TPU and TACOMA RAIL 2019 - 2020 BUDGET PREVIEW

April 2018

TACOMA POWER | TACOMA WATER | TACOMA RAIL

TACOMA PUBLIC UTILITIES

AGENDA

1. Budget Timeline – Linda McCrea
2. TPU Budget Preview– Linda McCrea
3. Tacoma Rail Budget Preview– Dale King

BUDGET TIMELINES

PUB Budget Preview Sessions

April 11 – TPU and Rail

April 25 – Tacoma Water

May 09 – Customer Service

May 23 – Tacoma Power

PUB Budget Reviews

August 22 – Service Divisions

September 12 – Water & Rail

September 26 - Power

BUDGET TIMELINES

Joint Study Sessions, Readings, Votes and Delivery

October 16 – Joint study session - Preliminary Biennial Budget & Rates

October 24 – Public Utility Board vote on Preliminary Budget & Rates

October 31 – Preliminary Budget to City Clerk

November 13 and 20 – City Council 1st and 2nd Readings and City Council Vote

UNDERLYING BUDGET PRINCIPLES

- Maintain a long-term outlook and a customer focus
- Minimize rate increases while pursuing rate stability, financial health and operational priorities
- Continue to enhance the customer experience
- Be strategically aligned with the communities we serve
- Focus on safety and reliability
- Meet regulatory requirements
- Seek innovative solutions
- Recognize the vital role of employees in our success

CONSIDERATIONS FOR NEXT BIENNIUM

- **Customer attentiveness**
  - Low Income assistance programs
  - Increased community engagement
  - Communication and transparency
- **Our people**
  - Leadership development
  - Safety and Culture
- **Technology**
  - AMI and other upgrades
  - Cyber security

CONSIDERATIONS FOR NEXT BIENNIUM

- Regulatory requirements
- Aging infrastructure and asset management
- Challenges and opportunities lie ahead
- Anticipate low to moderate rate increases

TACOMA RAIL BUDGET PREVIEW

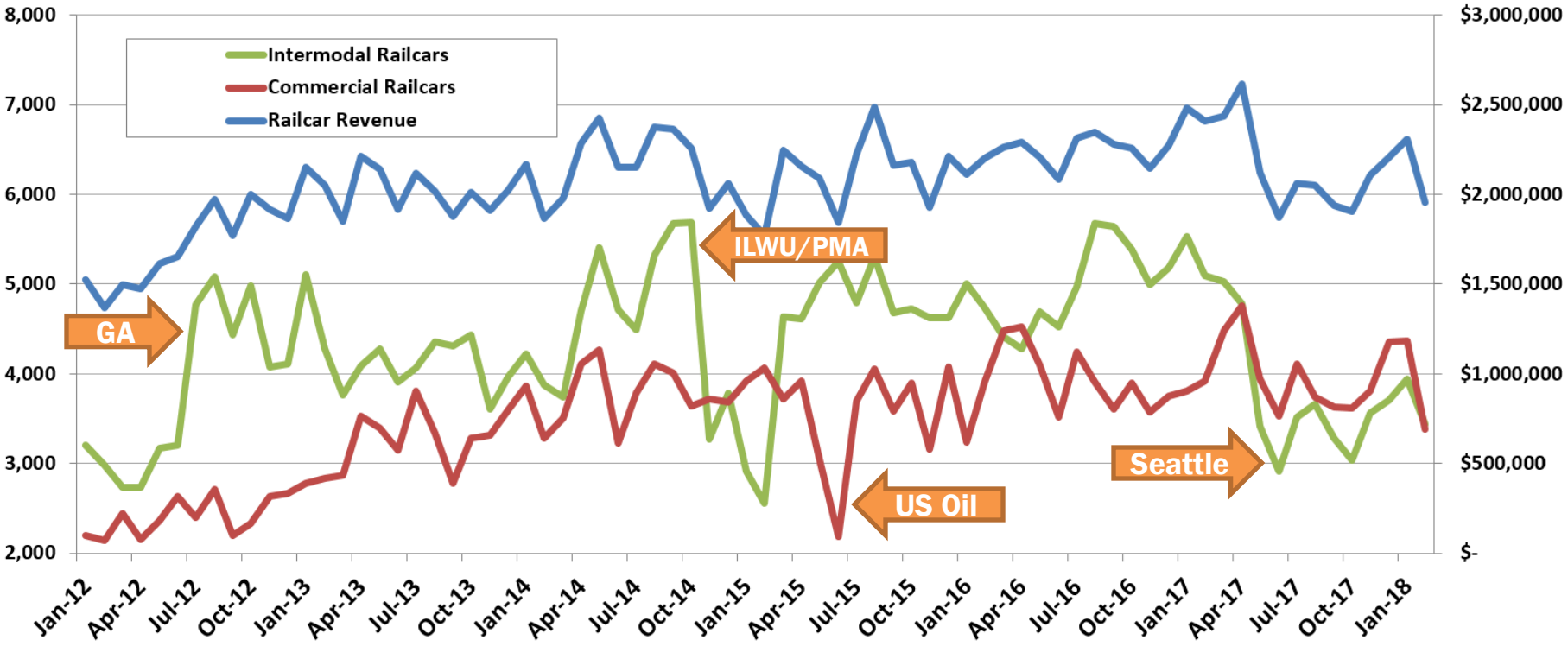
Dale King, Superintendent

TACOMA RAIL
TACOMA PUBLIC UTILITIES

TODAY'S DISCUSSION

- State of the Utility
- Strategy
- Primary Budget Drivers
- Budget/Rate Impacts
- Next Steps

STATE OF THE UTILITY: DEMAND



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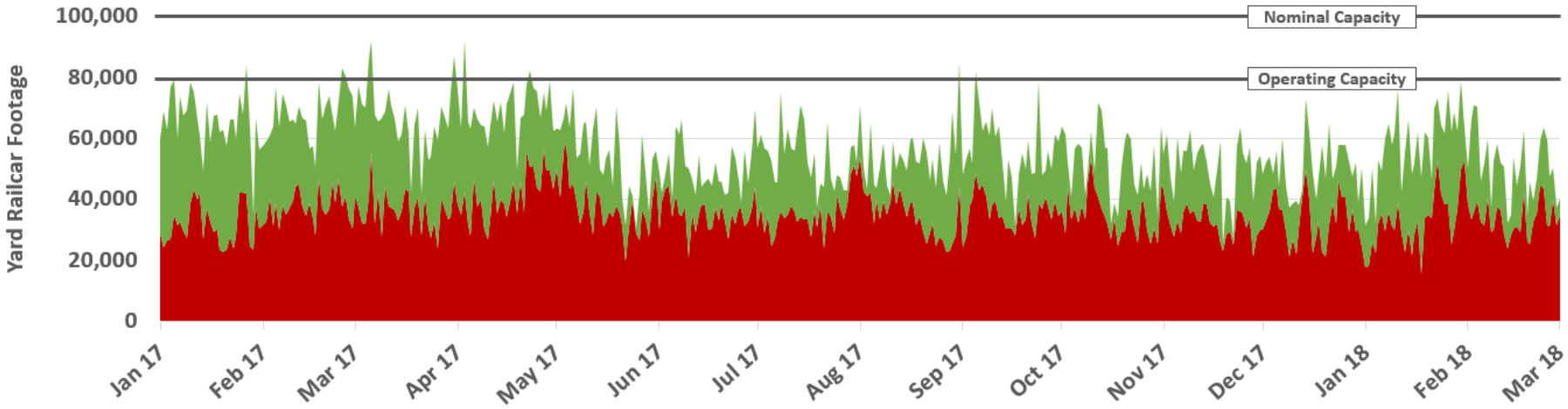
STATE OF THE UTILITY: CUSTOMERS

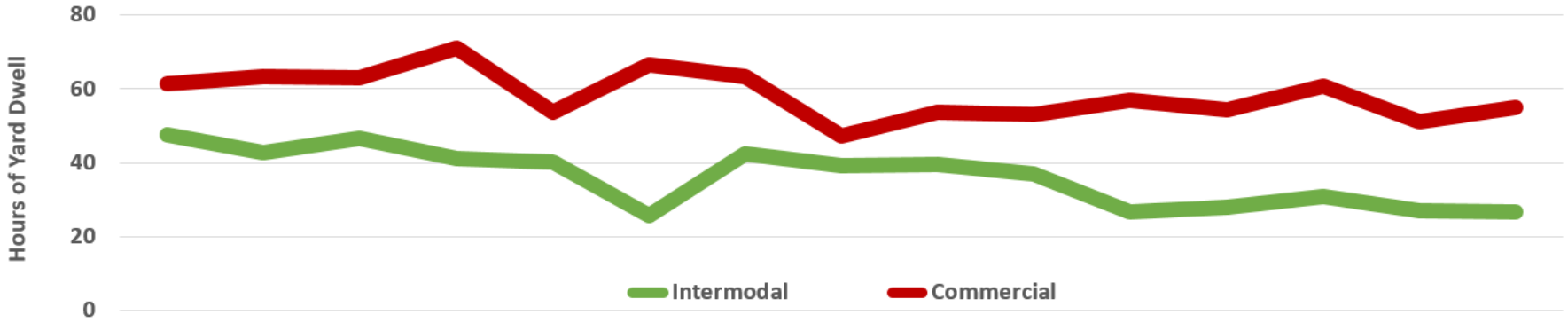
CUSTOMER	LINE HAULS	REVENUE ($)
North Intermodal	28,992	4,679,950
U.S. Oil Refining	18,084	4,331,870
Auto Warehousing	9,748	3,033,000
Washington United Terminals	15,142	2,687,850
Pierce County Terminal	10,310	1,882,150
Targa Sound	5,765	1,818,050
Northwest Container	5,255	1,070,552
MacMillan Piper	2,703	810,900
TOTALS	**96,894**	**20,582,822**

Top 8 line haul revenue customers in 2017
Contributed 85% of total line haul revenue

Intermodal Commercial

STATE OF THE UTILITY: CAPACITY





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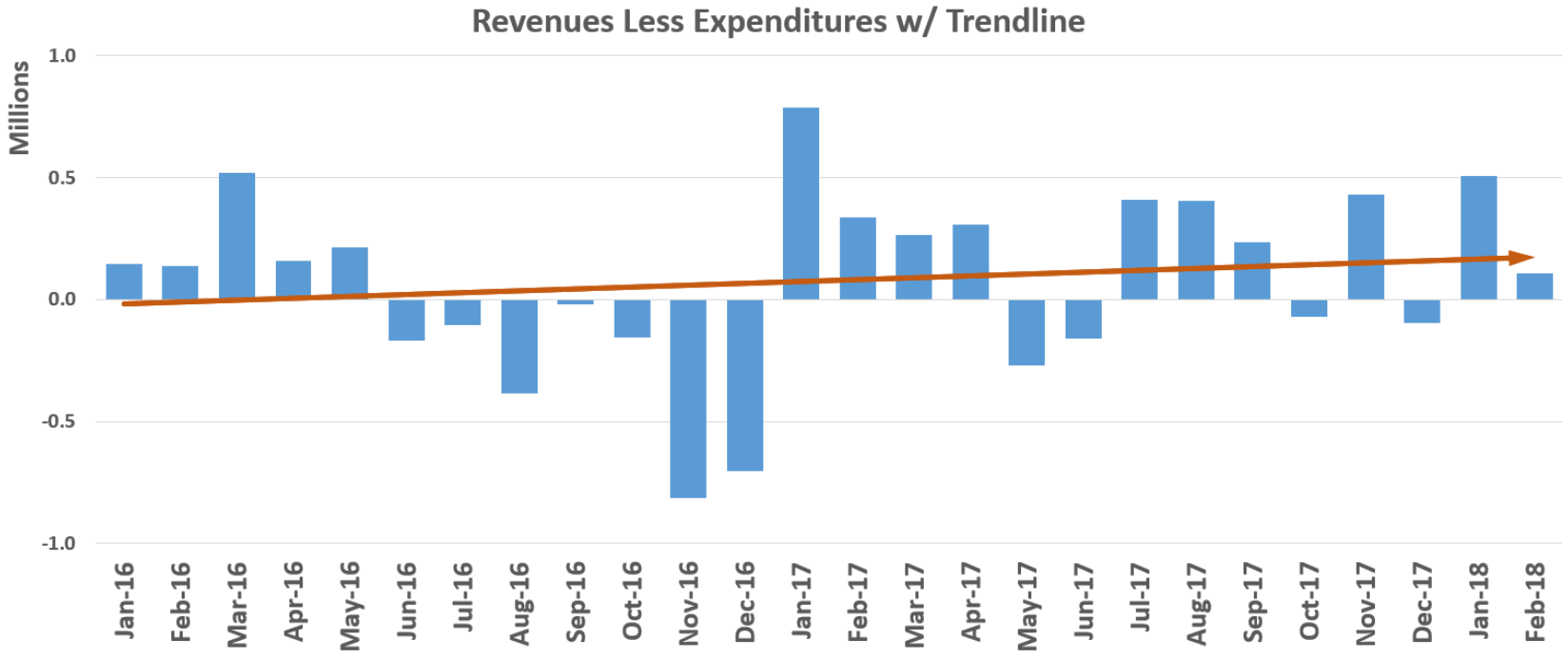
STATE OF THE UTILITY: FINANCIAL



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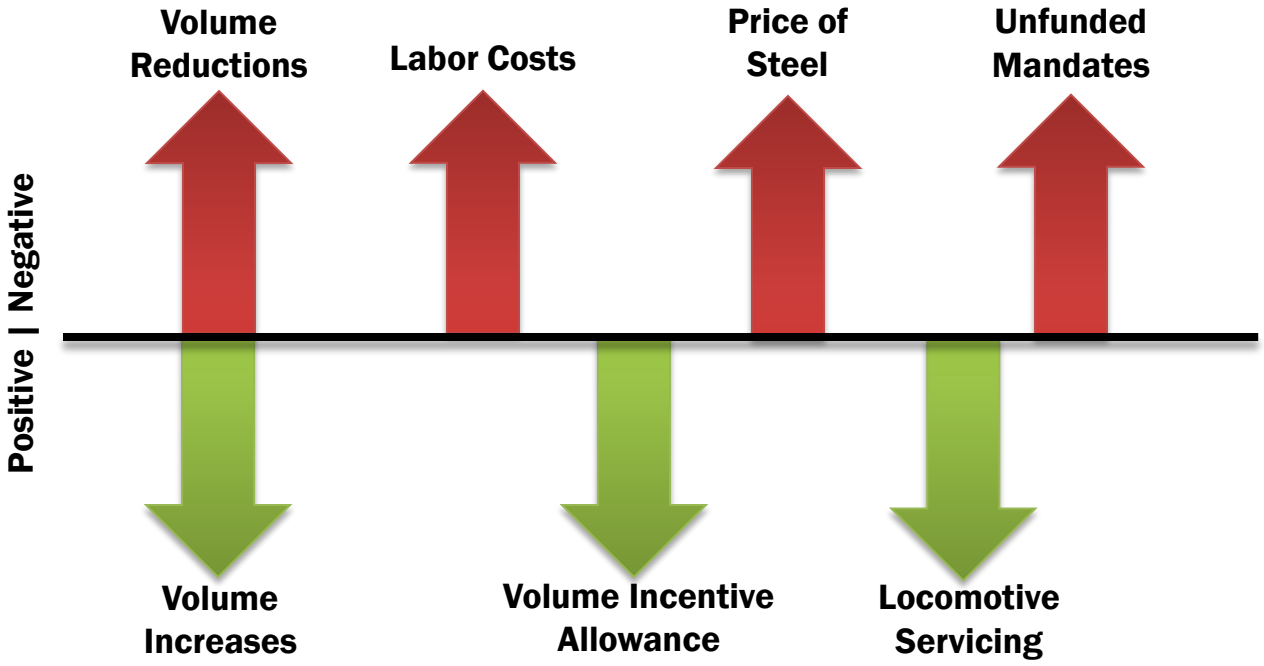
STATE OF THE UTILITY: RATE PRESSURE & RELIEF



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TACOMA RAIL STRATEGY

- Safety
  - Positive Train Control
  - Reinvigorated Safety Committee
- Strategic Partnerships
  - Customers: Port of Tacoma, U.S. Oil Refining
  - Railroads & Industry Organizations: BNSF, UP, ASLRRA
- Strengthen Financial Position
  - Control costs & prioritize projects
  - Rates & fuel surcharge
- Employee, Leadership & Organizational Development
  - Safety training
  - Leadership training
  - Training & succession planning
  - Right sizing
- Environmental Responsibility
  - Locomotive modernization

PRIMARY BUDGET DRIVERS

- Railcar Traffic
  - Northwest Seaport Alliance
  - Commercial Customers
    - US Oil
    - AWC
    - Targa Sound
    - Parcel 77
- Infrastructure
  - Parcel 77
  - Marine View Drive grade crossing protection
- Locomotive Assets
  - Engine replacements & modernization
  - Leased locomotives
- Compliance & Other
  - Oil Spill Contingency Plan drills
    - Includes worst case scenario
  - Replenish Self Insurance Fund

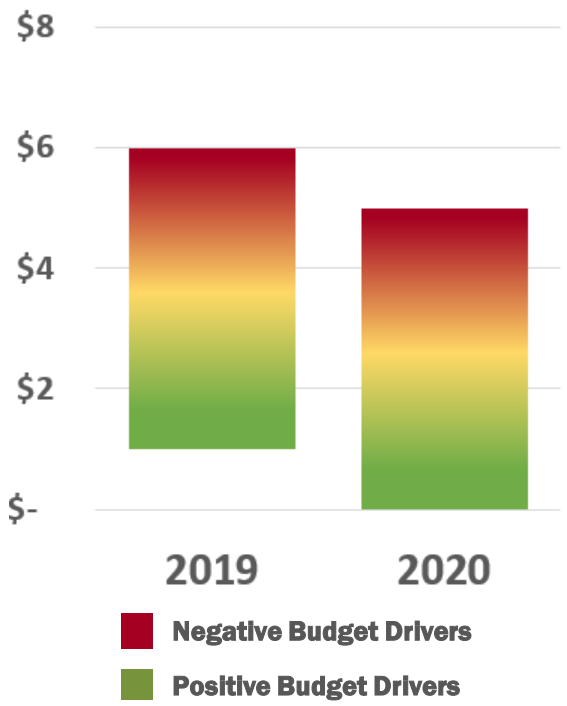
PROJECTED RATE IMPACTS

- Primary Rate Payers
  - BNSF
  - Union Pacific
  - U.S. Oil Refining

- Rate Policy
  - Rates should be cost based and adequate to recover Tacoma Rail's costs.
  - Rates should be stable.
  - Rates should ensure sufficient resource planning and acquisition for reliable service while being as competitive as possible.
  - Rates should have a customer involvement and review process.

