TACOMA POWER

TACOMA PUBLIC UTILITIES

LONG-RANGE FINANCIAL PLAN

Rates, Planning & Analysis

October 1, 2021

City of Tacoma

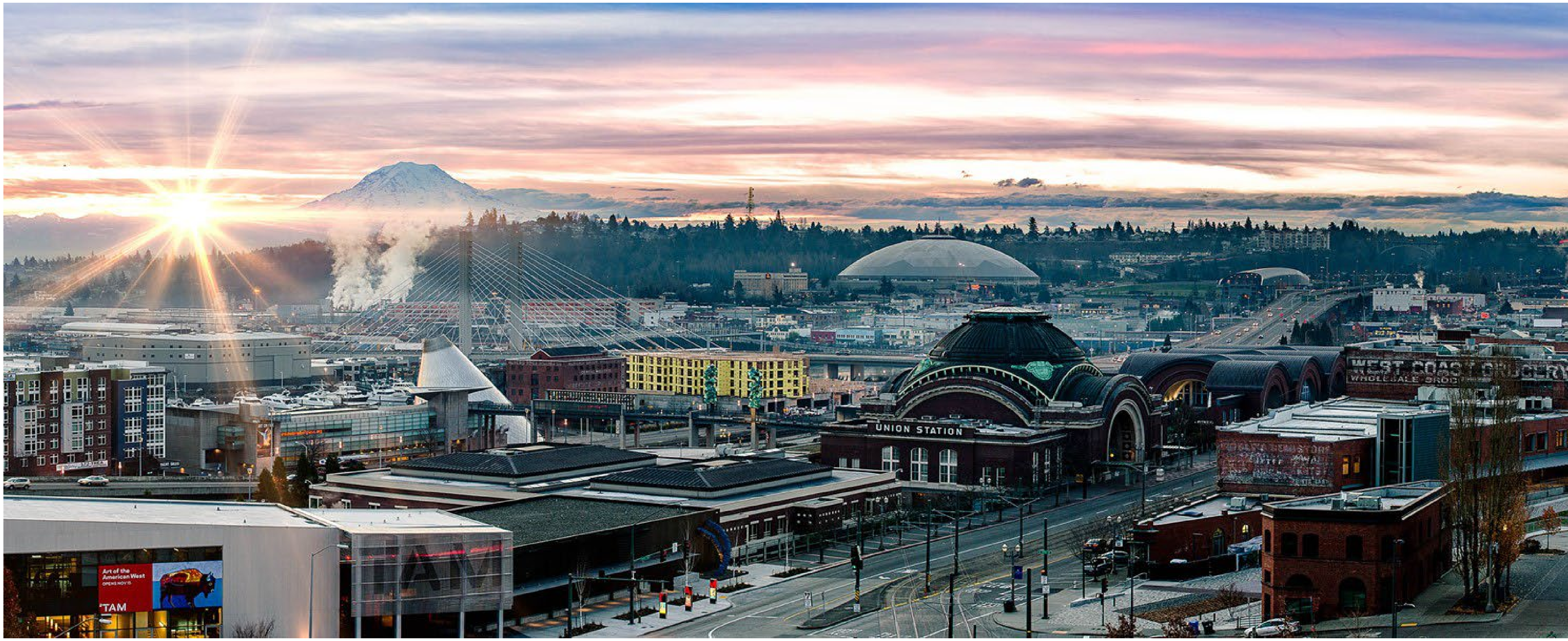
WASHINGTON

The City of Tacoma, Washington (the “City”), Light Division, doing business as Tacoma Power (“Tacoma Power”), is a municipal corporation under the Constitution and laws of the State of Washington. Tacoma Power of the City’s Department of Public Utilities operates the City’s electrical generation, transmission and distribution facilities and its telecommunication system.

A Note Of Caution:

The information included in this Long-Range Financial Plan is limited in scope and does not include all of the information relevant to bonds or notes issued by Tacoma Power, or all of the financial information relevant to Tacoma Power. This Long-Range Financial Plan is provided for information and convenience only, is not a guarantee of results, and is dated and speaks only as of its date. Tacoma Power does not undertake to update, and expressly disclaims any duty to update, this document. Unaudited financial information used in this document, such as for fiscal year 2021, is preliminary and subject to change. This Long-Range Financial Plan makes forward-looking statements by using words such as “project,” “forecast,” “intent,” "may," "will," "should," "expects," "believes," "anticipates," "estimates," or others. Any forward-looking statement or projection, however, is subject to uncertainties and inevitably some assumptions regarding future trends will not be realized and unanticipated events and circumstances may occur. A variety of risks and uncertainties affecting Tacoma Power’s business and financial results -- such as general economic and business conditions and various other factors that are beyond our control -- could cause actual results to differ materially from the projected results stated in the forward-looking statements in this Long-Range Financial Plan.

Further, this Long-Range Financial Plan is not an offer to sell or a solicitation of an offer to buy Tacoma Power bonds or notes. Any investment decisions regarding Tacoma Power bonds or notes should only be made after a careful review of the complete official statement for those particular bonds or notes. Copies of the official statements related to Tacoma Power’s bonds are available at http://bit.ly/tpwr-investorinfo, or www.emma.msrb.org. The information contained in such official statements is dated as of specific dates, speaks only as of those dates, may be out of date due to the passage of time or subsequent events, and may include forward-looking statements. Tacoma Power is not undertaking to update, and expressly disclaims any duty to update, the information.



Welcome!

We wrote this document to help you understand many of the key issues affecting the power industry, power utilities, and the future financial performance of Tacoma Power. The purpose of this Long-Range Financial Plan (LRFP) is to help serve as a guide for maintaining low rates while also preserving the utility's financial strength and flexibility. Our goal is to make financial decisions that allow us to provide safe, reliable, and environmentally responsible electric services now and into the future. Making short-sighted decisions, without considering the long-term implications, can put this goal at risk.

This LRFP is available for our customers, employees, the Public Utility Board, City Council, members of the public, and any stakeholder who is interested in learning a little more about us.

This Long-Range Financial Plan

The LRFP is one element of our annual strategic planning process. It identifies and discusses foreseeable financial risks and opportunities facing the utility in the next ten years. Once we identify risks and opportunities, we create financial scenarios and a "base case" scenario of the most likely financial outcome. By creating a base case and potential financial scenarios, we can outline strategies to manage future challenges with the objective of providing the most value for the utility's ratepayers at the lowest possible cost.

The strategic planning process is also guided by our biennial budget, rate design, the Public Utility Board's Strategic Directives, and specific financial policies and goals that are part of Tacoma Power's Electric Rate and Financial Policy discussed further in this document.

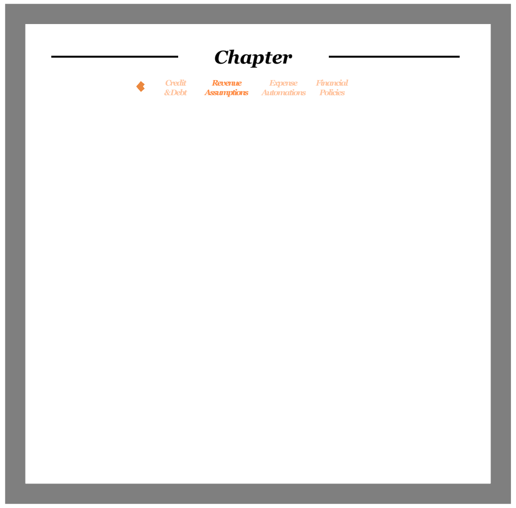
Please Keep in Mind

An important factor to keep in mind is this document is for informational purposes only, and is not a guarantee of results. Tacoma Power's financial position and the information (including key assumptions) used throughout the document changes (improves or degrades) every day. Our current forecast for this document goes through 2030, and by the time you read this, the projections will have changed.

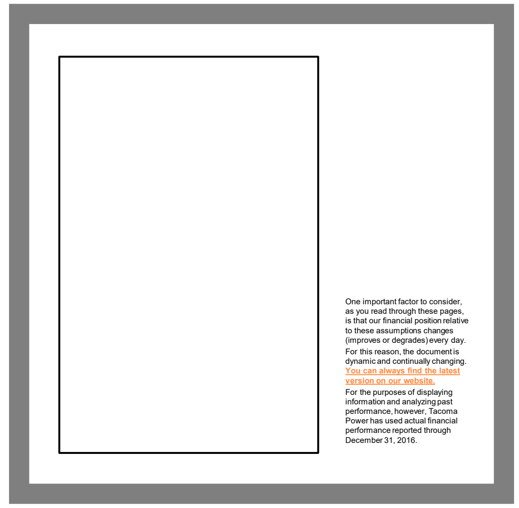
For this reason, the LRFP is dynamic and continually changing. We expect to update this LRFP annually and make it available on our website: http://bit.ly/tpwr-lrfp.

For the purposes of displaying information and analyzing past performance, Tacoma Power has used unaudited financial performance reported through August 31, 2021. Projections incorporate the final 2021 and 2022 rates as approved by the City Council and Public Utility Board.

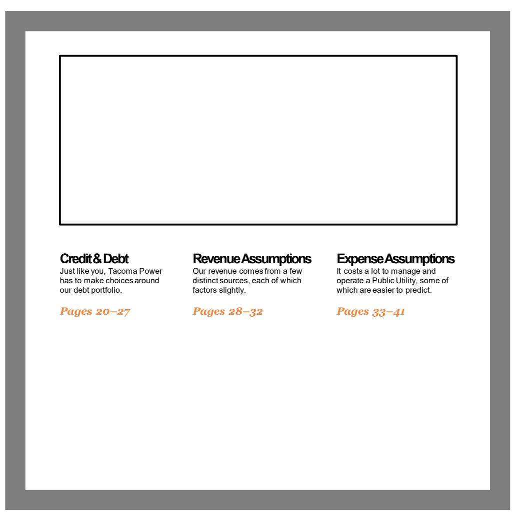
Bread Crumb Trail



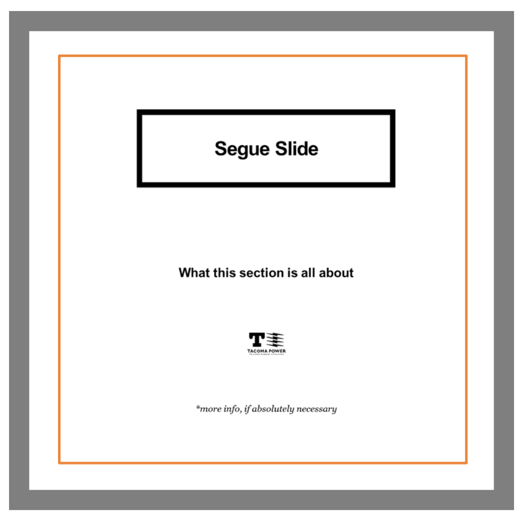
Glossary Links



Jump Markers



Segue Slides



How to Use This Document

Use these navigational tools throughout the document to improve your overall experience.

Bread Crumb Trail
Prevents you from getting lost in the document. Click on the chapter headings to jump forward or back, or use the back arrow to return to the top.

Glossary Links
Gives you quick access to the glossary to help clarify any unfamiliar terms.

Jump Markers
Hyperlinks that let you jump directly to sections of interest.

Segue Slides
Bold chapter dividers that make it easy to navigate through the document to find what you need.

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In the following pages, you'll find explanations about:

Rate Projections
Financial Policies
Reserves
Credit ratings
Historical Actions
Opportunities
Risks

If you're reading a digital version, click the links to jump instantly to that section of the document

Section 1
The Highlights

An executive summary of the 2021 Long-Range Financial Plan.

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Overview of this Plan

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 be an equitable 21st century utility where employees want to grow and customers want to stay.

To fulfill this mission, we sell electric services to customers in the City of Tacoma and Pierce County. Selling these services provides Tacoma Power with revenue. As a cost-of-service utility, we charge our customers based on what it costs to provide the services they need. We 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 to be 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 but when it happens, we do everything we can to get the lights back on quickly.

The amount of revenue the utility will earn each year is uncertain. We can't predict how often you will turn your lights on and off or know exactly how much electricity you will use. Section 4 has more detail about how we try to plan for this uncertainty in revenue and expense.

Our customer's power is created by turbines located at hydroelectric facilities that Tacoma Power operates and maintains and by power we purchase through contracts with other electricity providers. Almost all of Tacoma's power is created by passing water through a generator, often co-located with a dam that stores water. The source of the stored water is both rainfall and snowmelt, which drain into the reservoirs or lakes behind the dams. Trying to predict how often and when it will rain adds a layer of complexity to our business. See Section 7 for more detail on how we plan for this uncertainty.

In providing power services, the utility incurs a number of expenses, including the people that work here and the trucks, tools, and other equipment 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 current revenues and bonds. Issuing bonds for capital projects allows us to spread payments over the life of assets, instead of paying in full, up-front. This approach more equitably spreads the cost of long-lived assets between current and future customers. To receive the best interest rates when we issue bonds, we must maintain a certain level of cash and the ability to generate sufficient revenue to cover our expenses. In this LRFP, you will find more about how we manage all of these details and how they impact the rates our customers pay.

Guiding Policies

Tacoma Power's long-range financial planning process and rate design is guided by specific financial policies and goals, including the Public Utility Board's Strategic Directives and Tacoma Power's Electric Rate and Financial Policy discussed below.

Strategic Directives

Tacoma's Public Utility Board has developed and adopted (Aug. 28, 2019) a set of Strategic Directives that guide its utilities. The two Directives shown here, Financial Stability and Rates, have direct bearing on this LRFP. This Plan attempts to balance the affordability of power for our customers, while sustaining Tacoma Power's financial strength and keep up with the inflation of capital and other costs for years to come.

Financial Stability Strategic Directive

TPU will secure its commitment to provide safe and reliable power, water, and rail services over the long term by maintaining sustainable budget, financial, and asset management practices.

Rates Strategic Directive

TPU rates for power, water, and rail services play an important role in securing a strong economy, establishing equity among customers, and producing revenue sufficient to provide safe, reliable, and environmentally-sensitive utilities services. TPU strives to ensure rates will be adequate, fair, just, and reasonable.

Electric Rate and Financial Policy

Our Electric Rate & Financial Policy provides guidance for managing the financial performance of the utility and has been approved by our Public Utility Board and City Council. Related to many of the elements discussed in the LRFP, you will find the following sections in the Electric Rate & Financial Policy document:

I. Rate Setting Objectives
II. Rate Review Process
III. Rate Setting Policies
IV. Financial Targets and Rate Setting Practices
V. Rate Stabilization Fund

Section 4 provides guidance on what it means for Tacoma Power to maintain sound financial metrics that support our current and future financing needs, support maintenance or improvement of credit ratings and minimize the cost of funds and risks associated with borrowing. This section also specifies our assumption to use Adverse water conditions for wholesale revenue during the budget planning period.

Section 5 includes information about the Rate Stabilization Fund. We use this fund as a means to manage potential volatility associated with our operating environment and can draw on the fund to mitigate the need for large rate changes from one year to the next. If you would like to know more about the Rate Stabilization Fund, check out page 71.

The latest version of our Electric Rate and Financial Policy can be found on our website: http://bit.ly/tpwr-lrfp.

Financial Metrics we Follow

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 shown below when projecting future rate increases. Our metric targets, listed in the chart below, are set to help maintain the utility’s financial strength. You can find more details on metrics in Section 4.

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 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. Having headroom in the debt ratio provides the utility with financial flexibility and helps keep future rates low.

Tacoma Power Metrics	2012	2013	2014	2015	2016	2017	2018	2019*	2020
Days of Liquidity *(Target: >180 Days)*	**312**	**312**	**325**	**215**	**236**	**210**	**206**	**157**	**235**
Debt Service Coverage Ratio *(Target: >2.0x)*	**1.82**x	**1.88**x	**1.90**x	**2.01**x	**2.31**x	**2.82**x	**3.06**x	**1.30**x	**3.33**x
Debt Ratio *(Target: <60%)*	**39%**	**36%**	**37%**	**29%**	**26%**	**29%**	**28%**	**28%**	**25%**

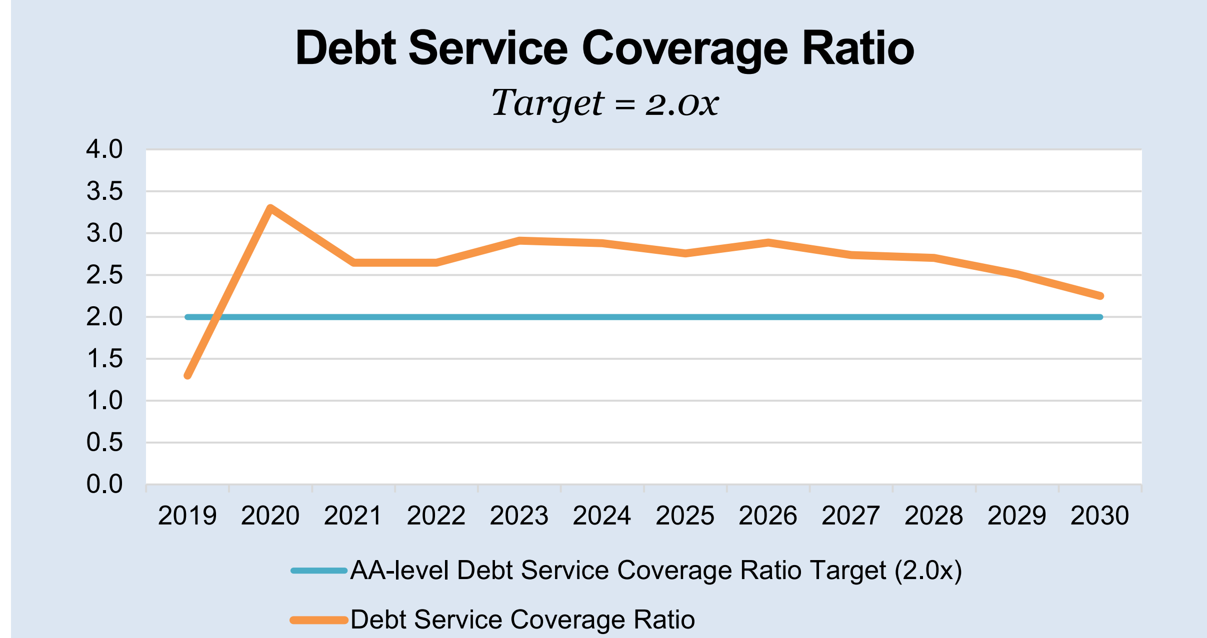
* 2019 was a near-critical water year. See page 23.

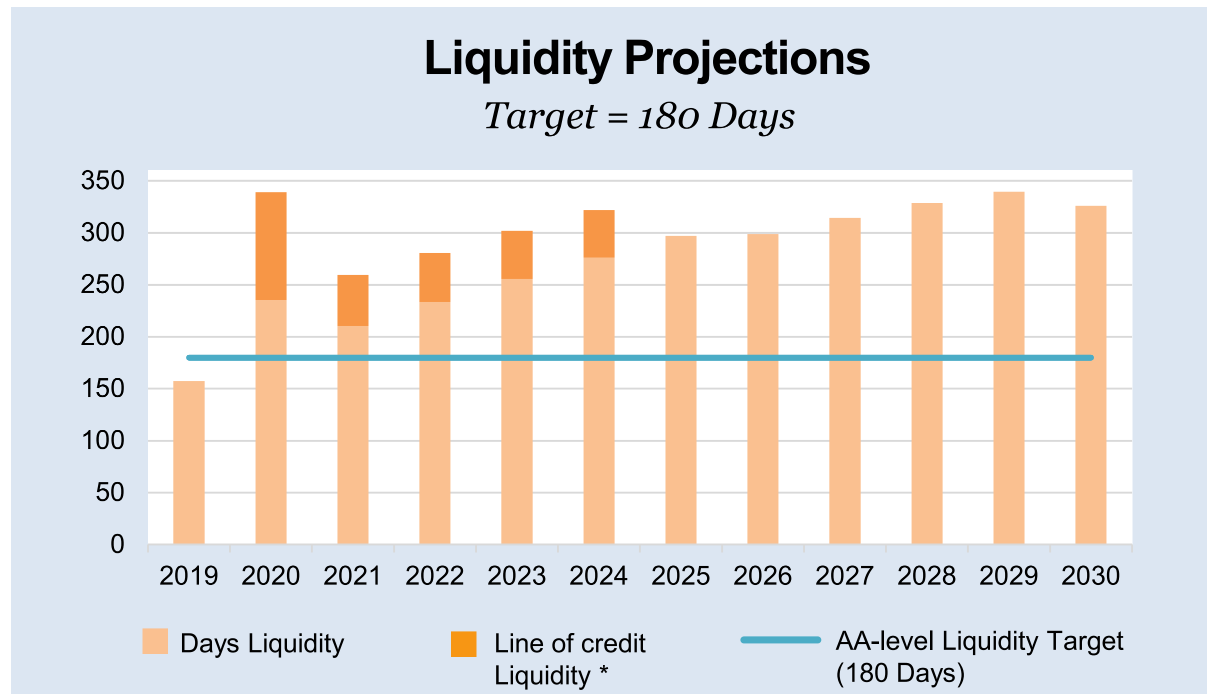
Why are Financial Metrics Important?

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 and access to reasonable financing costs in the capital markets. Financial metrics are comparable across other utilities and are used by credit rating agencies as part of their rating process when they evaluate us each year. Some rating agencies have more stringent requirements than others and we adjust our calculations to exceed minimum levels for each. We target metrics that help keep us in the AA rating category across the various rating agencies.

These ratings are important when we issue bonds to help pay for capital project spending. Investors buy Tacoma Power Bonds and the ratings are an indication of the likelihood that we can make payments on those bonds over a period of up to 30 years. (See our existing debt repayment profile on page 67.) To get the best interest rates possible when we issue bonds, we must maintain healthy financial metrics. Our credit rating impacts the interest rates paid on borrowed funds. As a result, the better our credit rating, the less we will likely pay when we issue debt. Being financially healthy, like we currently are, benefits customers by keeping rates low 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 various assumptions, including projections for rate increases, expenses, and revenues which are explained further in Section 4 and Section 5.





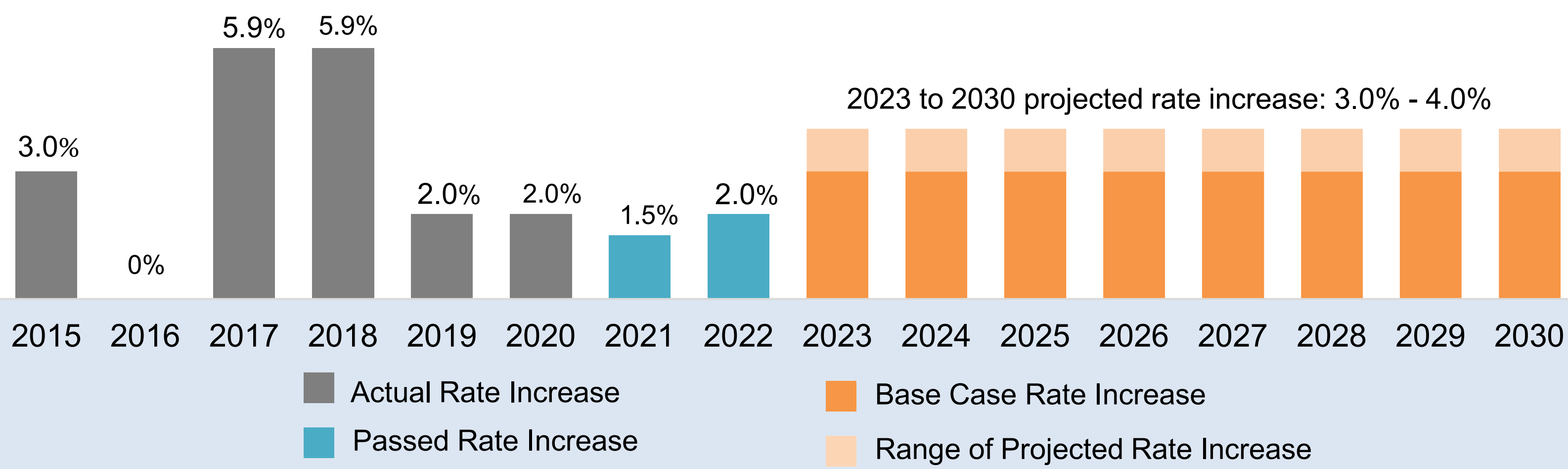
** See page 73 for more information about this line-of-credit.*

Past Actual & Projected Rate Increases*

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

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

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



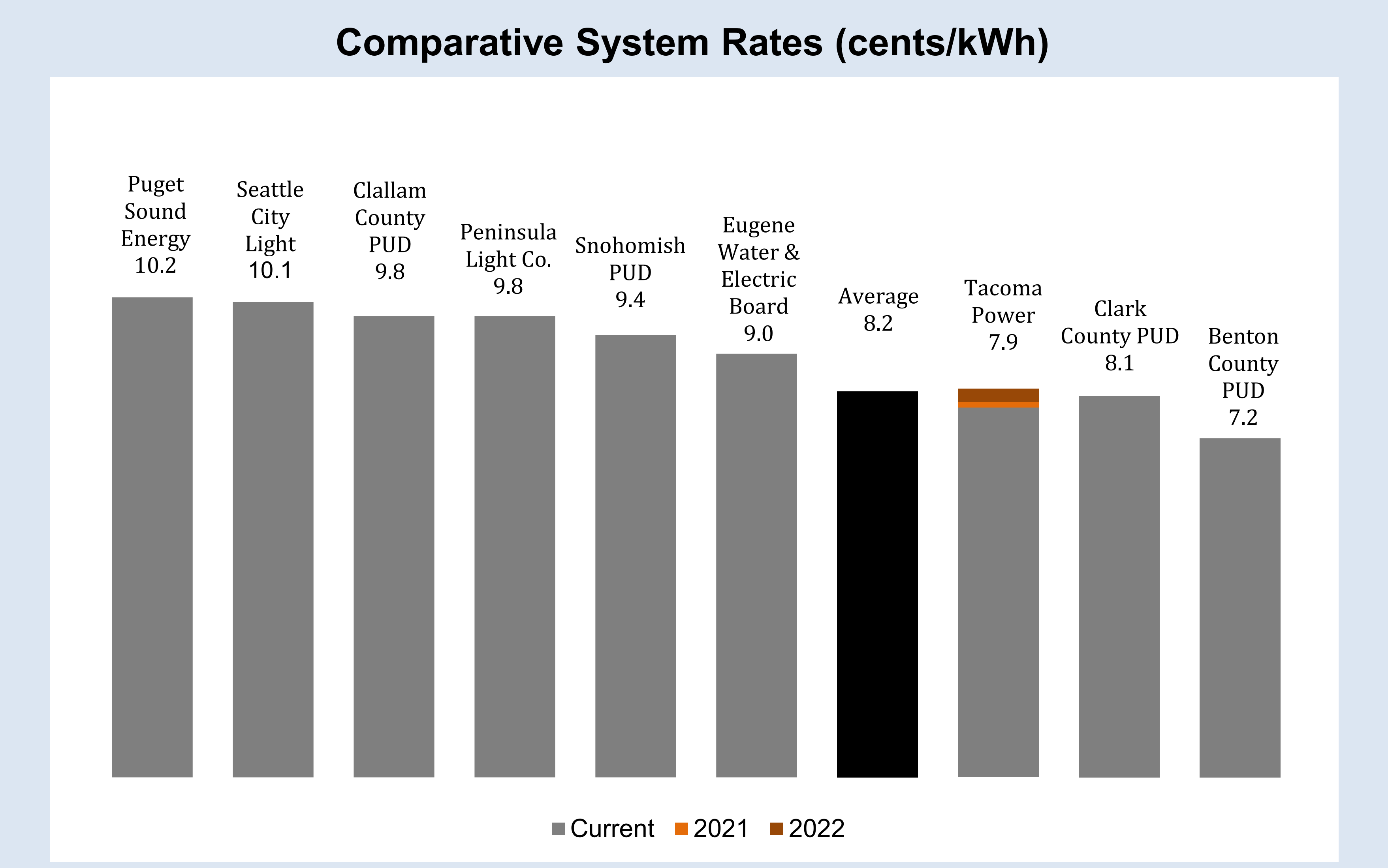
**As of August 31, 2021*

** 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 rate path shown here represents our best projection at this time of how the future will unfold. We call this our *base case*. The further out in time we forecast costs and revenues, the more uncertainty there is surrounding these estimates. Therefore, we have modeled some scenarios to address potential future conditions that may impact utility financials. The results of several scenarios can be found later in the document, in Section 8.

These projections, as well as other parts of this plan, will change over time. Actual rate increases may fall outside of this range and are dependent on several factors such as market conditions, financial performance, and the actions Tacoma Power will take in future years.

Rates Remain Low and Competitive



Tacoma Power shaded area represents the additional cents per kWh from a 1.5 and 2% annual rate increase in 2021 & 2022, respectively.

Source: Energy Information Administration, Form 861, 2019.

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

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

We are a municipal utility that establishes rates only to recover costs, not to create a profit for shareholders. 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 Rates Go Up

The 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?"

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 in order to operate successfully, safely and adhere to environmental and other regulations. In a nutshell, the cost of doing business rises almost every year. While we work hard to manage business expenses and find savings where we can, ultimately – as a cost-based utility – we need to pass along those costs in the price of our commodity.

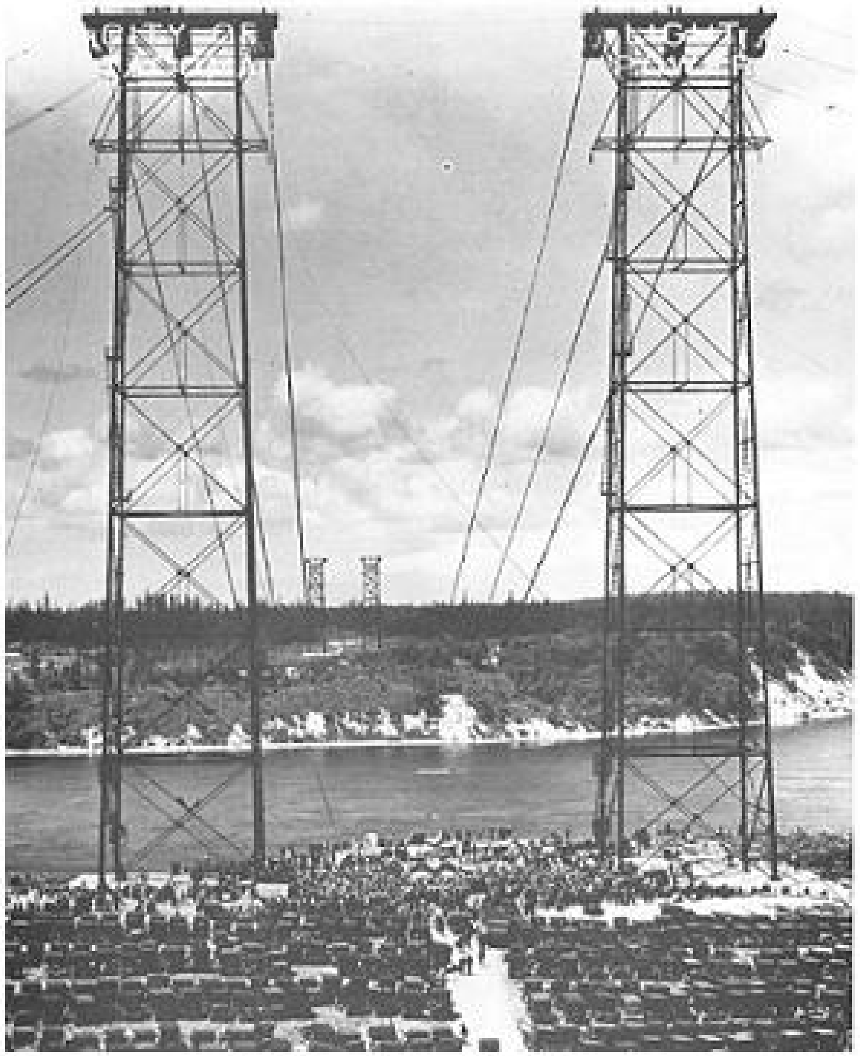
Here are a few of the many factors that impact future rates. These examples and others need to be considered when determining what the rate increases need to be:

Increases in Operating Expenses and Purchased Power Expenses

See Section 4 on the Background to get a better understanding of these.

