FBC Annual Review of 2022 Rates

Workshop

October 20, 2021

FORTIS BC™

Agenda

Topic	Presenter(s)
Overview & Approvals Sought	Diane Roy *Vice President, Regulatory Affairs*
Revenue Requirements & Rates	Sarah Walsh *Senior Manager, Regulatory Affairs*
Forecasting	David Bailey *Customer Energy & Forecasting Manager*
Exogenous Factors (Mandatory Reliability Standards and Nk'mip Creek Wildfire)	Sarah Walsh *Senior Manager, Regulatory Affairs* Curtis Klashinsky *Manager, Assets and Compliance* Derek Rinn *Regional Manager, Network Services*
Service Quality Indicators (SQIs)	James Wong *Director, Budgeting & Strategic Initiatives* Dale Ernst *Manager, System Operations*
Open Question Period	*All*

Approved Multi-Year Rate Plan (MRP)

MRP Term from 2020 to 2024

Rate Increase for 2022

- Formula-Driven Items
- Forecast Items (Approved and Flow-through)

Service Quality Indicators

- Customer
- Safety

Approvals Sought

- General rate increase of 3.46 percent
- One new deferral account for the costs of the Generic Cost of Capital proceeding
- Amortization periods for four previously-approved deferral accounts:
  - 2020 COSA deferral account over one year;
  - MRS 2021 Audit deferral account over three years;
  - 2021 LTERP deferral account over three years; and
  - Rate Design and Rates for EV DCFC Service Application over three years.
- Change in frequency of COVID-19 Customer Recovery Fund Deferral Account reporting to quarterly from monthly
- Z-factor treatment for the incremental O&M and capital expenditures related to MRS Assessment Report No. 13 and for the prevention and repair of damages resulting from the Nk'Mip Creek wildfire

Exhibit A4 Additional Information

1. ELECTRIC VEHICLE (EV) CHARGING STATION REVENUE AND EXPENSES

a) Whether the 0.16 percent estimated rate impact in 2022 related to EV revenue and expenses is *in addition* to the proposed 2022 rate increase of 3.46 percent in the Application.

b) If so, given that FBC is requesting rates effective January 1, 2022, please clarify when and how FBC will update its 2022 rate proposal in the following scenarios:

   i. The BCUC's final decision on the FBC Rate Design and Rates for Electric Vehicle Direct Current Fast Charging Service Application (EV Application) is issued before the BCUC renders its final decision on this Application; and

   ii. The BCUC's final decision on the EV Application is issued after the BCUC renders its final decision on this Application.

Revenue Requirements & Rates

Sarah Walsh, *Senior Manager, Regulatory Affairs*

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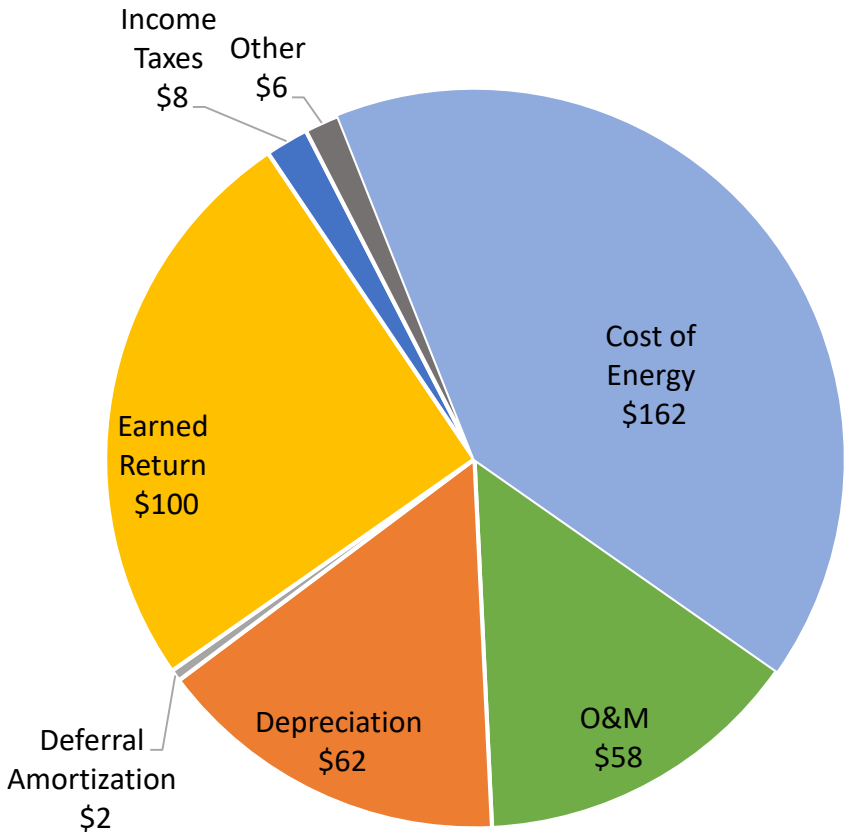
2022 Revenue Requirement Summary

Total Revenue Requirement of $397 million



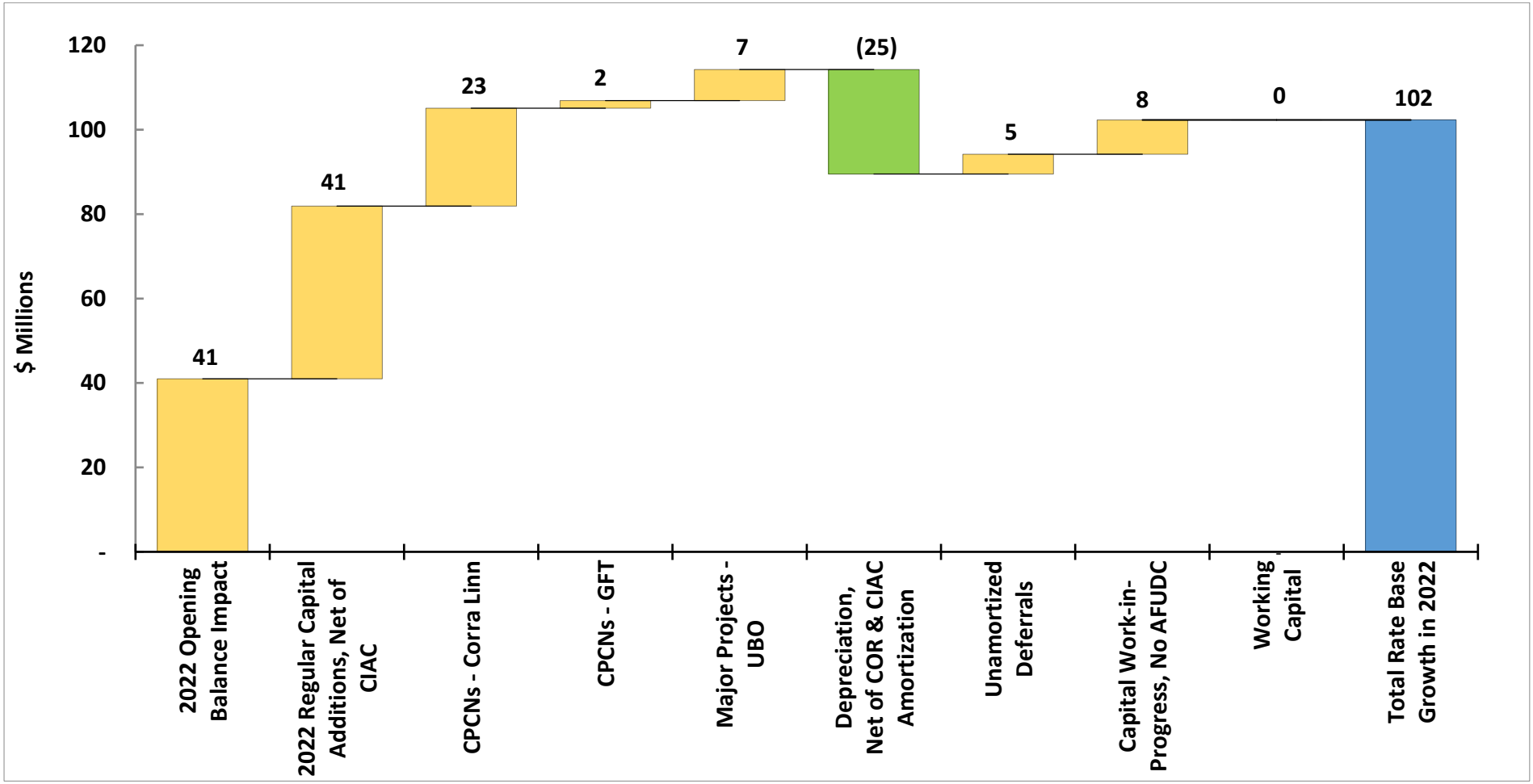
Summary of 2022 Deficiency

- Deficiency of $13.276 million:
  - Total 2022 revenue requirement is $397.171 million, less
  - Revenue at existing 2021 approved rates of $383.895 million
- Major drivers of deficiency:
  - Rate base growth (Depreciation 0.60% & Financing & ROE 0.94%)
  - Elimination of prior years' revenue surplus (1.41%)
  - Decrease in customer growth and volume (0.98%)

