



Board of Commissioners Meeting



Revenue Requirement Results

Presented by:
Sergey Tarasov
Angie Sanchez Virnoche
Paul Quinn

August 18, 2020



Presentation Overview

- **Recap**
- **Overview of the rate study process**
- **Key assumptions**
- **Revenue requirement findings & scenarios**
 - » Water
 - » Electric
- **Next steps**
- **Questions / discussion**



Recap

- **Study commenced April 2020**
- **Met with Board to discuss rate setting fundamentals and study goals & objectives July 13, 2020**
 - » Reviewed fiscal policies
 - » Discussed rate study process



Overview of Rate Setting Process

Fiscal Policies – Set the Management Foundation

Today's
Focus

Step 1:
Revenue
Requirement
(defining overall needs)

Revenue

Debt

Reserves

O&M

Capital

Step 2:
Cost of Service
(equity evaluation)

Define Customer Classes

Allocate Costs

Step 3:
Design Rates
(collect target revenue)

Fixed Charges

Variable Charges



Key Assumptions

- **Study period: 2020-2030**
- **FY2020 budget used as baseline for O&M expenses**
- **Assumes tax revenues and funds are allocated to Electric only**
- **Future debt assumes revenue bonds**
 - » Term: 20-year
 - » Interest: 5.0%
 - » Issuance cost: 1.25%



Fiscal Policies

Policy	Purpose	Target
Working Capital Reserve	Liquidity cushion to accommodate cyclical cash flow fluctuations	<u>90 Days of O&M & Power (Electric)</u> Electric: \$7.2MM - \$9.3MM Water: \$731k - \$994k
Capital Contingency Reserve	To meet emergency repairs, unanticipated capital, and project cost overruns	<u>50% of annual CIP</u> Phased-in by 2025: Electric: \$80k - \$2.4MM Water: \$20k - \$280k
Debt Service Coverage (DSC) & TIER	Compliance with existing loan/debt covenants and maintain credit worthiness for future debt issuance.	Coverage & TIER: 1.25 Operating Coverage & TIER: 1.1

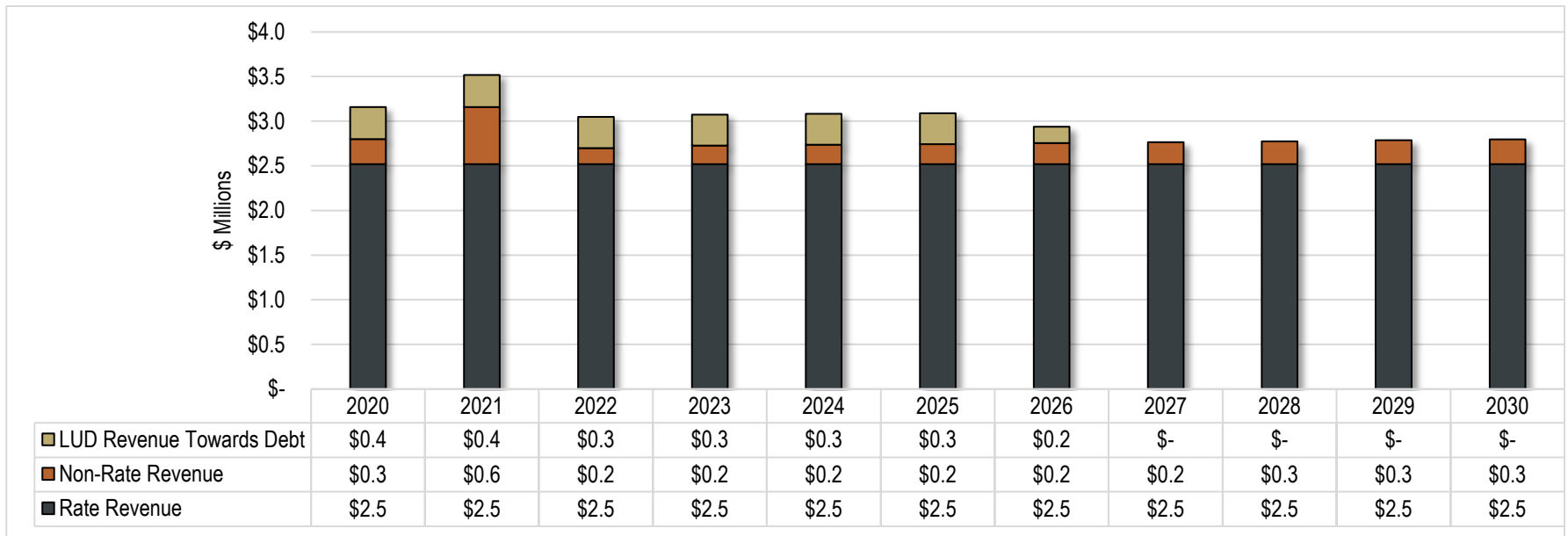


Water Utility



Water Key Components – Revenue

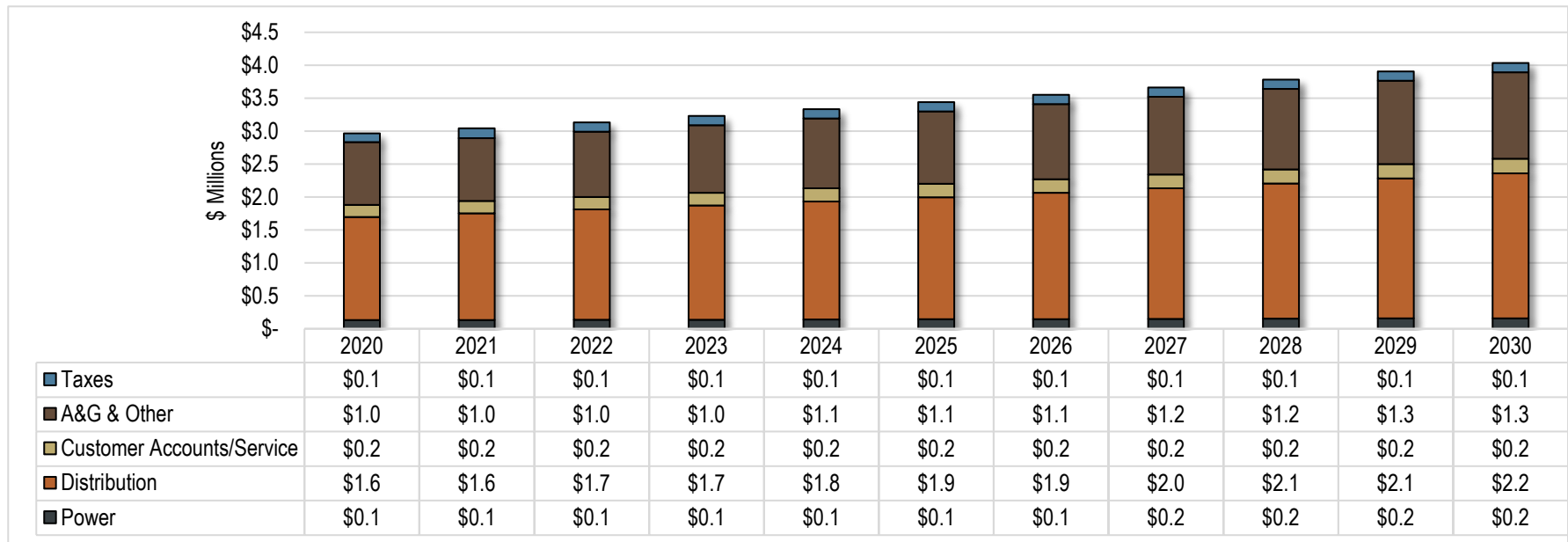
- **Rate revenue based on 2019 detailed customer statistics plus growth**
 - » Growth: 0%
- **Includes non-rate revenue**
 - » Interest income, LUD revenue towards debt, one-time 2021 timber harvest Peterson Lake, and sewer revenue
- **Total revenue at existing rates varies from \$3.5 to \$2.8 million**
 - » Fluctuates with LUD revenue towards debt and timber revenue





Water Key Components – O&M Expenses

- **2020 budget used as baseline**
 - » Various escalation factors used for future years: 2.0%-6.0%
 - Weighted average of 3.2% per year
 - » Includes PUD's billed water & electric usage
 - Capitalized labor moved to the CIP





