

Tacoma Power

Public Utility Board Study Session

Additional Information

(Including Responses to the 4/11/18 Study Session Requests and Questions)

May 9, 2018



New Base Case

Projected Rate Increases

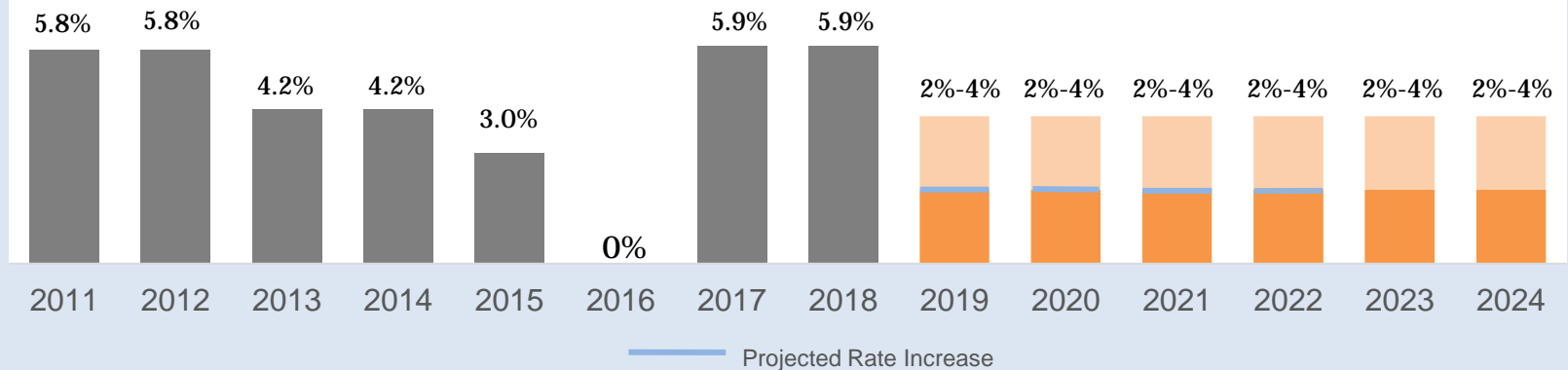
Refer to page 7

Policy
Decision

Projected Rate Increases

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

Additional shading in future years represents uncertainty associated with revenues and expenses, mostly due to potential for adverse or critical water conditions.



Preliminary Projected Rate Increases

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

Target: Base case rate 2% annually

In response to 4/11 Board Study Session question from Board Member Patterson (ACTION ITEM 1).

Liquidity Ratio

2017 Year-End

Electric Rate & Financial Policy Minimum

90 Days of Total Expenses

Total Expenses = **\$415,823,830**

One Day of Liquidity = **\$1,139,243**

90 Days = **\$102,531,903**

Tacoma Power Liquidity Target

180 Days of Operating Expenses

Operating Expenses = **\$329,573,311**

One Day of Liquidity = **\$902,941**

180 Days = **\$162,529,304**

Current Fund **\$141,161,096**

Rate Stabilization Fund **\$ 48,000,000**

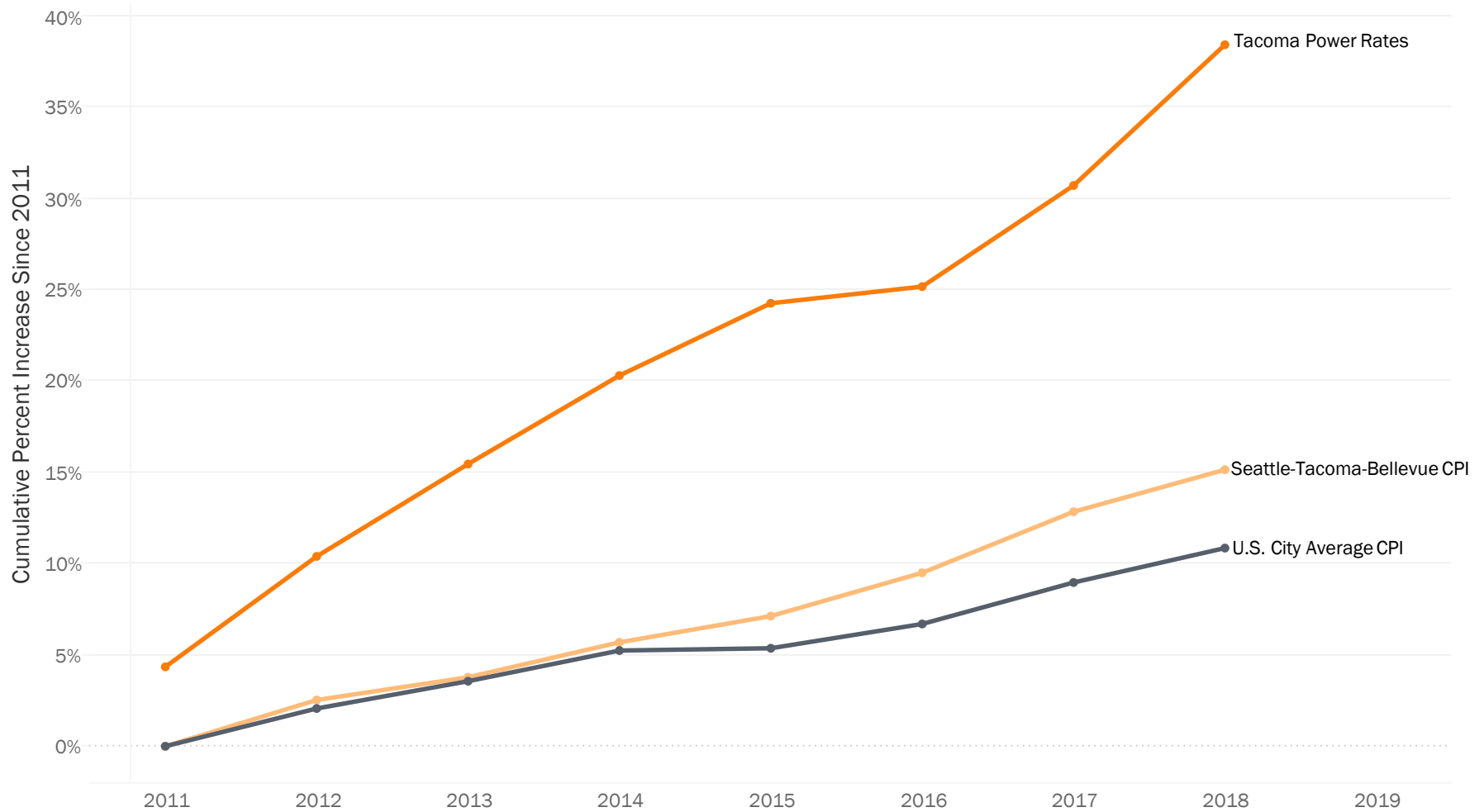
Total Liquidity **\$189,161,096**

In response to 4/11 Board Study Session question from Board Member Flint (ACTION ITEM 3).

Comparison of Applicable Indices

Cumulative Percent Increase

in U.S. City Average CPI, Seattle-Tacoma-Bellevue CPI, and Tacoma Power Rates since 2011

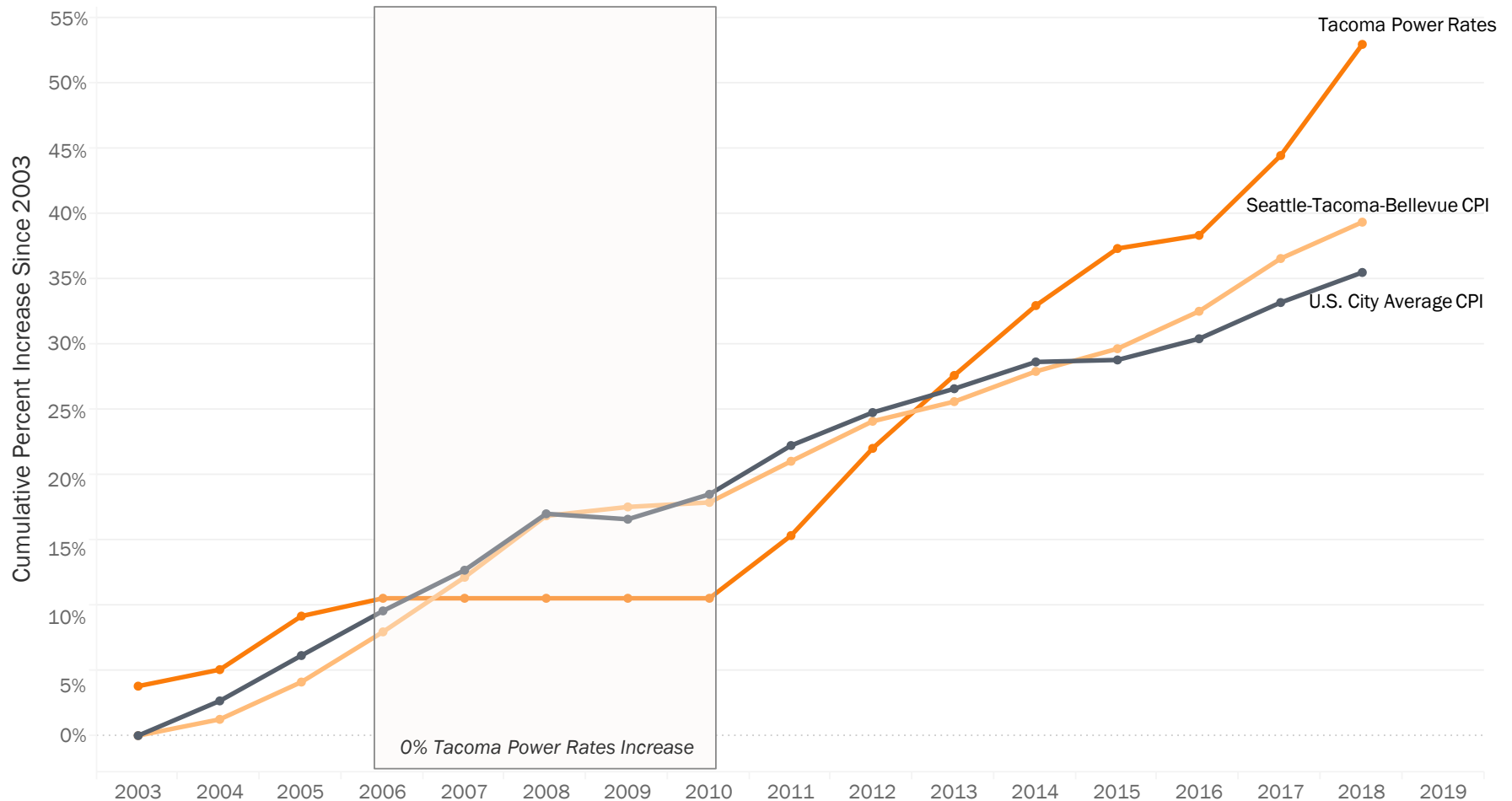


In response to 4/11 Board Study Session question from Board Member Larkin (ACTION ITEM 4).

Comparison of Applicable Indices

Cumulative Percent Increase

in U.S. City Average CPI, Seattle-Tacoma-Bellevue CPI, and Tacoma Power Rates since 2003