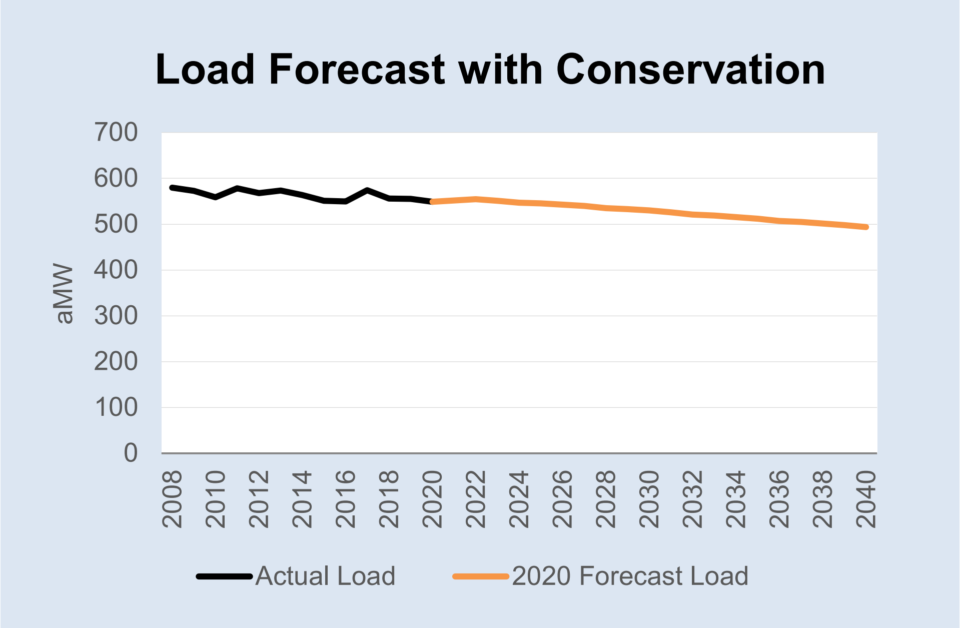
Decreases in Wholesale Revenue due to changing market conditions

See Section 7 on the Risks to get a better understanding of some of the things affecting our revenue.

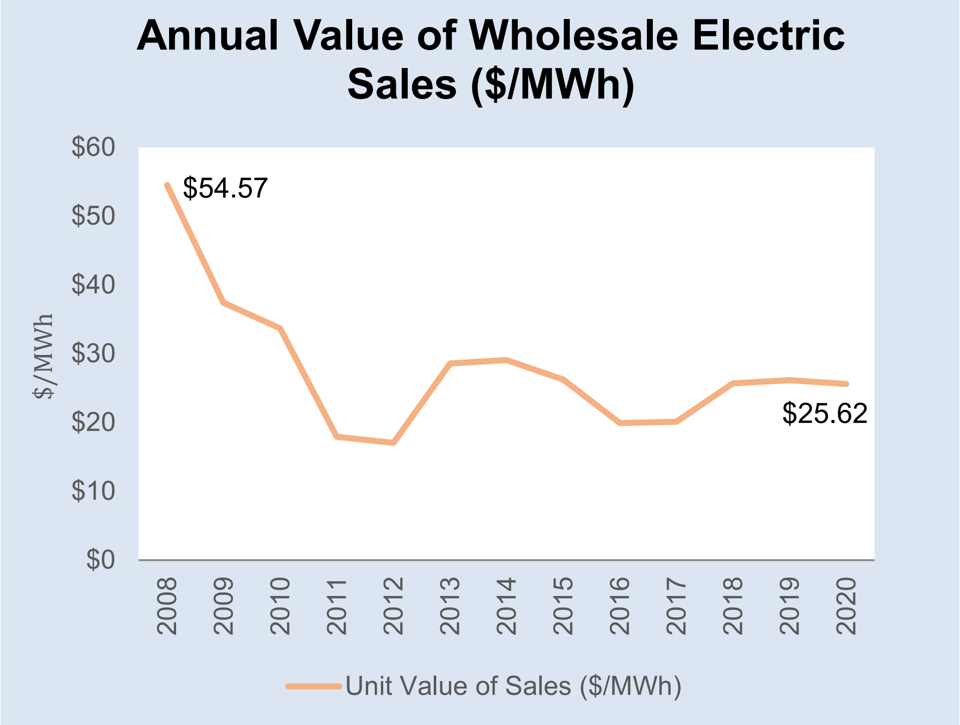


This is a picture of the 1926 commissioning of the transmission lines connecting to our Cushman hydroelectric project. Our utility has operated since 1893 and has a lot of infrastructure to maintain. We maintain and replace our assets with steady capital investments in order to keep prices stable and our power reliable. You can find out more about those capital investments in capital expenses of Section 4. For determining how we fund capital investments, see Section 5.

We have Seen Steadily Declining Retail and Wholesale Revenue



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 0.44% per year, reflecting planned conservation measures.



This chart shows a downward trend in the value for each MWh sold, from $54.57/MWh in 2008 to a low of $17/MWh in 2012 and remained low through 2020.

The charts to the left show two major impacts to our revenue: declining retail load and declining wholesale revenue. You can read more about each of them in the explanation on revenues in Section 4.

The top chart portrays our most recent load forecast. The combination of increases in conservation and reductions in customer demand for electricity, have resulted in a decrease in our expectations for overall usage, which creates downward pressure on revenue.

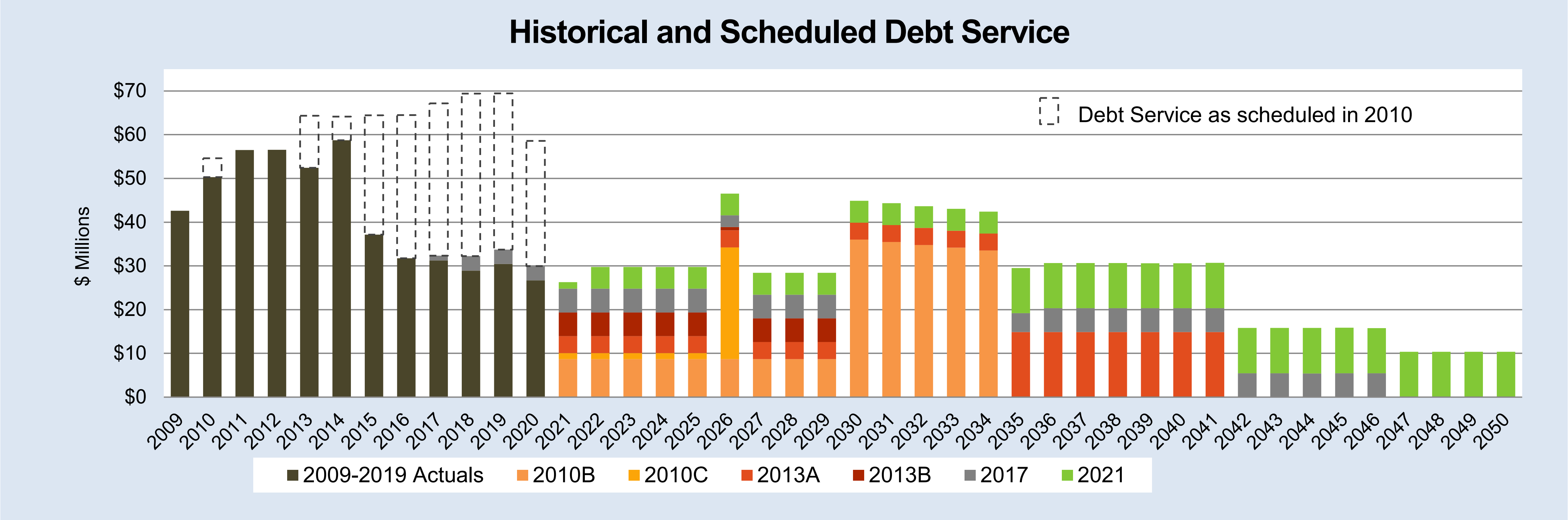
Tacoma Power is in the position to sell excess energy to other utilities through management of its load and generation resources. The more wholesale revenue we have, the more we can reduce future retail rate increases. The bottom chart illustrates the declining value for each MWh of electricity sold in the wholesale electric markets. There are many drivers for this decline which you can read about in Section 7: risk factors.

Active Debt Management

Managing Debt Service produces significant savings

Tacoma Power sells bonds to help fund capital improvements. We actively manage this debt profile to help keep rates low and stable and have made many changes to our profile over the past decade. Between 2009 and 2020, Tacoma Power defeased $106 million, repaid $122 million, and refunded $137 million in outstanding bonds. You can read more about this in section 5. These changes resulted in the 2020 debt service payment being less than half of the $65 million it was scheduled to be in 2010 ! The numerous changes implemented in the last decade translated to lower rate increases for Tacoma Power's customers.

The chart below shows Tacoma Power's historical actual and future scheduled debt service for outstanding Bonds. You will note the significantly higher debt service payments due in 2026 and 2030 through 2034. We plan to actively manage these looming debt service spikes. Our base case incorporates a plan to levelize our debt service by depositing funds in the Rate Stabilization Fund (RSF) over the next several years. We will then draw down these funds to reduce the debt service in future years. This plan will help keep rates low and stable. See Section 5 for more detailed information on our financing plan.



Section 2

2021 LRFP – What Changed?

A summary of what is different from the 2019 LRFP.

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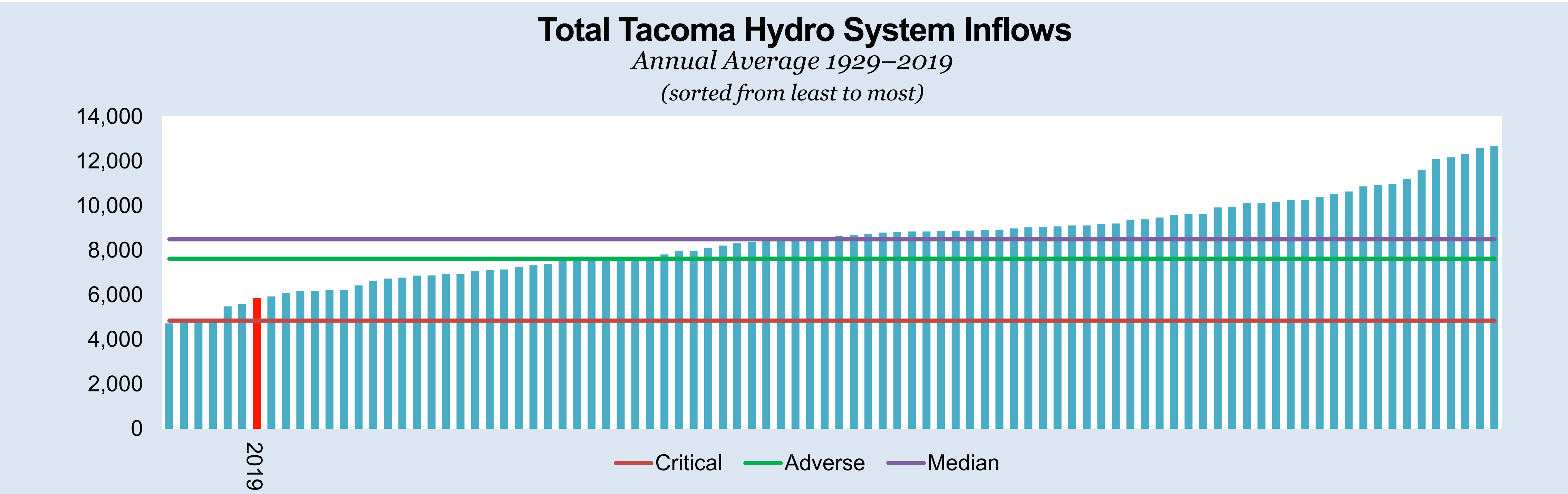
Rainfall Levels Near Historic Lows in 2019



Section 7 discusses the risks that Tacoma Power plans around in this LRFP. One of those risks is related to reduced rainfall and melting snowpack which provides the water that allows us to generate electricity in our hydroelectric dams. In 2019, Tacoma Power experienced near-critical water levels behind Tacoma Power's reservoirs that store water used to generate electricity. We experienced drier-than-normal weather at the beginning of the year, followed by unusually warm weather in April that melted all the snowpack early, followed by a very dry spring and summer at our dam locations.

A critical water year is one of the most significant financial risks Tacoma Power faces in any given year. Fortunately, this does not occur often and to buffer this risk, Tacoma Power sets rates for the biennium based on adverse water conditions. In an average water year, Tacoma Power purchases 50% of the power needed to serve its customers, mainly through a long-term contract with Bonneville Power Administration, with a minimal amount of power purchased in the wholesale market. Because we had less water and less power to generate at our dams, we bought five times more power than normal in the wholesale market, resulting in a significant net revenue shortfall in 2019 of approximately $26 million.

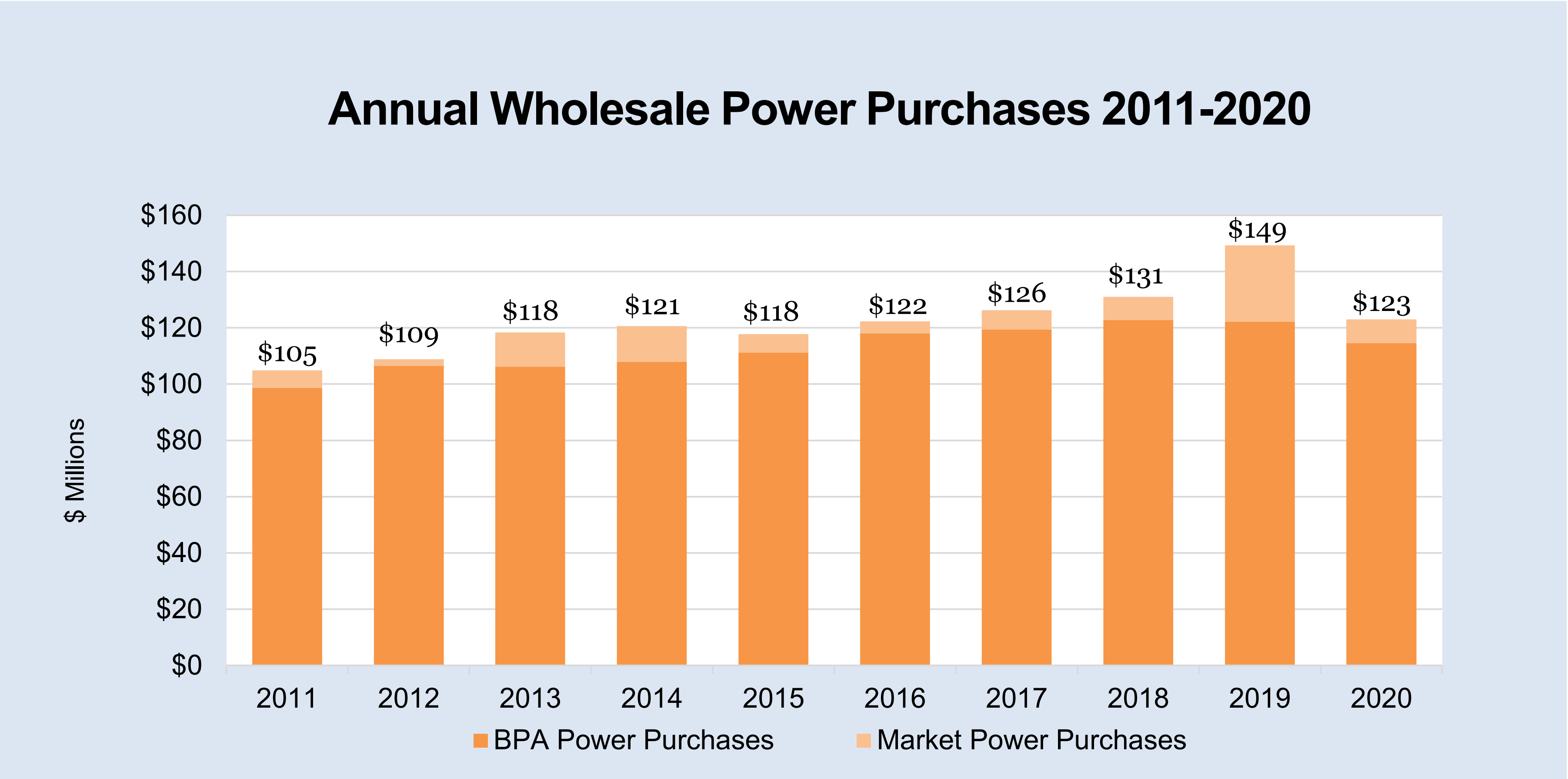
Water Planning Standards for generation capacity

Critical: Inflows similar to lowest recorded historical year.

Adverse: Inflows similar to lowest 25% of recorded historical years. We expect this outcome to occur one out of every four years.

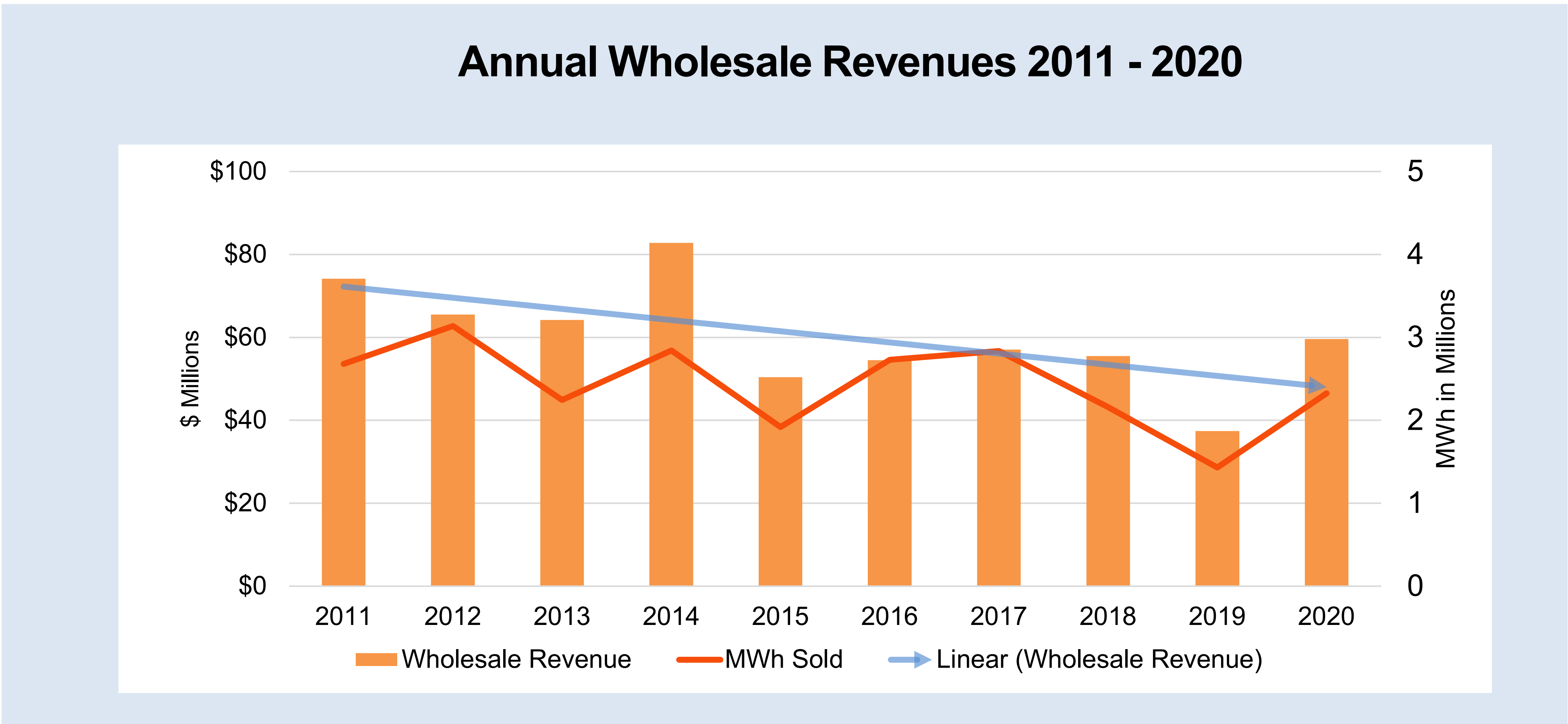
Average: Inflows similar to the average of all previously recorded historical water flow years. We expect this outcome to occur one out of every two years.

2019 Wholesale Purchased Power Went Up



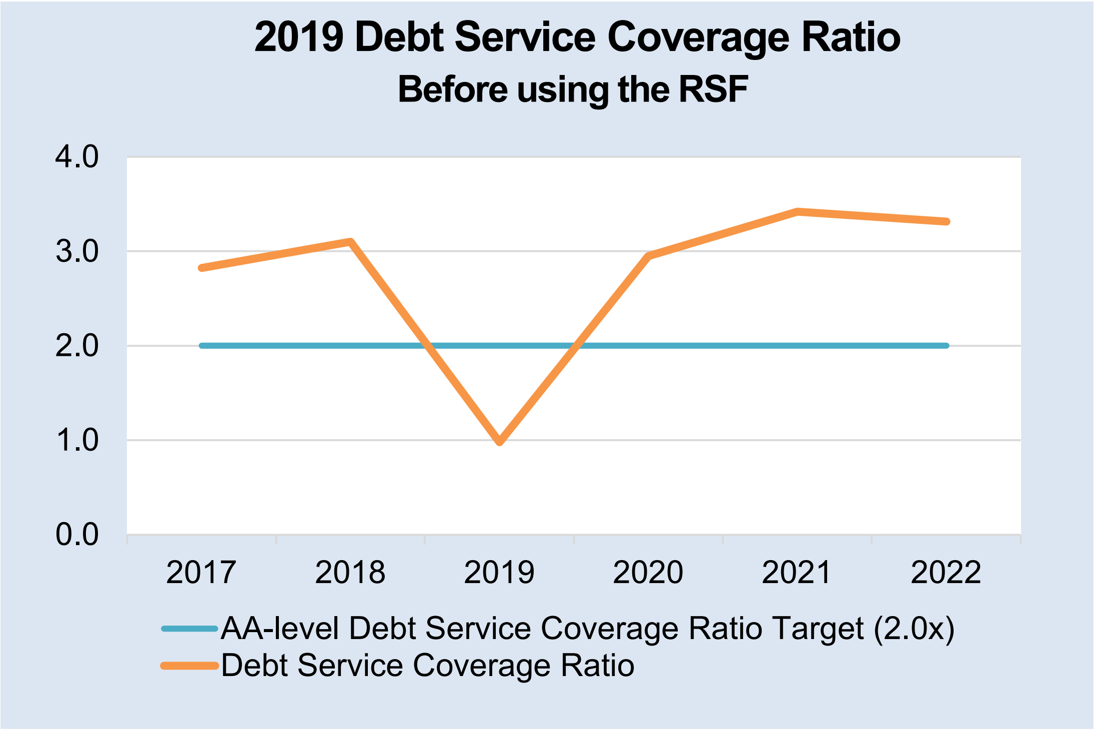
The 2019 near-critical water year resulted in less power generated by Tacoma Power hydro facilities. This meant that we needed to purchase power in the wholesale market to meet the power needs of our customers. The chart above illustrates how power costs continue to rise, and the significant increase in power purchases in 2019.

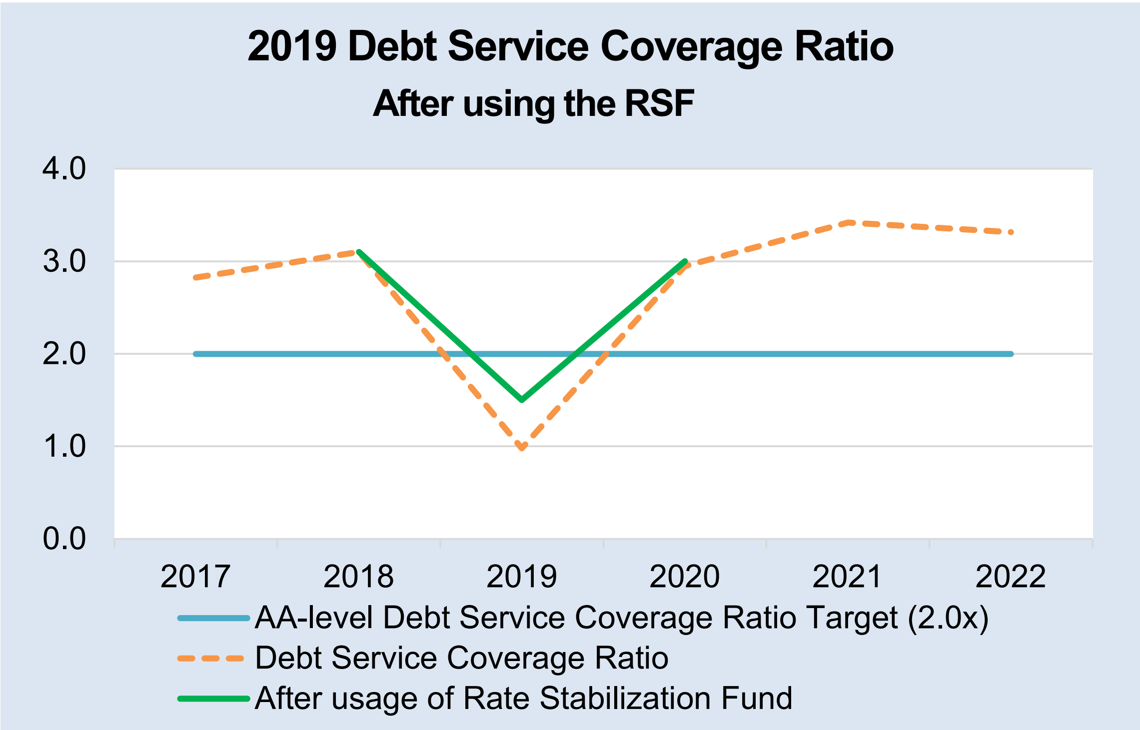
2019 Low Water Year Reduced Wholesale Market Revenue



The 2019 near-critical water year also resulted in less power available to sell in the wholesale power market. Wholesale power revenue is additional revenue that pays for some of our expenses and helps to keep the rates that we charge our retail customers lower than if we did not have this extra source of income. The amount of money we make from selling power in the wholesale market is a function of how much water we receive to generate additional power and the price that we can sell the power at. This chart illustrates the decline of wholesale revenues over the last ten years, mostly due to the decline in the price of power in the wholesale market. However, 2015 was a low, or adverse, water year, and 2019 was a near-critical water year. The graph illustrates that the lower water conditions also result in significantly lower revenues in those two years.

Rate Stabilization Fund Used for the First Time in 2019 to Bolster Coverage

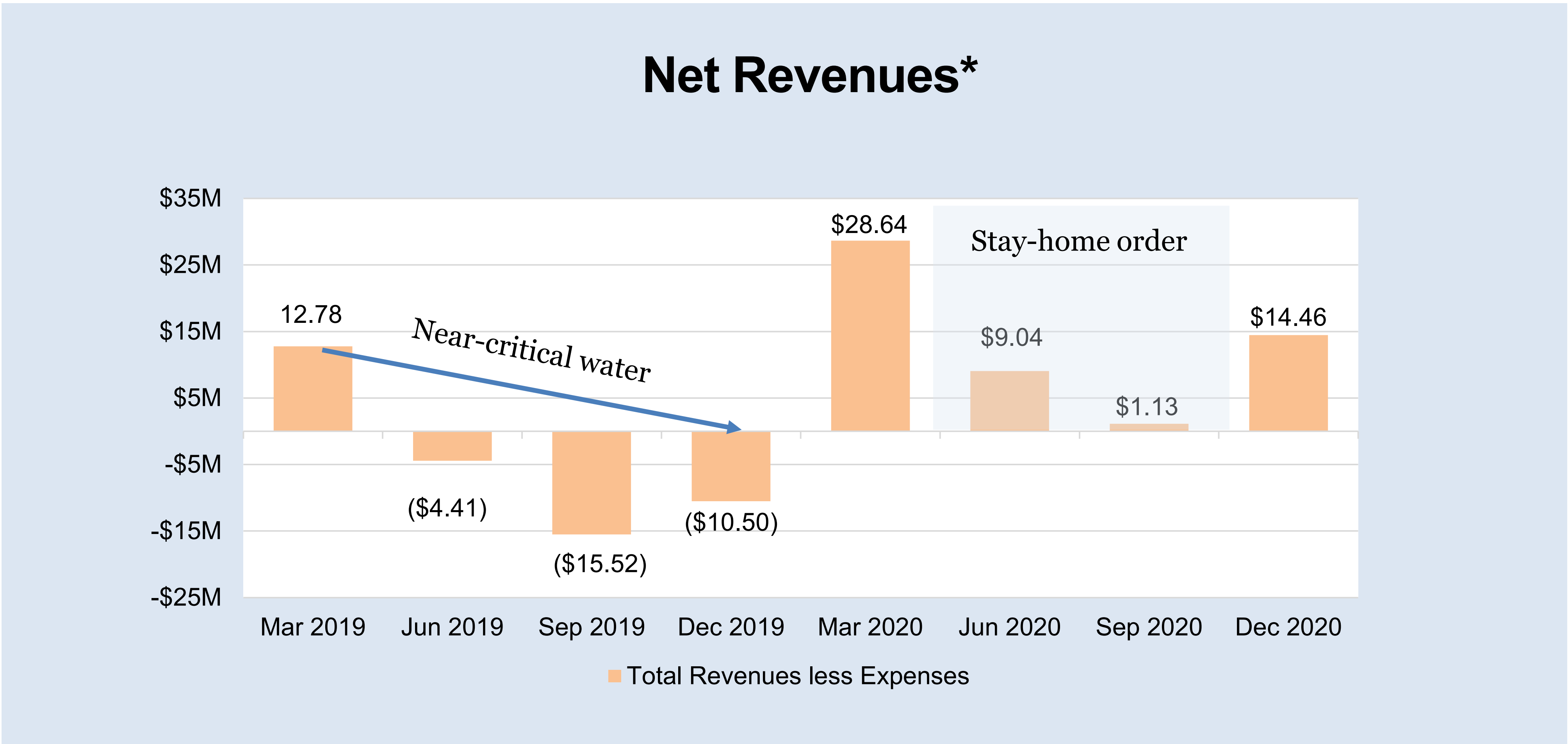




This significant increase in purchased power and decrease in wholesale revenue resulted in financial metrics lower than our 2019 targets for an AA-rated utility and had the potential of negatively impacting our future credit ratings, debt funding costs, and future rates charged to our customers. Due to the volatility in weather and unpredictability of rainfall, we have been preparing for this critical water scenario. With City Council approval, in 2012 we set aside $48 million of past wholesale earnings into the Rate Stabilization Fund (RSF). Because of the near-critical water conditions in 2019, Tacoma Power applied $10 million of this Rate Stabilization Fund to revenues to improve the utility's financial metrics and help preserve its credit rating. S&P Global Ratings confirmed our AA rating and Fitch Rating Agency confirmed Tacoma Power's AA- credit rating in 2020 and 2021. The most recent rating reports can be found on our investor website at myTPU.org/PowerCreditRating.

