

FBC Annual Review of 2023 Rates

Workshop

October 20, 2022



Agenda

Topic	Presenter(s)
Approvals Sought	Sarah Walsh <i>Senior Manager, Regulatory Affairs</i>
Revenue Requirements & Rates	Sarah Walsh <i>Senior Manager, Regulatory Affairs</i>
Power Supply	Shannon Price <i>Power Supply Operations Manager</i>
Electric Vehicles	Draydan Power <i>Manager, EV Infrastructure & Investment</i>
Updated Sustainment and Growth Capital Forecasts for 2023 & 2024	Lisa Ruchkall <i>Senior Regional Engineer</i>
Kelowna Facilities Space Project	Becky Richardson <i>Facilities Planning Manager</i>
Service Quality Indicators (SQIs)	James Wong <i>Director, Budgeting & Strategic Initiatives</i> Derek Rinn <i>Regional Manager, Network Services</i>
Open Question Period	All

Approvals Sought

- Interim general rate increase of 3.99 percent
- The level of forecast growth, sustainment and other capital to be incorporated in rates for the years 2023 and 2024
- One new deferral account for the 2023 Joint Pole Use Audit, with the balance to be amortized over five years commencing January 1, 2023
- A three-year amortization period for the existing COVID-19 Customer Recovery Fund Deferral Account, commencing January 1, 2023, and to cease the quarterly reporting on the customer recovery fund
- Approval pursuant to section 99 of the UCA to vary the following Orders:
 - ❑ Directive 6 of Order G-42-21 in order to facilitate the return of the net incremental COVID-19 related cost reductions to customers through inclusion of the cost reductions in the Flow-through deferral account
 - ❑ Directive 2 of Order G-83-14 to ensure FBC continues to have approval from the BCUC to use US GAAP for regulatory accounting purposes

Questions?



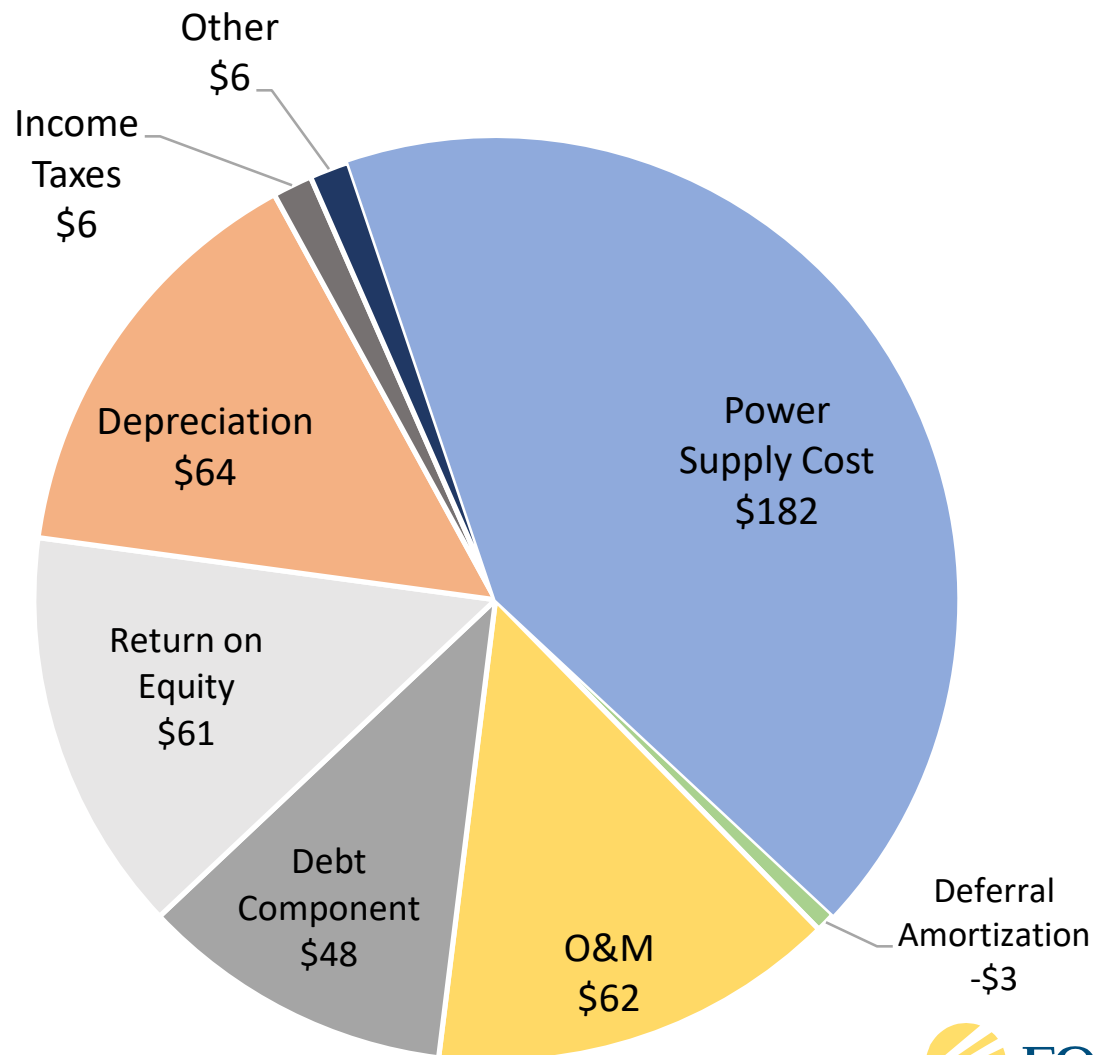
Revenue Requirements & Rates

Sarah Walsh, *Senior Manager, Regulatory Affairs*



2023 Revenue Requirement Summary

Total Revenue Requirement of \$426 million



Summary of 2023 Deficiency

- Deficiency of \$16.368 million:
 - ❑ Total 2023 revenue requirement is \$426.208 million, less
 - ❑ Revenue at existing 2022 approved rates of \$409.840 million
- Major drivers of deficiency:
 - ❑ Power Supply: 4.95% (incl. Customer Growth and Demand: 1.89%)
 - ❑ Rate base growth: 1.42% (CPCNs & Major Projects: 0.73%)
 - ❑ Net O&M: 0.98%

