Tacoma Power Financial Update & Initial 2021-22 Revenue Requirement

Public Utility Board 22 July 2020





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Section 1

Introduction



2019 was a challenging financial year for the Power utility due primarily to critical water conditions

Average Annual Tacoma System Inflows

Water Year 1929 through 2020



The utility usually has a year or two to recover financially after Critical water conditions, such as those experienced in 2019.

Instead, 2020 became the year of the global COVID pandemic.



Power has worked to maintain the same rate trajectory as last year's Long-Range Finance Plan

Preliminary Budget & Revenue Requirement 2021/22



The preliminary budget request includes:

- 10% reduction in O&M costs from proposal
- Capital spend held constant with 2019/20
- Shift to 60/40 debt-funded capital



Section 2

June 2020 Retail Load Forecast Update



Retail Loads Have Dropped Significantly

Hourly Load

with 4/22/2020 highlighted among similar days; similarity determined by temperature variates





Short-Term: Large Load Reduction

Observed retail loads have **declined** under stay-at-home and phased-restart orders, compared to the pre-COVID forecast.

2020	January	February	March	April	May	June	July (To-Date)
Weather-Normalized Actual Load	681.0	657.6	596.6	520.2	454.4	461.7	448.9
October 2019 Forecast Load	679.3	643.3	607.5	549.8	482.3	479.8	486.4
Forecast Variance	0.25%	2.21%	-1.80%	-5.38%	-5.79%	-3.77%	-7.72%

Tacoma Power continues to monitor the changing situation.



Long-Term: Anticipated Load Decline

20-Year Load Forecast





Section 3

Cost Savings Achieved To-Date



2020 Reductions

\$22 million in O&M and capital spending was reduced to mitigate the financial impacts of the COVID pandemic on the heels of a critical water year:

- 40 positions to remain vacant \$5.4 million
- Professional and Contracted Services \$5 million
- Deferral of Extraordinary Maintenance work- \$1 million
- Training and Travel reduction \$0.9 million
- Miscellaneous expenses \$4.3 million
- Deferral/cancellation of revenue funded capital projects \$6.1 million

Additionally, \$13.8 million in revenue-funded capital projects was shifted to debt funding.



2021/2022 Preliminary O&M Budget

Overall, a 10% reduction in Personnel and Other O&M costs from pre-COVID 21/22 budget plan

- \$37 million in reductions from pre-COVID budget plan:
 - Reduced Personnel cost
 - Reduced software and professional services contracts
 - Reduced EIM budget
- Plan to absorb \$7 million increase to medical benefits costs
- Plan to absorb increases in other non-controllable costs
 - Assessments \$7.6 million increase (General Government & TPU service division)
 - Bad Debt \$2.5 million increase
 - Credit Card Fees \$1.6 million increase
- Family Need contributions \$1M increase

2021/2022 Capital Plan Scrutinized for Savings

\$55 million reduction from initial requests achieved

- Deferrals
- Reduced and refined cost estimates
- Cancelations

Final recommended capital budget equals the 19/20 capital budget.



Section 4

Initial 2021-22 Revenue Requirement Forecast



Base Case: Annual 2 percent rate increases

This forecast is subject to change, and is dependent upon actual financial performance in future years.

Light shading in future years represents uncertainty associated with revenues and expenses, mostly due to potential for adverse* or critical water conditions, changes to sales projections, and future debt service.



The Electric Rate & Financial Policy was

modified in 2018 to explicitly support low and steady rate increases.

Strategic Directive SD-3

on Rates, Value 4 states "TPU values planning gradual and consistent utility rate changes that are stable and predictable over the long term and avoid sudden or large changes within customer classes."



Manage Debt Profile to Minimize Long-Term Rates



Historical and Scheduled Debt Service

The Long View:

Managing debt service has produced significant savings to date.

A bond call in 2023 and defeasance in 2025 are desirable to manage debt service and keep rates low.