We monitor the level of the RSF annually and have determined that the $38 million balance currently in the fund is adequate at this time, and we may determine it is in Tacoma's best interest to make withdrawals or deposits in future years.

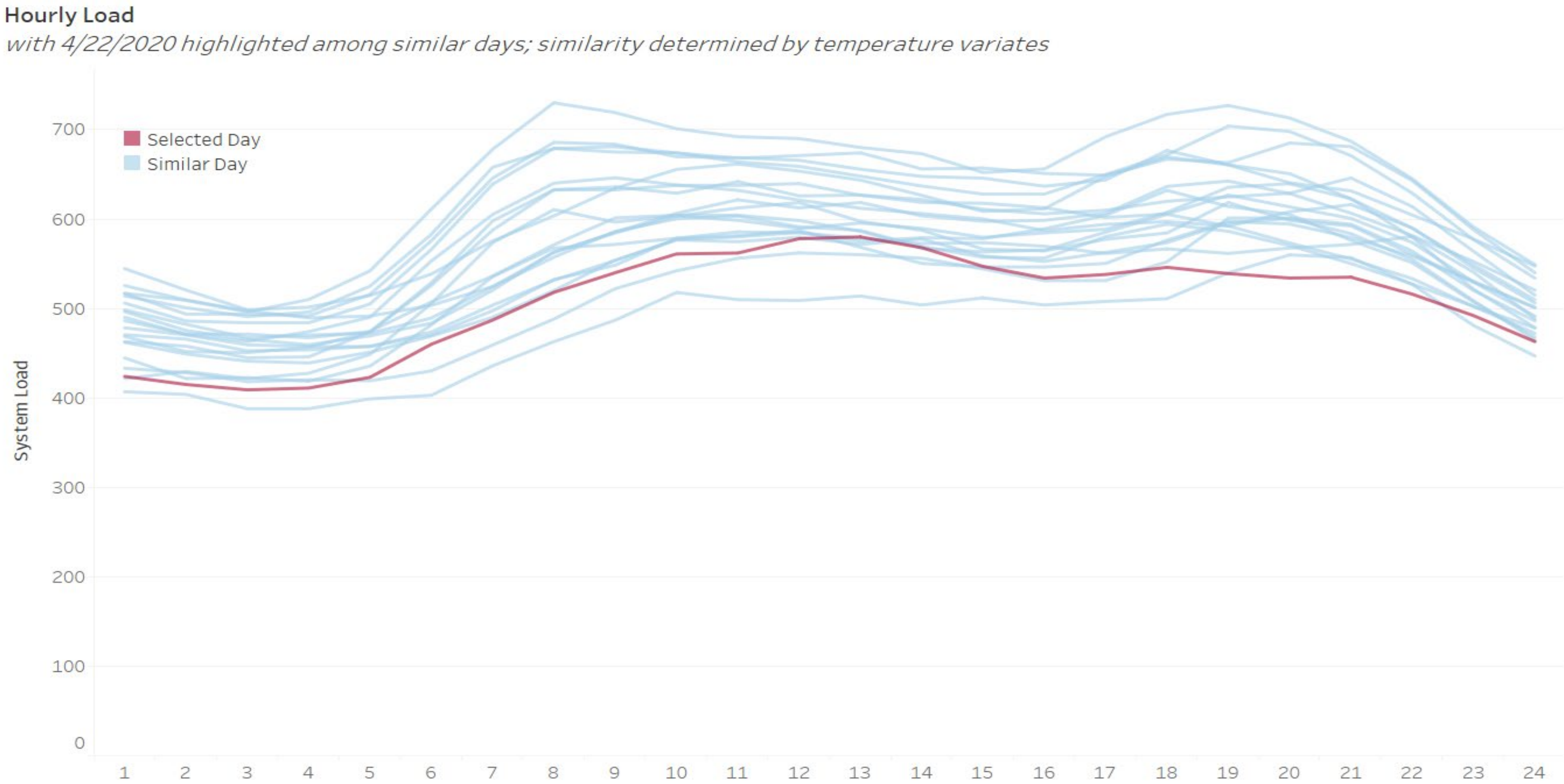
2020 Pandemic Followed the Near-Critical 2019 Water Year



** Includes the Rate Stabilization Fund transfer.*

While we typically have a year or two to recover after adverse or critical water conditions, 2020 rapidly became the year of the global COVID-19 pandemic. There was little time to rebound from the 2019 critical water revenue losses in 2020 before our net revenues fell again from a government mandated stay-home order on March 24, 2020. The mandate resulted in the closure of businesses and a decrease in electricity usage. Fortunately, Tacoma Power experienced an above-average water year in 2020, and the sale of power in the wholesale market helped offset our losses from reduced retail power sales during the pandemic.

2020 Retail Loads Dropped Significantly During COVID-19 Stay-at-Home Orders



After the "Stay Home, Stay Healthy" order issued on March 23, 2020, retail loads dropped significantly compared to pre-COVID days with similar weather.

Retail loads slowly rebounded during later months of 2020, but remained below our pre-COVID projections.

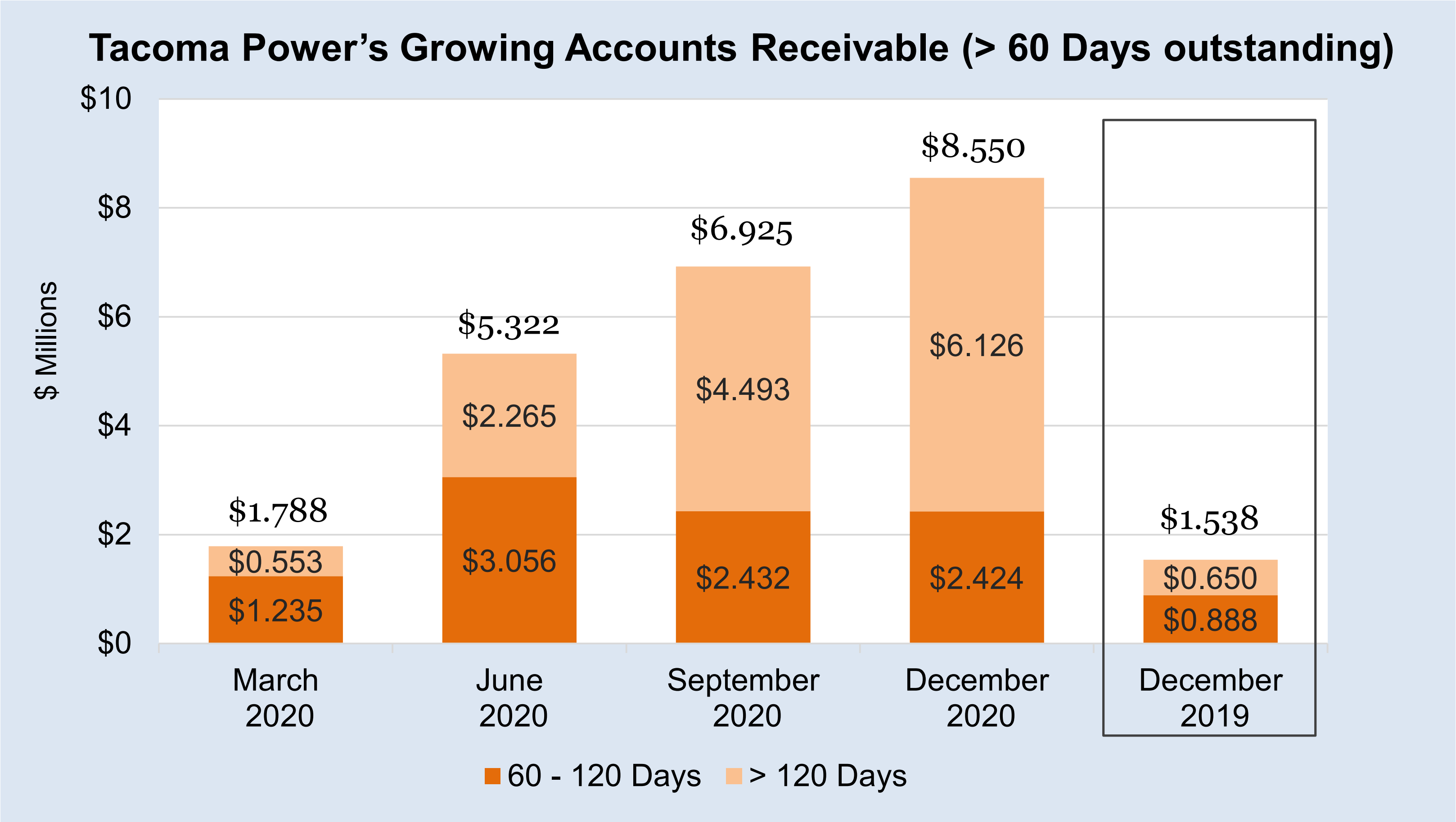
'Post Stay-At-Home orders' produced customer demand for electricity (load) that was much lower than typically seen on similar days. Like many electric power service providers, Tacoma Power realized a reduction in retail load with the COVID-related lifestyle adjustments and temporary business closures. One offsetting factor to the reduction in retail power usage and revenue was the resulting increase in the amount of electricity available to sell on wholesale markets.

28

Accounts Receivables Have Grown Due to Moratorium on Shut-Offs

The Governor of Washington passed a resolution prohibiting utilities from cutting off residential water, power, and phone service by placing a moratorium on disconnections for nonpayment until September 30, 2021. Utility companies were also directed to do everything possible to prevent shut-offs due to nonpayment, to make payment plans, and reverse late fees. These changes do not make utility service free of cost but does allow utility companies to make payment plans with their customers for outstanding balances and waive late fees and penalties.

Compared to last year at this same time, a larger percentage of customers have fallen 120 days or more behind in their payments. As of December 2020, there was over $8 million owed to Tacoma Power from customers who are 120 days or more overdue. These amounts may eventually be deemed uncollectable, and the revenue written off or recognized as an expense on the financials, thereby reducing future liquidity balances. Below is a graph of the growing accounts receivable during the pandemic compared to this same timeframe one year ago. The rate of growth in accounts receivables has been incorporated into future expenses in this LRFP for 2021, with a return to prior trends projected in 2023.



Tacoma Power Responded with Enhanced Customer Assistance

Emergency Assistance Program

On March 17, 2020, Tacoma Public Utilities (TPU) was one of the first utilities to establish an Emergency Assistance Program in response to the COVID-19 State of Emergency. TPU created a $2.4 million relief fund to help customers experiencing immediate financial crisis by instituting a utility bill credit for eligible households. This fund has offered our residential and small businesses customers substantial utility bill assistance through this crisis. The funds for small businesses impacted by COVID-19 are a component of the City of Tacoma's Coronavirus Relief Funds from the federal (CARES) Act that were allocated to cities as part of Washington State's response to COVID-19. We want to help our customers as much as possible so they don't end up with a very large balance owed when the pandemic is over and to help keep energy bills as manageable as possible in the interim.

Ongoing Low Income, Senior Citizen, and Disability Assistance

Tacoma Public Utilities also has ongoing bill assistant programs to help customers whose incomes are within 200 percent of federal poverty guidelines, as established by the U.S. Department of Health and Human Services. In 2020, TPU expanded eligibility and the amount of bill assistance going forward to help ensure those in need have the support.

Other Low-Income Assistance

Tacoma Power continues to partner with community organizations, such as the Greater Tacoma Community Foundation, to provide utility assistance to those in need and to help ensure that those who qualify for programs can get needed help. There is also an option for all Tacoma Public Utilities customers to donate to a fund that assists low-income customers with bill payments.

	Bill Discount Rate	Bill Credit Assistance Program	COVID Emergency (Residential)	COVID Emergency (Commercial)	Customer Donations	Power Assistance Pledge
Credit	35% off of total bill	$564 annual	$150 one-time grant			
Eligibility	45% of Area Median Income and either 62+ or disabled	60% of Area Median Income	Program not anticipated to be continued in 2021 /2022	Program not anticipated to be continued in 2021 /2022		
Funding Source	Tacoma Power	Tacoma Power	Tacoma Power	CARES Act	Tacoma customers	Federal and outside agencies
2020 YTD Assistance*	$1.7 million	$173,187	$2.1 million		$47,760	$2.0 million

** The Bill Discount Rate in 2020 was 30%.*

Tacoma Power Reduced Spending to Offset Revenue Decline

Tacoma Power reduced planned spending by $8 million in 2020 and $22 million for the 2021 / 2022 biennium in response to the decline in Net Operating Revenue from critical water conditions and the reduction in energy usage from the global COVID-19 pandemic. Through actual and planned spending reductions, the power utility will absorb the unplanned financial impacts of 2019 and 2020 while still preserving the slow and steady approach to rate increases over the 10-year financial planning period.

$22 million in O&M and capital planned spending was reduced to mitigate the financial impacts of the COVID-19 pandemic on the heels of a critical water year. Additionally, several revenue-funded capital projects were shifted to debt funding. The reductions to our 2021 / 2022 biennium budget are listed below.

2021 / 2022 Biennium Cost Reductions

- *Keeping personnel positions vacant*
- *Reducing professional and contracted services*
- *Deferring extraordinary maintenance work*
- *Reducing training and travel*
- *Cancelling or deferring revenue funded capital projects*
- *Cutting miscellaneous expenses*

Our final recommended capital budget equaled the 2019/2020 capital budget.

Tacoma Power Took Proactive Steps to Assure Adequate Liquidity

With the increased uncertainty in how the pandemic would further impact the utility's declining revenues, Tacoma Power entered into an agreement with KeyBank for a short-term liquidity agreement which we can draw on at any time should we need cash to pay for expenses. This facility is considered an emergency liquidity agreement, and Tacoma Power does not intend to draw funds from it, except when absolutely necessary.

Tacoma Power put this liquidity agreement in place to specifically address the unknown and potentially severe liquidity decreases due to the pandemic. As we just witnessed with the critical water years, seasonal variability can affect the utility's ability to access cash. Liquidity challenges can cost us more money, so this agreement is viewed as insurance to ensure we have enough money to operate our utility during this uncertain time. The agreement allows us to keep our overall liquidity balance lower than we otherwise would, and we can use more of our cash to benefit our customers.

The KeyBank Agreement gives us this additional flexibility in exchange for a low fixed-rate interest fee on the unused portion of the facility. If we did use the agreement, we would pay a variable rate on our borrowed amount. We also can increase the amount we have access to with a short advance notice, if needed.

In other words, this agreement gives us quick access to $50 million, similar to a personal line of credit, if we need it in an emergency.

KeyBank Short-term Note Purchase Agreement

Commitment Amount:
$50,000,000*

Drawn Amount:
$0

Start Date:
May 21, 2020

Amendment Date:
September 16, 2021

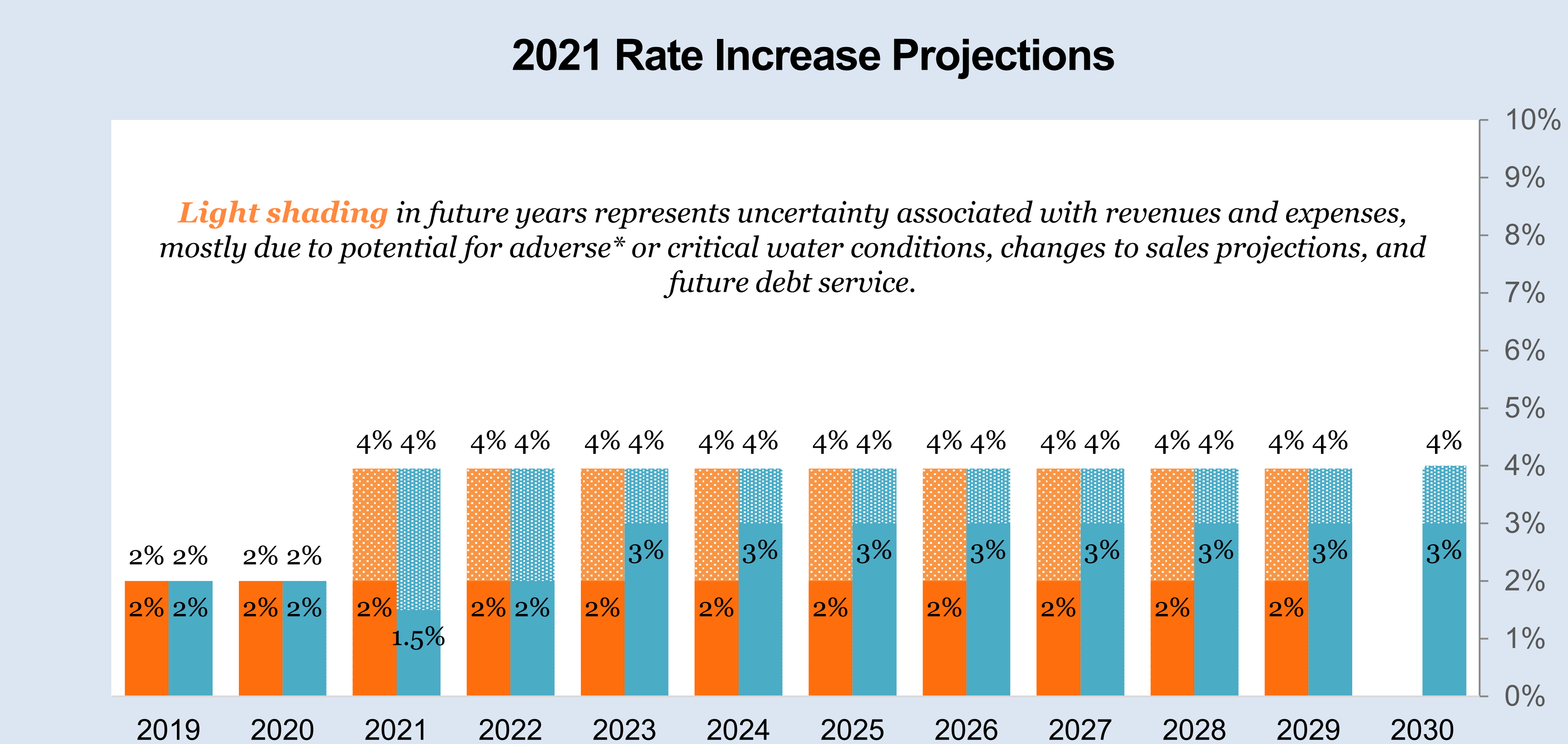
Expiration Date:
December 1, 2024

Purpose:
Operational Liquidity

Our Note Purchase Agreement with KeyBank allows us to better manage liquidity targets on an interim basis.

**Amended from $100,000*

The 2021 / 2022 Rate Increases Remained in Line with the 2019 LRFP



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

Summary of Impacts

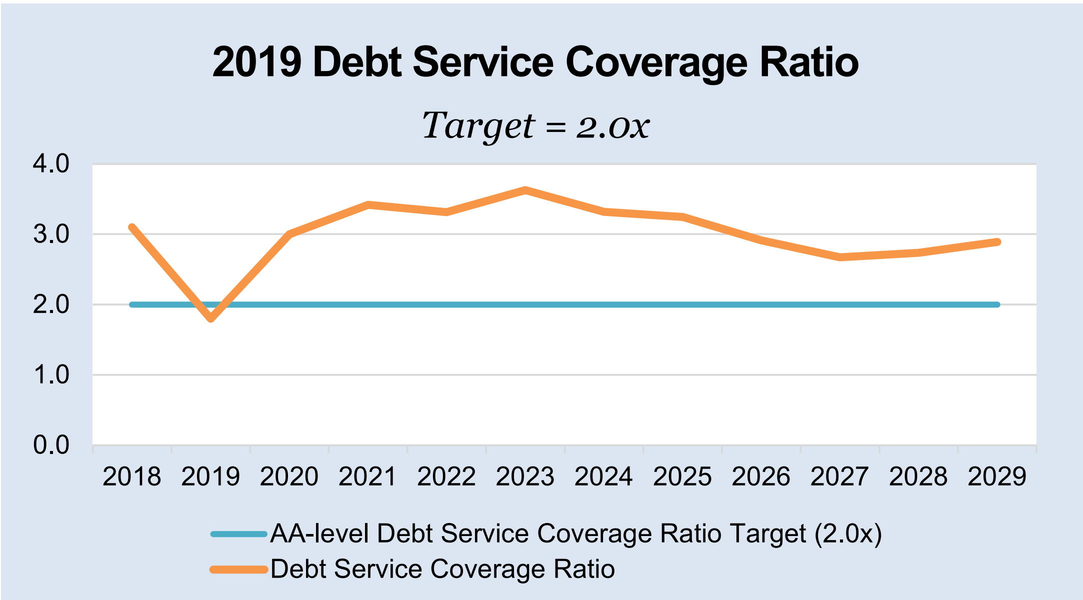
Two key drivers of the LRFP are the utility's liquidity and debt service coverage metrics.

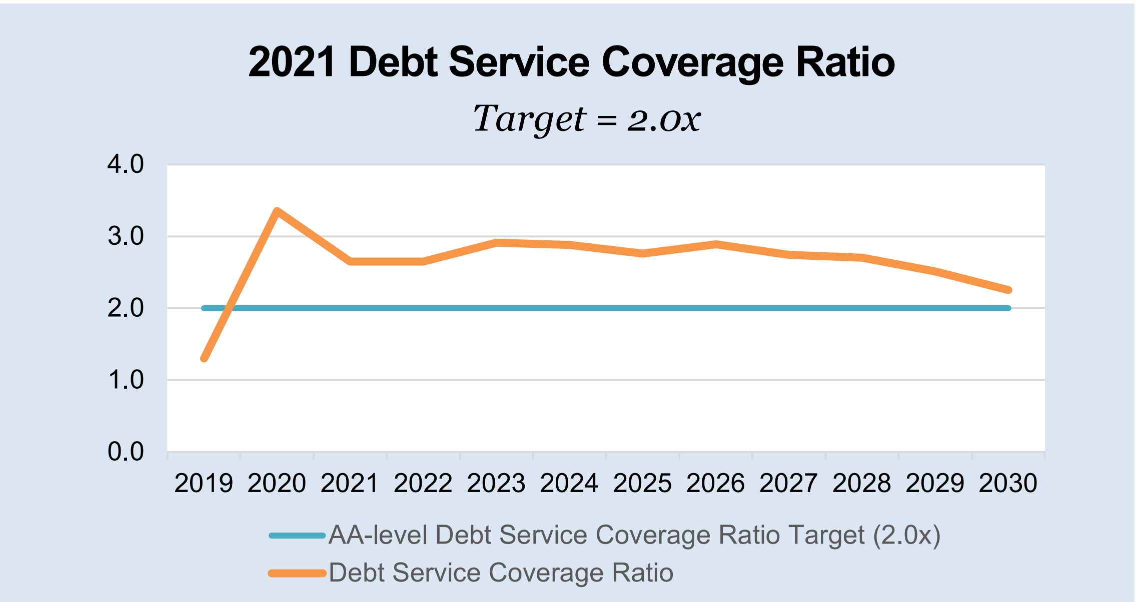
While there is some change in the liquidity profile and debt service coverage projections from 2019 to 2020, we are still meeting all our financial targets and are still projecting rate increases of 4 percent or less until 2029, when we have large payments on our bonds that will come due.

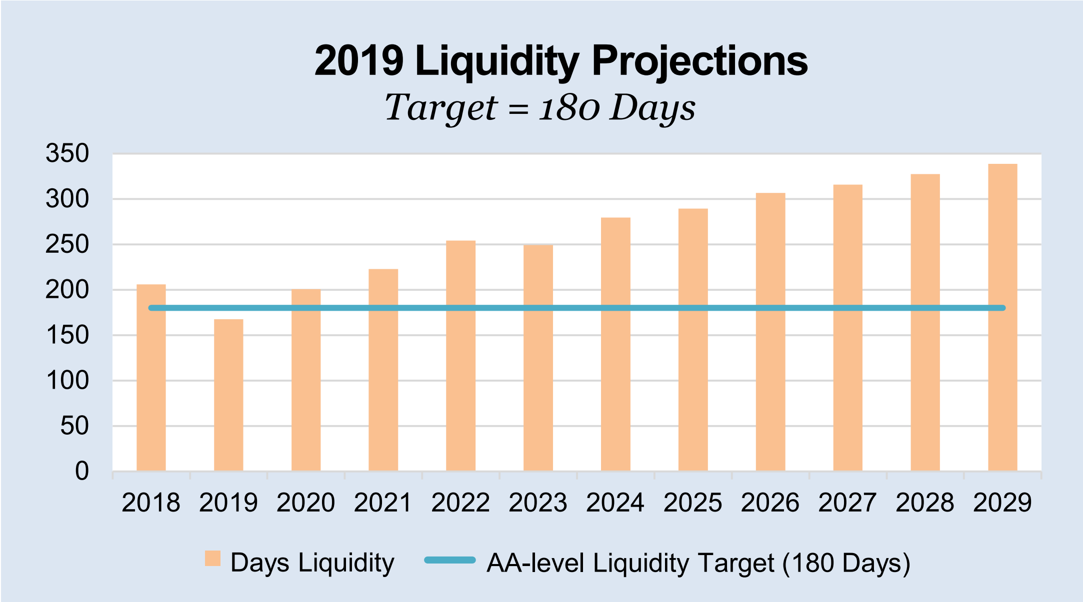
A year-over-year comparison of both key financial metrics is shown on the next two pages.

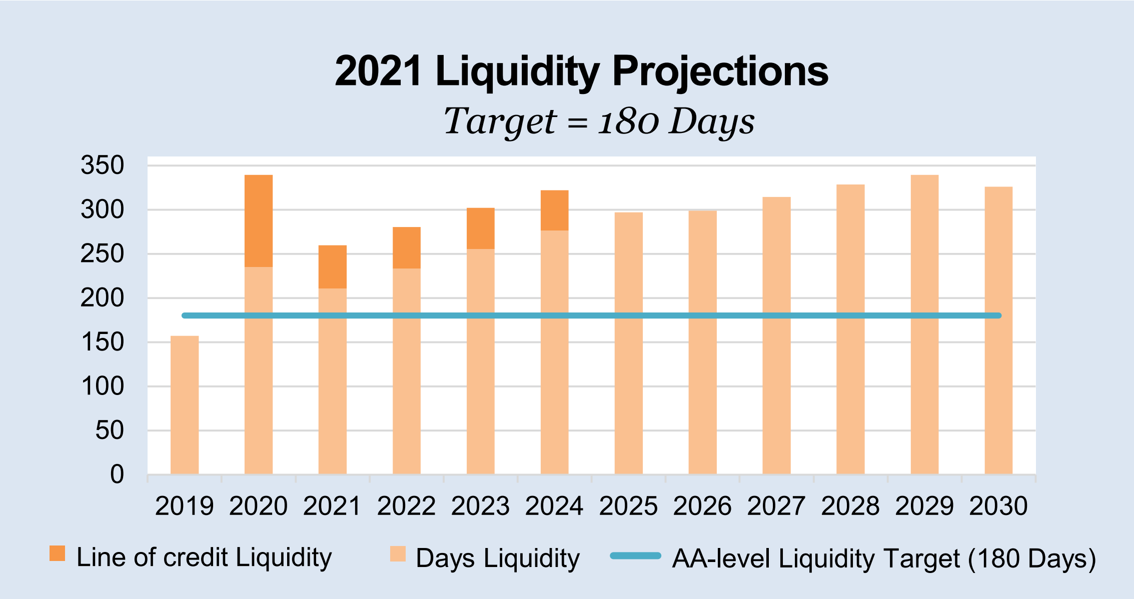
The financial outlook for the utility continues to be strong and the projected Base Case rate impacts in the near term are in line with last year's projections.

How the 2021 Long-Range Financial Plan Compares (cont.)









Going Forward: 2021 Proposed Financing Plan

The 2021 Financing Plan summarizes the key activities that Tacoma Power is planning to pursue over the next two years. In 2021, we anticipate issuing Tacoma Power Revenue Bonds to pay down the balance of our existing short-term financing agreement. At the same time, we expect to retain and utilize a new short-term borrowing instrument to continue interim financing of capital projects, similar to the note purchase agreement we have in place today.

The Financing Plan elements shown below will be brought before the Public Utility Board and City Council for review and approval in the coming months.

- Request proposals for a new financing facility, similar to our current Note Purchase Agreement with Wells Fargo, with a principal value limit up to $150 million to continue interim financing of our capital projects through 2024.
- Issue bonds mid-2021 for approximately $150 million to pay off our current Note Purchase Agreement with Wells Fargo. This requires coordination with many internal departments as well as external relationships with our bond counsel and financial advisors to help us successfully request and hire bond underwriters, write accurate bond documents, and issue bonds smoothly with transparency to investors.
- Develop a plan to address the large debt service balloon payments due in 2030 through 2034 from our 2010 Build America Bonds.

NEW ISSUE — **RATINGS: Fitch: AA-**
FULL BOOK-ENTRY — **S&P: AA**
See "DESCRIPTION OF RATINGS" herein.

In the opinion of Orrick, Herrington & Sutcliffe LLP, Bond Counsel to the City, based upon an analysis of existing laws, regulations, rulings and court decisions, and assuming, among other matters, the accuracy of certain representations and compliance with certain covenants, interest on the 2017 Bonds is excluded from gross income for federal income tax purposes under Section 103 of the Internal Revenue Code of 1986, as amended. In the further opinion of Bond Counsel, interest on the 2017 Bonds is not a specific preference item for purposes of the federal individual or corporate alternative minimum taxes, taxes, although Bond Counsel observes that such interest is included in adjusted current earnings when calculating corporate alternative minimum taxable income. Bond Counsel expresses no opinion regarding any other tax consequences related to the ownership or disposition of, or the amount, accrual or receipt of interest on, the 2017 Bonds. See "TAX MATTERS."

TACOMA POWER
TACOMA PUBLIC UTILITIES

CITY OF TACOMA, WASHINGTON
$70,575,000
Electric System Revenue Bonds, Series 2017

DATED: Date of Delivery — **DUE:** January 1, as shown on the inside cover

The City of Tacoma, Washington (the "City"), Electric System Revenue Bonds, Series 2017 (the "2017 Bonds"), will be issued as fully registered bonds under a bookentry system, initially registered in the name of Cede & Co., as nominee for The Depository Trust Company ("DTC"), New York, New York, which will act as securities depository for the 2017 Bonds. Individual purchases of the 2017 Bonds will be made in the principal amount of $5,000 each or any integral multiple thereof within a maturity. Purchasers of the 2017 Bonds will not receive certificates representing their interest in the 2017 Bonds purchased.

The 2017 Bonds will bear interest payable semiannually on each January 1 and July 1, commencing January 1, 2018, to the maturity or prior redemption date of the 2017 Bonds. The principal of and interest on the 2017 Bonds are payable in lawful money of the United States of America by the fiscal agent of the State of Washington (the "Bond Registrar"), currently U.S. Bank National Association to DTC, which is obligated to remit such principal and interest to its broker-dealer Participants for subsequent disbursement to Beneficial Owners of the 2017 Bonds. See Appendix B—"BOOK-ENTRY SYSTEM."

The 2017 Bonds are subject to redemption by the City prior to their stated maturities as described under "DESCRIPTION OF THE 2017 BONDS—Optional Redemption" and "—Mandatory Redemption."

