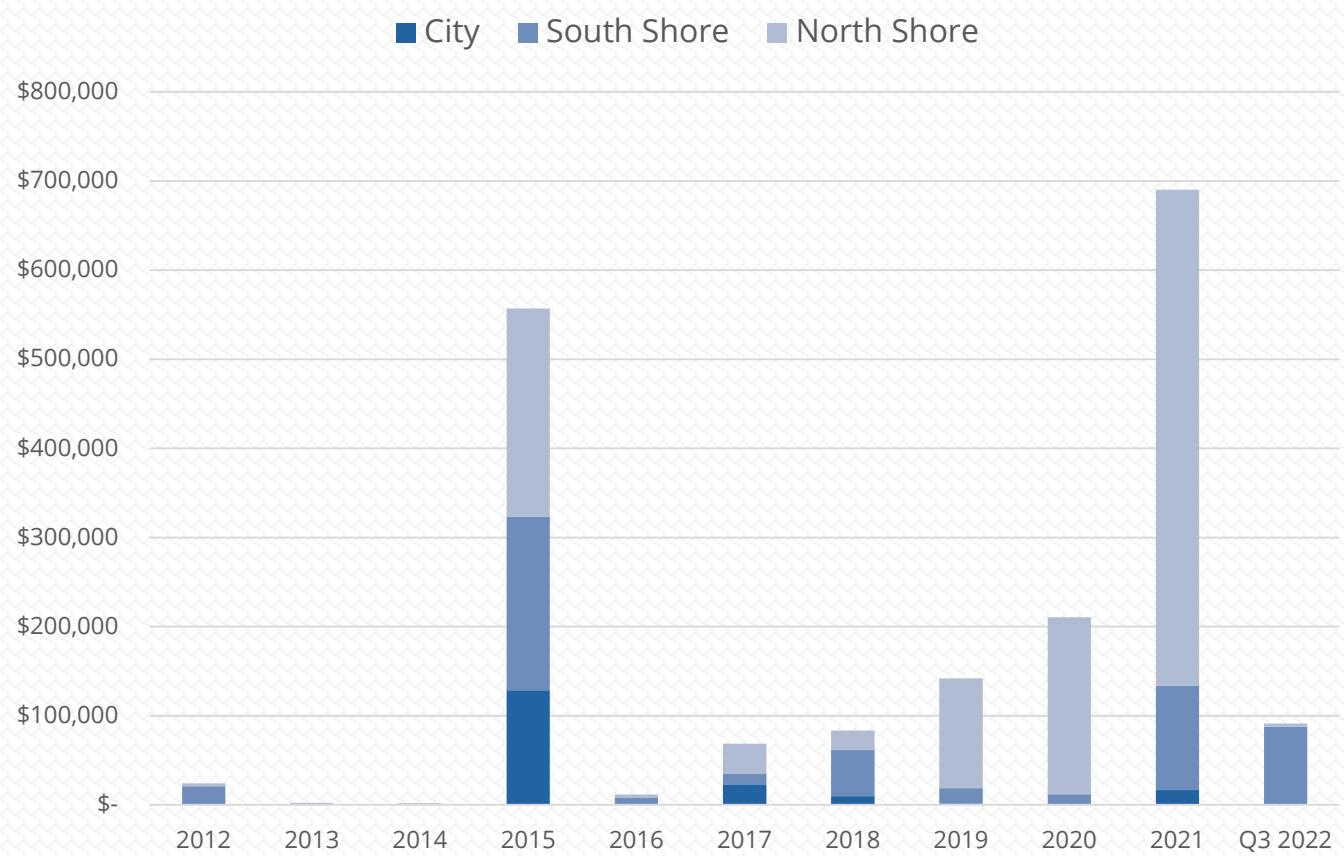


Source: Pole Saver

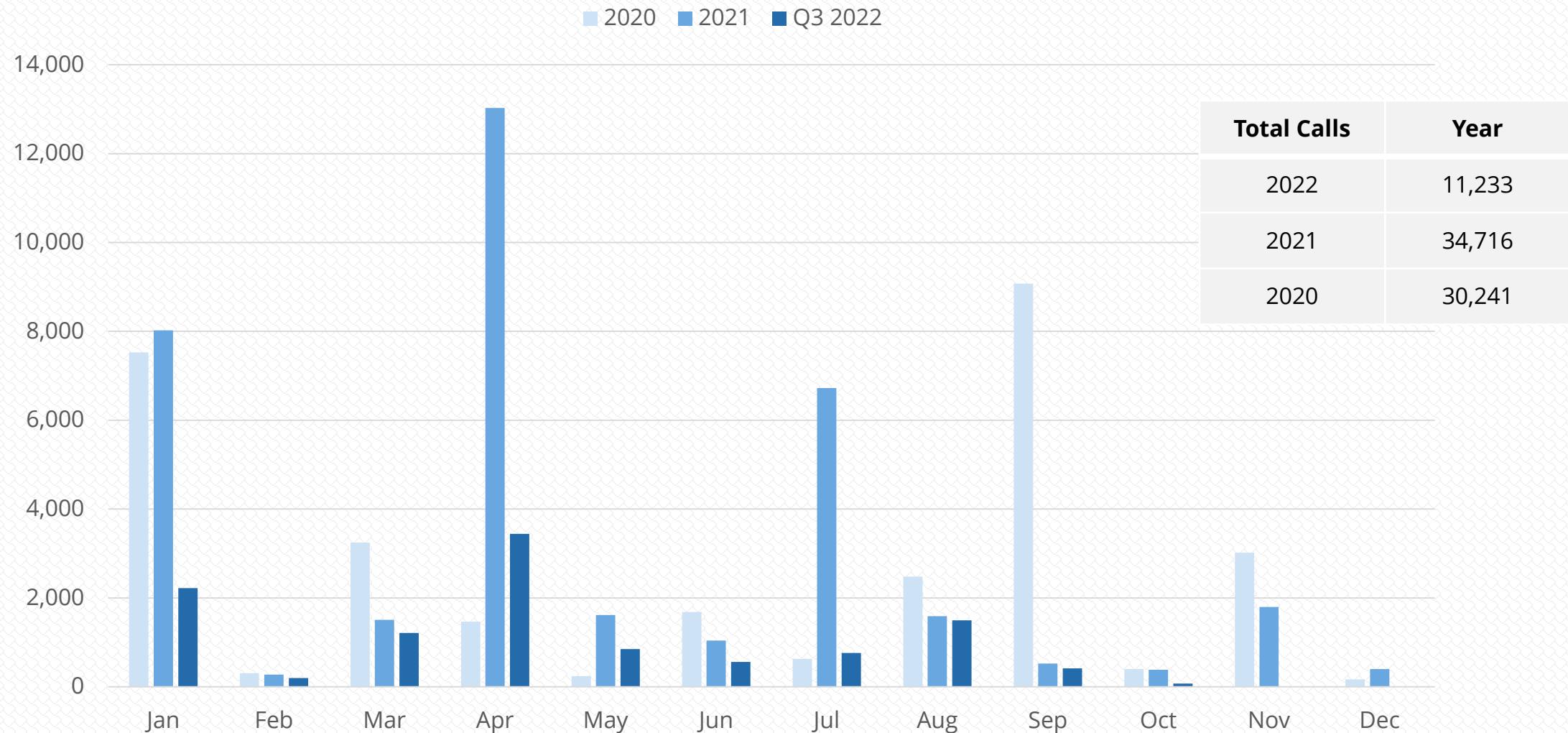
MAJOR STORM EXPENSE

- 2022 significantly dropped as no major storms *yet*.
- 2016-2021 was trending significantly upward.
- As the vegetation management program becomes more mature, it should mitigate the extent of damage that is currently intangible.

Major Storm Costs

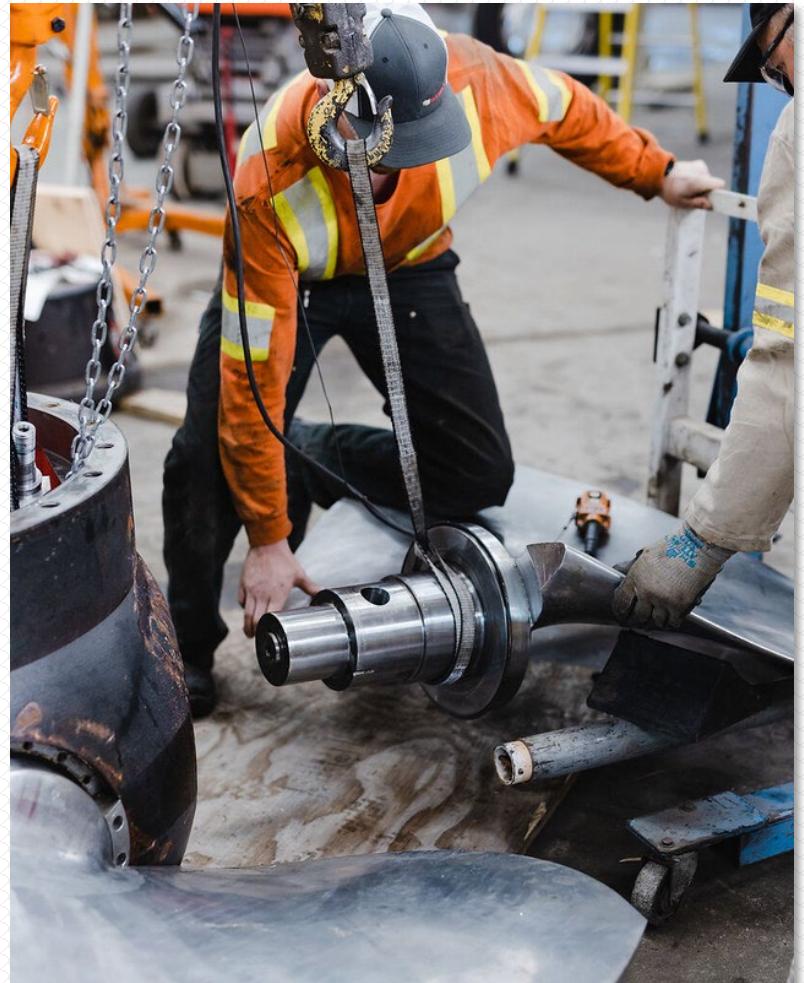


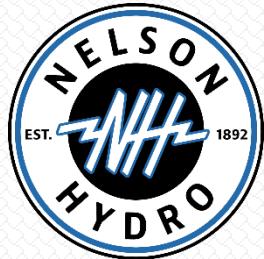
CALLS TO OUTAGE INFORMATION LINE



2023 OPERATIONS & LINE

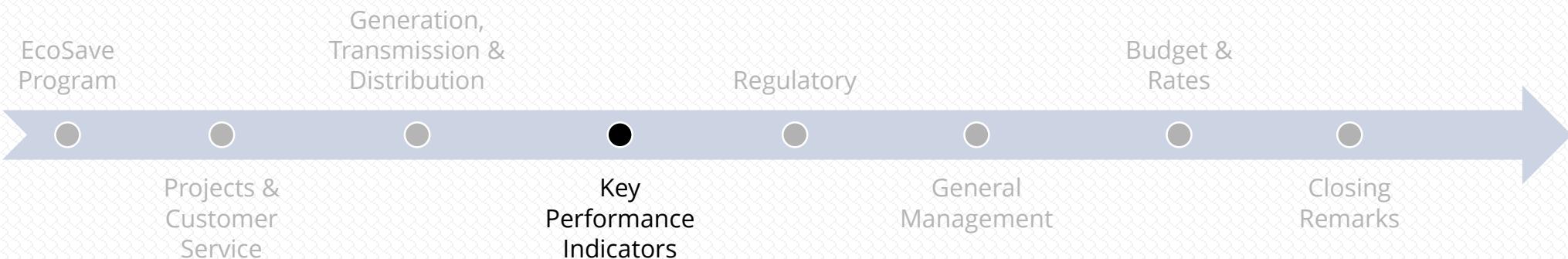
- Asset Management Framework aligns:
 - Dam Emergency Plan (DEP),
 - Operations, Maintenance and Surveillance Plan (OMS),
 - Preventative Maintenance (PM),
 - Computerized Maintenance Management System (CMMS),
 - Equipment Health Rating,
 - Reliability Centered Maintenance, and
 - Directive from Dam Safety Review.
- Continue to refine NH Outage Response Plan process, this is a living document to assist in the safe, efficient, expedited return of service to ratepayers.
- Deliver the Bonnington G5 Turbine Major Betterment (Extended Life of Asset)





Key Performance Indicators

Jillian MacKay



BALANCED SCORECARD

Key Performance Indicators (KPIs) measure business performance. All data is to the end of Q3 (Sep 2022).