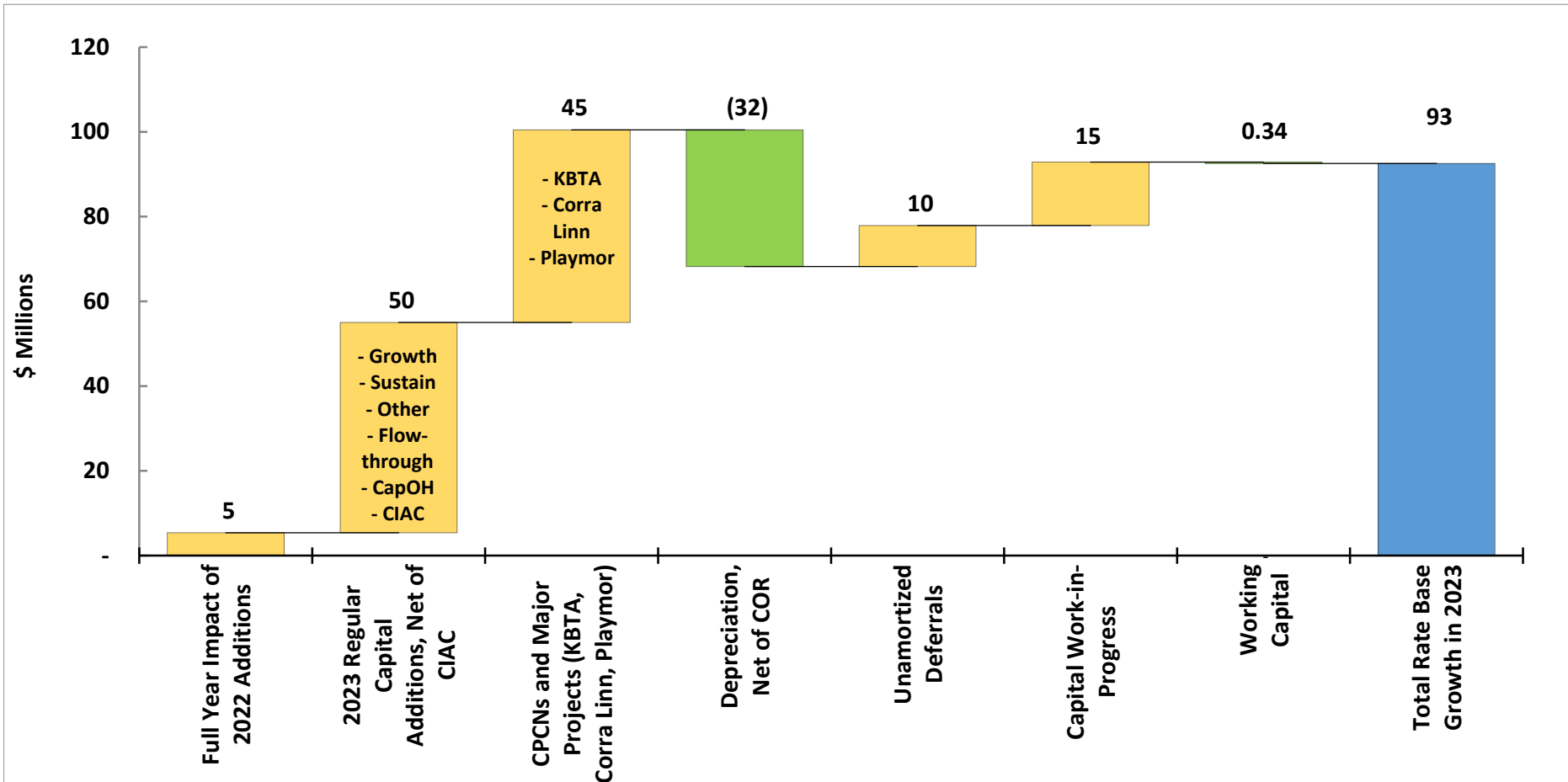
Components	\$ millions	%
Customer Growth and Demand	(12.546)	(3.06%)
Power Supply	20.275	4.95%
Other Revenue	(0.409)	(0.10%)
Net O&M	4.016	0.98%
Rate Base Growth	5.809	1.42%
Depreciation	2.542	0.62%
Deferral Amortization	(4.835)	(1.18%)
Financing and Return on Equity	2.639	0.64%
Taxes	(1.123)	(0.27%)
Total Deficiency	16.368	3.99%

Rate Base Growth

2022 Approved Rate Base = \$1.583 billion

+ \$93 Million

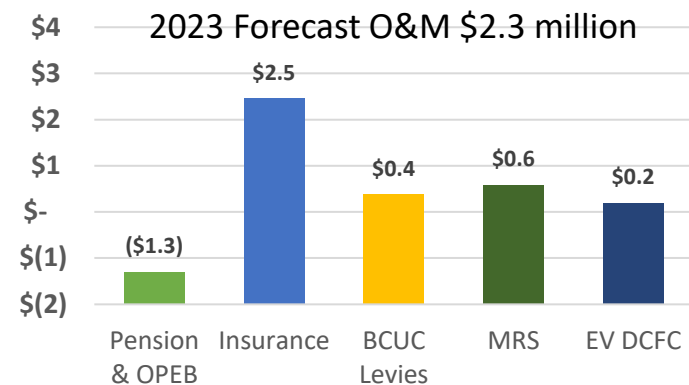
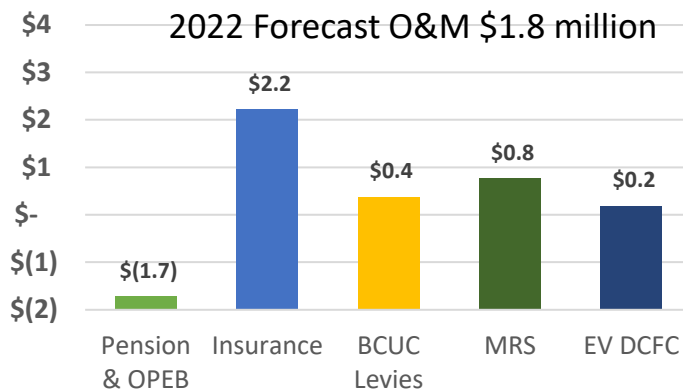
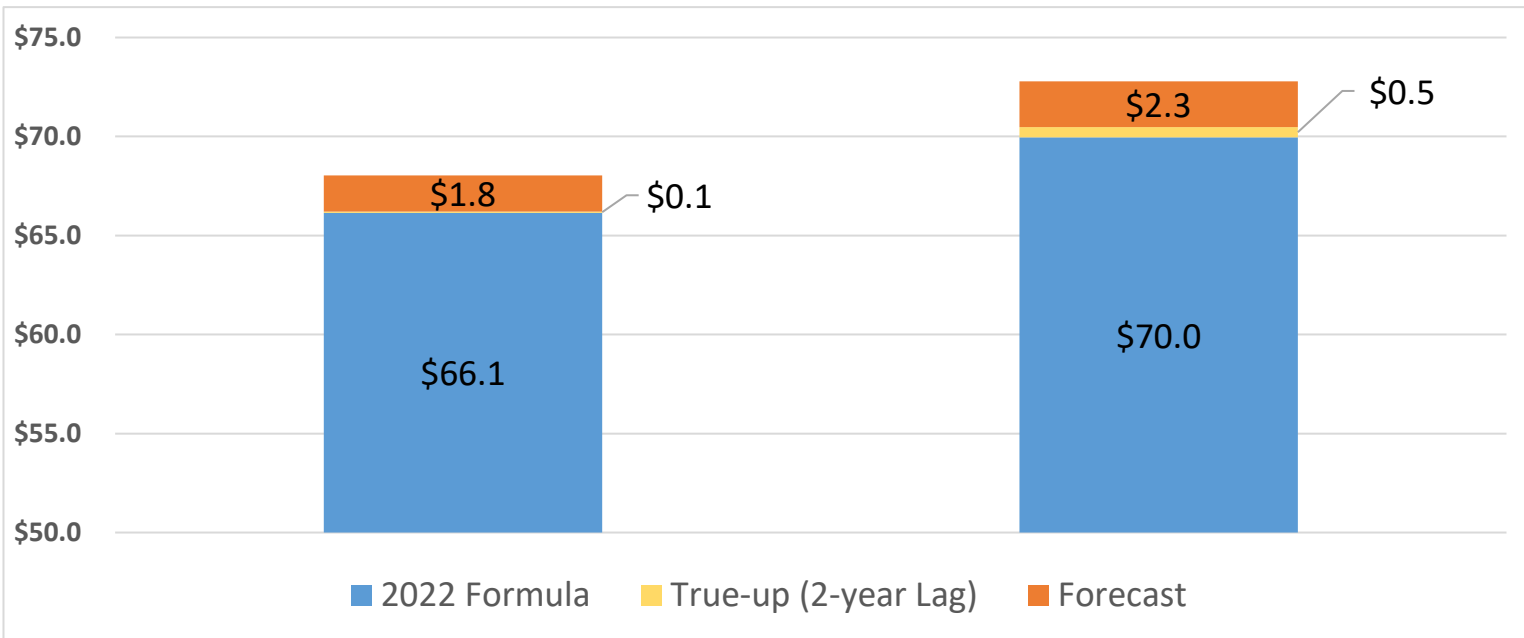
2023 Forecast Rate Base = \$1.676 billion



O&M – 2022 Approved vs. 2023 Forecast

2022 Approved Gross O&M \$68.0 million
(\$57.9 million after capitalized overheads)

2023 Forecast Gross O&M \$72.8 million
(\$61.9 million after capitalized overheads)



Summary of Compliance Filing Adjustments

- Reclass EV DCFC Cost of Energy to O&M (BCUC IR1 12.1): -0.02%
- Leasehold Improvement Correction (BCUC IR1 15.3): +0.01%
- 2021 Residential UPC Correction (BCOAPO IR1 8.1): +0.02%
- Reduction to 2023 Updated Growth Capital Forecast to Remove DG Bell Feeder 4 Addition Project (BCOAPO IR1 29.8): +0.01%
- Updated AWE-BC: -0.03%
- **Net change to 2023 interim rates = -0.01%**

Questions?