Budget Drivers & Projected Rate Impacts

- Current Tariff Rates
  - Intermodal Platforms
    - $50
  - Commercial Railcars
    - $300
    - $350 Hazmat
  - Unit Trains
    - $220 full train facility
    - $295 partial train facility



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NEXT STEPS

- Budget Development
  - Revenue requirements
  - Volume forecasts
  - Capital program
- September 12th
  - TPU Board Study Session Budget Presentation
- October 16th
  - Joint Study Session Budget Presentation
- October 24th
  - Consideration of preliminary budget

UTILITY ASSISTANCE PROGRAMS

BOARD STUDY SESSION
APRIL 11, 2018

Francine Artis
Customer Services

DISCUSSION

- History of Utility Assistance Programs
- Drivers for Change
- Goal of Utility Assistance
- A Holistic Approach to Assistance
- Alleviate –
  - Seek Customer Solutions
- Educate –
  - Discount Rate Program
  - Bill Credit Assistance Plan (BCAP)
  - Financial Education Credit
- Connect –
  - Tacoma 2025 Strategic
  - Community Resources
- Community Demographics
- Increase BCAP Participation
- Marketing & Communications
- Next Steps

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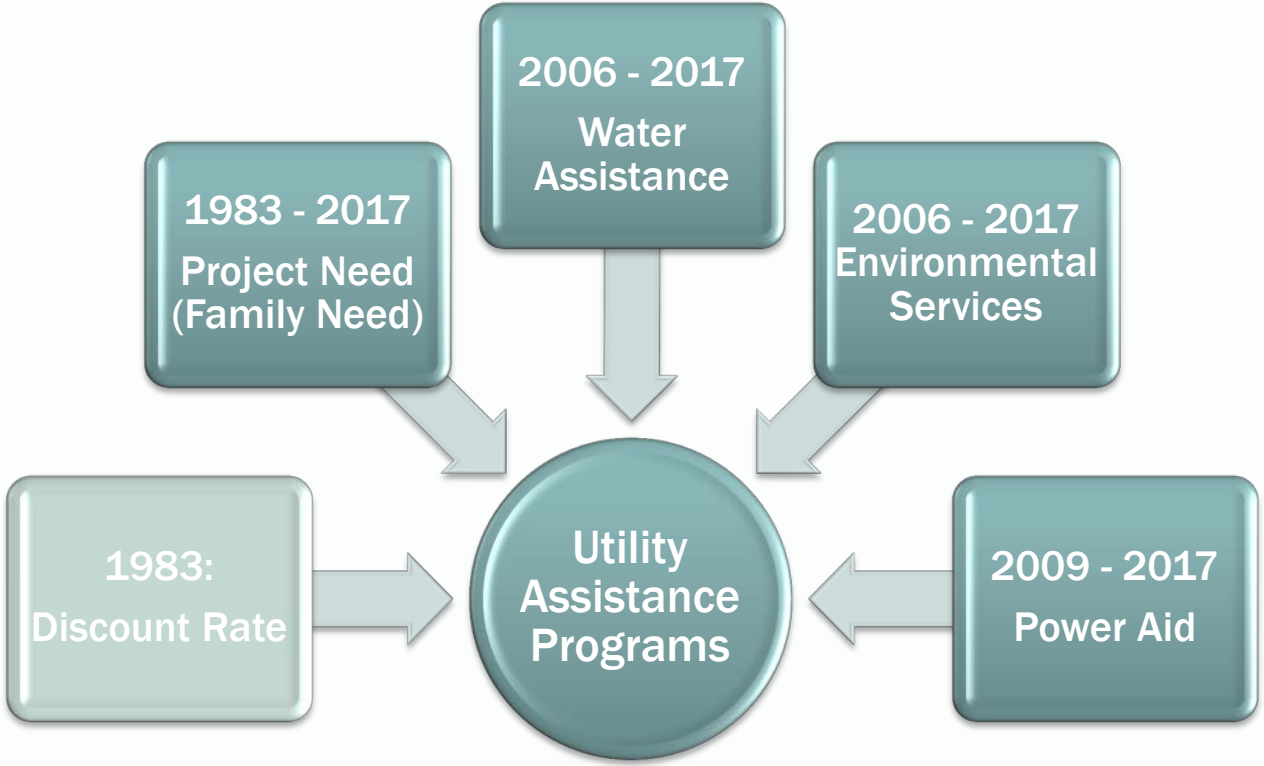
HISTORY OF UTILITY ASSISTANCE PROGRAMS



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DRIVERS FOR CHANGE

Total customers disconnected

6%

DISCOUNT RATE

GRANT PROGRAMS

6% of **discount** customers disconnected

27% of **Family Need** customers disconnected

21% of **Water Assistance** customers disconnected

Many customers who received grants also experienced disconnections – some multiple times.

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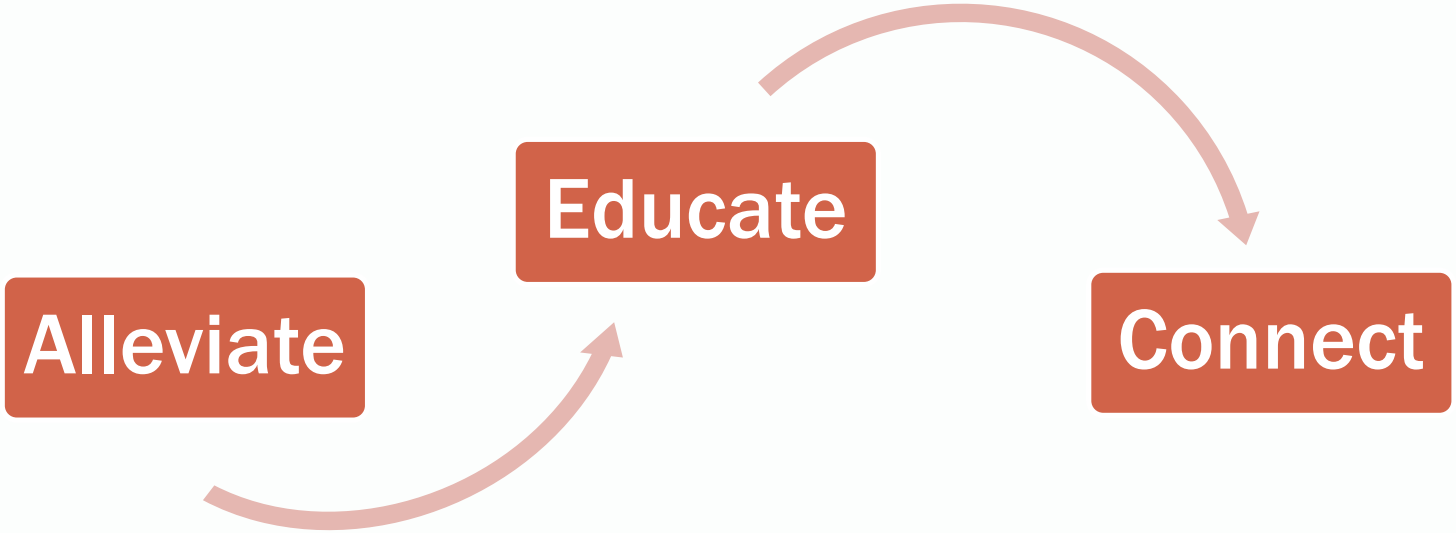
GOAL OF UTILITY ASSISTANCE

Provide **education** and **resources** to **empower** customers seeking assistance so they can successfully **manage their utility services.**

A HOLISTIC APPROACH TO ASSISTANCE



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ALLEVIATE – SEEK CUSTOMER SOLUTIONS

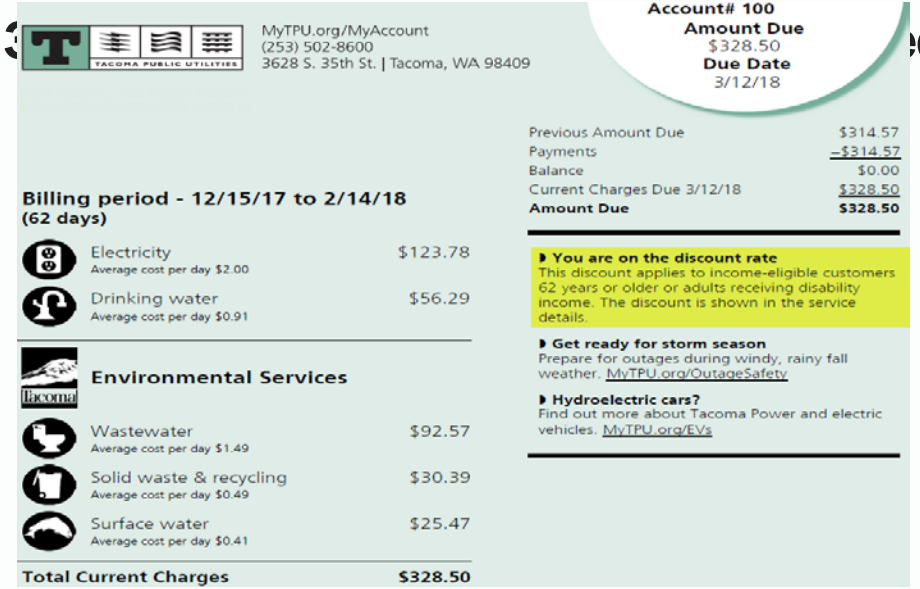
Seek Customer Solutions

- Evaluate urgent account matters (pending or disconnected accounts)
- Assess customers ability to pay
- Utilize Emergency Assistance Funds within established guidelines
- Identify other a

EDUCATE - DISCOUNT RATE PROGRAM

Discount Rate Program Criteria

- **Household income up to 150% of federal poverty guidelines**
- **Customers 62 years or older <u>or</u> receiving qualifying disability income**
- **3 ... ed direct**



TACOMA PUBLIC UTILITIES
MyTPU.org/MyAccount
(253) 502-8600
3628 S. 35th St. | Tacoma, WA 98409

Account# 100
Amount Due
$328.50
Due Date
3/12/18

Billing period - 12/15/17 to 2/14/18
(62 days)

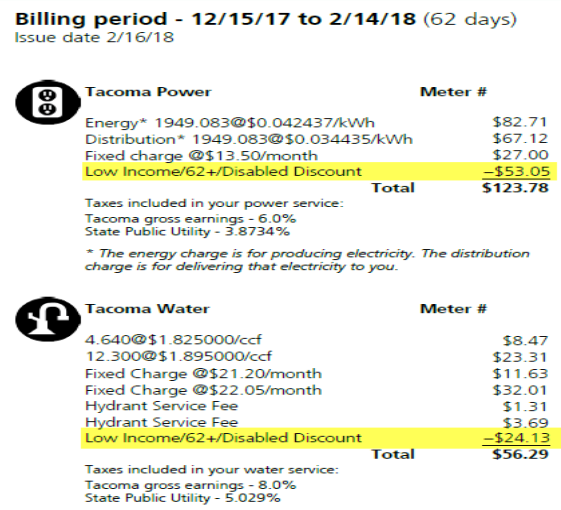
Electricity Average cost per day $2.00	$123.78
Drinking water Average cost per day $0.91	$56.29
Environmental Services	
Wastewater Average cost per day $1.49	$92.57
Solid waste & recycling Average cost per day $0.49	$30.39
Surface water Average cost per day $0.41	$25.47
Total Current Charges	**$328.50**

Previous Amount Due	$314.57
Payments	–$314.57
Balance	$0.00
Current Charges Due 3/12/18	$328.50
Amount Due	**$328.50**

You are on the discount rate
This discount applies to income-eligible customers 62 years or older or adults receiving disability income. The discount is shown in the service details.

Get ready for storm season
Prepare for outages during windy, rainy fall weather. MyTPU.org/OutageSafety

Hydroelectric cars?
Find out more about Tacoma Power and electric vehicles. MyTPU.org/EVs



Billing period - 12/15/17 to 2/14/18 (62 days)
Issue date 2/16/18

Tacoma Power — **Meter #**

Energy* 1949.083@$0.042437/kWh	$82.71
Distribution* 1949.083@$0.034435/kWh	$67.12
Fixed charge @$13.50/month	$27.00
Low Income/62+/Disabled Discount	–$53.05
Total	**$123.78**

Taxes included in your power service:
Tacoma gross earnings - 6.0%
State Public Utility - 3.8734%

** The energy charge is for producing electricity. The distribution charge is for delivering that electricity to you.*

Tacoma Water — **Meter #**

4.640@$1.825000/ccf	$8.47
12.300@$1.895000/ccf	$23.31
Fixed Charge @$21.20/month	$11.63
Fixed Charge @$22.05/month	$32.01
Hydrant Service Fee	$1.31
Hydrant Service Fee	$3.69
Low Income/62+/Disabled Discount	–$24.13
Total	**$56.29**

Taxes included in your water service:
Tacoma gross earnings - 8.0%
State Public Utility - 5.029%

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EDUCATE - BILL CREDIT ASSISTANCE PLAN

Bill Credit Assistance Plan Criteria

- **Household income up to 150% of federal poverty guidelines**
- **Monthly credits based on full, on-time payments**
- ervices

TACOMA PUBLIC UTILITIES

MyTPU.org/MyAccount
(253) 502-8600
3628 S. 35th St. | Tacoma, WA 98409

Account# 100
Amount Due
$334.92
Due Date
3/8/18

Previous Amount Due	$317.02
Payments	–$317.02
Balance	$0.00
Current Charges Due 3/8/18	$334.92
Amount Due	**$334.92**

Billing period - 12/20/17 to 2/20/18
(63 days)

Electricity Average cost per day $2.20	$138.74
Drinking water Average cost per day $0.76	$48.11
Environmental Services	
Wastewater Average cost per day $1.15	$72.27
Solid waste & recycling Average cost per day $0.53	$33.56
Surface water Average cost per day $0.67	$42.24
Total Current Charges	**$334.92**

You are enrolled in the Bill Credit Assistance Plan (BCAP)
The bill credit received is $78.00.
BCAP credit is achieved with full, timely payments.