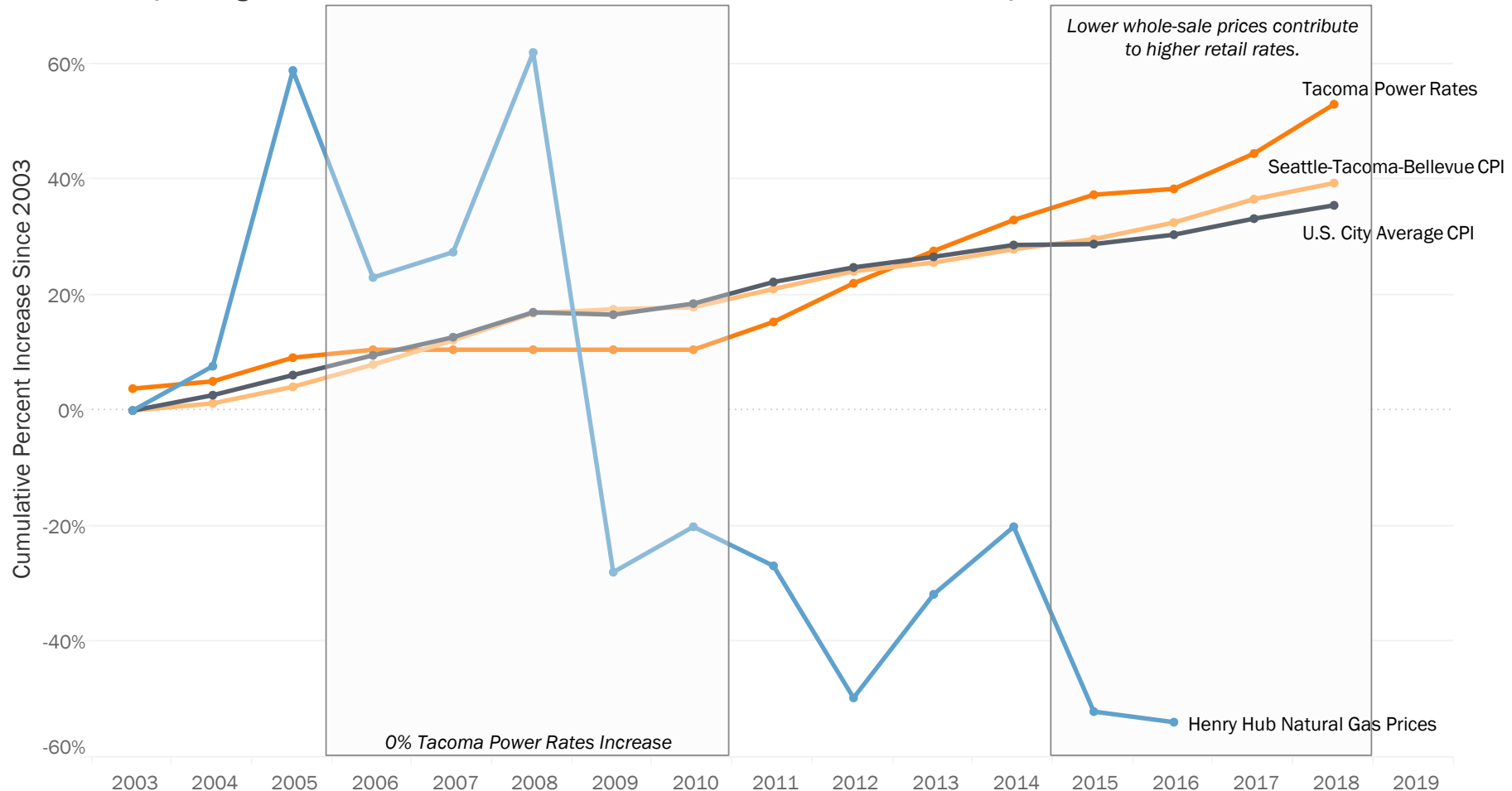
From 2006 through 2010, Tacoma Power Rates remained flat. This contributed to a need for higher rates increases in subsequent years.

In response to 4/11 Board Study Session question from Board Member Larkin (ACTION ITEM 4).

Comparison of Applicable Indices

Cumulative Percent Increase

in U.S. City Average CPI, Seattle-Tacoma-Bellevue CPI, Tacoma Power Rates, and Henry Hub Natural Gas Prices since 2003

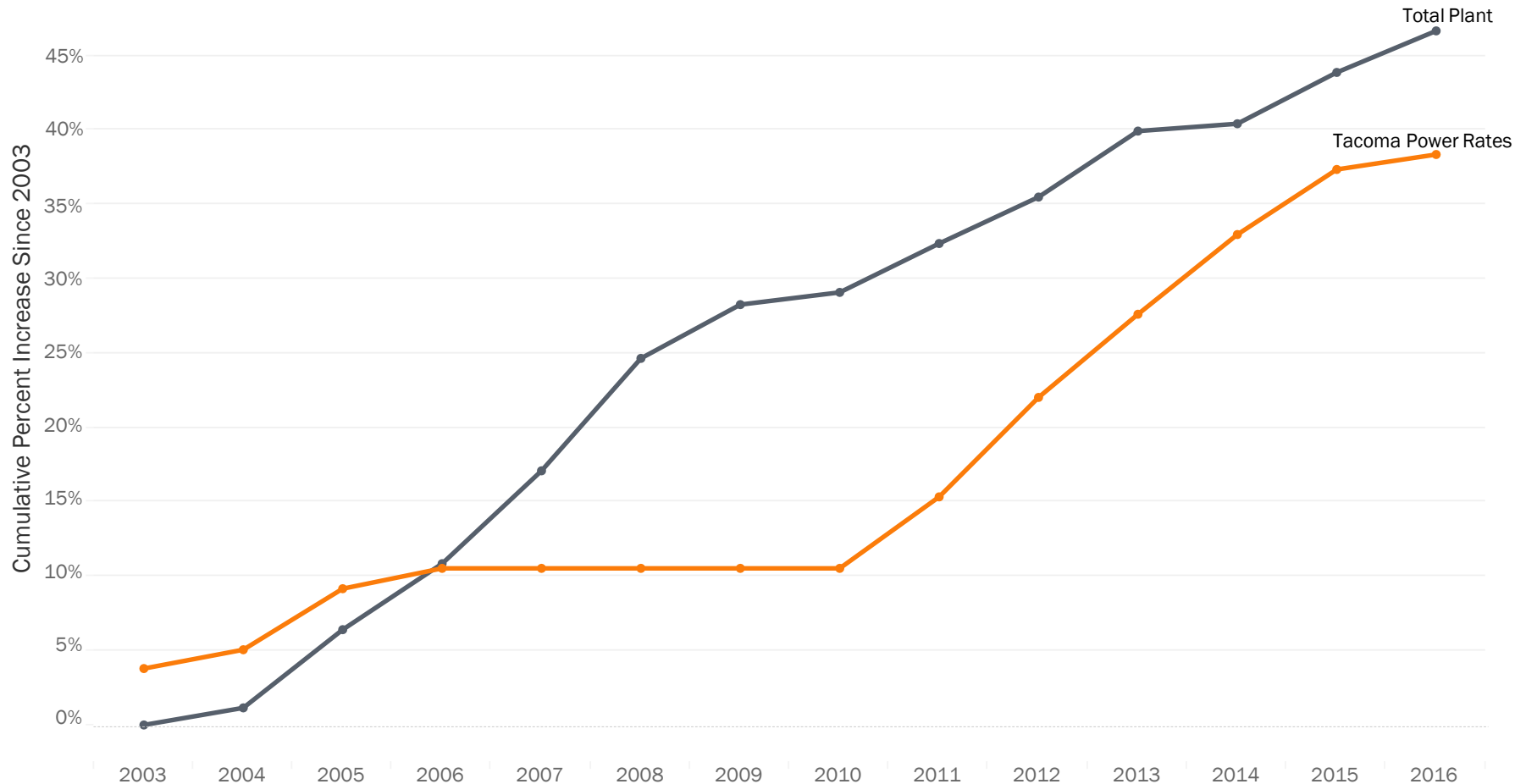


Tacoma Power Rates were flat from 2006 to 2010. This contributed to a need for higher rate increases in subsequent years. In addition to this, Natural Gas Market prices dramatically dropped which reduced wholesale market prices.

In response to 4/11 Board Study Session question from Board Member Larkin (ACTION ITEM 4).

Comparison of Applicable Indices

Cumulative Percent Increase
in Total Plant Costs and Tacoma Power Rates since 2003



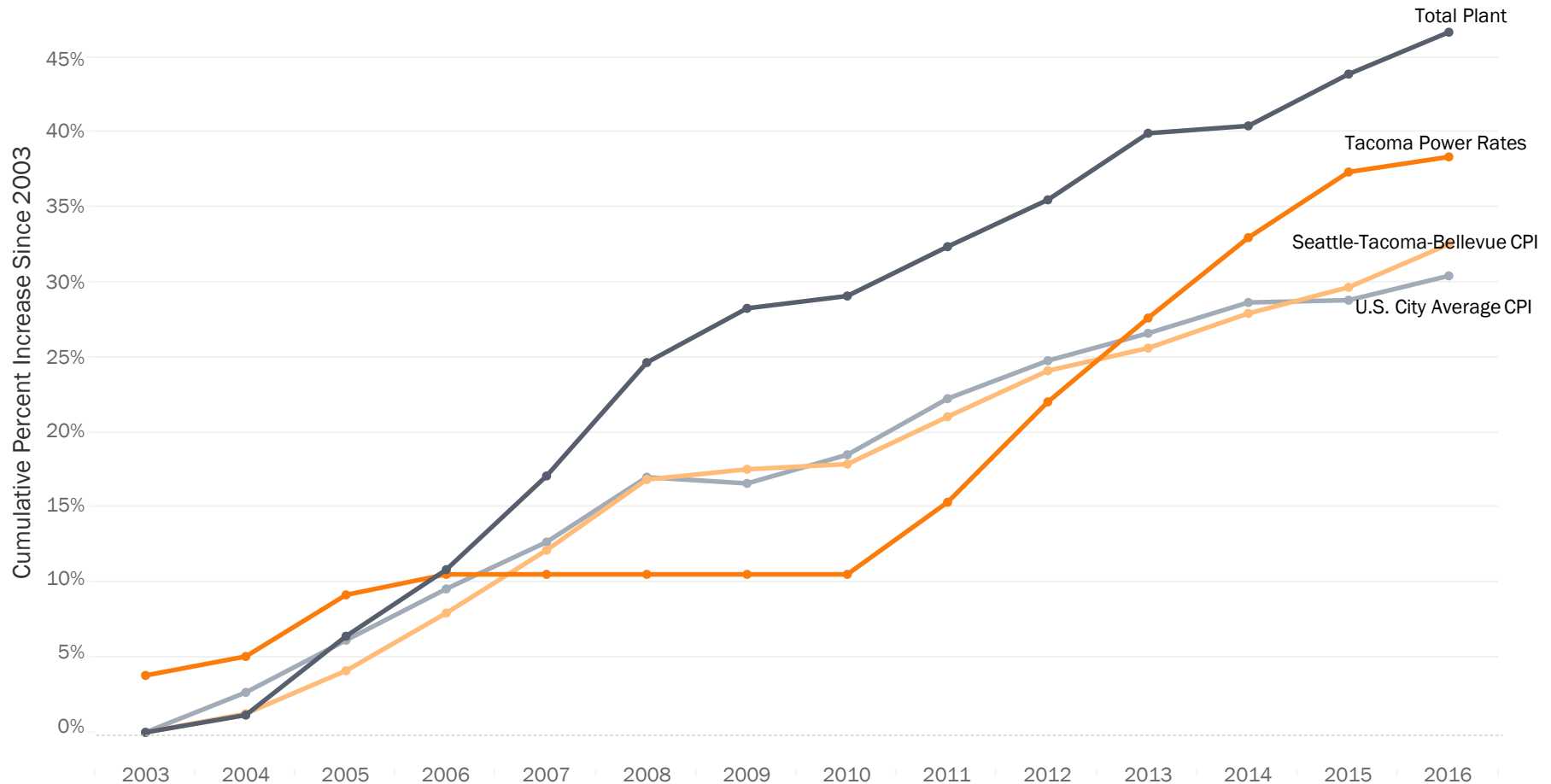
In the years 2006 through 2010, Tacoma Power Rates remain flat.
At the same time, Tacoma Power's Total Plant costs increase.

In response to 4/11 Board Study Session question from Board Member Larkin (ACTION ITEM 4).

Comparison of Applicable Indices

Cumulative Percent Increase

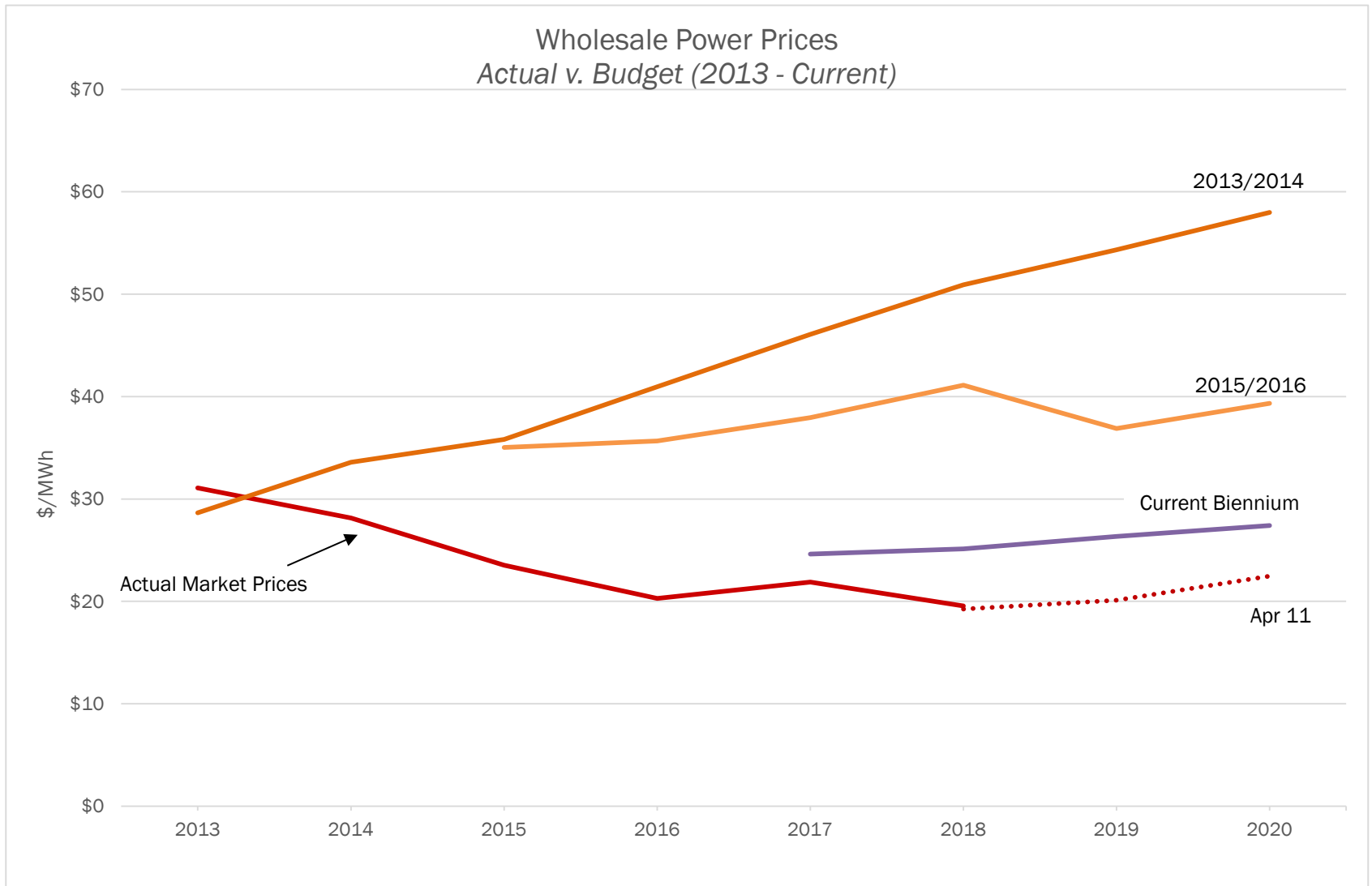
in U.S. City Average CPI, Seattle-Tacoma-Bellevue CPI, Tacoma Power Rates, and Handy-Whitman Total Plant Index since 2003



In the years 2006 through 2010, Tacoma Power Rates remain flat.
At the same time, Tacoma Power's Total Plant costs increase at a faster rate than CPI.