Power Supply

Shannon Price, *Power Supply Operations Manager*

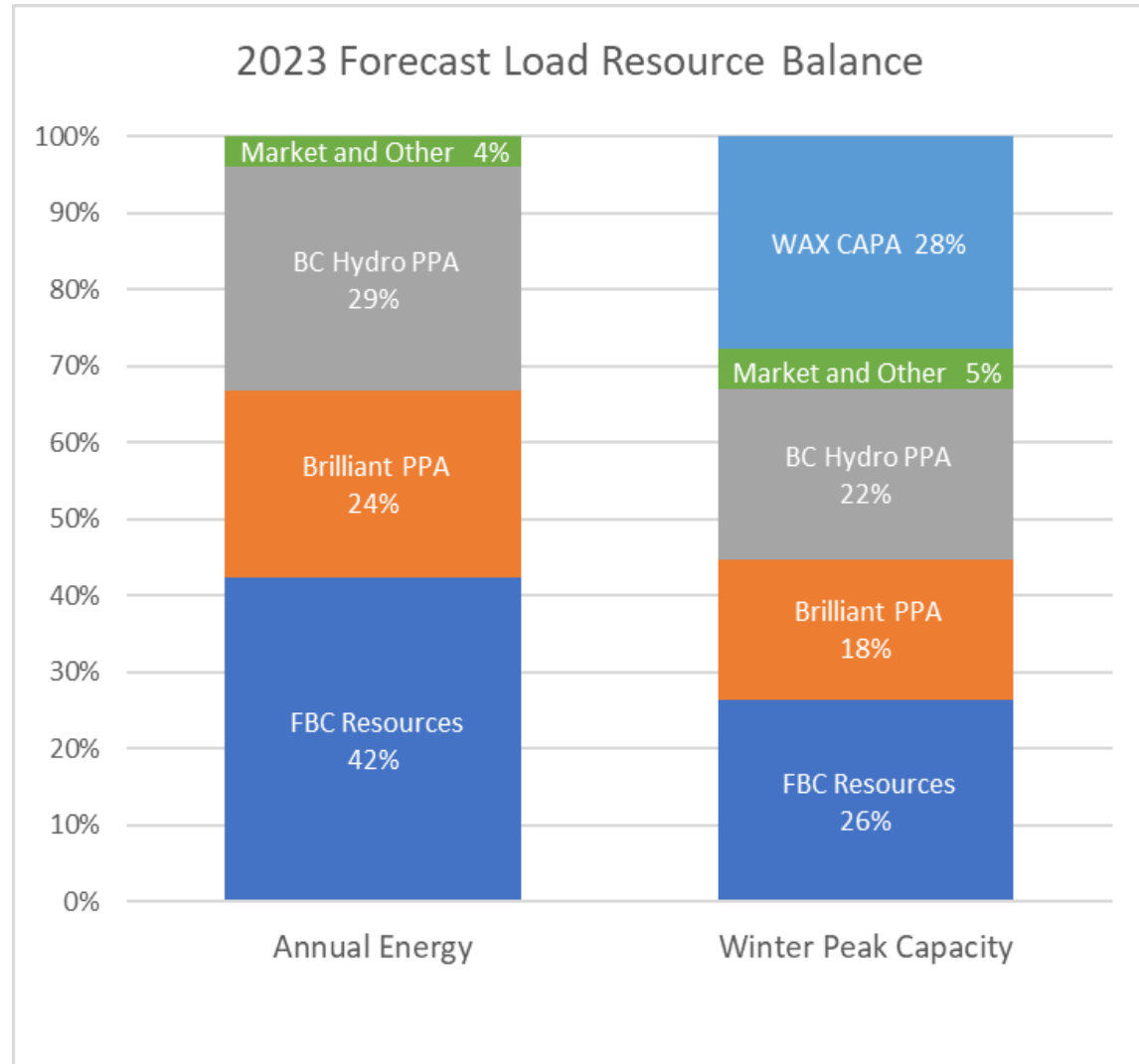


Introduction: Role of Power Supply

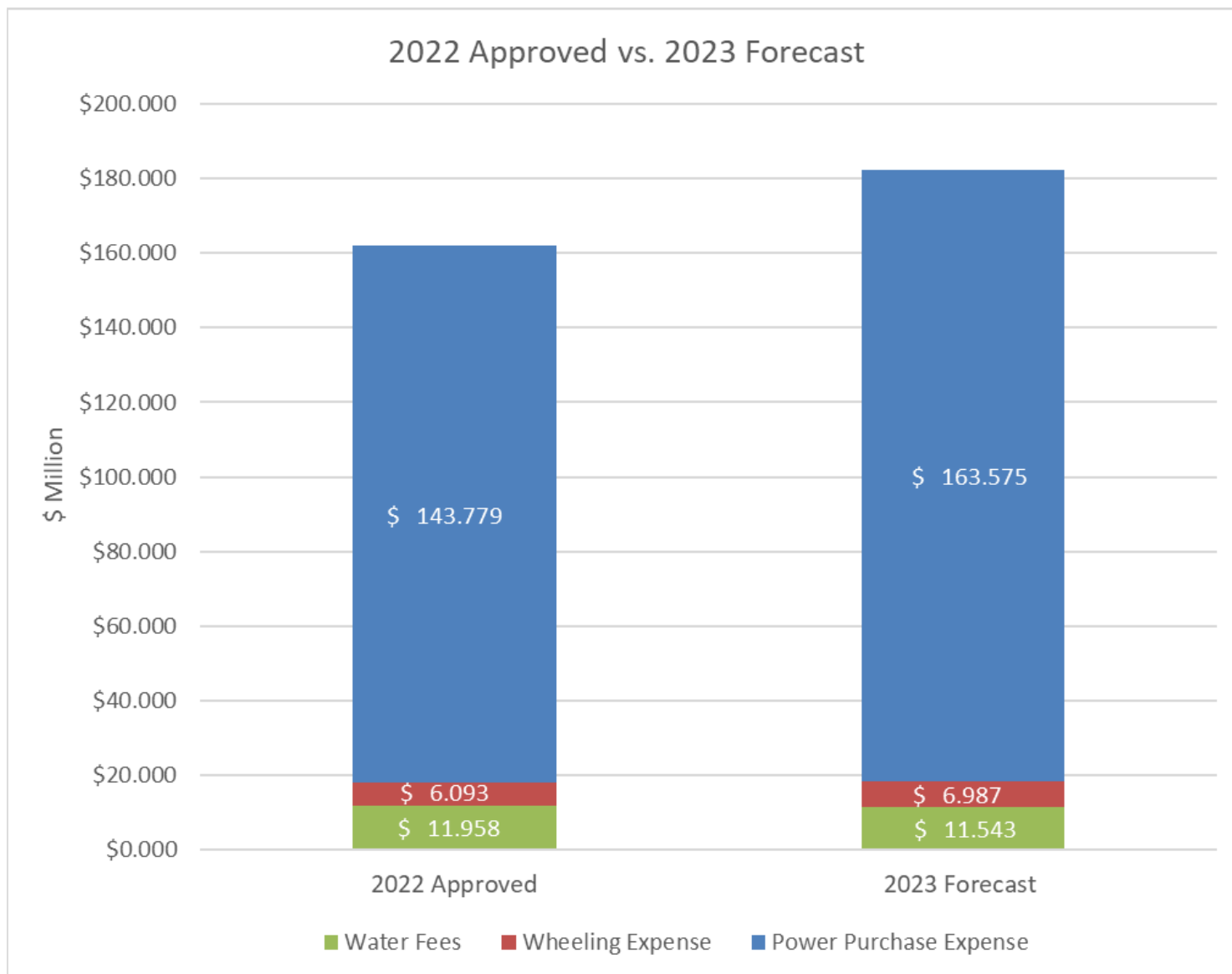


Introduction: Power Supply Portfolio