Get ready for storm season
Prepare for outages during windy, rainy fall weather. MyTPU.org/OutageSafety

Hydroelectric cars?
Find out more about Tacoma Power and electric vehicles. MyTPU.org/EVs

Billing period - 12/20/17 to 2/20/18 (63 days)
Issue date 2/21/18

Tacoma Power **Meter #**

Energy* 2000@$0.042437/kWh	$84.87
Distribution* 2000@$0.034435/kWh	$68.87
Fixed charge @$13.50/month	$27.00
BCAP Credit - Power	–$42.00
Total	**$138.74**

Taxes included in your power service:
Tacoma gross earnings - 6.0% - $8.32
State Public Utility - 3.8734% - $5.37

** The energy charge is for producing electricity. The distribution charge is for delivering that electricity to you.*

Tacoma Water **Meter #**

1.340@$1.825000/ccf	$2.45
5.730@$1.895000/ccf	$10.86
Fixed Charge @$21.20/month	$8.08
Fixed Charge @$22.05/month	$35.70
Hydrant Service Fee	$0.91
Hydrant Service Fee	$4.11
BCAP Credit - Water	–$14.00
Total	**$48.11**

Taxes included in your water service:
Tacoma gross earnings - 8.0% - $3.85
State Public Utility - 5.029% - $2.42

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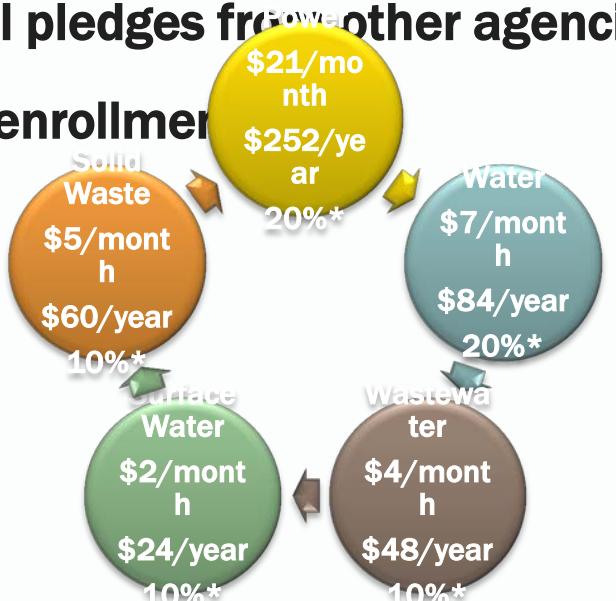
EDUCATE - BILL CREDIT ASSISTANCE PLAN

Benefits of Bill Credits

- Monthly & bi-monthly credits achievable throughout the year
- Power credit available regardless of permanent heat source
- Additional pledges fr other agencies can help achieve bill credits
- Two-year enrollmer



Maximum monthly credit = $39
Maximum annual credit = $468

*Percentage of average monthly bill

Maximum annual amount of former grant programs = $355

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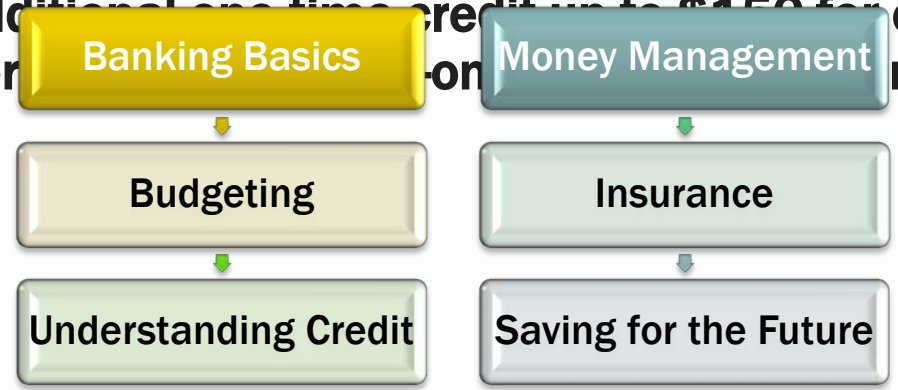
EDUCATE – FINANCIAL EDUCATION CREDIT

Financial Education Credit

- Partnership with Tacoma Goodwill "Key to Change" Financial Education Course - identified as one of United Ways "Center for Strong Families"
- A portion of the training specifically addresses utility bill payments
- Optional opportunity for customers enrolled in the Discount Rate Program and the Bill Credit Assistance Plan
- Additional one time credit up to $150 for completion of the course and per[illegible]-on[illegible]ng



CONNECT - TACOMA 2025 STRATEGIC PLAN

Increase interdepartmental collaboration to promote - Opportunity/Equity/Partnerships/Accountability

- **Tacoma Power**
  - Energy-efficiency products and services
  - Apprenticeships & Internship Programs
  - Parks & Recreation
- **Tacoma Water**
  - Water-efficiency products and services
  - Apprenticeships & Internship Programs
- **Environmental Services**
  - Side-Sewer Loan Program
  - TAGRO
- **Neighborhood and Community Services**
  - Home repair programs
  - Services for seniors & persons with disabilities
  - Self-sufficiency programs

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CONNECT – COMMUNITY RESOURCES

Current Resources & Partnerships

- Catholic Community Services
- Department of Social and Health Services
- Greater Tacoma Community Foundation
- HopeSparks
- Living Access Support Alliance
- Metropolitan Development Council
- Pierce County Human Services (Energy Assistance & Disability Resources)
- Pierce County Veterans Bureau
- Puyallup Tribe of Indians
- Salvation Army
- Sound Outreach
- St. Rita / St. Vincent DePaul
- Tacoma Head Start
- Tacoma/Pierce County Housing Authorities
- Tacoma Urban League
- United Way of Pierce County - Centers for Strong Families

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CONNECT – COMMUNITY RESOURCES

Expanded Resources & Partnerships

- Asian Pacific Cultural Center
- Boys & Girls Clubs
- Centro Latino
- Churches
- Community Colleges
- Comprehensive Life Resources
- Employment Security
- Korean Women's Association
- Lutheran Community Services
- Mercy Housing
- School Districts
- Senior Centers / Senior Housing
- Tacoma Community House
- YWCA

Discount Rate Program

- **Household income up to 150% of federal poverty guidelines**

One person/$18,210 or less **Four people/$37,650 or less**

Division	Estimated Eligible Households	Households Served in 2017
Power	8,800	6,355 (72.2%)
Water	5,300	2,830 (53.4%)
Wastewater	3,800	2,446 (64.4%)
Surface Water	4,200	2,389 (59.9%)
Solid Waste	3,636	2,535 (69.7%)

Estimates based on 2014 American Community Survey (US Census Bureau)

Bill Credit Assistance Plan

- **Household income up to 150% of federal poverty guidelines**

One person/$18,210 or less **Four people/$37,650 or less**

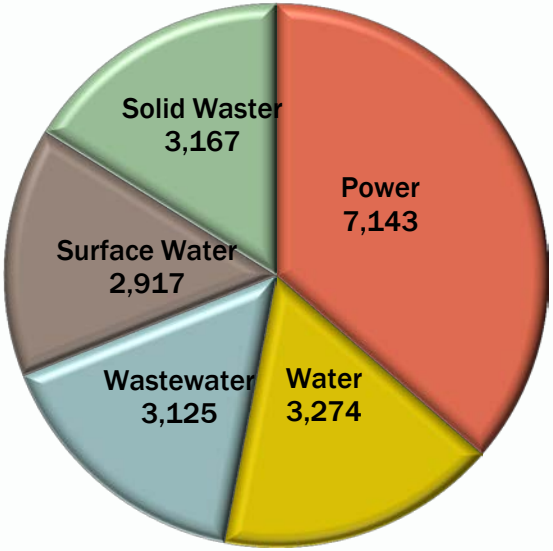
Division	Estimated Eligible Households	Households Served in 2017
Power	47,000	1,925 (4.1%)
Water	21,000	1,072 (5.1%)
Wastewater	18,000	993 (5.5%)
Surface Water	20,000	942 (4.7%)
Solid Waste	17,000	1,011 (5.9%)

Estimates based on 2014 American Community Survey (US Census Bureau)

INCREASE BCAP PARTICIPATION

Short-Term Goal

- Increase household participation in the Bill Credit Assistance Plan over the 2018-2020



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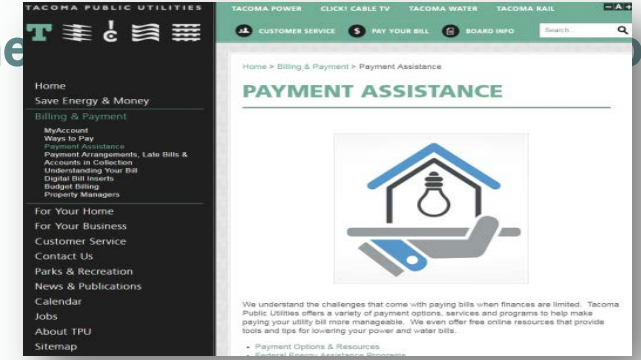
MARKETING & COMMUNICATIONS

Digital Campaign

- Define and implement paid search and social advertising campaign redirecting consumers to website for more information and program enrollment
- Update web content
- Web banne onthly



Agency Partnership Awareness & Resources

- **"Lower My Bill" Resource Kit**
  - Develop a new lower your bill resource kit for partners to provide customers in their facilities
- **Banners/Displays**
  - Program overview – pull-up banners for display at agency with tear sheets for more information
  - Program brochures and flyers
- **Program FAQs & Talking Points for Staff**
- **Online**
  - Reciprocal links on TPU and partner agency websites to relevant programs/resources

Direct to Consumer Awareness

- **Posters/Flyers**
  - Pull-up banners and flyers in TPU lobby and targeted agencies
  - TPU lobby screens – (rotates monthly)
- **Advertising**
  - Print ads in local community newsletters and/or papers that meet key demographics
- **Collateral**
  - Program flyers and brochures created and distributed in high-traffic community gathering areas

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MARKETING & COMMUNICATIONS

- **Newsletters**
  - Quarterly article in U*
  - Provide articles to partner agencies for inclusion in their newsletters
- **Direct Mail**
  - 1st – all income-eligible households
  - Quarterly trigger program based on events
  - Bill inserts (quarterly)

te pays, etc.)

- **Promotional giveaway**
  - 12 month calendar with TPU pen to mark when bills are due
- **Public Service Announcement (PSA)**
  - Tacoma Reporter, social media channels

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NEXT STEPS

- Present to the Committee of the Whole on May 1, 2018.
- Launch Financial Education Credit component.
- Create a strategic plan that improves utility programs, identifies resources and develops priorities within Tacoma Public Utilities service territory.
- Reorganize the Customer Solutions Office to optimize outreach and engagement with low-income community.
- Conduct program evaluations at the end of each calendar year and report findings to the board and council.

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ACTION ITEMS 6. & 7. LOW-INCOME COSA POLICIES

Response to Question at Public Utility Board All-Day Workshop

Tacoma Power's *Electric Rate & Financial Policy* *

- **IV.B.1.b.**
  "The level of annual funding for low-income assistance will be determined by the Public Utility Board."
- **IV.B.2.a.1.**
  "A modified electric rate will be considered to help low-income senior or low-income disabled electric customers pay their bills."
- **IV.B.3.g.**
  "The costs and benefits of the current discounted rate for the low-income/senior and low-income/disabled, together with other low-income programs, will be evaluated, along with an analysis of other utility programs that provide assistance to the low-income customer. The low-income rate may be discontinued at the discretion of the Public Utility Board if it is determined that the rate discount is not an effective method of providing assistance to the low-income customers."

Tacoma Water's *Water Rate & Financial Policy* *

- **III.C.16**
  "A discounted water rate will be considered to help low-income/elderly and low-income/ handicapped water customers."

* Both Rate & Financial Policies will be discussed side-by-side on May 9, 2018.

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ACTION ITEMS 6. & 7. LOW-INCOME COSA POLICIES

Response to Question at Public Utility Board All-Day Workshop

Tacoma Power's *Cost-of-Service Analysis (COSA)*

Residential (Schedule A)	Small General (Schedule B)	General (Schedule G)	High Voltage General (Schedule HVG)	Contract Industrial (Schedule CP)	Street & Highway Lighting (Schedule H-1)	Traffic Signals & Lights (Schedule H-1)	Private Off-Street Lighting (Schedule H-2)
48.5%	8.4%	30.1%	5.8%	6.5%	0.3%	0.02%	0.4%

From Power's prospective, the COSA is allocated to all classes since low-income assistance is a community benefit.

Tacoma Water's *Cost-of-Service Analysis (COSA)*

Residential
100%

From Water's prospective, the COSA is only allocated to the Residential Class, since the program is only offered to that class.

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Tacoma Power

Preliminary Long-Range Financial Plan

Including Preliminary Revenue Requirement Forecast for 2019/20 Biennium

April 6, 2018

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AGENDA

1 **Rates and Budget Timeline**

2 **Long-Range Financial Plan Update**

- New Base Case and Financial Metrics
- Methodology and Assumptions
- Debt Management and Capital Funding
- Managing Risks

3 **Potential Changes to the Electric Rate and Financial Policy**

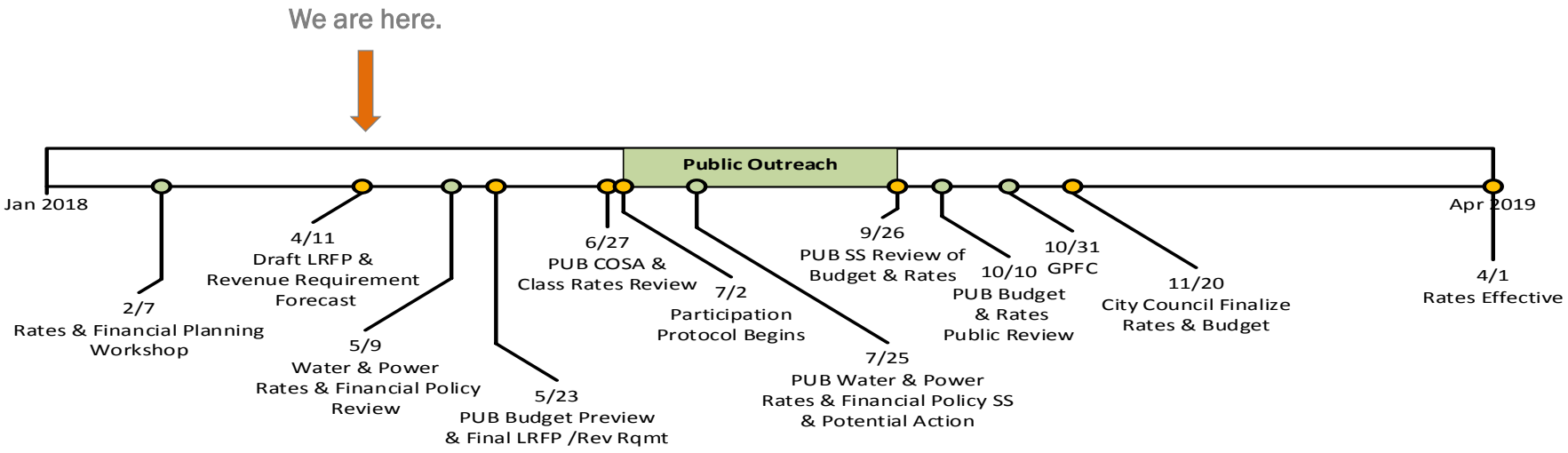
4 **Appendix**

- New Load Forecast
- Preliminary Long-Range Financial Plan Executive Summary

Rates and Budget Timeline

Timeline

2019/2020 Budget and Rate Timeline



TACOMA POWER

TACOMA PUBLIC UTILITIES

UPDATE

LONG-RANGE FINANCIAL PLAN

Rates, Planning & Analysis

May 23, 2018

Before we start, a reminder…

This is a snapshot in time.

The amount of revenue we will receive each year is uncertain.

The amount of power that will be consumed by our customers is uncertain.

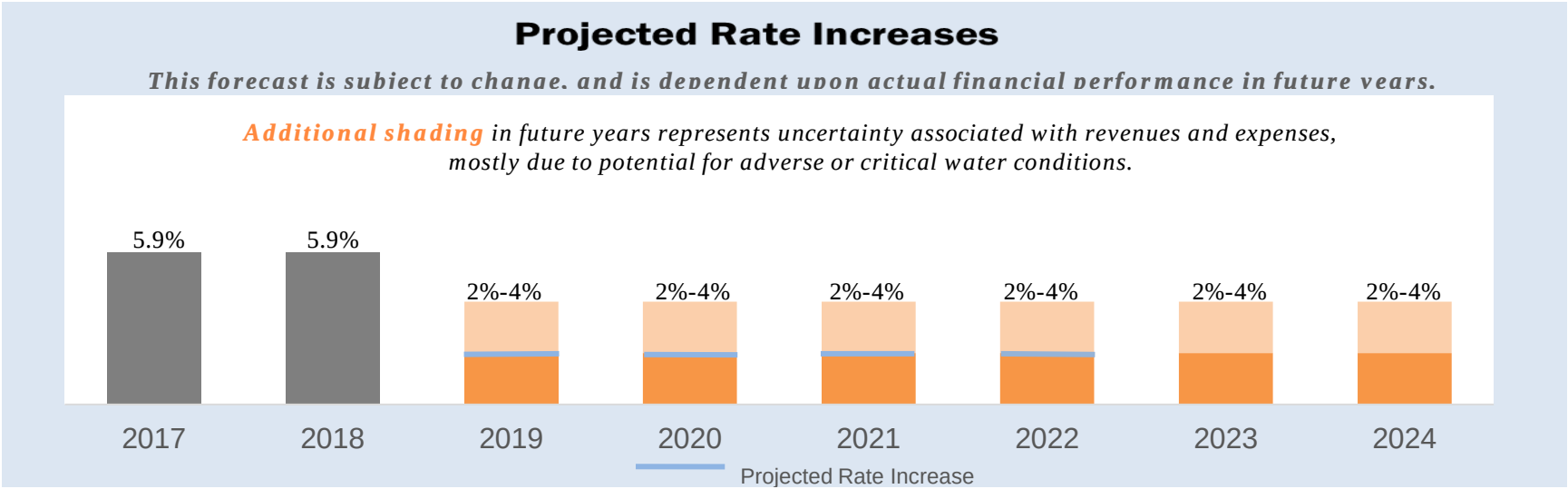
Actual rate increases may fall outside of this range and are dependent upon market conditions, financial performance, and the actions we may take in future years.

As has happened before -

These projections will change.