Tacoma Power has AA credit ratings

High ratings enable:

- access to financing (e.g. KeyBank agreement)
- lower interest rate on bonds •

Electric Rate & Financial Policy:

- requires debt-service coverage ratios and days cash on hand consistent with current rating
- mandates low and consistent rate increases to minimize customer • impact
- approved by TPU Board and City Council

Strategic Directive SD-2 on Financial Sustainability:

- Outcome 4: "AA-level bond rating, or better, to facilitate access to lower-cost financing and produce sustainable debt service expenses."
- Outcome 7: "Financial management of debt service over the long ٠ term to maintain reasonable debt-service requirements and meet debt service coverage ratios."

Rating agencies are interested in different things

	Moody's*	S&P	Fitch		
Investment	Aaa		۵۵۵	This table compares	
Grade	Aa1	ΔΔ+	ΔΔ+	the different rating	
	Aa2	AA	AA	scales for the three	
	Aa3	AA-	AA-	credit rating	
	A1	A+	A+	agencies, with	
	A2	A	А	Tacoma Power's	
	A3	A-	A-	current rating	
	Baa1	BBB+	BBB+	highlighted.	
	Baa2	BBB	BBB	5 5	
	Baa3	BBB-	BBB-		
Non-Investment Grade Speculative	Ba1 Ba2 Ba3 B1 B2 B3 Caa1 Caa2 Caa3 Ca	BB+ BB B+ B- CCC+ CCC+ CCC- CCC- CCC-	BB+ BB BB- B+ B- CCC		
	с	D	DDD DD D		
— Targ	Target Current Tacoma Power Rating				

* Moody's current rating for Tacoma Power only applies to Bonds issued before 2017

Base Case Financial Metrics







Section 5





August Update: Forecast Sensitivities

Scenarios:

- Second wave of pandemic shut-downs in 2021
- Loss of large load in 2021
- Critical water in 2021
- Adverse water in 2021 and 2022
- Economic rebound
- Wholesale price collapse

Standard Planning Scenarios



Special Items for PUB Discussion

Already Introduced (May 27th PUB Meeting):

- ✓ Residential Prepayment rate
- \checkmark Shore Power rate
- \checkmark Distributed Generation (DG) rate
- ✓ Non-Firm rate
- ✓ New Large Load rate

Upcoming:

- □ Sunset HVG and CP classes (close to new customers)
- □ Open Access Transmission Tariff (OATT) update
- □ EV charging usage fee update
- Grinder pump rate update
- □ New business service fees update



Rates and Budget Timeline



TACOMA PUBLIC UTILITIES

Increased Rate Assistance to Mitigate Increase

Feedback from
July 8 th will be
used to provide
alternative
metrics and
additional
demographic
data at a
future Board
meeting or
Study Session.

2021/2022 Biennium		Bill Credit Assis (BC	Low-Income Elderly/Disabled Discount Rate	
		Strengthen the Net	Widen the Net	Strengthen the Net
2	Recommended Change	$$21 \rightarrow 21 monthly credit amount	150% Federal poverty level → 60% of area median income	30% discount on bill → 35% discount on bill
	Justification	Current credit is 23% of average monthly bill (\$92.75 in 2019).	Area median income reflects the cost-of-living in the Tacoma area.	Relieve cost pressure on uniquely vulnerable populations.
	Cost Increase due to Change	None	+\$87,900*	+\$640,000
	Total Program Cost	\$247	\$4,480,000	
	Budget	Same as 19	Reduction in expected retail revenue.	

*at current participation rates (7%). If participation doubled, BCAP total cost would rise to \$495,500.





Tacoma Water Revenue Requirement Preview, Rate Design, and Long Range Financial Plan Update

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July 22, 2020

Agenda

TACOMA S WATER





Revenue Requirement

Cost of Service



Budget Preparation & Cost Savings

Click to add text

Budget Preparation & Cost Savings

2020 Measures

Budget Preparation

Revenue Requirement

Cost of Service

Budget Preparation: 2020 Measures



	Support for Other	
Assistance	Departments/City	Cost Saving Measures
Emergency Assistance Program	Hire Public Works for road repairs	AMI meter box survey and meter
Late Fee waivers	 3 furloughed PW Equipment 	box lid savings
Suspension of shut-offs	Operators work on Water projects	 Reduced travel, training, projects
Affordability Measures and	Residuals handling	delayed
recommendations support equity	Watershed support	Prioritized hiring
Homeowner side grant/loan		Suspension of intern program
program		Bond Refunding