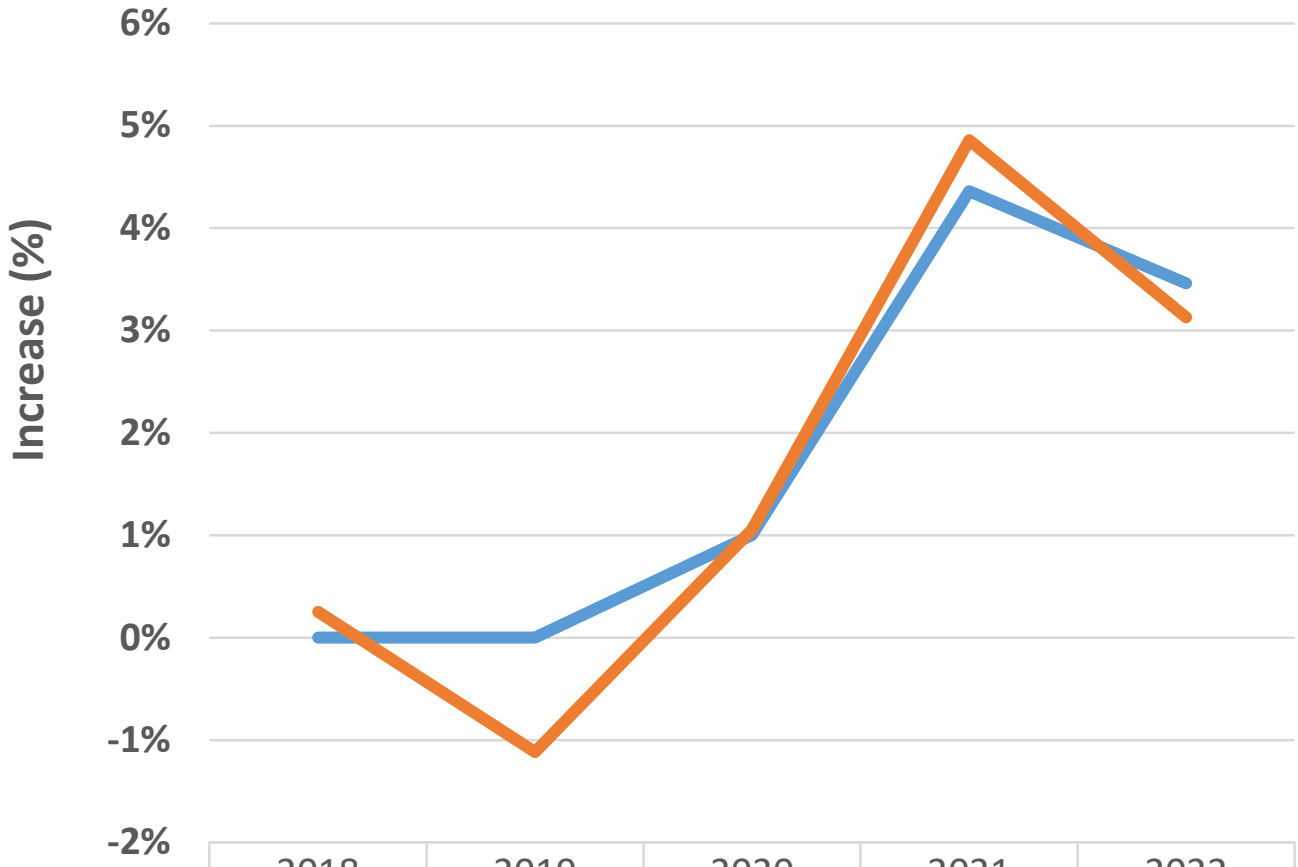
Components	$ millions	%
Customer Growth and Volume	3.747	0.98%
Power Supply	0.271	0.07%
Other Revenue	0.389	0.10%
Net O&M	2.162	0.56%
Depreciation	2.307	0.60%
Deferral Amortization	(3.266)	(0.85%)
Financing and Return on Equity	3.596	0.94%
Taxes	(1.350)	(0.35%)
Elimination of Accumulated Revenue Surplus	5.420	1.41%
Total Deficiency	13.276	3.46%

Driver #1: Rate Base Growth

2021 Approved Rate Base = $1.479 billion → + $102 Million → 2022 Forecast Rate Base = $1.581 billion



Driver #2 - Elimination of Accumulated Revenue Surplus



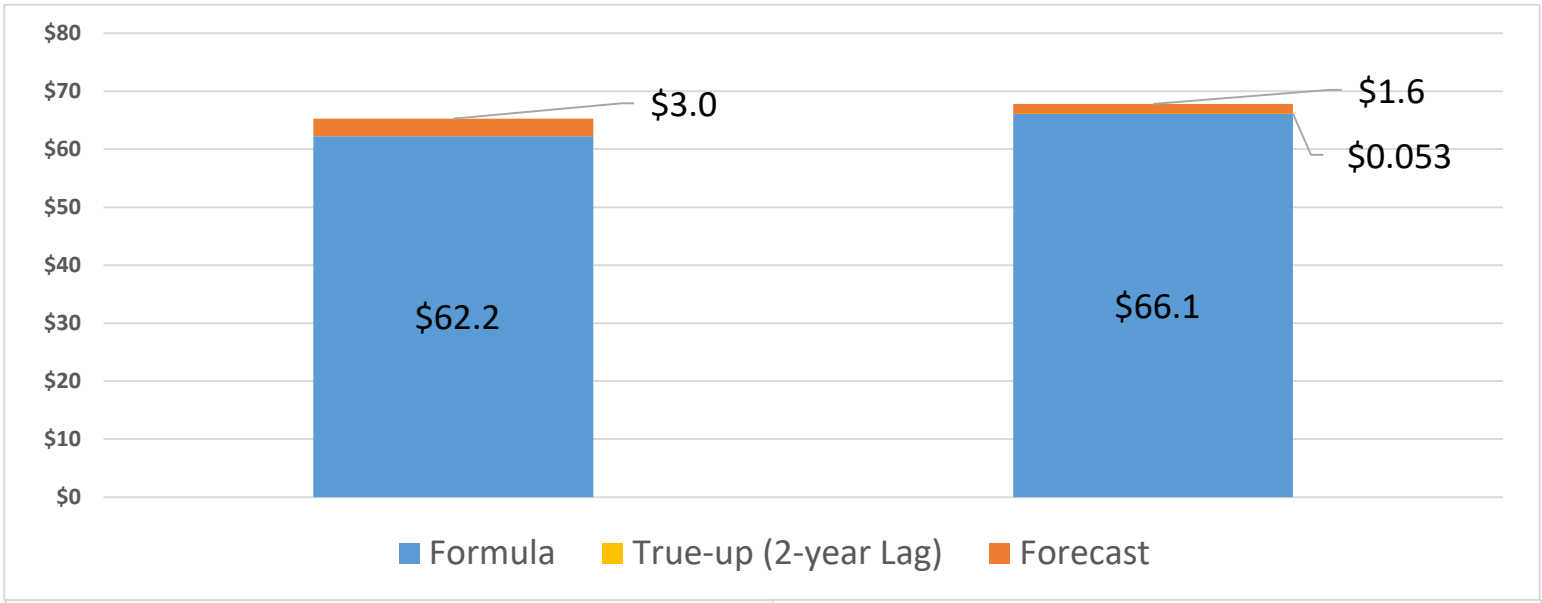
	2018	2019	2020	2021	2022
Approved Rate Increase (%)	0.00%	0.00%	1.00%	4.36%	3.46%
Rate Increase w/o Deferred Deficiency/(Surplus)	0.25%	-1.12%	1.05%	4.86%	3.13%

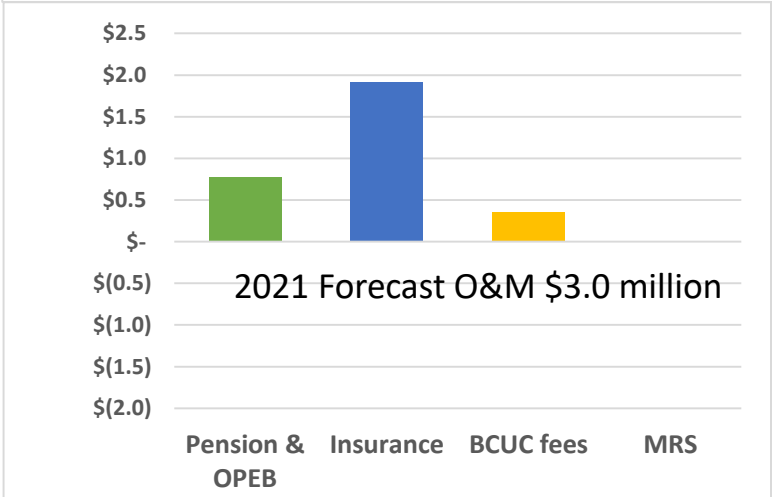
Reference: BCUC IR1 1.1

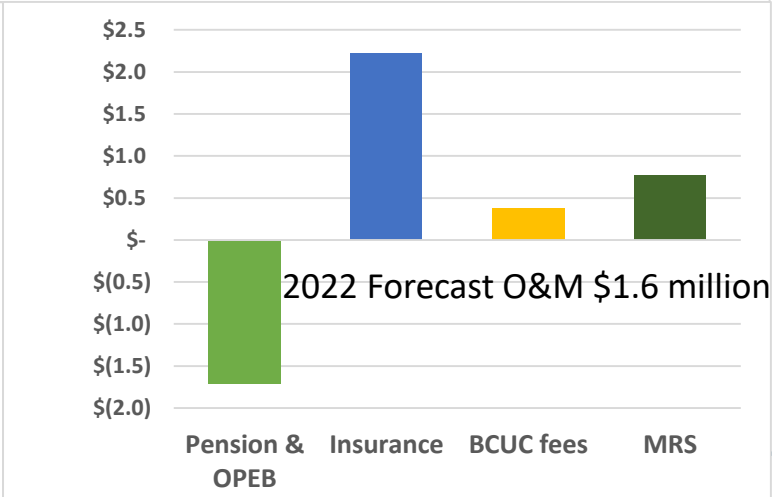
O&M – 2021 Approved vs. 2022 Forecast

2021 Approved Gross O&M $65.3 million
($55.5 million after capitalized overheads)

2022 Forecast Gross O&M $67.8 million
($57.7 million after capitalized overheads)







Questions?