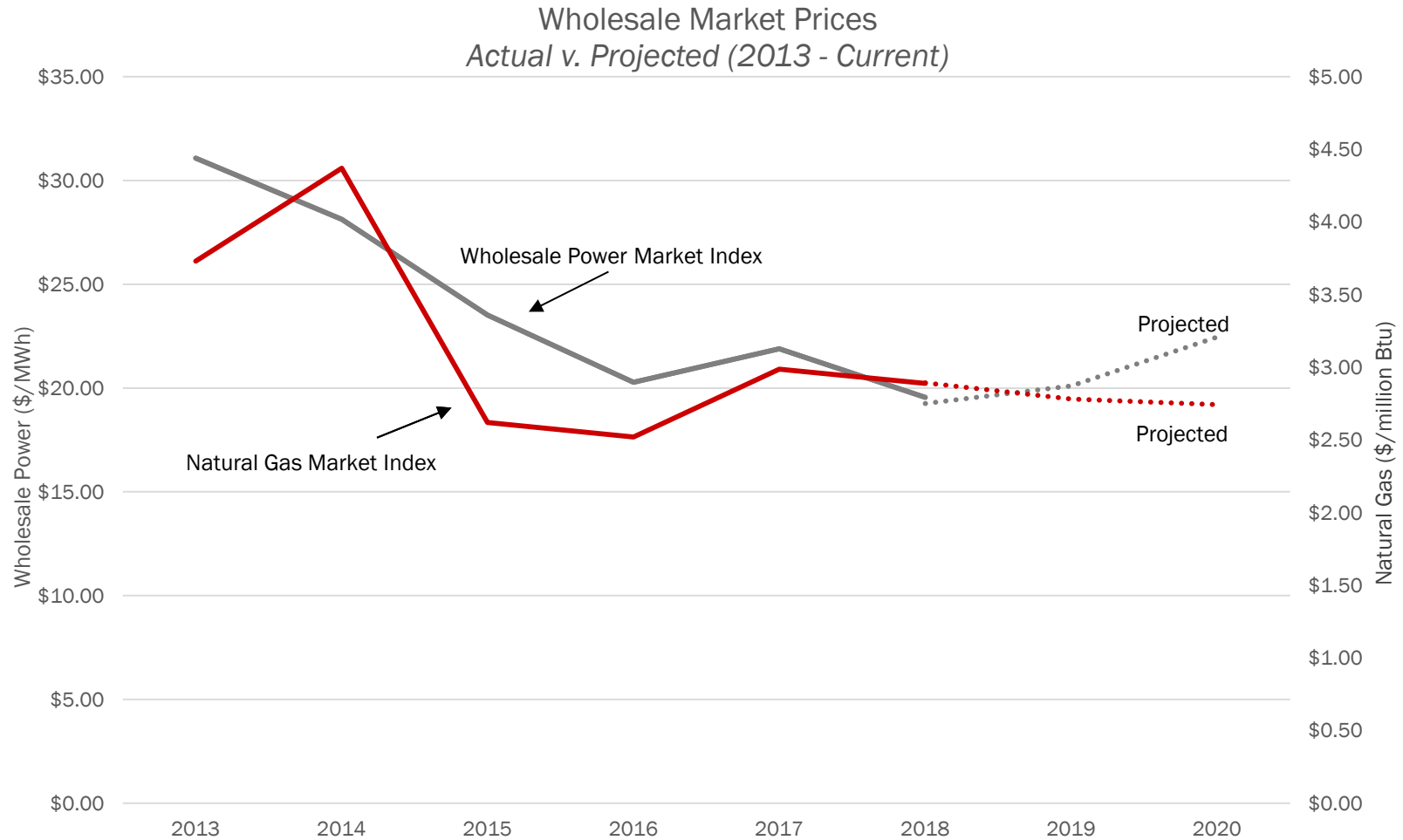
In response to 4/11 Board Study Session question from Board Member Larkin (ACTION ITEM 4).

Wholesale Price Trend - Actual vs. Budget



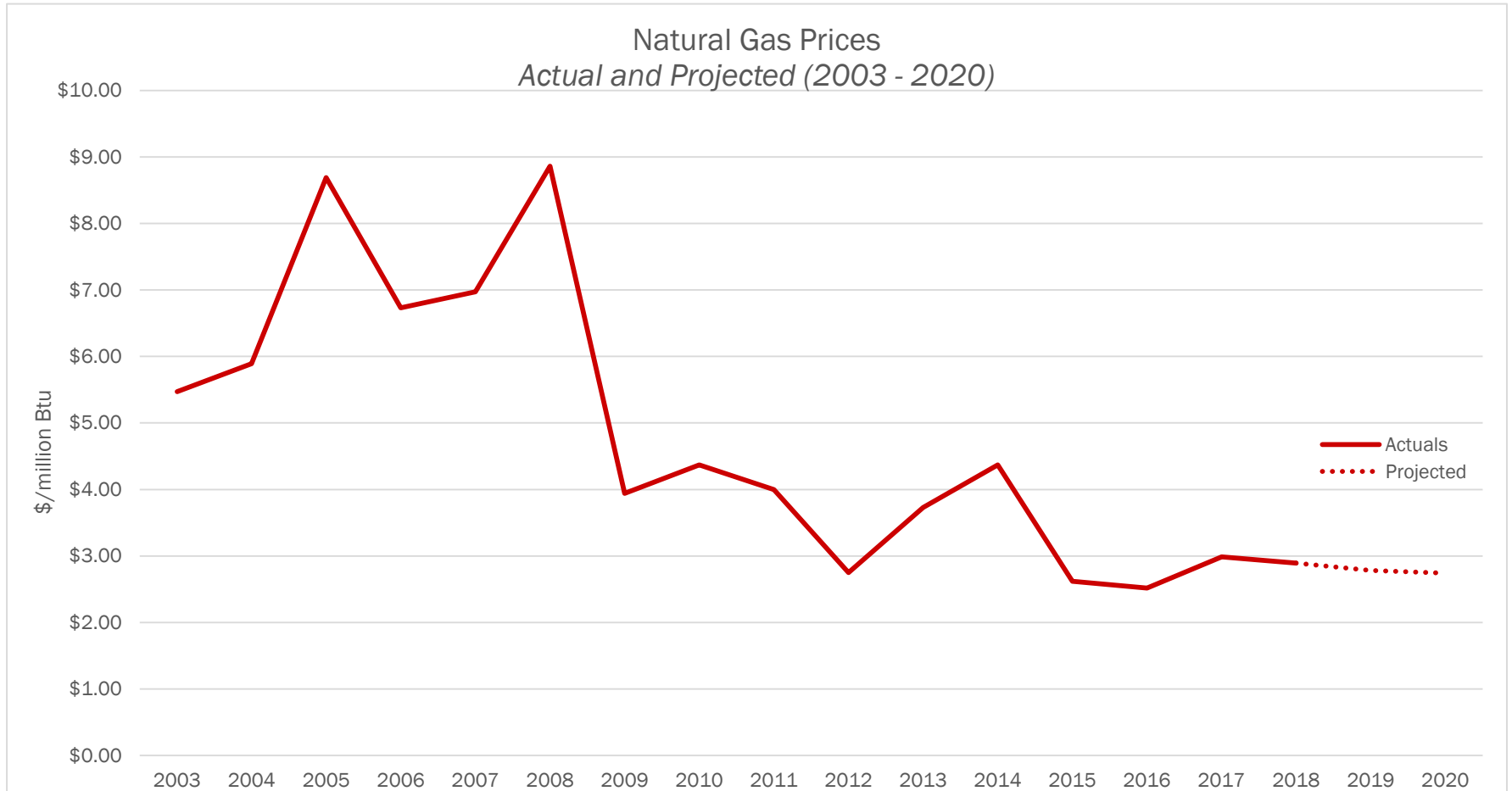
In response to 4/11 Board Study Session question from Board Member Larkin (ACTION ITEM 5).

Wholesale Price Trend



In response to 4/11 Board Study Session question from Board Member Larkin (ACTION ITEM 5).

Longer-Term Wholesale Price Trend



In response to 4/11 Board Study Session question from Board Member Larkin (ACTION ITEM 5).