Budget Preparation



Cost reductions included in the budget proposal

- Reduced travel/training, professional services, and other O&M
- Fleet funding changes
- Capital budget reductions
- Decision-making Framework

Limited control over many large budget drivers

- Assessments
- Taxes
- Employee Benefits
- Debt Service



Revenue Requirement Developed from Budget

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Budget Preparation

Revenue Requirement

LRFP

Capital

0&M

Non-Rate Revenue

nue Forecast

Rates & Debt Service Coverage





0&M

Next Steps

Total Fund Balance



Revenue Requirement Analysis







0&M Expense Forecast

- Apply budget development decision making tools
- · Conduct historical cost review
- Include inflation factors
- Consider strategic initiatives and additional needs or enhancements
- Plan for increasing costs
- Incorporate forecasted assessments and labor assumptions

Capital Expense Forecast

- Capital Budget and 10-year CIP developed with business case evaluations
- Funding assumptions apply existing bond fund sources first, then reasonable spend down of capital and operating reserves, then anticipated additional debt funding in 2023/24



Non-Rate Revenue Forecast

- Miscellaneous fee and charge revenues projected based on recent historical trends and known future changes
- Used to reduce rate revenue requirement

Rate Revenue Requirement Forecast

- Projection of revenue under existing rates using 10-year demand forecast
- Any revenue requirement deficiencies must be addressed by rate adjustments

LRFP

0&M

Non-Rate Revenue

2021/2022 Preliminary O&M Budget





- Assessment budget will not be finalized until late August and may increase based on City budgets.
- Supplies expense is about \$700,000 lower than 2019/2020 budget.
- Personnel expense is about \$4 M higher than 2019/2020:
 - Benefits are \$3 M higher or nearly \$11,000 per FTE over the biennium.
 - Budget includes vacancy factor.

LRFP

0&M

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O&M Budget Overview: Personnel





Preliminary change in expense between 2019/2020 and 2021/2022 is \$4 M or 6.9%. The 2021/2022 budget includes 6 new positions.

Capital

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LRFP

Forecast

O&M Budget Overview: Supplies, Services & Charges TACOMA SWATER





Preliminary change in expense between 2019/2020 and 2021/2022 is (\$700,000) or down 2%.

0&M

Non-Rate Revenue

2021/2022 Preliminary Capital Budget





LRFP

Capital

0&M

Non-Rate Revenue

Forecast

Capital Budget Overview

TACOMA DUBLIC UTILITIES



Preliminary change in expense between 2019/2020 and 2021/2022 is \$16.8 M or 26.9%. This increase is due to the Fleet accounting change and the AMI project.

Capital

0&M

Non-Rate Revenue

Cost of Service

14

Revenue Overview: Non-Rate Revenue



\$15.1M - Total

\$0.6M - Interest Earned on Cash Balances (4%) \$0.8M - Rent from Water Property (5%)

\$1.4M - Other Customer Revenue and Late Fees (10%)

\$2.0M - Acquisition Surcharges and Other Miscellaneous Revenue (13%)

\$4.8M - Cascade Water Alliance Contract Payment (31%)

Expected change in non-rate revenue between 2019/2020 and 2021/2022 is about \$552,000 or 3.8%.

Budget Preparation

Revenue Requirement

LRFP

Capital

0&M

Non-Rate Revenue

Forecast

Cost of Service

Rate Revenue Requirement Forecast: Demand





Rate Revenue Requirement Forecast: Account Growth TACOMA S WATER





Cost of Service

Click to add text

Revenue Requirement

Rate Design

Cost of Service Analysis (COSA)

Tacoma Public Utilities is a Cost-of-Service Organization

The COSA calculates the total revenue that should be collected from each rate class.