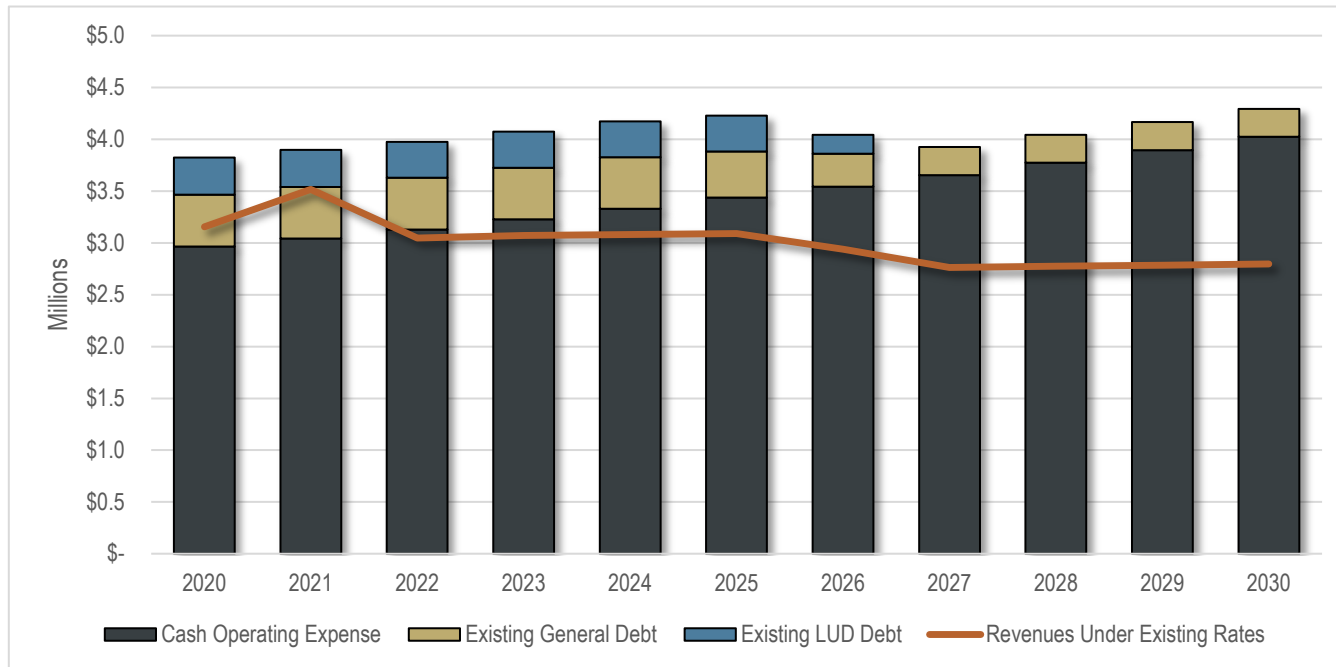
Water Key Components – Capital

Description	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	Total
Bywater Bay	\$ 60,000	\$ 165,000	\$ 120,000	\$ -	\$ 26,000	\$ -	\$ -	\$ 25,000	\$ -	\$ -	\$ -	\$ 396,000
Gardiner	-	120,000	20,000	31,000	-	-	-	-	-	-	-	171,000
Coyle	-	105,000	-	50,000	-	100,000	100,000	100,000	100,000	100,000	-	655,000
Quimper	195,000	5,000	48,000	50,000	95,000	270,000	214,000	219,000	202,000	2,749,000	2,325,000	6,372,000
Lazy C	2,317	-	-	75,000	-	-	-	-	-	-	-	77,317
Triton Cove	50,000	10,000	-	-	26,000	-	-	-	-	-	-	86,000
Snow Creek	89,750	86,000	-	-	-	-	-	-	-	-	-	175,750
Mats View Terrace	20,000	-	6,000	-	-	-	-	-	-	-	-	26,000
Quilcene	370,000	2,173,000	10,000	6,000	-	-	-	-	-	-	-	2,559,000
Other Water Projects	451,740	312,808	263,665	249,771	256,136	362,772	299,690	216,901	314,420	292,258	200,429	3,220,589
Sewer Placeholder	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	110,000
Total	\$ 1,248,807	\$ 2,986,808	\$ 477,665	\$ 471,771	\$ 413,136	\$ 742,772	\$ 623,690	\$ 570,901	\$ 626,420	\$ 3,151,258	\$ 2,535,429	\$ 13,848,656
Total (Inflated)	\$ 1,248,807	\$ 3,076,412	\$ 506,755	\$ 515,517	\$ 464,988	\$ 861,076	\$ 744,718	\$ 702,137	\$ 793,530	\$ 4,111,676	\$ 3,407,404	\$ 16,433,020

- **Total CIP of \$16.4**
 - » Inflated with annual CCI of 3.0%
 - » Includes sewer CIP
- **Analysis includes grant funding / developer contributions**
 - » Shine plat LUD distribution piping replacement: \$402,500
 - » Bywater Bay-Shine Plat LUD distribution replacement: \$45,000
 - » New Quilcene Storage Tank design grant: \$261,000



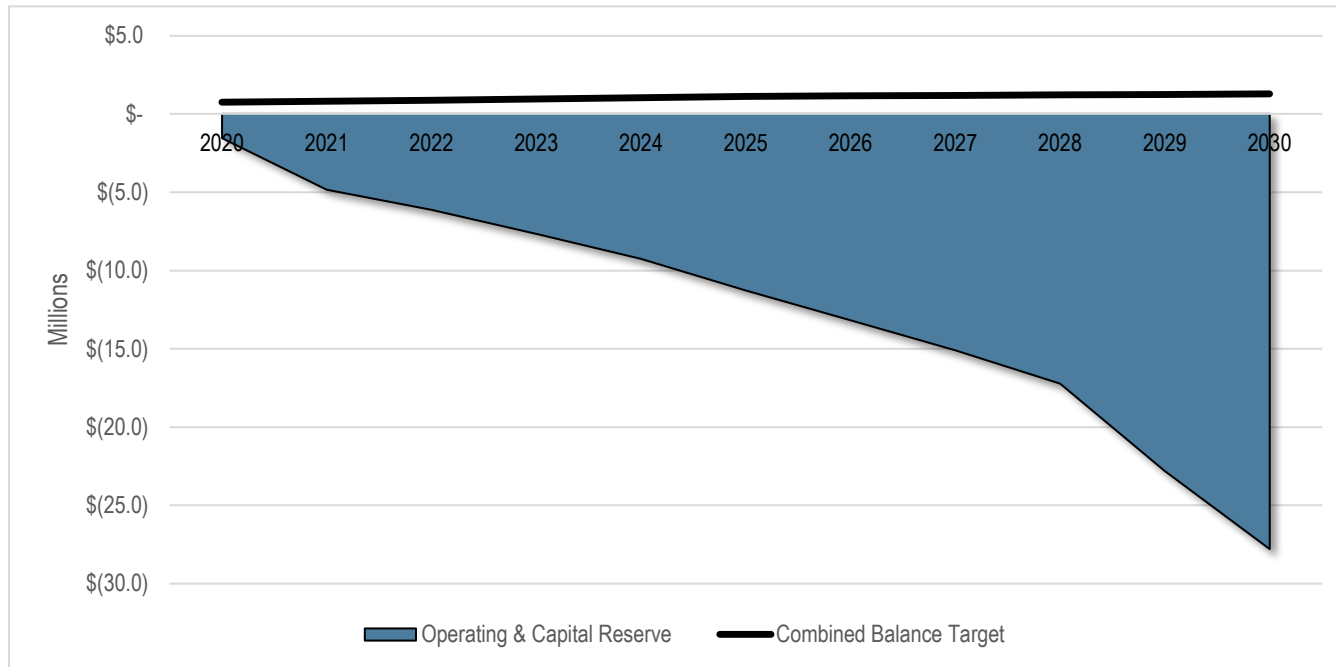
Water Revenue Requirement – Baseline Operating



- **Existing rates are not sufficient to cover existing O&M and debt**
 - » Does not include CIP
 - » Starting 2022 rates are not sufficient to cover O&M



Water Revenue Requirement – Baseline Fund Balance



- **Without tax revenue balances water beginning balance starts 2020 at \$0**
 - » Under existing rates there is not enough funding available to complete the CIP
 - » Balances drop below \$0.00



Water Scenarios

- **Two scenarios for consideration**

- » Scenario 1: interfund loan funds from electric to sustain 2020, self sufficient utility starting 2021 - \$1.6 million loan
- » Scenario 2: interfund loan funds from electric to levelize increases as much as possible - \$5.0 million loan