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Forecasting

David Bailey, *Manager, Customer Energy and Forecasting Manager*

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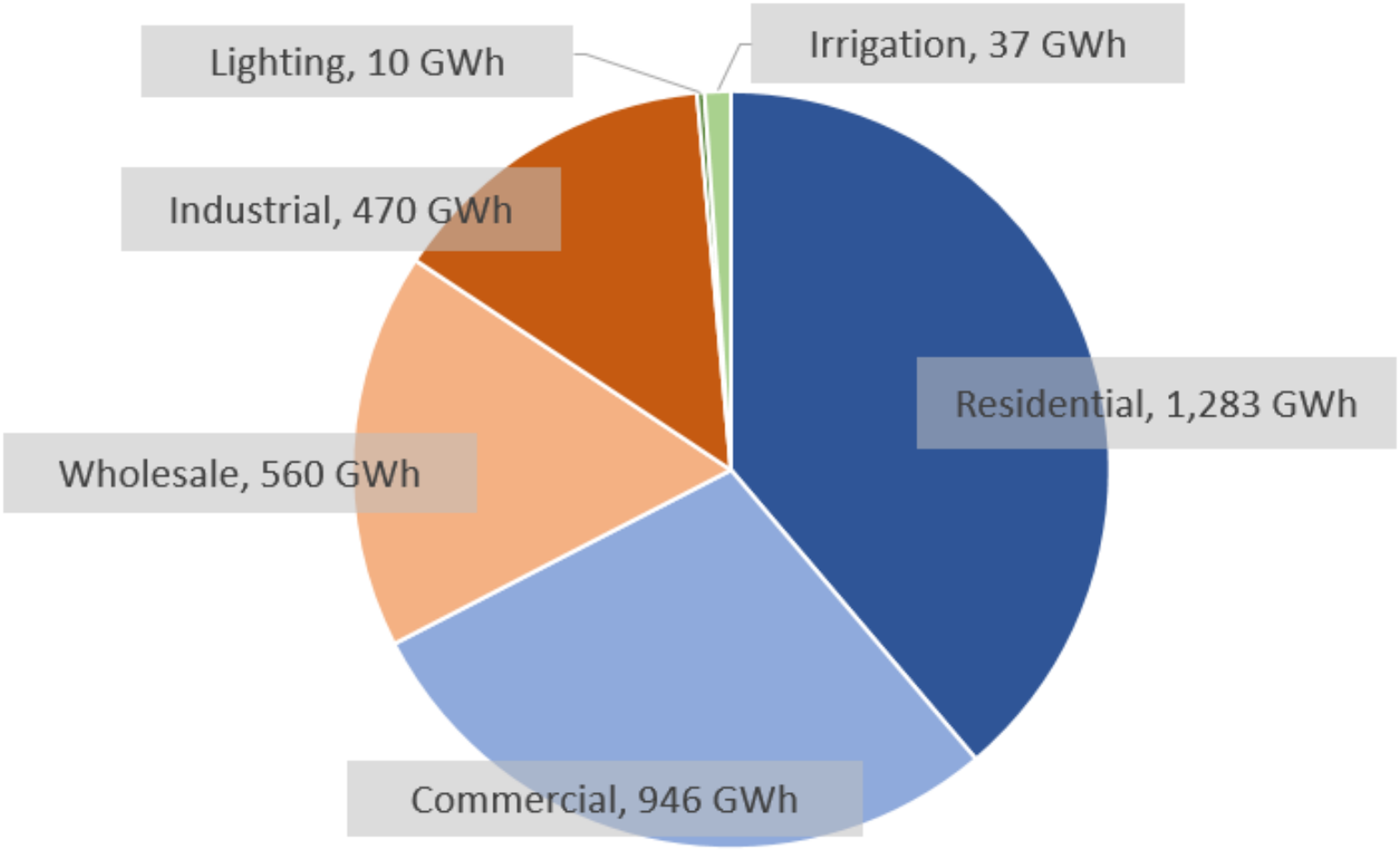
Load Forecast Components



Load Forecast Components

Residential

- Customers: Regression of BC STATS population
- UPC: Regression of normalized actuals
- Load: Product of customers and UPC