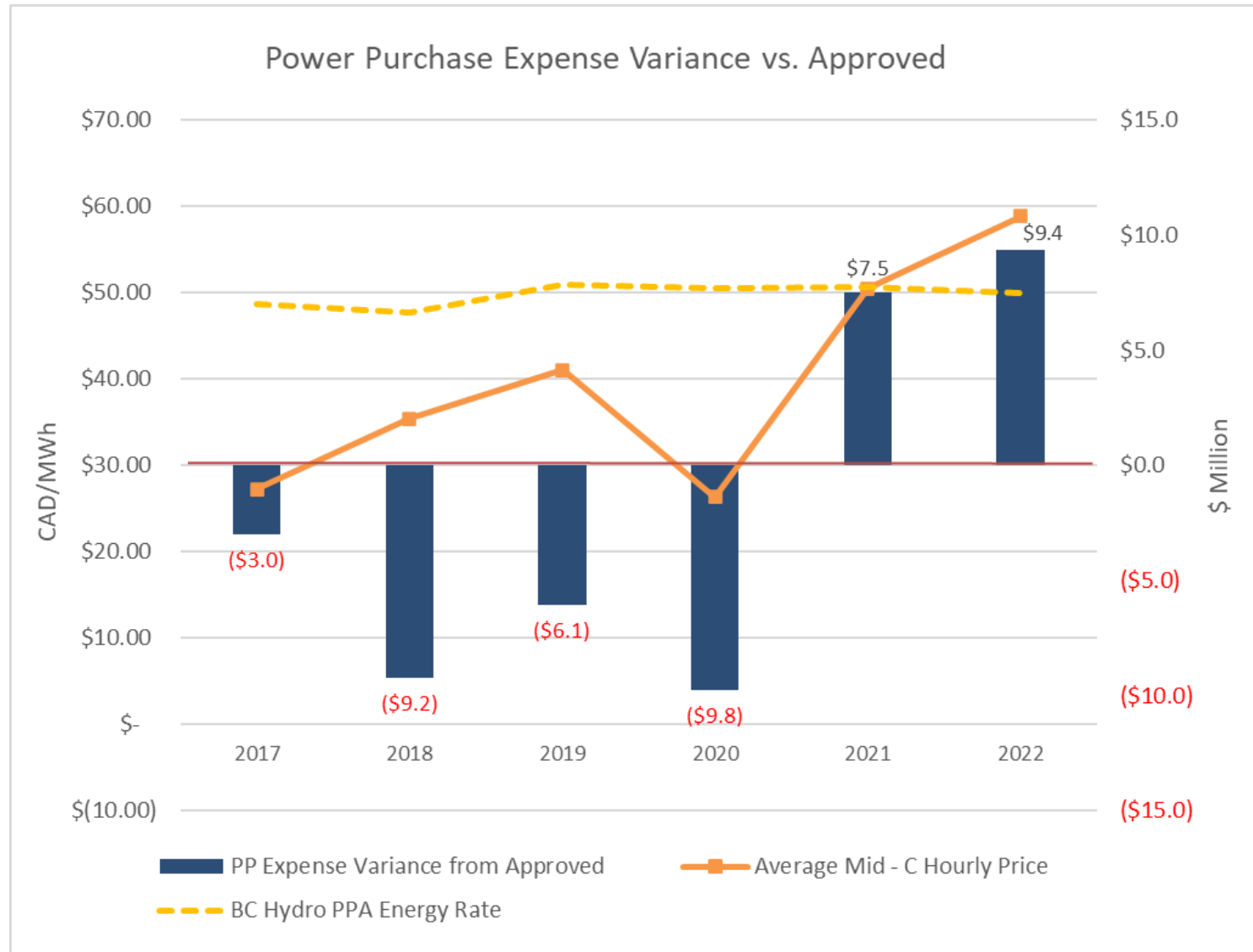
- FBC owns generation resources on the Kootenay River
- FBC also is a party to long term power supply contracts
- A portion of requirements is purchased from the wholesale electricity market