New Base Case

Projected Rate Increases



Preliminary Projected Rate Increases

Measures: Scenario results addressing potential future conditions that may impact us

Target: Base case rate 2% annually

New Base Case and Financial Metrics

Financial Metrics

Tacoma Power Metrics	2013	2014	2015	2016	2017[1]
Days of Liquidity *(Target: >180 Days)*	312	335	215	236	210
Debt Service Coverage Ratio *(Target: >2.0x)*	1.88x	1.90x	2.01x	2.31x	2.82x
Debt Ratio *(Target: <50%)*	39%	37%	29%	26%	29%

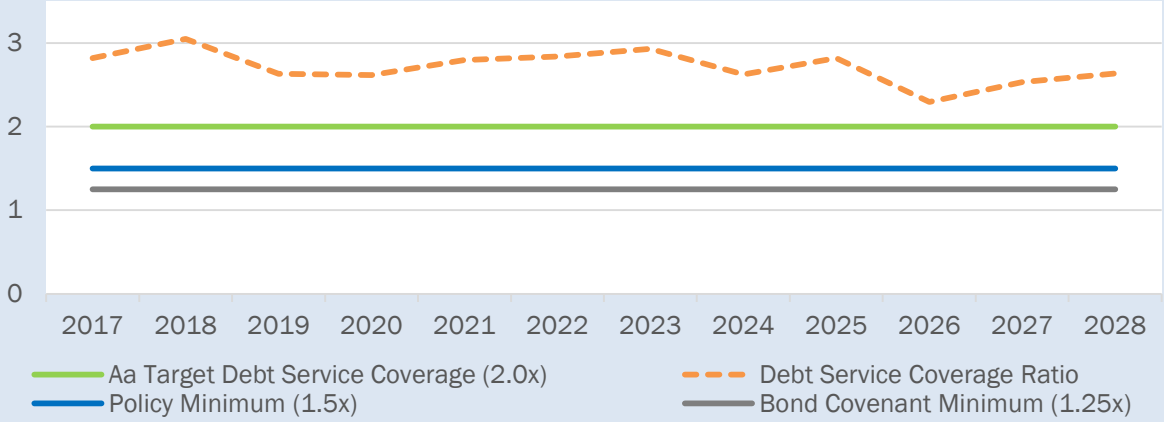
1 Based on unaudited financial results

	Moody's*	S&P	Fitch
Investment Grade	Aaa	AAA	AAA
	Aa1	AA+	AA+
	Aa2	AA	AA
	Aa3	AA-	AA-
	A1	A+	A+
	A2	A	A
	A3	A-	A-
	Baa1	BBB+	BBB+
	Baa2	BBB	BBB
	Baa3	BBB-	BBB-
Non-Investment Grade Speculative	Ba1	BB+	BB+
	Ba2	BB	BB
	Ba3	BB-	BB-
	B1	B+	B+
	B2	B	B
	B3	B-	B-
	Caa1	CCC+	
	Caa2	CCC	
	Caa3	CCC-	CCC
	Ca	CCC	
	C		DDD
		D	DD
			D

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

New Base Case Financial Metrics

Debt Service Coverage Ratio



Debt Service Coverage Ratio

Measures: How many times we can pay the annual interest and principal payments on our debt annually with net revenue.

Target: 2.0x

Policy: 1.5x Adverse Water 1.8x Average Water

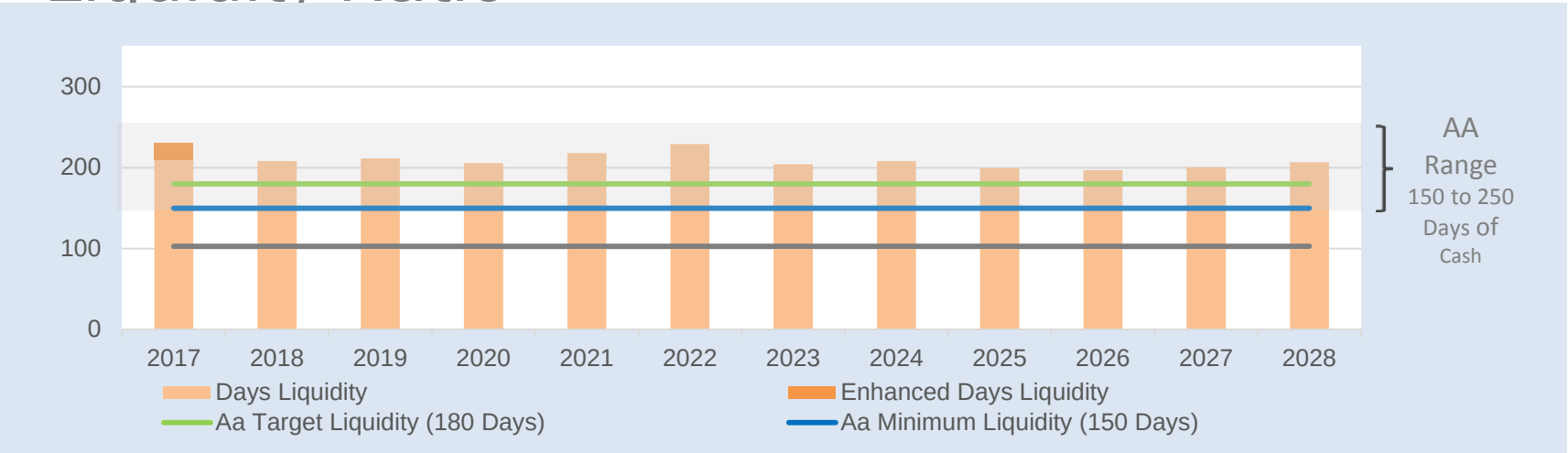
Bond Covenant Minimum: 1.25x

DSCR is above target as a result of debt retirements.

Refer to Montague DeRose memo in 4/6 Board packet (ACTION ITEM 23).

New Base Case Financial Metrics

Liquidity Ratio



Days of Liquidity

Measures: The number of days cash we have available to operate the utility

Target: 180 Days

Rating: 150 Days

Policy Minimum: 90 Days [1]

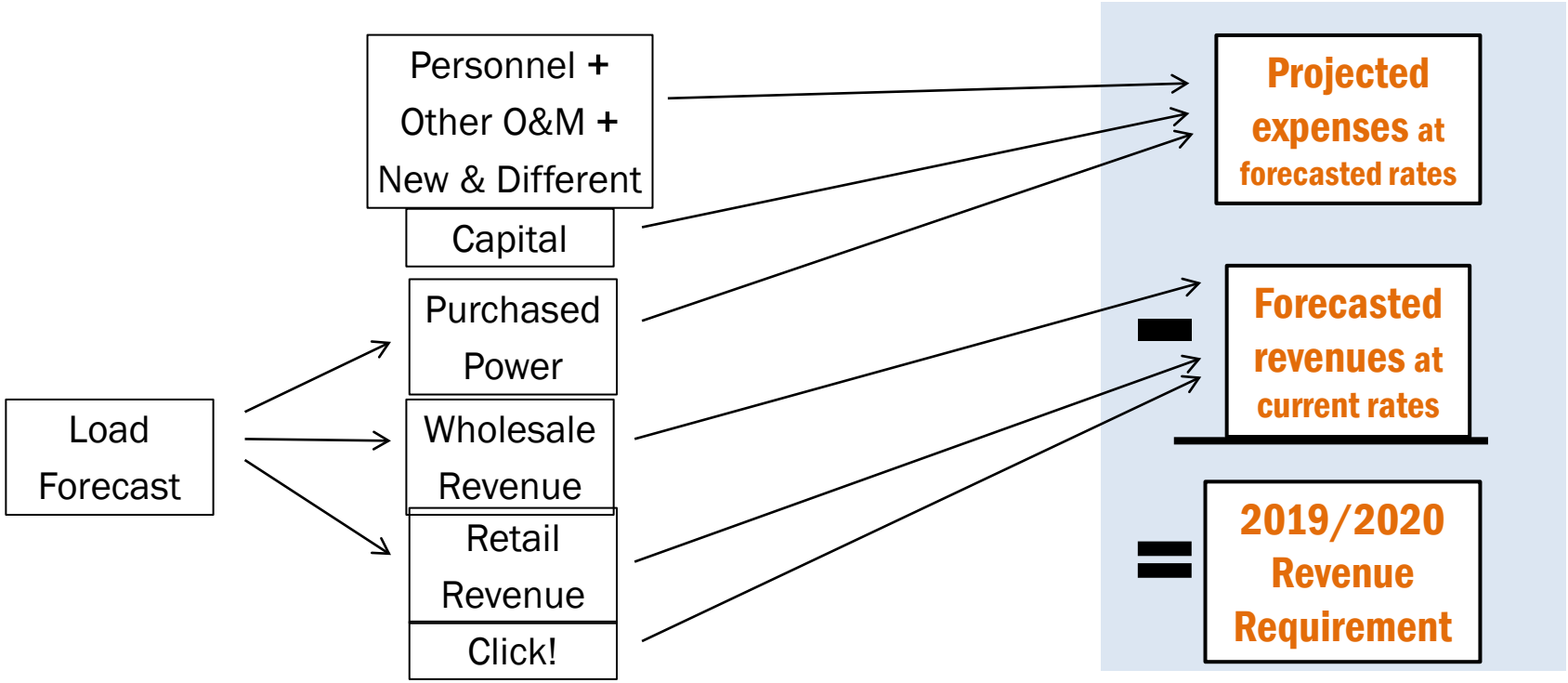
[1] 90 days of Total Expenses, as compared to 103 days of Operating Expenses as used by rating agencies.

Liquidity is within the AA range, although above our target. Additional liquidity is used to pay for capital expenses and future debt restructuring.

Refer to Montague DeRose memo in 4/6 Board packet (ACTION ITEM 23).

Methodology and Assumptions

Revenue Requirement Calculation



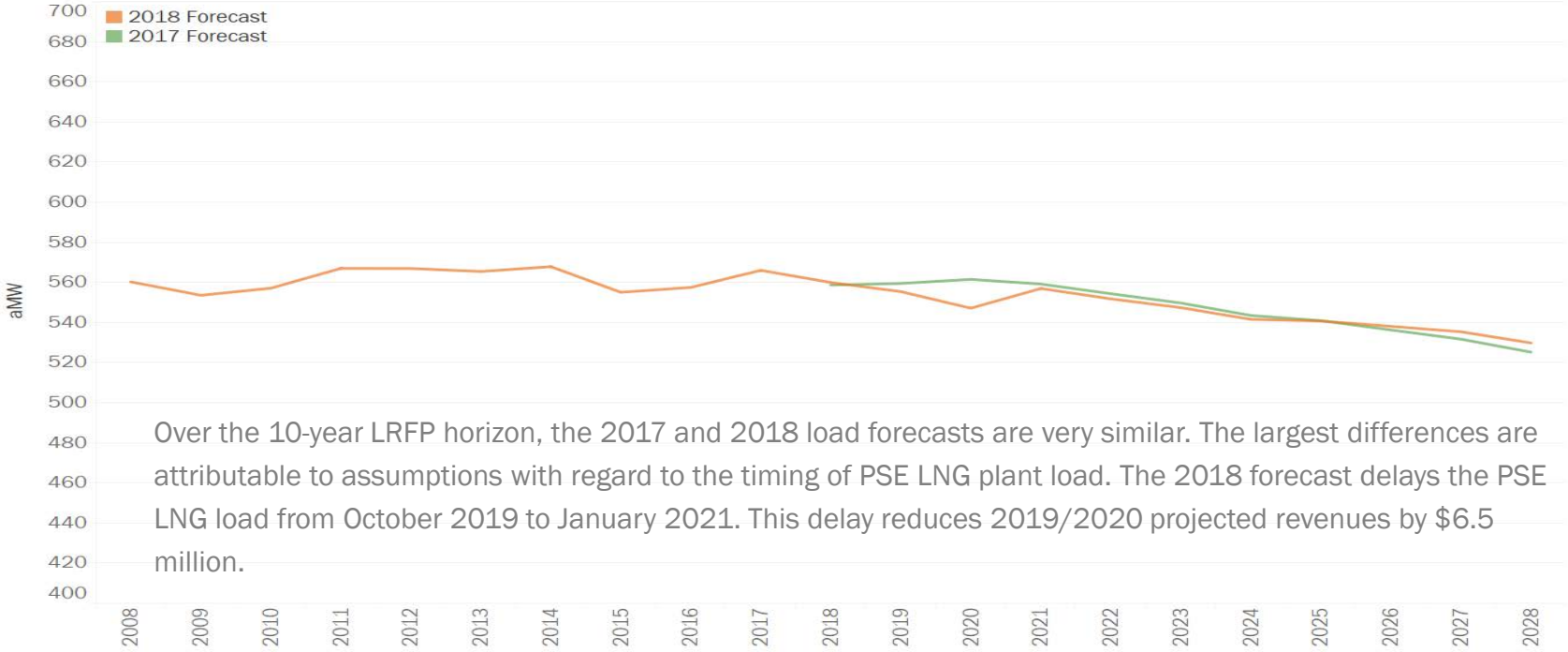
Long-Range Financial Plan Assumption Differences

2/7/2018 Draft LRFP		4/11/2018 Preliminary LRFP
2017 load forecast	Retail Revenue	New 2018 load forecast
2017 pricing & load forecast	Wholesale Revenue	Updated pricing & load forecast
2017 pricing & load forecast	Purchased Power	Updated pricing & load forecast
$10 million biennium vacancy rate	Personnel	Forecast based on historical actuals (2.4% annual increase)
3% discount based on budget	Other O&M	Forecast based on historical actuals (3.7% annual increase)
	New & Different	Estimated spending X probability factor ($18.7 million)
Capital Spending Plan	Capital	2018 historical actuals forecast & future capital spending plans
Click! Status Quo	Click!	Click! Status Quo

2018 Load Forecast

Weather Normalized System Load Forecast Comparisons

2017 v. 2018



Over the 10-year LRFP horizon, the 2017 and 2018 load forecasts are very similar. The largest differences are attributable to assumptions with regard to the timing of PSE LNG plant load. The 2018 forecast delays the PSE LNG load from October 2019 to January 2021. This delay reduces 2019/2020 projected revenues by $6.5 million.

Methodology and Assumptions

Wholesale Revenue

Assumption Impacts for 2019/2020

- Load Forecast Update
  $4.7 million
- Wholesale Revenue Enhancements
  $9.1 million

- Wholesale Prices
  –$21.9 million
- Generation Resources
  –$4.2 million

$12.3 Million Reduced Revenue

Methodology and Assumptions

Purchased Power

Assumption Impacts for 2019/2020

- Transmission Purchases for Wholesale Revenue Enhancement $2.6 million
- Other Transmission Purchases $3.9 million