- **Interfund loan assume the following terms**

- » Term: 10-years
- » Interest: 2.0%

- **New debt assumed**

- » Both scenarios assume 2021 low interest loan for the Quilcene Storage Tank of \$2.2 million

New Debt Proceeds	Total Debt Proceeds											Total
	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	
S1 Water: \$1.6MM Loan	\$1,600,000	\$3,361,970	\$ -	\$ 950,000	\$ -	\$1,500,000	\$ -	\$1,500,000	\$ -	\$6,400,000	\$ -	\$15,311,970
S2 Water: \$5.0MM Loan	5,000,000	3,361,970	-	955,000	-	1,465,000	-	1,450,000	-	7,200,000	-	19,431,970

Note: 2020 amounts represent interfund loan totals from electric



Water Scenarios

Scenario	Annual Rate Increases											Cumulative
	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	
S1 Water: \$1.6MM Loan	0.00%	34.00%	17.00%	4.75%	4.75%	4.75%	4.75%	4.75%	4.75%	4.75%	4.75%	127.26%
S2 Water: \$5.0MM Loan	0.00%	13.00%	13.00%	13.00%	13.00%	13.00%	6.00%	6.00%	6.00%	6.00%	6.00%	146.56%

Scenario	Average Monthly Residential Bill (Assumes 4,200 gallons)										
	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
S1 Water: \$1.6MM Loan	\$37.83	\$50.69	\$59.31	\$62.13	\$65.08	\$68.17	\$71.41	\$74.80	\$78.35	\$82.07	\$85.97
S2 Water: \$5.0MM Loan	\$37.83	\$42.75	\$48.31	\$54.59	\$61.69	\$69.71	\$73.89	\$78.32	\$83.02	\$88.00	\$93.28

Scenario	\$ / Mo. Difference										
	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
S1 Water: \$1.6MM Loan		\$12.86	\$8.62	\$2.82	\$2.95	\$3.09	\$3.24	\$3.39	\$3.55	\$3.72	\$3.90
S2 Water: \$5.0MM Loan		\$4.92	\$5.56	\$6.28	\$7.10	\$8.02	\$4.18	\$4.43	\$4.70	\$4.98	\$5.28

- **Both scenarios assume the use of reserves to levelize increases**
 - » Scenario 1: \$693,000 2020-2022
 - » Scenario 2: \$4.1 MM 2020-2025



Sewer Scenarios

- **Water baseline and scenarios assume sewer is within water division**
- **Two scenarios for consideration to progress sewer towards standalone utility**
 - » Scenario 1: self sufficient utility starting in 2021
 - » Scenario 2: phase-in self sufficiency over 5 years through 2025
- **No new debt assumed**

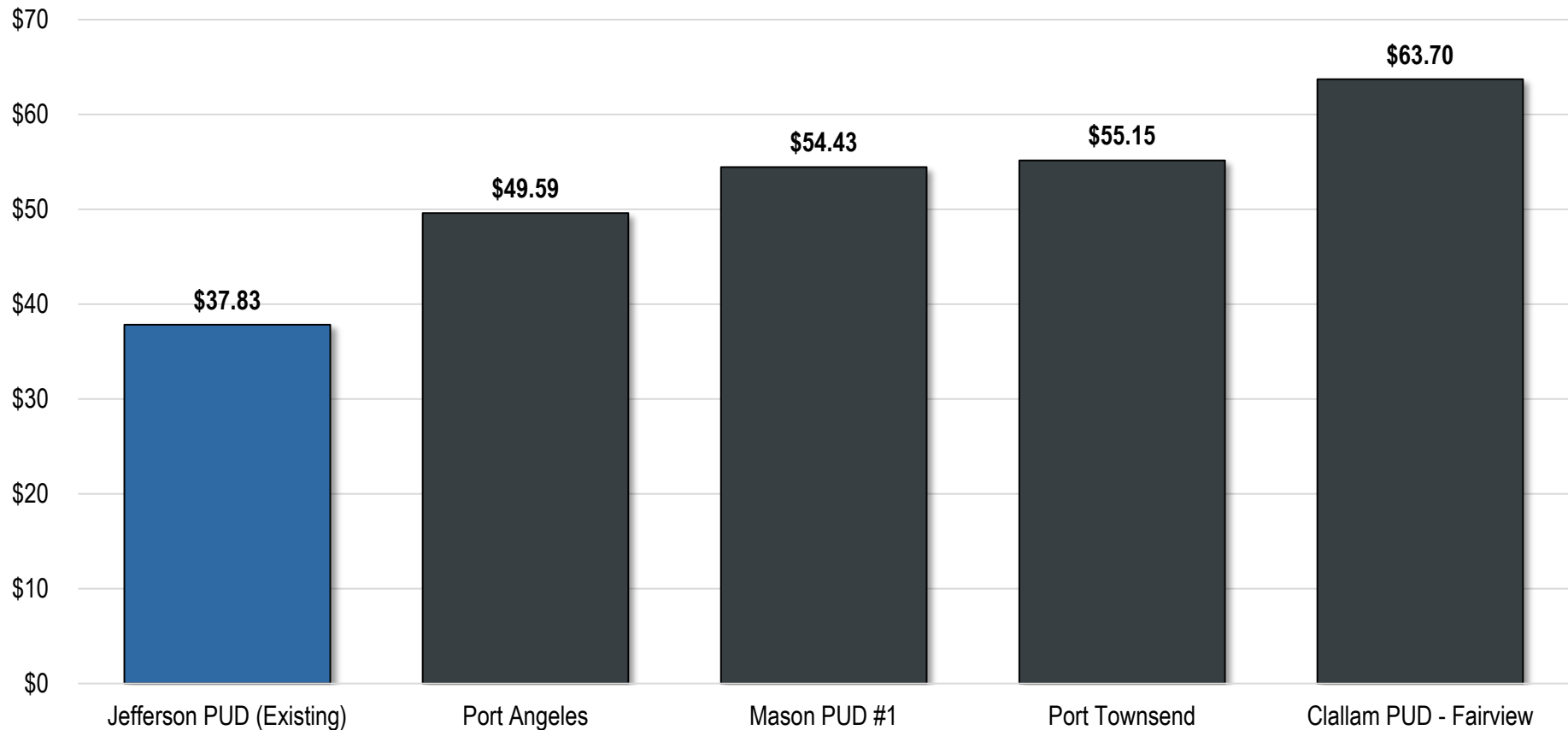
Scenario	Annual Rate Increases											Cumulative
	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	
S1 Sewer: Standalone 2021	0.00%	213.00%	2.50%	2.50%	2.50%	2.50%	2.50%	2.50%	2.50%	2.50%	2.50%	290.89%
S2 Sewer: Standalone 2025	0.00%	25.00%	25.00%	25.00%	25.00%	25.00%	7.75%	7.75%	7.75%	7.75%	7.75%	343.24%

Scenario	Average Monthly Residential Bill										
	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
S1 Sewer: Standalone 2021	\$30.80	\$96.40	\$98.81	\$101.28	\$103.81	\$106.41	\$109.07	\$111.80	\$114.60	\$117.47	\$120.41
S2 Sewer: Standalone 2025	\$30.80	\$38.50	\$48.13	\$60.16	\$75.20	\$94.00	\$101.29	\$109.14	\$117.60	\$126.71	\$136.53

Scenario	\$ / Mo. Difference										
	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
S1 Sewer: Standalone 2021		\$65.60	\$2.41	\$2.47	\$2.53	\$2.60	\$2.66	\$2.73	\$2.80	\$2.87	\$2.94
S2 Sewer: Standalone 2025		\$7.70	\$9.63	\$12.03	\$15.04	\$18.80	\$7.29	\$7.85	\$8.46	\$9.11	\$9.82