Total Power Supply Cost



Power Purchase Expense Mitigation

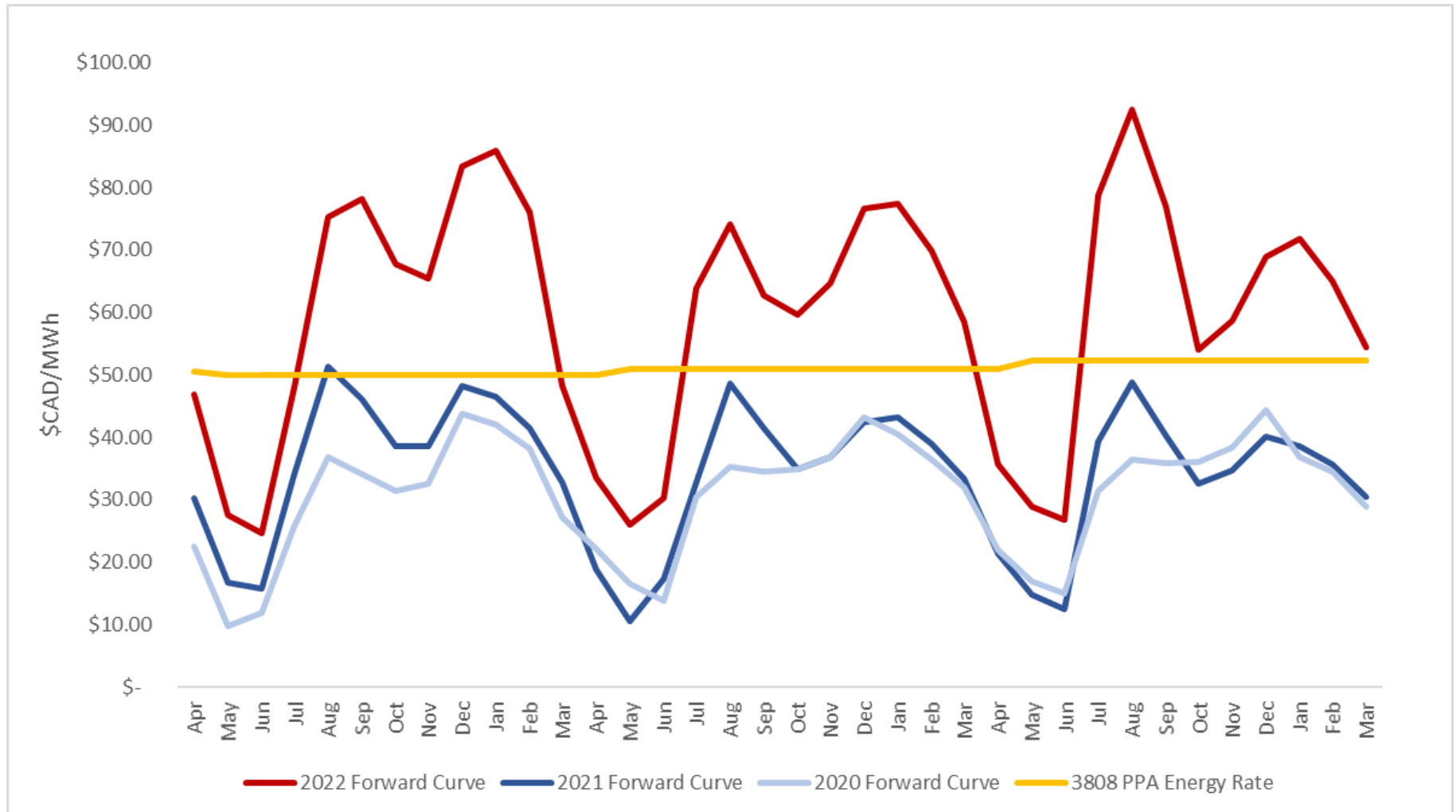


Wholesale Market Environment: Resource Adequacy Concerns

- Resource Adequacy risks to the Western Interconnection are likely to increase in upcoming years as a result of:
 - ❑ Coal Retirements
 - ❑ Growing Demand
 - ❑ Resource Variability
 - ❑ Extreme Weather
- Changes are affecting how and when entities can rely on imports

Wholesale Market Environment: Price Signals

2020-2022 Mid-C Off Peak Forward Curves vs 2022-2024 BC Hydro PPA Energy Rate



Implications

- As wholesale prices go up, mitigation goes down
- FBC optimizes between PPA and the wholesale market, currently PPA is more economic than market
- Expectations are that the wholesale market will continue to be tight over the next several years
- Extreme events can result in high costs, as well as large surplus capacity sales

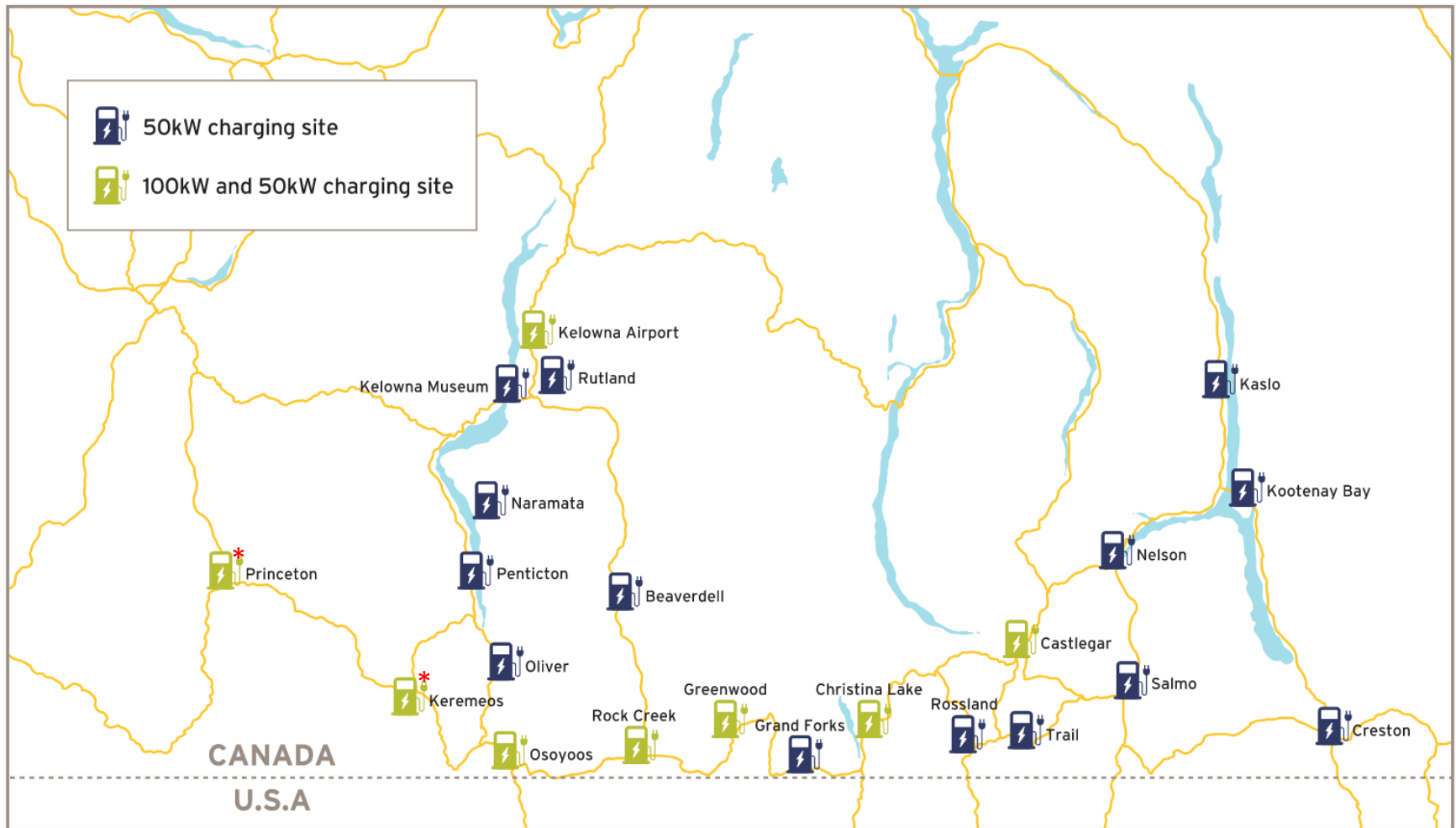
Questions?