FINANCIAL

Measures our financial performance comparing actual spend to budget.



CUSTOMERS

Measures new job inquiries and our response time as well as overdue accounts.

Measures our number of injuries, first aid incidents, and near misses.

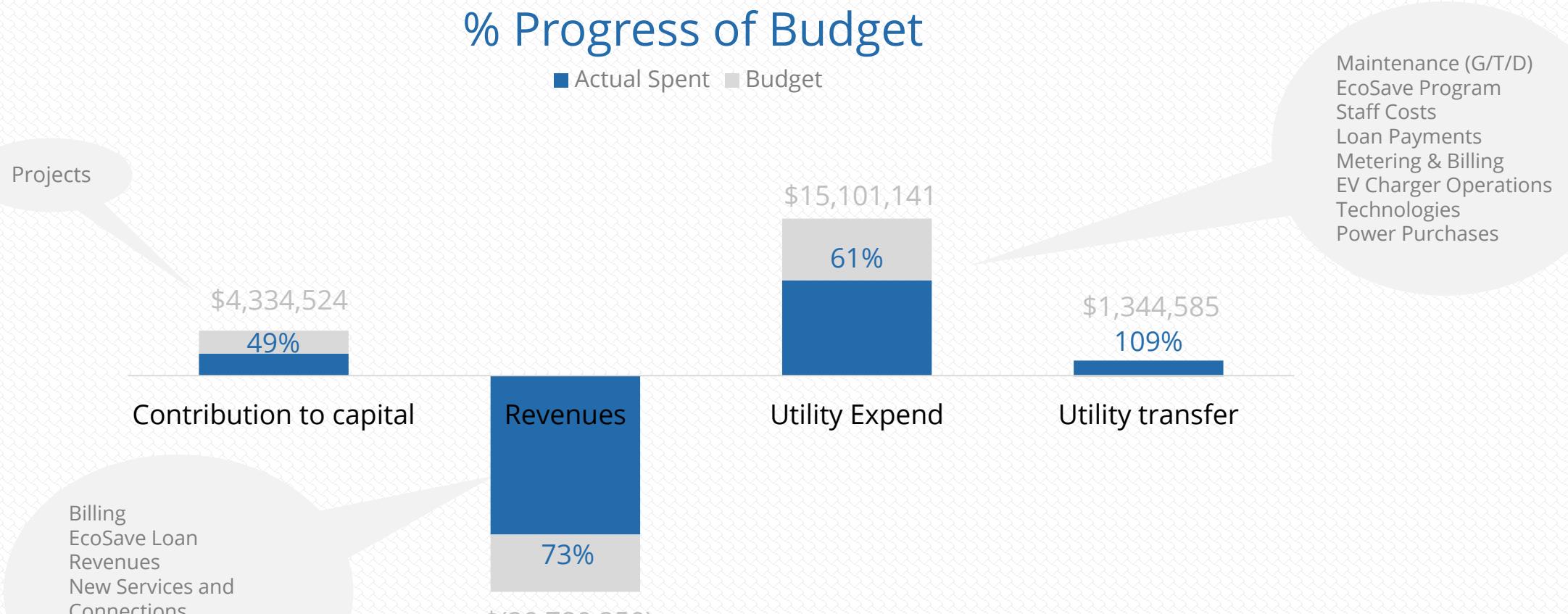
SAFETY

Measures our unplanned and planned outage durations and frequencies for customers within our service territory.

OPERATIONS

FINANCIAL PERSPECTIVE

The objective of the budget is to achieve \$0, that is, revenues offset contributions, transfers, and expenditures.

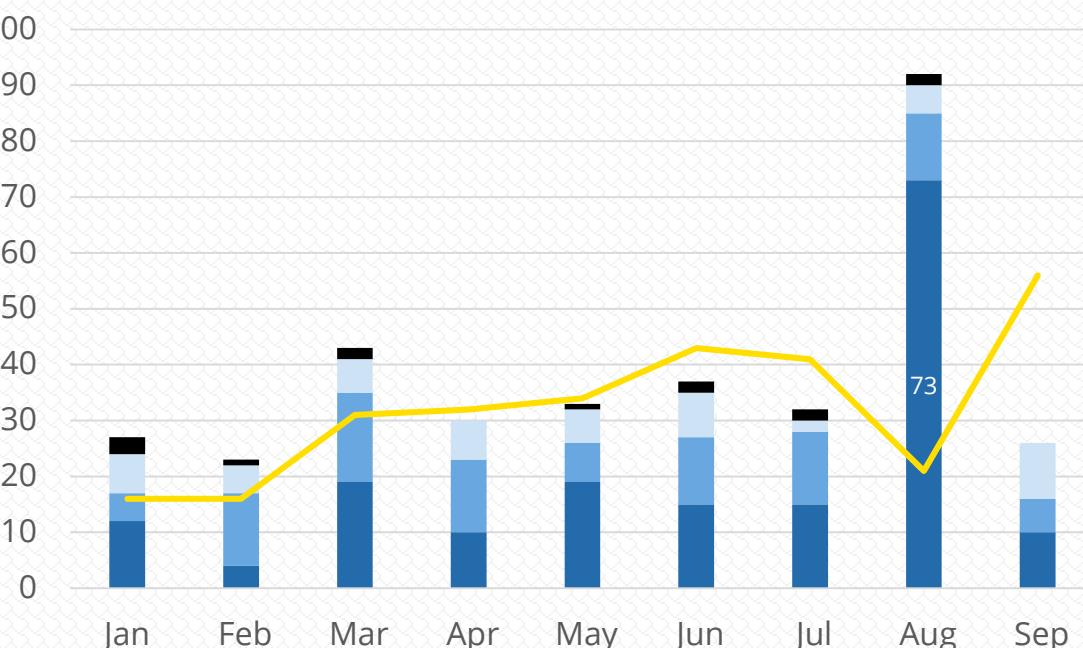


All data is to the end of Sep 2022.

CUSTOMER PERSPECTIVE

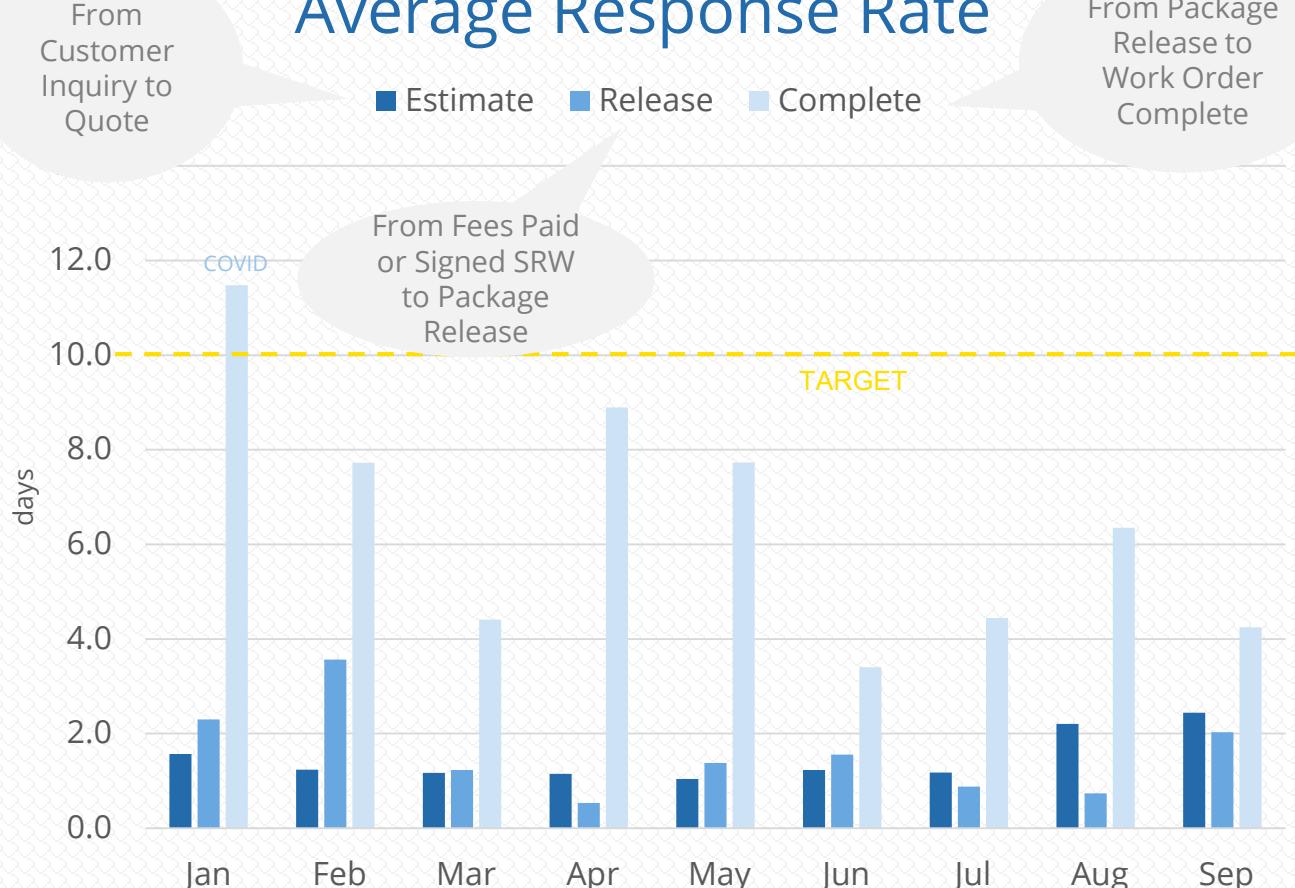
Nelson Hydro assists customers with new or changes to existing electrical services within its service territory.