Water Rate Survey

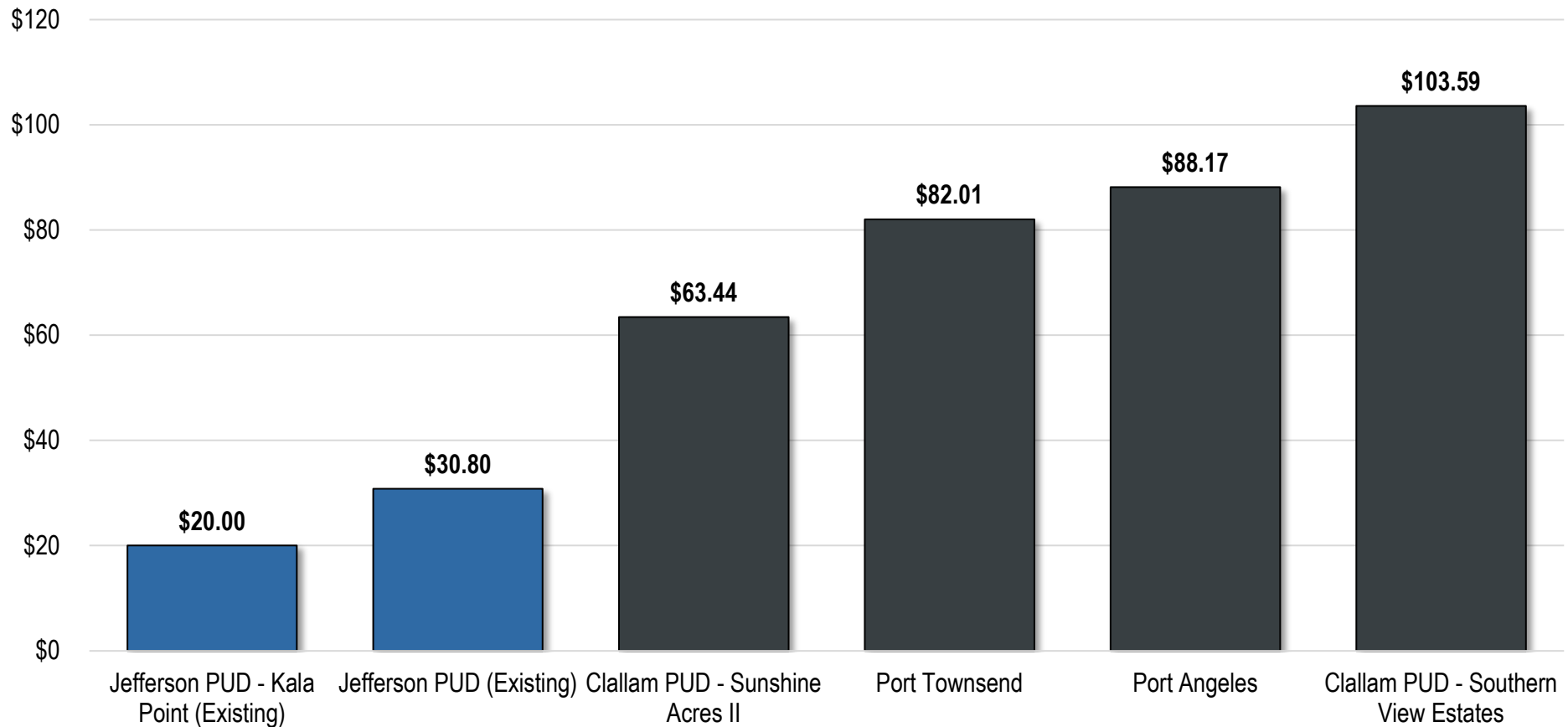


Note:

1. Port Townsend includes a capital surcharge of \$22
2. Assumes 4,200 gallons monthly consumption



Sewer Rate Survey



Notes:

1. Clallam PUD – Sunshine Acres II includes a capital surcharge of \$1.61
2. Port Townsend includes a capital surcharge of \$8.00
3. Port Angeles includes a sewer overflow charge of \$13.92 and \$0.01543 per cubic foot of usage
4. Clallam PUD – Southern View Estates includes a capital surcharge of \$1.39

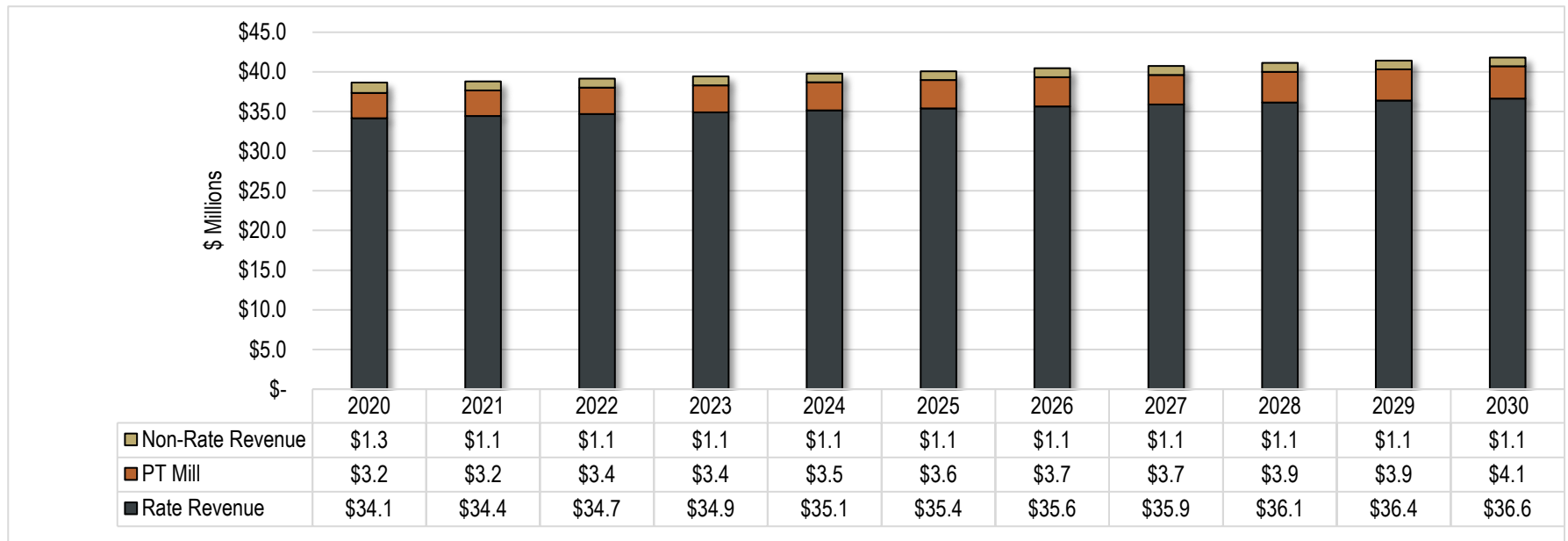


Electric Utility



Electric Key Components – Revenue

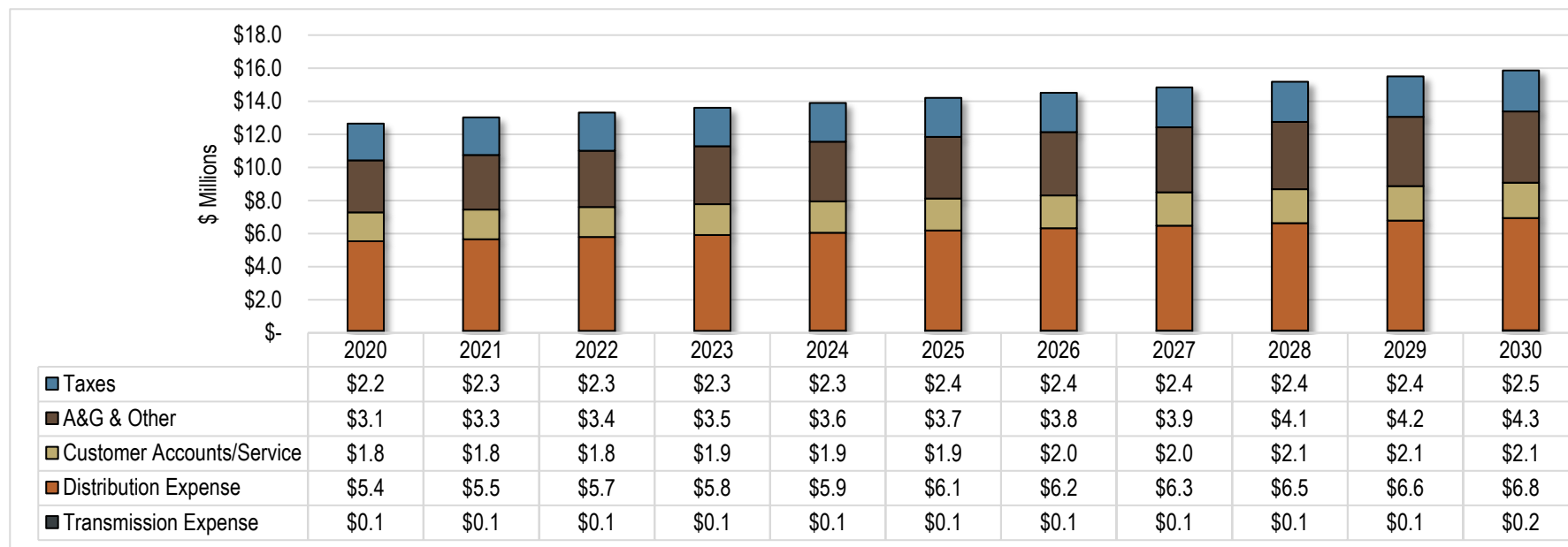
- **Rate revenue based on 2018/2019 detailed customer statistics plus growth**
 - » Growth: 1% residential, 0% all other customers
- **Includes other revenues: Interest income, timber revenue, rent from property, PT Mill, and other miscellaneous revenues**
 - » PT Mill revenue based on existing contract
- **Total revenue at existing rates varies from \$38.6 to \$41.8 million**