Commercial

- Load: Regression of CBOC GDP

Wholesale

- Survey
- 100% response

Industrial

- Survey
- 91% response by load/81% by customer

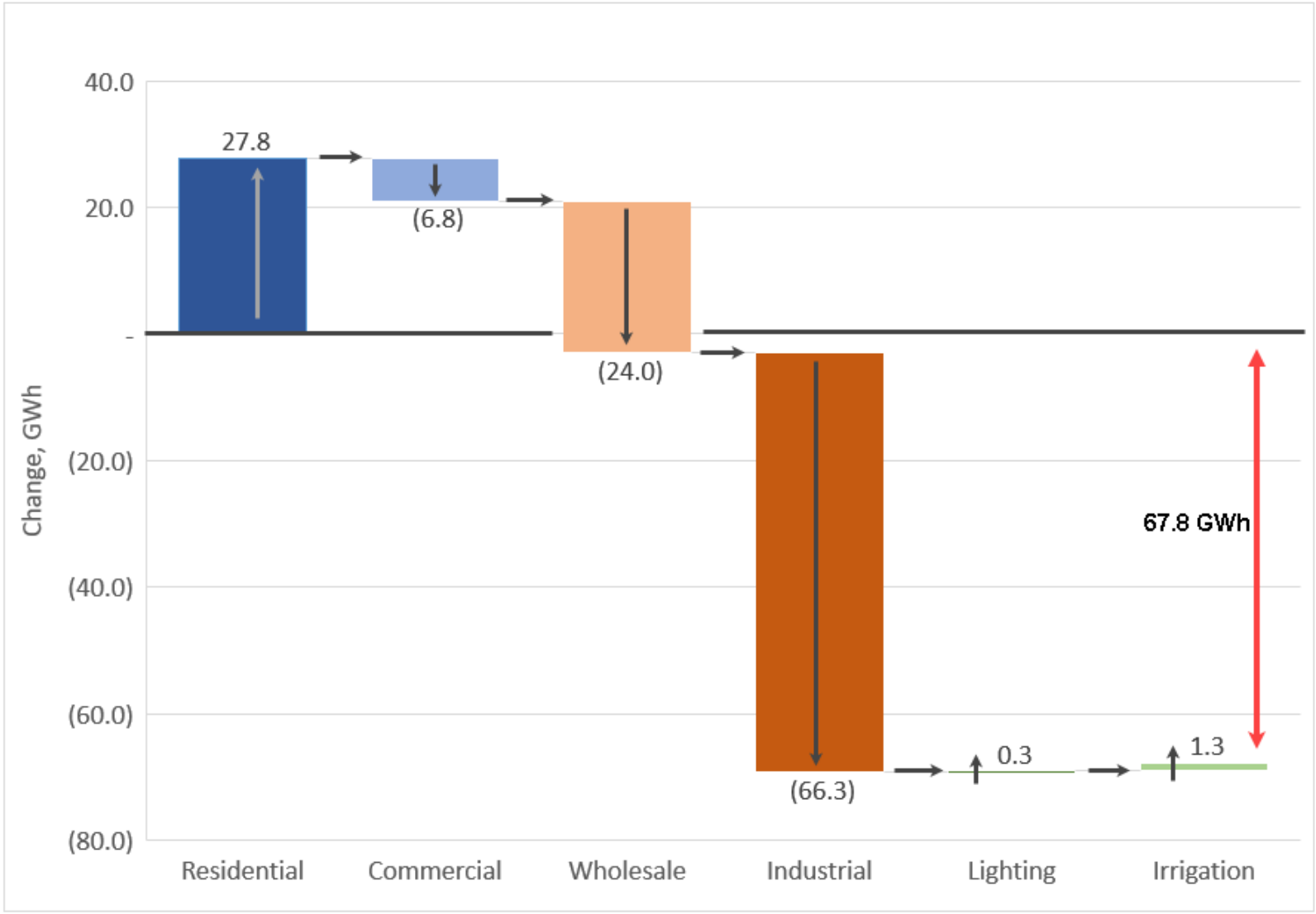
Lighting

- Load is forecast using a "same as last year" forecast

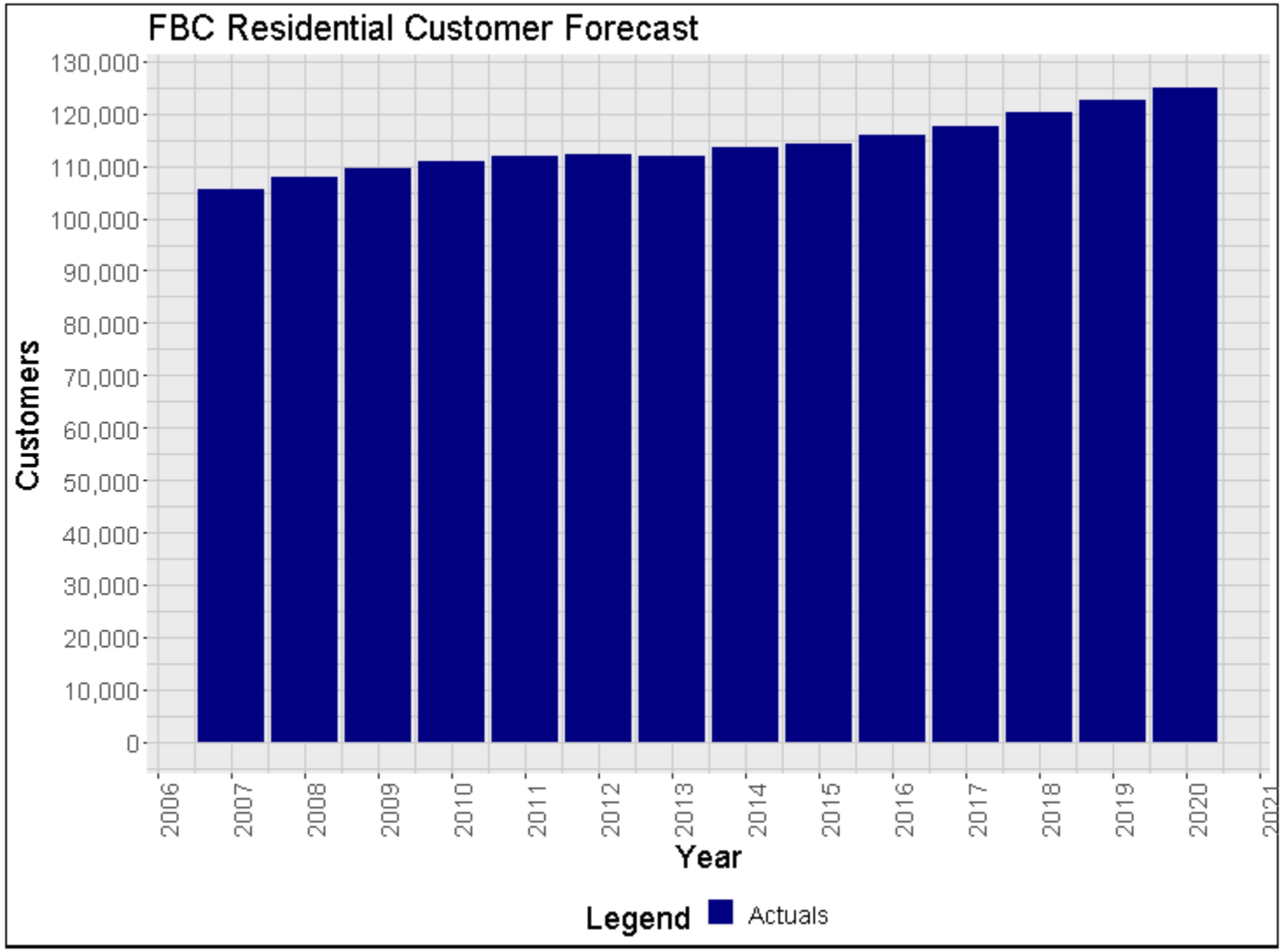
Irrigation

- Load is forecast using a "same as last year" forecast

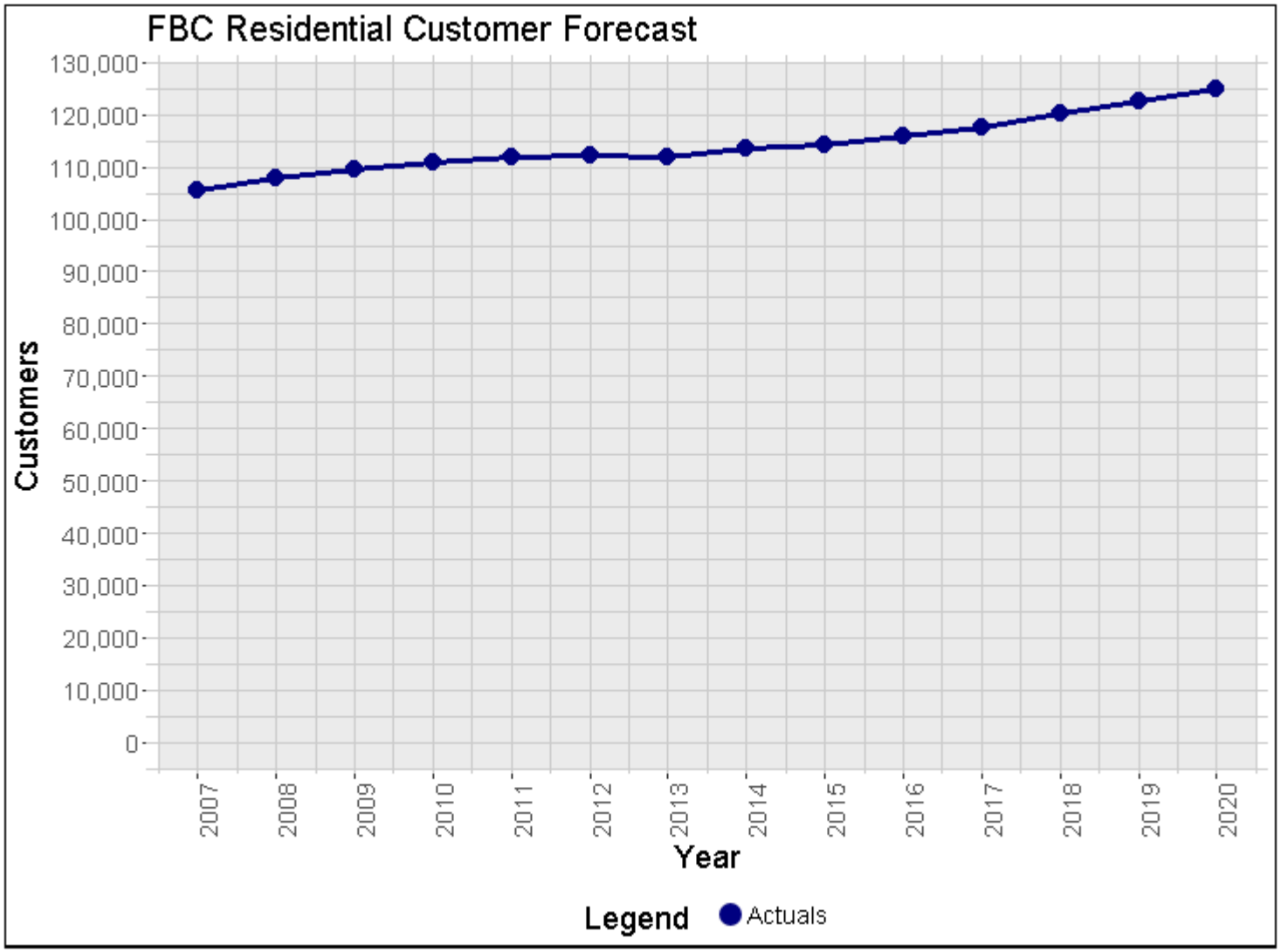
2022 Load Forecast Compared to 2021 Approved



Residential Customer Forecast



Residential Customer Forecast



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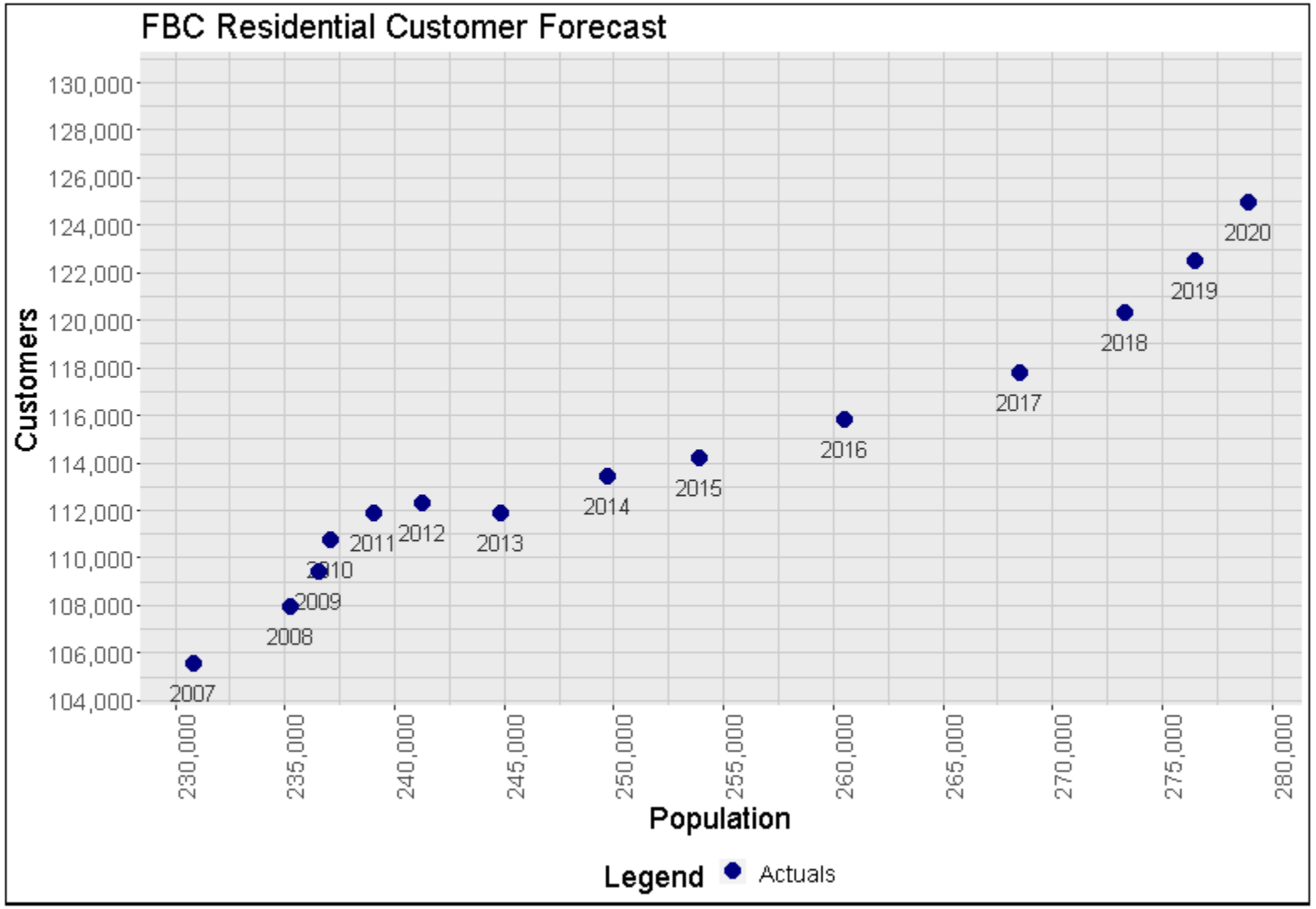

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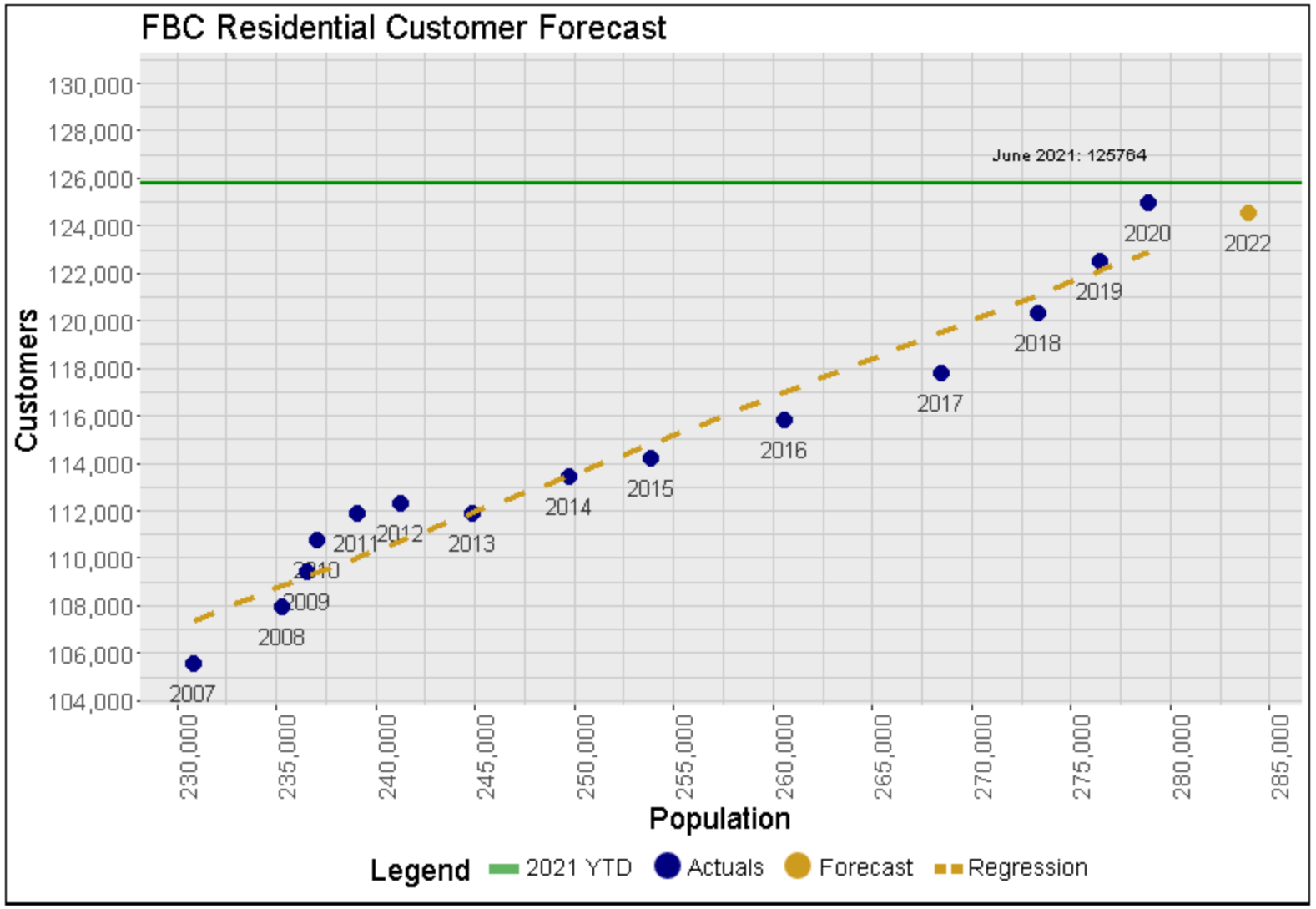