Debt Management and Capital Funding



Debt Management and Capital Funding

Capital Spending Assumptions

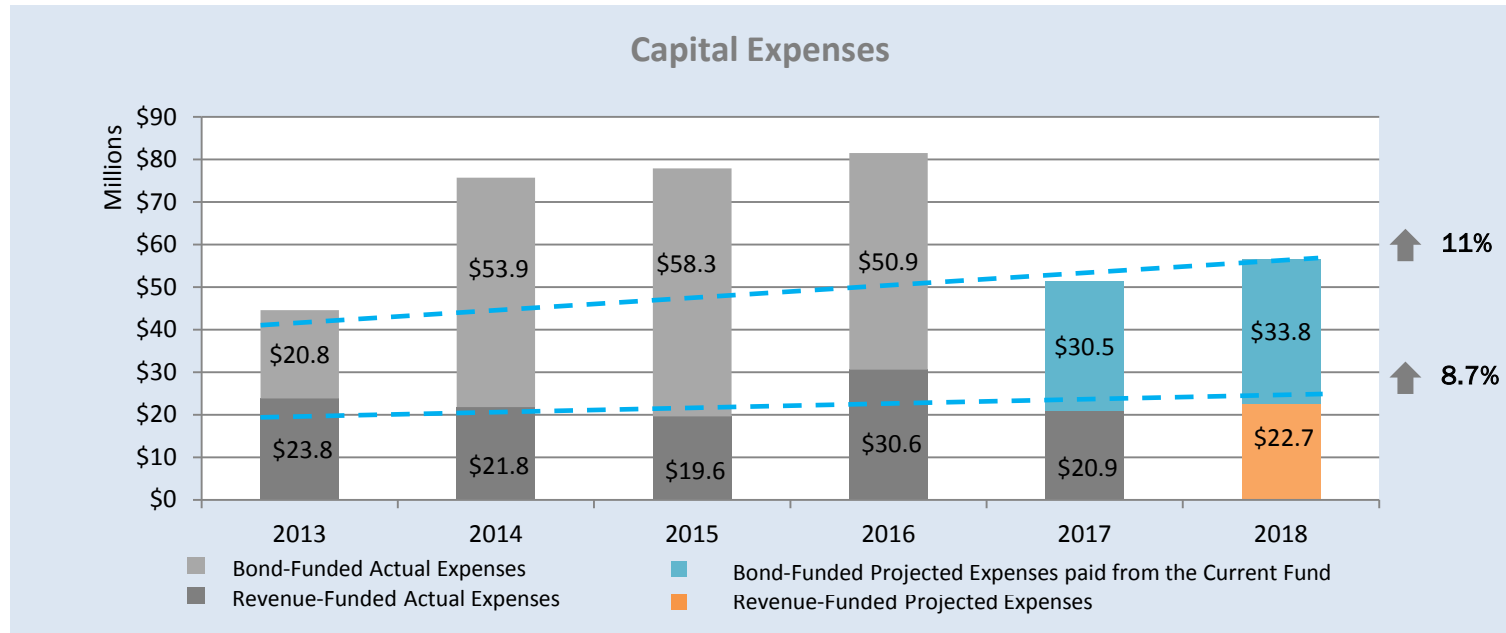


Revenue-Funded Capital Spending

Average Annual Increase: 8.7%

Bond-Funded Capital Spending

Average Annual Increase: 11%



Debt Management and Capital Funding

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

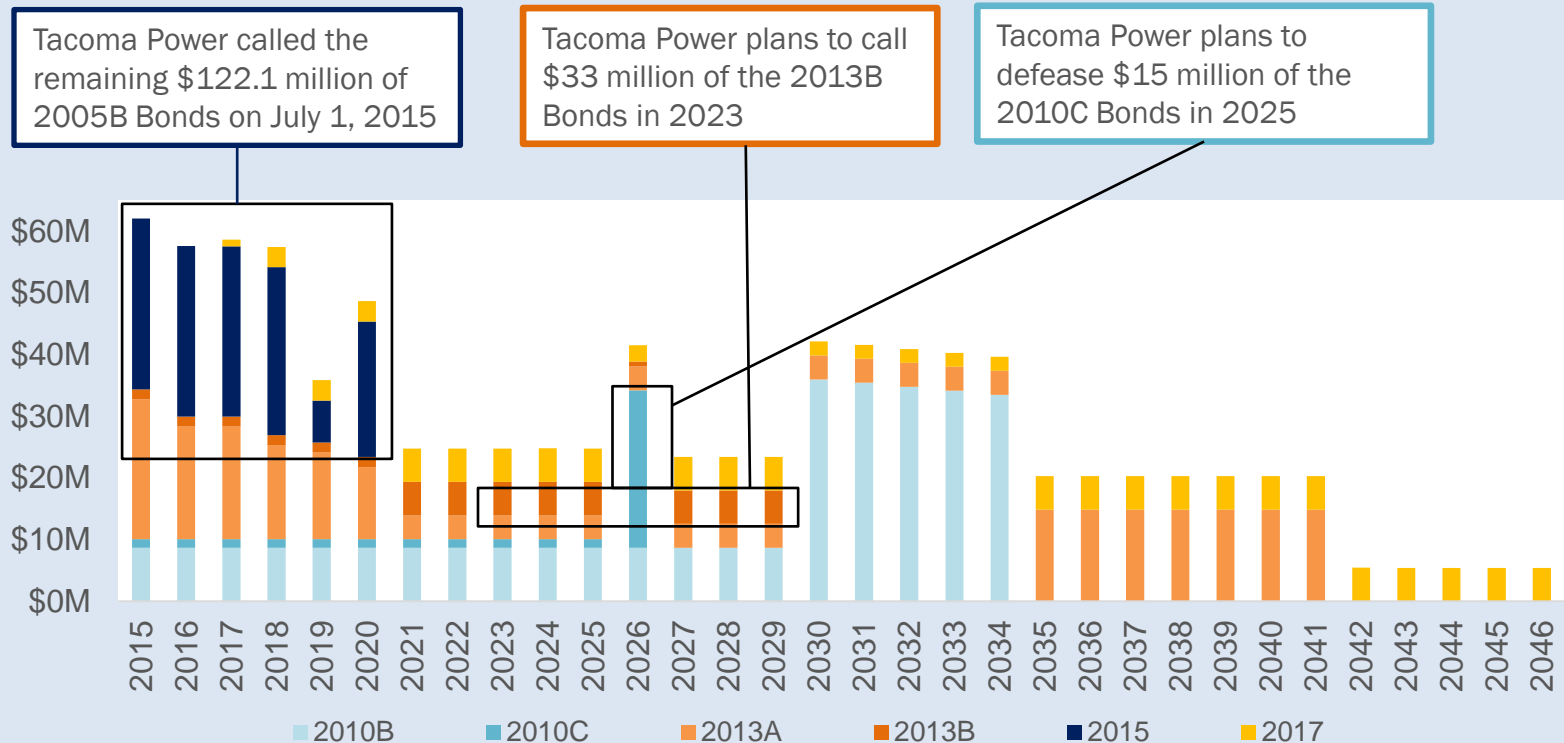
** Biennium projections

Debt Management and Capital Funding

Using Cash to Reduce Debt Service

Debt Service Overview

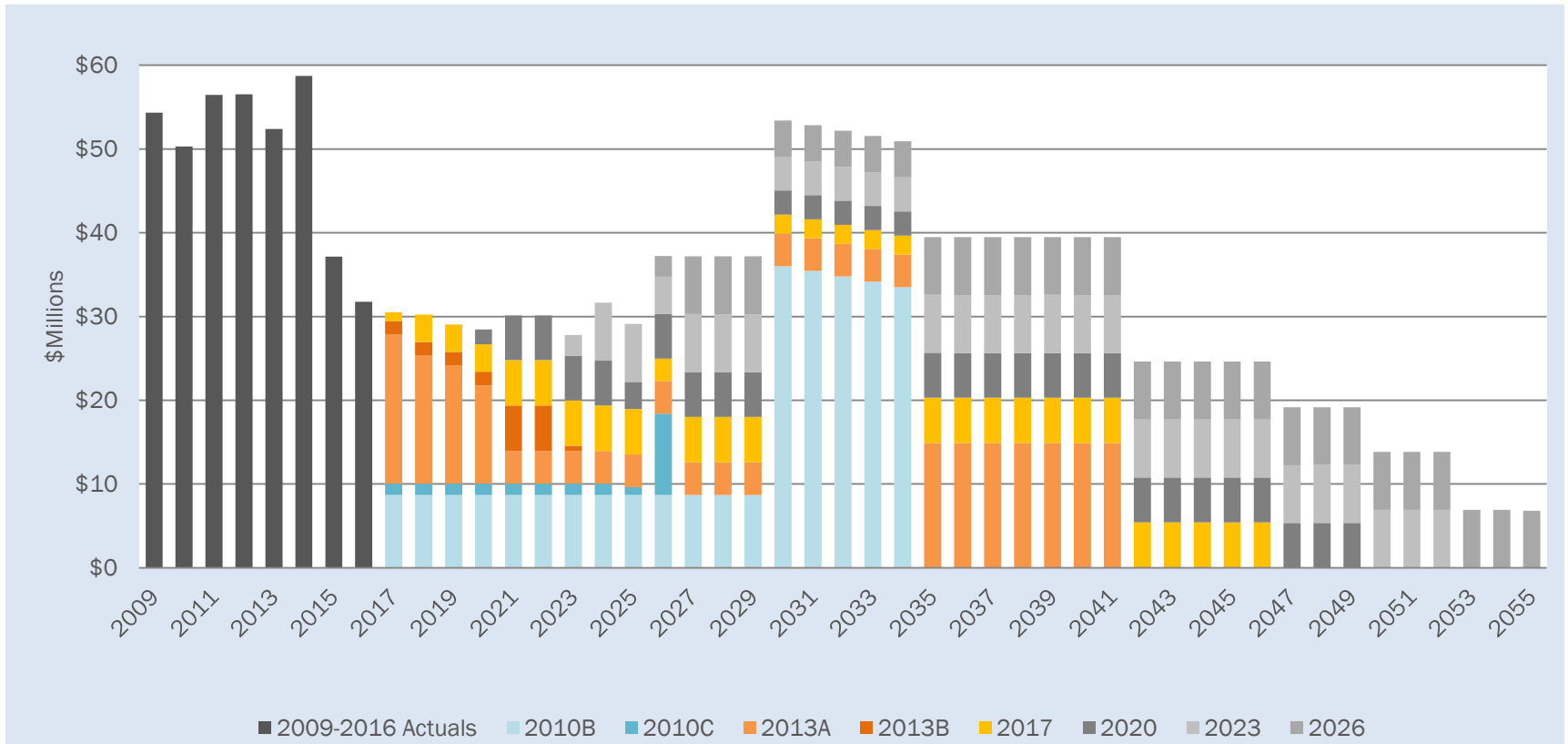
This chart shows the combined principal and interest payments due by Bond and arranged by year.



* Debt Portfolio shown on an accrual basis.

Debt Management and Capital Funding

Base Case Debt Service with Future Bonds



Debt Management and Capital Funding

Short-term Debt: Wells Fargo

Two-Year Extension from 2018 to 2020

Wells Fargo Drawdown Direct Purchase Agreement

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

Drawn Amount:
\$250,000

Start Date:
May 2018
Extension through 2020

Term:
2 years

Purpose:
Interim Financing of Capital Projects

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

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



Managing Risk



Managing Risk

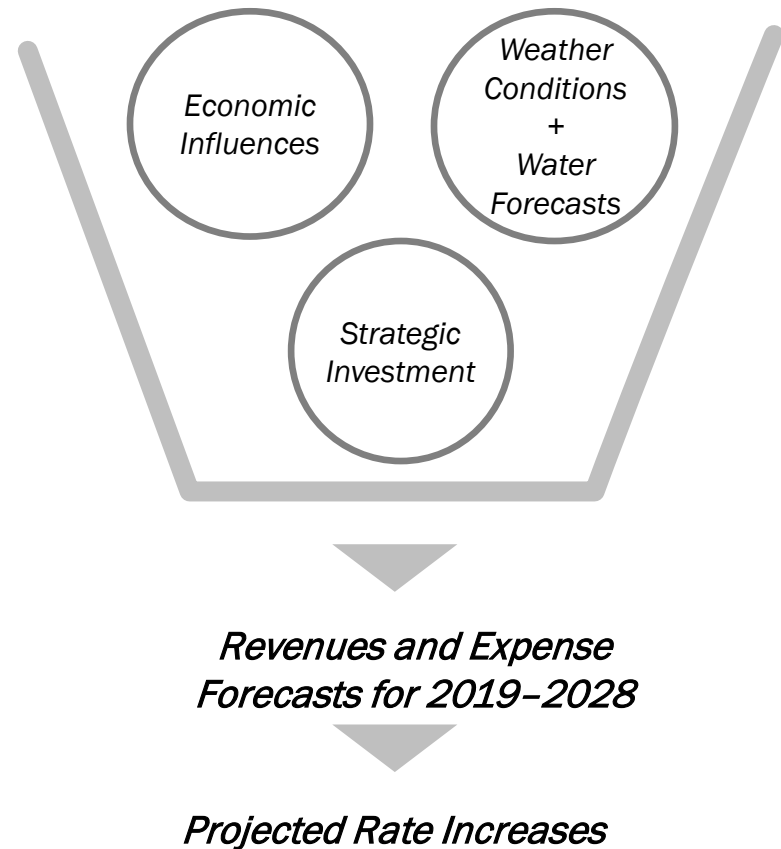
Unpredictable Factors affect Revenue and Expenses

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-10766 Eff. Mar 25, 2015

1

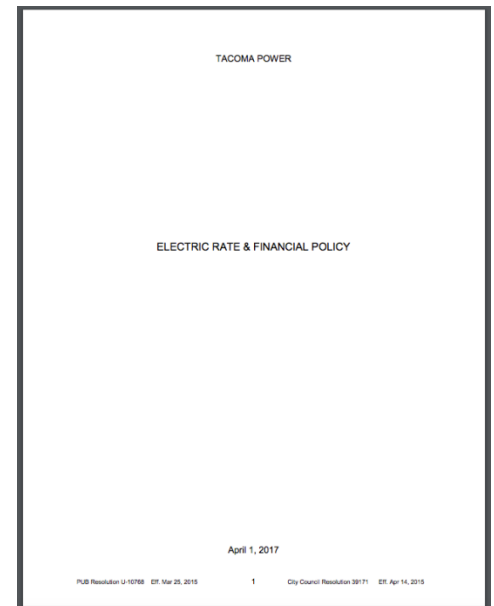
City Council Resolution 39171 Eff. Apr 14, 2015

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*



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

Bond Reserve Fund

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.