- Purchased Power from BPA –$11.3 million
- Other Power Costs –$2.0 million

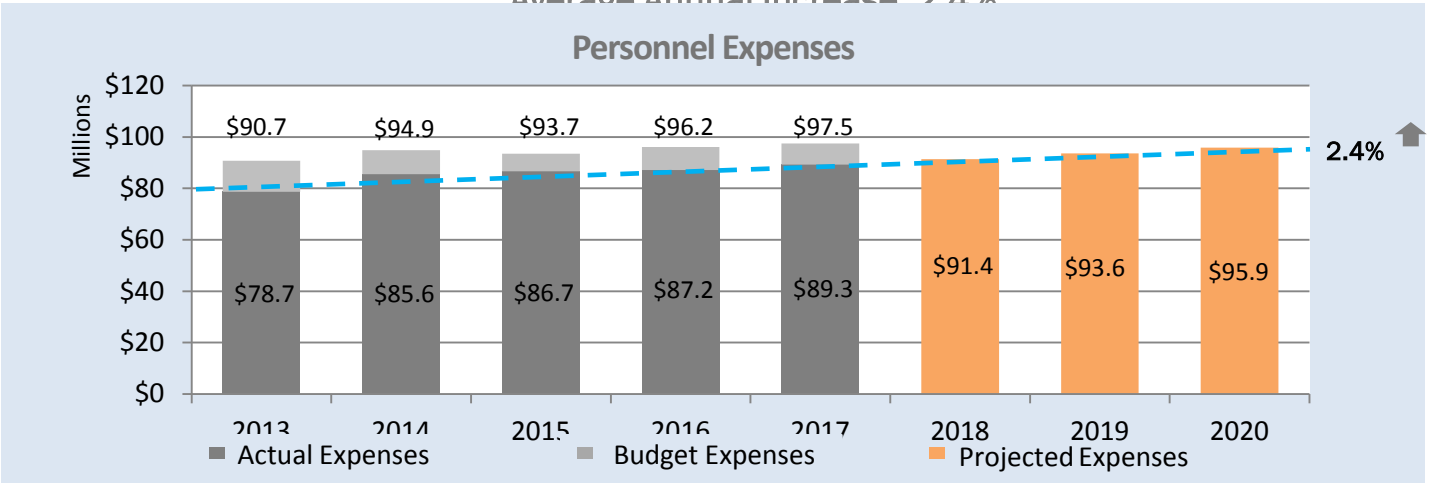
$6.7 Million Reduced Expenses

Methodology and Assumptions

Actual Historical Spending on Personnel

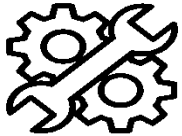
Personnel

Average Annual Increase: 2.4%



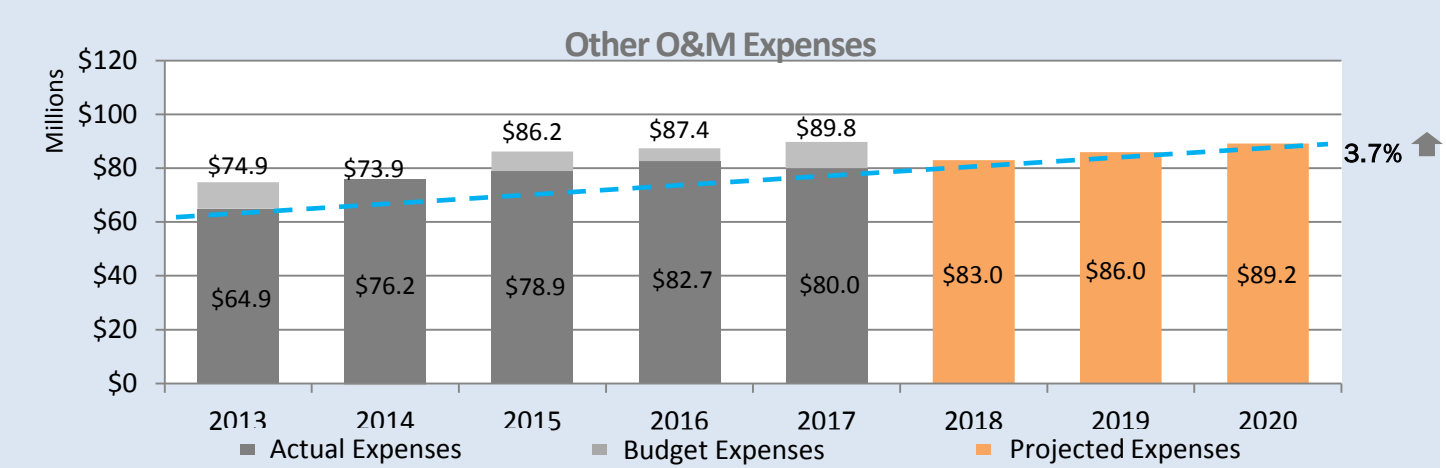
Methodology and Assumptions

Actual Historical Spending on Other O&M



Other Operations & Maintenance

Average Annual Increase: 3.7%



Methodology and Assumptions

New and Different Spending

Financially Significant

Tacoma Power Strategic Initiative

Section Strategic Initiative

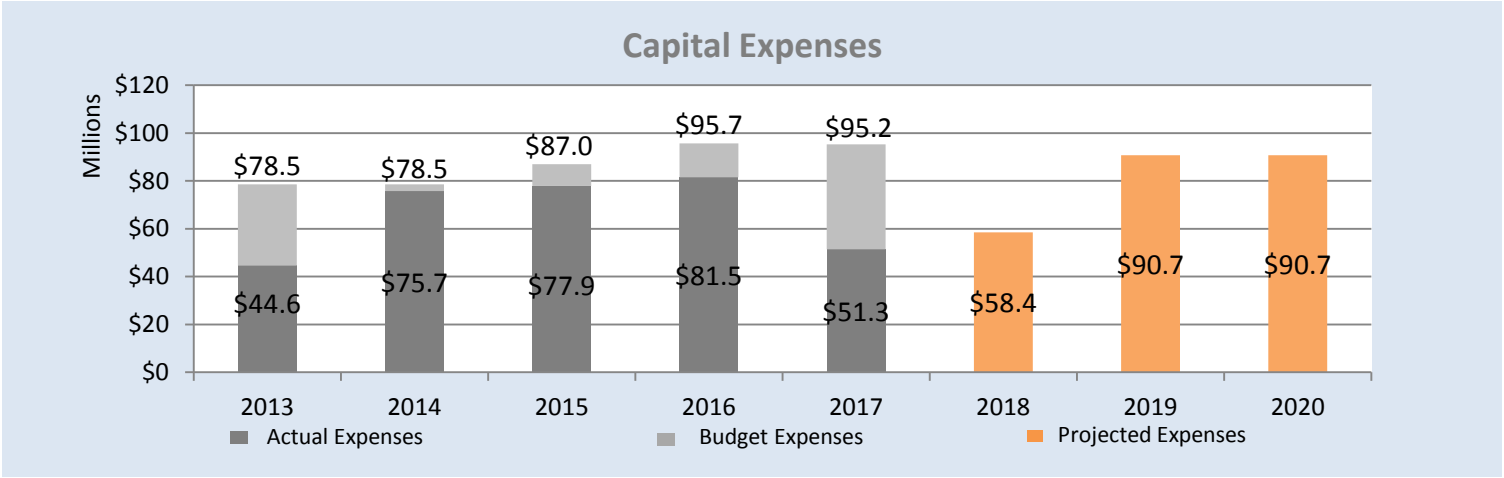
Operational Mandate

Section	Forecast New & Different
Power Management	$4,217,619
Generation	$5,374,955
UTS	$5,156,076
Rates, Planning & Analysis	$2,820,872
Transmission & Distribution	$1,193,519
Click!	$0
Total	**$18,763,041**

2019/20 estimated forecast of Other O&M and Personnel + New & Different is $7.5 million less than the 2017/2018 Budget for those same items.

Debt Management and Capital Funding

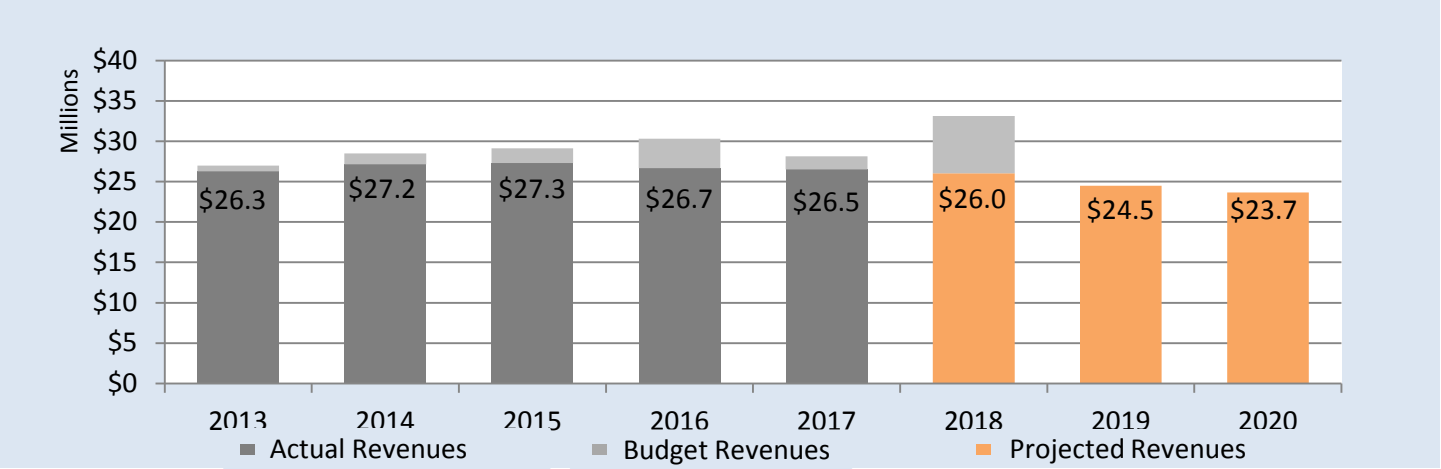
Preliminary Capital Spending Assumptions



Methodology and Assumptions

Click! Revenues

Revenues forecasted as if Click! continues to operate in Status Quo until further direction is provided. Click! expenses are included in Power Personnel and Other O&M.



Debt Management and Capital Funding

Debt Management and Capital Funding

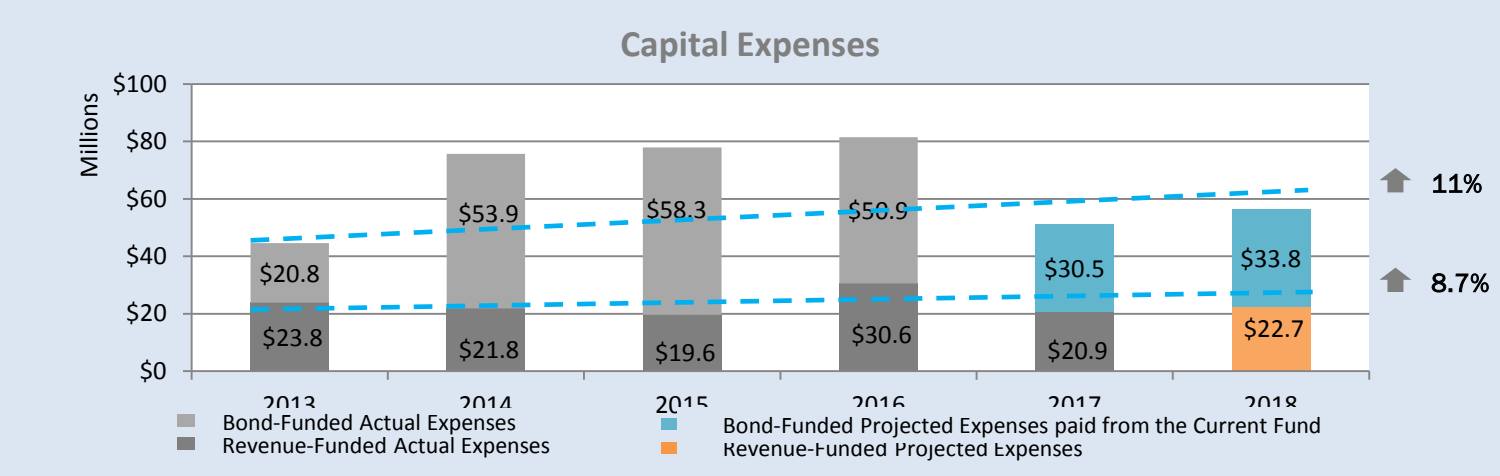
Capital Spending Assumptions

Revenue-Funded Capital Spending

Average Annual Increase: 8.7%

Bond-Funded Capital Spending

Average Annual Increase: 11%



Budgeted vs. Actual Capital Spending

Funding Guidelines

Major projects:

100% bond funded

Remaining projects:

50% bond funded & 50% revenue funded

Cash and Bond Funding Ratios

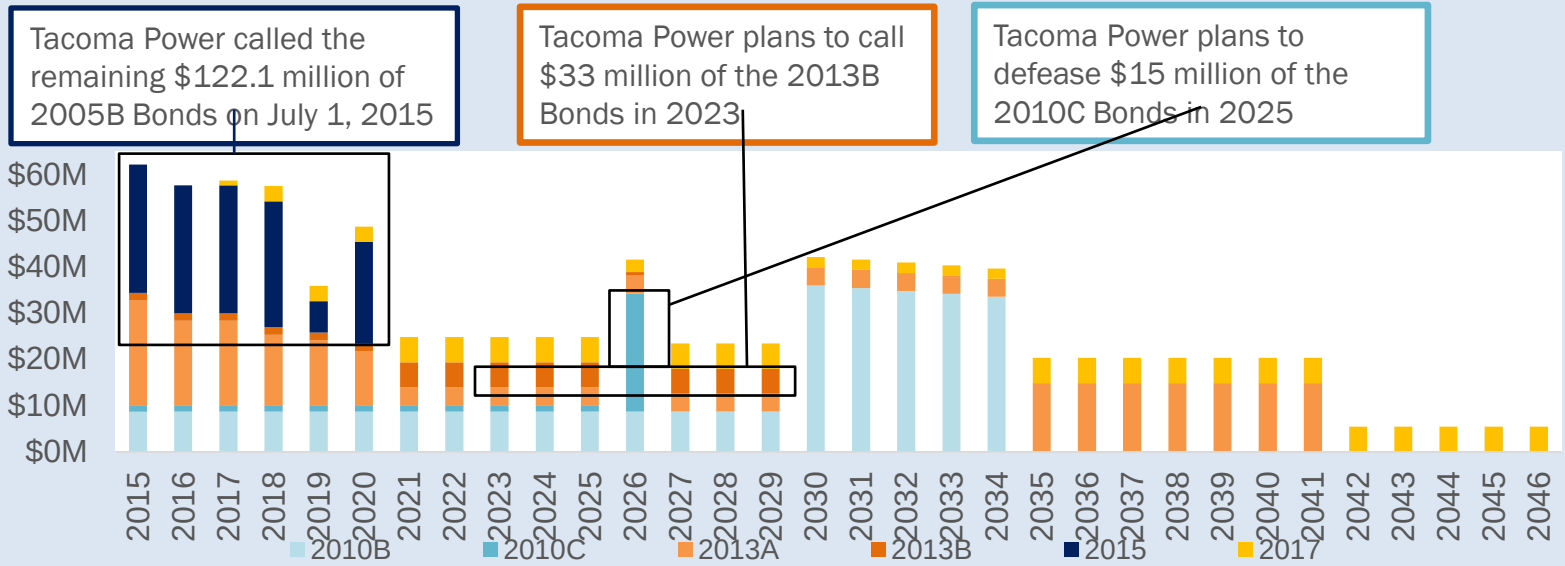
	Budgeted			Actual		
Biennium	Revenue Funded	Bond Funded	Total Capital	Revenue Funded	Bond Funded	Total Capital
2013/2014	37.1%	62.9%	$157,043,000	37.9%	62.1%	$120,439,200
2015/2016	36.9%	63.1%	$182,660,440	31.5%	68.5%	$159,437,900
2017/2018*	43%	57%	$190,474,000	100%	0%	$138,887,000
2019/2020**	68%	32%	$181,450,000			
2021/2022**	50%	50%	$163,387,000			
Average Funding*	46.6%	53.4%				

* 2017 Actuals plus 2018 projections
** Biennium projections

Using Cash to Reduce Debt Service

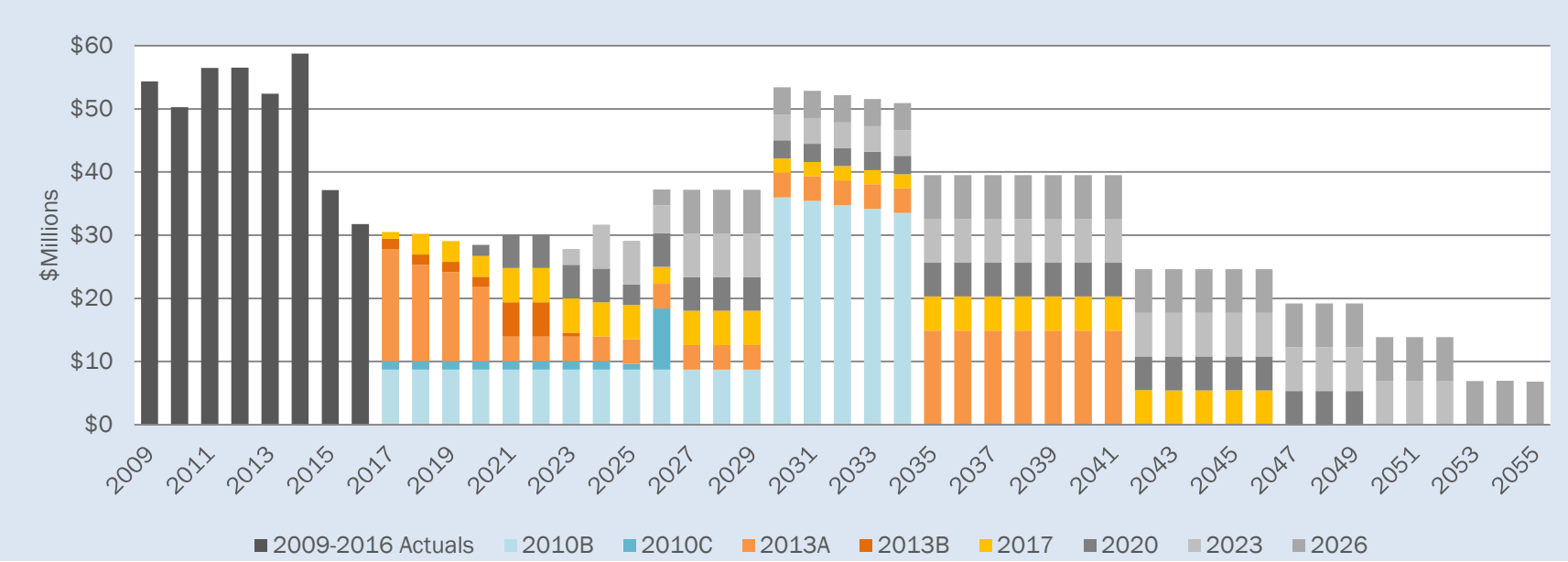
Debt Service Overview

This chart shows the combined principal and interest payments due by Bond and arranged by year.



* Debt Portfolio shown on an accrual basis.

Base Case Debt Service with Future Bonds



Short-term Debt: Wells Fargo

Proposed Two-Year Extension from 2018 to 2020

Policy Decision

Wells Fargo Drawdown Direct Purchase Agreement

Commitment Amount: **$100,000,000**

Drawn Amount:
$250,000

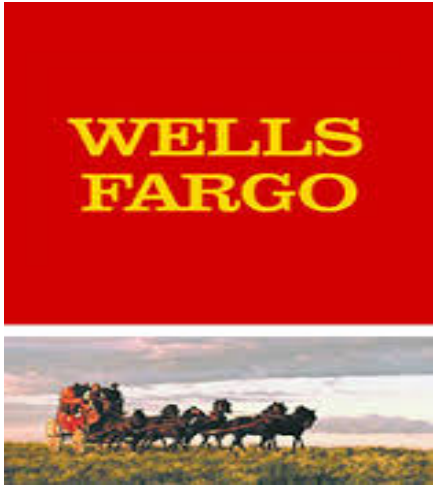
Start Date:
May 2015
Extension through 2020

Term:
2 years

Purpose:
Interim Financing of Capital Projects

Refer to Bill Berry memo in 4/6 Board packet (ACTION ITEM 24).