The 2017 Bonds are being issued to finance and refinance capital improvements to the Electric System and to pay costs of issuance. See "PURPOSE AND APPLICATION OF 2017 BOND PROCEEDS."

The 2017 Bonds are payable solely from special funds of the City known as the Electric System Revenue Fund and the Electric System Revenue Bond Fund, and from Net Revenues of the Electric System (each as defined herein), and other funds pledged therefor, on a parity with the outstanding Electric System revenue bonds and other Electric System revenue bonds hereafter issued on a parity therewith. See "SECURITY FOR THE 2017 BONDS."

The 2017 Bonds are not general obligations of the City, or the State of Washington, or a charge upon any general fund or other property of the City or the State of Washington not specifically pledged thereto by the Bond Ordinance, and neither the full faith and credit nor the taxing power of the City or of the State of Washington, nor any revenues of the City derived from sources other than the Electric System, are pledged to the payment thereof.

This cover page includes certain information for reference only an is not a summary of matters set forth herein. Investors should read the entire Official Statement to obtain information essential to the making of an informed investment decision.

The 2017 Bonds are offered for delivery when, as, and if issued, subject to the approval of legality by Orrick, Herrington & Sutcliffe LLP, Seattle, Washington, Bond Counsel and Disclosure Counsel. Certain legal matters will be passed upon for the Underwriters by Pacifica Law Group LLP, Seattle, Washington. It is expected that the 2017 Bonds will be available for delivery at the facilities of DTC in New York, New York, by Fast Automated Securities Transfer (FAST) on or about September 1, 2017.

Goldman Sachs & Co. LLC — **Citigroup**

Dated August 15, 2017

The focus in 2021 will be to work with external partners to develop the required Official Statement and bond documents for our anticipated 2021 bond issue.

Summary of Recent Utility Events

Successes

- Tacoma Power extended a $20 million Surety debt service reserve policy that was set to expire January 1, 2020 in lieu of funding it with cash.
- On April 1, 2020, Tacoma Power successfully entered into a public-private partnership with Rainier Connect to replace our internet and broadband division, Click! Network.
- Employee health and safety was of paramount priority in 2020. Tacoma Power implemented telecommuting where possible, rotating shifts for personnel in the office, alternative start times and locations for field workers, social distancing and PPE, and keeping certain crews together over time to limit instances of exposure. The outcome has been very few COVID cases and no interruptions to work or service provision to customers.
- Tacoma Power successfully responded to the pandemic by enhancing power payment assistance programs to help our most vulnerable customers.
- Tacoma Power entered into a $100 million* short-term liquidity agreement with KeyBank to access cash at any time should we need it.
- The drop in retail revenues during the first part of 2020 drove an effort to reduce spending to ensure lower future rates. That effort was successful, and the result was the approval of a 1.5 percent increase to rates for 2021 and 2 percent for 2022.
- The KeyBank NPA was reduced to $50 million on September 16, 2021

Challenges

- 2019 proved to be a tough water year across the region. We experienced some of the lowest water conditions seen over the past century, which put upward pressure on costs in the near-term. Tacoma Power was able to off-set the reduced wholesale revenue and increased power purchase costs by drawing $10 million from the Rate Stabilization Fund established in 2012 for just such an occurrence.
- Tacoma Power experienced reduced retail energy usage with the global pandemic which translates into lower overall revenue than forecasted in 2020. This lower retail energy usage allows for more energy to be sold in the wholesale power market. Thus wholesale revenues partially offset the reduced retail revenues.
- The pandemic required significant scrutiny of costs and delay of planned spending on capital projects to keep future rates low for our customers.

Section 3

LRFPs for Beginners

A simple guide to long-range financial plans, why they’re important, and how they work.

TACOMA POWER
TACOMA PUBLIC UTILITIES

The Basics

Why a LRFP?

A Long-Range Financial Plan (LRFP) is an important document used by businesses to guide their decision-making over a span of multiple years. It helps keep the business aligned with its broader goals and helps prepare for future impacts.

This LRFP influences budget planning, investments, and other aspects of financial strategy. It is also an important tool for communicating these decisions to stakeholders, customers, and other groups.

We have used the preparation of this document as a tool to conduct research and analysis to develop potential scenarios that may affect our business. We use what we learn from such analyses to improve business decisions.

It is our intention to use the LRFP as a key input in our Rate and Budget review and approval process. We plan to update this LRFP annually and share with policy-makers and the public.

What goes in an LRFP?

A long-range financial plan typically includes:

Research and trends

Strategic planning

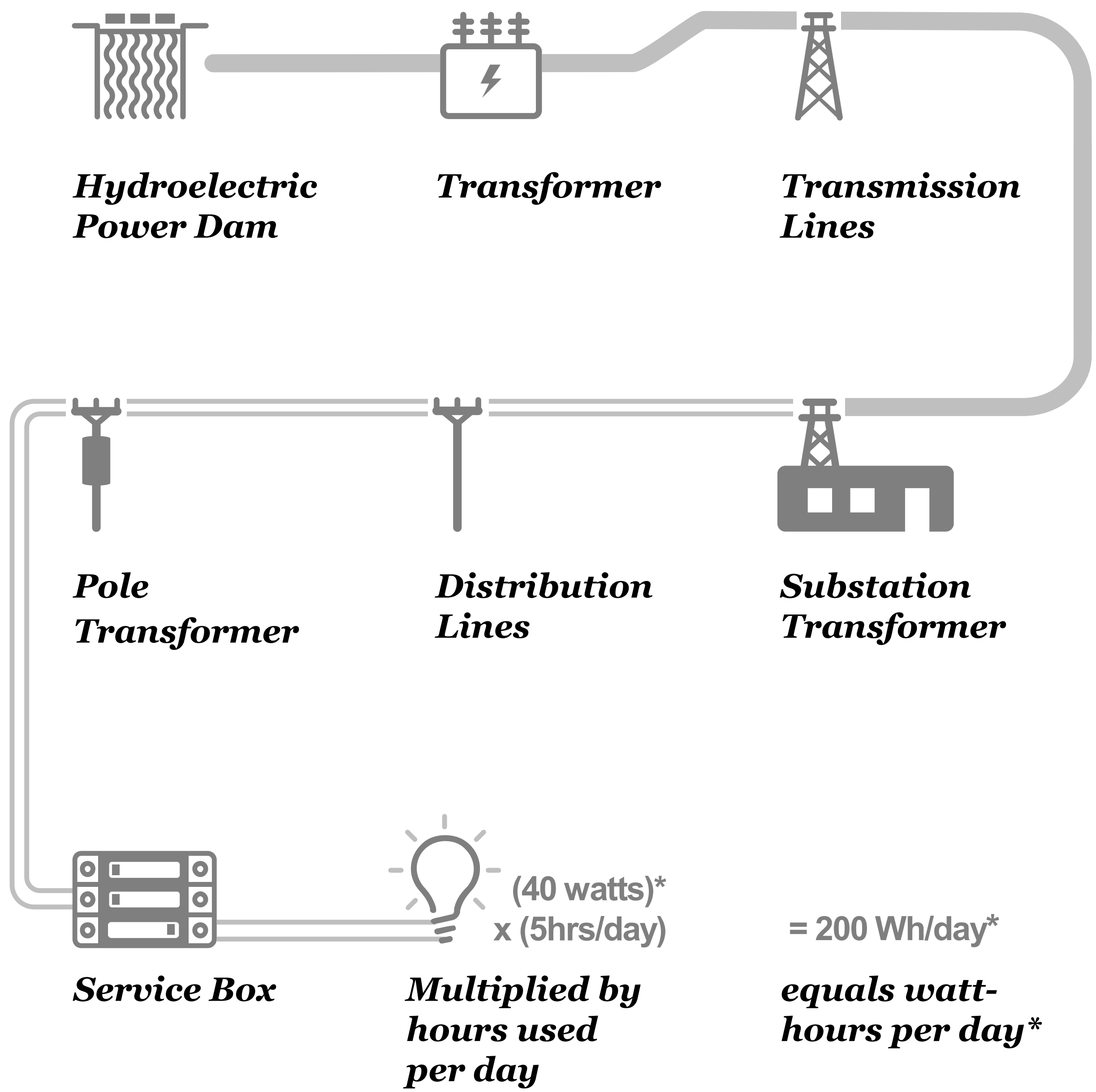
Decision-making tools

Action steps

How Does Electricity Work?

What happens when I flip on my light switch?

Our electricity is generated by turbines located at hydroelectric facilities, transported onto the electric grid where it travels along a system of circuits, and is ultimately delivered to a variety of homes and businesses.



How do you measure electricity use?

The math to determine watt-hour usage is simple... It's the number of watts a piece of equipment uses multiplied by the number of hours it is used.

*We usually measure electricity in kilowatt-hours (kWh) which is the same as one thousand watt-hours. On an annual basis this may turn into megawatt-hours (MWh) or one million watt-hours. An average residential customer uses approximately 977 kWh a month.

What Exactly is Tacoma Power?

What kind of company is Tacoma Power?

Actually, Tacoma Power is not a company in the legal sense. Tacoma Power was established in 1893 when the citizens of Tacoma voted to buy the privately owned Tacoma Light & Water Company. Local citizens believed public ownership and local control would provide a higher quality of service. Tacoma Power is a city-owned utility that provides electricity to approximately 179,000 customers in the City of Tacoma and surrounding area, including the local military base.

What's the difference between a Public Utility and an Investor-owned Utility?

Publicly owned utilities are "non-profit" utilities managed by locally elected officials and public employees. Their rates are set to recover costs and not to return a specific profit margin. Conversely, investor-owned utilities are privately owned and set rates to recover costs plus a reasonable return to be earned by their investors.

Who Runs Tacoma Power?

Tacoma Power is the Light division of Tacoma Public Utilities (TPU) and is governed by a five-member Public Utility Board. The Tacoma City Council appoints the volunteer Board members and they serve staggered five-year terms, unpaid. Board meetings and discussions are open to the public for comment and televised live on TV. The City Council has final authority over Tacoma Power's budgets, rates, financing, and other matters.

Who is responsible for the day-to-day operations?

The Public Utility Board and City Council appoint the Director of Utilities as the Chief Executive Officer to oversee the operations of Tacoma Public Utilities including Tacoma Power, Tacoma Water, and Tacoma Rail. Jackie Flowers was appointed TPU Director effective August 1, 2018. Chris Robinson is the Superintendent and Chief Operating Officer of Tacoma Power. He oversees the day-to-day operations of Tacoma Power along with his Senior Leadership Team.

Supporting Our Customers

How much electricity does Tacoma Power produce?

Average use per household is about 11 megawatt-hours (MWh) per year. For all customers, Tacoma Power produces approximately 4.7 million megawatt-hours per year. Nearly 90 percent of our power supply is made up of hydroelectric power. Forty percent of our power supply is provided by our own hydroelectric power facilities. The remaining power supply is purchased through long-term contracts with other power supply companies, such as the Bonneville Power Administration.

What programs are available for people ready to conserve or reduce electricity use?

Tacoma Power offers programs for conservation and customer-owned electricity generated by renewable resources, such as solar and wind. Customers with eligible generation systems may receive up to $5,000 annually. In addition to this financial incentive, annual electricity production from the renewable energy system would offset electricity the customer would otherwise purchase from the utility, lowering their electricity bill. You can find out more about our conservation programs at knowyourpower.com .

How does Tacoma Power support low-income customers?

Tacoma Power offers financial assistance programs to low-income customers that live in a home with permanent electric heat. Qualifying low-income customers can receive up to a 30 percent discount on their power bill. You can find out more about our bill payment assistance programs at http://bit.ly/tpwr-billassist .

How does Tacoma Power support the surrounding community?

The utility supports more than 40 annual giving and volunteering opportunities for employees. We help with the most pressing community needs by building houses, repacking food, and helping seniors stay warm and dry in the homes they own. The volunteer program promotes a highly engaged workforce by developing employees' leadership skills and awareness of the community. See more on our community involvement page at http://bit.ly/tpwr-community .

How is My Electric Bill Determined & How do We Compare?

How are rates set?

The price of electricity that our retail customers pay is set to recover all operating and maintenance expenses, debt service, taxes, and a portion of capital additions and replacements made to the electric system. Tacoma Power recommends rate adjustments with a goal of minimizing impacts to customers while maintaining the safety and reliability of the power system.

How often are rates updated?

Rate forecasts are updated every other year when the City of Tacoma prepares the biennial budget. Budget-setting is a year-long process. It includes steps to review and project revenues, prioritize expenses, and identify ways to operate as efficiently as possible.

Who approves the rate increase?

The Tacoma Public Utility Board sets the electric rates for Tacoma Power, subject to final approval by the Tacoma City Council.

Assumptions: Average price per kWh, adjusted for Tacoma Power average consumption
Source: Energy Information Administration, Form 861, 2019.

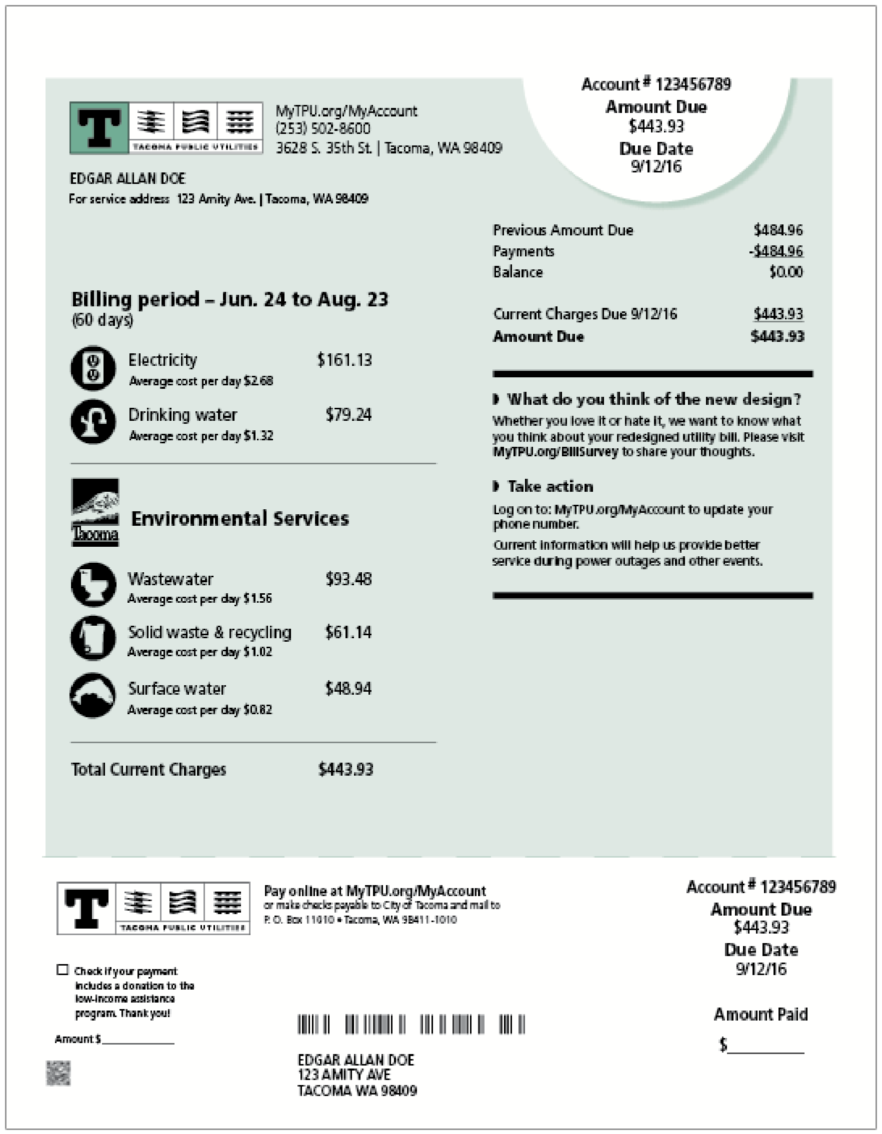
What about the Actual Bill?

Address(es) served on this account

Summary of charges from Tacoma Public Utilities

Summary of charges from Environmental Services (Tacoma residents)

The Warm Home Fund is an easy way to donate to people in need



Sample bill

Clearly labeled bill information

Easy-to-read billing summary

Account updates and important notifications

Detachable stub for you to easily mail your payment

Do all customers pay the same amount?

There are different customer types and ways in which the customers use the Tacoma Power system. The majority of our customers are considered residential customers, but there are also small commercial, large commercial, high voltage, and industrial customers. Each type of customer pays a different amount based on how much it costs Tacoma Power to make and deliver electricity to where those customers receive it.

What's really driving our costs?

Electricity prices generally reflect the costs to build, generate, purchase, finance, and maintain our power supply and facilities while safely operating the electricity grid. Tacoma Power has been able to sustain low rates in comparison to state and national averages, while at the same time covering all operating and maintenance expenses, and providing reliable services that customers want and need.

Credit: How does it Work for Tacoma Power?

Maintaining an electrical system is expensive and comes with high capital costs. Utilities fund a part of these systems by selling bonds to individual and institutional investors. In order to evaluate the credit worthiness of these bonds, investors look to credit rating agencies including Moody's Investor Service, S&P Global Ratings (S&P), and Fitch Ratings for analysis.

Similar to how the credit rating agencies provide a credit score used by lenders when you buy a car or house, each of these rating agencies has its own methodology, process, and scale for rating the investment quality of a utility. The rating agencies consider historical and projected financial performance, but their analysis goes beyond financial information and into items like economic indicators, reserve funds, power supply contracts, and management decisions.

You can find out more about all of these things in the later details of this document. Moody's has published information about their rating methodology which you can read more about on page 66.

Rating agencies are interested in different things

	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

Target   Current Tacoma Power Rating

This table compares the different rating scales for the three credit rating agencies, with Tacoma Power's current rating highlighted.

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

Section 4

Background

A look at the history, trends, research, policies, and other factors that went into this Financial Plan.

The Foundation

These are the sections that are the backbone of the LRFP’s integrity.

We’ve grouped them into three sub-sections:

Expense Assumptions

It costs a lot to manage and operate a utility. Some of those expenses are easier to predict and manage than others.

Pages 50–57

Revenue Assumptions

Our revenue comes from a few distinct sources. Each of these factor into our financial planning in slightly different ways.

Pages 58-64

Credit, Debt, & Reserves

Just like you, Tacoma Power has to make choices about how to manage its debt in order to maintain a strong credit rating.

Pages 65–72

Tacoma Power Expense Overview

Purchased Power and Renewable Energy Credits

Approximately 60 percent of Tacoma Power's electricity comes from power that we purchase from others. Most of this is through a long-term contract with the Bonneville Power Administration (BPA). We also purchase Renewable Energy Credits (RECs) to help comply with the Energy Independence Act detailed on page 97.

Personnel

Personnel costs include more than just the wages for our employees. Associated costs such as medical coverage and other benefits are also included.

Capital

Capital projects are funded by a combination of bonds and available revenue. Each biennium, the utility determines the appropriate amount to fund from each source based on financial circumstances and the life of assets being installed.

Other O&M

The majority of remaining expenditures are captured in Other Operations and Maintenance costs. This includes expenses including: office supplies, safety equipment, legal and professional service contracts, allocations to general government, non-capital project expenses, and administrative costs not directly attributed to personnel.

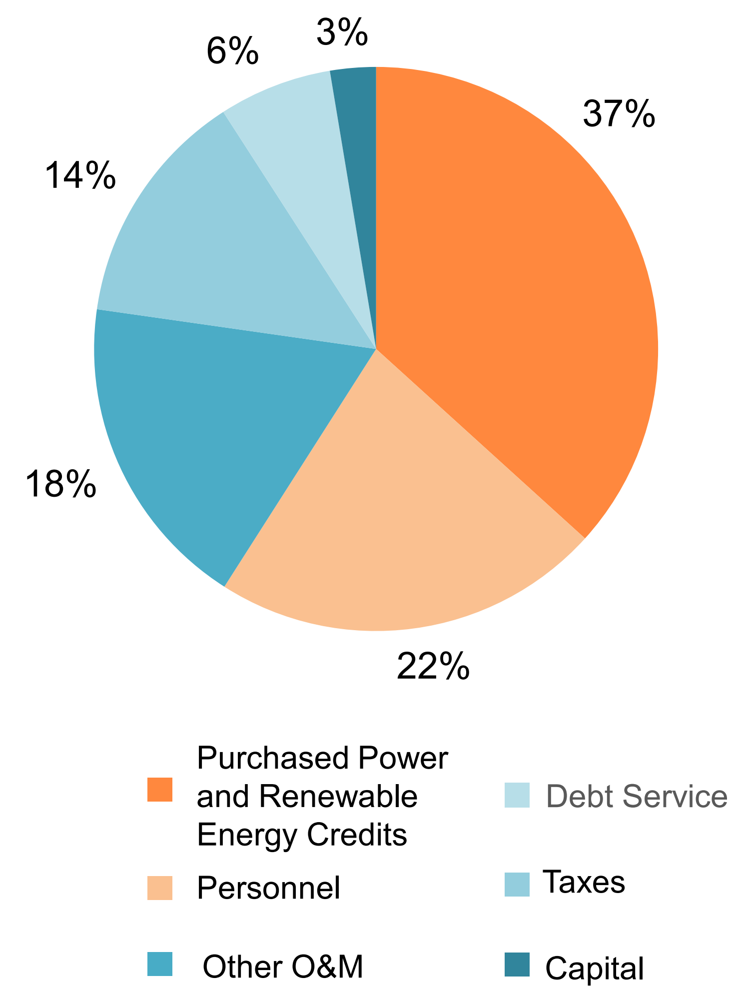
Taxes

Tacoma Power is subject to a number of taxes and franchise fees. The largest two are the 7.5 percent Gross Earnings Tax (GET) paid to the City of Tacoma and the 3.873 percent State Public Utility Tax.

Debt Service

Capital projects are partially funded with bonds or notes, which will need to be repaid. These payments are referred to as debt service, which is discussed in the Credit, Debt, & Reserves subsection beginning on page 66.

% Expenses by Type
(FY 2020)



2020 Total Expenses
$426,776,762

Purchased Power and Renewable Energy Credits

Tacoma Power purchases a portion of the power needed to serve our customers through Power Purchase Agreements (PPAs). Each agreement has different terms and conditions that determine the length of the agreement and the cost associated with it. The largest of these agreements is with Bonneville Power Administration (BPA) which expires in 2028. BPA has a formal rate case process every two years to determine the costs its customers will pay.

Another large portion of expenses in this category are transmission purchases. Tacoma Power has contracts that allow for the transfer of power through high-voltage transmission lines to serve Tacoma Power customers. These purchases also support our ability to buy and sell wholesale power from, and to, other utilities.

Similar to the PPAs, the transmission contracts have different terms and conditions, such as the length of the agreement and the associated costs.

Finally, Tacoma Power purchases Renewable Energy Credits (RECs) as a means of helping to comply with Washington State's Renewable Portfolio Standard and supporting the development of new renewables, such as wind or solar power, in the region. Tacoma Power was required to supply 9 percent of its load from qualified renewable sources in 2019. Our current compliance with this requirement is detailed on page 98.

Overview of Tacoma Power's power purchase agreements

Power Purchase and REC Expense Components	% of Expenses in 2020
BPA Contract Purchases	73%
Priest Rapids Contract	0%
Columbia Basin Hydro	5%
Portfolio Purchases	5%
Transmission	14%
Renewable Energy Credits	3%
2020 Purchased Power and REC Expenses	**$156,727,855**

Personnel Expenses

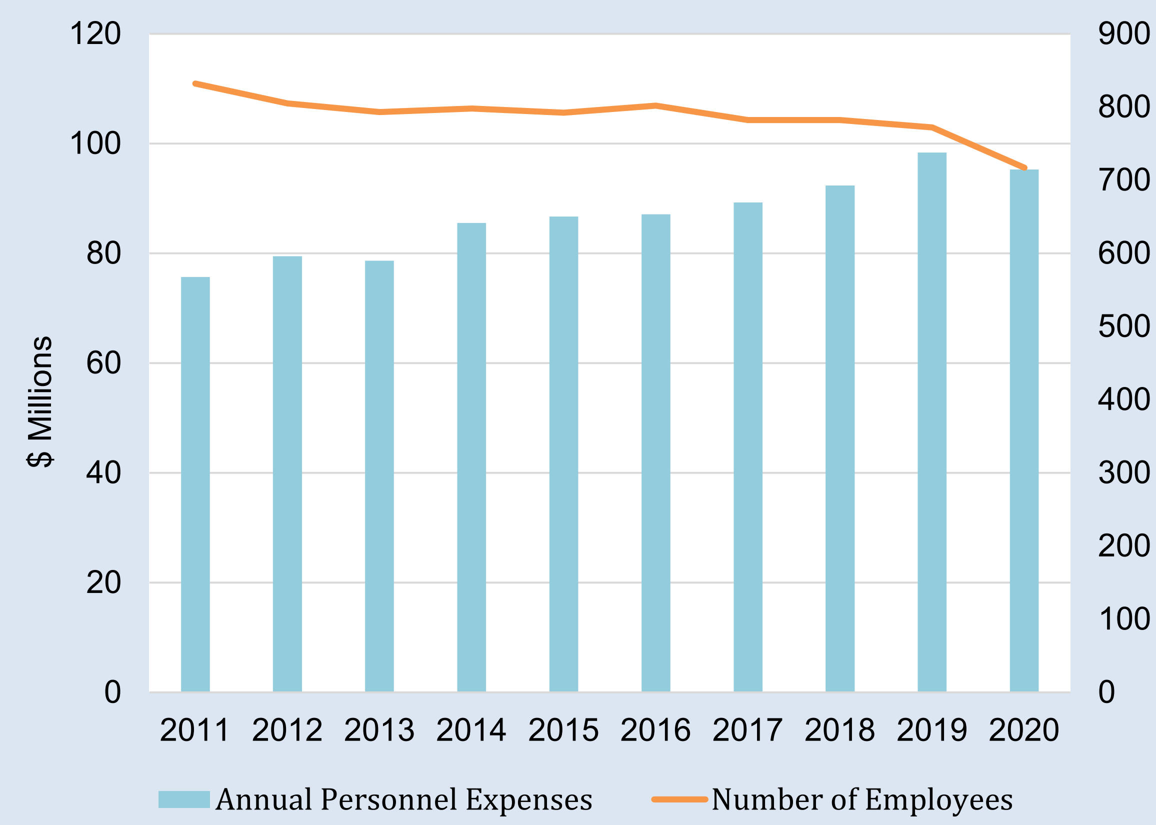
With more than 179,000 customers across more than 180 square miles of service area, Tacoma Power requires a significant investment in staff and resources to make sure our customers will have low-cost, reliable electric services for years to come.

Currently we have approximately 770 employees. The number of full-time staff positions changes depending on the needs of the utility. In a given year, plans to complete specific projects (or even the priority of those projects) can change from previous years. Needs may even change depending on the season of the year. For example, we hire several temporary workers in the summer months to help operate our park facilities.

In this LRFP, we have forecast personnel expenses using the last five years as a proxy for future trends. This includes more than just salary. We also consider such things as increasing medical and benefit expenses, changing labor contract requirements, as well as anticipated wage increases for employees.

Annual Personnel Expenses

2020 Personnel Expenses: $95,249,736



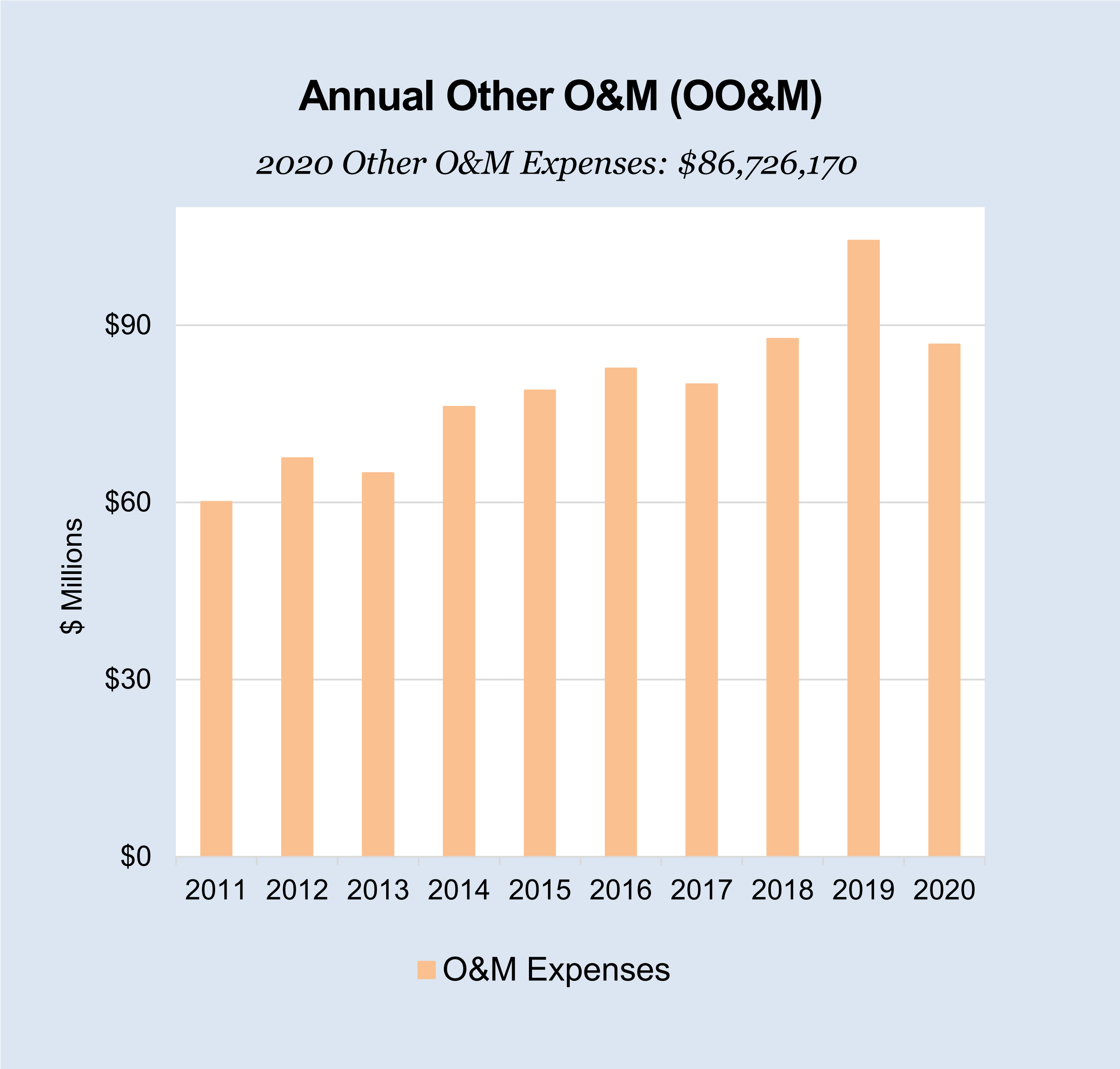
Operations & Maintenance Expenses

Operations & Maintenance (O&M)

Operations & Maintenance expenses (O&M) reflect day-to-day activities and costs necessary to run the business. Costs include items such as supplies, training, travel, external contract services, and labor not related to a capital project. O&M budgeting is made up of two categories: Personnel and Other O&M (OO&M).

Other O&M (OO&M)

OO&M varies from year-to-year and is influenced by the type of projects we pursue. Some projects rely heavily on the assistance of outside organizations while others can be accomplished with current staff. Some projects are considered capital projects, funded by issuing bonds that are paid back with future dollars. Other projects rely solely on OO&M expenses to be completed using current funds, or cash. The increase in OO&M in 2019 was largely due to the higher purchased power costs resulting from the near-critical water year.