Customer Inquiries by Type



All data is to the end of Sep 2022.

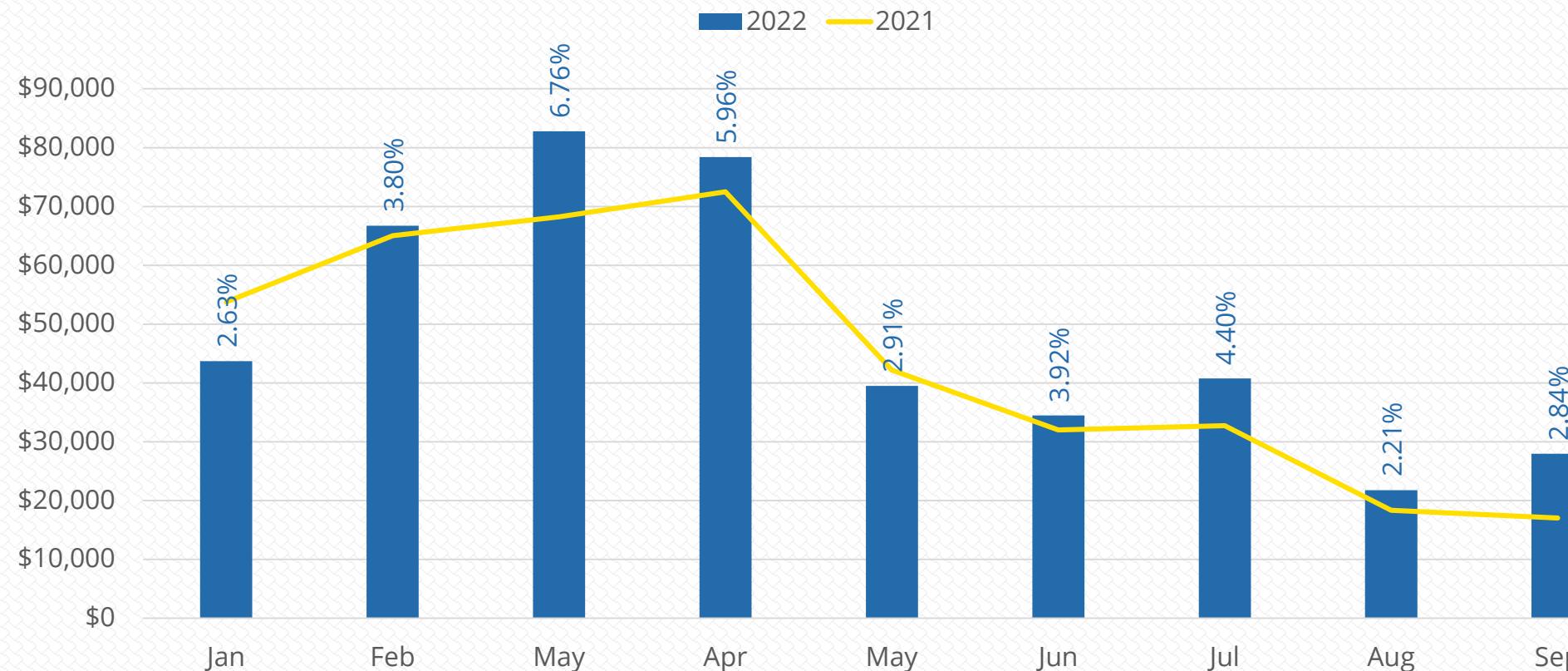
Average Response Rate



CUSTOMER PERSPECTIVE

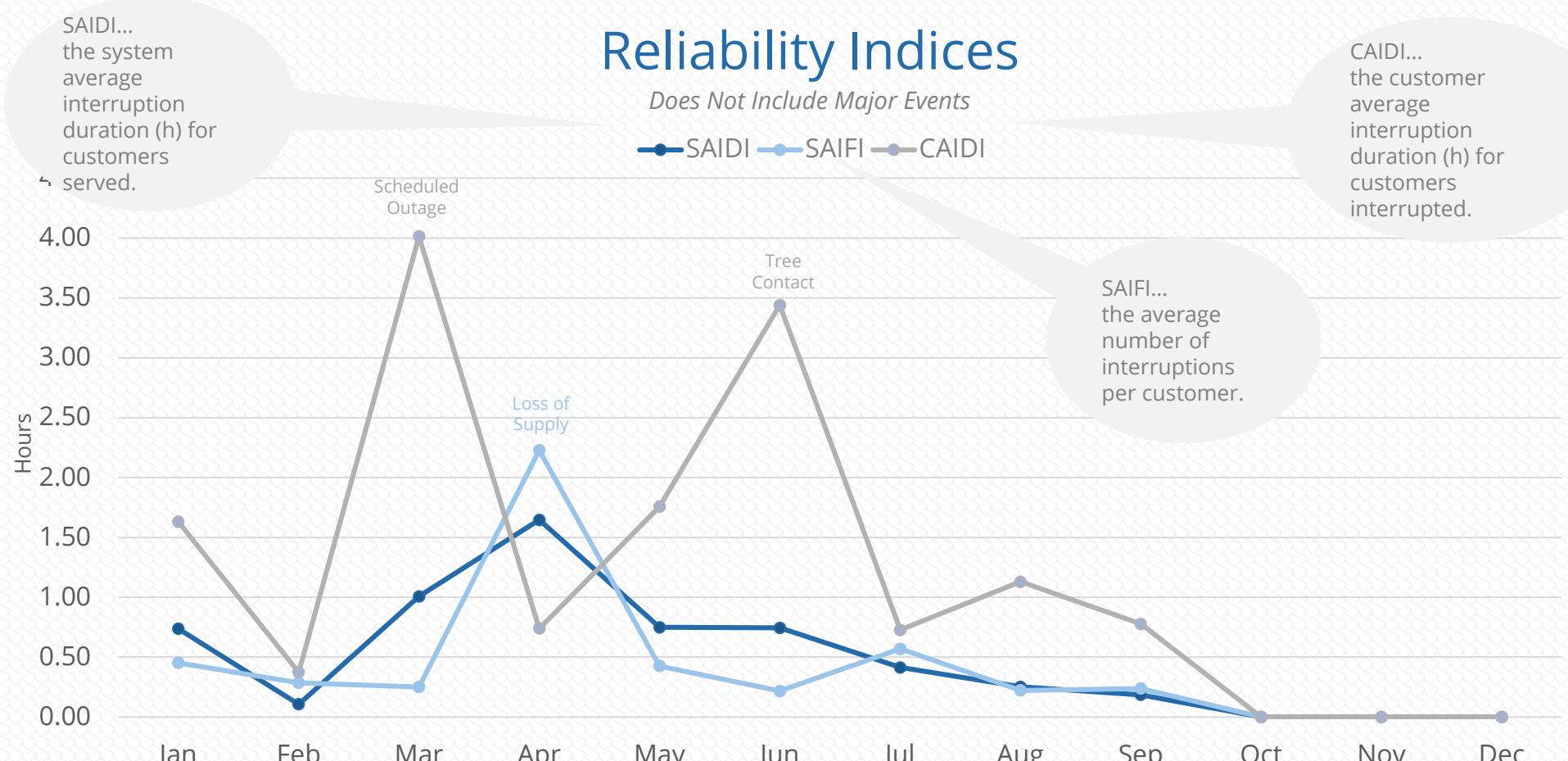
Nelson Hydro tracks accounts that have not paid the balance owing on their Electric Bills.

Total Amount Overdue by Month



OPERATIONAL PERSPECTIVE

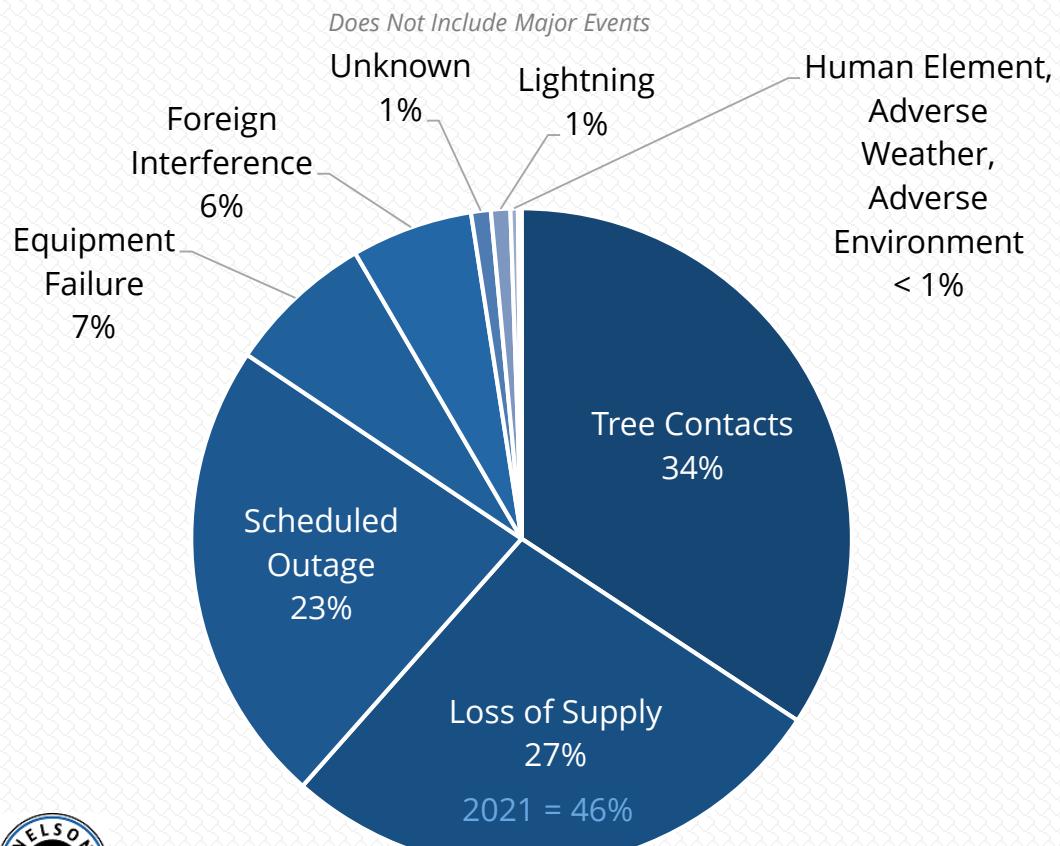
SAIDI, SAIFI, and CAIDI are Reliability Indicators used by Electric Power Utilities across North America.