Our variable rate Note Purchase Agreement with Wells Fargo allows us to fund capital projects on an interim basis.



Short-term Debt: Key Bank

Plan to let lapse

Key Bank Revolving Credit Facility

Commitment Amount: **$25,000,000**
(with ability to increase to $50,000,000)

Drawn Amount:
$0

Expiration Date:
May 1, 2018

Term:
3 years

Purpose:
Enhanced Liquidity

Refer to Bill Berry memo in 4/6 Board packet (ACTION ITEM 24).

KeyBanc Capital Markets

Managing Risk

Managing Risk

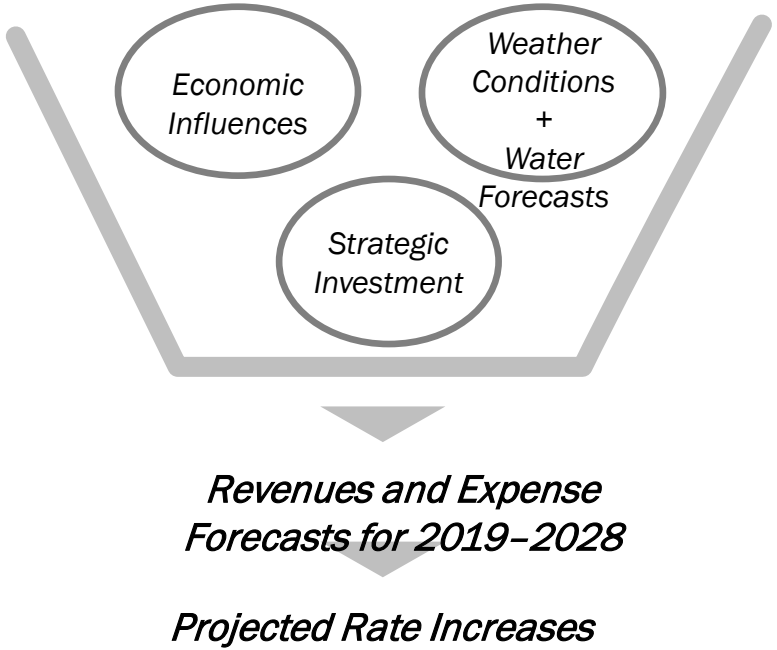
Unpredictable Factors affect Revenue and Expenses

External

- *Weather*
- *Wholesale price volatility*
- *Economic downturn*
- *Regulatory changes*
- *Environmental regulations*
- *Energy efficient load impact*

Internal

- *Technology changes*
- *Aging infrastructure*
- *Aging workforce*



Managing Risk

Options to Preserve Financial Flexibility

In Progress

Strategic Initiatives

- Asset Management
- Capital Portfolio Management Office
- Wholesale Revenue Enhancement

Debt Service Management

Reduce Capital Spending

Considering

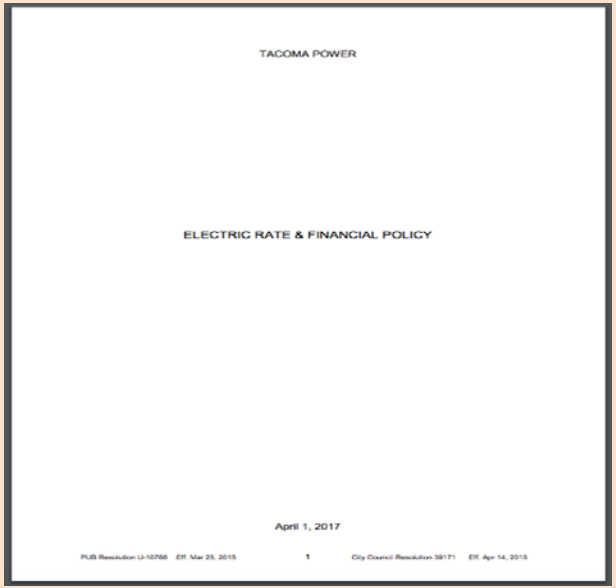
Automatic Rate Adjustment Mechanism

e.g., Seattle City Light

- BPA Cost Increase Pass Through
- Rate Stabilization Fund Revenue Adjustment Mechanism

Establish a separate capital fund

Electric Rate & Financial Policy



TACOMA POWER

ELECTRIC RATE & FINANCIAL POLICY

April 1, 2017

PUB Resolution U-10768 Eff. Mar 25, 2015 1 City Council Resolution 39171 Eff. Apr 14, 2015

Electric Rate & Financial Policy

What's in the Policy?

This policy provides guidance for managing the financial performance of the utility.

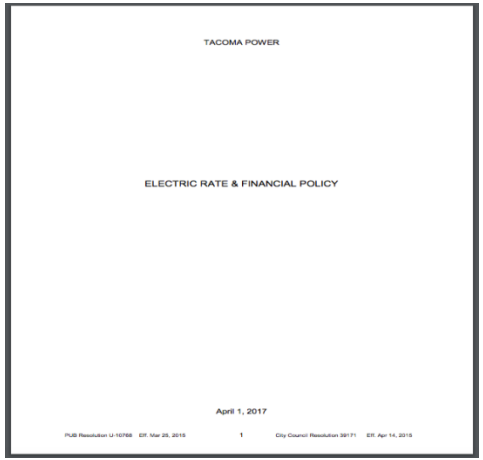
I. Rate Setting Objectives

II. Rate Review Process

III. Rate Setting Policies

IV. Financial Targets and Rate Setting Practices

V. Rate Stabilization Fund


TACOMA POWER

ELECTRIC RATE & FINANCIAL POLICY

April 1, 2017

PUB Resolution U-10768 Eff. Mar 25, 2015 1 City Council Resolution 39171 Eff. Apr 14, 2015

Refer to Electric Rate & Financial Policy received in the 4/6 packet.

Managing Risk

Potential Changes

Add “Low and Stable Rates” Objective

Tacoma Power works to keep rate increases as low as possible and relatively stable from year-to-year. Consider adding this objective to the Electric Rate and Financial Policy.

Clarify Wholesale Planning Criteria

Tacoma Power has used Adverse water in Wholesale revenue forecasts for rate-setting purposes. Staff is evaluating whether this assumption is too conservative, and may propose a new standard.

Automatic Rate Adjustment Mechanism

Other utilities use automatic rate adjustment mechanisms to help manage risk. Staff is evaluating whether such mechanisms can help mitigate risk as we make rate planning assumptions somewhat less conservative than in the past.

Reserve Accounts

The fund contains a combination of cash, investments and surety policies and the size of the fund must remain sufficient to meet the Reserve Account requirements until the bonds are paid for.

Bond Reserve Fund

Tacoma Power's Bond Reserve Fund is sufficiently funded through 2020 when an existing surety policy will expire. Further analysis on this issue will be included in future versions of the LRFP.

Tacoma Power issued its Series 2017 Bonds without a Reserve Requirement because it is no longer required by the market.

NEW Springing Amendment

Staff will propose a technical amendment to Tacoma Power's Bond Ordinance, reducing the Bond Reserve Requirement by approximately $2.8 million.

Rate Stabilization Fund

Historical Rate Stabilization Fund Balance

2009	2010	2011	2012-2017
$0	$10,000,000	$36,000,000	$48,000,000

NEW

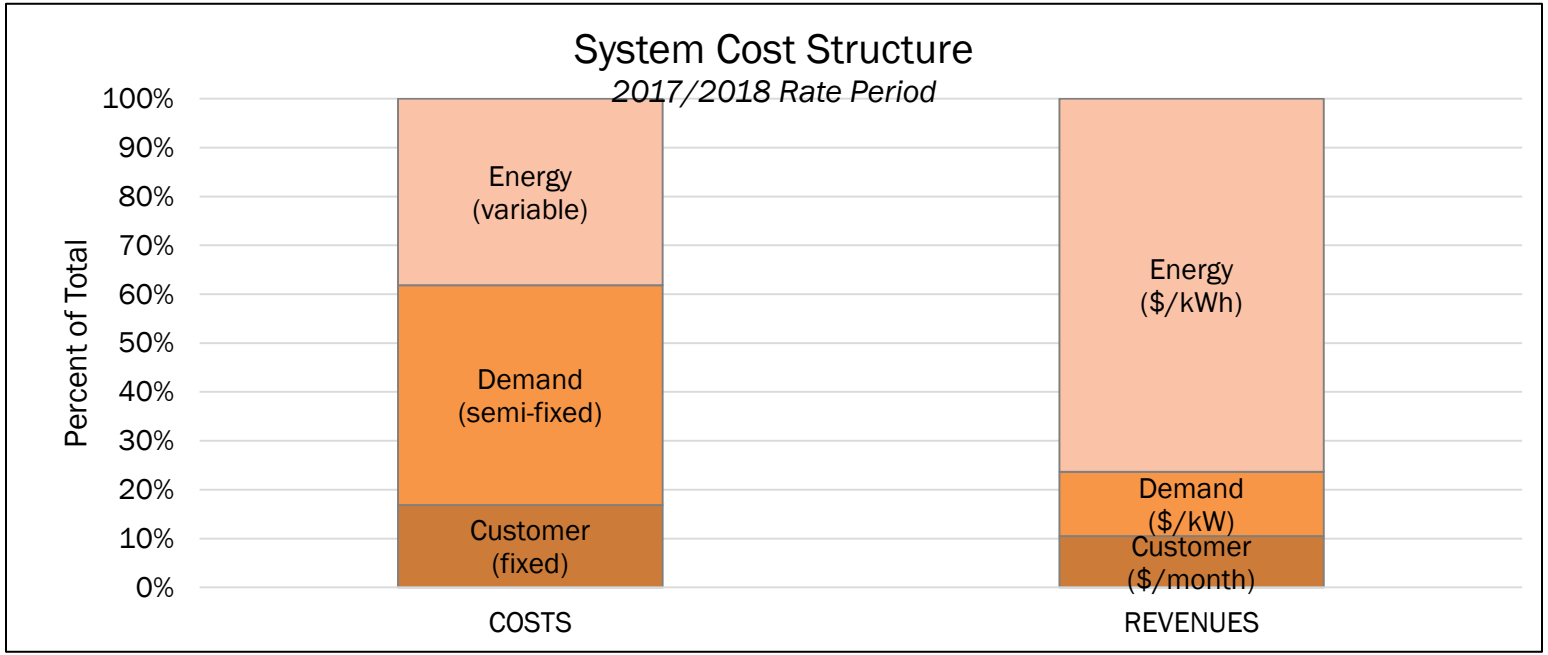
Staff is considering adding probabilistic rigor to the Rate Stabilization Fund calculation and may propose policy changes.

Managing Risk

Recovery of Fixed Costs

Policy Decision by 5/23/18

Most of the total Tacoma Power system **costs are fixed**. At the same time, most of the total Tacoma Power **revenues are variable**.

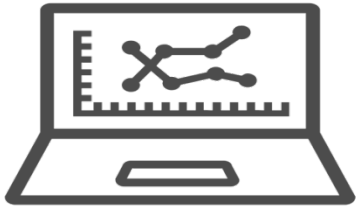


Amounts for Click! underrecovery included as a fixed customer item.

Appendix

2018 Load Forecast

High-Level Trends & Results



Results

- Load is projected to gradually decline over the next twenty years

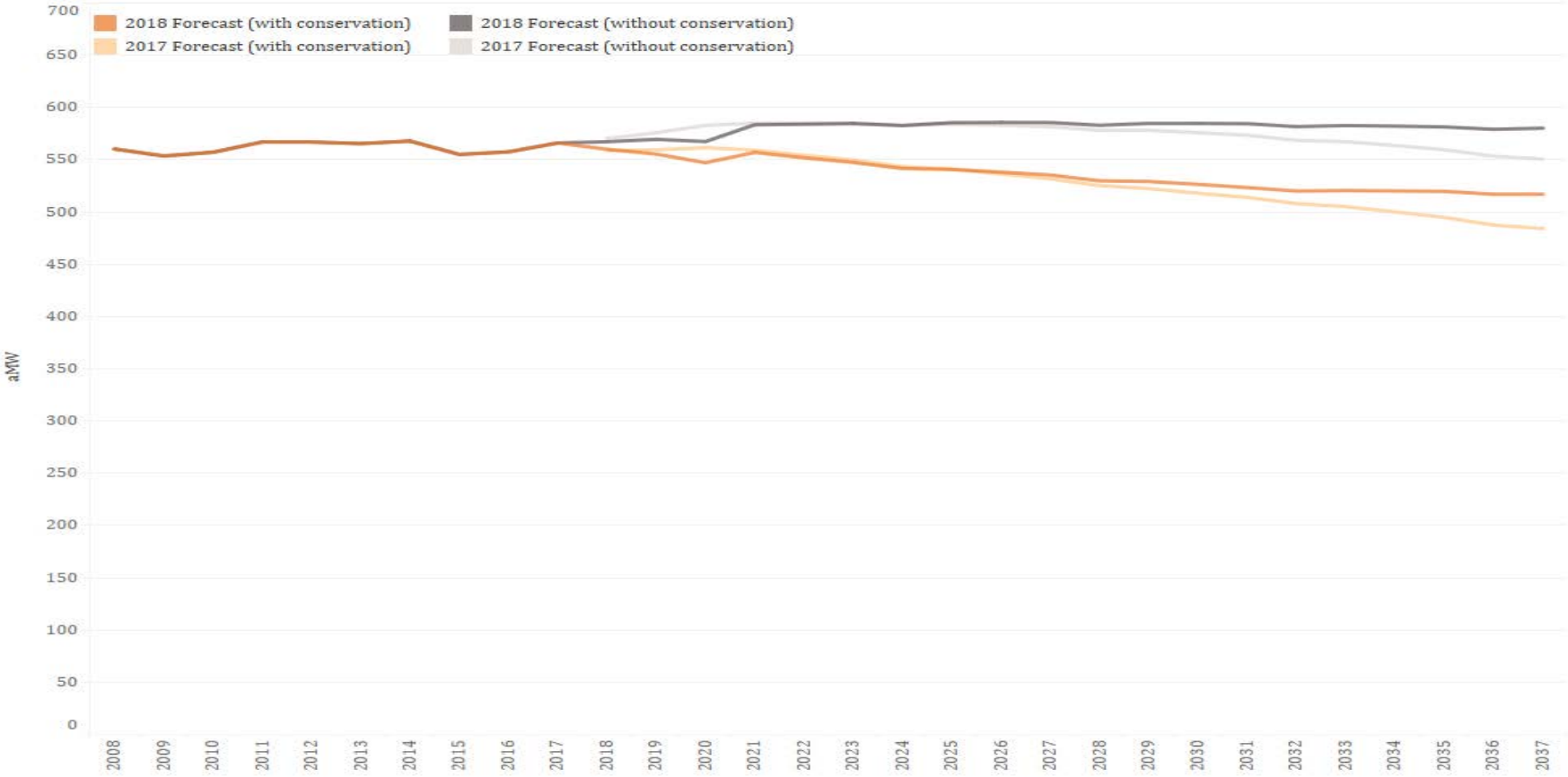
Drivers

- Non-Industrial customer load is declining
- Number of non-industrial customers is inclining
- Existing industrial loads are flat
- Conservation programs/codes and standards further reduce load

Forecast

Weather Normalized System Load Forecast

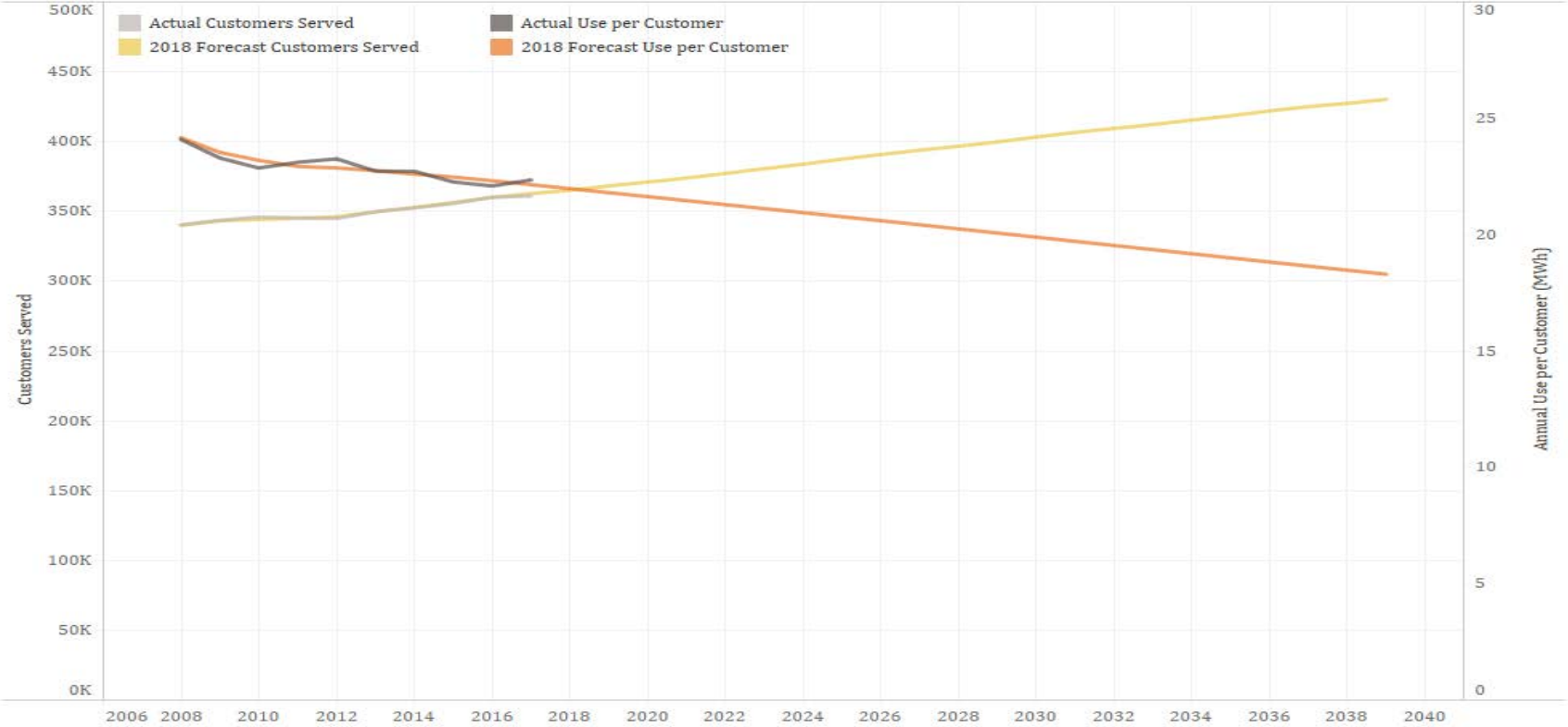
2017 v. 2018



Usage Per Customer

Net Load Forecast Components

Customers Served and Annual Use per Customer (MWh)