Taxes

Yes, we have to pay taxes also. There are two primary taxes Tacoma Power pays. The first is called Gross Earnings Tax (GET) and the current rate is 7.5 percent of the utility's gross earnings. We pay this tax to the City of Tacoma, and it is approximately $35 million per year. The amount changes up or down depending on how much revenue Tacoma Power earns each year.

The GET is an important source of revenue for the City of Tacoma to help the City maintain infrastructure and provide services critical to the quality of life, health, and safety of its residents. An increase of 1.5 percent was approved by voters in 2015. That additional 1.5 percent will help the City of Tacoma to make needed street repairs around the City.

Secondly, Tacoma Power is subject to a State Public Utility Tax of 3.873 percent. This is approximately $18 million per year.

Since our customers pay 100 percent of our costs, taxes are also a part of the rates we charge.

Capital Expenses

Capital Expenses are a large part of the annual budget.

Construction projects are capitalized (recorded as an asset on our balance sheet) when we place that asset in service. These assets have a defined benefit in future years and depreciate over time. For example, when a new power pole is placed in service, it is expected to be there for 40 years or more. When the asset is capitalized, the benefits are spread out over the 40-year life of that asset. Tacoma Power has over $1 billion in assets and having been around since 1893, we have quite a few aging assets that must be repaired or replaced. A few years ago, Tacoma Power began implementation of an Asset Management Program to help optimize the replacement of capital assets.

Capital Expenses include:

Buildings

Technology

Infrastructure

Preliminary Capital Expenses for 2021 / 2022 Biennium

There are over 60 projects in our portfolio of capital improvements for the 2021 / 2022 biennium. This is typically referred to as our Capital Improvement Program (CIP).

Current projects in the program include:

Fish Facility Improvements

Dam Maintenance

Fleet Replacement

Aging Transmission Tower Replacements

Energy Management System Upgrade

Technology Upgrades

The following table provides an overview of all of the projects submitted for the 2021/2022 biennium.

Project Type	Estimated Cost	Project Focus Description
Regulatory Projects	$11,000,000	Federal & State mandates including FERC, NERC/WECC and I-937. Projects include dam safety related to seismic upgrades, energy conservation program, and compliance with environmental regulations for disposal of spoils
Natural Resources	$5,314,000	Construction of fish collection and passage systems to establish and support fish runs upstream of the hydroelectric dams as required by FERC
Prevent Asset Failure	$22,712,000	Hydro facility and equipment maintenance or replacement to prevent asset failure
Asset Upgrade	$23,452,000	Modernization and improvement of equipment to prevent failure and meet current needs
System Reliability and Upgrades	$5,041,000	Upgrade and redesign of the distribution system, transmission system, and substation facilities
Technology Projects	$11,786,000	Upgrade of existing technology tools and platforms, and development and installation of new technology systems
Additions and Replacements	$48,234,000	Ongoing replacement of infrastructure necessary for the operation of the power system
Other	$22,359,000	Facility improvements, service division projects and unanticipated capital
Total	**$149,898,000**	

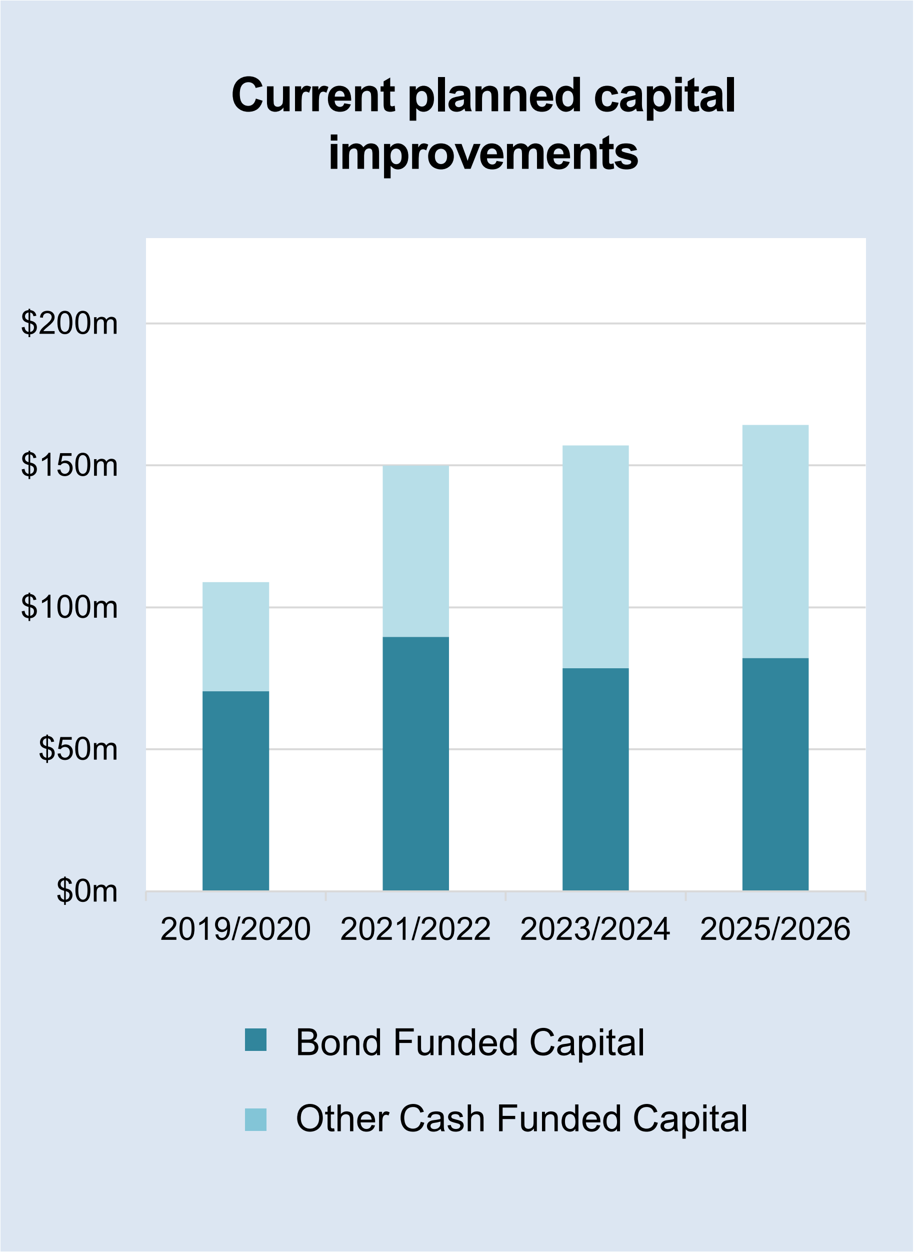
Planning for Capital Expenses

Tacoma Power's fish facilities are a good example of capital projects in the last biennium. To help meet the licensing requirements for owning and operating our hydroelectric dams, we built two new fish hatcheries near the Cushman hydroelectric facility. In fact, we have several restoration or habitat improvement projects that have either just been completed or are in process at each of our facilities.

A portion of our capital assets are in a special class referred to as Additions and Replacements (A&R). These include projects necessary for the ongoing upkeep and maintenance of existing assets. An example of an A&R would be to replace a power pole that has reached the end of its life.

Most major projects are funded with long-term bonds, while assets with a shorter life, or recurring additions and replacements, are typically funded with revenue from Tacoma Power's cash fund. The graph to the right shows our current projections for capital expenses in the future. See page 66 for more detail on how we make this determination.

Each year, we forecast our ten-year capital plan by analyzing current and future projects that we're likely to pursue. The actual capital budget in each biennium is reviewed and projects are ranked by priority through the work of a Capital Steering Committee (CSC). The CSC meets regularly to review progress on capital projects and discuss new capital projects.



Tacoma Power Revenue Sources

Retail Rates

The vast majority of Tacoma Power's revenue comes from the retail rates charged to customers for electricity. The actual rate varies by customer class in accordance with how the class as a whole uses the electric system. Revisions and updates to rates and customer classes are approved by the Public Utility Board and Tacoma City Council.

Click! Network

Click! Network was an operating section of Tacoma Power that generated revenue through cable and broadband services. This service was transitioned to a public-private partnership in April 2020.

Other Revenues

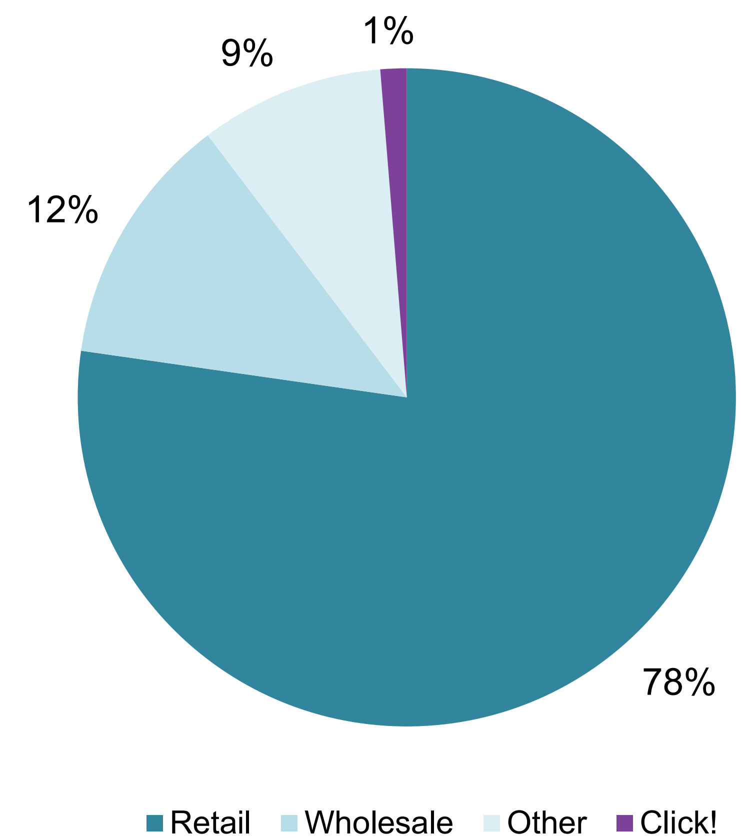
Revenue received from all other Tacoma Power operations includes such things as parks and camping fees, service fees, electric property rental fees, and wholesale transmission sales.

Wholesale Revenue

We also generate revenue by selling surplus energy into the wholesale electric market. The amount we receive for these sales depends upon the time and quantity of energy sold as well as the market price of electricity. Similar to how the price of other commodities like natural gas, oil, or gold move up and down, the price for electricity changes constantly.

These variations can result in significant differences in the amount of wholesale revenue received each year. We explain some of the things that affect the market price for electricity in Risk Factors, Section 7.

% Revenue by Source
(FY 2020)



2020 Total Revenue
$480,767,871

Customer Classes

Different Customers Need Different Types of Services

Tacoma Power is a "cost of service" utility, which means that we charge our customers for what is needed to maintain, operate, and deliver electric services to where our customers need them. Staff performs a Cost of Service Analysis to determine the appropriate portion of revenue to recover from each customer class based on the types of services and infrastructure needed to deliver power to them.

Approximately seventy-five percent of our revenue comes from retail sales, which consist of several different customer classes. These classes allow for a general allocation of the appropriate costs based on the different service needs of each customer type. For example, the electric services needed to operate a traffic light are very different than the needs of Joint Base Lewis-McChord or a residential customer. Another example is how our industrial customers do not use the distribution portion of our electric system so their rates do not include the costs to operate and maintain this portion of our system. Each customer rate class has different rate structures and methods to calculate the monthly bill.

Customer Classes	% of 2020 Retail Revenue	% Customers by Class
Residential	49.8%	87.4%
Small General	7.7%	9.0%
General	28.4%	1.4%
High Voltage General	6.8%	0%
Contract Industrial	6.5%	0%
Lighting	0.8%	2.2%
2020 Total Retail Sales	**$371,451,106**	

This table illustrates the percentage of total retail revenue contributed by each customer class in 2019.

Forecasting Retail Growth

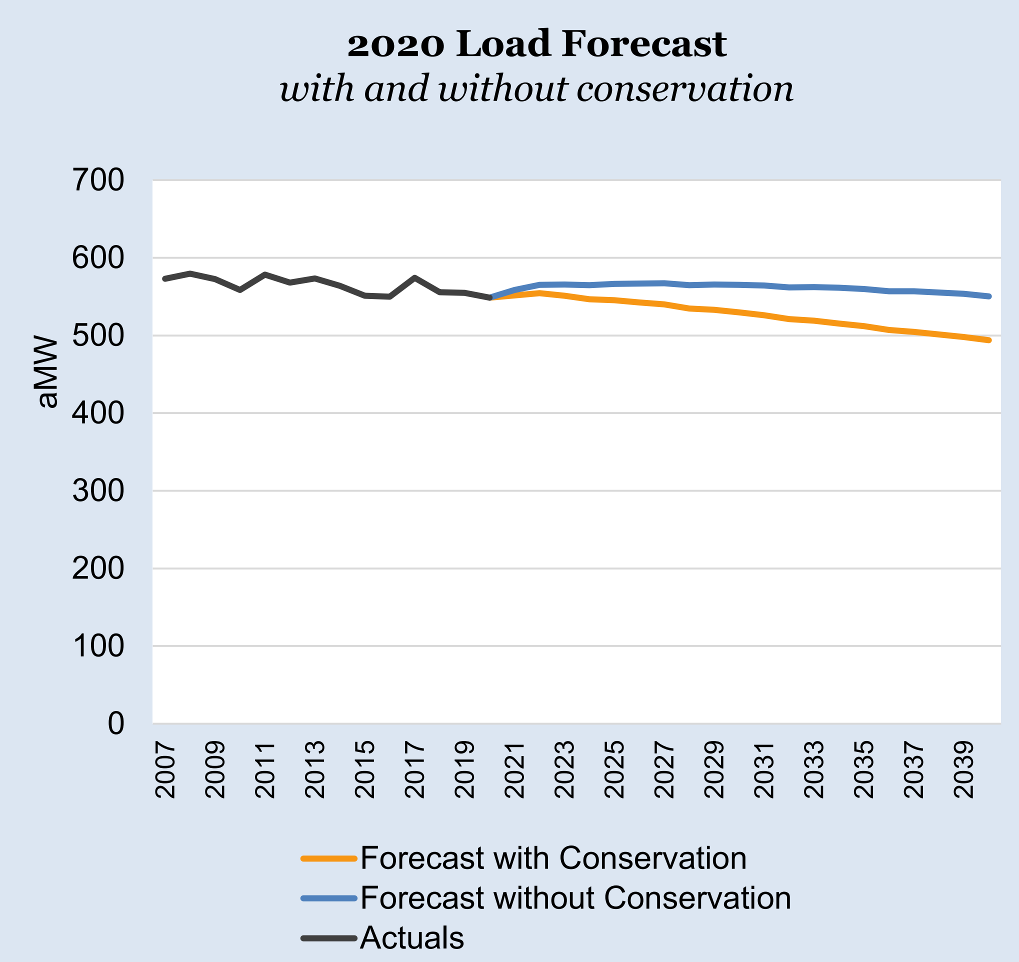
In order to forecast future revenue, we produce an annual load forecast. “Load” is a term used to represent the amount of power consumed by our customers. You can see from the chart that the latest forecast is projecting declining consumption.

The blue line in the chart reflects our retail load forecast before accounting for future expected conservation measures. The orange line represents our current forecast accounting for conservation investments we expect to make. The tan line reflects the actual load we have seen in the past.

In total, Tacoma Power’s system average load is projected to decline at a rate of approximately 0.4 percent per year, accounting for conservation. Our projections include information on the probability of new loads entering the service area. We use this forecast for the base case analysis described in the next section. When total system load is declining, it can put upward pressure on rates due to the large portion of fixed costs a utility company bears.

Several factors could change the current trajectory, such as the overall economic conditions of the area, the availability of incentives for developing industries, or the addition of new large loads to our service territory.

2020 Retail Consumer Load Forecast



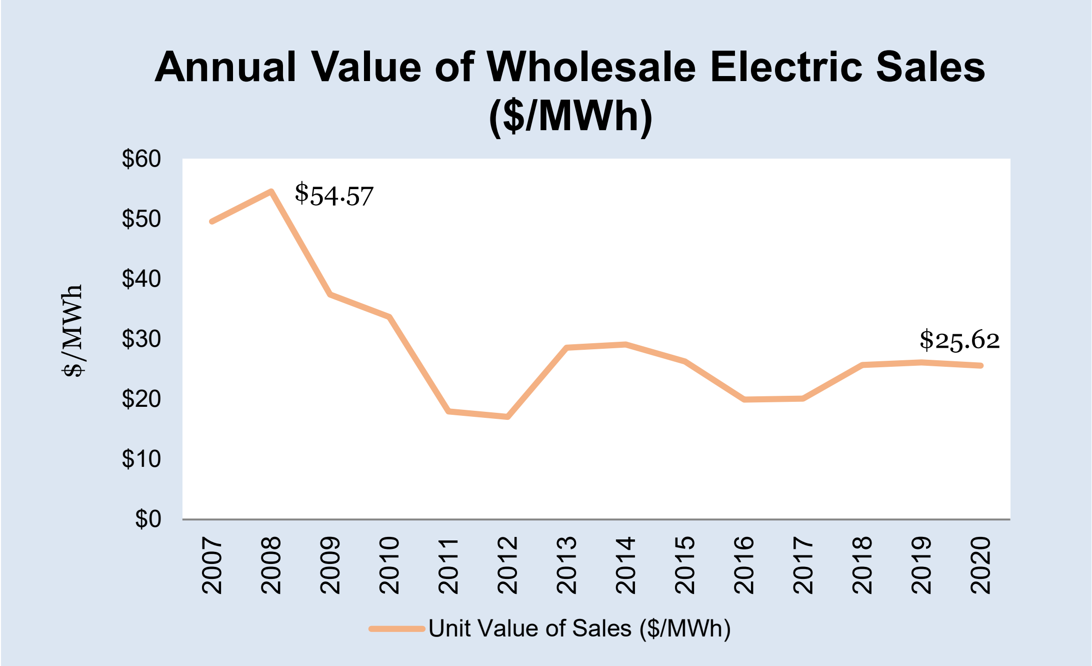
Reducing Rate Increases with Wholesale Revenue

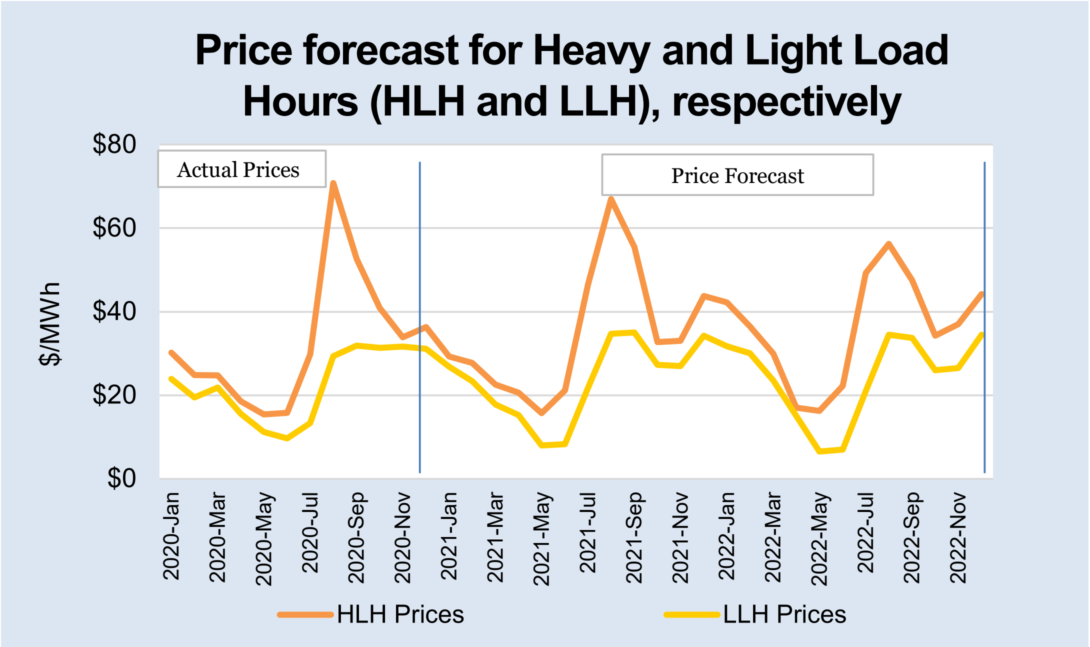
Sometimes we have an opportunity to sell surplus electricity in the wholesale electric market. We can have surplus for many reasons, including greater than normal rainfall in a given year. This allows us to generate more power than our retail customers need, creating a “surplus” of power. We then sell this surplus power to other electric companies, or market participants, at the current market price for wholesale power.

We use the revenue from such surplus sales to offset future rate increases. This is one of the many ways we work to keep retail rates lower than they otherwise would be for our customers. Unfortunately, due to the lower market prices for wholesale electricity in recent years, our revenue from this source has been decreasing over time.

The potential value here is dependent on two factors that are out of our control: how much surplus electricity we have, and the price the market is willing to pay for that electricity. That makes forecasting our wholesale revenue a challenge. We do have a hedging strategy in place to help manage these risks described on the next page.

Twelve percent of our total revenue came from wholesale sales in 2020. Ten years ago, this number was 24 percent. This decrease is primarily due to the declining average value for each MWh sold. This price decline has come from factors such as the growth in new renewable resources including wind and solar, in addition to lower natural gas prices. Reasons for this decline are further explained in Section 7. The illustration shown here provides a representative price forecast for Heavy and Light Load Hours, which is how wholesale energy is often sold.





Reducing Wholesale Revenue Volatility

As mentioned previously, we sell surplus electricity in the wholesale electric market and use this additional revenue to help reduce retail rates for our customers. To improve the predictability of our wholesale revenues, it is important to reduce the variability of the amount of power we sell into the wholesale market. We have created an Energy Risk Management program to help stabilize the financial impacts from transacting in the wholesale energy markets.

Our Energy Risk Management program is primarily focused on reducing market price risk, hydro supply risk, load risk, contract and credit risk, and regulatory risk explained further in Section 7. This program involves buying or selling a fixed amount of electricity at a given price over a certain time interval in the future. This locks in the price and quantity of power, also known as a hedge. Hedging transactions help mitigate exposure to the inherent price and volumetric risk of transacting in the wholesale energy market. The core elements of the Energy Risk Management program are shown below.

Identify & Quantify Risks

Energy Risk Management uses various analytical techniques and tools to measure and quantify risks. These analytical tools help us make decisions when managing Tacoma's power supply portfolio.

Establish Risk Tolerance & Policies

Energy Risk Management policies and procedures articulate the risk tolerance of Tacoma Power, identify roles and responsibilities, and outline the decision-making process and authority for individuals to carry out transactions and business activities.

Establish Hedging Program & Metrics

Tacoma's main strategy for managing and mitigating wholesale revenue risks is the hedging program. This involves forecasting the amount of electricity needed in the future and entering into contracts to ensure we have sufficient supply of electricity to meet demand. Hedging also stabilizes revenues when selling surplus power.

Implement Controls & Processes

Energy Risk Management has developed and implemented business processes that provide oversight of the execution of wholesale trading activities.

Monitor Risks & Reporting

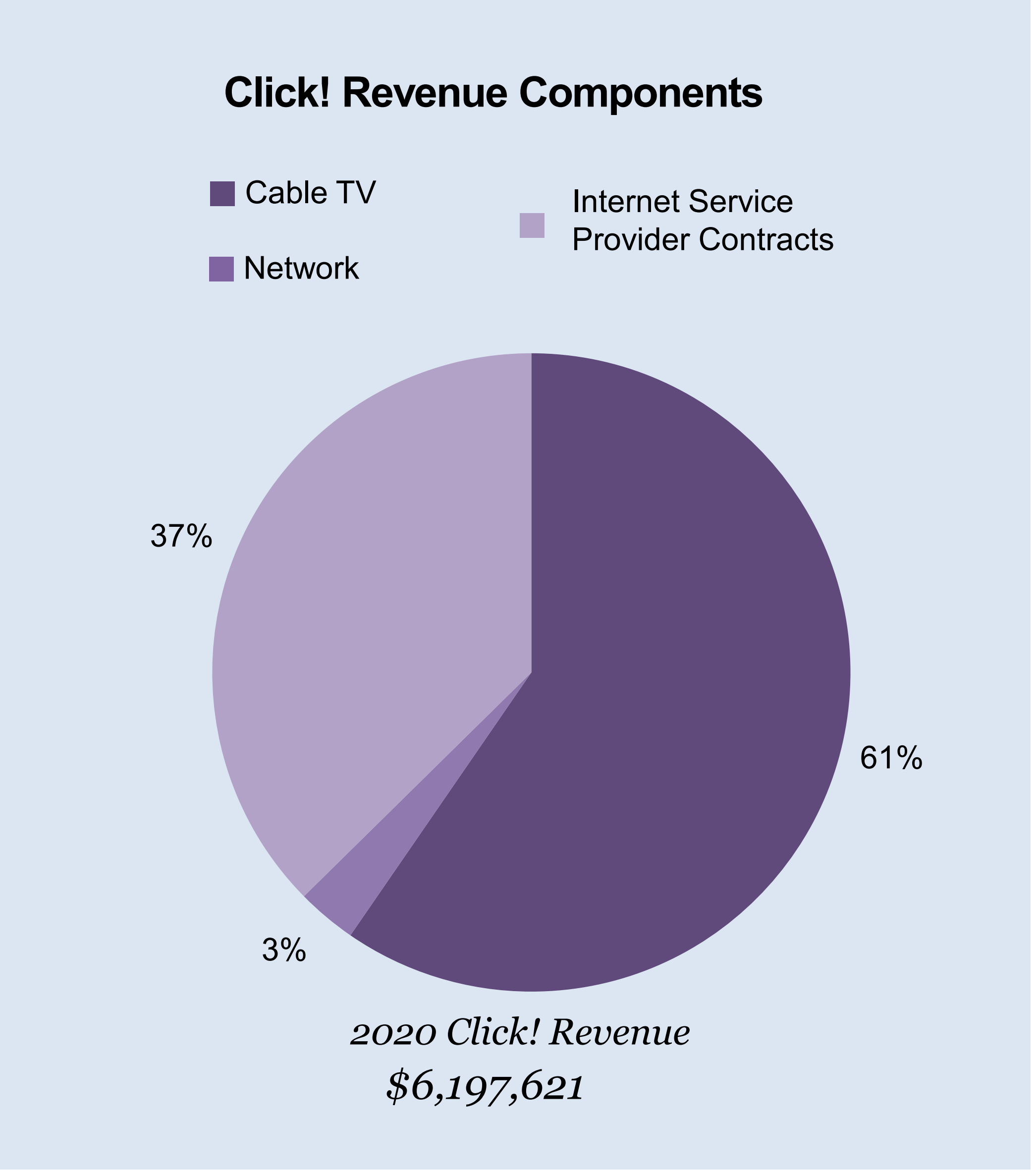
Energy Risk Management staff has a systematic process for monitoring and reporting risks through daily, weekly and monthly credit and hedging reports.

Click! Network Revenue

Click! Network was an operating section of Tacoma Power and generated revenue from retail cable TV and wholesale high-speed internet services. The chart to the right shows the breakdown between different cable and internet revenue components in 2020.

Click! represented approximately one percent of Tacoma Power's total revenue per year and this revenue did not fully offset Click! costs. Programming costs have increased dramatically and changes in how people consume programming have occurred. For example, many people have moved from subscribing to traditional cable to watching shows online or through services like Netflix.

To address the changing needs of our customers, Tacoma Power entered into a public-private partnership that allows for an irrevocable right of use for this broadband system by a third-party provider, Rainier Connect. Tacoma Power, its Public Utility Board, and the City Council were all committed to finding a long-term, financially sustainable outcome for this community asset.



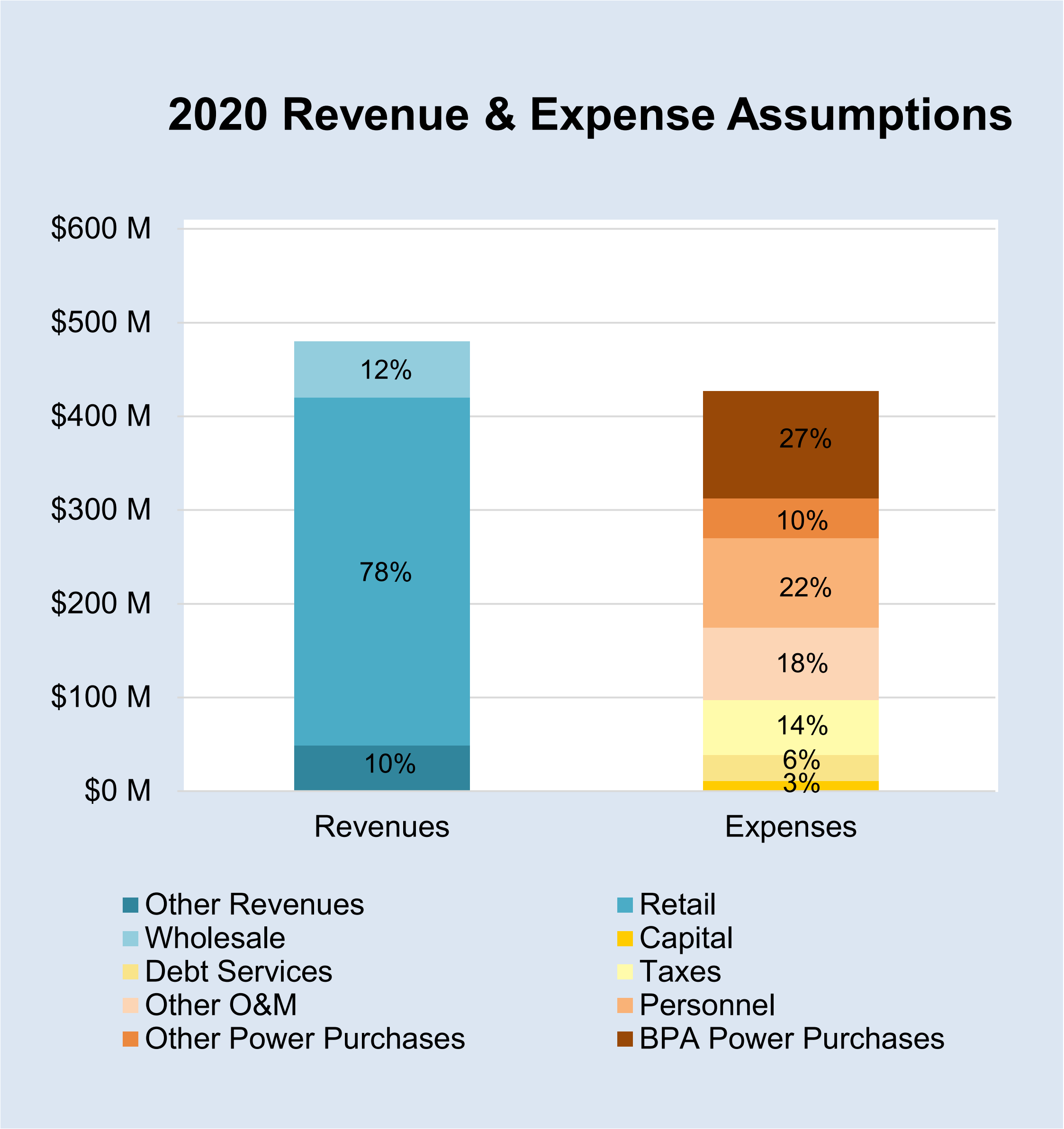
Bringing it All Together

This slide brings together all of the components explained in the background section into a side-by-side comparison. Revenues in 2020 are $480.1 million and expenses are $426.8 million.