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

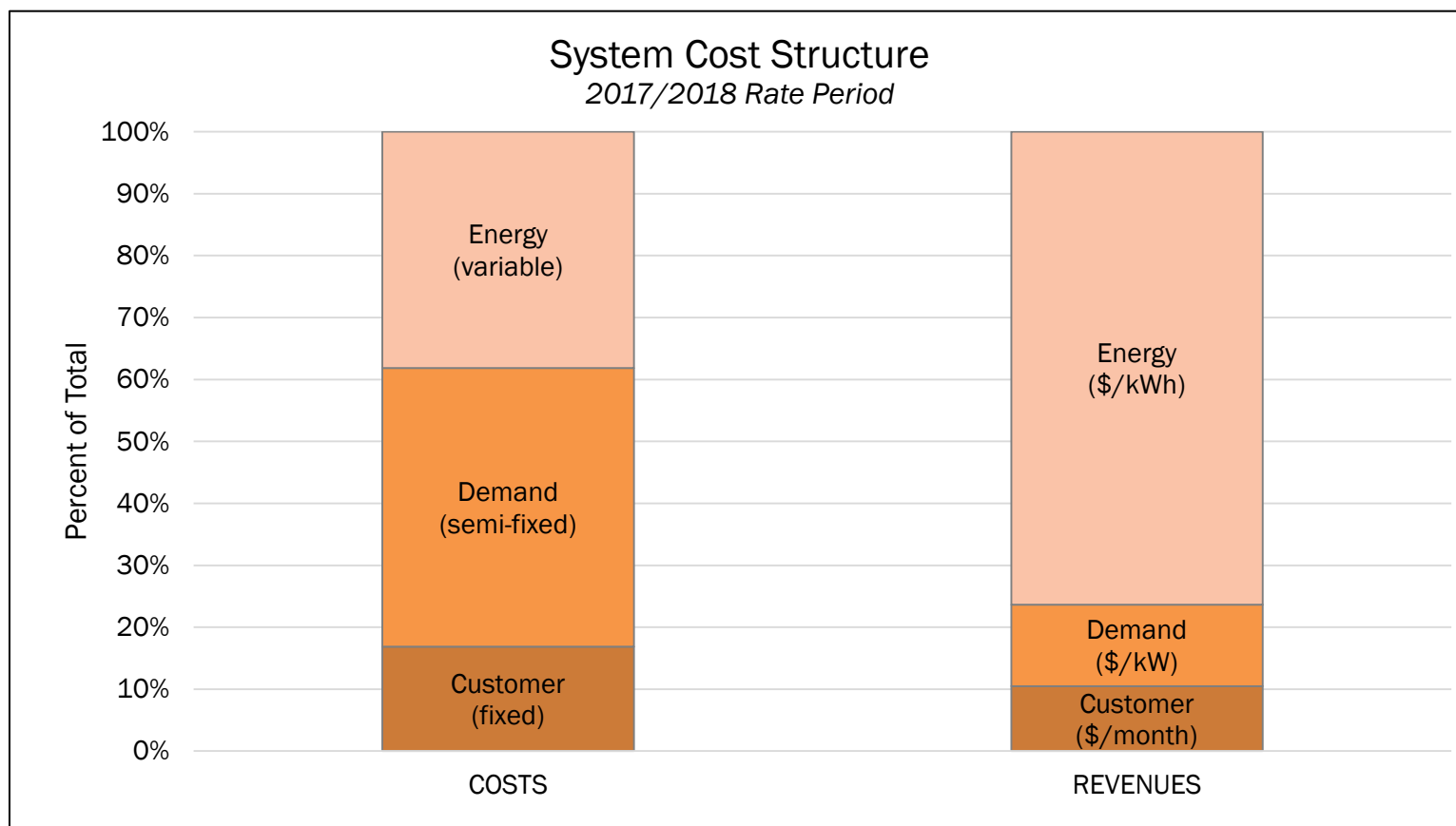
Staff is considering adding probabilistic rigor to the Rate Stabilization Fund calculation and may propose policy changes.

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



Introduction & Overview of Results

High-Level Trends & Results



Results

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

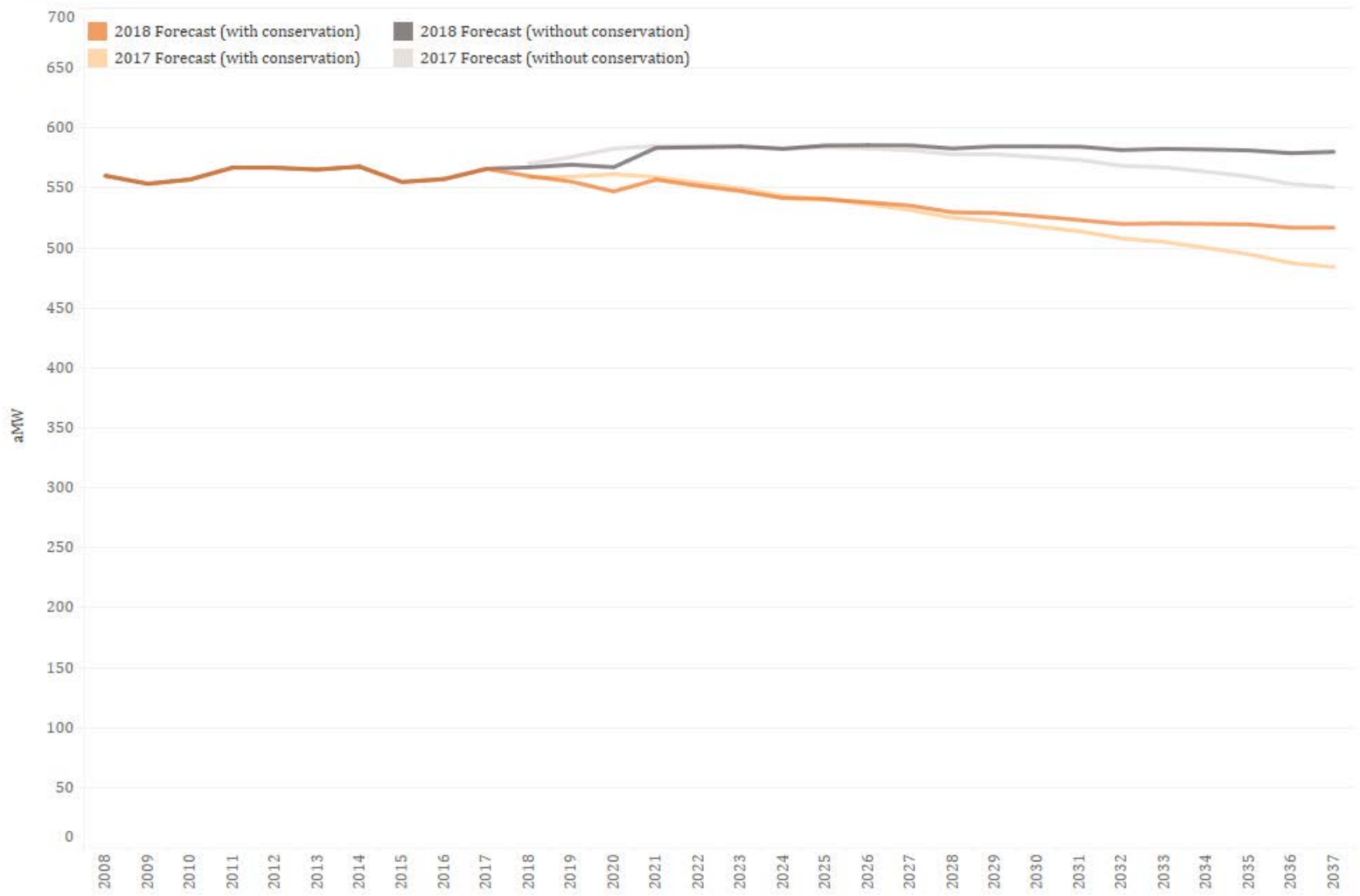
Drivers

- 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

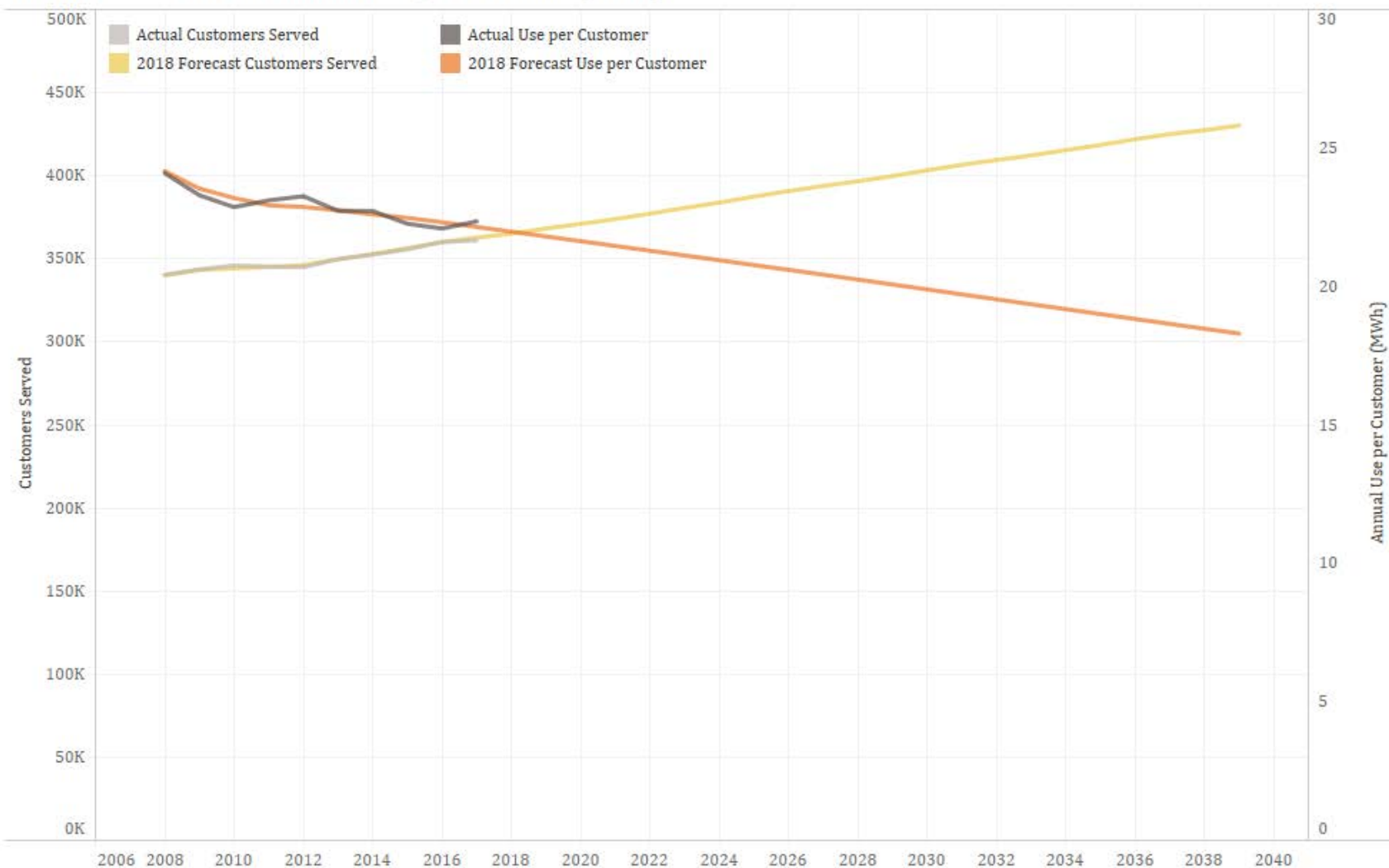
2017 v. 2018



Usage Per Customer

Net Load Forecast Components

Customers Served and Annual Use per Customer (MWh)

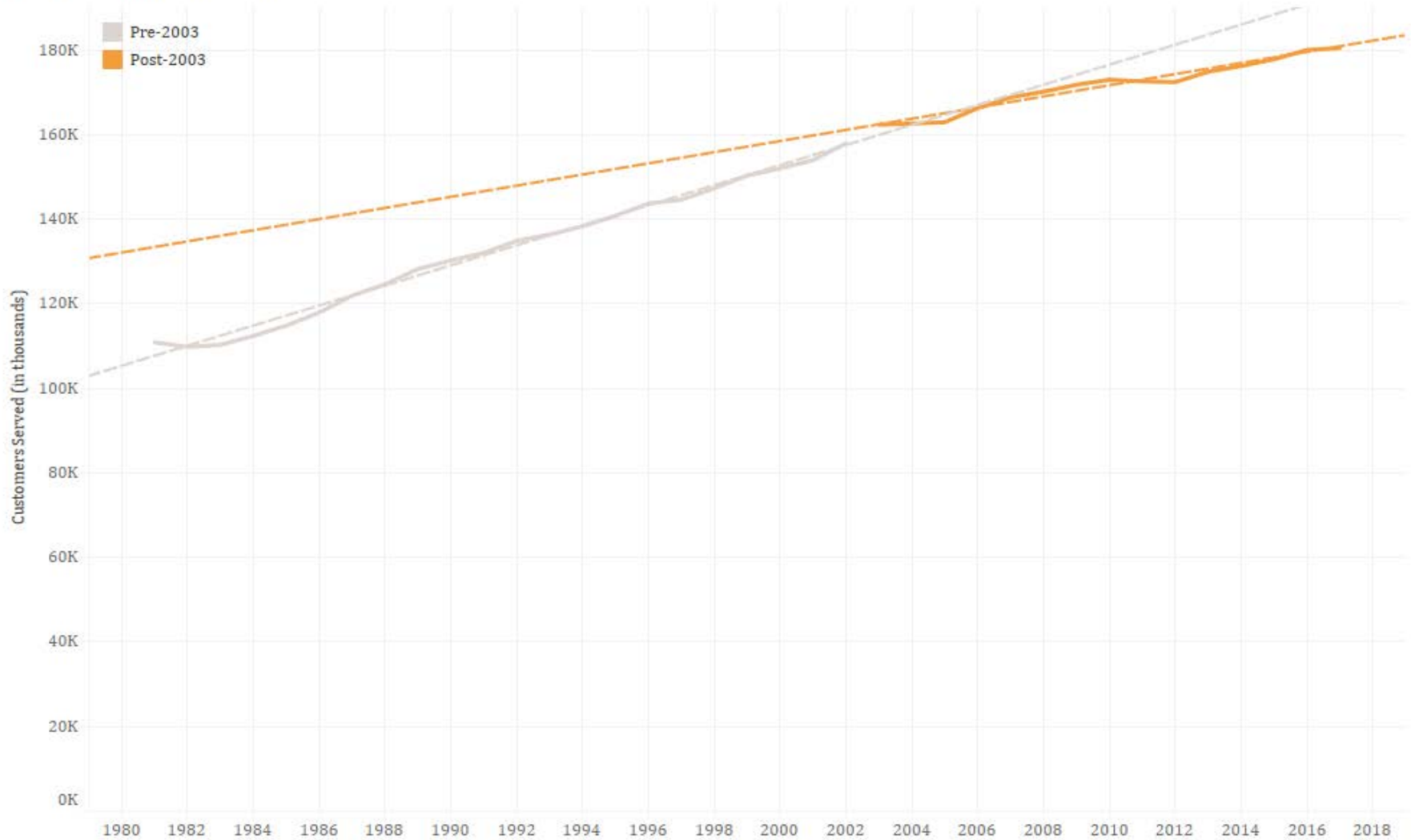


Number of customers served is forecasted to increase. Annual use per customer is forecasted to decrease.