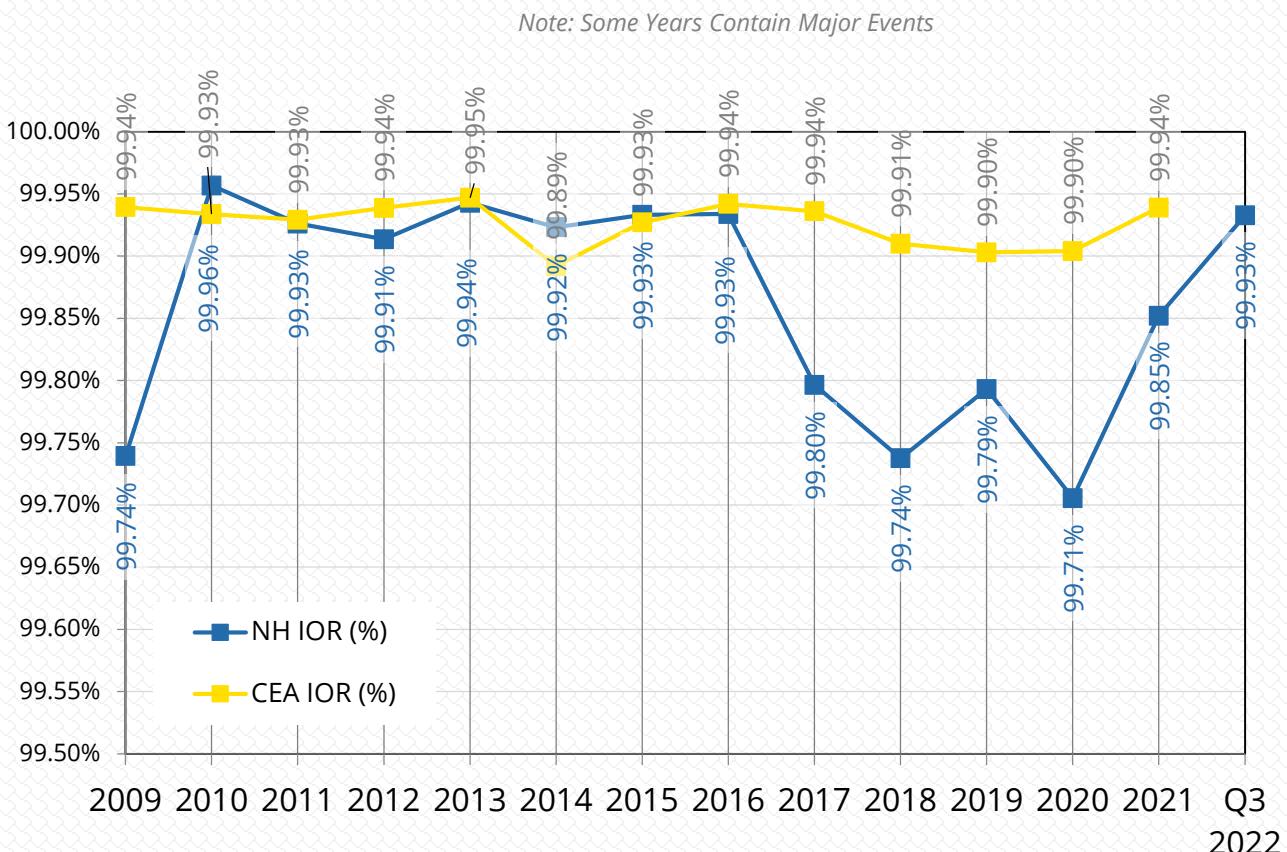
OPERATIONAL PERSPECTIVE

Major Event is any outage that affects more than 25% of customers and is longer than 110 minutes.

Outages by Cause



Index of Reliability

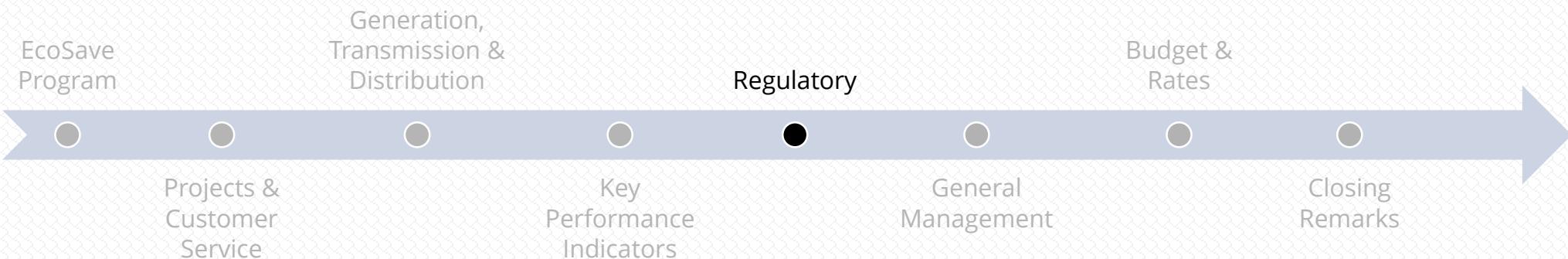


All data is to the end of Sep 2022.



Regulatory

Gabe Bouvet-Boisclair



COST OF SERVICE ANALYSIS (COSA) & RATE DESIGN

- On July 19, 2022 BCUC issued a Decision & Order approving the 2019 COSA subject to a number of modifications.
 - Significant achievement for utility as it now has, for the first time, an approved COSA that can be used for rate setting in annual Rural rate applications.
 - City does not agree with some of the directed COSA modifications (generation and power purchase allocation) and directives regarding utility's capital structure (deemed debt-to-equity ratio). Nelson Hydro will address these issues in a Reconsideration Application.
 - Decision did not address proposed rate design (would be premature given directed COSA modifications).



KEY PRINCIPLES FROM DECISION & ORDER

- “Postage stamp rates” cannot be applied between unregulated Urban area and regulated Rural area (i.e., rate differential acceptable where supported by COSA).
- Reaffirms that BCUC does not regulate Urban rates (Council has discretion on Urban rates, return, and reserve contributions).
- Rural rates must allow utility to earn a fair rate of return on equity.



FURTHER PROCESS RELATED TO PROCEEDING

- On September 29, 2022 Nelson Hydro filed a letter with the BCUC proposing future steps as follows:
 - Reconsideration Application to appeal errors in BCUC Decision and Order to be filed by December 2, 2022.
 - 2023 Revenue Requirements Application (RRA) to be filed by end of October using the approved COSA model.
 - The 2023 RRA will include a request for a deferral account that will enable Nelson Hydro to recover revenue that it would be eligible to receive should the Commission's decision on the Reconsideration Application result in a higher rate increase than submitted.
- Nelson Hydro re-filed the Modified COSA As Directed on October 3rd, 2022 as a Compliance Filing.
 - The Modified COSA does not support a Rural rate increase based on 2019 figures
 - Nelson Hydro recommended that no rate design changes be made based on the 2019 modified COSA results.



2023 REVENUE REQUIREMENTS APPLICATION

- Application will be for a Rural Rate increases only (consistent with BCUC jurisdiction).
- 9.87% rate increase is required based on the results of the Modified COSA As Directed using 2023 budget figures.
- No individual rate class adjustments are contemplated at this time.
- Application will include deferral account request and storm reserve request.



HYDRO SERVICES BYLAW UPDATE

Planned Changes

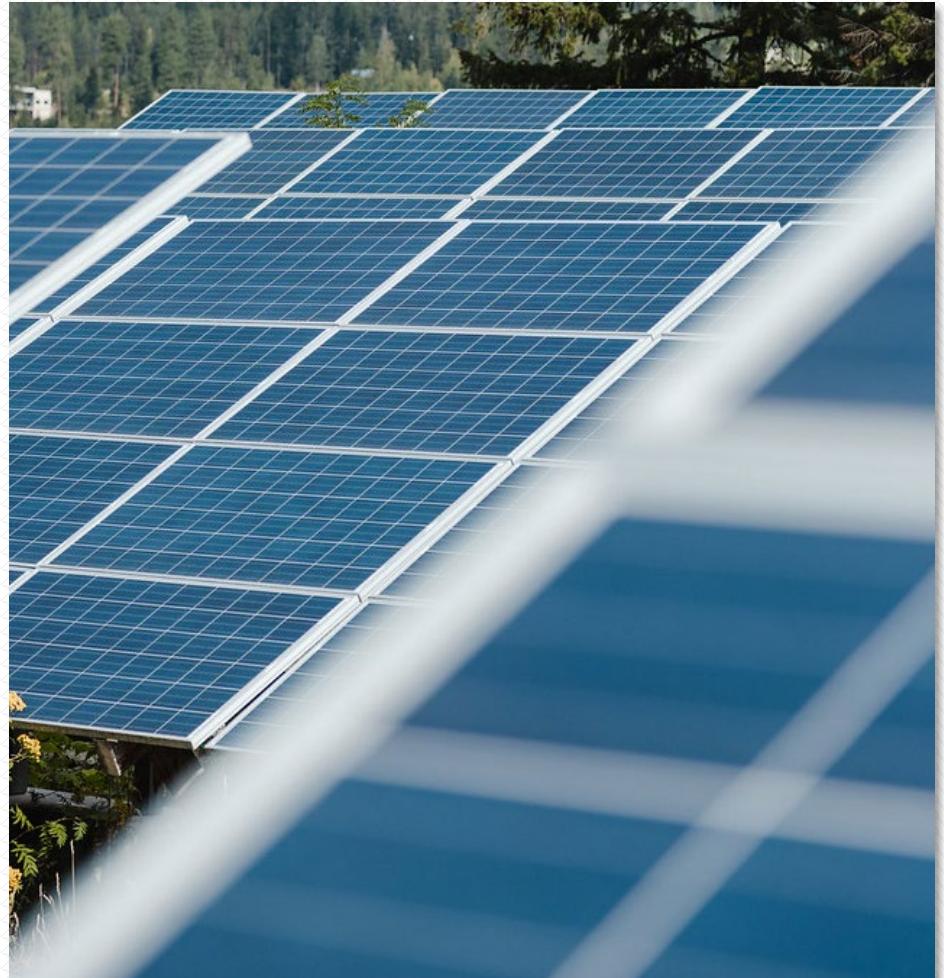
- General clarification and modernization of language and references
- Language added to acknowledge and clarify the Landlord – Tenant – Nelson Hydro relationship throughout the document
- Update / create rates and provide clarifications to Net Metering, Independent Power Producers, EV Chargers, Industrial Computing and Street lighting



HYDRO SERVICES BYLAW UPDATE

Status

- Originally planned for submission in July 2021
- Conducted some stakeholder engagement in spring 2021
- Delayed due to the ongoing COSA-RDA and 2021 GRA proceedings
- Preparing for submission in the spring of 2023
- Will bring to Council once the COSA and 2023 RRA proceedings are complete



OTHER REGULATORY PROCEEDINGS

BC Municipal Utilities Inquiry (BCMUI)

- BC Municipal Electrical Utilities (BCMEU) are registered Intervenors
- Ensure municipalities retain an exemption from the BCUC

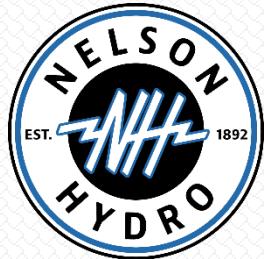
Generic Cost of Capital (GCOC)

- Hearings being held in Vancouver to review FortisBC benchmark filings
- Consideration for municipal capital structure when setting benchmark utility guidelines