We always plan to collect more revenue than Operations and Maintenance expenses. We need positive net revenue to pay debt service and taxes, and to fund a portion of our capital expenses. For example, we used some of our accumulated cash reserves for the defeasance described on page 77. These actions allow the utility to make the rate increase lower for customers than it otherwise would be in future years.

It is a balancing act to keep the right amount of cash available to manage the operations of the utility and hold sufficient reserves to mitigate the many risks associated with our business, while still aiming to keep rates low for customers. This is something we are always actively managing.

We use a financial model to analyze each component, compare assumptions, and determine a range of possible different financial outcomes. The model projects cash flows and other critical financial metrics over a 10-year time horizon. We can update the model to examine changes, test assumptions, or run scenarios that may impact the utility.



Credit, Debt, & Reserves

Tacoma Power Credit Rating

Recall from page 45, that Tacoma Power is rated by three different rating agencies. Moody's Investors Service is one of the rating agencies that have published their methodology for analyzing utilities like Tacoma Power. Understanding their methodology helps interpret the rating agency process and align financial metrics with the agency's rating scale.

The items in the table to the right comprise the financial strength portion of Moody's rating. The financial strength components constitute a 30 percent weight toward the final rating for a rated public power utility with generation.

For more detail on how we set targets in these areas and manage to them, see the discussion of days liquidity and debt service coverage ratio in the Financing Plan section.

	Aaa	Aa	A
Adjusted Days Liquidity	≥ 250 Days	249 to 150 Days	149 to 90 Days
Adjusted Debt Service Coverage Ratio	≥ 2.5 x	2.49 x to ≥ 2.0 x	1.99 x to ≥ 1.5 x
Debt Ratio	< 25%	25% to < 50%	50% to < 75%

Adjusted Days Liquidity: Ratio of Current Days Cash on Hand and the ability to cover expenses with cash.

Debt Service Coverage Ratio: Ratio of cash flow available to pay debt service, relative to the annual debt service owed.

Debt Ratio: Ratio of total debt outstanding as a percentage of total Assets.

Tacoma Power	2014	2015	2016	2017	2018	2019	2020
Days Liquidity	335	215	236	210	205	157	235
Debt Service Coverage Ratio	1.90x	2.01x	2.31x	2.82x	3.06x	1.30x*	3.33x
Debt Ratio	37%	29%	26%	29%	28%	28%	25%

*Includes $10 million use of the Rate Stabilization Fund. The DSCR would have been 0.92X without the additional $10 million.

To Cash Fund or to Bond Fund?

We typically fund capital projects using either the money we borrow from issuing bonds or from revenue collected through retail rates and wholesale sales. Our Electric Rate and Financial Policy states that, "Under normal circumstances, major capital projects will be financed primarily with debt and fifty percent of all other capital requirements will be financed through rate revenues." We make a determination at the start of each biennium about approximately how much of our capital budget should be funded with bonds or cash. However, we also look at actual spending and financial performance during the biennium and make adjustments as required.

Many of the assets Tacoma Power owns have long useful lives and we typically try to fund those assets with bond funds to facilitate equitable cost allocation. If an asset is anticipated to be used for 30 years, we expect that customers 30 years from now should share in paying for the benefits that the asset provides. Funding our long-term assets with bonds allow us to align the life of the assets with our payment of them.

Assets with a shorter life are often funded with revenue. However, it is a balancing act because as more debt is used to pay for assets, debt service expenses increase and put stress on future power rates.

Funding Guidelines

Major projects:
100 percent bond funded

Remaining projects:
50 percent bond funded & 50 percent revenue funded

The table below shows how actual capital spending has been funded. We have generally followed the guidelines in our Electric Rate and Financial Policy. However, there are times when we have used more revenue to pay for capital expenses.

Historical Cash and Bond Funding Ratios

	Revenue Funded Capital	Bond/Debt Funded Capital	Total Capital
2015/2016	31%	69%	$159,437,900
2017/2018	40%	60%	$143,057,300
2019/2020	10%	90%	$108,877,800
Average Funding	**27%**	**73%**	

Debt Repayment Schedule

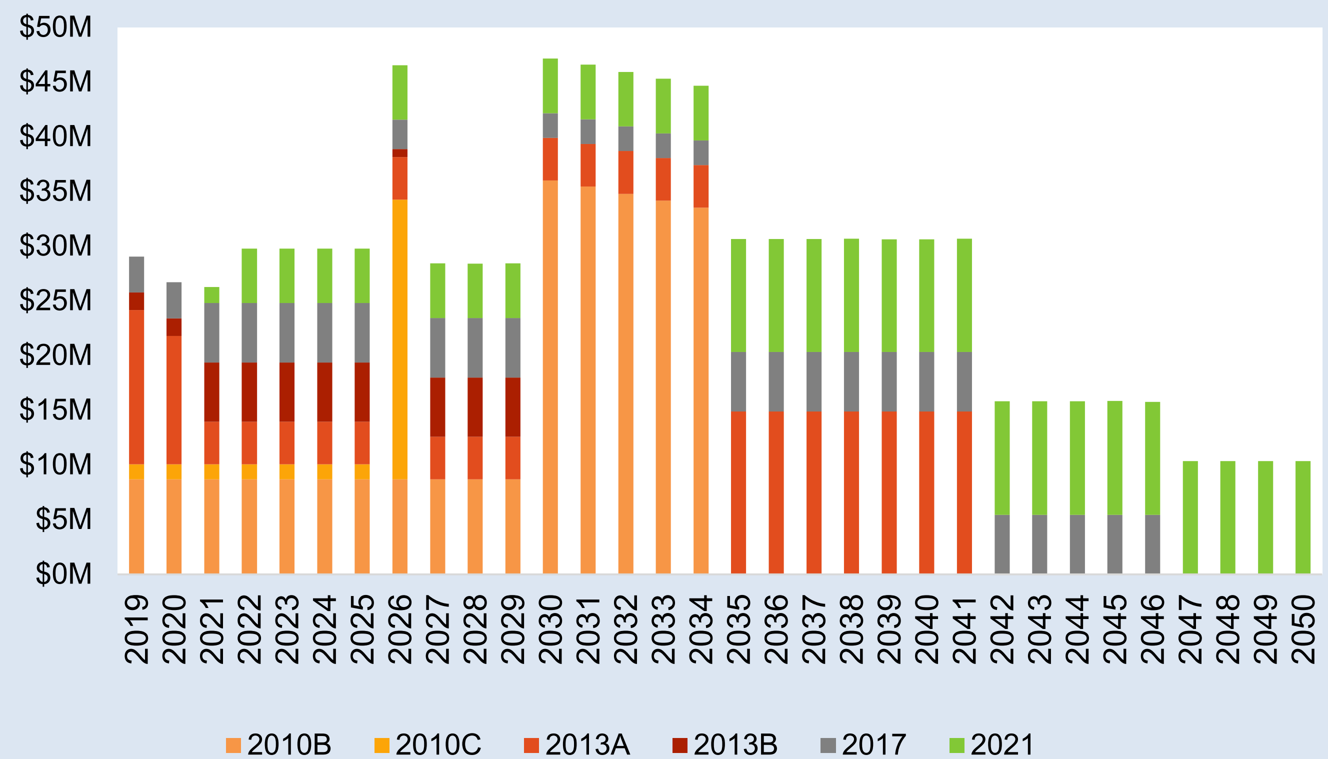
You'll probably notice that this chart isn't quite as flat as a 30-year mortgage. We'll discuss those spikes in the next few pages and again in Section 5: Funding the Plan.

We sell bonds to investors to help fund capital expenditures. You'll notice in the chart that there are A's, B's, and C's after the year the bond was issued. This means that when we issued the bonds we sold them in different tranches, which means separate portions with different terms, conditions, and purposes.

When we make payments on our bonds, we pay a principal payment and an interest payment. These payments are due on January 1 and July 1 each year. The chart shows the combined annual principal and interest payments by bond. Closely managing the timing and payments of this portfolio helps maintain our financial strength.

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. The combined principal and interest payments due in the chart do not include subordinate bonds or notes, including payments under the Note Purchase Agreement.

Leveraging Short-term Debt

When did we start taking on short-term debt?

It was part of a plan to diversify and reduce overall debt. In 2015 we implemented two short-term variable rate Note Purchase Agreements (NPAs) to provide up-front interim financing for capital projects and additional liquidity, if needed. That plan included paying the remaining outstanding principal and interest payment on the 2005A Bonds and exercising an option to call the remaining 2005B Bonds. We used funds available in our reserve accounts to complete this process.

$50 million NPA with KeyBank

In 2015 we issued a short-term (3-year), $25 million line of credit (LOC) with KeyBank to serve as an additional source of liquidity. Tacoma Power never made a draw on this LOC, which expired in May 2018. In May 2020, we issued a second short-term (2-year), $100 million LOC with KeyBank to serve as additional liquidity should we need it during the Pandemic. This NPA was reduced to $50 million on September 16, 2021.

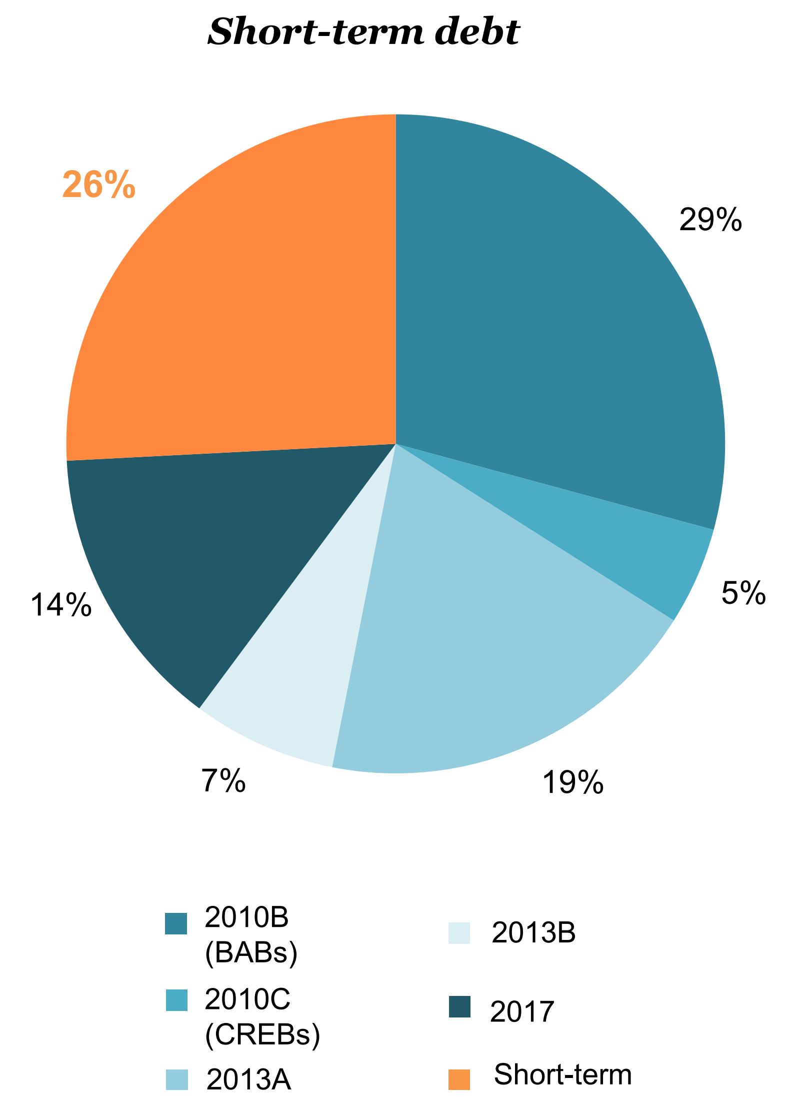
$150 million NPA with Wells Fargo

In 2015, we issued a short term (3-year) LOC from Wells Fargo in an amount of not to exceed $100 million outstanding at any time. This agreement provides up-front interim financing for capital projects and defers the issuance of long-term bonds. Tacoma Power drew $80,250,000 under this line of credit in 2016 and used proceeds of long-term bonds issued in 2017 to pay $80 million back to Wells Fargo, returning our balance to $250,000 – the minimum account balance required.

In December 2019, we extended this line of credit through 2021 and increased the principal value to $150 million to continue interim funding for our capital spending. By the end of 2020, we drew $150 million, and also repaid $20 million, leaving a balance of approximately $130 million outstanding. Through the use of the line of credit, we have been able to save our customers millions of dollars by not paying interest on borrowed money before we need to spend it.

How short-term debt compares with the long-term bonds

Debt Service Percentage of Total
as of December 31, 2020



Short-term Debt: Wells Fargo

Historically, we've used long-term bond proceeds to fund capital improvements, but that strategy can result in long periods before the funds are entirely spent. (Sometimes projects get delayed, or priorities change after selling bonds.)

That's not ideal because Tacoma Power pays bondholders' interest on the borrowed money. Although unspent funds earn a small amount of interest, it's often less than the interest expense we are paying on the bonds themselves.

To address this, we entered into a short-term Note Purchase Agreement (NPA), or funding arrangement, with Wells Fargo in 2015. After an RFP in 2021, we entered into a new NPA with Wells Fargo after repaying the amount outstanding on the 2015 NPA with proceeds from Tacoma Power's 2021 long-term Bond issue. The NPA gives us the opportunity to pay a low fixed-rate commitment fee on the unspent funds and a short-term variable-rate rate on the amounts we borrow. The combined rate of these fees is lower than the difference between the interest we previously earned on unspent bond funds and the interest we paid to bondholders.

Here's why that's a good strategy: Tacoma Power expects to spend somewhere between $100 million and $150 million on bond-funded Capital Improvement Projects (CIP) in each future biennia. When we've drawn the total amount we need for these projects using the Note Purchase Agreement, like a line of credit, we'll issue long-term bonds to reimburse the Agreement with Wells Fargo. The bonds have a fixed interest rate for the remaining life of those capital projects. After we pay down the NPA, we can use it again to fund the CIP approved for future biennia.

*In other words, this Agreement helps keep us from paying unnecessary interest on funds we're not ready to use yet. Between 2015 and 2020, we saved approximately **$26 million** as a result of this Agreement.*

Wells Fargo Note Purchase Agreement

Commitment Amount:
$150,000,000

Drawn Amount:
$10,000,000

Start Date:
October 1, 2021

Term:
Due October 1, 2024

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.

Short-term Debt: KeyBank

This is another type of short-term debt, but different than the Wells Fargo Agreement. This facility is more of a "revolving credit" agreement, and Tacoma Power does not intend to draw funds from it, except when absolutely necessary.

So, why have it? Tacoma Power's financial liquidity increases and decreases throughout the normal course of business, and may become more uncertain during a global pandemic. In addition, a utility bill moratorium allows customers to delay paying for their power usage through March of 2021, as discussed on page 29. This has resulted in a growing accounts receivable balance, and less revenue received to pay for utility operations. This agreement with KeyBank gives us access to cash if we need it to keep the utility running.

Even during normal times, seasonal and operational variability can affect the utility's liquidity and the ability to access cash. Liquidity challenges can end up costing us more money so this agreement is a little bit of extra insurance to make sure we do not get too low in the low periods. The agreement allows us to keep our overall liquidity balance lower than we otherwise would and we can use more of our cash to benefit our customers.

The KeyBank Agreement gives us this additional flexibility in exchange for a low fixed-rate interest fee on the unused portion of the facility. If we did use the agreement, we would pay a variable rate on the portion we borrowed, similar to the Wells Fargo Agreement.

In other words, this agreement gives us quick access to $50M, similar to a personal line of credit, if we need it in an emergency.

KeyBank Revolving Credit Facility

Commitment Amount:
$50,000,000*

Drawn Amount:
$0

Start Date:
May 21, 2020, extended on September 16, 2021

Term:
Due December 1, 2024

Purpose:
Operational Liquidity

Our Note Purchase Agreement with KeyBank allows us to better manage liquidity targets on an interim basis.

**Amended from $100,000*

Reserve Accounts

Bond Reserve Fund

When issuing bonds in previous years, Tacoma Power established a Bond Reserve Fund. The fund was created to pay for outstanding bond interest and principal payments in the event that the utility is unable to pay from revenues. The Bond Reserve Fund does not contribute to any of Tacoma Power's financial metrics discussed in the next section.

The fund may contain a combination of cash, investments, and surety policies (insurance). The size of the fund must remain sufficient to meet the Reserve Account requirements until the bonds are paid in full. The determination for the size is based on the lesser of the following two requirements:

1. The maximum annual debt service payment in the debt portfolio, or

2. 125 percent of average annual debt service payments in our debt portfolio.

Tacoma Power's Bond Reserve Fund was covered by an existing surety policy which was set to expire in 2020. The prior LRFP assumed that we would fund the reserve account with cash after the surety policy expiration. However, we were able to negotiate and receive approval for an extension to our Surety policy, so the cash funding assumption was removed.

Rate Stabilization Fund

The Rate Stabilization Fund (RSF) provides Tacoma Power with additional flexibility to meet financial needs in times of uncertainty. The fund was created using surplus wholesale revenue in 2010 to help prevent the need for large rate changes outside of our normal rate setting processes. ***This fund helps us be more prepared for the unknown and was a key contributor to improving our debt service coverage ratio in 2019 after the near-critical water year.***

Unlike the Bond Reserve Fund, the RSF does contribute to our financial metrics. The fund only contains cash from surplus revenue and recognition of that revenue as earnings has been deferred until the year it is transferred from the RSF into our Current Fund (the general account used to manage our operating expenses). The balance of the fund, however, is considered part of our total Days Liquidity balance, as listed in the next section.

Every year Tacoma Power evaluates the size of the fund to determine whether it should be increased or decreased. In 2019, the utility experienced critically low water conditions, which reduced the amount of energy that Tacoma Power could generate to fulfill customer needs, and increased the amount of power purchased on the wholesale market. This reduced Tacoma Power revenues, increased expenses, and prompted a $10 million draw from the RSF to meet minimum financial metric targets.

Historical Rate Stabilization Fund Balance

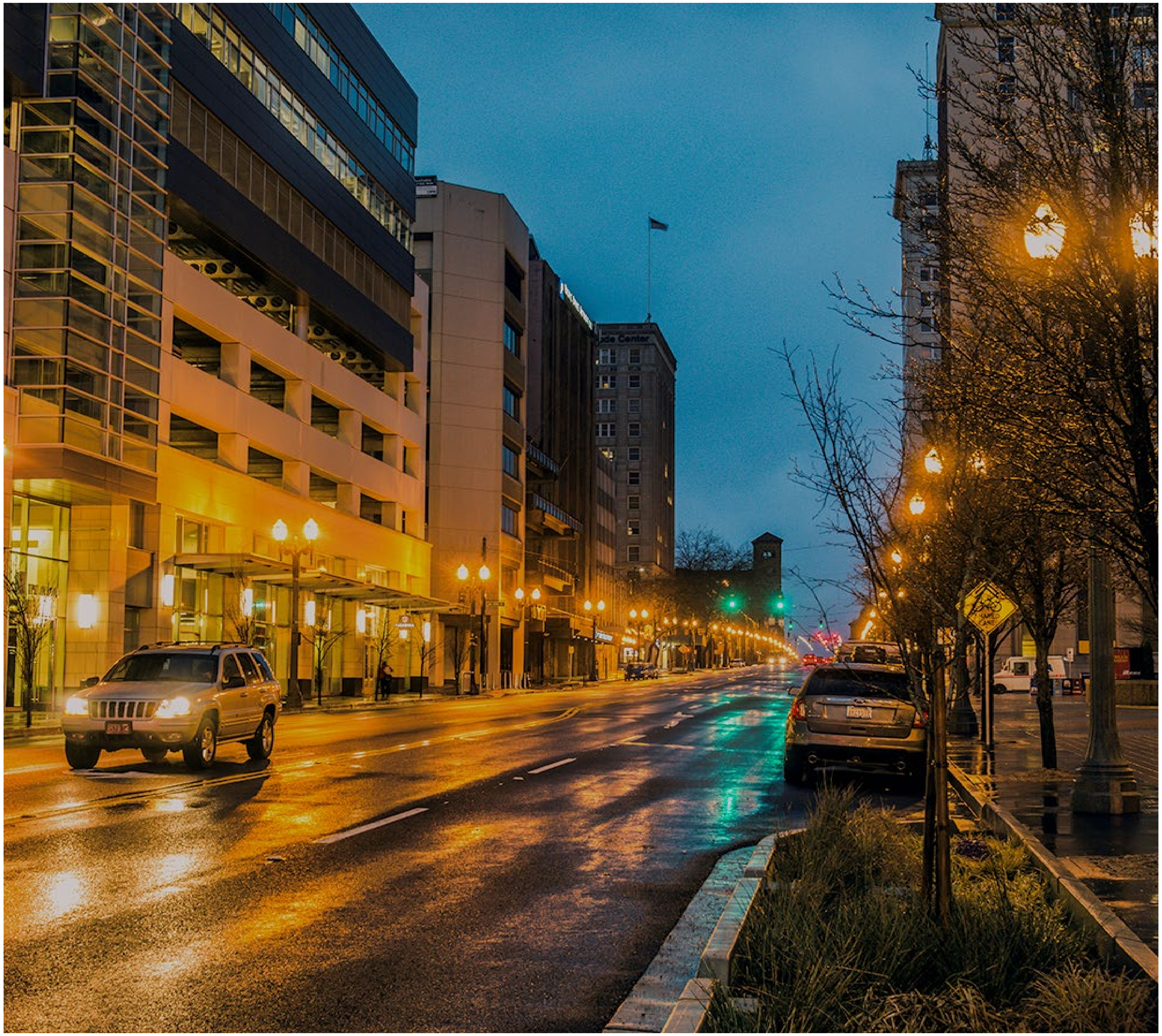
2009	2010	2011	2012-2018	2019-2020
$0	$10,000,000	$36,000,000	$48,000,000	$38,000,000

Section 5

Funding the Plan

Carefully considering everything in the LRFP, what is most likely to happen, and how do we plan to pay for it?

What is a Financing Plan?



A financing plan outlines steps to fund the most recently approved budget; maintaining and improving our financial strength.

Implementing a Financing Plan can lead to many important results, such as:

Increases or reductions to our total outstanding debt.

Changes to debt service payments, both timing and amounts.

Identification of future challenges, such as spikes in the debt repayment schedule that need to be addressed.

Ability to finance capital projects, both on an interim basis and through long-term bonds.

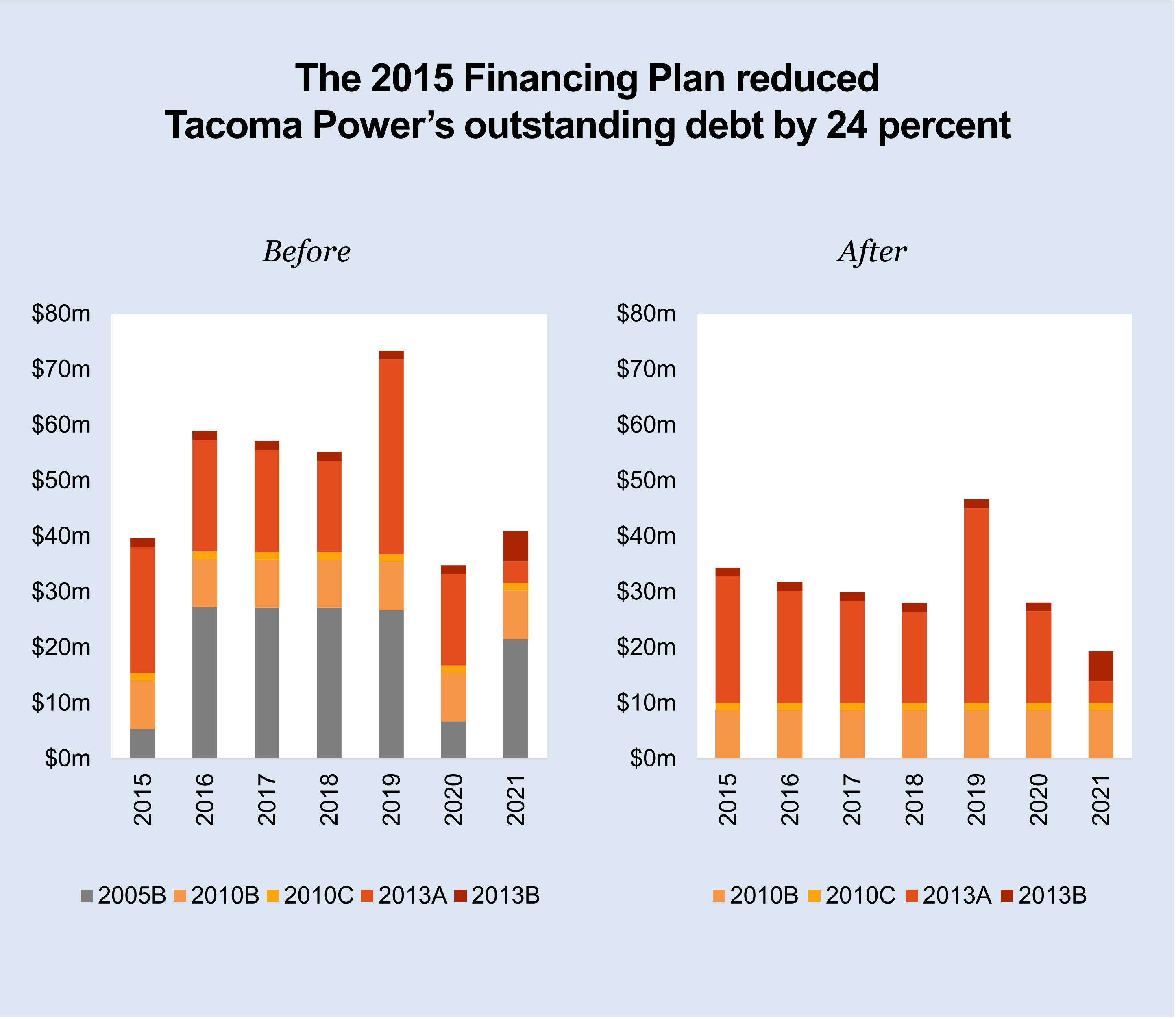
Access to low-cost financing of capital improvements.

The next few pages show how the financing plans can impact the utility.

Reducing Outstanding Debt

In the previous section on Credit, Debt, and Reserves (beginning on page 65), you will notice that our debt ratio decreased from 37 percent in 2014 to 29 percent in 2015. We called, or paid off, the outstanding $122,135,000 2005B Bonds on July 1, 2015, using cash reserves, resulting in a 24 percent reduction in Tacoma Power debt.

The debt reduction improved Tacoma Power's financial metrics described on page 12 and reduced the size of future rate increases. It's an example of how Tacoma Power has used surplus revenue from wholesale power sales to benefit customers.



Spikes in the Debt Repayment Schedule

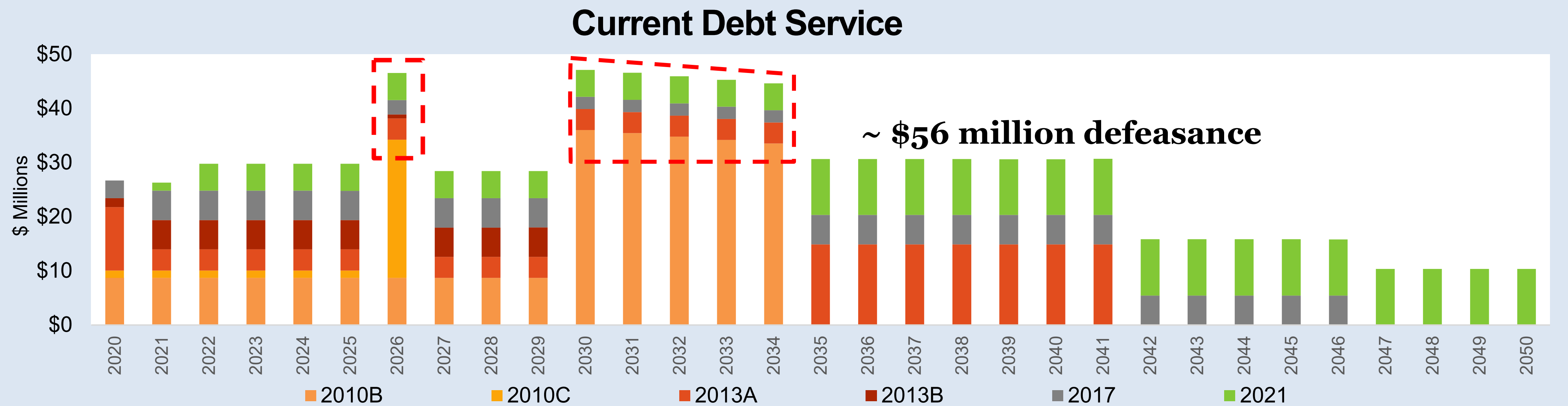
The chart below represents the annual total principal and interest Tacoma Power pays on its outstanding bonds. Each time we issue bonds, we have to repay the amount we borrowed from investors (principal) and pay interest the investor earns on the money they have lent us. These combined payments are also called debt service.

As you can see, there are debt service repayment “spikes” in 2026 and 2030 through 2034 related to the 2010 Bonds issued through federal government programs called Build America Bonds (2010B) and Clean Renewable Energy Bonds (2010C).

Tacoma Power intends to address these spikes by setting aside money in reserves and then using the reserve funds to defease debt service in future years. Our plans are summarized below and discussed in more detail on the following pages. We plan to:

- Set aside approximately $5 to $10 million in revenue annually and deposit in our Rate Stabilization Fund, when possible, between 2021 and 2029.
- Pay off, or defease, approximately $15 million of the 2010 CREB payment with cash in 2026.
- Withdraw revenue from the Rate Stabilization Fund to defease approximately $56 million in debt service due between 2030 and 2034.

This plan will levelize upcoming debt service payments, maintain financial metrics, and help keep rate increases small and stable.



Tacoma Power has defeased and called bonds in the past and could do so in the future. No decision has been made to date about future bond repayments or retirements.