Customer Forecast

Pace of Customer Growth

Pre-2003 and Post-2003



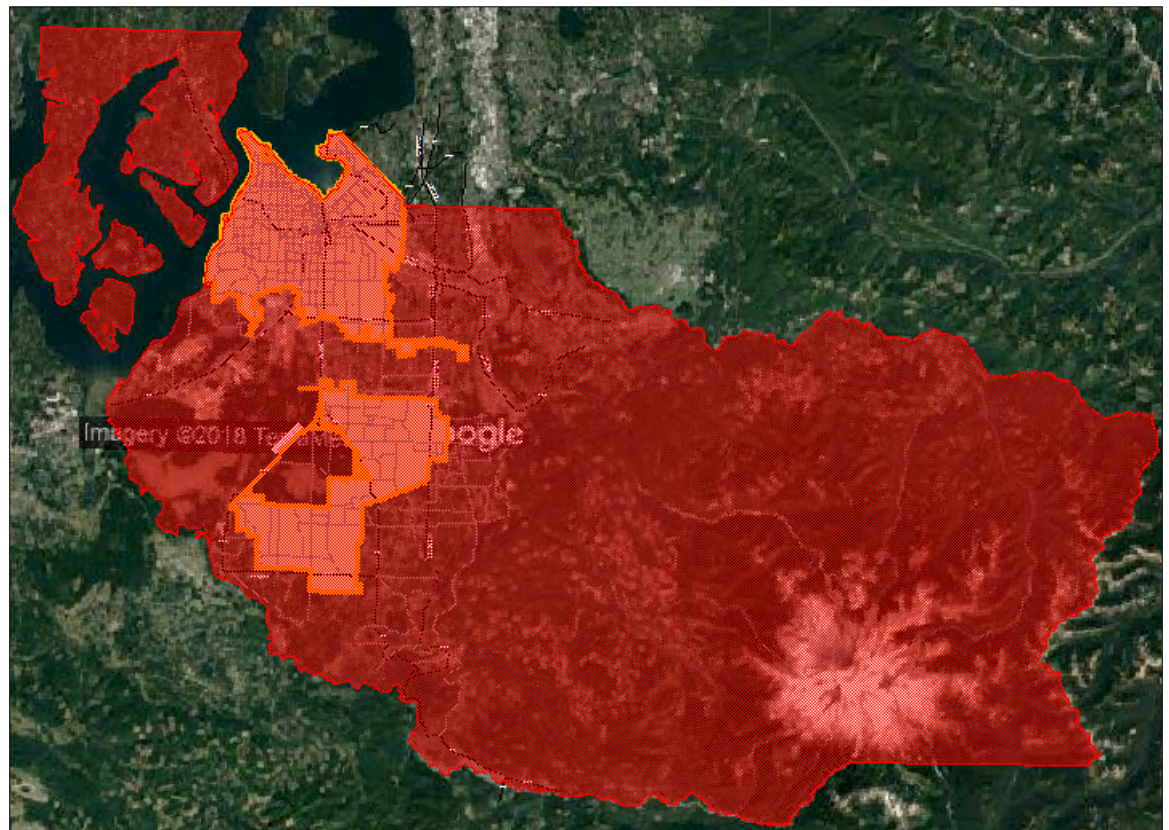
The pace of customer growth appears to slow after 2003.

Customer Forecast

General Discussion

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

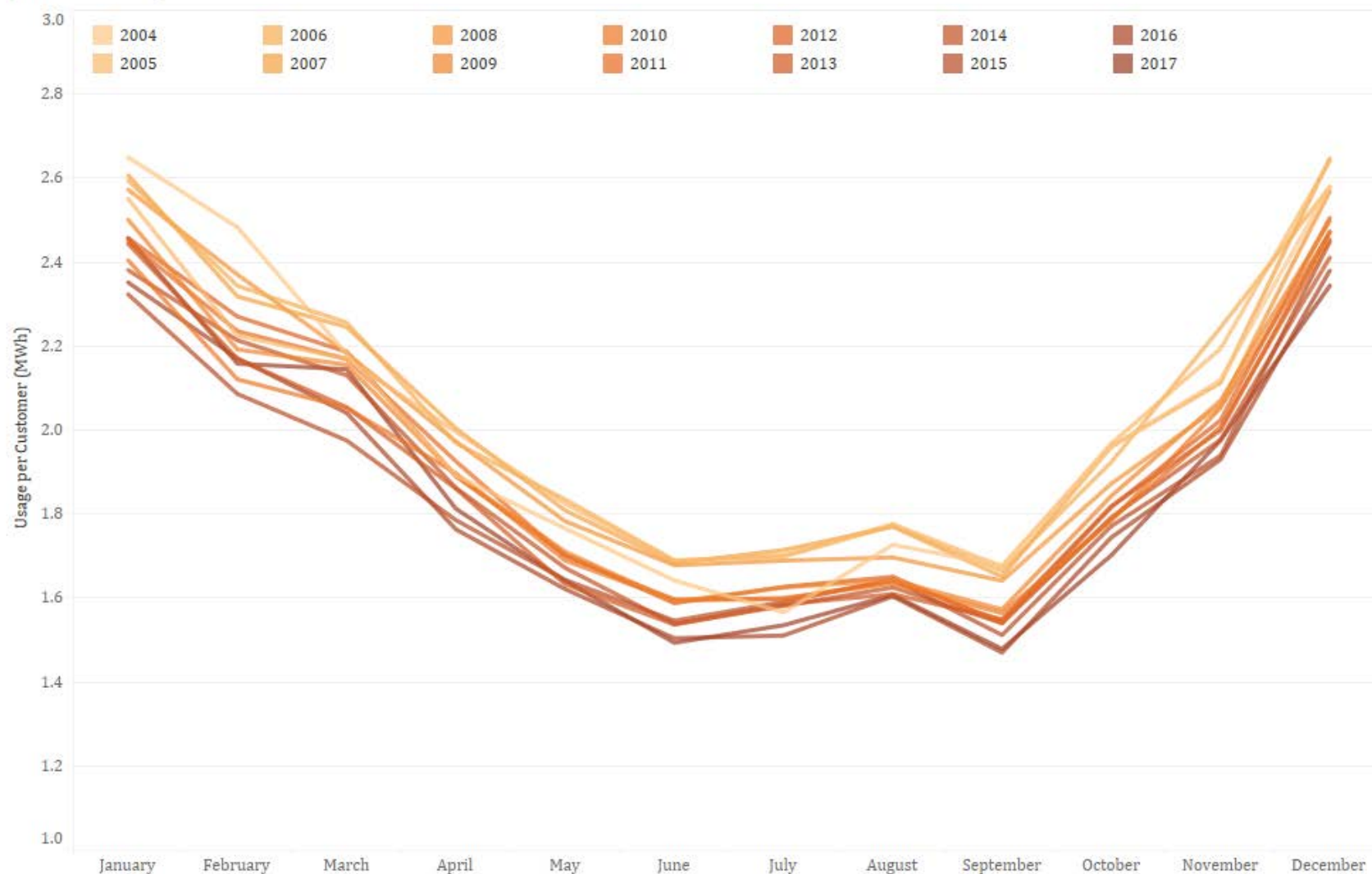
The majority of developable land within Pierce County is outside the Tacoma Power service area.



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



**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 a 24-hour a day and 365-day a year business. We don't want our customer's lights to ever go out and if they do, we do everything we can to get the lights back on.

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 the life of the asset, instead of paying in full, up-front. Receiving the best interest rates when we issue bonds requires us to maintain a certain level of cash and the ability to generate sufficient revenue to cover our expenses. In this Plan you will find more about how we manage all of these details and how they impact the rates our customers pay.

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

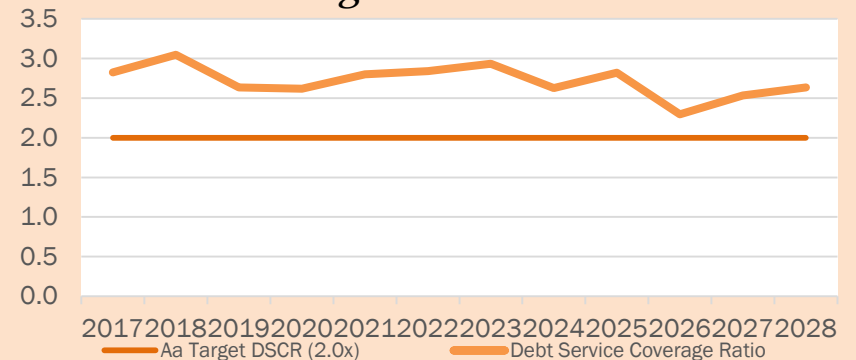
Why are financial metrics important?

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.

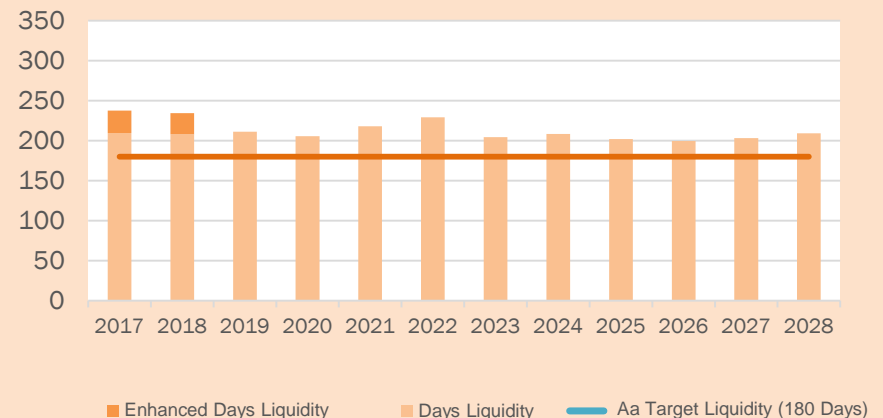
We use these ratings when we issue bonds to help pay for capital improvements. Investors buy Tacoma Power Bonds and we pay those bonds back over a period of up to 30 years. (See our existing debt repayment profile on [page 41](#).) To get the best interest rates possible when we issue bonds, we must 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.

The charts to the right illustrate a possible projection for our future debt service coverage levels and liquidity levels. These are subject to projections for rate increases, expenses, and revenues which you are explained further in [Section 4](#).

Debt Service Coverage Ratio
Target = 2.0x



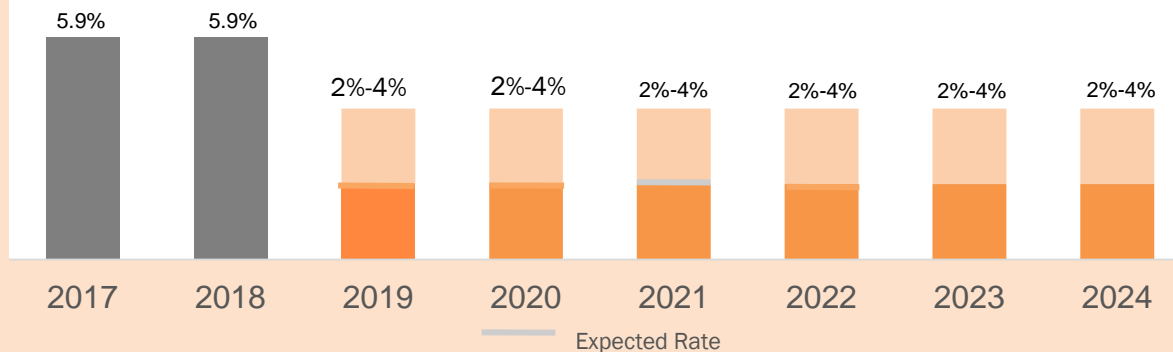
Liquidity Projections
Target = 180 Days



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

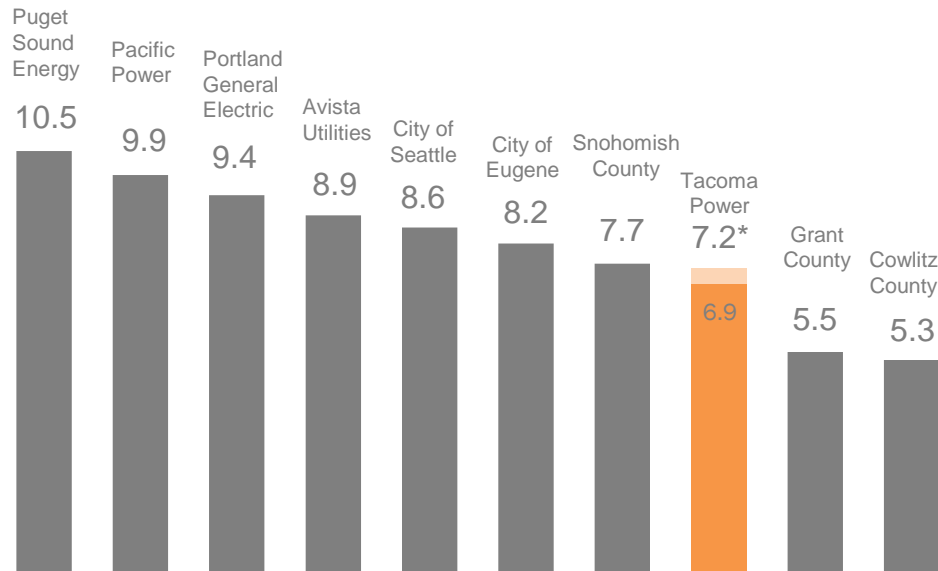
The further out in time we forecast, the more uncertainty there is. We have modeled some scenarios addressing potential future conditions that may impact us. The results of these scenarios indicate that doing a 0% rate increase in the next biennium would place upward pressure on future rate increases. 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 performance, and the actions we may take in future years. You can read about some of the actions already underway starting on [page 16](#).