Electric Key Components – O&M Expenses

- **2020 budget used as baseline:**
 - » Various escalation factors used for future years: 2.0%-6.0%
 - Weighted average of 2.5%
 - » Includes PUD's billed water & electric usage
 - » 2020 labor adjusted for latest contract changes





Electric Key Components – Capital

Description	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	Total
New Line Construction	\$ 545,000	\$ 480,000	\$ 525,000	\$ 625,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 2,175,000
New Distribution Main-Line Construction	400,000	220,000	400,000	100,000	-	-	-	-	-	-	-	1,120,000
Conversion	640,000	50,000	550,000	530,000	-	-	-	-	-	-	-	1,770,000
New Substations	260,000	100,000	75,000	-	-	-	-	-	-	-	-	435,000
Substation Changes	214,000	404,000	755,000	665,000	-	-	-	-	-	-	-	2,038,000
Miscellaneous Distribution Equipment	480,000	585,000	920,500	1,209,500	-	-	-	-	-	-	-	3,195,000
Other Distribution Items	345,000	1,295,000	1,535,000	920,000	-	-	-	-	-	-	-	4,095,000
Transmission Line and Station Changes	170,000	45,000	60,000	285,000	-	-	-	-	-	-	-	560,000
Other Transmission Lines	45,000	25,000	-	80,000	-	-	-	-	-	-	-	150,000
Communications	145,000	140,000	110,000	160,000	-	-	-	-	-	-	-	555,000
Headquarters Facilities	50,000	-	125,000	100,000	-	-	-	-	-	-	-	275,000
Miscellaneous Projects/Other	3,582,000	3,991,000	700,000	600,000	600,000	600,000	600,000	600,000	600,000	600,000	600,000	13,073,000
Annual Average Placeholder	-	-	-	-	4,887,000	4,887,000	4,887,000	4,887,000	4,887,000	4,887,000	4,887,000	34,209,000
Total	\$ 6,876,000	\$ 7,335,000	\$ 5,755,500	\$ 5,274,500	\$ 5,487,000	\$ 5,487,000	\$ 5,487,000	\$ 5,487,000	\$ 5,487,000	\$ 5,487,000	\$ 5,487,000	\$ 63,650,000
Total Escalated to Year of Construction	\$ 6,876,000	\$ 7,555,050	\$ 6,106,010	\$ 5,763,589	\$ 6,175,667	\$ 6,360,937	\$ 6,551,765	\$ 6,748,318	\$ 6,950,767	\$ 7,159,290	\$ 7,374,069	\$ 73,621,462

- **Total CIP of \$73.6**

- » Inflated with annual CCI of 3.0%
- » 2020-2023 based on budget and 4-year electric plan
- » 2024-2030 based on historical average



BPA Tiered Rate Methodology (TRM)

- **Total purchased power is made up of 2 cost components:**
 - » Purchased power: cost of electricity – TRM – 89% of cost (2019)
 - » Transmission: cost of transmitting the electricity to the PUD – 11% of cost (2019)
- **What is it?**
 - » Two tier Priority Firm Power (PF) rate design applicable to firm requirements power service for Public utilities
 - » Went into effect FY2012 (October 2011)
 - » Set every two years

- **What is the goal of TRM (in simpler terms)?**
 - » In the past BPA secured all power needs of Public utility customers including:
 - Low cost hydro power
 - Higher cost market purchases
 - Resulting in a melded rate
 - » Melded rate approach was viewed as a potential subsidy
 - Low growth utilities subsidizing higher growth utilities
 - Securing market purchases driven by growth
 - » To avoid subsidization, BPA separated rates into tiers:
 - Tier 1: low cost power based on share of federal system capability
 - Tier 2: additional power needs
 - » Methodology was developed pre-natural gas boom and drop in market prices



BPA TRM – Bill Components

- In general, TRM consists of 3 key charges:
 - » **Customer charge:** 91% of 2019 TRM cost
 - Fixed monthly charge, does not change with use of energy
 - » **Load shaping charge:** 3% of 2019 TRM cost
 - May be a credit or a charge
 - Provides customer incentive to reduce or shift load
 - » **Demand charge:** 6% of 2019 TRM cost
 - Max. one-hour consumption of power supplied by BPA in a month
 - Tied to approximately 91% of each utility's historical monthly peaks
 - Prices set based on cost of running gas-fired combustion turbine
 - » **Other charges:** financial reserve policy surcharge 0.2% of 2019 TRM costs
 - Projected up to 1.8% of TRM costs in future years
 - BPA decided to defer this charge during COVID19
 - Intended to allow BPA to replenish reserves to target levels



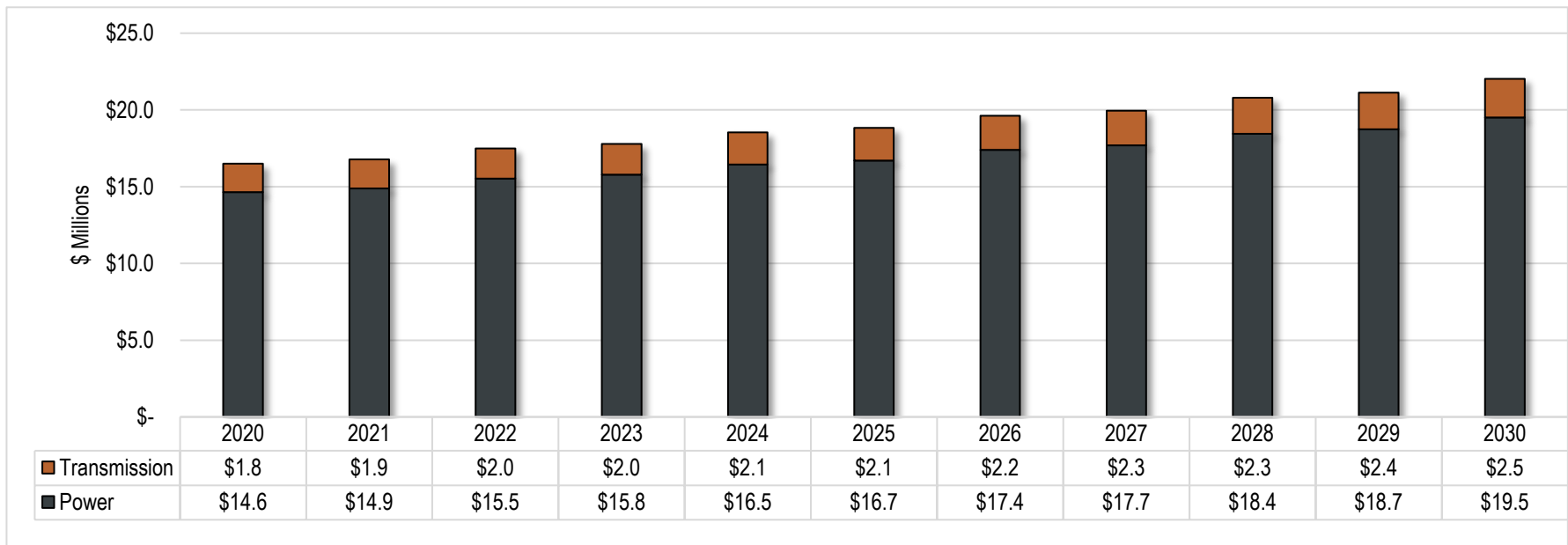
BPA TRM – Bill Components (continued)

- **What does this structure tell us?**
 - » Majority of low-cost power is fixed
 - » Significant changes in load will have a disproportionate impact on revenues compared to TRM costs
 - » Consider aligning retail rate structures with pricing signal