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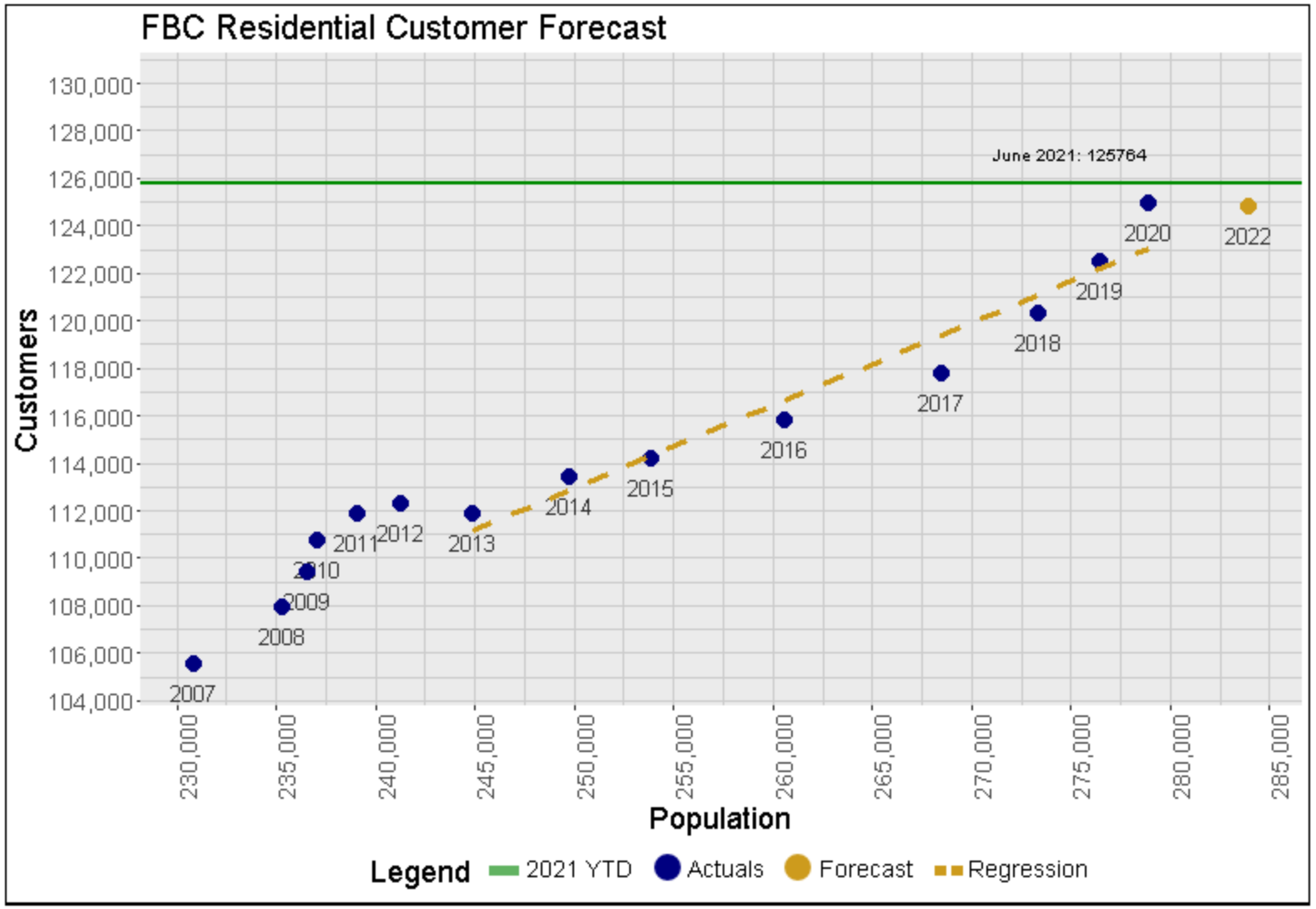
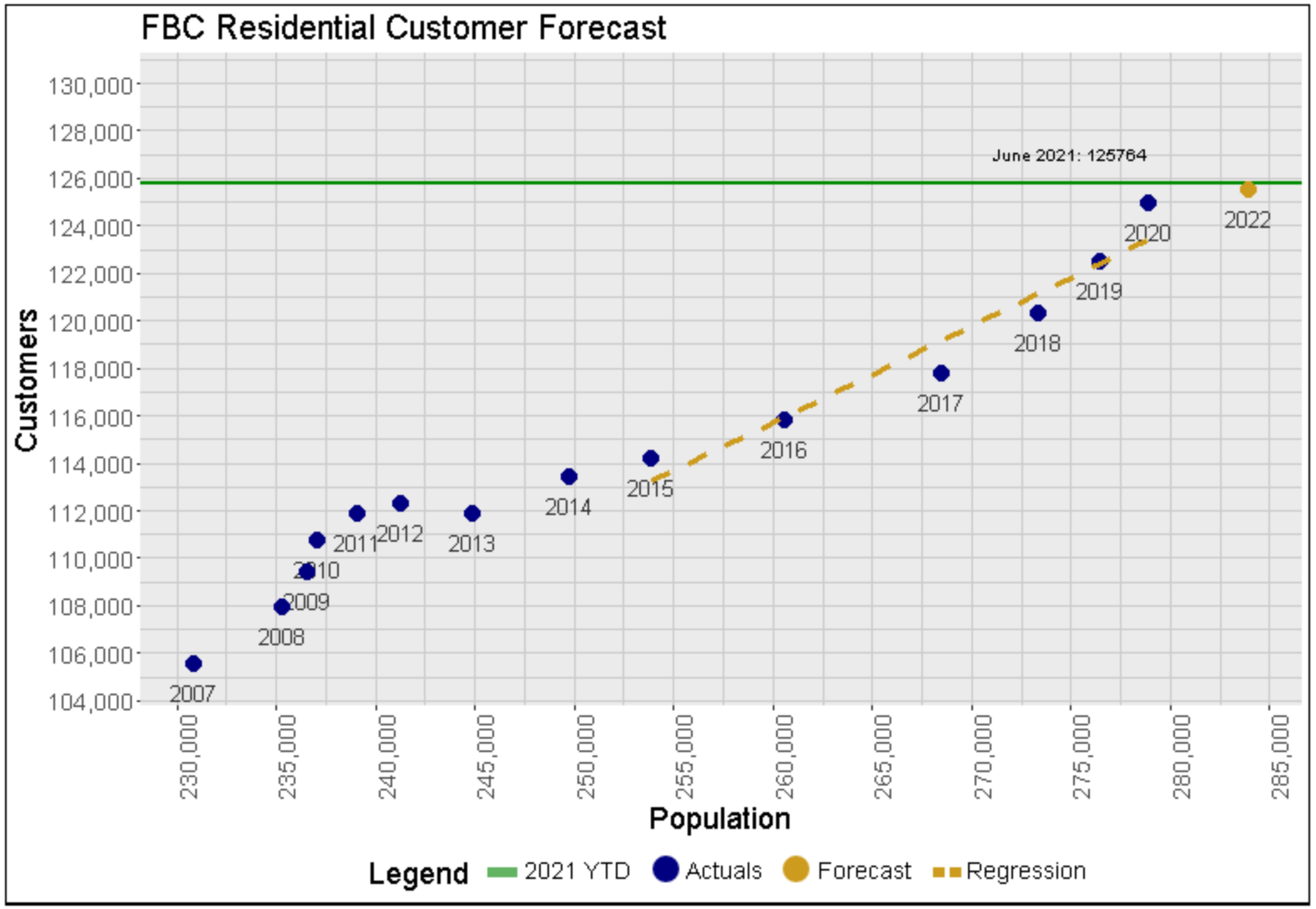