Electric Vehicle Public Charging Infrastructure

Draydan Power, *Manager, EV Infrastructure & Investment*

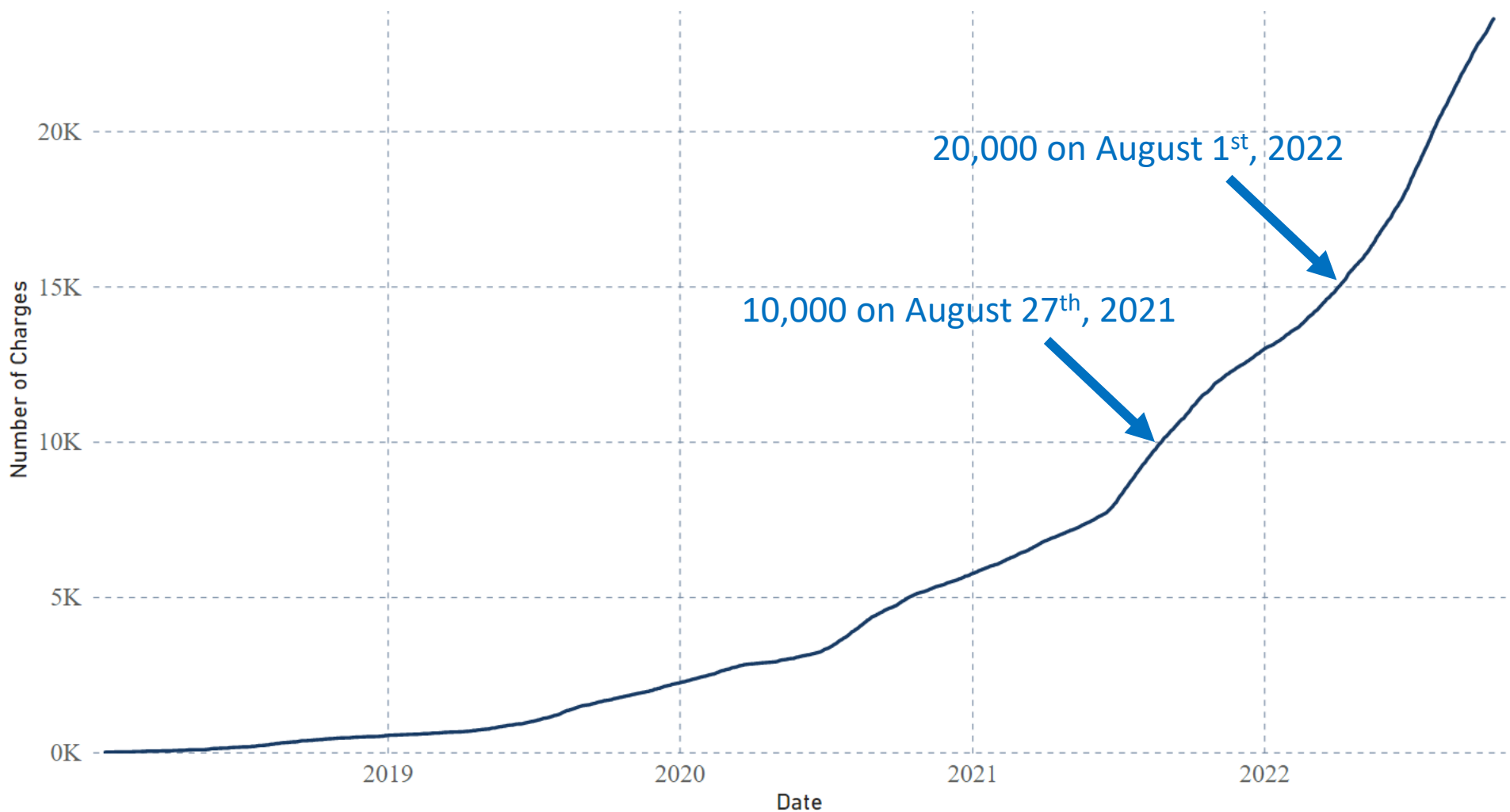


FBC Electric Vehicle DC Fast Charging Stations



FBC DCFC Network: All FBC owned sites connecting the electric service territory. Keremeos and Princeton are currently owned and operated by BC Hydro but will be acquired by FBC in Q4 of 2022.

Station Usage



Transfer of Keremeos and Princeton



- Taking ownership of sites at Keremeos and Princeton
- Originally intended to be completed in Q4 of 2021
 - ❑ Delayed due to flooding
- Installing 100kW chargers at both Keremeos and Princeton once acquired

Princeton DCFC Site: Currently owned and operated by BC Hydro. FBC will take ownership of this site in Q4 of 2022.

Additional Stations at Naramata and Grand Forks

Table 7-12: Assessment of New EV DCFC Stations as Prescribed Undertakings Under the GGRR

	Greenhouse Gas Reduction Regulation Criteria						
GGRR Section	5(1)(a)	5(1)(b)	5(1)(c)	5(2)(a)	5(2)(b)(i)	5(2)(b)(ii)	5(2)(c)
	Station is available for use 24 hours a day by any member of the public	Station does not require users to be members of a charging network	Station is capable of charging electric vehicles of more than one make	Eligible charging station is constructed and operated or purchased and operated by the public utility	The public utility reasonably expects, on the date the public utility decides to construct or purchase an eligible charging station, that		For any eligible charging station coming into operation on or after January 1, 2022, the station uses or is configured to use the Open Charge Point Protocol.
					The station will come into operation by December 31, 2025. (Operation Date)	Is the station located in a limited municipality? (Population – 2021 Census)	
Sites							
Naramata	Yes	Yes	Yes	Yes	Q4 2021	Not a municipality	Yes
Grand Forks	Yes	Yes	Yes	Yes	Q4 2021	No (4,112)	Yes

Accessibility Improvements



- Wheelchair lanes between stalls for entering/exiting a vehicle
- No curbs that may restrict access
- Lighting for charging at night

Naramata DCFC Site: Recent installation of a DCFC site with accessibility improvements incorporated.

DCFC Energy-Based Billing

Electric vehicle charging stations



Measurement Canada: Snapshot of Measurement Canada's website that informs the public on upcoming changes to EV charging billing.

- Current rates
 - ▣ \$0.26/min for 50 kW stations
 - ▣ \$0.54/min for 100 kW stations
- Dispensation expected by end of 2022 for existing stations to implement an energy-based component

Questions?