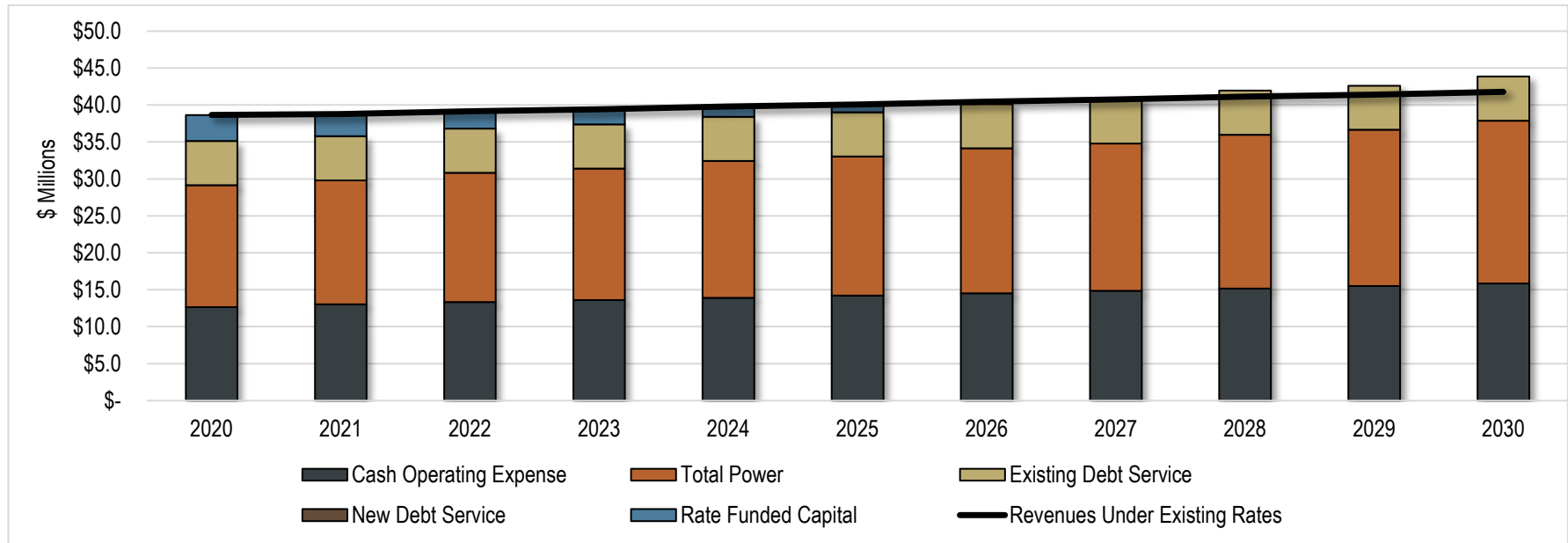
Electric Key Components – Power

- **Power & transmission based on load and BPA billing determinants**
 - » Includes BPA FY2020 power & transmission actual rates
 - » Future bi-annual increases starting FY2022
 - Power & transmission – 5.0%
 - » Power ranges \$16.5M - \$22.0M, on average 57% of O&M expenses





Electric Revenue Requirement – Baseline

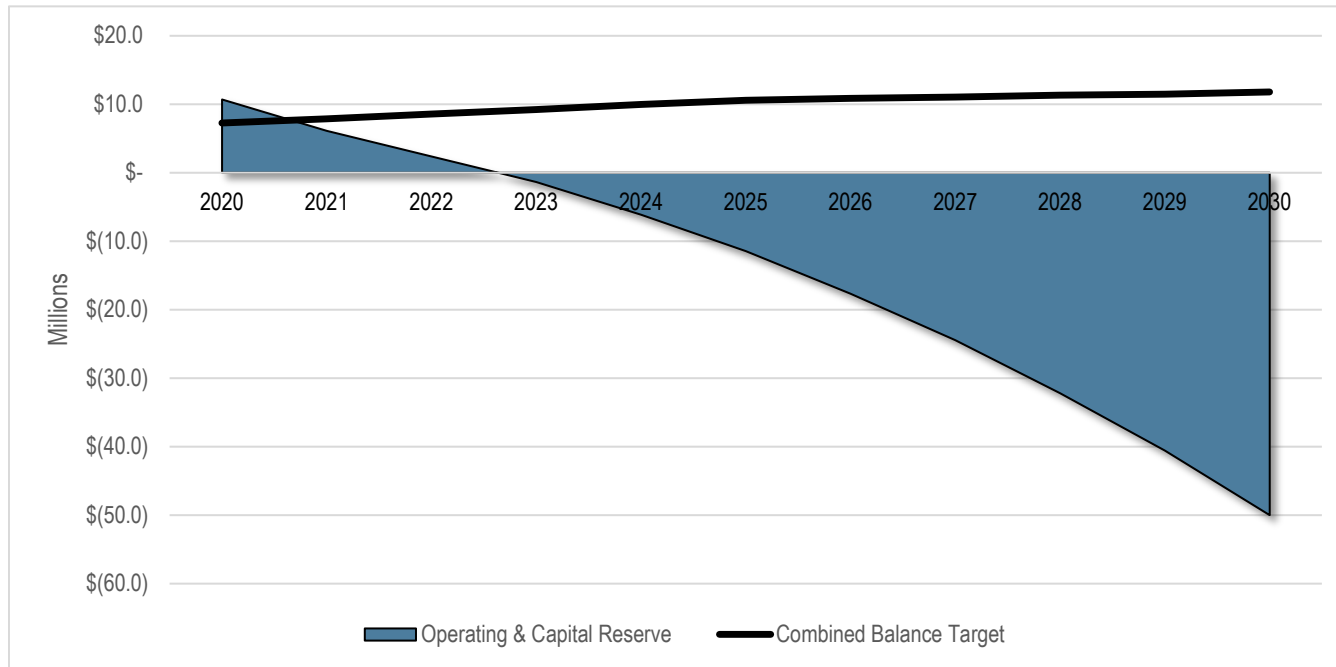


RUS Debt Tests	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Debt Service Coverage - Min 1.25x	1.94x	1.94x	1.77x	1.67x	1.59x	1.51x	1.42x	1.34x	1.25x	1.15x	1.05x
Operating Debt Srv Cvg - Min 1.10x	1.62x	1.62x	1.41x	1.31x	1.23x	1.15x	1.06x	0.98x	0.89x	0.79x	0.69x
TIER - Min 1.25x	2.73x	2.35x	1.92x	1.66x	1.45x	1.21x	0.93x	0.61x	0.25x	-0.17x	-0.66x
Operating TIER - Min 1.10x	1.97x	1.62x	1.07x	0.78x	0.53x	0.25x	-0.07x	-0.44x	-0.85x	-1.34x	-1.91x

- **Existing rates are not sufficient to cover existing O&M and debt**
 - » Operating expenses & debt service exceed revenues starting in 2027
 - » Operating TIER requirement would not be met starting 2022



Electric Revenue Requirement – Baseline Fund Balance



- **Without rate action total fund balances fall below zero in 2023**
 - » Under existing rates there is not enough funding available to complete the CIP



Electric Scenarios

- **Two scenarios consideration**

- » Scenario 1: interfund loan funds to water to sustain 2020, self sufficient water utility starting 2021 - \$1.6 million loan
- » Scenario 2: interfund loan funds to water to levelize water increases as much as possible - \$5.0 million loan