Residential Customer Forecast



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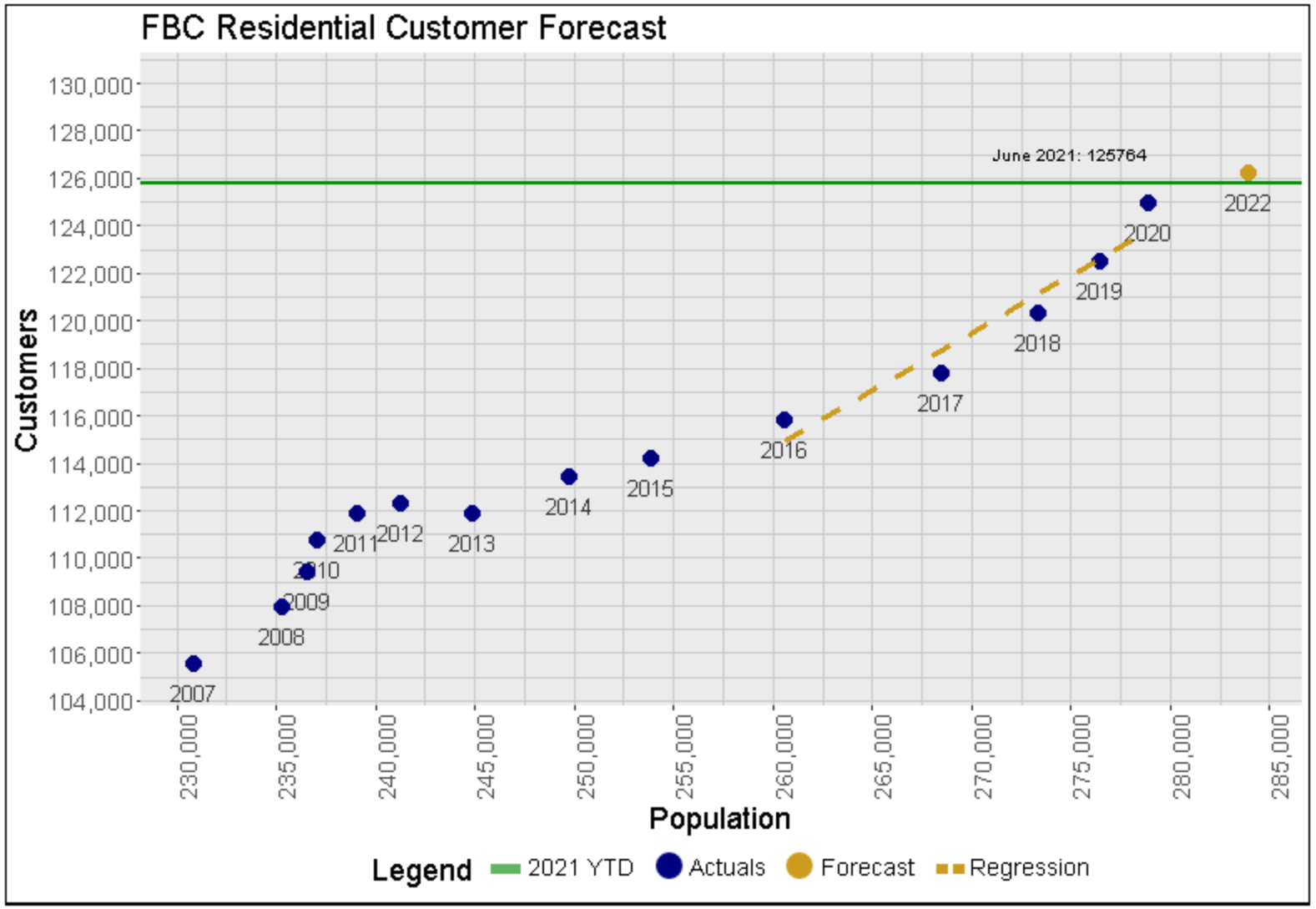
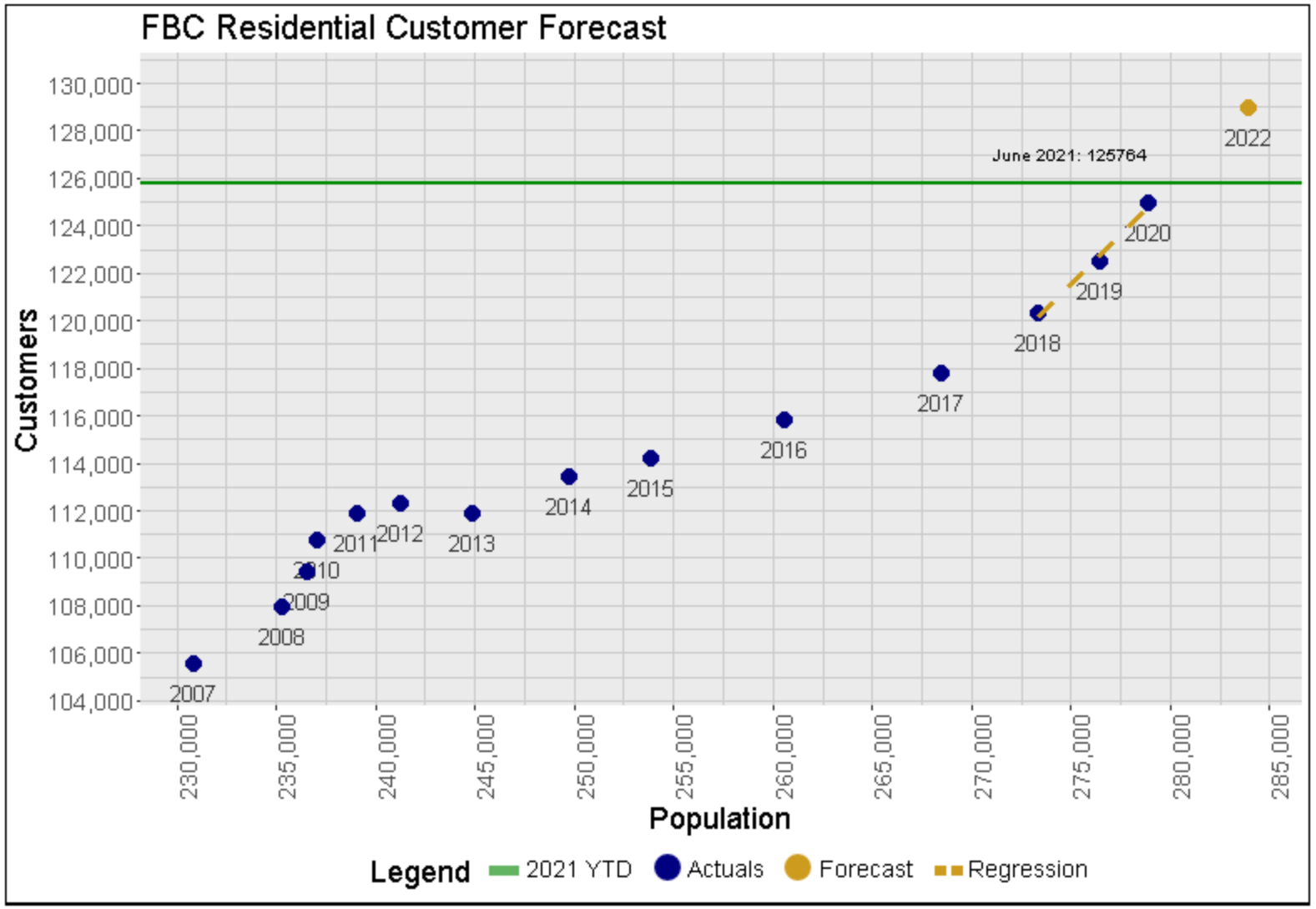


Residential Customer Forecast



Questions?

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Exogenous Factors

Sarah Walsh, *Senior Manager, Regulatory Affairs*

Curtis Klashinsky, *Manager, Assets and Compliance*

Derek Rinn, *Regional Manager, Network Services*

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Exogenous (Z) Factor Criteria

- The costs/savings must be attributable entirely to events outside the control of a prudently operated utility;
- The costs/savings must be directly related to the exogenous event and clearly outside the base upon which the rates were originally derived;
- The impact of the event was unforeseen;
- The costs must be prudently incurred; and
- The costs/savings related to each exogenous event must exceed the BCUC-defined materiality threshold of $0.150 million.

Mandatory Reliability Standards

Curtis Klashinsky, *Manager, Assets and Compliance*

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Assessment Report 13

- Adopted on September 8, 2020 by BCUC Order R-19-20
- Effective date of April 1, 2023
- Standards with Impact
  - CIP-013-1 Supply Chain Risk Management - New Standard
  - CIP-010-3 Configuration Change Management and Vulnerability Assessments
  - CIP-008-6 Incident Reporting and Response Planning
  - CIP-005-6 Electronic Security Perimeter

Assessment Report 13

- Develop and implement a supply chain cyber security risk management plan (CIP-013)
- Software integrity and download source must be verified and protected prior to installation (CIP-010)
- Introduce tools required to capture traffic and monitor attempts to compromise (CIP-008)
- Develop criteria to evaluate and define attempts to compromise as well as analyze and report confirmed attempts (CIP-008)
- Addition of applicable systems that must be monitored for any attempts to compromise (CIP-008)
- Methods to detect and disable vendor remote access sessions (CIP-005)

Assessment Report 13

	One-time				On-going	
	2021		2022		2023 +	
	O&M ($000s)	Capital ($000s)	O&M ($000s)	Capital ($000s)	O&M ($000s)	Capital ($000s)
Labour	100	0	335	580	525	0
Non-Labour	0	0	280	205	125	0
Contingency	0	0	150	150	0	0
Total	100	0	765	935	650	0

Reference: BCUC IR1 24.2

	Capital ($000s)
Labour	580
Hardware	55
Software	150
Contingency	150
Total	935

Reference: Exhibit A-4, BCUC Request

Questions?

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Exogenous Factor Event – 2021 Nk'Mip Creek Wildfire