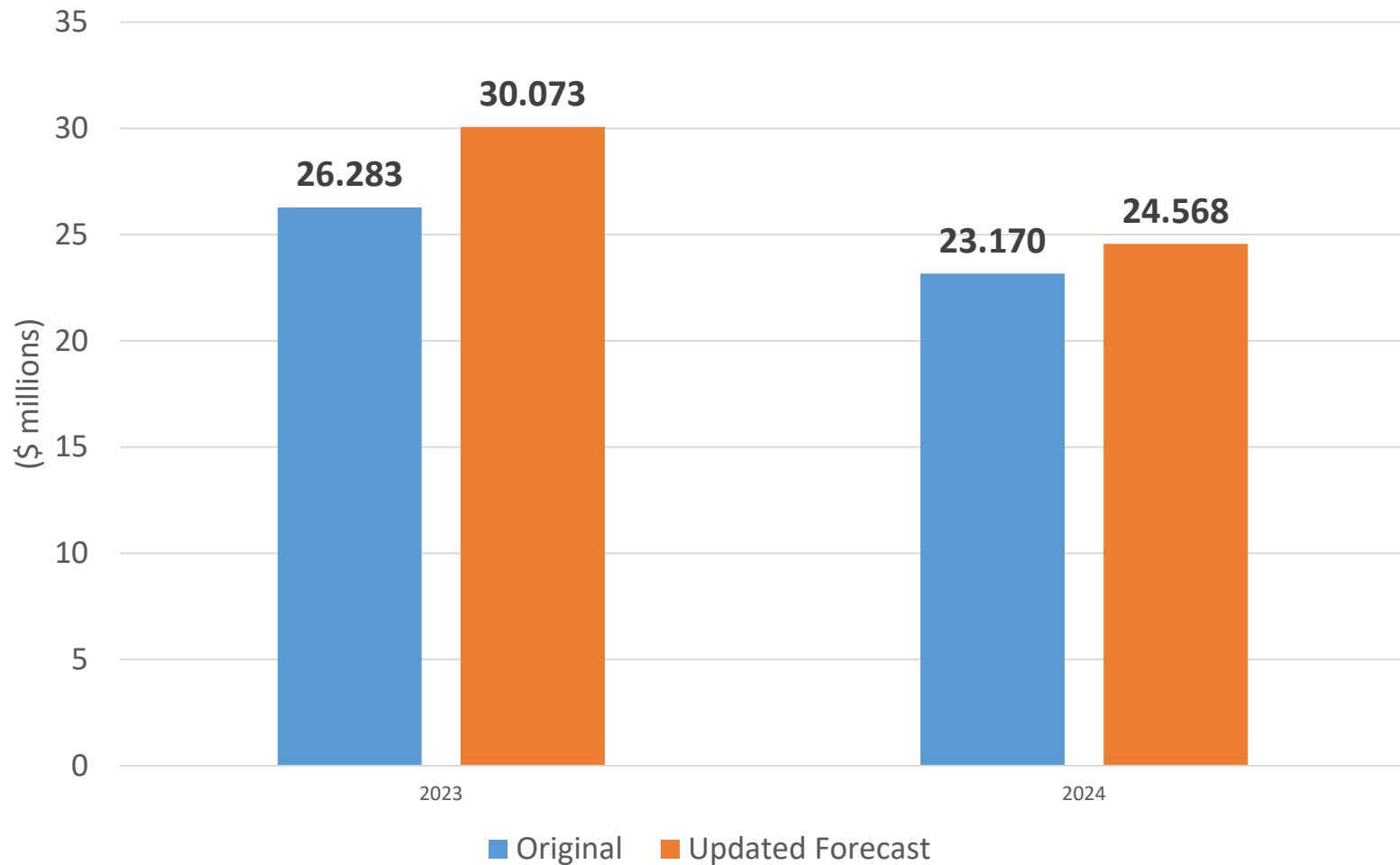


Updated Sustainment and Growth Capital Forecasts for 2023 and 2024

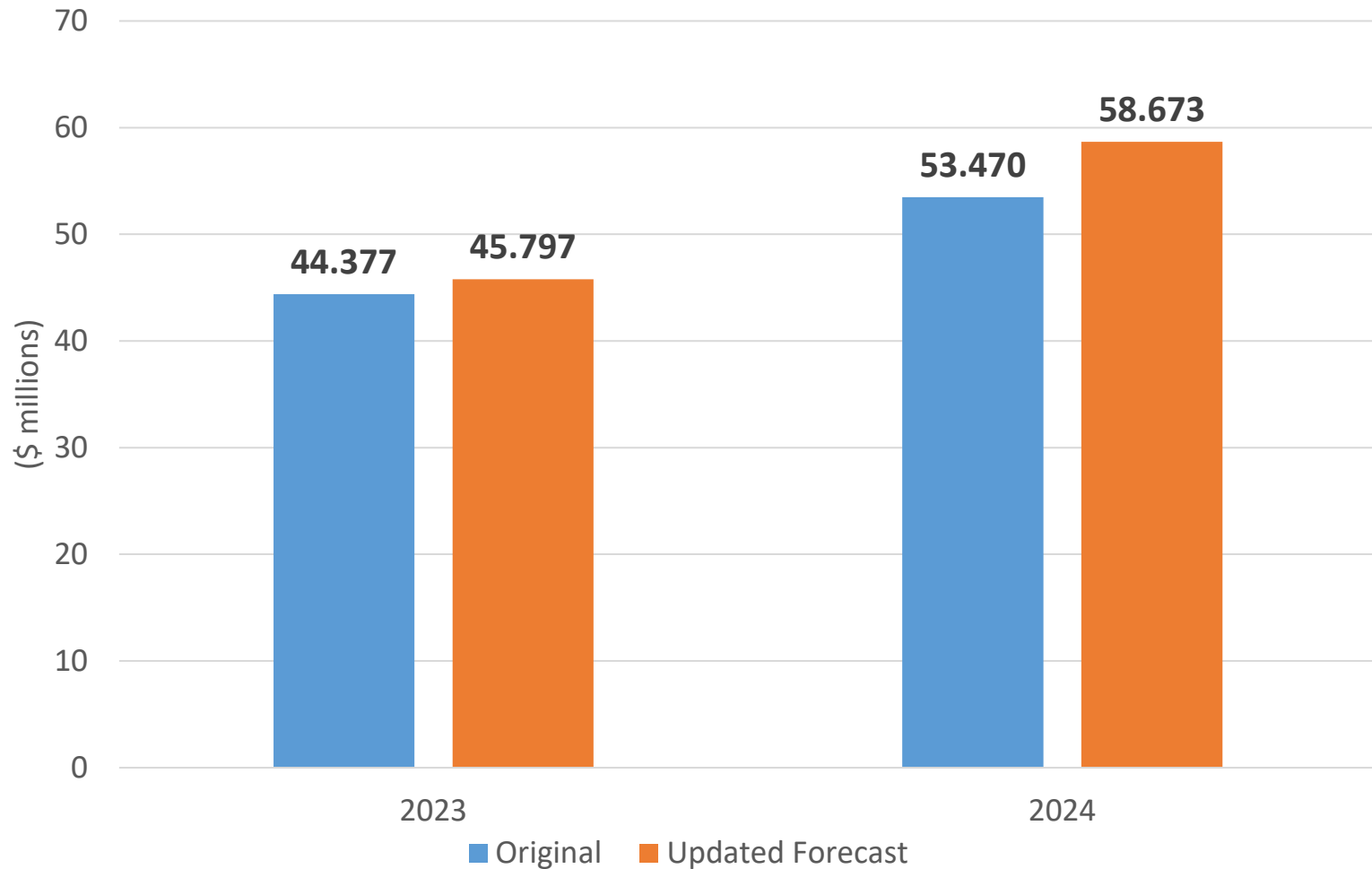
Lisa Ruchkall, *Senior Regional Engineer*



2023 and 2024 Total Growth Capital Forecast Comparison



2023 and 2024 Total Sustainment Capital Forecast Comparison



Drivers for Increased Growth and Sustainment Capital Forecasts

- Inflationary increases due to unanticipated global events
- Increases in growth capital
- Additional reliability, refurbishment or end of life projects being required that were not anticipated at the time of the MRP proceeding
- Mitigation Measures
 - Reprioritizing projects or components of a project
 - Long-term supply contracts for common materials and services
 - Competitively tendering large contracts for materials and services

Asset Investment Planning (AIP) Process



2023 and 2024 Growth Capital Updated Forecasts

- Growth capital consists of expenditures for infrastructure upgrades required to meet demand for new customers and/or load growth
- Growth capital consists of the following categories:
 - ❑ New Connects
 - ❑ Transmission Growth
 - ❑ Distribution Growth

Beaver Park (BEP) Station Upgrade project

Existing BEP substation:

- Single 10 MVA 63/13 kV transformer (57 years old)
- Switchgear (57 years old)
- Two distribution lines

Key Project Drivers:

- Equipment condition issues
- Improved contingency options
- Forecasted load growth



Beaver Park Station Upgrade project (cont.)

Project Status:

- Project began in 2022
- Civil, grounding and conduit work partially complete
- HV and LV bus partially constructed
- 3 of 6 breakers installed

Challenges Faced:

- Commodity escalation
- Archeological delays
- Geotechnical issues
- Delivery of materials



2023 and 2024 Sustainment Capital Updated Forecasts

- Sustainment capital consists of expenditures required to ensure the safety, integrity and reliability of the system through system reinforcements, asset replacements, and asset upgrades
- Sustainment capital consists of the following categories:
 - ❑ Generation
 - ❑ Transmission
 - ❑ Stations
 - ❑ Distribution
 - ❑ Telecommunications

Transmission Line Rehabilitation Program

Program Description:

- Expenditures related to correcting defects identified in previous years' condition assessment
- Original forecast was based on the three-year rolling average of actuals between 2017 to 2019
- Updated forecast based on the condition assessment results and updated three-year rolling average of actuals
- Work prioritized and staged over multiple years to manage program

Challenges Faced:

- Increasing lead times
- Material procurement issues
- Commodity escalation



Questions?