- Customer Classes are groups of customers with similar usage characteristics that influence cost, such as infrastructure requirements and consumption patterns
- A cost-of-service analysis (COSA) determines the cost of serving each Customer Class
- For 2021/2022, we recommend applying the overall system average of 2.0% annually to all customer rate classes



Rate Design

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Budget Preparation

Revenue Requirement Cost of Service

Rate Design

Principles of Rate Design

Principles of Rate Design





Legal

- Fair
- Just
- Reasonable
- Non-Discriminatory



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Industry Standard

- Revenue Stability
- Cost Causation
- Economic Efficiency
- Equity
- Bill Stability

TPU Principles

- Affordability
- Environment
- Public Involvement

Status of Parks & Irrigation Rates



Monthly Fixed Charge Phase Out Schedule

Transitioning Rate-Design

In 2016, we began phasing out the monthly fixed charge

Objectives

- Improve operational efficiency
- Strengthen seasonal conservation signal
- AMI-supported rate design alternatives



2021 will be the final year in phasing out fixed charge



2022 will be the first year of a volumetric only rate

Status of Wholesale Rates

Fixed Charge Increase Schedule

Policy Implementation

Transitioning Rate-Design

In 2020, we began phasing in a 35% monthly fixed charge target





Rate Recommendation

- We recommend applying the **overall system average of 2.0%** annually to all customer rate classes
- The adjustment would apply to both fixed and variable rates
- There are two exceptions:
 - Parks & Irrigation continue with phasing out the fixed charge
 - Wholesale continues phasing in a higher fixed charge

Average Residential Monthly Bill





An average monthly bill for a residential single family customer inside the City of Tacoma is calculated using an assumption of 6 CCF in winter months and 9 CCF in summer months.



Next Steps

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Budget Preparation

Revenue Requirement

Cost of Service

Rate Design

Next Steps

TACOMA S WATER



Water Budget Preview PUB Meeting



TPU Budget Presentation *PUB Study Session*



Water Rate & Financial Policy PUB Meeting



Review of Preliminary Biennial Budget & Rates Joint Study Session

JUL 22

Water Revenue Requirement Preview, Rate Design, and Long Range Financial Plan Update PUB Meeting



Consideration of Preliminary Biennial Budget & Rates PUB Meeting

IRP Preliminary Results

July 22, 2020





Next Steps

Portfolio Performance & Preliminary Recommendations

Section 1

Section 1: Portfolio Performance & Preliminary Recommendations What are we recommending?

Preliminary portfolio recommendations

✓ Renew BPA Slice/Block contract if offered

- ✓ Don't renew Columbia Basin Hydro (CBH) contract
- ✓ Further explore feasibility of adding 10MW demand response
- Continue to evaluate options to diversify BPA with wind or solar but don't acquire anything now

Section 1: Portfolio Performance & Preliminary Recommendations Review: How do we evaluate portfolios?



Section 1: Portfolio Performance & Preliminary Recommendations

Resource Adequacy: Which portfolios made the cut?

Renew BPA Slice/Block

- Tacoma Power Hydro + BPA Slice/Block
- Tacoma Power Hydro + BPA Slice/Block + renew CBH
- Tacoma Power Hydro + BPA Slice/Block + 60MW Solar (partially replace BPA)
- Tacoma Power Hydro + BPA Slice/Block + 100 MW WA Wind (partially replace BPA)
- Tacoma Power Hydro + BPA Slice/Block + 100 MW Gorge Wind (partially replace BPA)
- Tacoma Power Hydro + BPA Slice/Block + 150 MW Pumped Storage at Cowlitz
- Tacoma Power Hydro + BPA Slice/Block + 150 MW 3rd Generator at Cowlitz
- Tacoma Power Hydro + BPA Slice/Block + 50 MW Demand Response
- Tacoma Power Hydro + BPA Slice/Block + 10 MW Demand Response NEW
- Tacoma Power Hydro + BPA Slice/Block + 80 MW WA Wind NEW
- Tacoma Power Hydro + BPA Slice/Block + 60 MW WA Wind + 10 MW Demand Response NEW

Renew BPA with Shapeable Block

- Tacoma Power Hydro + BPA Block
- Tacoma Power Hydro + BPA Block + 60MW Solar (partially replace BPA)
- Tacoma Power Hydro + BPA Block + 100 MW WA Wind (partially replace BPA)
- Tacoma Power Hydro + BPA Block + 100 MW Gorge Wind (partially replace BPA)
- Tacoma Power Hydro + BPA Block + 150MW Pumped storage at Cowlitz
- Tacoma Power Hydro + BPA Block + 150MW 3rd Generator at Cowlitz
- Tacoma Power Hydro + BPA Block + 50MW Demand Response (DR)