Rates Remain Low and Competitive

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

Comparative System Average Rates



* 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 in the future. Rates are established by the Public Utility Board and approved by the Tacoma City Council.

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.

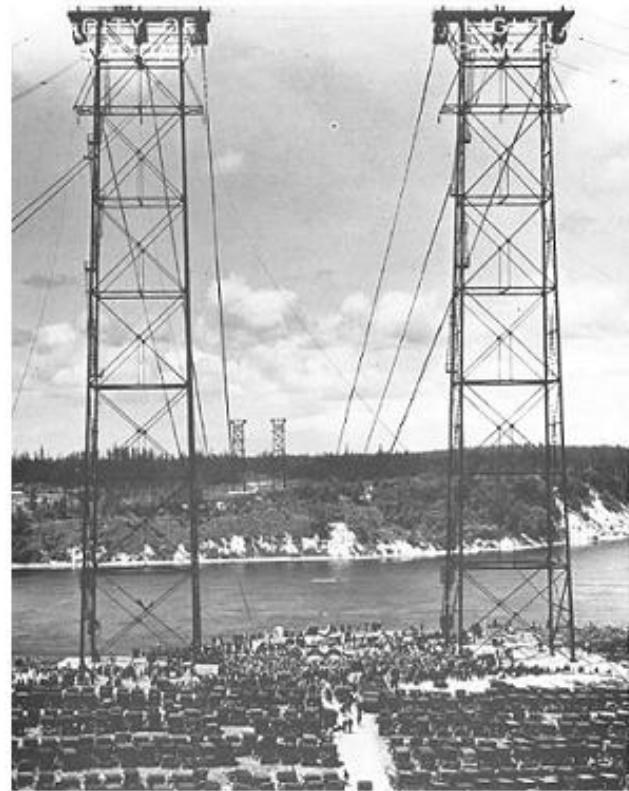
Here are a few of the many factors that impact future rates. These examples and others need to be considered when determining what the rate increases need to be:

Increases in Operating Expenses and Purchased Power Expenses

See [Section 3](#) on the [Background](#) to get a better understanding of these.

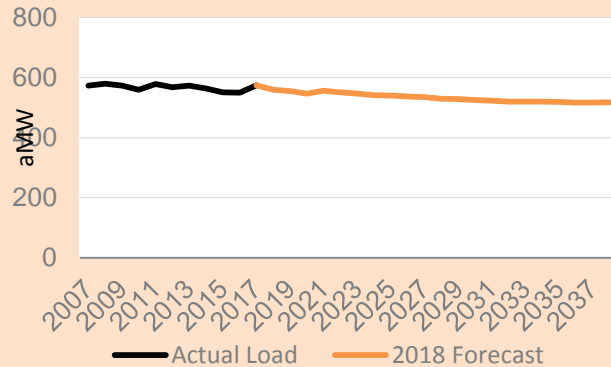
Decreases in Wholesale Revenue due to changing market conditions

See [Section 5](#) on the [Risks](#) to get a better understanding of some of the things affecting our revenue.



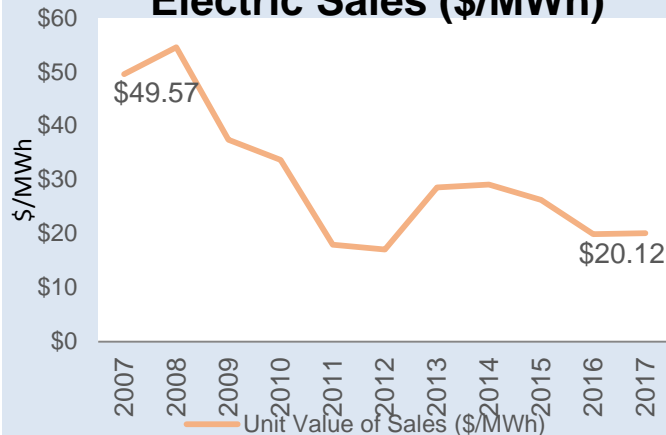
This is a picture of the 1926 commissioning of the transmission lines connecting to our Cushman hydro project. Our utility has operated since 1893 and has a lot of infrastructure to maintain. We maintain and replace our assets with steady capital investments. You can find out more about that those capital investments in [capital expenses of Section 3](#). For determining how to fund capital investments, see [Section 7](#).

Load Forecast with Conservation



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.

Annual Value of Wholesale Electric Sales (\$/MWh)



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 more wholesale revenue we have, the more we can reduce future rate increases. There are many drivers for this decline which you can read about in the [Section 5: risk factors.](#)

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 strategies are Optimize Wholesale Revenue and Maintain Our Financial Strength.



Active Debt Management

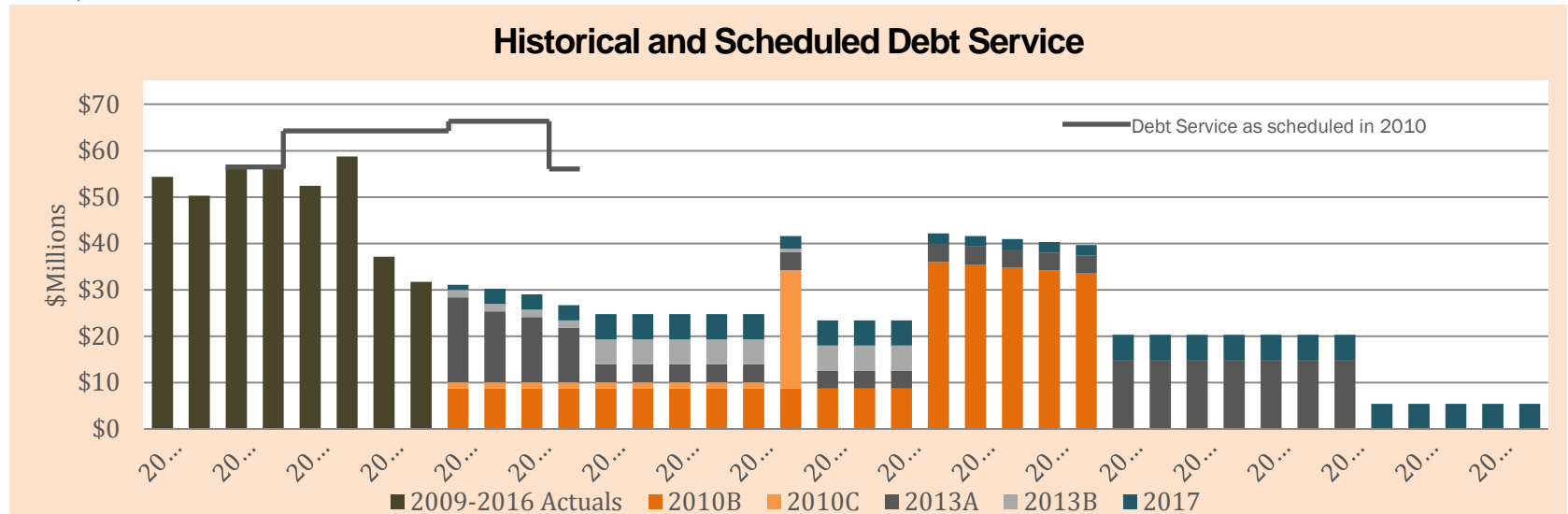
Managing Debt Service has produced significant savings

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.



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 can take to minimize future rate increases are provided to the right and in more detail in [**Section 8: Making it Happen.**](#)

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.

[**Page 81**](#)

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.

[**Page 82**](#)

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.

[**Page 83**](#)

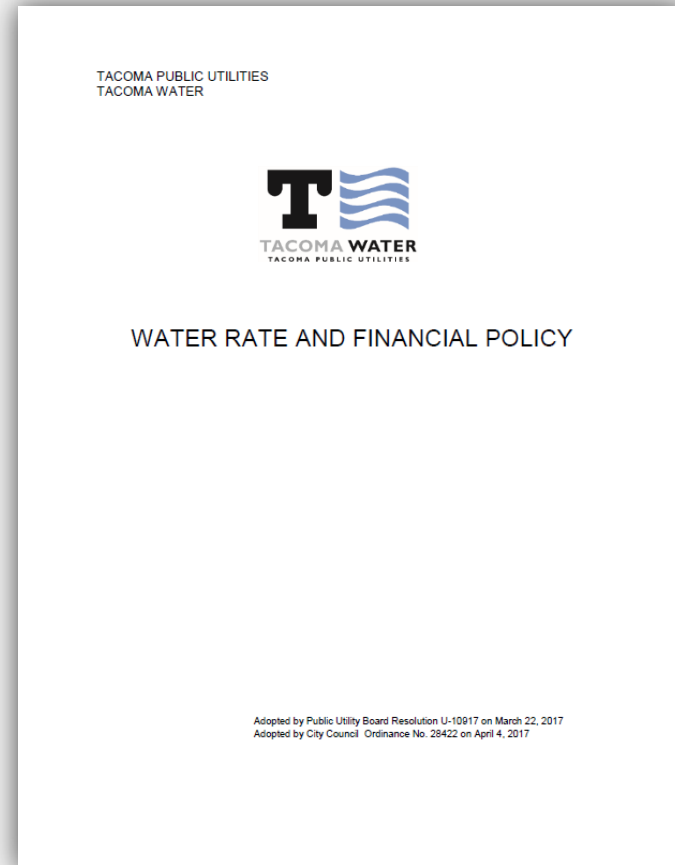
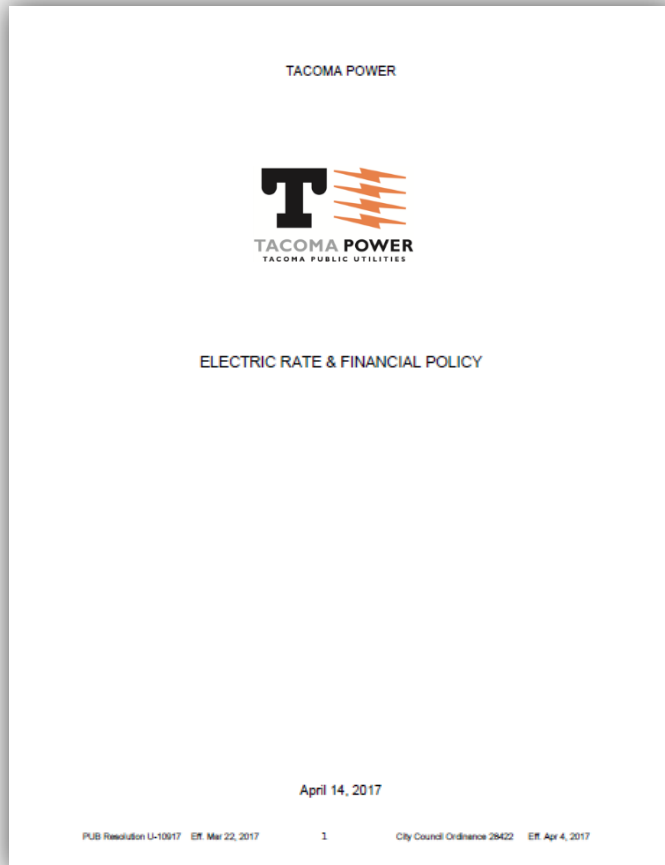
O&M Cost Savings Initiative

(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.