Kelowna Space Project

October 2022



Current Facilities

Springfield



Owned | 3.2 Acres

Office + Warehouse: 35,189 ft²

Enterprise



Leased | 1.5 Acres

Office + Warehouse: 10,652 ft²

Benvoulin



Owned | 3.4 Acres

Office + Warehouse: 25,268 ft²

Challenge

Springfield

Enterprise

Benvoulin



Space Constraints

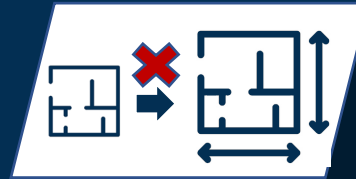
Constraints



Account for projected
headcount growth



No further
densification possible



No office floor
addition possible



Parking overflow |
No expansion



Limited land availability
in real estate market



ALR prevents
property expansion



Zoning restrictions limit
property resale value

Options Considered



1 Acquire New Combined Operations Centre

Buy ten-acre land parcel | Springfield & Benvoulin sold



61K ft² Office
22K ft² WH/FI/Shop
Secured Yard
Covered parking

\$70m

2 Acquire New Electric Operations Centre

Buy six-acre land parcel | Springfield renovated & Benvoulin sold



47K ft² Office
14K ft² WH/FI/Shop
Secured Yard
Covered parking

\$48m

3 Acquire New Electric Operations Centre

Buy six-acre land parcel | Springfield sold & Benvoulin renovated

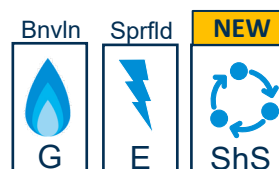


47K ft² Office
14K ft² WH/FI/Shop
Secured Yard
Covered parking

\$45m

4 New Lease for Shared Services Depts

Gas & Electric Operations swap



Improvements implemented at all locations

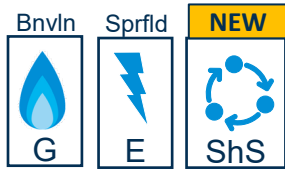
\$14m

Selected Option Benefits

4

New Lease for Shared Services Depts

Gas & Electric Operations swap



Improvements
implemented at
all locations

\$14m



Moving Shared Services
away from Operations
creates more room for
Operations

Springfield

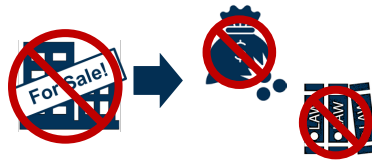


Greater efficiency from
having all Electric Operations
at the Springfield site

Benvoulin



Gas Operations space
requirements better aligned
to Benvoulin site



No asset disposal means no
zoning issues



Of all options, Option Four
results in significantly
reduced capital investment



Location changes have
minimal impact on
employee commutes

Implementation Timing

Legend

**New Lease
Facility**

Springfield

Benvoulin

2022

Design Development &
Construction Drawings

2023

Tenant Improvement
Construction and Move
In

Tenant Improvement
Construction 2nd & 3rd
Floor upon Relocation of
Support Services

2024

Tenant Improvements |
Operations Building
Swap

Tenant Improvements
Continued

Questions?

Service Quality Indicators

James Wong, Director, Budgeting and Strategic Initiatives

Derek Rinn, Regional Manager, Network Services and Okanagan NS Administration



Customer

Service Quality Indicator	2020 Results	2021 Results	2021 Status (Relative to Benchmark and Threshold)	2022 August YTD Results	2022 Status (Relative to Benchmark and Threshold)	Benchmark	Threshold
Customer SQIs							
First Contact Resolution	82%	82%	Meets	78%	Meets	78%	74%
Billing Index	0.13	0.12	Meets	0.13	Meets	<=3.0	5.0
Meter Reading Accuracy	99%	99%	Meets	99%	Meets	98%	96%
Telephone Service Factor (Non-Emergency)	70%	70%	Meets	63%	Lower than threshold	70%	68%

Informational Indicator	2020 Results	2021 Results		2022 August YTD Results			
Customer Satisfaction Index	8.5	8.4	n/a	8.4	n/a		
Average Speed of Answer	71 sec.	65 sec.	n/a	103 sec.	n/a		

Safety and Reliability

Service Quality Indicator	2020 Results	2021 Results	2021 Status (Relative to Benchmark and Threshold)	2022 August YTD Results	2022 Status (Relative to Benchmark and Threshold)	Benchmark	Threshold
Safety SQIs							
Emergency Response Time	92%	93%	Meets	95%	Meets	93.0%	90.6%
All Injury Frequency Rate	0.87	0.67	Meets	0.93	Meets	1.64	2.39
Reliability SQIs							
SAIDI - Normalized	3.17	4.27	Better than threshold	2.72	Meets	3.22	4.52
SAIFI - Normalized	1.64	2.08	Better than threshold	1.68	Better than threshold	1.57	2.19

Informational Indicator	2020 Results	2021 Results		2022 August YTD Results			
Generator Forced Outage Rate	1.26%	0.23%	n/a	0.64%	n/a		
Interconnection Utilization	99.89%	99.90%	n/a	99.93%	n/a		

Background – SAIDI/SAIFI Benchmarks and Thresholds

- **2014-2019 Performance Based Ratemaking(PBR) Plan**
 - SAIDI/SAIFI reported on as a three-year rolling average
 - Benchmarks were based on a three-year average of 2010-2012
- **2017 - Outage Management System (OMS) Implemented**
 - OMS improved the way outage durations are recorded
- **2018 – Annual Review For 2019 Rates**
 - Order G-246-18 FBC 2019 Annual Review for 2019 Rates noted need to account for OMS in setting a future benchmark for SAIDI
- **2020-2024 Multi-Year Rate Plan (MRP)**
 - Benchmarks based on a three-year average of 2017-2019 (all within OMS timeframe)
 - Thresholds based on the annual results from 2010-2019 to capture historical annual variation

Summary of 2021/2022 YTD Results

- **2021 Results**

- ❑ The 2021 SAIDI result was 4.27, which was better than the Threshold of 4.52, but above the Benchmark of 3.22
- ❑ The 2021 SAIFI result was 2.08, which was better than the Threshold of 2.19, but above the Benchmark of 1.57

- **2022 Forecast**

- ❑ 2022 SAIDI is forecast to be 2.72, better than the Benchmark
- ❑ 2022 SAIFI is forecast to be 1.68, better than the Threshold

- **2021 Performance Drivers**

- ❑ 2021 results were heavily influenced by external events in 2021 (crane collapse, wildfires, extreme heat)

2021 Reliability Performance Drivers

- **Construction Accident**

- ❑ A construction crane collapsed in downtown Kelowna requiring the de-energization of 2,600 customers to allow safe access to first responders
- ❑ The outage contributed to approximately 36,000 customer-hours of interruption

- **Wildfire/Extreme Heat Impacts**

- ❑ Disabling automatic reclosing on the system
- ❑ Nk'Mip Creek wildfire – 70 customers without power
- ❑ De-energization requests from first responders to support fire suppression activities
- ❑ A combination of all fire related outages added approximately 55,000 customer hours

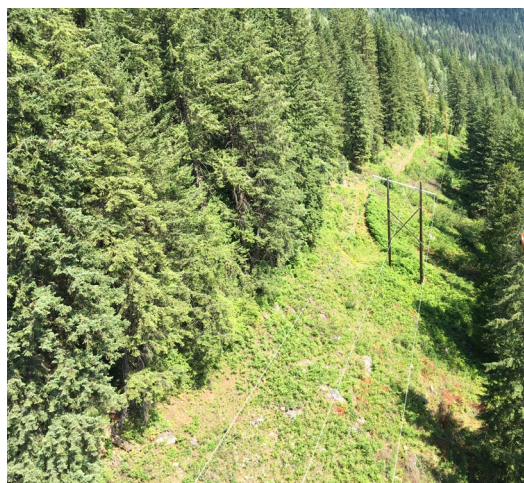


Major Events

- There were three qualifying Major Events in 2021
 - ❑ January 13th – a major windstorm across the Okanagan and Kootenays caused 11,000 customer-interruptions and over 155,000 customer-hours of interruption
 - ❑ April 18th – a major windstorm across the West Kootenays caused 19,800 customer-interruptions and over 200,800 customer-hours of interruption
 - ❑ November 15th – a major storm affected multiple areas in the Okanagan causing 27,474 customer-interruptions and over 218,720 customer-hours of interruption (largest customer-hours of interruption FBC has on record)
- There have been no qualifying Major Events so far in 2022

Reliability Initiatives

- Animal Protection Coverup for Stations (Green Jacket)
- Wildfire Mitigation
- Transmission Line Right of Way Improvements
- MWFM/OMS Re-Engineering
- Applying new technology (FLISR)



Questions?



Question Period