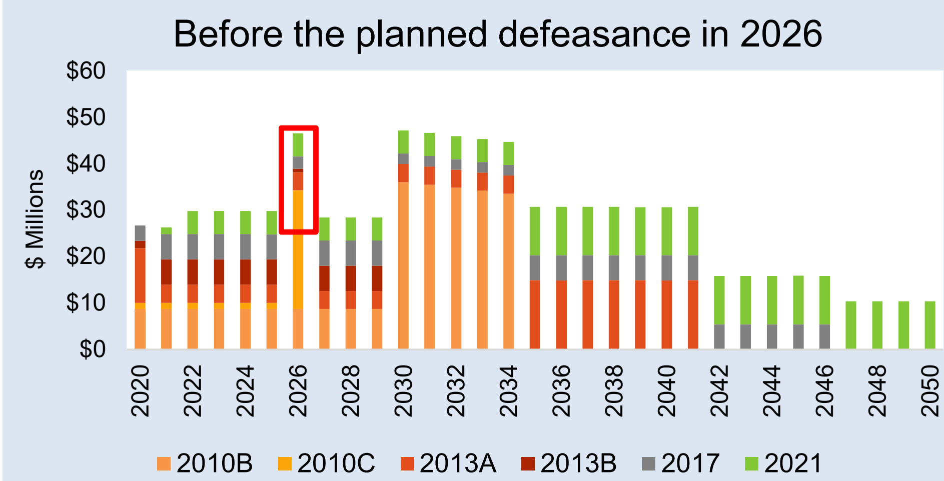
Smoothing out Future Debt Service by Defeasing Debt

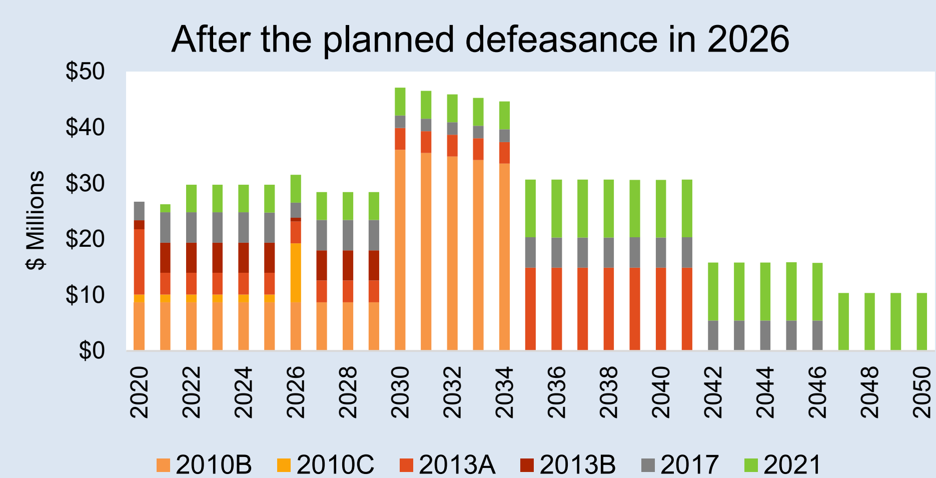
The first spike in debt service highlighted in the top right chart is related to a large principal payment for the 2010C Bonds due on January 1, 2027, which we will accrue the payment for in 2026. The 2010C Bonds were used to fund capital improvements during the 2010/2011 biennium.

This large single-year principal payment in 2026, represented a notable challenge in our debt repayment schedule. We will need to significantly increase our revenue in that single year to maintain a reasonable debt service coverage ratio. In order to reduce this spike, Tacoma Power plans to seek approval from the Public Utility Board and City Council to set aside money early and defease approximately $15 million in debt service payments. Defeasing bonds requires that Tacoma Power set aside U.S. Government securities in an escrow account in a bank sufficient to pay interest and principal on the bonds as they become due. This allows Tacoma Power to remove the debt amount that is being defeased from its financial obligations and metrics.

Tacoma Power has defeased and called bonds in the past and could do so in the future. No decision has been made to date about future bond repayments or retirements.

Opportunities and Challenges in Existing Debt Service





Use of the Rate Stabilization Fund

In 2010, Tacoma Power created a Rate Stabilization Fund (RSF) to help prevent large and unexpected rate increases due to the many risks in operating capital-intensive hydroelectric dams. Section 7 outlines some of these risks. The RSF represents surplus revenue from selling power in the wholesale market that we have set aside. Because this revenue has not been recognized on our financial statements in the year it is earned, we can recognize and use the revenue at a future date if the utility falls short in the revenue required to pay for expenses and maintain financial metrics. We manage financial metrics used by the rating agencies to determine our credit rating, which in turn helps determine the cost when issuing bonds and our rate recommendations.

In our new base case, we plan to use the RSF to help smooth our debt service payments during the years where there are large debt service spikes in 2030 through 2034, shown on the previous page. If we do not set aside sufficient revenue in advance to apply to debt service accrued in 2030 through 2034, we forecast 6 percent annual rate increases to cover the utility's expenses.

How Using the RSF Works

When we use the Rate Stabilization Fund, the following occurs during the calendar year:

- *the utility's revenue will be reduced by the amount that is deposited in the Rate Stabilization Fund during a calendar year*
- *the utility's revenue will be increased by the amount that is withdrawn from the Rate Stabilization Fund during a calendar year.*

Contributions to the RSF will delay the recognition of revenue until the year that we transfer the money out of the RSF. This decrease or increase in revenue also will decrease or increase the Debt Service Coverage Ratio metric for the year of the transfer. The balance of the RSF is always considered part of our total Days of Liquidity financial metrics calculation, as described in the previous section.

The table below shows the revenue we plan to deposit, if possible, to increase our RSF balance over the next nine years. The table also shows the planned withdrawals from the RSF 2030 through 2034 to reduce debt service, smooth our financial metrics, and help reduce rate increases in those years.

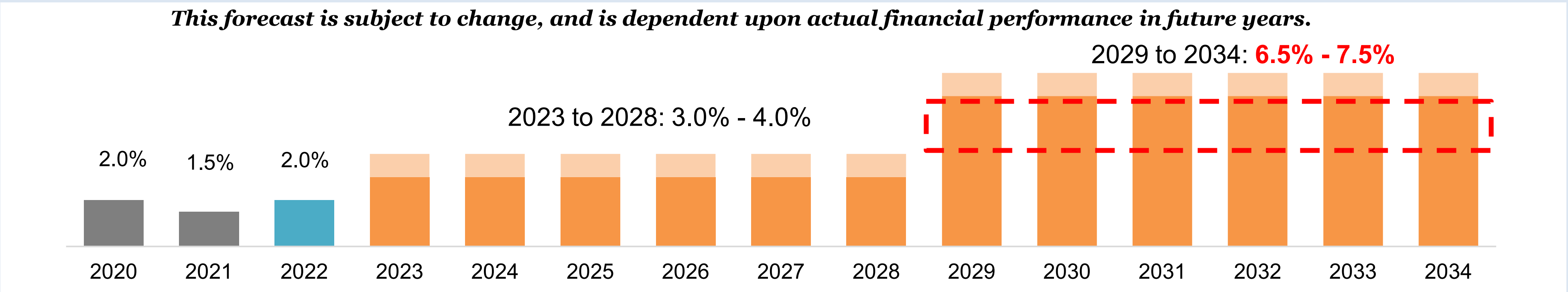
Base Case Planned Rate Stabilization Fund Application

RSF Balance in millions	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
Beginning	$38	$38	$48	$58	$63	$68	$73	$73	$78	$83	$93	$82	$71	$60	$49
Deposit	0	$10	$10	$5	$5	$5	0	$5	$5	$10	(11)	(11)	(11)	(11)	(11)
End	$38	$48	$58	$63	$68	$73	$73	$78	$83	$93	$82	$71	$60	$49	$38

Rate Increase Projections with, and without, Using the RSF

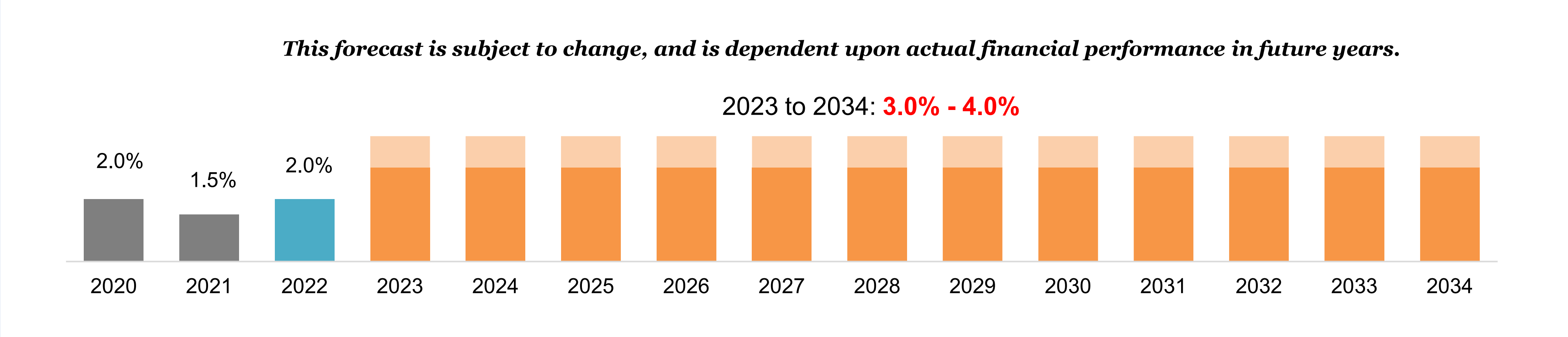
Tacoma Power will need to pay increased debt service in 2026 and 2030 through 2034. Based on current projections, this would require the rate increases beginning in 2029 to be over 6 percent. By accumulating additional funds in our Rate Stabilization Fund and using those funds to defease debt, we hope to reduce the significant rate increases that begin in 2029 to the 3 to 4 percent range of rate increase projections shown in the bottom chart.

Rate increase projections without Using the RSF



*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.*

Projected Rate increase projections Using the RSF



Debt Service Coverage and Days of Liquidity Projections

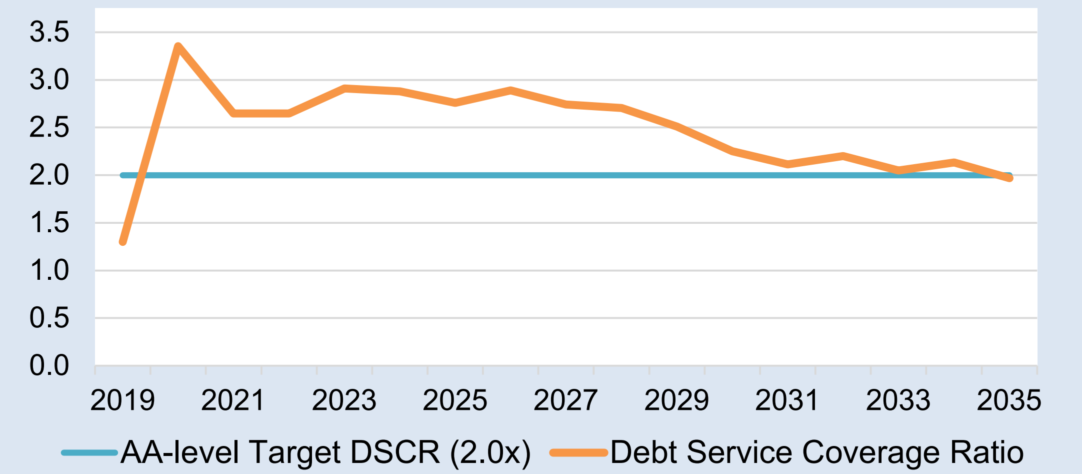
The base case projections in this LRFP assume we set aside revenue in the Rate Stabilization Fund and defease debt service in the spike years (as shown on page 79).

There are many factors that could impact our expected scenario, the financial metrics, and potential rate increases shown in the charts to the right. Section 7 describes many of the risk factors that we face, including, but not limited to:

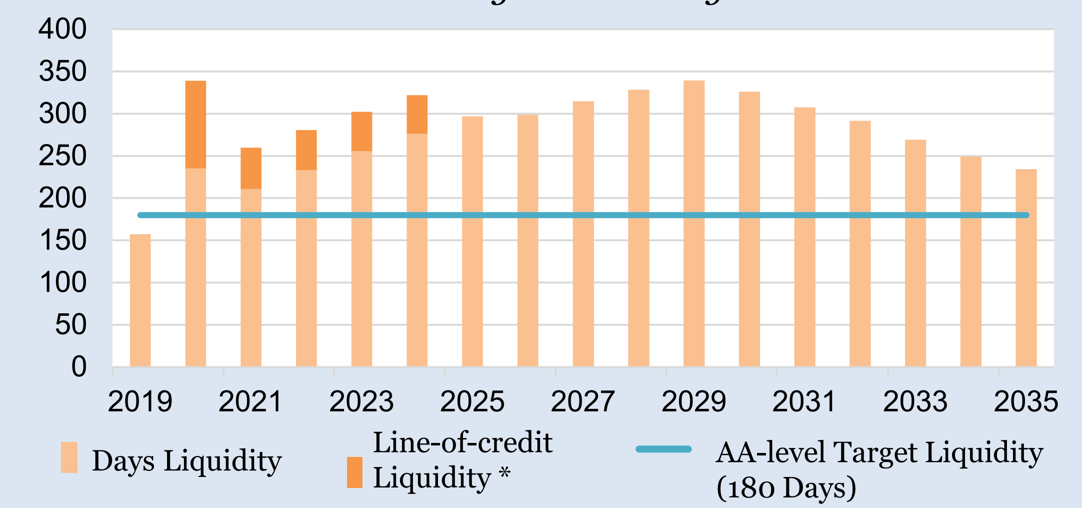
- Load reductions
- Water conditions
- Power prices
- Spending differences compared to budget

The bottom chart shows liquidity growing and then declining as we accumulate and use RSF money to manage the debt spikes, all while staying above our target days of liquidity.

Base Case Projections of Debt Service Coverage Ratio
Target = 2.0x



Base Case Projections of Days of Liquidity
Target = 180 Days



* See section 4 for more information about the line-of-credit.

Structuring Future Debt Service

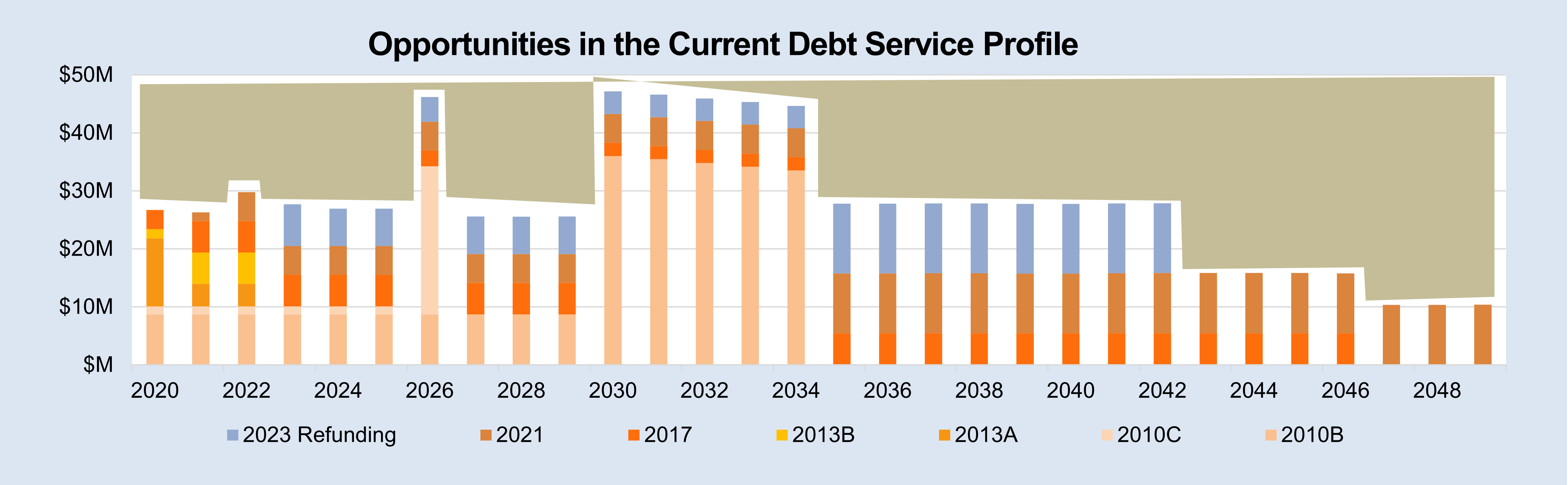
Our goal is to level out our debt service chart when issuing future bonds too.

The gray area on the chart represents the gaps we will aim to fill when we issue debt in future years. We will also be expanding this chart beyond 2050 as we add capital projects that have a useful life extending beyond the next 25 years. The placement of debt is a primary consideration when issuing future bonds and a key part of our strategic investment decisions.

The placement of debt is affected by interest rates:

- *If interest rates on existing bonds are higher than current rates, then we may want to pay principal and interest sooner.*
- *If interest rates are lower when we issue bonds, it can be financially beneficial to push debt service payments out further.*

Another assumption included in the LRFP is the issuance of Refunding Bonds in 2023 to refinance the outstanding amount of our 2013 Bonds. This refunding will help us restructure and level out our 2013 debt service, so that we can stabilize Tacoma Power's financial metrics and potential rate impacts in future years. Of course, discussion of any such refunding or defeasance is preliminary and subject to Public Utility Board and City Council approval.



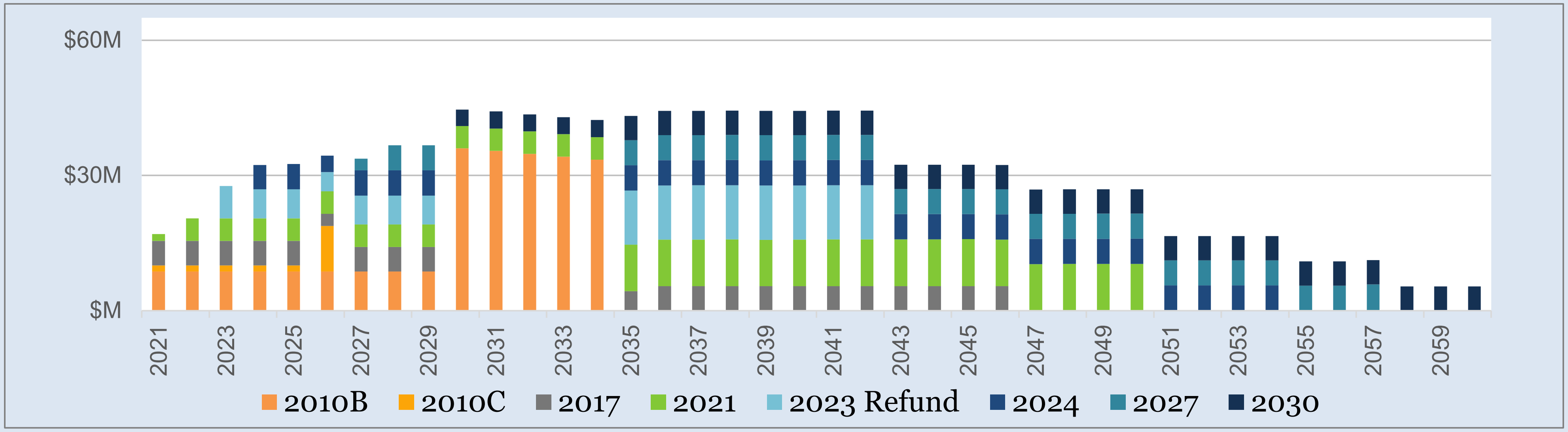
Projected Debt Structure

In our base case scenario, the LRFP assumes the issuance of approximately $100 million in long-term fixed-rate Bonds in 2024, 2027, and 2030 with payments that are spread over 30 years. These funds will repay spending on capital projects during the prior biennium.

The graph below illustrates the base case future bond issuances that will refund spending on capital projects targeted in future biennia. The combination of the outstanding Bonds and projected future bond issues will be structured to keep future debt service level over time.

Future Projected Debt Service*

Optimal future debt service profile fills in the gaps and levelizes debt across multiple years



**Debt service assumes refunding the outstanding 2013 Bonds in 2023, a $15 million defeasance in 2026 of outstanding bonds, and the defeasance of approximately $11 million annually of outstanding bonds in 2030 – 2034 using revenue set-aside in the Rate Stabilization Fund. Any such refunding bond or defeasance is preliminary and subject to Public Utility Board and City Council approval.*

* Not included in the graph is the debt service due on the short-term line of credit from Wells Fargo that is currently used to manage the initial spending on bond-funded capital projects. Tacoma Power has defeased and refunded bonds in the past and could do so in the future. No decision has been made to date about future bond repayments or retirements.

Section 6

The Base Case

The Base Case is the financial model against which we analyze and compare every scenario.

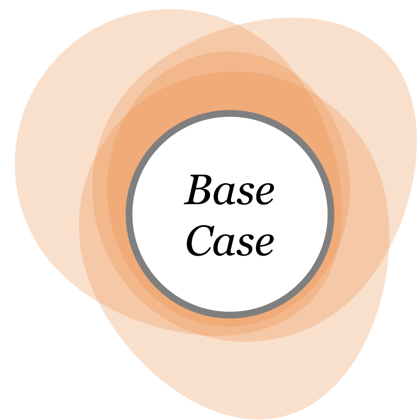
The Base Case

One of the purposes of the LRFP is to look at possible impacts of changes that may occur in the future. In order to do that successfully, we need a reference point for use in the comparison of scenarios. We call this the Base Case.

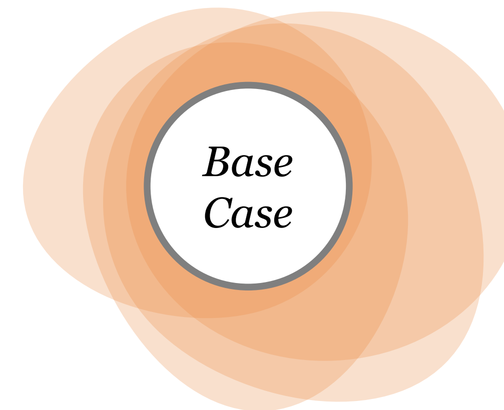
Think of it as the control group in a scientific experiment. In this document, we explore the impacts of adjusting different components of the plan (shown as Scenarios) to understand the resulting outcomes. In these scenarios, the Base Case is the thing that doesn't change and is therefore **the foundation of the Long-Range Financial Plan**. The pictures to the right are a simple illustration of how the base case is always at the core and numerous other factors change around it to produce different scenarios.

In this LRFP, the Base Case reflects the combination of Tacoma Power's financial performance through August 2021 and the background information you read about in the previous section.

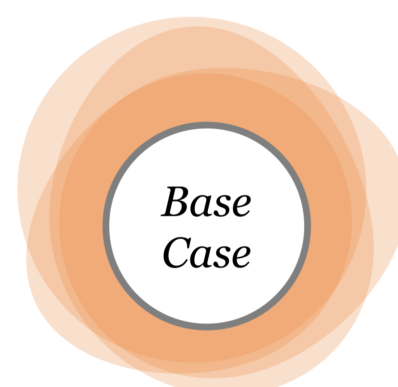
The analysis of scenarios and risks described in the following sections get compared with the Base Case to provide a relative rate increase. This results from using projections for liquidity and debt service coverage to indicate what rate increases are needed to maintain financial targets.



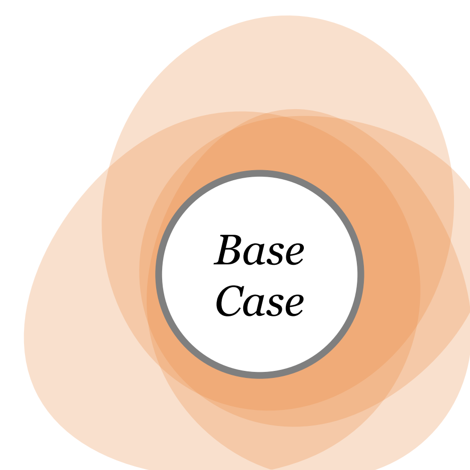
Scenario 1



Scenario 2



Scenario 3



Scenario 4

Liquidity

In order to understand how managing financial metrics influences rate increases, it is important to explain the two metrics we use as guides. We have minimums that we must maintain to meet our bond covenants, but also have targets that are well above these minimums.

The first metric is Days Liquidity. This is an organization's ability to cover operating expenses over a period of time. Tacoma Power's target is to continually maintain enough liquidity to operate the utility for 180 days. This target helps us maintain AA-level financial metrics. Any forecast that tells us we'll miss this target is something we will want to fully understand and explore and could potentially lead to a rate adjustment.

Here's how we calculate liquidity:

We add together all unrestricted cash and investments, including the Rate Stabilization Fund and acceptable Bank Lines

We multiply that number by 365 days

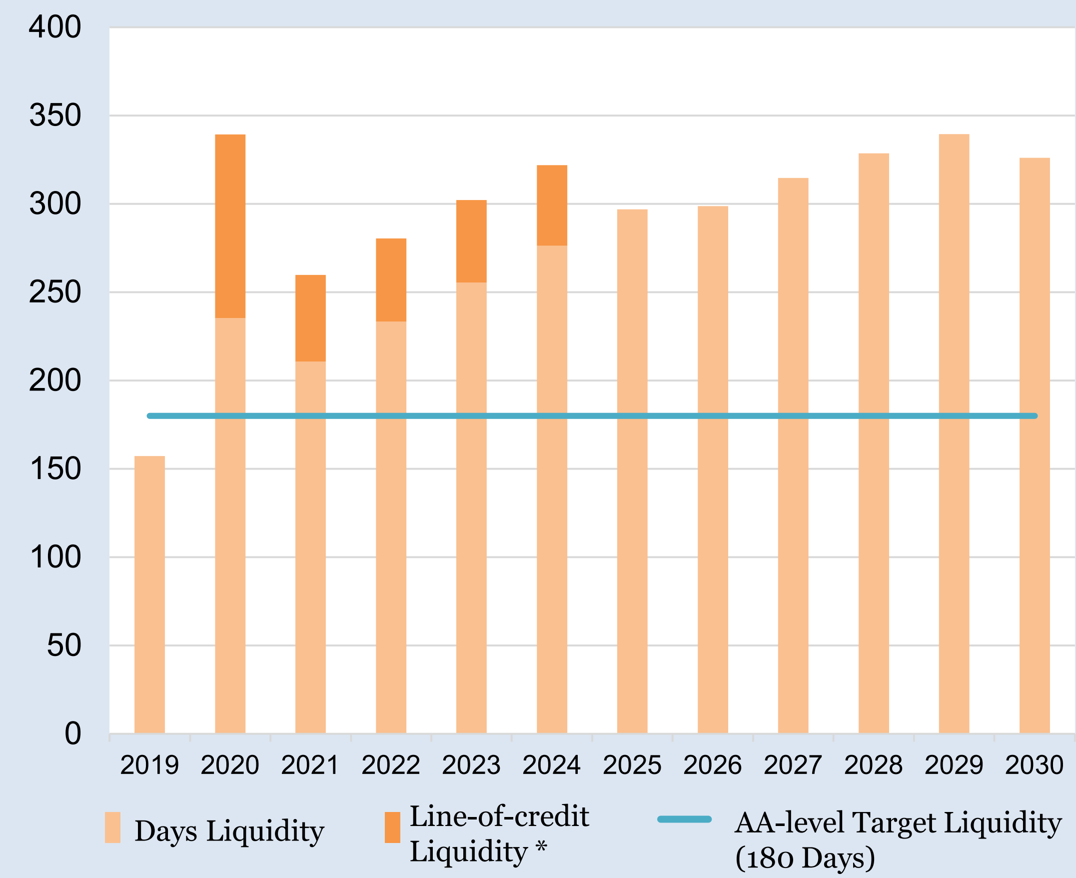
We then divide that total number by our annual operating expenses

That gives us the number of days of liquidity

As you can see from the chart, we are well above our target with the inclusion of the line-of-credit in the base case, as we set aside revenues in our Rate Stabilization Fund to meet future debt service needs. These values change as we look at different scenarios on the following pages.

Historic and Base Case Projections of Days Liquidity

Target = 180 Days



* See section 4 for more information about the line-of-credit.

Debt Service Coverage

Another primary driver for rate increases is Tacoma Power's Debt Service Coverage Ratio (DSCR), a measurement of our ability to repay annual debt obligations using Net Revenue. Net Revenue is simply the revenue we have left over after we pay operating expenses.

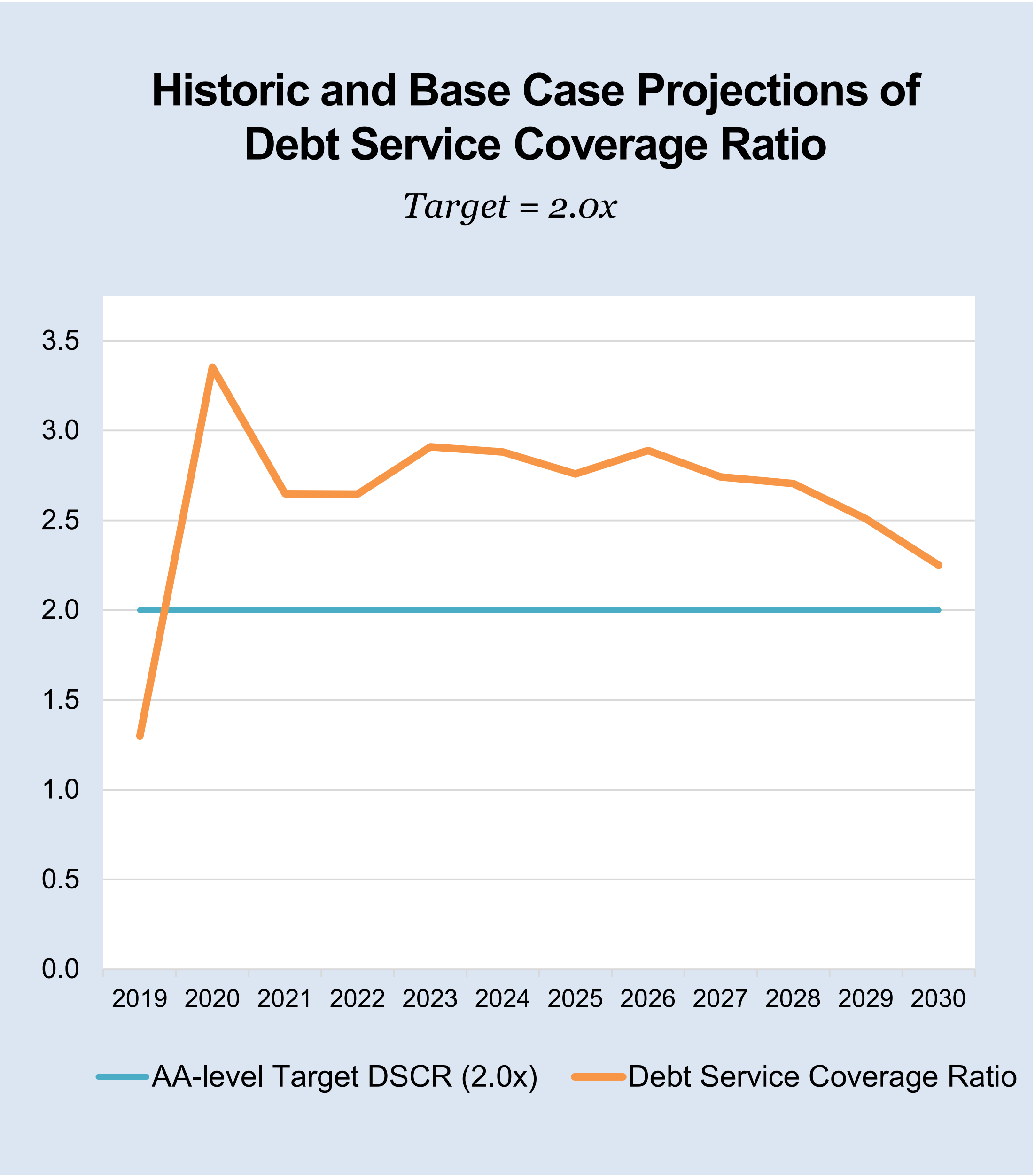
Debt Service Coverage is our ability to pay our debts after we've paid our other operating expenses. We have a legal obligation to maintain Net Revenue at a level that equals 1.25 times (1.25x) our debt service payments but we target maintaining 2.0x to support our existing bond ratings. If a projection shows that we wouldn't be able to maintain a 2.0x coverage ratio effectively, we would likely recommend a rate increase.