No BPA Renewal (not technically feasible at this time)

- Tacoma Power Hydro + 650MW WA Wind + 650MW Gorge Wind + 100MW MT Wind + 300MW DR
- Tacoma Power Hydro + 700MW WA Wind + 700MW Gorge Wind + 100MW MT Wind + 250MW DR + 150MW Pumped storage
- Tacoma Power Hydro + 700MW WA Wind + 700MW Gorge Wind + 100MW MT Wind + 250MW DR + 150MW Cowlitz Generator
- Tacoma Power Hydro + 700MW WA Wind +700MW -Gorge Wind + 100MW MT Wind + 200MW DR + 100MW Small Nuclear
- Tacoma Power Hydro + 650MW WA Wind + 650MW Gorge Wind + 100MW MT Wind + 100MW DR + 200MW Natural Gas

Section 1: Portfolio Performance & Preliminary Recommendations Cost vs. Financial Risk

Adding pumped storage or a generator at Cowlitz presents higher financial risk, partially due to significant licensing cost risk

Small adjustments to Slice/Block portfolio improve resource adequacy at a lower cost than switching to a Block product.

Adding 10MW of DR is lowest cost and least risk way to improve adequacy

Slice/Block only is lowest cost & lowest financial risk.

Cost Vs. Financial Risk



Expected Annual Portfolio Cost (incuding SCC)

Section 1: Portfolio Peformance

Overview of Climate Change Findings



Section 1: Portfolio Performance & Preliminary Recommendations Review of Key Findings

- ✓ **CETA Compliance:** All portfolios are CETA-compliant
- ✓ CBH Renewal: Unlikely to recommend CBH renewal, as it does not improve adequacy
- ✓ BPA Renewal: BPA renewal is more feasible and less costly than a wind-heavy portfolio
- ✓ BPA Product Choice: Slice/Block product is looking most promising from a cost standpoint
- ✓ BPA Diversification: Replacing BPA partially with wind or solar worsens adequacy. If there is a desire to diversify with wind or solar, adding a small amount of wind without replacing BPA would be lowest-cost way to diversify while preserving adequacy
- Potential Capacity Addition: Adding 10MW of demand response appears to be the lowest cost and least risk way to improve adequacy of Slice/Block in extreme low water conditions

Section 1: Portfolio Performance & Preliminary Recommendations

Draft IRP Action Items

	Next 2 years	Next 10 years
Resource Acquisition/ Retirement	Acquire 2-year CPA potential	Acquire 10-year CPA target
	Notify parties of CBH renewal decision	Pilot cost-effective demand response options
Further Investigation into Resources	Actively participate in discussions with BPA on future product options Conduct demand response (DR) "potential assessment"	Continue to evaluate BPA renewal options Continue to follow development of new technologies
Continue Improving Modeling & Analysis	Incorporate impacts of electrification Refine climate change modeling Refine approach to modeling DR Model EE as a resource in system model Refine modeling of storage in WECC model & system model	Continue improving functionality of system model (SAM)
Equity	Develop metric(s) to account for equity in resource acquisition decisions Continue to improve inclusiveness of stakeholder outreach	Fully incorporate equity into resource acquisition decisions

Next Steps

Section 3

Section 2: Next Steps

What's next?

	Торіс	Date
1	Resource planning 101	August 28 (complete)
2	Resource adequacy	October 9 (complete)
3	Our current portfolio & resource options	October 23 (complete)
4	Small nuclear reactors	November 13 (complete)
5	Energy storage	December 4 (complete)
6	Pump storage hydro	January 7 (complete)
7	IRP Update	June 24 (complete)
8	Preview of findings and recommendations	July 22 (today)
9	Release draft IRP to public for review	July 31
10	Approve IRP (BOARD MEETING)	August 12
11	Submit IRP	Before September 1
12	Public-friendly summary document	October 1