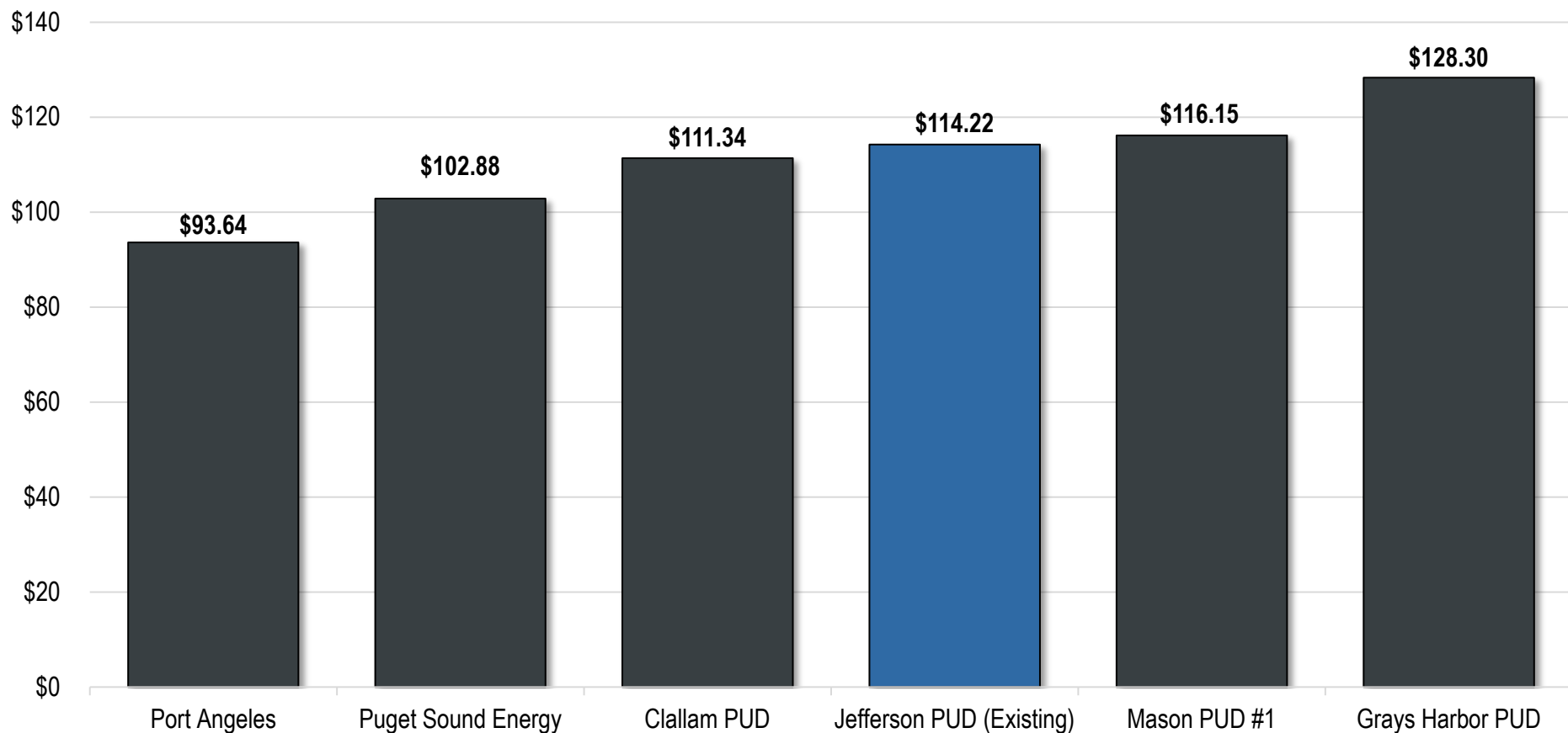
- **No new debt – capital plan 100% cash financed**

Scenario	Annual Rate Increases											Cumulative
	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	
S1 Electric: \$1.6MM Loan	0.00%	4.00%	4.00%	4.00%	2.50%	2.50%	2.50%	2.50%	2.50%	1.00%	0.00%	28.54%
S2 Electric: \$5.0MM Loan	0.00%	5.50%	5.50%	2.25%	2.25%	2.25%	2.25%	2.25%	2.25%	0.00%	0.00%	27.20%

Scenario	Average Monthly Residential Bill (Assumes 1,000 kWh)										
	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
S1 Electric: \$1.6MM Loan	\$114.22	\$118.79	\$123.54	\$128.48	\$131.69	\$134.98	\$138.35	\$141.81	\$145.36	\$146.81	\$146.81
S2 Electric: \$5.0MM Loan	\$114.22	\$120.50	\$127.13	\$129.99	\$132.91	\$135.90	\$138.96	\$142.09	\$145.29	\$145.29	\$145.29

Scenario	\$ / Mo. Difference										
	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
S1 Electric: \$1.6MM Loan		\$4.57	\$4.75	\$4.94	\$3.21	\$3.29	\$3.37	\$3.46	\$3.55	\$1.45	\$0.00
S2 Electric: \$5.0MM Loan		\$6.28	\$6.63	\$2.86	\$2.92	\$2.99	\$3.06	\$3.13	\$3.20	\$0.00	\$0.00

Electric Rate Survey





- **Water:**

- » Summary of scenarios

Scenario	Annual Rate Increases											Cumulative
	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	
S1 Water: \$1.6MM Loan	0.00%	34.00%	17.00%	4.75%	4.75%	4.75%	4.75%	4.75%	4.75%	4.75%	4.75%	127.26%
S2 Water: \$5.0MM Loan	0.00%	13.00%	13.00%	13.00%	13.00%	13.00%	6.00%	6.00%	6.00%	6.00%	6.00%	146.56%

- » Keep sewer within water? Move towards standalone?

- Summary of Sewer scenarios

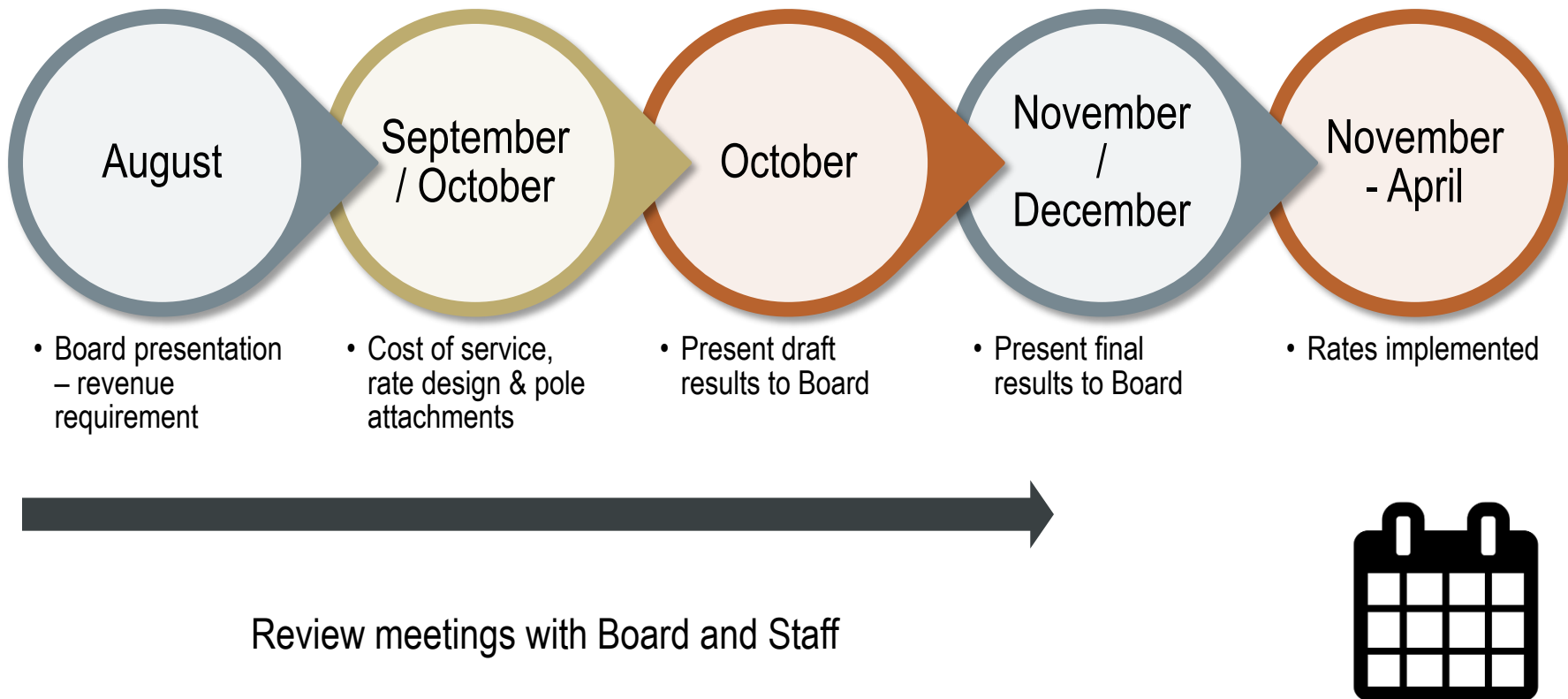
Scenario	Annual Rate Increases											Cumulative
	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	
S1 Sewer: Standalone 2021	0.00%	213.00%	2.50%	2.50%	2.50%	2.50%	2.50%	2.50%	2.50%	2.50%	2.50%	290.89%
S2 Sewer: Standalone 2025	0.00%	25.00%	25.00%	25.00%	25.00%	25.00%	7.75%	7.75%	7.75%	7.75%	7.75%	343.24%

- **Electric:**

- » Summary of scenarios

Scenario	Annual Rate Increases											Cumulative
	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	
S1 Electric: \$1.6MM Loan	0.00%	4.00%	4.00%	4.00%	2.50%	2.50%	2.50%	2.50%	2.50%	1.00%	0.00%	28.54%
S2 Electric: \$5.0MM Loan	0.00%	5.50%	5.50%	2.25%	2.25%	2.25%	2.25%	2.25%	2.25%	0.00%	0.00%	27.20%

Next Steps



Thank you!