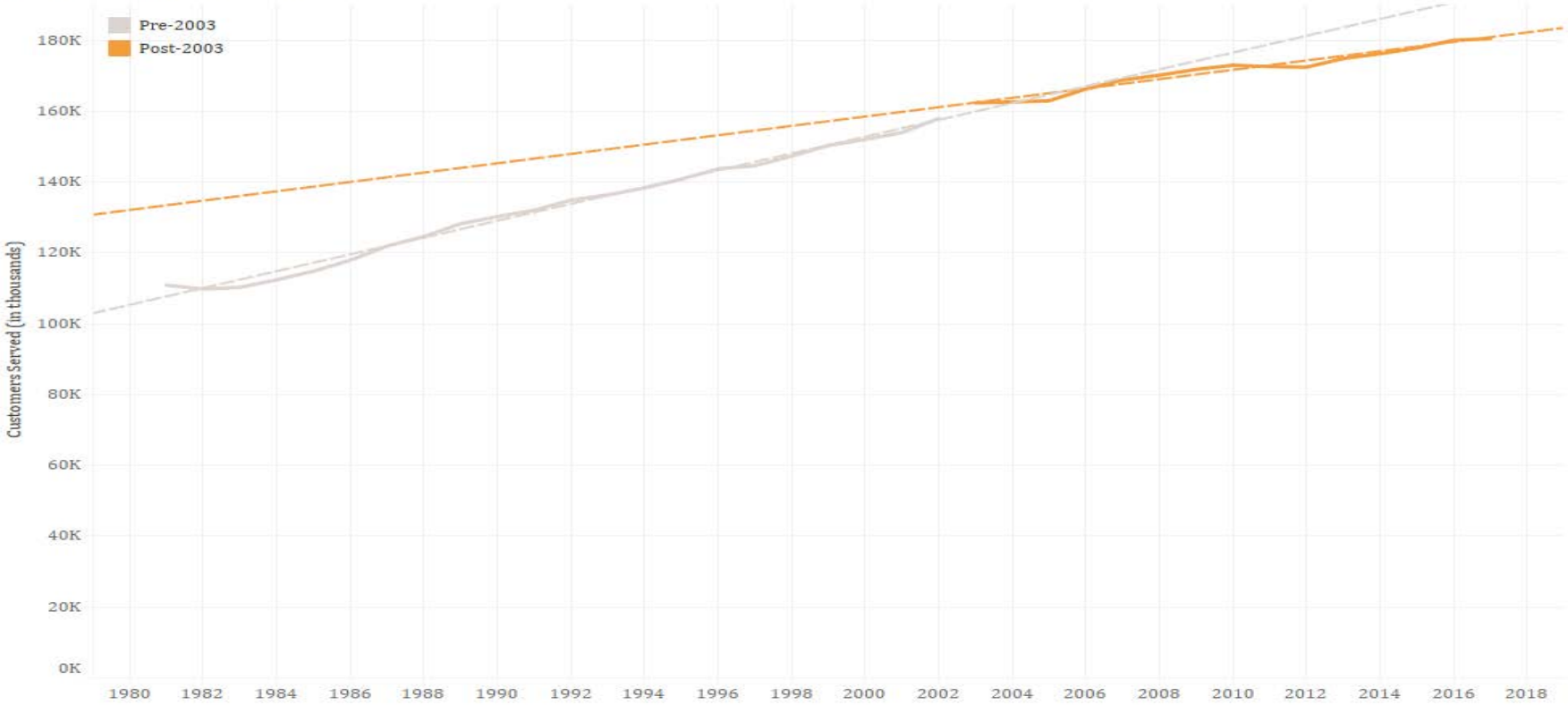


Number of customers served is forecasted to increase. Annual use per customer is forecasted to decrease.

Customer Forecast

Pace of Customer Growth

Pre-2003 and Post-2003



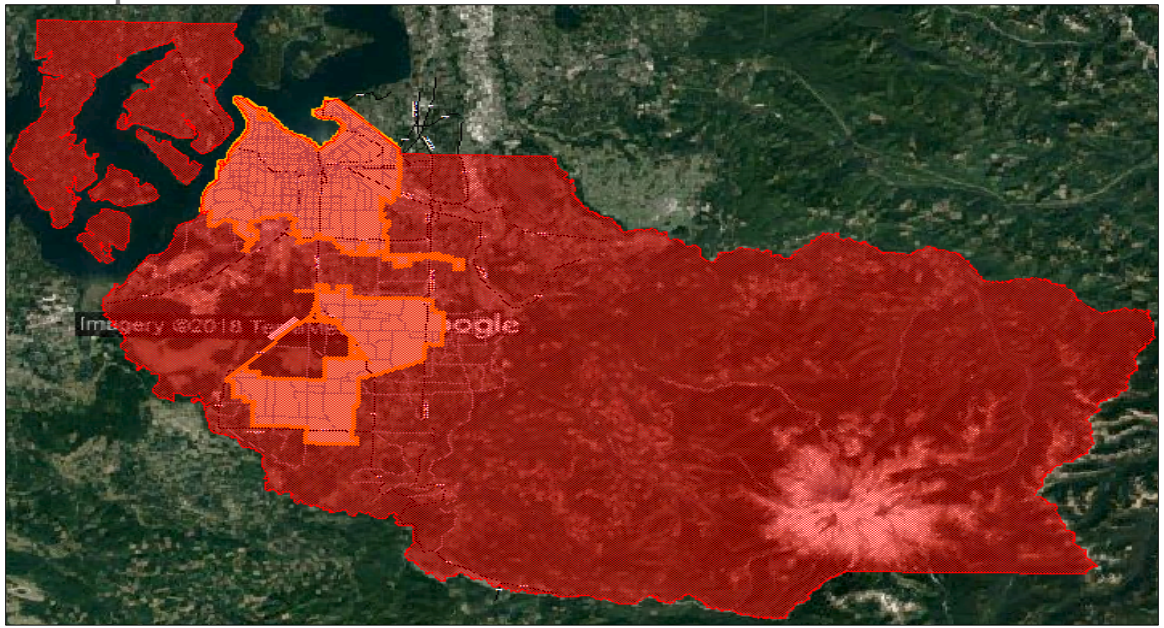
The pace of customer growth appears to slow after 2003.

Customer Forecast

General Discussion

This year, and in past years, customer growth estimates were based on Pierce County Population forecasts purchased from Woods & Poole.

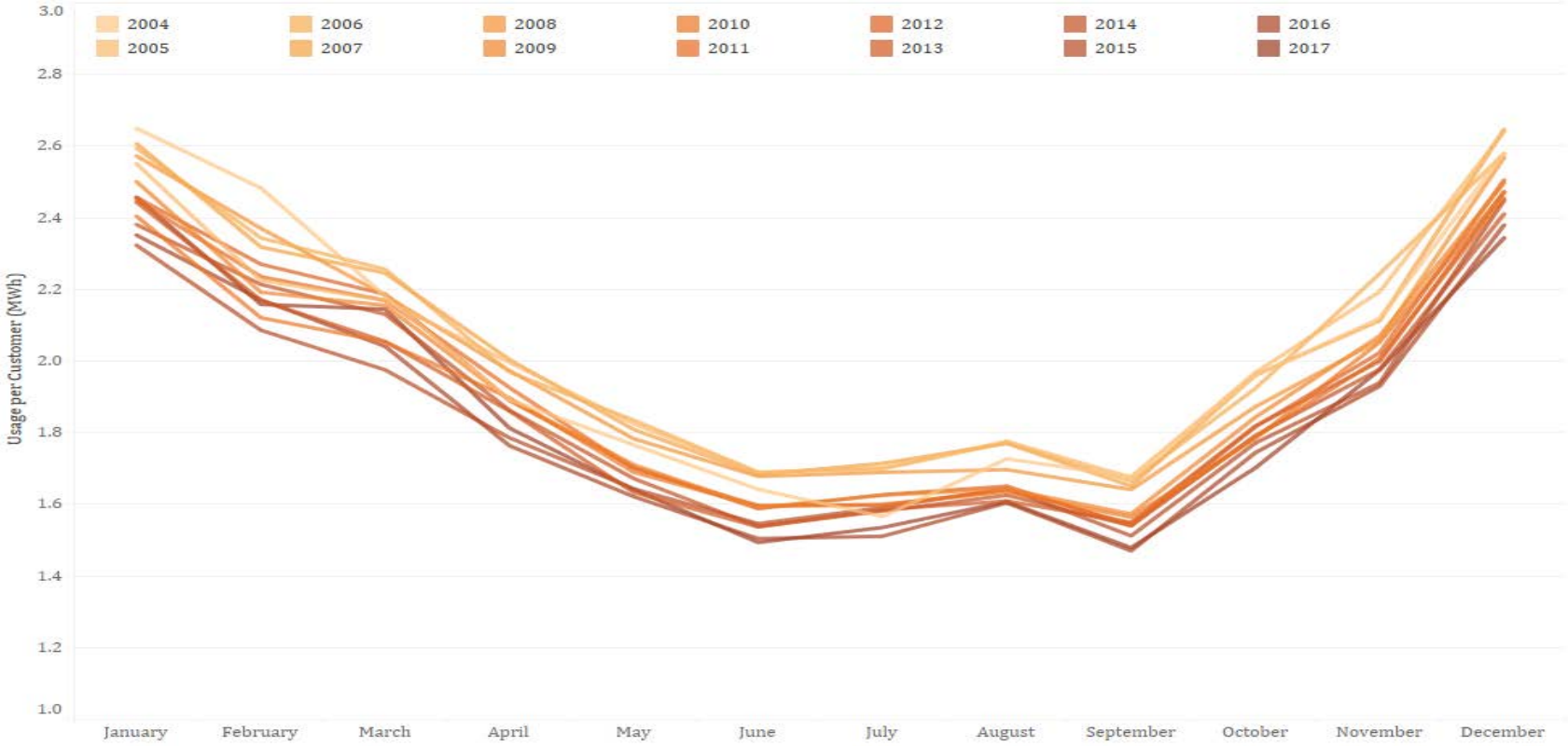
The majority of developable land within Pierce County is outside the Tacoma Power service area.



Usage Per Customer

Average Use per Customer

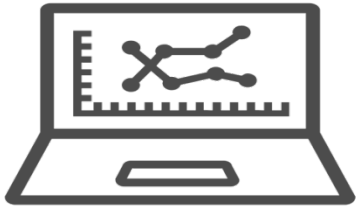
(2004 - 2017)



Over time, a general decline in usage per customer has occurred.

Usage per Customer

Downward Trend Drivers



Trend

- General decline over the forecast history

Drivers

- Increase in natural gas penetration
- Increase in energy efficient technologies and construction materials
- Increase in high(er) density dwellings

Section 1
The Highlights

An executive summary* of
the 2018 Long-Range Financial Plan

TACOMA POWER
TACOMA PUBLIC UTILITIES

**Maybe not enough to make you an expert, but if you already know your way around an LRFP, this is definitely the place to start.*

Before you start

The electric utility business is complicated

On the first page you learned that this document more simply describes a number of complicated subjects. We hope to make them easier to understand and demonstrate their unique relationship to one another. Before we get into any of the details, here is a quick overview of how our business operates.

*Our **mission** is to provide safe, reliable, and environmentally responsible electric and telecommunications services now and into the future.*

To fulfill this mission, we sell electric and telecommunications services to customers in the City of Tacoma and Pierce County. Selling these services provides us with revenue. As a cost-of-service utility, we charge our customers based on what it costs to provide the services they need. We generally match our revenues to our expenses when we set budgets. When we collect more revenue in a given year, we use that surplus to reduce the amount collected from customers in future years. We also take proactive steps to account for the risks inherent in our business and develop strategies to plan for the future. This LRFP helps us with that.

Many customers don't know that whenever they turn on a light or plug in an appliance, a generator connected to the electric grid must increase its output to provide the needed electricity. This happens in real-time. Providing these services is

The amount of revenue we will receive each year is uncertain. We can't predict how often you will turn your lights on and off or how much electricity you will use. Section 3 has more detail about how we try to plan for this uncertainty in revenue.

Our customer's power comes from hydroelectric dams that we operate and maintain, or power we purchase through contracts with other power providers. Almost all of our generators create electricity by passing water through a generator. The water comes from rainfall or snow that melts and drains into reservoirs or lakes behind a dam. Trying to predict how often and when it will rain adds another layer of complexity to our business. See Section 5 for more detail on how we plan for this uncertainty.

In providing power services the utility incurs a number of expenses. These are such things as the staff that work here or the trucks and tools used to maintain the electric system. The electric utility business is capital intensive. This means we have large assets that are expensive to construct, operate, and maintain. Tacoma Power has over $1 billion in assets and some have been around for a long time. To fund repairs and replacement, we use a combination of cash and bonds. This allows us to spread the payments over

Financial metrics

What are financial metrics?

The word "metrics" refers to measurement. Financial metrics are one way to measure how well we are managing our resources. Each financial metric conveys a message about one aspect of the utility from a financial perspective. Metrics can be used to compare performance across utilities, identify strengths or weaknesses, and set targets for financial strength. Tacoma Power primarily looks at the three metrics below when projecting future rate increases and has targets, listed in the chart to the right, for maintaining our financial strength. You can find more detail about them in Section 4.

Tacoma Power Metrics	2013	2014	2015	2016	2017*
Days of Liquidity *(Target: >180 Days)*	312	335	215	236	210
Debt Service Coverage Ratio *(Target: >2.0x)*	1.88x	1.90x	2.01x	2.31x	2.82x
Debt Ratio *(Target: <50%)*	39%	37%	29%	26%	29%

* Based on unaudited year-end results.

Days of Liquidity

Liquidity is another way to describe the amount of operating cash we have available. We measure this by the number of days cash we have available to operate the utility. This helps determine Tacoma Power's ability to cover necessary expenses.

Debt Service Coverage Ratio

The debt service coverage ratio measures how many times we can pay the annual interest and principal payments on our debt, or bonds, with our available cash flow for a given year. We target having at least twice as much cash flow needed to pay our annual debt obligations each year.

Debt Ratio

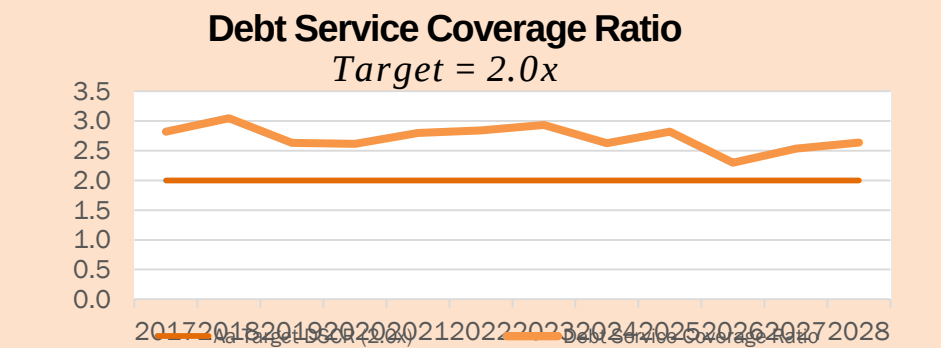
The debt ratio is the proportion of our assets that are financed by debt, or bonds. The lower the percentage, the lower the amount of debt service payments we are required to make. This provides us with financial flexibility.