Derek Rinn, *Regional Manager, Network Services*

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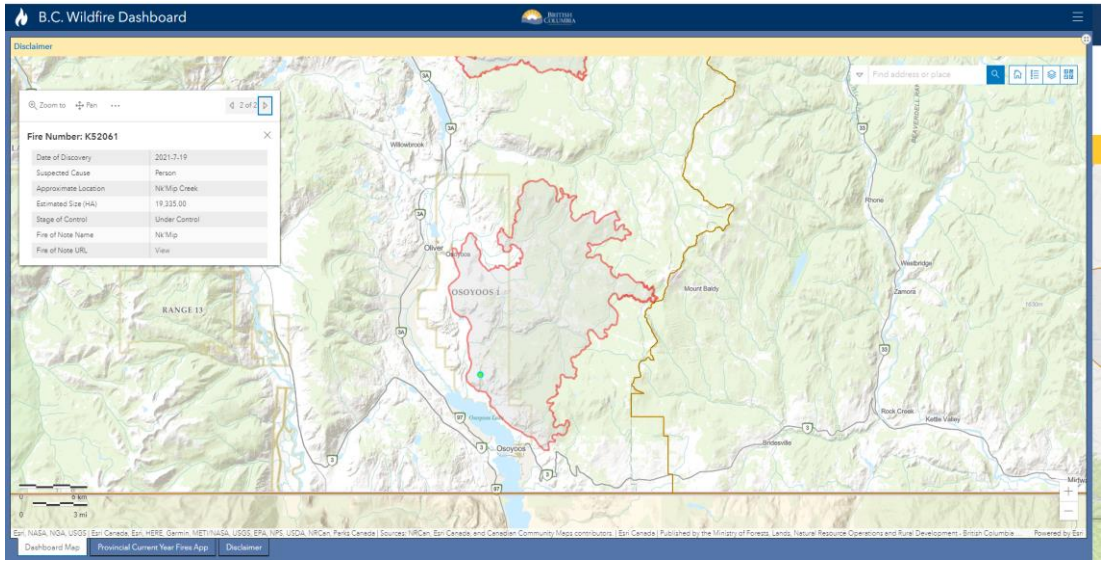
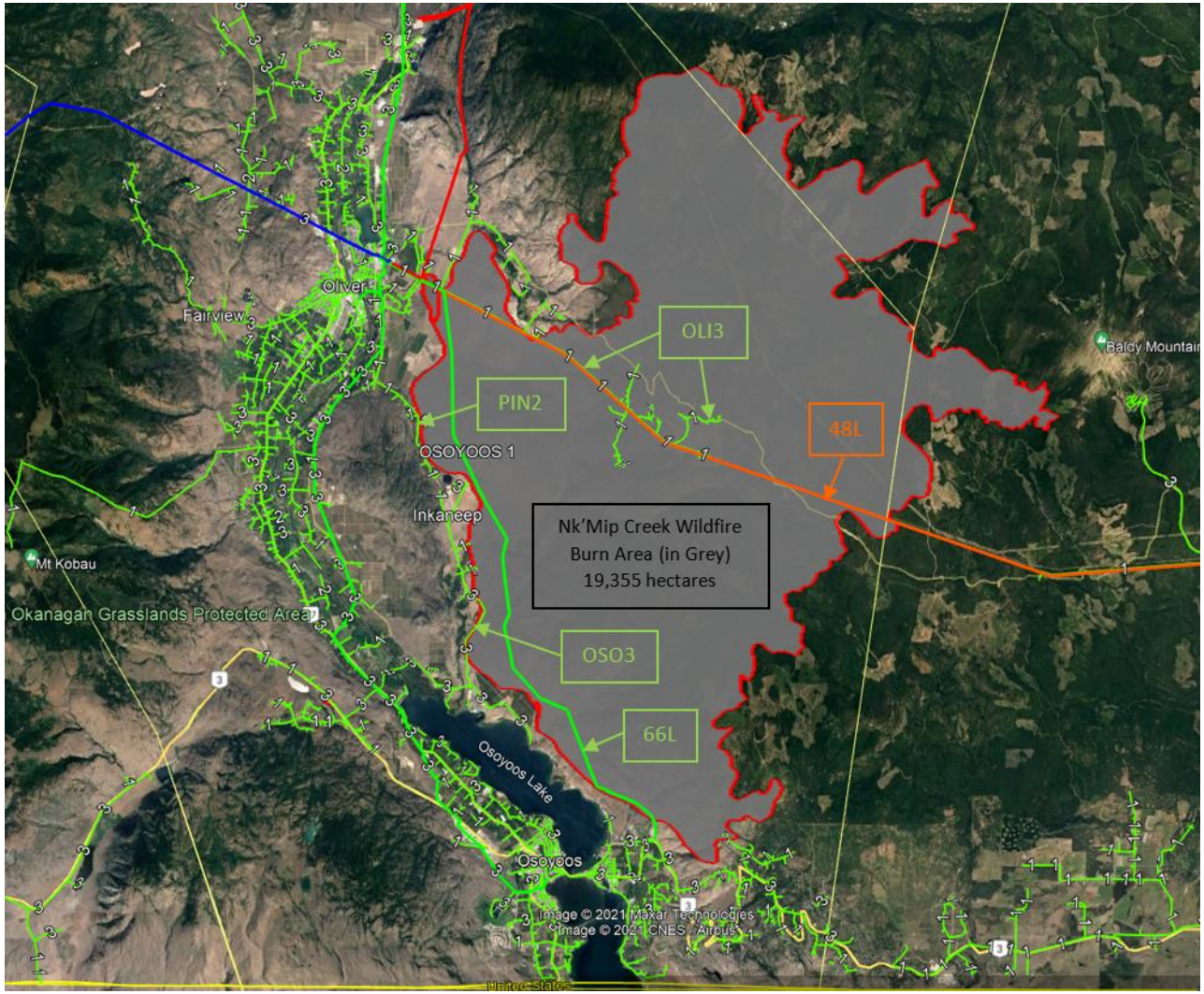
Overview of 2021 Wildfires

- 2021 was a hot, dry wildfire season with over 868,000 hectares burnt in the province
- There were numerous fires within the FBC service area
  - Of those fires, 9 threatened or impacted our assets, with a major impact from the Nk'Mip Creek wildfire
- Nk'Mip Creek wildfire began July 19 2021, 6km north of Osoyoos, burning 19,355 hectares



Nk'Mip Creek Wildfire Map



Nk'Mip Creek Wildfire Damage

- 30 transmission and 13 distribution structures were damaged

Preventive Measures

- Fire retardant application
- Removal of vegetation around pole base

Restoration

- Main customer outage impact was on distribution circuit OLI3 where there were up to 76 customers out from July 20 to Aug 6, though the area was under evacuation order during this time

- With one of the normal supplies out of service (66L supplies Nk'Mip Substation), customers in the Osoyoos area were kept online through system reconfiguration

- Once safe to enter the burned area, 48 Line construction was complete in 7 days, and 66 Line in 15 days

2021 Exogenous Factor Request

Line	Particular	Capital ($000s)	O&M ($000s)	Total ($000s)
1	Total 2021 Expenditures	2,199.246	181.500	2,380.746
2	Less: Events not meeting Materiality Threshold	-	(25.300)	(25.300)
3	Costs Meeting Materiality Threshold	2,199.246	156.200	2,355.446
4				
5	Less: Total Embedded 2021 Costs under MRP	(102.286)	(1.614)	(103.900)
6				
7	**Z-Factor Request**	**2,096.960**	**154.586**	**2,251.546**

Reference: Evidentiary Update, Appendix A, Section 4.2

Questions?

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Service Quality Indicators

James Wong, *Director, Budgeting and Strategic Initiatives*

Dale Ernst, *Manager, System Operations*

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Customer

Service Quality Indicator	2019 Results	2020 Results	2020 Status (Relative to Benchmark and Threshold)	2021 August YTD Results	2021 Status (Relative to Benchmark and Threshold)	Benchmark	Threshold
Customer SQIs							
First Contact Resolution	82%	82%	Meets	82%	Meets	78%	74%
Billing Index	1.96	0.13	Meets	0.14	Meets	<=3.0	5.0
Meter Reading Accuracy	99%	99%	Meets	98%	Meets	98%	96%
Telephone Service Factor (Non-Emergency)	70%	70%	Meets	69%	Better than threshold	70%	68%

Informational Indicator	2019 Results	2020 Results		2021 August YTD Results			
Customer Satisfaction Index	8.5	8.5	n/a	8.4	n/a		
Average Speed of Answer	49 sec.	71 sec.	n/a	66 sec.	n/a		

Safety and Reliability

Service Quality Indicator	2019 Results	2020 Results	2020 Status (Relative to Benchmark and Threshold)	2021 August YTD Results	2021 Status (Relative to Benchmark and Threshold)	Benchmark	Threshold
Safety SQIs							
Emergency Response Time	92%	92%	Better than threshold	95%	Meets	93.0%	90.6%
All Injury Frequency Rate	1.06	0.87	Meets	0.80	Meets	1.64	2.39
Reliability SQIs							
SAIDI - Normalized	3.22 *	3.17	Meets	3.90	Better than threshold	3.22	4.52
SAIFI - Normalized	1.57*	1.64	Better than threshold	1.90	Better than threshold	1.57	2.19

* For 2019, SAIDI and SAIFI are reported on a 3 year average basis.

Informational Indicator	2019 Results	2020 Results		2021 August YTD Results			
Generator Forced Outage Rate	0.1%	1.26%	n/a	0.26%	n/a		
Interconnection Utilization	99.98%	99.89%	n/a	99.90%	n/a		

SAIDI, SAIFI, Emergency Response & Interconnection Utilization

Dale Ernst, *Manager, System Operations*

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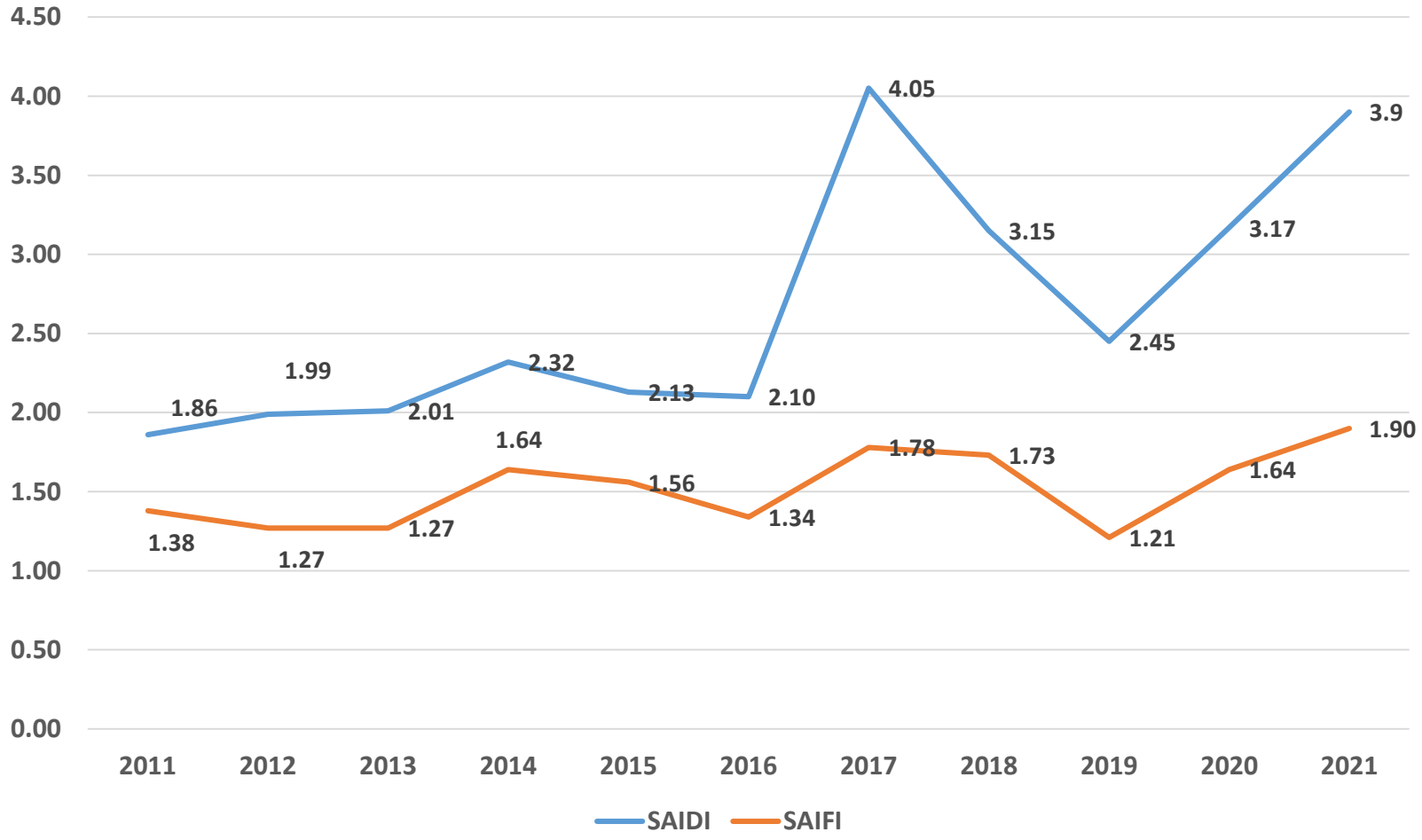
FBC Reliability by Year