FortisBC 2023 Rate Review

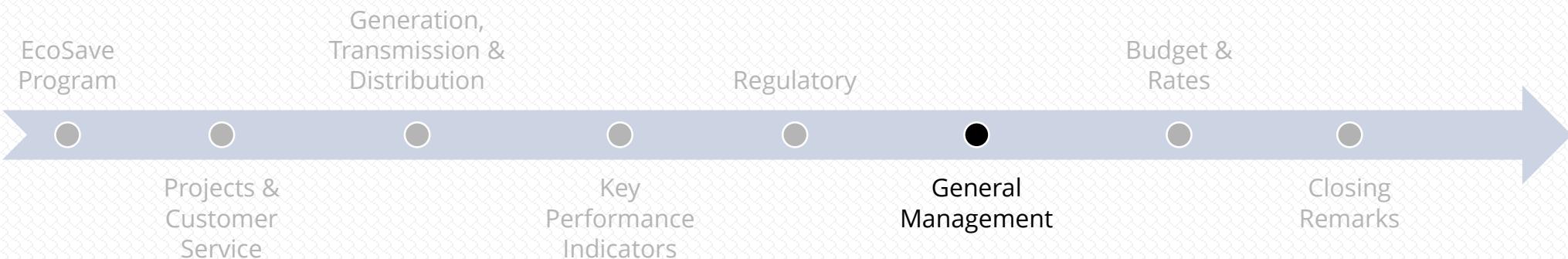
- BC Municipal Electrical Utilities (BCMEU) are registered Intervenors
- Monitoring impacts on wholesale rates, reliability and efficiency





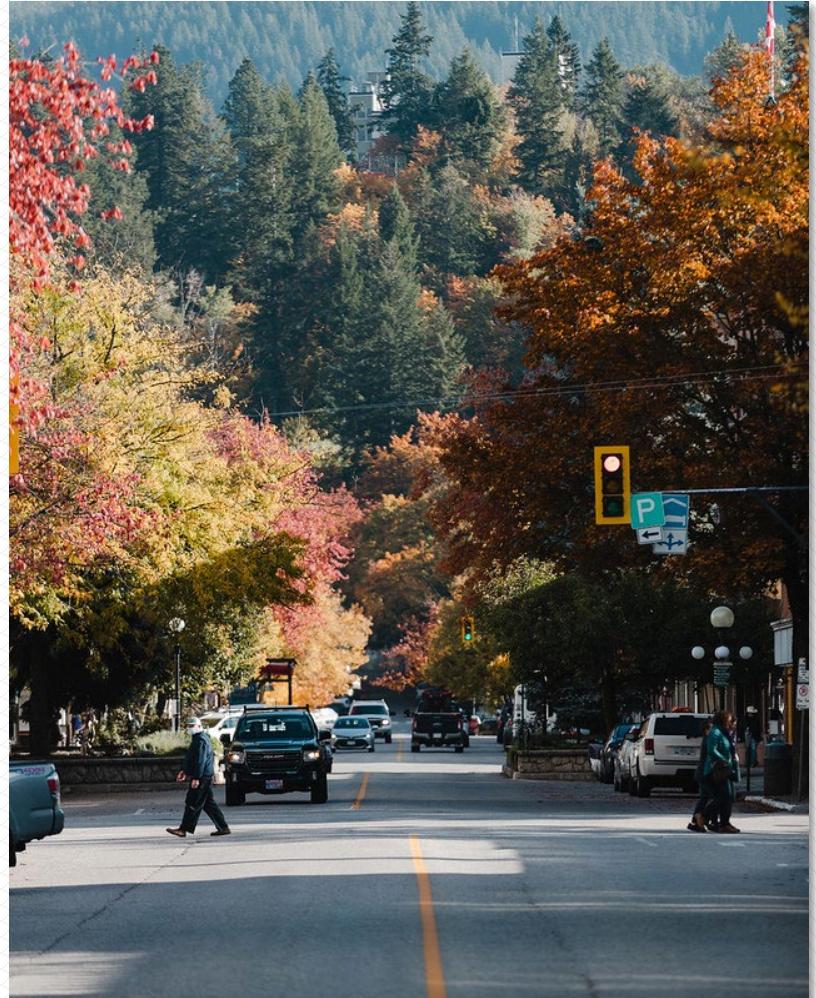
General Management

Scott Spencer



COMMUNICATIONS

- 2,520 customers to date using the online eBilling Account Portal (23%)
- Implemented Voyent Alert to improve Outage Communication
 - Scheduled Outage notifications to start in November 2022
- Budget Open-House held 29 September 2022
- Engaged Tamarack Media for communications and branding
- Conducted Communications Survey and created a 5-Year Plan
- Created Nelson Hydro Facebook and Instagram accounts



NEW BRANDING



NELSON
HYDRO



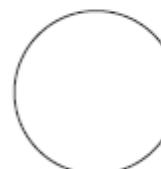
True Blue
Pantone 2175
CMYK 97 51 0 0
RGB 36 107 172
#246BAC



Black
Pantone Process Black
CMYK 0 0 0 100
RGB 35 31 32
#231F20



Electric Yellow
Pantone Yellow
CMYK 0 1 100 0
RGB 255 222 0
#FFDDE0



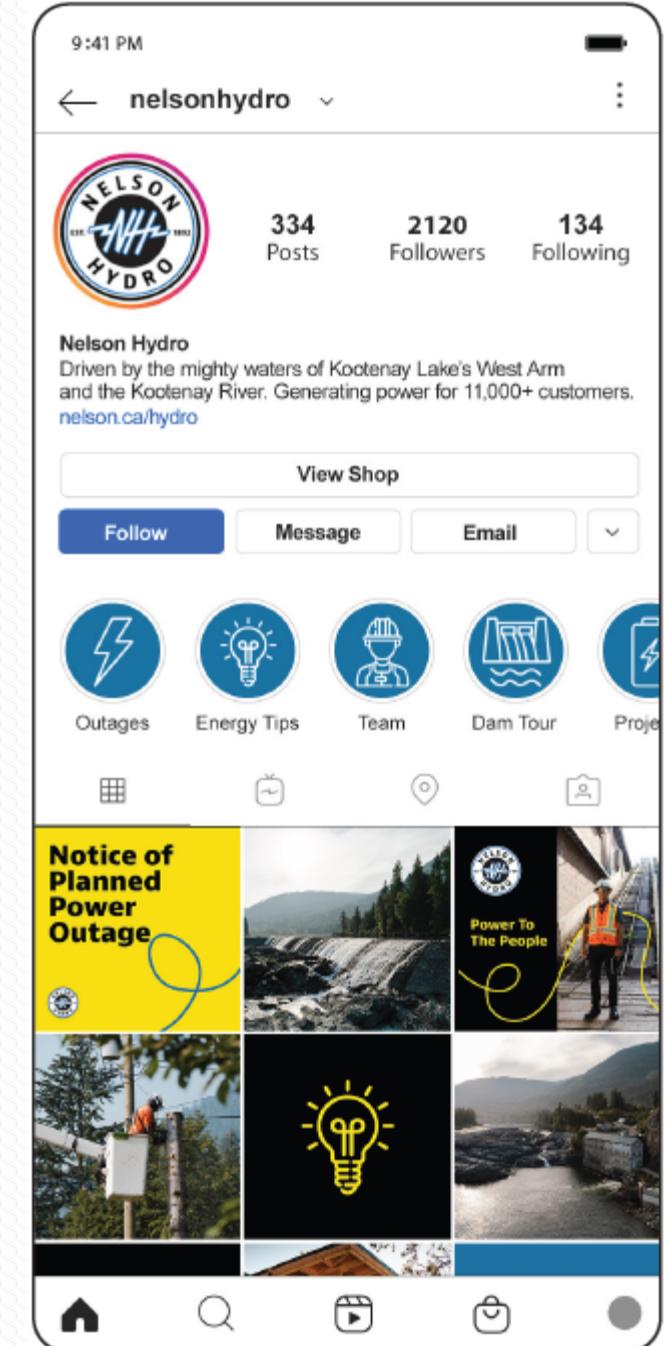
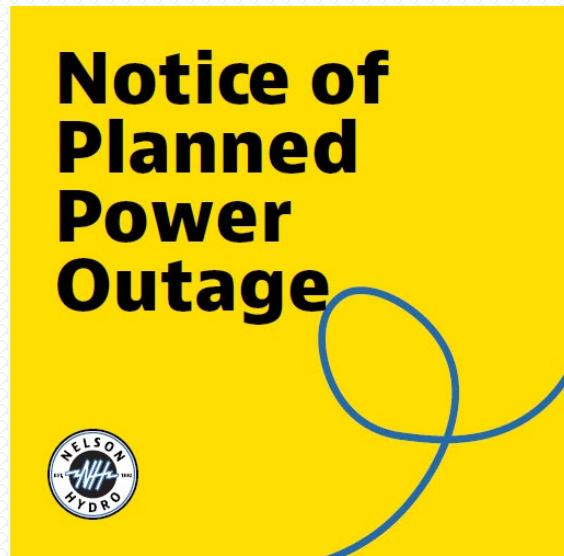
White
CMYK 0 0 0 0
RGB 255 255 255
#FFFFFF



Alert Red
Pantone 1665
CMYK 0 82 100 0
RGB 247 87 38
#F75726



NEW BRANDING



2023 COMMUNICATIONS

- Implement the 5-year Communications Plan
- Increased social media presence and content
- Expand the use of Voyent Alert for public communications
 - Vegetation management notifications
 - Unplanned outage notifications
- Customer-focused improvements to the Hydro webpages
- Continue to promote the use of the Online Account Portal



MANAGEMENT HIGHLIGHTS

Regulatory Activities

- Until recently have been less demanding in 2022
- Light at the end of the tunnel

Nelson Hydro Strategic Plan

- Clarified our Mission, Vision & Values
- 5-year road map for the organization



OPERATING BUDGET HIGHLIGHTS

	2022 Budget	2022 Year End Forecast	Forecast / Budget
Revenue Rates	\$20,305,650	\$20,420,795	101%
Revenue Other	\$474,600	\$512,800	108%
Total Revenue	\$20,780,250	\$20,933,595	101%
Power Purchases	-\$7,288,808	-\$7,392,722	101%
Operating Expenses	-\$7,812,333	-\$7,526,730	96%
Dividend / Return	-\$2,936,100	-\$2,936,100	100%
Available for Capital	\$2,743,009	\$3,078,043	112%
Capital Expenditures	-\$4,334,524	-\$4,115,607	95%
Capital Reserve	-\$1,591,515	-\$1,037,564	65%