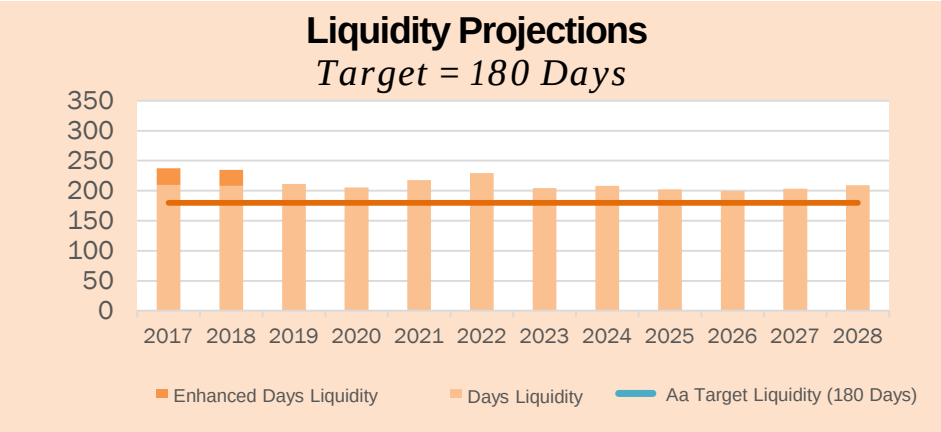
Financial metrics

Why are financial metrics important?

Financial metrics, such as our debt service coverage ratio and days liquidity ratio are important because they indicate our ability to meet our financial obligations as a business. Financial metrics are comparable across other utilities and are used by rating agencies as part of their rating process when they rate us. Some rating agencies have more stringent requirements than others and we adjust our calculations to be better than the minimum levels. We target metrics that keep us in the AA rating category.

We use these ratings when we issue bonds to help pay for capital improvements. Investors buy Tacoma Power Bonds and we pay those bonds back over a period of up to 30 years. (See our existing debt repayment profile on page 41.) To get the best interest rates possible when we issue bonds, we must maintain healthy financial metrics. The better our credit rating is, the less we will pay when we issue debt. Being financially healthy, like we currently are, benefits customers and provides flexibility to address unexpected challenges.

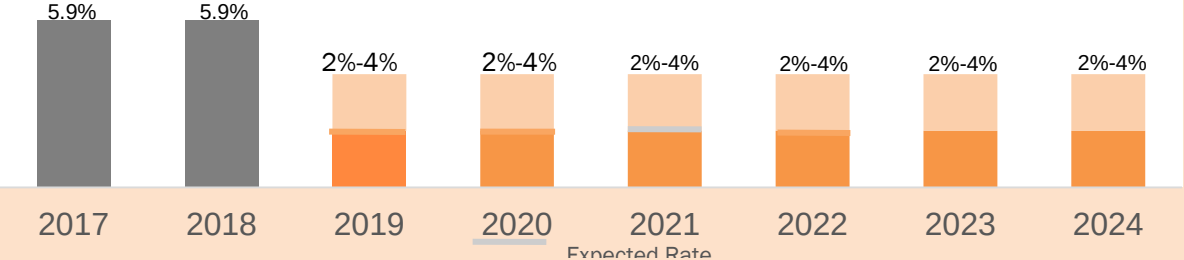




Before explaining anything else, we've put our current projections of rate increases for the next five years here, right up front. This document explains how we came up with these projections.

Historical & Projected Rate Increases

The 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.*



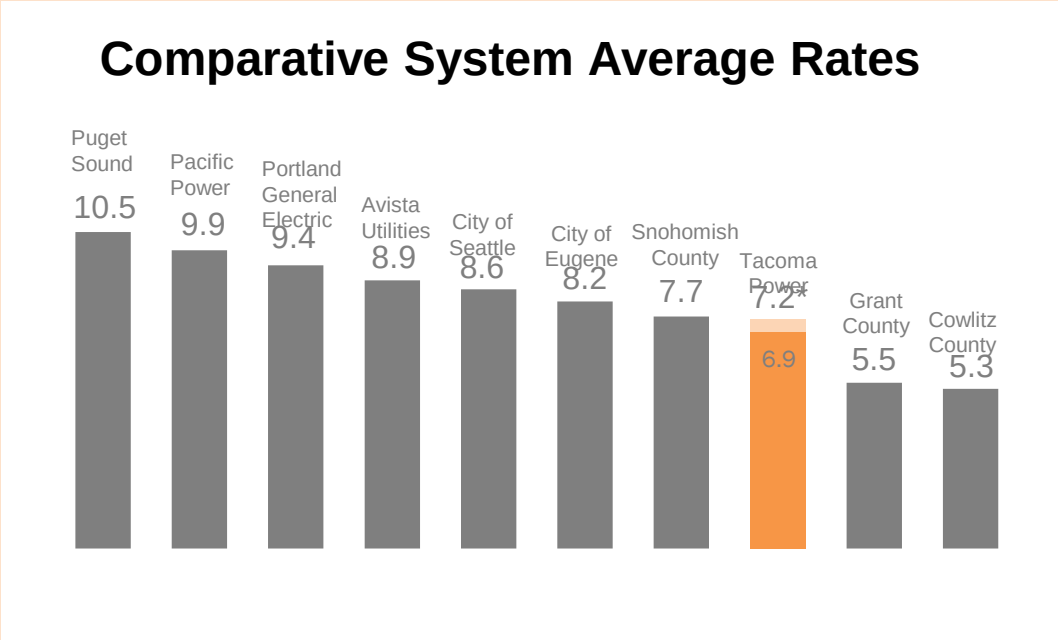
* If you are not familiar with any of these terms, there is a Glossary in the back that defines some of these key concepts

The further out in time we forecast, the more uncertainty there is. We have modeled some scenarios addressing potential future conditions that may impact us. The results of these scenarios indicate that doing a 0% rate increase in the next biennium would place upward pressure on future rate increases. The results of several scenarios can be found later in the document, in Section 6.

These projections like other parts of this plan will change. Actual rate increases may fall outside of this range and are dependent upon market conditions, financial

Rates Remain Low and Competitive

How do our rates compare to other power providers in the Northwest?



* Shaded area is the potential additional cents per kWh from a 2% annual rate increase in 2019 & 2020.

Our rates remain low relative to our peers. This table compares monthly electric rates of major public and private utilities in our region to those of Tacoma Power.

We are a municipal utility that establishes rates only to recover costs, not to create a profit. We set rates with the goal of minimizing rate impacts to customers while maintaining the safety and reliability of the electric system. Tacoma Power has been able to maintain low rates in comparison to state and national averages. Most other utilities face many of the same challenges described in later sections of this document and we expect to remain price competitive

Why must rates go

How did you get those increases?

Your next logical question might be, “how did you come up with those rate increases?” Or perhaps, “Why would the rates need to go up at all?”

These are great questions. We can’t just point to one factor. Determining what a rate increase needs to be takes a thorough understanding of how the utility works and what it needs to operate successfully.

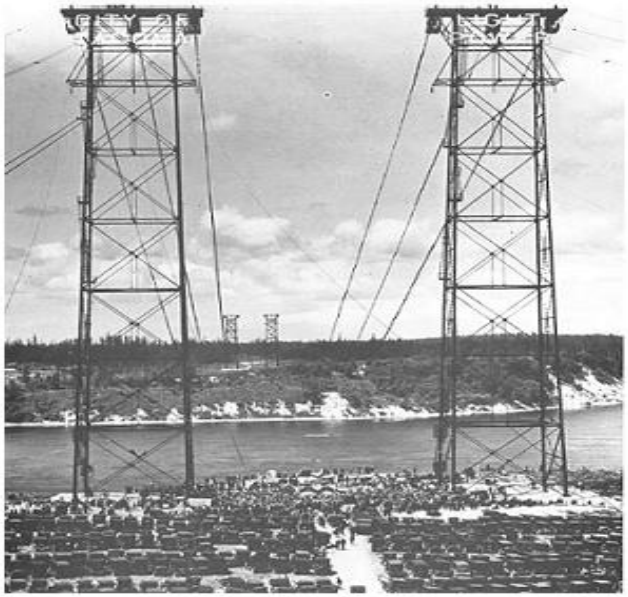
Here are a few of the many factors that impact future rates. These examples and others need to be considered when determining what the rate increases need to be:

Increases in Operating Expenses and Purchased Power Expenses

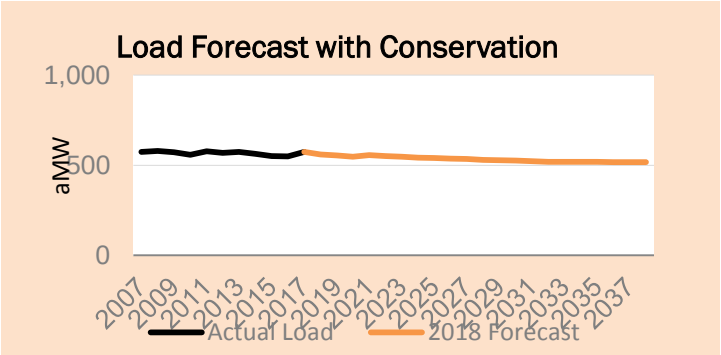
See Section 3 on the Background to get a better understanding of these.

Decreases in Wholesale Revenue due to changing market conditions

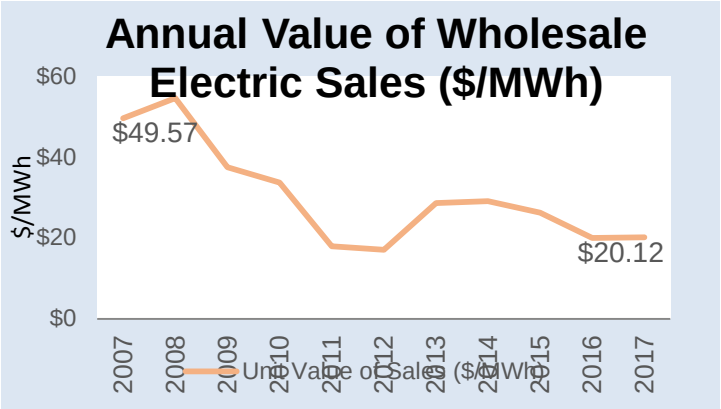
See Section 5 on the Risks to get a better



This is a picture of the 1926 commissioning of the transmission lines connecting to our Cushman hydro project. Our utility has operated since 1893 and has a lot of infrastructure to maintain. We maintain and replace our assets with steady capital investments. You can find out more about that those capital investments in capital expenses of Section



This chart shows a downward projection for our load. Load refers to energy consumption. Our system average load is projected to decline at a rate of approximately 0.8% per year.



This chart shows a downward trend in the value for each MWh sold, from $49.57/MWh in 2007 to $20.12/MWh in 2017.

Declining Retail and Wholesale Revenue

The charts to the left show two major impacts to our revenue: declining retail and wholesale revenue. (Read more about each of them in the explanation on revenues in Section 3.) The top chart illustrates how our most recent load forecast has changed in the last year. We see increases in conservation and declines in customer consumption, driving a decrease in our expectations for overall load.

The bottom chart illustrates the declining value for each MWh of electricity sold in the wholesale electric markets. The

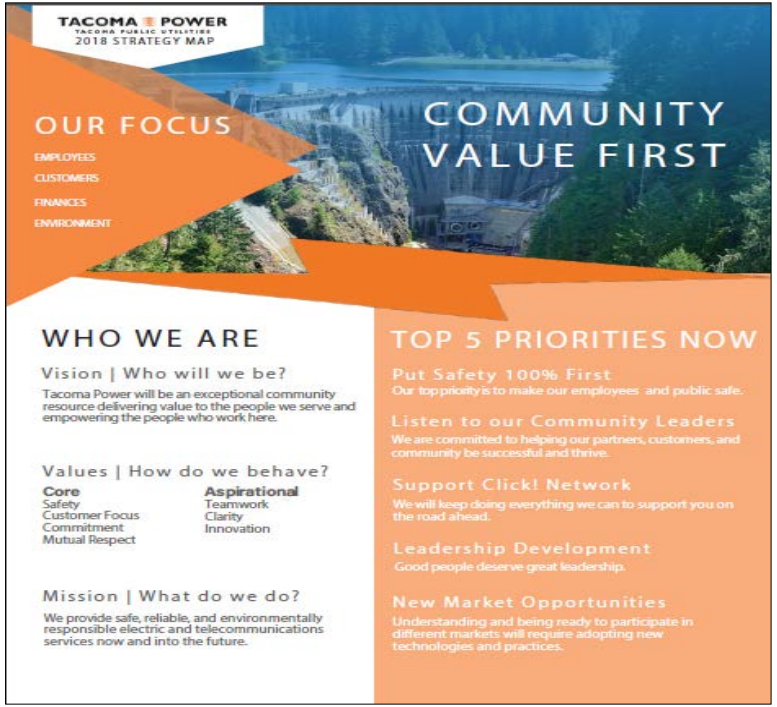
Can we change the projected rate increases?

Managing the future

The cost of electricity in Washington is just about the lowest of any state in the nation. Additionally, our customers have access to clean, renewable, and reliable electric service at a cost lower than many of our local peers (see page 11 and page 22 for a comparison).

Despite the low rates we currently have, we don't feel any better about the projected rate increases than you do. We devote a lot of time and effort into developing and executing strategies to mitigate risk, reduce expenses, and increase revenues.

The data in this Plan feeds directly into Tacoma Power's Strategic Plan. The picture on the right is our Strategy Map – a high level summary of our Strategic Plan. In that plan, we are working on executing strategies we believe will help us reduce future rate increases. A few of the objectives that directly relate to these



Active Debt Management

Managing Debt Service has produced significant savings

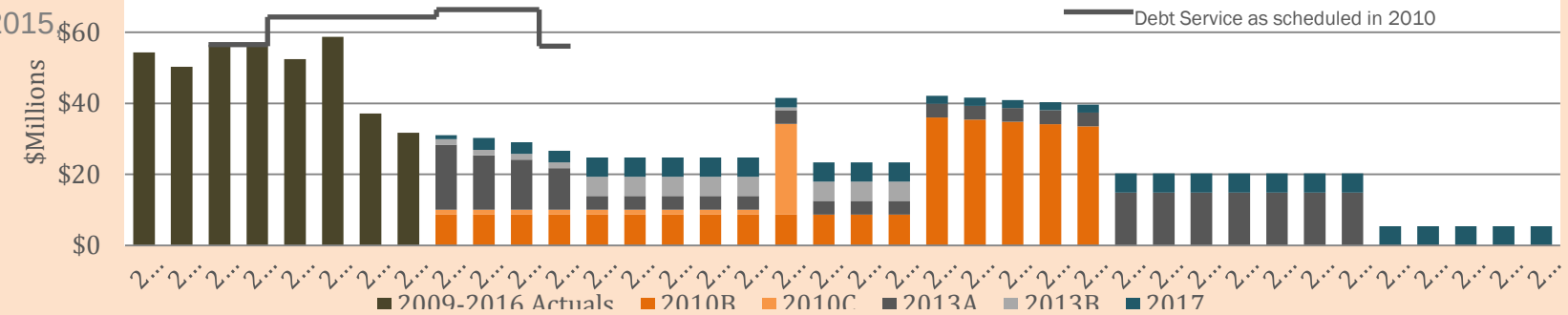
Tacoma Power sells bonds to help fund capital improvements. Much like a home mortgage, we can structure this debt to pay it back over 30 years or other intervals. You can see from our existing profile below that bonds we have issued in different years has been structured in different ways. We actively manage this debt profile and have made a number of changes since 2009.

Between 2009 and 2013, Tacoma Power defeased $79 million and refunded $137 million in outstanding bonds. In 2015

Tacoma Power used $122 million in cash to call the 2005B Bonds. You can read more about this on page 43. In fact, in 2010 our debt service payment in 2017 was projected to be over $66 million. After the many changes we have implemented in the last few years, our debt service payments this year will be less than $32 million.

This represents significant savings for Tacoma Power's customers. In 2016, we were able to not have a rate increase at all and this is largely because of the reduced debt service payments.

Historical and Scheduled Debt Service



Actions

The Strategic Plan mentioned previously includes initiatives to manage expenses, such as our Strategic Asset Management Initiative and our Capital Project Portfolio Management Office Initiative.

Other initiatives, such as our O&M Cost Savings Initiative and the development of a debt service management plan, are things we are doing now to find efficiencies and reduce expenses. A brief summary of these and other actions we

Strategic Asset Management

(in progress)

Tacoma Power is launching a strategic asset management program to lower the overall cost of managing our physical infrastructure. The objective is data driven and risk-based asset spending decisions with a focus on whole life cost planning. The results of the program include optimized maintenance programs and infrastructure replacement plans developed with objective, repeatable analysis. The strategic asset management program will provide input for both O&M and Capital spending programs. We expect the Asset Management Program will help reduce the size of our Capital budgets and future O&M.

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Capital Portfolio Management Office

(in progress)

The development of a Capital Project Portfolio Management Office will provide utility project managers with centralized data and common tools regarding capital projects. We will use common project management techniques to facilitate more informed decision making at Tacoma Power.

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Concurrent Consideration and Approval of Budget and Rates

(in progress)

Tacoma Power will develop a new process for the concurrent adoption of rates and the 2019/2020 budget. Our previous process involved adoption of a budget first, and then receiving approval of the rates to support the budget at a later date. There are many steps involved in the budget and rates approval process that will need to be adjusted moving forward.

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O&M Cost Savings Initiative

(in progress)

Tacoma Power's Rates, Planning, and Analysis group has established a process to meet with every section and identify a list of cost savings initiatives the utility can implement. The list of cost saving opportunities will be prioritized and executed according to a developed timeline.

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