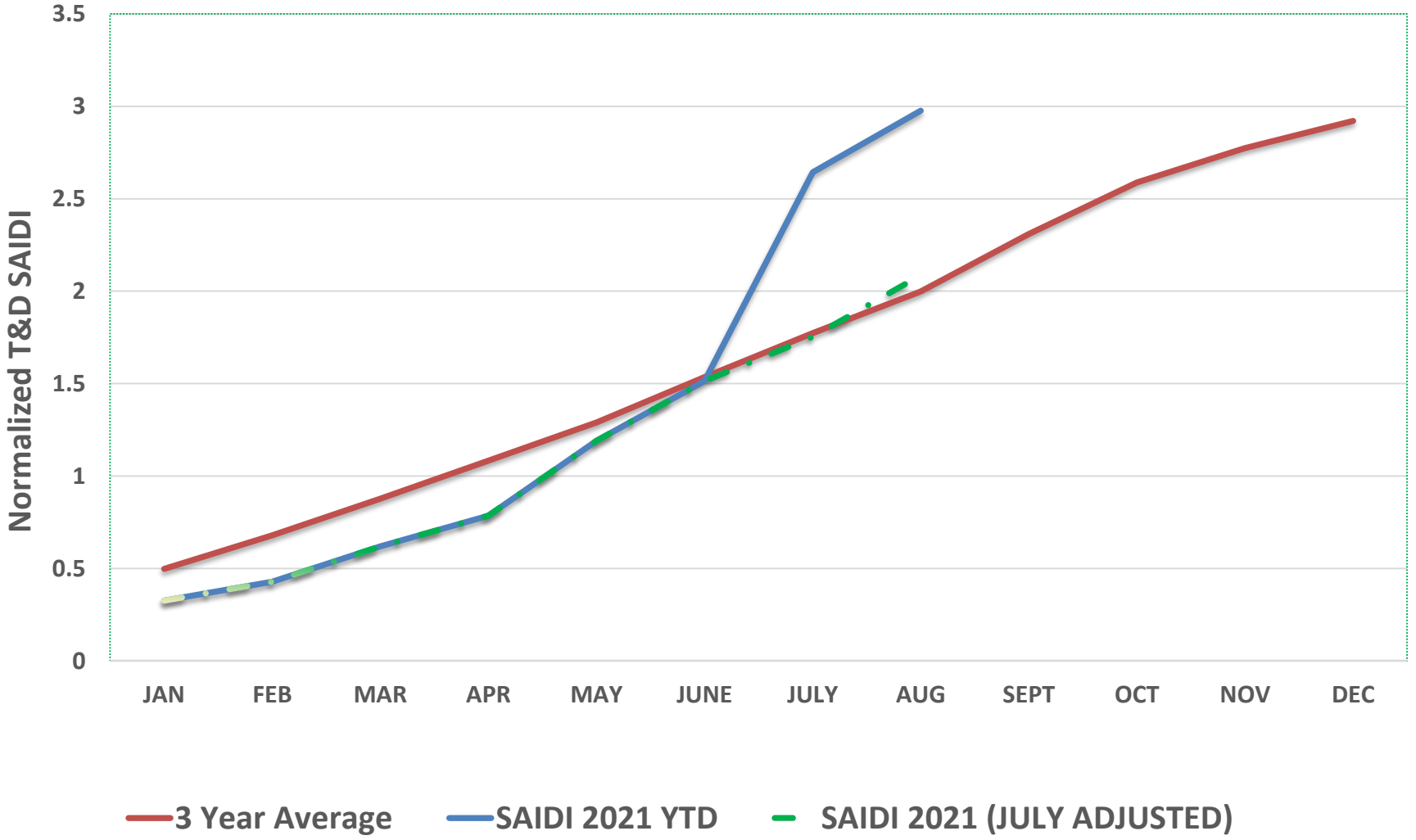
Summary of 2020/2021 YTD Results

- For 2020, SAIDI was slightly better than the Benchmark (3.17 vs 3.22) and SAIFI was slightly worse than Benchmark (1.64 vs 1.57)
- There were four qualifying Major Events in 2020
  - September 7th storm is the worst on record back to 2003 by total customer hours interrupted (212,800)
- 2021 SAIDI and SAIFI YEF results are forecast to be between the Benchmark and Threshold
- There have been two qualifying Major Events so far in 2021
  - April 18th storm is the second worst on record by total customer hours interrupted (200,800)
- 2021 results have been heavily influenced by external events in July (crane collapse, wildfires)

July Impact on 2021 YTD Results

- On July 12th a construction crane collapsed in downtown Kelowna
  - Immediate response was to de-energize the area around the site to allow safe access to first responders on scene
  - Power was interrupted to over 2,600 customers and contributed approximately 36,000 customer hours interrupted
- BC experienced a record heat wave in late June/early July which led to extreme fire conditions across the Interior
  - FBC turned off automatic reclosing in high risk areas to reduce risk of igniting a fire from an object contacting our lines. This led to more frequent and longer outages to ensure the system was safe prior to restoring
  - Over 70 customers were without power due to damage from the Nk'Mip Creek wildfire beginning on July 21th. FBC was also asked to proactively de-energize power to areas across the system to support fire suppression activities
  - Estimated that combination of all fire related outages added approximately 52,000 customer hours to July results

2021 Year To Date Results



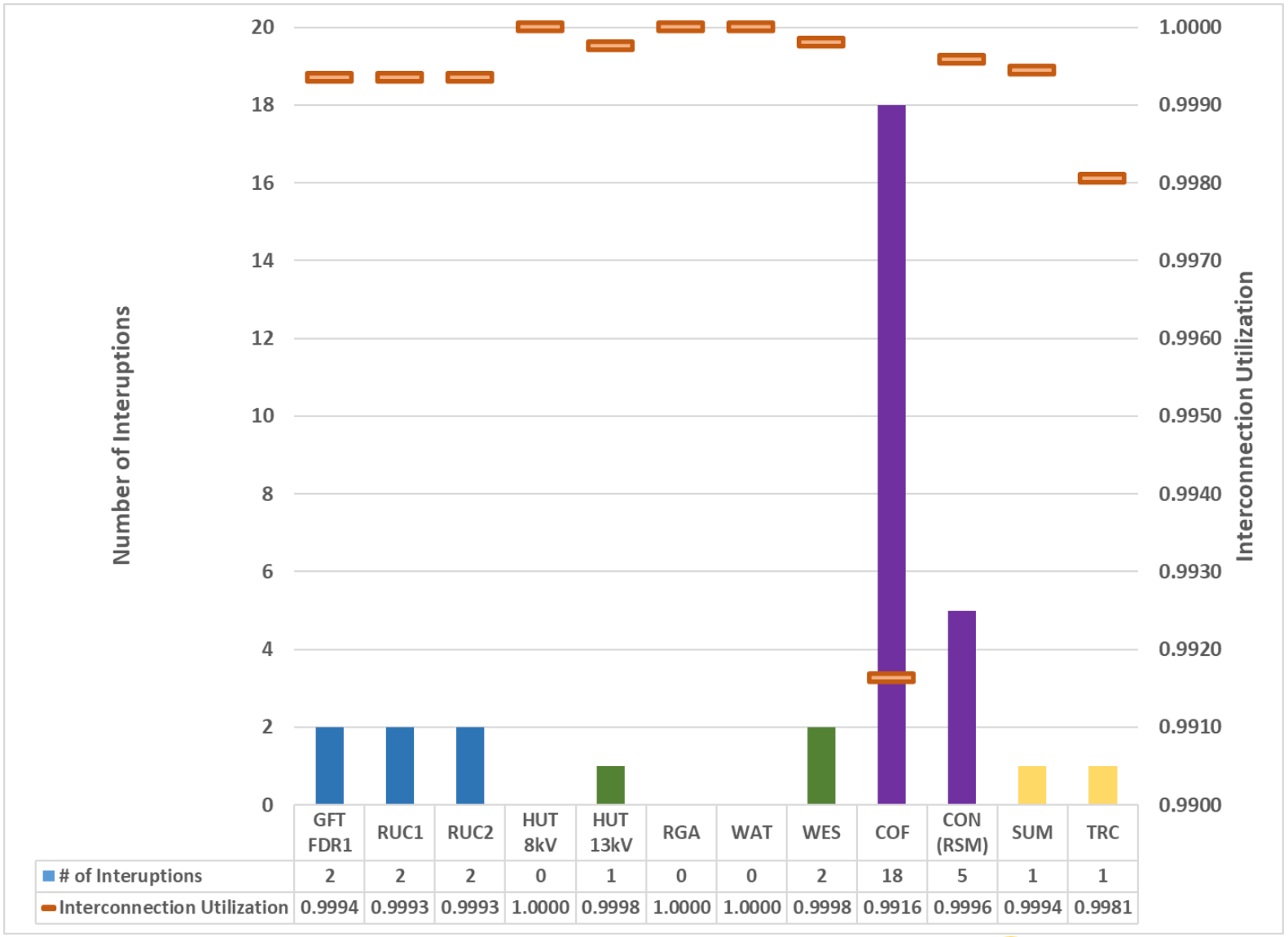
Emergency Response Time

Description	2014	2015	2016	2017	2018	2019	2020	August 2021 YTD
Results	91%	92%	97%	93%	94%	92%	92%	95%
Benchmark	93%							
Threshold	90.6%							

Interconnection Utilization

Description	2014	2015	2016	2017	2018	2019	2020	August 2021 YTD
Interconnection Utilization	99.99%	99.94%	99.99%	99.95%	99.96%	99.98%	99.89%	99.90%
Benchmark	n/a							
Threshold	n/a							

2020 Interconnection Utilization



	GFT FDR1	RUC1	RUC2	HUT 8kV	HUT 13kV	RGA	WAT	WES	COF	CON (RSM)	SUM	TRC
# of Interuptions	2	2	2	0	1	0	0	2	18	5	1	1
Interconnection Utilization	0.9994	0.9993	0.9993	1.0000	0.9998	1.0000	1.0000	0.9998	0.9916	0.9996	0.9994	0.9981

Questions?

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Questions Period

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For further information, please contact:

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