OTHER STRATEGIC ACTIVITIES

BC Hydro Water Rights Agreement

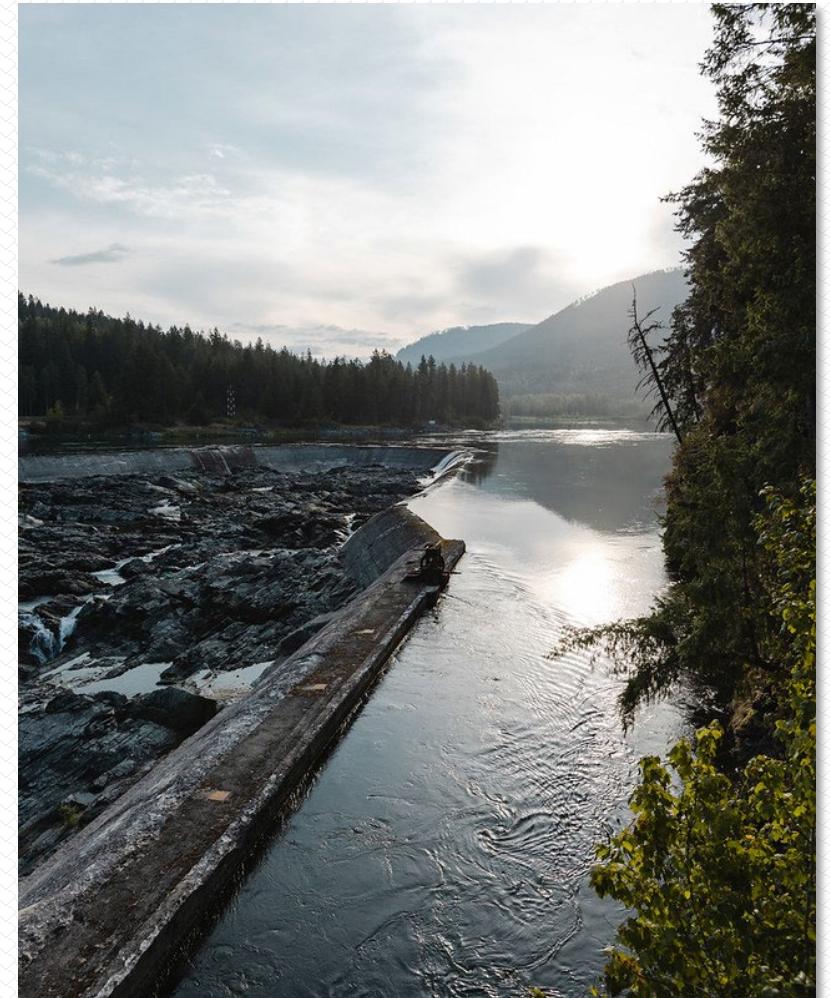
- No water sales to BC Hydro in 2022
- Will be sending BC Hydro a notice of Arbitration in the Fall of 2022

Telus Joint Use Agreement

- Final draft agreement with Telus Lawyers

FortisBC Joint Use Agreement

- Signed 5-year agreement effective January 1st, 2023
- Rates match those for all BC Municipal Electric Utilities



OTHER STRATEGIC ACTIVITIES

FortisBC Reliability Joint Continuous Improvement Committee

- Report on FortisBC ongoing reliability improvement initiatives
- Implemented a Quarterly Outage Data Reconciliation Process
- Issued a Joint Press Release on Danger Trees for Vegetation Management
- Updated the Joint Operating Order to reflect current Operations
- Partially Completed FBC-NH Protection Settings Review (Inter-ties Only)
- Completed a Mutual Aid Agreement for Outage Response through Western Regional Mutual Assistance Group (WRMAG)



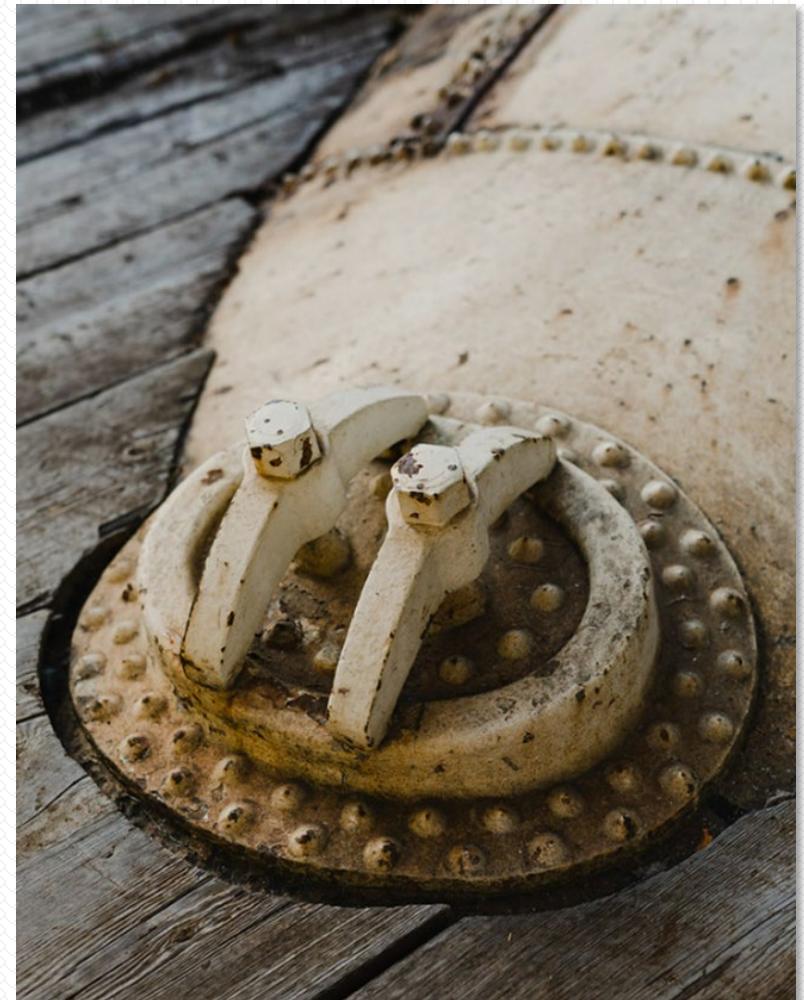
OTHER STRATEGIC ACTIVITIES

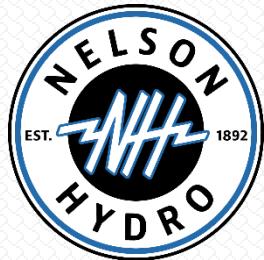
FortisBC Procurement of Rural Assets

- Due Diligence activities by FortisBC complete
- Letter received on July 19th, 2022 stating that a purchase of Nelson Hydro's rural distribution assets only is not practicable.

Restructuring of Nelson Hydro

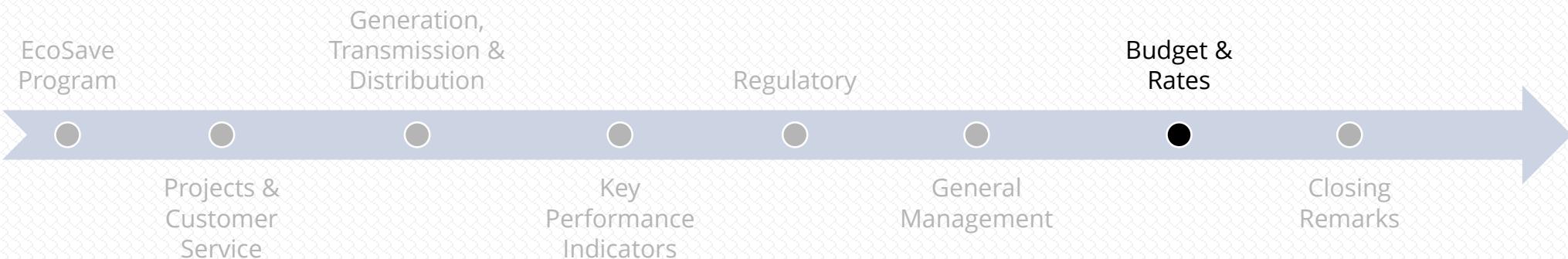
- Preliminary discussions have not evolved with resources focused on finalizing the COSA