[**Page 84**](#)

RATE & FINANCIAL POLICY REVIEW



Board Study Session

May 9, 2018

Operating Fund Balance



<p>Current Policy</p>	<p><i>“Rates will be set at levels to provide projected cash balances equivalent to a minimum of 90 days of current budgeted expenditures.”</i> [IV.A.1.]</p> <p><i>“While this policy includes minimum requirements for liquidity and debt service coverage, it is the goal of Tacoma Power to maintain or improve current debt ratings, and the utility will maintain higher levels of coverage and liquidity as required to achieve this goal.”</i> [IV.]</p>	<p><i>“Rates shall be set at levels such that projected current fund (fund 4600) cash balances will be equal to 60 days of current budgeted expenditures.”</i> [III.B.5.]</p>
<p>2017 Year End Achievements</p>	<p>2017 Minimum 90 Days: \$94.8 million 2017 Target 180 Days: \$162.5 million</p> <p>2017 year-end cash: \$189.2 million or 209 days 2018 year-end cash: \$189.8 or 207 days (projected)</p>	<p>2017/18 Minimum 60 Days: \$15.30M</p> <p>2017 year-end cash: \$58.75M or 221 days 2018 year-end cash: \$55.42M or 208 days (projected)</p>
<p>Changes for Consideration</p>	<p>None at this time.</p>	<p>None at this time.</p>

Debt Coverage Ratios



Current Policy	<i>“The Utility will maintain a minimum Debt Service Coverage Ratio of approximately 1.5 based on net revenues including surplus power sales consistent with water supply planning noted in subsection 5 below or at higher levels consistent with sound financial practice in the electric industry. The Utility will plan to a minimum Debt Service Coverage Ratio of 1.8 based on net revenues including surplus sales estimated using median water availability or at higher levels consistent with sound financial practice in the electric industry.” [IV.A.3.]</i>	<i>“Senior Debt Service Coverage will be maintained above 150%, exceeding Tacoma Water’s bond covenant requirement of 125%. All In Debt Service Coverage will be maintained above 125%.” [III.B.3.]</i>	
2017 Year End Achievements	2017: 2.82x 2018: 3.07x (projected)	Senior Debt (projected) 2017: 2.18x 2018: 2.01x	All In Debt (projected) 2017: 1.23x 2018: 1.05x
Changes for Consideration	None at this time.	We propose a reduction in All In Debt Service Coverage from 1.25x to 1.00x during periods of spending down cash reserves: <i>“Senior Debt Service Coverage will be maintained above 1.50, exceeding Tacoma Water’s bond covenant requirement of net revenue at least 1.25 times annual senior debt service. All-In Debt Service Coverage will be maintained above 1.25 except when cash reserves are budgeted to meet the annual revenue requirement, when it will be maintained above 1.00.”</i>	

Rate Stabilization Fund



Current Policy	<p><i>"Tacoma Power will maintain a Rate Stabilization Fund as a means of managing potential volatility in Rates and augmenting reserve policies. Funds are intended to mitigate the need for large changes in rates from one year to the next.</i></p> <p><i>The Fund also may be used as a rate stabilization account for purposes of the ordinances authorizing Tacoma Power debt and provides that amounts withdrawn from the Fund are deducted from revenues in the year they are deposited into the Fund and counted as revenues in the year withdrawn from the Fund."</i> [V.A.]</p>	<p>Although Tacoma Water does not have a traditional rate stabilization fund, we do have a rate stabilization account. The current balance includes deferred SDC revenues recognized as needed to boost debt service coverage. Additional deposits may be made to the account as needed within 90 days after the close of the year for inclusion in the debt service coverage calculations.</p> <p>We do not recommend the creation of a traditional rate stabilization fund because we have set our policy level of reserves to manage potential volatility in revenues and to meet working capital needs.</p>
2017 Year End Achievements	<p>Balance \$48M</p>	<p>Balance \$35.5M</p>
Changes for Consideration	<p>Staff is considering adding probabilistic rigor to the Rate Stabilization Fund calculation and may propose policy changes.</p>	<p>None at this time. However, we intend to recognize revenue in the SDC fund over time and eventually dissolve the account.</p>

Low-Income/Senior/Disabled



<p>Current Policy</p>	<p><i>"The needs of low-income electric customers will be considered when establishing rate levels."</i> [I.G.]</p> <p><i>"The level of annual funding for low-income assistance will be determined by the Public Utility Board."</i> [IV.B.1.b.]</p> <p><i>"A modified electric rate will be considered to help low-income senior or low-income disabled electric customers pay their bills."</i> [IV.B.2.a.1.]</p> <p><i>"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."</i> [IV.B.3.g.]</p>	<p><i>"A discounted water rate will be considered to help low-income/elderly and low-income/handicapped water customers."</i> [III.C.16.]</p>
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Low-Income/Senior/Disabled (cont'd)



2017 Year End Achievements	2017/18: \$2,000,000 (budgeted/appropriated) 2017: \$227,620 (actuals at year-end)	2017/18: \$275,000 (budgeted/appropriated) 2017: \$47,110 (actuals at year-end)
Notes & Other Considerations	Cost of program is allocated to all classes.	Cost of program is only allocated to the Residential Class.
Changes for Consideration	<p>We propose modernizing the existing language to address programs available through utility assistance programs:</p> <p><i>“The needs of low-income, senior, and disabled electric customers will be considered when establishing rate levels, providing bill assistance, and offering financial education.”</i></p>	<p>We propose modernizing the existing language to address programs available through utility assistance programs:</p> <p><i>“The needs of low-income, senior, and disabled water customers will be considered when establishing rate levels, providing bill assistance, and offering financial education.”</i></p>



SAFETY
FIRST

TPU SAFETY PROGRAM

TPU STRATEGIC PLANS IDENTIFY EMPLOYEE SAFETY AS # 1 PRIORITY



TPU SAFETY INITIATIVE UPDATE

Background



TPU's Safety Strategic Objective

Caterpillar Safety Services Engagement

Next steps



TPU SAFETY METRICS

Quarter 1, 2018 Performance Metrics Report Tacoma Public Utilities			
			
Financial Performance: Power		Water	
1 Debt Service Coverage	●	1 Debt Service Coverage	●
2 Liquidity - Days Cash on Hand	●	2 Liquidity - Days Cash on Hand	●
3 Budget Performance	●	3 Budget Performance	●
Operational Excellence: Power		Water	
4 Residential Bill Comparison	●	4 Residential Bill Comparison	●
5 O&M Cost per Customer	●	5 O&M Cost per Account	●
6 Outage Duration	●	6 Unplanned Service Disruptions	●
7 Outage Frequency	●	7 Distribution System Leakage	●
8 Non-Carbon Power Resources	●	8 Regulatory Compliance	●
9 Power Conservation	●	9 Water Conservation	●
Commitment to Cust & Employees: Power		Water	
10 Customer Satisfaction	●	10 Customer Satisfaction	●
11 Employee Satisfaction	●	11 Employee Satisfaction	●
12 Employee Safety	●	12 Employee Safety	●
13 Call Center Responsiveness	●	13 Call Center Responsiveness	●
		14 Technical Service Complaints	●

TPU'S STRATEGIC PLAN

TPU's Safety Strategy Identified 4 Key Objectives

1. Employee Safety is Our #1 Priority
2. Establish a TPU Safety Governance & Steering Committee
3. Increase Safety Awareness
 - TPU Safety Magazine
 - TPU Safety Committees Engagement
 - Safety Banners
4. Identify What our Industry Peers are Doing
 - Western Energy Institute Safety Summit
5. Determine If Our Safety Program Is Organized Effectively



CATERPILLAR SAFETY SERVICES

- Contracted with Caterpillar Safety Services
- Safety Perception Survey
- Employee, Supervisor & Management interviews
- Establishing Safety Culture Baseline



Six Criteria of Safety Excellence

- Top management is **visibly** committed
- Middle management is **actively** involved
- Front-Line supervision is **performance**-focused
- Employees are actively **participating**
- System is **flexible** to accommodate culture
- Safety system is **positively perceived** by workforce

— Dan Petersen Ed.D.

FOUR STEPS TO ACCOUNTABILITY SUMMARY





ASSESSMENT OF SAFETY LEADERSHIP SYSTEMS & EMPLOYEE PERCEPTIONS

Tacoma Public Utilities
January 2018

SAFETY CULTURE INDICATORS

- **Attitude Towards Safety**
- **Awareness Programs**
- **Communication**
- **Discipline**
- **Employee Training**
- **Goals of Safety Performance**
- **Hazard Correction**
- **Incident Analysis**
- **Inspections**
- **Involvement of Employees**
- **Management Credibility**
- **New Employees**
- **Operating Procedures**
- **Quality of Supervision**
- **Recognition for Performance**
- **Safety Climate**
- **Safety Contacts**
- **Substance Abuse**
- **Supervisor Training**
- **Support for Safety**

EMPLOYEE PERCEPTION SURVEY

- **1,224 participants**
- **993 employees, 134 supervisors, 97 managers**
- **5 divisions**
- **Statistically validated**
- **Measurement of “percent positive” responses**
- **Gap analysis between personnel segments**
- **Comparison against a multi-industry database**



TPU SAFETY STRENGTHS

Strengths Included

- **Management Credibility is the second-highest ranked safety culture indicator.**
- **Employees believe that the organization actively encourages them to work safely.**
- **Safety is considered important to management.**
- **Overall across TPU employees, supervisors and managers generally agree where the strengths and opportunities exist**

OPPORTUNITIES FOR SAFETY EXCELLENCE

Opportunities Included

- **Utility scored below average when compared to the Caterpillar Safety Services' multi-industry database.**
- **Significant number of perception gaps when you drill down into the organization.**
- **Recognition for safe work performance is the most powerful method for encouraging safe work habits and creating a positive perception towards the safety system**
- **Low scores for a focus on off-the-job safety as a result of the organizations safety program.**

NEXT STEPS

- Employee Communication
- Joint Labor Engagement
- Scope Next Phase
 - Safety Strategy Roadmap
 - Organizational alignment
 - Education & Training
 - Establish *Leading Indicators* tracking





CUSTOMER SERVICES 2019 – 2020 BUDGET PREVIEW

**Steve Hatcher, Manager
May 9, 2018
Utility Board Study Session**



TODAY'S DISCUSSION

- **Strategy**
- **State of Customer Services**
- **Primary Budget Drivers**
- **Next Steps**

MISSION and VISION

- **We engage customers through exceptional service and customer-focused solutions.**
- **To be known for Excellence in our Service to Customers.**

CUSTOMER SERVICES STRATEGIC STRATEGY

- **Empowering customers with easy to use self service tools that fit their individual needs**
- **Routing customers to the most knowledgeable employees to answer customer inquiries quickly, efficiently, and completely**
- **Maintain and enhance customer service by empowering staff with robust and modern utility tools**
- **Developing strategies that meet the needs and requirements of each of our customer segments**
- **Position ourselves to support /participate in Tacoma Power and Water and Environmental Services strategic initiatives**

Empowering customers with easy service tools that fit their individual needs

Completed Initiatives:

- Redesign utility bill invoice
- Redesign the IVR customer prompts and call flows
- Upgraded MyAccount website

Current Initiatives:

- Replacing current inventory of 13 PayBoxes with 14 new Paybox systems



Maintain and enhance customer service by empowering staff with robust and modern utility tools

Completed :

- **Upgraded the cashiering system (iNovah)**

Current :

- **Upgrading the Escrow and Pledge Portal websites**

Developing strategies that meet the needs and requirements of each of our customer segments

Completed :

- **Launched the Low-Income Bill Credit Assistance Plan program (BCAP)**
- **Implemented and staffed the Business Solutions team for small and mid-sized business segments**
- **Implemented and staffed the Performance Solutions team**

Current :

Expand and improve the capabilities of the Customer Solutions office to better serve low-income customer segment by launching the BCAP financial education credit program

Position ourselves to support/participate in Tacoma Power, Water and Environmental Services strategic initiatives

Current :

- **Supporting the implementation of the Advance Meter Infrastructure (AMI) Program**
- **Supporting the Workforce Connect Project which is a replacement for the Mobility Dispatch System Integration (MDSI) in concert with Tacoma Power and Tacoma Water**

PRIMARY BUDGET DRIVERS

- **Maintain Operational Performance**



PRIMARY BUDGET DRIVERS

- Continue to develop and implement a comprehensive strategy to meet the needs of our Low-Income customer segment



PRIMARY BUDGET DRIVERS

- **Continue to Support the implementation of the Advance Meter Infrastructure (AMI) Program**
 - **RFP for Customer Information System (CIS) replacement**
 - **Customer Service (CS) will employ eLearning techniques in support of CIS replacement**
 - **Continue the transition of Field Operations group in preparation for deployment of AMI**
 - **Begin preparation/training of CS staff to operate in the post AMI world**

NEXT STEPS

- **May 10th**
Director Review proposed Customer Service Budget
- **May 21st**
Follow up meeting with CSAB on proposed Customer Service Budget
- **May 30th**
Service Divisions Draft budgets to Director/Superintendents
- **June 5th**
Operating Divisions review proposed Service Division Budget
- **August 22nd**
TPU Board Study Session Budget Presentation
- **October 24th**
Public Utility Board approval of Preliminary Budget