Questions?

www.fcsgroup.com

Appendix



Legal Authority for Rate Setting

- **RCW 54.24.080**
- (1) The commission of each district which shall have revenue obligations outstanding shall have the power and shall be required to establish, maintain, and collect rates or charges for electric energy and water and other services, facilities, and commodities sold, furnished, or supplied by the district. The rates and charges shall be fair and, except as authorized by RCW 74.38.070 and by subsections (2) and (3) of this section, nondiscriminatory, and shall be adequate to provide revenues sufficient for the payment of the principal of and interest on such revenue obligations for which the payment has not otherwise been provided and all payments which the district is obligated to set aside in any special fund or funds created for such purpose, and for the proper operation and maintenance of the public utility and all necessary repairs, replacements, and renewals thereof.
- (3) In establishing rates or charges for water service, commissioners may in their discretion consider the achievement of water conservation goals and the discouragement of wasteful water use practices.



Glossary of Terms

- **A&G – administrative and general**
- **BPA – Bonneville Power Administration**
- **CIP – capital improvement program**
- **COSA – cost-of-service analysis**
- **DSC – debt service coverage**
- **kWh – kilowatt hours**
- **kW – kilowatt**
- **O&M – operating & maintenance**
- **PUD – public utility district**
- **RCW – revised code of Washington**
- **R&R – renewal and replacement**
- **TIER – time interest earned ratio**



BPA Tiered Rate Methodology (TRM)

- **What was the original goal of TRM?**
 - » Separate low-cost power provided by Federal Columbia River Power System (FCRPS) from other power sources
 - » Send marginal energy and capacity price signals directly to utilities
 - » Provide utilities with an opportunity to send cost-based price signals through retail tiered rates
 - » Incentivize energy efficiency



Water CIP Detail

Description	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	Total
<u>Bywater Bay</u>												
Well #1 Portable Generator					\$ 20,000							\$ 20,000
Well #1 Emergency Power Connections					6,000							6,000
Shine Plat LUD Distribution Piping Replacement		120,000	120,000									240,000
Replacement Fire Pump								25,000				25,000
Booster pump on Shine Road and Harbor View Dr.		45,000										45,000
Shine Plat LUD-Distribution Replacement	60,000											60,000
<u>Gardiner</u>												-
Gardiner Well Portable Generator				25,000								25,000
Gardiner Well Emergency Power Connections				6,000								6,000
Replacement Well		60,000	20,000									80,000
Replacement Well		60,000										60,000
<u>Coyle</u>												-
Fire Pump				50,000								50,000
Transmission Line Replacement		60,000										60,000
Distribution Piping Replacement						100,000	100,000	100,000	100,000	100,000		500,000
Transmission Line Replacement		45,000										45,000



Water CIP Detail

Description	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	Total
<u>Quimper</u>												-
New Glen Cove Storage Tank										2,325,000	2,325,000	4,650,000
Addition of fire pump to Ocean Grove BPS					95,000							95,000
New domestic demand BPS							40,000					40,000
New domestic demand BPS								40,000				40,000
New 4-inch pipe (1,500 LF) and new domestic demand BPS									175,000			175,000
New 6-inch pipe (760 LF) and new domestic demand BPS										130,000		130,000
New PRV station							80,000					80,000
Reconfiguring pressure zone using existing piping and valves			2,000									2,000
Upsizing 4-inch to 8-inch (200 LF)			16,000									16,000
Upsizing 8-inch to 12-inch (3,700 LF) to support higher flows from new Glen Cove Storage Tank			-							289,000		289,000
Upsizing 6-inch to 10-inch (7,300 LF)			-									-
Reconfiguring pressure zone using existing piping and valves			2,000									2,000
Upsizing 4-inch to 8-inch (360 LF)			28,000									28,000
Upsizing 2-inch to 6-inch (940 LF) and new 6-inch (2,520 LF) to make pipe loop						270,000						270,000
Upsizing 4-inch to 6-inch (1,200 LF)							94,000					94,000
Upsizing 6-inch to 8-inch (2,300 LF)								179,000				179,000
New 6-inch pipe (350 LF) to make pipe loop									27,000			27,000
New 6-inch pipe (30 LF) to make pipe loop										5,000		5,000
Sparling II Treatment Building Air Compressor		5,000										5,000
Phase II Treatment Upgrades				50,000								50,000
Kilisut Harbor Bridge	180,000											180,000
Quimper-SCADA Replacement	15,000											15,000



Water CIP Detail

Description	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	Total
<u>Lazy C</u>												-
Well #1 or #2 Chlorination tank, shed, control panel, source meter and associated infrastructure				75,000								75,000
Booster Pumps Replacement	2,317											2,317
<u>Triton Cove</u>												-
Well #2 Portable Generator					20,000							20,000
Well #2 Emergency Power Connections					6,000							6,000
Williams Addition Wellhouse	50,000											50,000
Williams Addition Wellhouse	-	10,000										10,000
<u>Snow Creek</u>												-
Wellhouse Replacement		86,000										86,000
Snow Creek Wellhouse Replacement Project	89,750											89,750
<u>Mats View Terrace</u>												-
New source well?												-
Well/BPS Emergency Power Connections			6,000									6,000
pump replacement	20,000											20,000
<u>Quilcene</u>												-
Source 2 Development	10,000	10,000	10,000									30,000
New Quilcene Storage Tank		2,099,000										2,099,000
New larger pump at USFS well		15,000										15,000
Quilcene Well Emergency Power Connections				6,000								6,000
Quilcene-SO2 Development	1,000	49,000										50,000
Quilcene-Reservoir	359,000											359,000



Water CIP Detail

Description	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	Total
<u>Other PUD-Wide Projects</u>												-
Pipeline Replacement			70,000		70,000		70,000		70,000			280,000
WSDOT culvert coordination projects		145,000				160,000						305,000
Well Rehabilitation (cleaning)			5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000		40,000
Replacement Well Drilling				60,000			-	-	-	60,000		120,000
Booster Pump Replacement (with VFD)		20,000		20,000		20,000	-	-	20,000			80,000
Tank Cleaning/Painting		5,000	5,000		5,000		5,000	5,000	5,000	5,000		35,000
Tank Inspection			5,000		5,000		5,000	5,000	5,000	5,000		30,000
Seismic Retrofitting of Tanks			20,000				30,000	10,000	10,000	10,000		80,000
SCADA Upgrades		5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000		45,000
Retrofit Valves on ATEC Media Filter Systems			5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000		40,000
Replacement of ATEC Media Filters			5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000		40,000
Decommissioning of Various Wells	49,450											49,450
6 Year Water Plan from HDR	60,000											60,000
New Water Installs	50,000											50,000
Fire Hydrant Replacement and Repair	7,000											7,000
Reynolds Well Pump in Bywater System	42,000											42,000
Sparling Well Repair and VFD Installation	8,500											8,500
Eagle Ridge Booster Station Install	1,600											1,600
Hilda Street Bridge - Chimacum Creek	90,000											90,000
Kala Point Pressure Tank Replacement	11,000											11,000
<u>Capitalized Labor (2.601.1)</u>	132,190	137,808	143,665	149,771	156,136	162,772	169,690	176,901	184,420	192,258	200,429	1,806,039
<u>Annual Sewer CIP Placeholder</u>	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	110,000
Total	\$ 1,248,807	\$ 2,986,808	\$ 477,665	\$ 471,771	\$ 413,136	\$ 742,772	\$ 623,690	\$ 570,901	\$ 626,420	\$ 3,151,258	\$ 2,535,429	\$ 13,848,656
Total (Inflated)	\$ 1,248,807	\$ 3,076,412	\$ 506,755	\$ 515,517	\$ 464,988	\$ 861,076	\$ 744,718	\$ 702,137	\$ 793,530	\$ 4,111,676	\$ 3,407,404	\$ 16,433,020