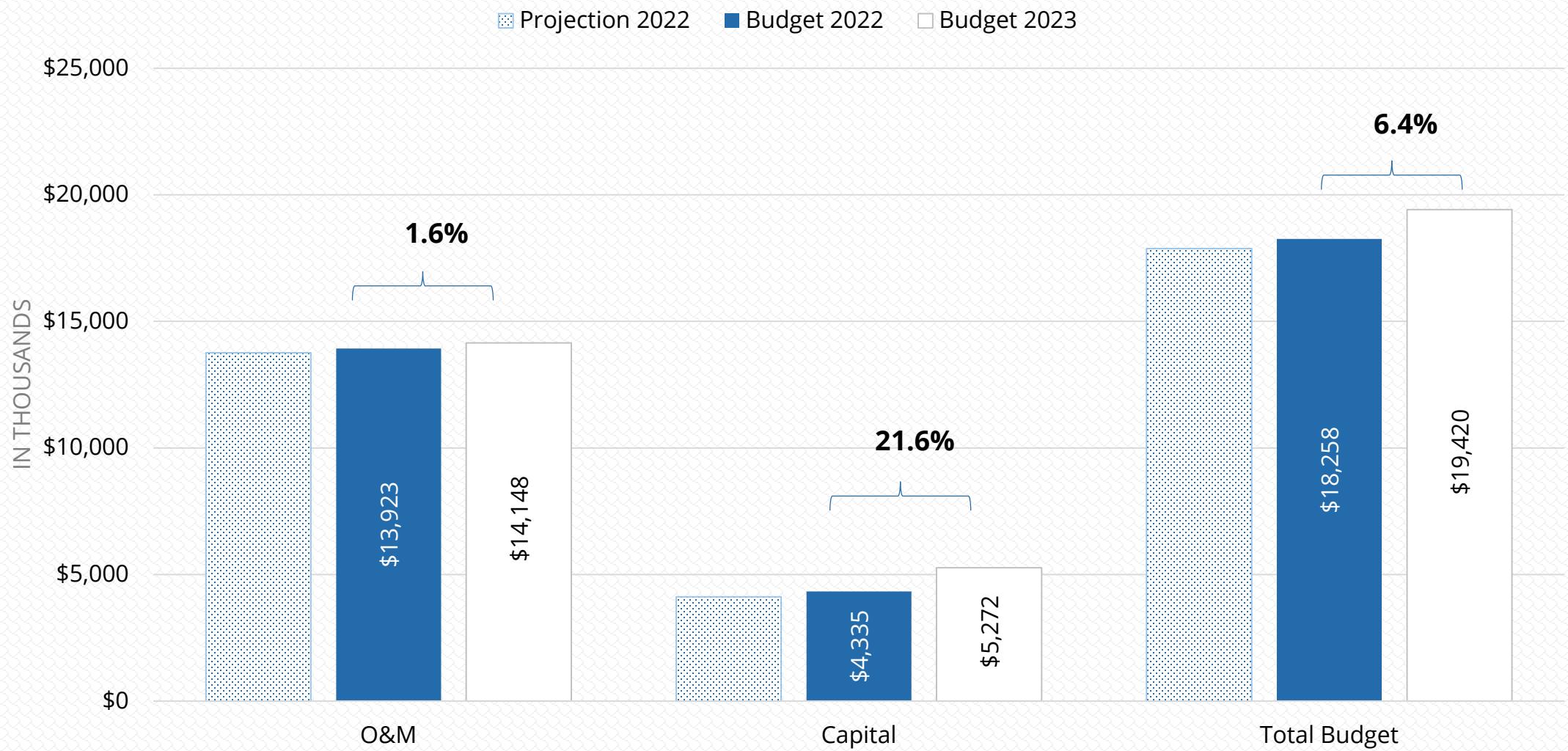


Budget and Rates

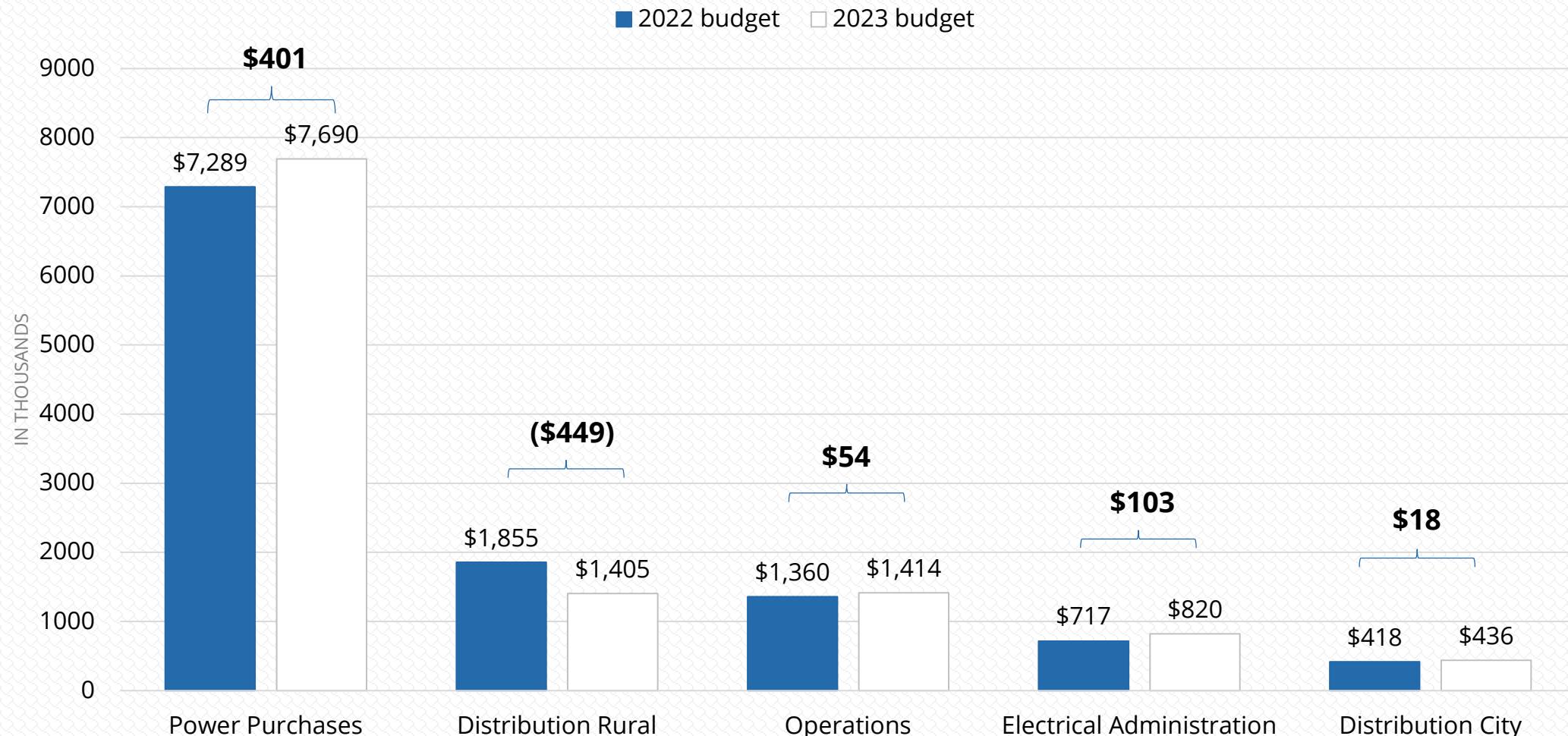
Nathan Russ



BUDGET COMPARISON

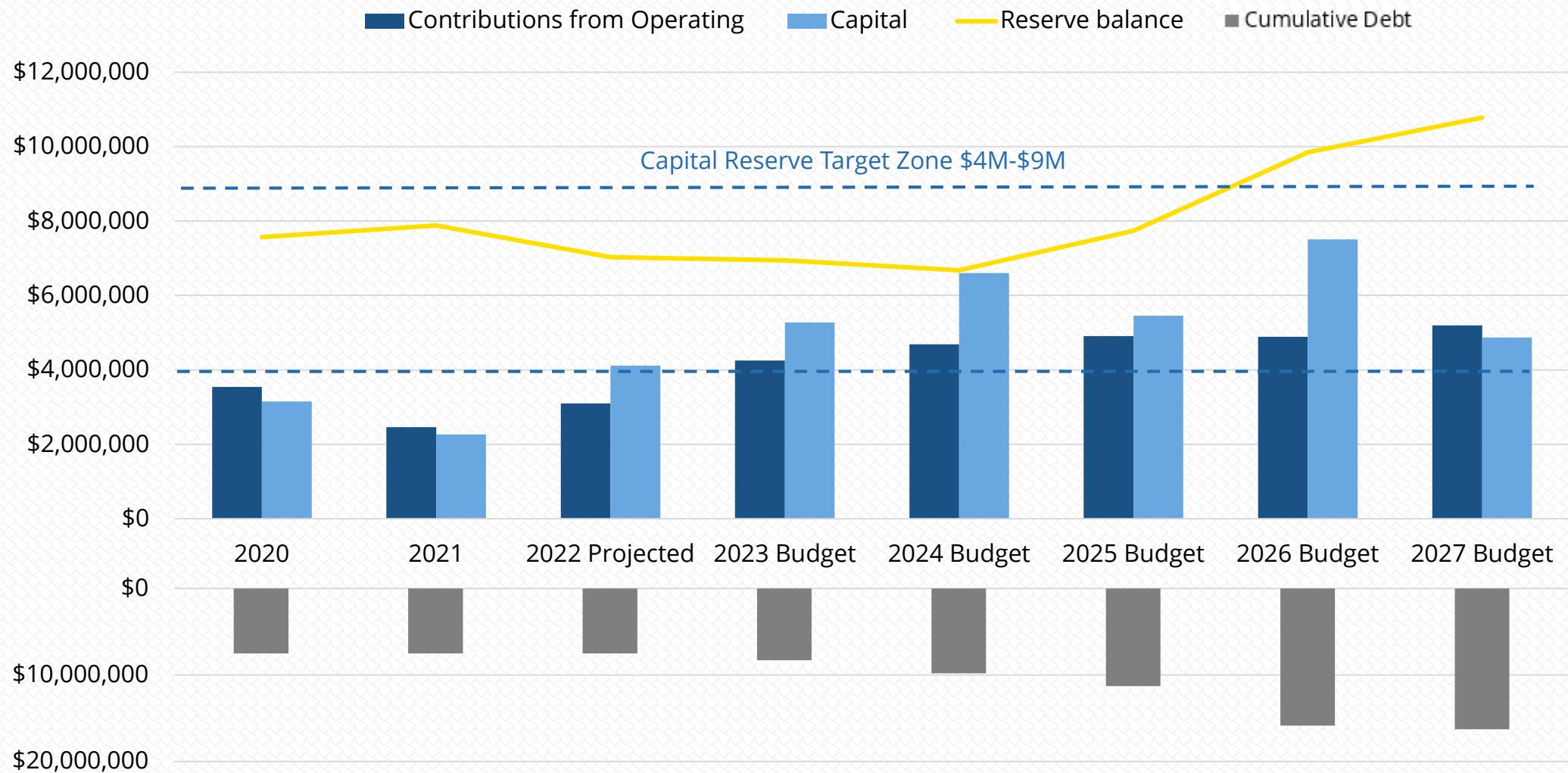


O&M COST-DRIVERS COMPARISON



SCENARIO 1: COSA AS PROVIDED

Rural Rate Increase: 9.87%
Urban Rate Increase: 8.88%
Dividend: Return on Equity (\$3.46M)

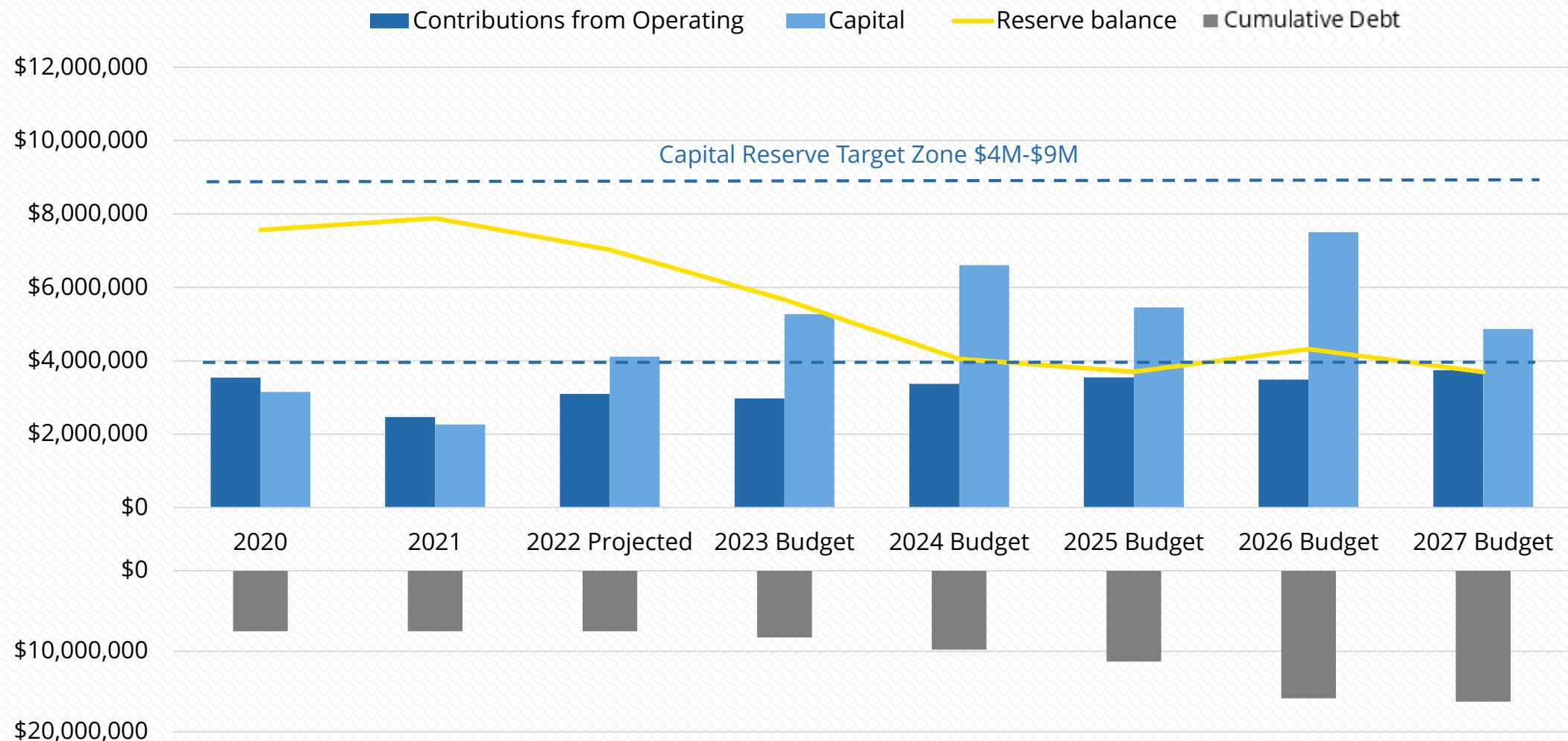


Rural Rate Increase: 9.87%

Urban Rate Increase: 0.00%

Dividend: Inflationary & Return on Equity (\$3.65M)

SCENARIO 2: ZERO URBAN INCREASE

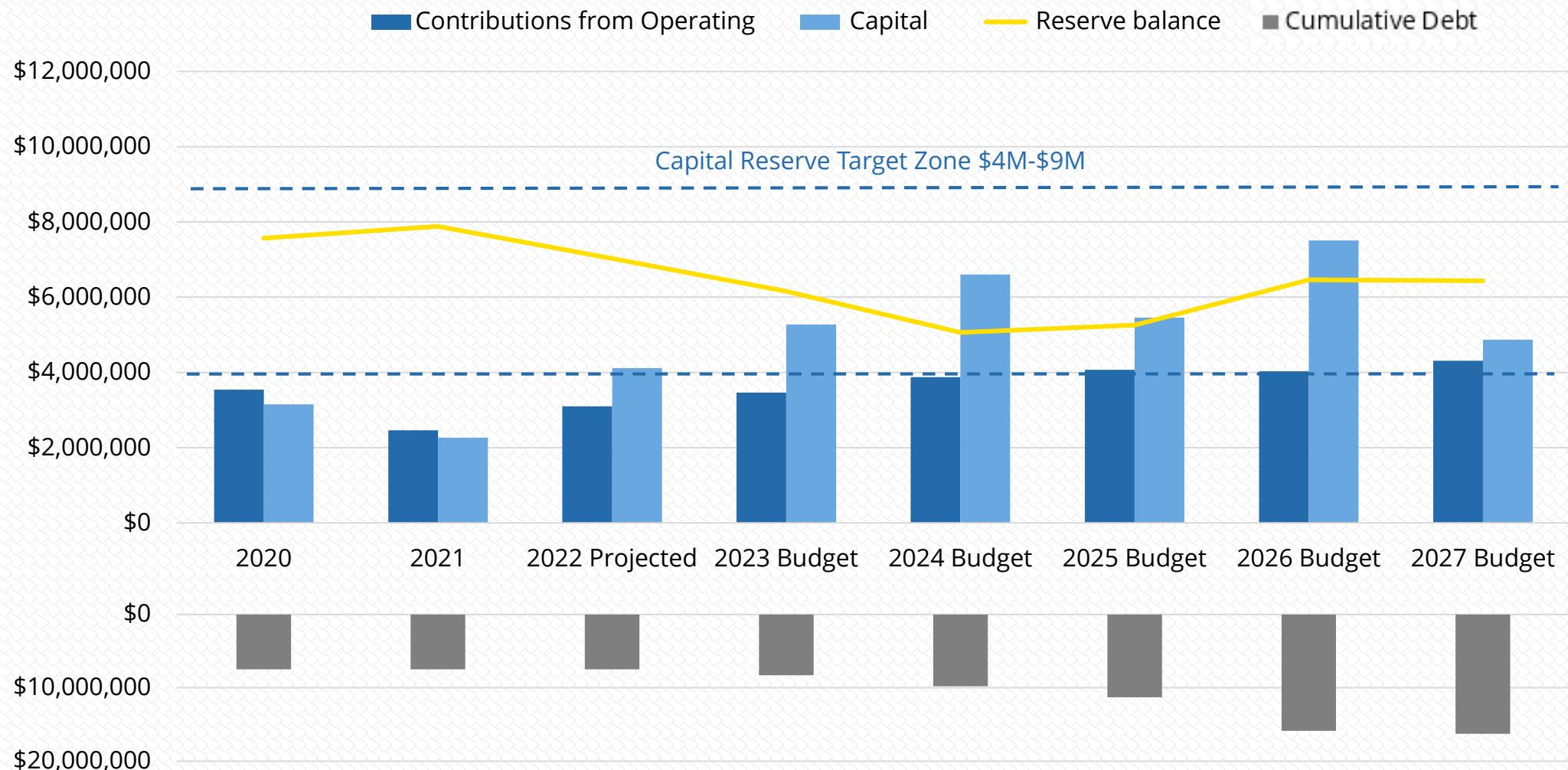


Rural Rate Increase: 9.87%

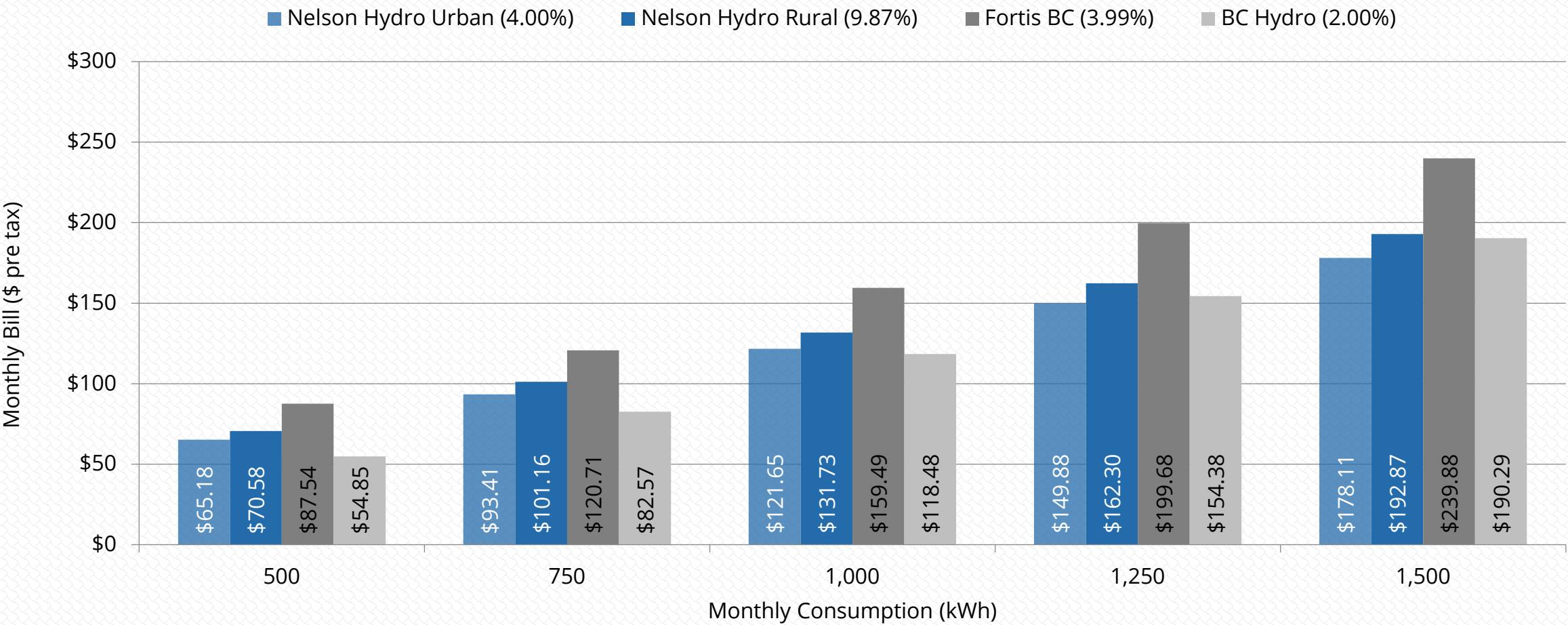
Urban Rate Increase: 4.00%

Dividend: Inflationary & Return on Equity (\$3.65M)

SCENARIO 3: 4.00% URBAN INCREASE

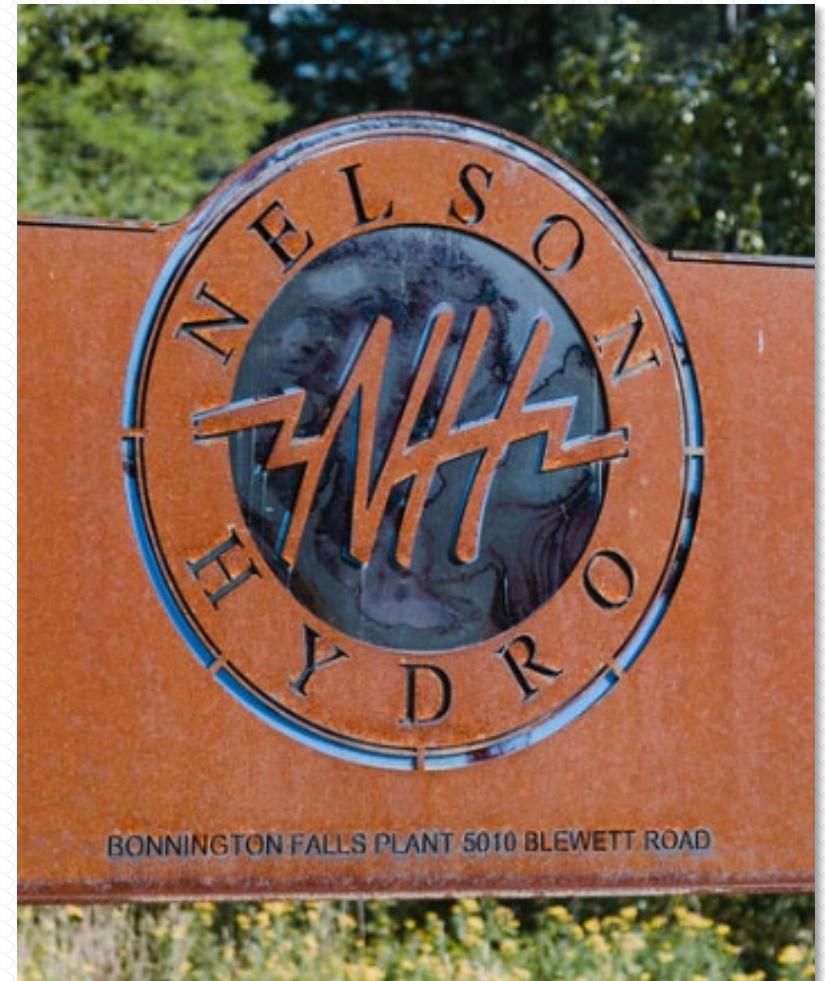


2023 RESIDENTIAL RATE COMPARISON



CLOSING REMARKS

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



RECOMMENDATIONS

- Approve the 2023 Operations and Capital Budget
- Support the establishment of a “Storm Expense Reserve”
- Support application for debt for rural capital projects
- Support the BCUC Revenue Requirements Application for a 9.87% Rural General Rate Increase
- Support a 4% Urban General Rate Increase





QUESTIONS?

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