Here's how we calculate debt service coverage:

We subtract our total expenses without debt service from our total revenue to determine Net Revenue before debt service

We divide that number by our debt service payments due in that year, on an accrual basis, to determine the ratio of Net Revenue to Debt Service

As you can see from the chart, we are above our target in most years with this metric in the Base Case. Just like the Days Liquidity metric, these values change as we look at different scenarios on the following pages.



Projecting Rate Increases

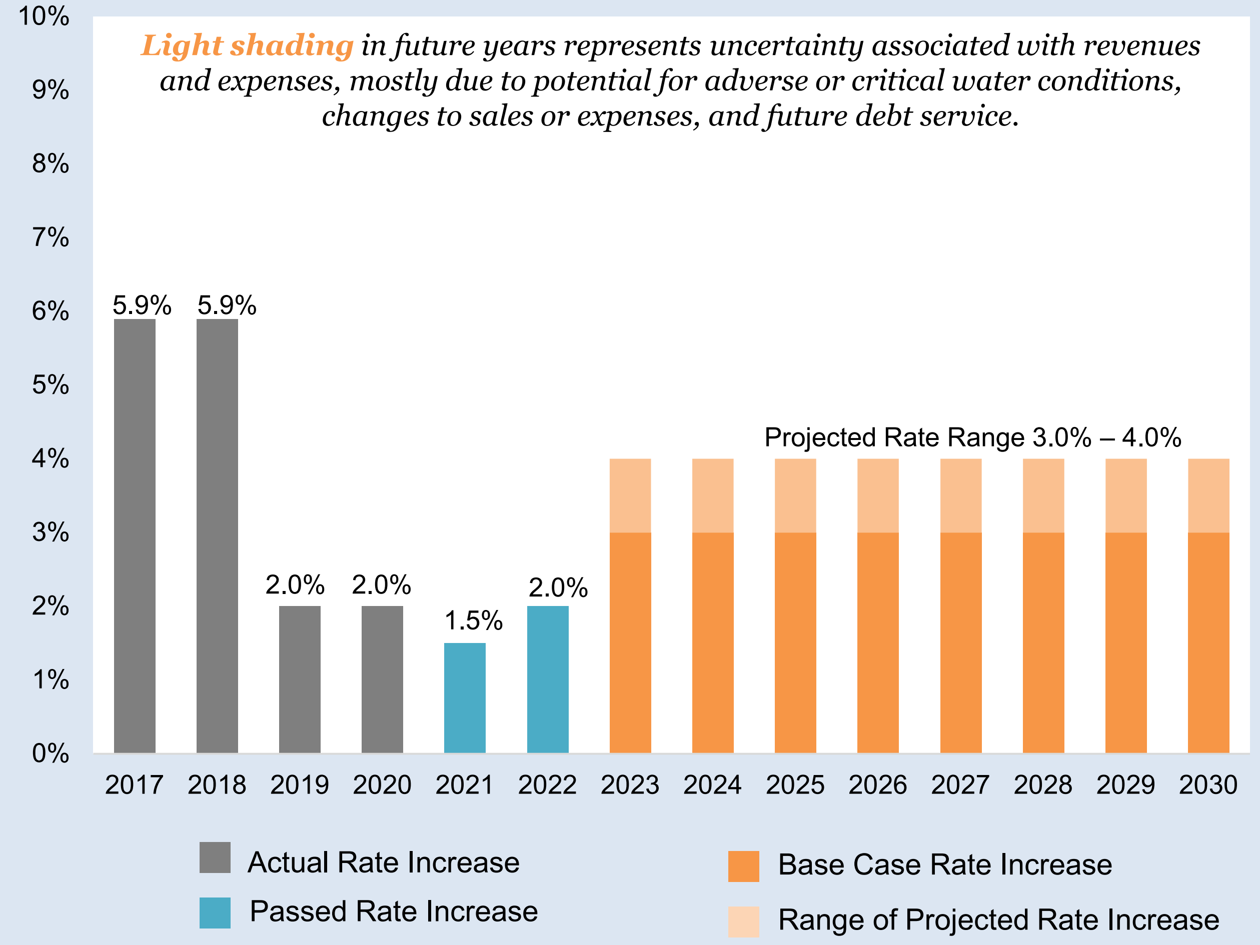
If we plug all the projections from the background section into the model and assume average water conditions, we derive the rate trajectory shown in order to maintain both Tacoma Power's target liquidity and debt service coverage in future years.

In Section 8, we are going to test the sensitivity of these projections by changing some of the inputs into the model. The projected rate increases will increase or decrease depending on the element changed, but the changes will always be compared with the Base Case rate increases shown here.

It is important to remember that these are only projections and have not been formally recommended or approved by our regulatory bodies. Something can happen today that significantly impacts these projections, but at the time that this LRFP was published, this was our best forecast for the future.

Historic & Base Case Projected Rate Increases

Average-water conditions in 2021 - 2030



Section 7
Risk Factors

There are things we can control and things we can't control. In a Long-Range Financial Plan, we try to quantify and predict as many of those things as we can.

Internal and External Risk Factors

Risk can have an adverse impact on our finances, so it is essential to understand both internal and external risk drivers. Even though some factors may be out of our control, we can still develop effective strategies to address, plan for, and mitigate the impacts.

In most cases, it is these risks that we use to vary the inputs of our financial model in order to analyze the potential range of outcomes under these circumstances.

We cannot list all the possible risks in this plan, but this summary should provide a good overview of the most significant ones. Additional risks, but not all risks, relevant to the utility are listed in our 2017 Official Statement which is available at:
http://bit.ly/tpwr-investorinfo

Risk factors can include:

External Drivers

Weather & Climate
Wholesale Price Volatility
Demand Volatility
Economic Cycles
Regulatory Changes
Environmental Regulations
Customer Expectations

Internal Drivers

Compliance with Regulatory Mandates
Supply Portfolio
Technology Changes
Aging Infrastructure
Aging Workforce

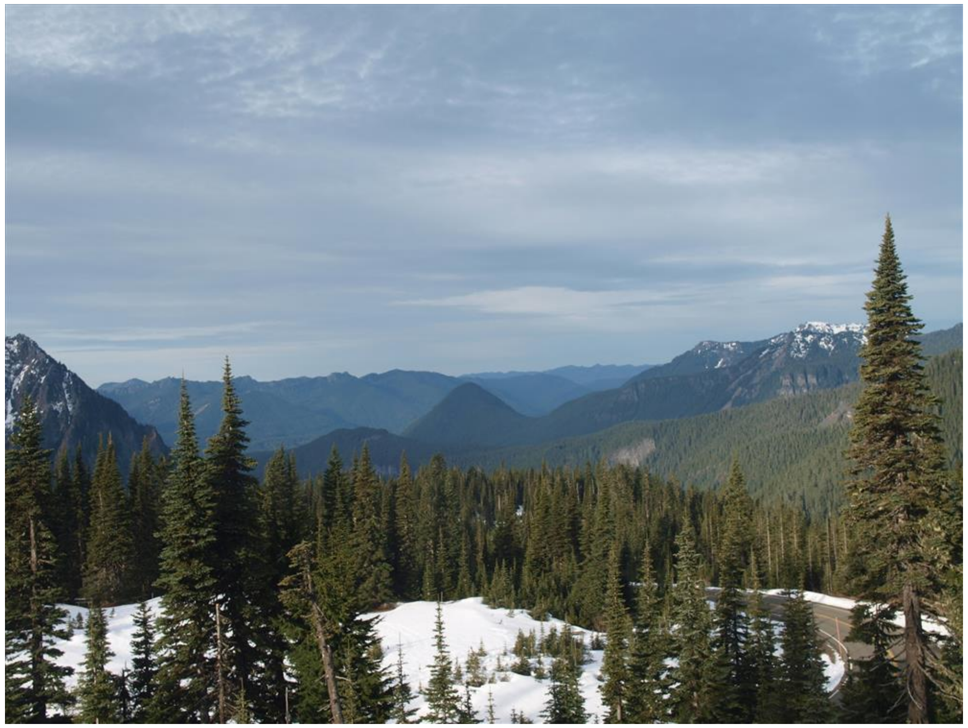
In this chapter, we'll investigate:

Weather

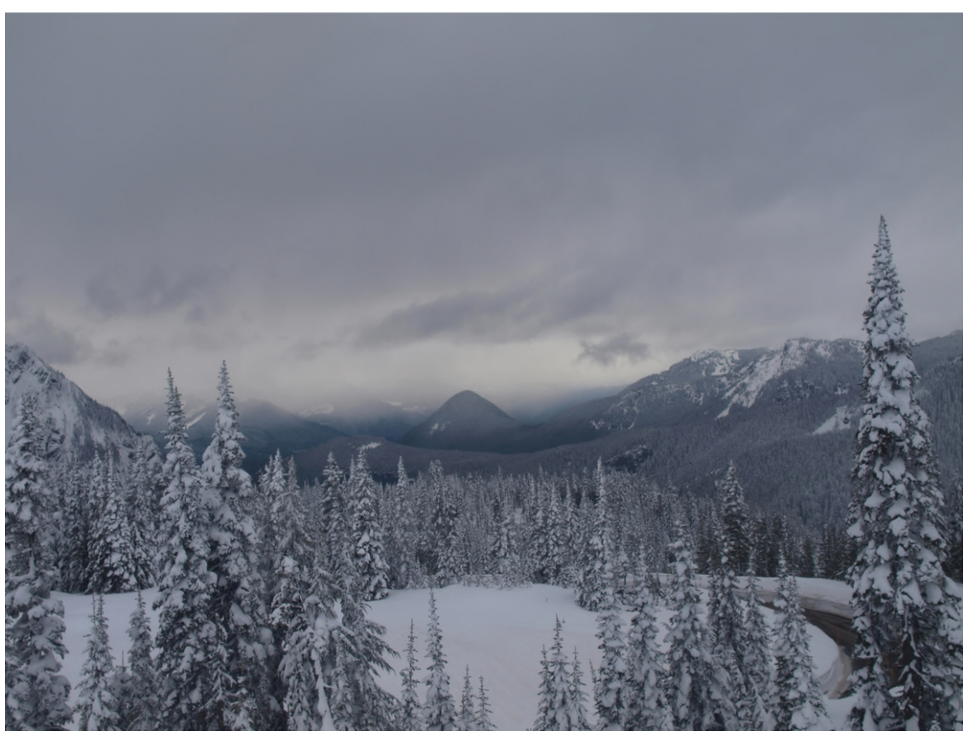
Power Market Changes

Policy & Regulatory Impacts

Economic Cycles



Mt. Rainier
March 2015



Mt. Rainier
March 2017

* Photos used with permission from the US National Park Service.

Weather

Weather is a big external risk factor, and one that is very challenging to predict.

Weather conditions significantly impact both how much electricity our customers demand and the price of electricity in the wholesale power market which influences revenue we earn. In extremely cold or hot weather, people naturally increase the use of heating and cooling systems, creating more demand for energy. This impacts the amount we sell or purchase in the wholesale market.

Weather also influences natural gas prices. As with electricity, the price of natural gas fluctuates with supply and demand. Because natural gas turbines are widely used to generate electricity, these generators are often the lowest cost resource in setting the electricity price in the wholesale electric market.

Since Tacoma Power must be prepared to meet our customers' needs during prolonged periods of extreme hot or cold, we also try to predict changes in power revenue and costs associated with varying weather patterns from one year to the next. That's no small task.

The pictures illustrate how different the snowpack can be from year to year.

Hydrology, by Overall Inflow

Hydrology relates to the study of the movement of water. We need to know a lot about hydrology because most of the electricity we provide to our customers relies on water.

Tacoma Power receives the majority of its power supply from hydroelectric generation.

The dams that store water used to generate electricity, in turn, rely on streamflow into the reservoirs behind the dam.

Streamflows are dependent on rainfall and snowpack, and this can vary significantly from year to year.

Yearly variations in snowpack lead to different amounts of runoff in the spring and early summer.

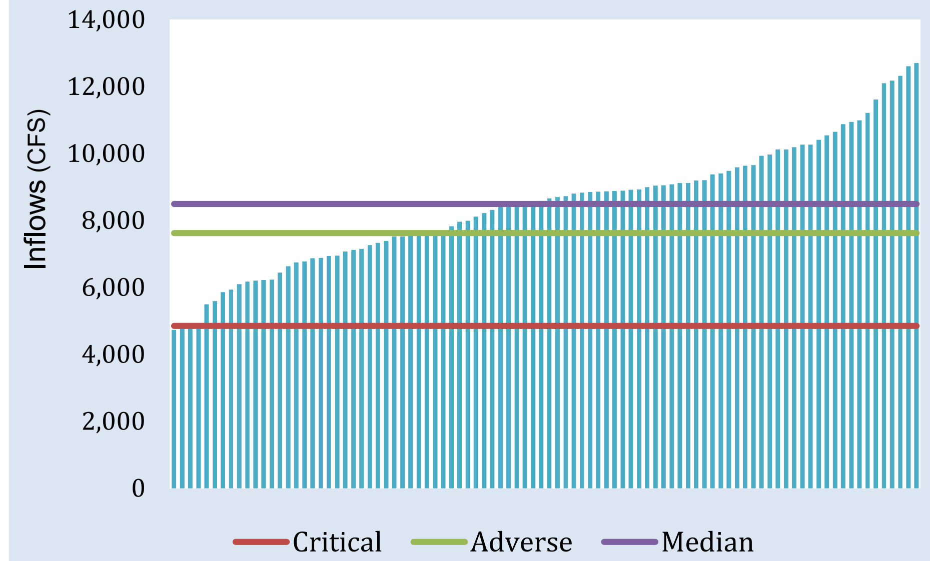
To help us predict the amount of power we can generate using hydroelectric power, we use a historical record to forecast the probability of future weather patterns. Some of these records date back to 1929.

The lowest line on our chart, called a Critical Water year, is determined by the amount of water that came into the reservoir during the lowest year on record. There is a very low probability that this will happen again, so we often use this as a lower bound for planning. In other words, if we can meet customer needs during a year with a “lowest-in-history” level of water inflows, then there is a good chance we can meet customer needs all year long.

Also, we use an Adverse Water year and an Average Water year as benchmarks for planning and forecasting our supply needs and our financial performance.

Total Tacoma System Inflows

Annual Average 1929–2019
(sorted from least to most)



Water Planning Standards for generation capacity

Critical: Inflows similar to lowest recorded historical year.

Adverse: Inflows similar to lowest 25 percent of recorded historical years. We expect this outcome to occur one out of every four years.

Average: Inflows similar to the average of all previously recorded historical water flow years. We expect this outcome to occur one out of every two years.

Hydrology, by Basin

On the previous page, we looked at hydrology risk on a system-wide basis and how Tacoma Power manages the variability across different planning standards.

We operate several different hydroelectric projects across Tacoma Power's electric system, including:

- *Cowlitz*
- *Cushman*
- *Hood Street*
- *Nisqually*
- *Wynoochee*

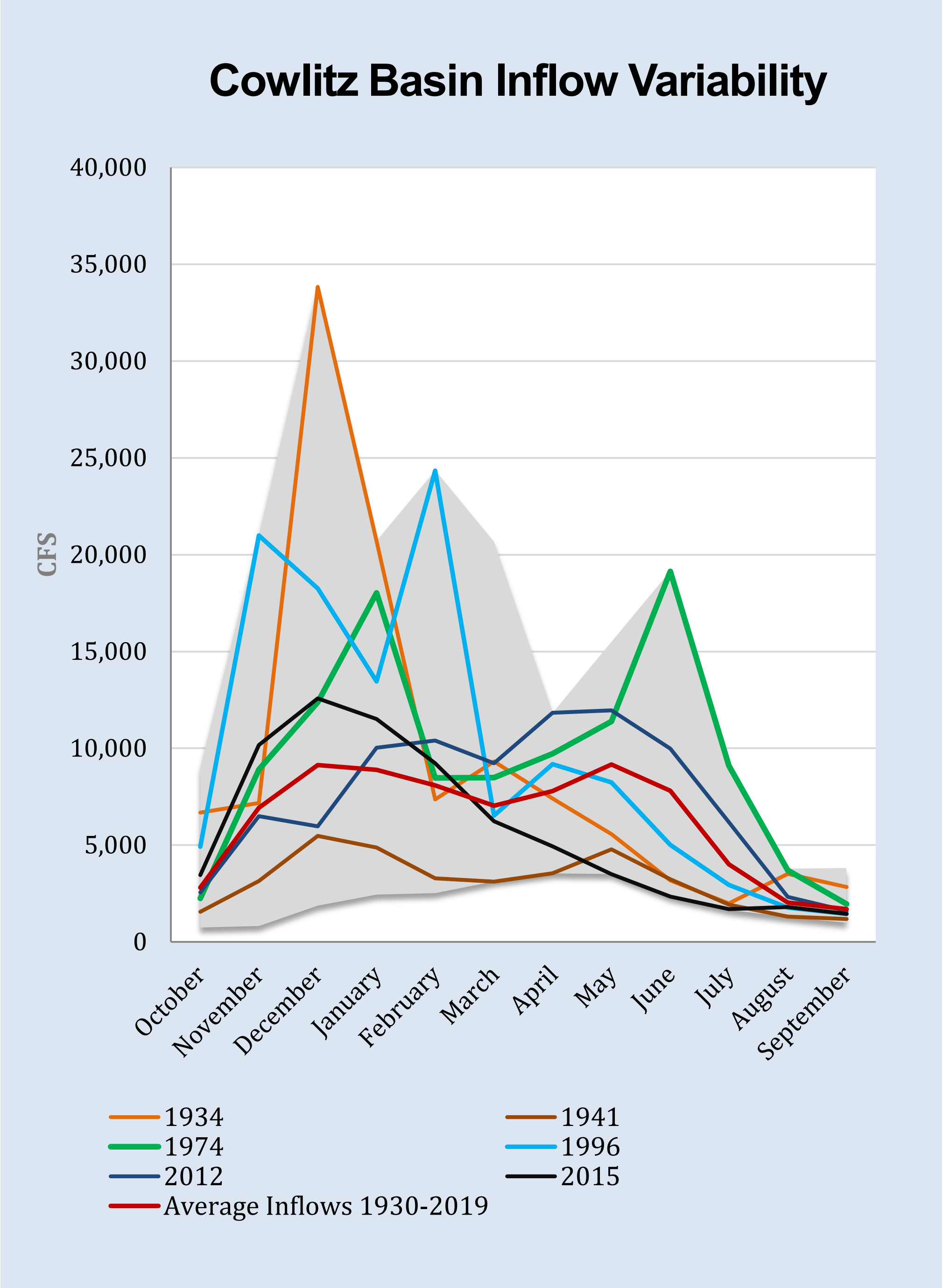
We also receive power through long-term power sales agreements with other entities, including:

- *Bonneville Power Administration*
- *Grant County PUD*
- *Columbia Basin Hydropower*

All of these projects can have significant variability of inflows from one project to another or from one season to the next, depending upon temperature, rainfall, and snowpack throughout the year.

The chart to the right illustrates the monthly variability of inflows into just one project: the utility's Cowlitz Basin (Mossyrock Dam). The orange line illustrates the average inflows and the shaded grey area depicts the range of historical occurrences. Sometimes years like 2015 occur, where there were several drier than expected months, and the overall range in volatility is expanded.

This variability by project, along with licensing requirements, such as fish passage and recreation provisions, should give you an idea of the complexity involved with forecasting hydrology.



Policy & Regulatory Impacts

Regulatory changes represent another risk factor. They can occur at the national, regional, state, or local level, and Tacoma Power actively participates in each of these forums. The utility proactively advocates for the interests of customers and endeavors to shape changes that may impact finances or operations.

The adoption of the Energy Independence Act or Washington Ballot Initiative-937 passed in 2006, is an example of a regulatory change that has impacted the utility. Among other things, the Act requires that power utilities obtain a portion of its customer's electricity needs from qualifying renewable sources. The requirement escalates in incremental steps, requiring 3 percent, 9 percent, and 15 percent by 2012, 2016, and 2020, respectively. Tacoma Power has met these requirements and currently secures 15% of the electricity needed to serve its customers from renewable resources.

2019 WA State Legislature Session

The Washington State Legislature concluded its 2019 session and passed a number of energy-related bills. Most notable was E2SSB 5116 designed to transition the electricity sector to 100 percent clean power in Washington state. The Clean Energy Transition Act (CETA) establishes three standards for Washington State utilities listed on the right.

1. The 2025 Coal Elimination Standard requires utilities to remove all coal from rates.

2. The 2030-2044 Greenhouse Gas Neutral (GHG) Standard requires utilities to provide 100 percent carbon neutral electric service to retail load. To comply with this standard, 80 percent of sales of electricity to retail customers must be from carbon-free resources and 20 percent may be comprised of unbundled renewable energy credits (described on the next page), energy transformation projects, or an administrative penalty payment.

3. The 2045 100 percent Clean Electricity Standard declares it is the policy of the state of Washington that all sales of electricity to retail customers will be from renewable and non-emitting generation. Utilities must demonstrate compliance with this policy on an annual basis.

Due to its surplus renewable and carbon-free hydro power, Tacoma Power is well positioned to meet the CETA's requirements. However, this sweeping new law includes many policy changes which will require numerous rulemakings and workgroups to determine the implementation details as well as additional new utility planning and reporting requirements.

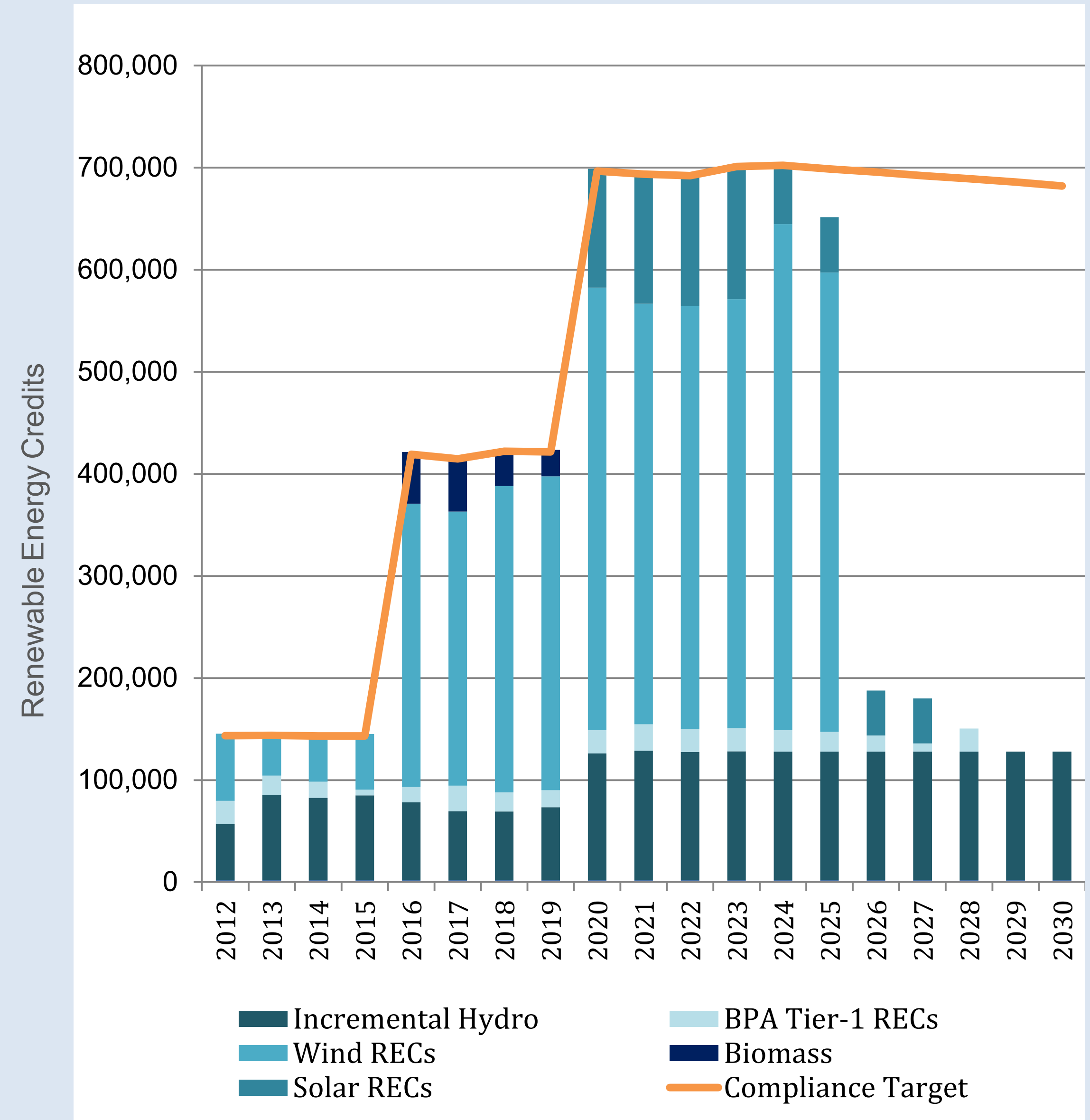
REC Compliance

When qualifying renewable resources generate electricity they not only produce power but they also get credit for producing renewable energy. This credit is a Renewable Energy Certificate or REC. The State of Washington has an approved list of resources that meet the criteria to receive RECs. New hydro projects or improvements to hydro projects qualify to receive RECs, but existing hydro prior to 1999 does not qualify.

The chart illustrates Tacoma Power's compliance with this requirement. Note that if we have extra RECs at the end of the year, we are able to transfer surplus RECs from one year to the following year. This strategy has allowed us to be fully in compliance with the Energy Independence Act since its inception.

In future years, there is a gap between the RECs we own and the compliance requirements. We plan to fill this gap post 2024 with a mix of long-term contract purchases and short-term market purchases.

Current Renewable Compliance Status



Renewable Energy Additions

As regulation continues to encourage electricity providers to increase the utilization of renewable resources, we must consider the impacts of the resulting transformation on electricity markets in our LRFP.

As discussed previously, Washington voters approved a policy initiative (the Energy Independence Act) to generate at least 15 percent of its major utility energy needs with qualifying renewable resources by 2020. Many other states have similar initiatives with far higher goals. The impact on wholesale markets and system operations resulting from these changes is causing a fundamental shift in our industry.

As utilities acquire renewable resources, other power plants historically used for power generation are retired (such as coal, nuclear, and natural gas-fired plants). Since the power generation coming from the new renewable resources, such as solar and wind, are subject to weather patterns, their output is “intermittent,” or variable, throughout the day and year. This reduces the predictability of the overall power supply since the plants that are being removed burned fuel to provide reliable power generation.

Because power generation must be balanced with consumer demand every second of every day, this reduced control over power generation has caused significant operational challenges to the industry.

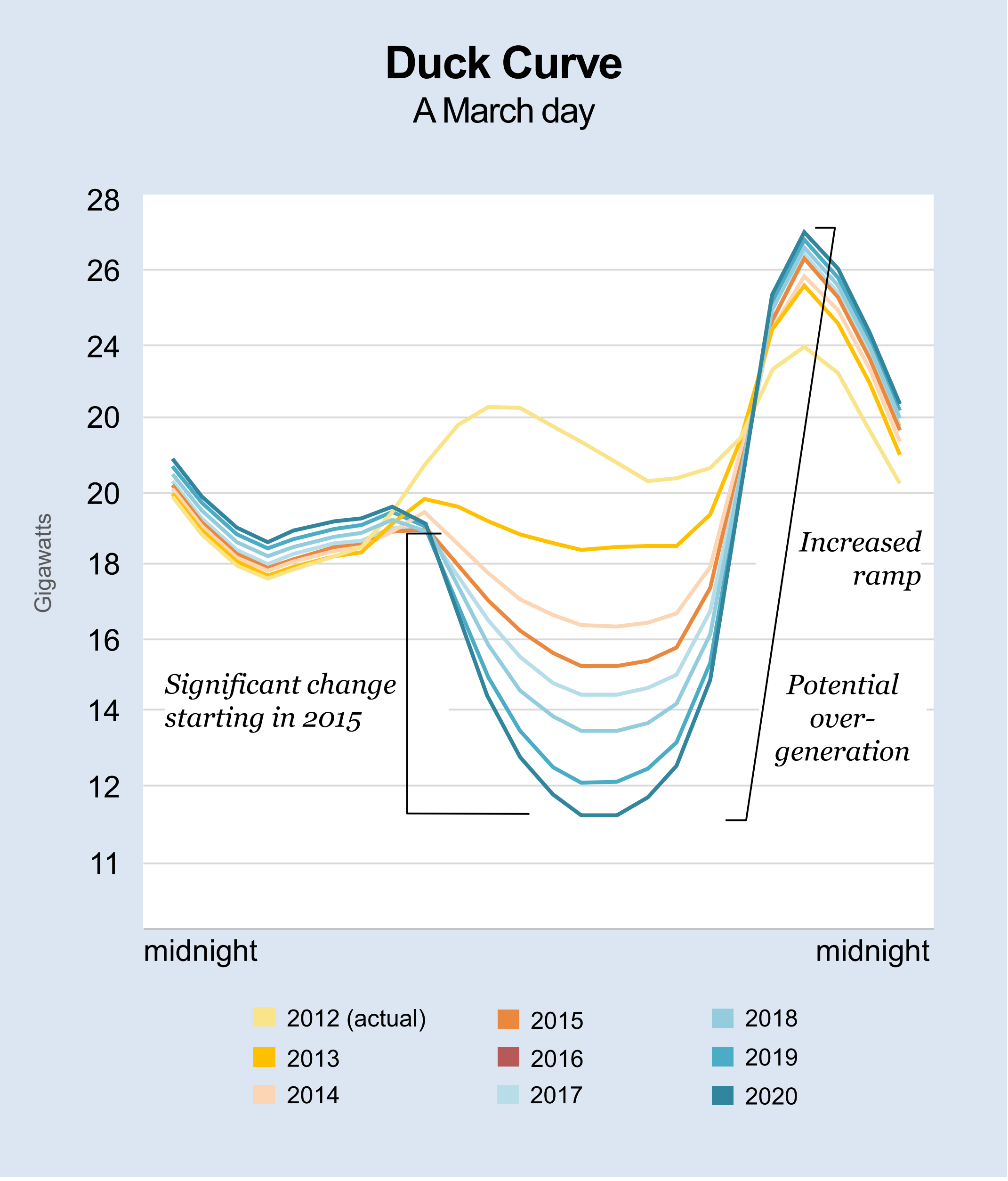
Power Market Changes

Evolution of the Wholesale Market

Several years ago, the California Independent System Operator (CAISO) - an entity that oversees the operation for portions of the California power system - published a paper forecasting the effects of increasing solar generation. This curve became know as the “Duck Curve” because the shape of the load resembles a duck. The curve shown here illustrates how newly constructed solar resources have reduced the amount of consumer demand from utilities during the daytime hours when solar energy is being produced. As the sun sets and people return home from work, the demand for utility power then steeply increases.

As more solar resources are constructed, the supply and demand difference continues to get steeper, which creates “ramping” challenges for utilities managing power plant generation. The industry is working to figure out how to handle these new changes in how consumers are using the electric grid in order to maintain system stability and avoid blackouts. Storage is one technology being explored. In the Pacific Northwest, we are also able to leverage hydroelectric power since it can be stored behind dams and released on demand.

Another impact of this change is that the value of power during the daytime hours has decreased dramatically, since there is no fuel cost associated with solar energy production. This has been a key driver of the lower energy prices we have seen in the wholesale markets. As new resources are constructed and added to the power supply of the region, new challenges will continue to emerge and utilities will need to respond with new infrastructure investments, impacting the cost of providing power to our customers.



Reliability Standards

The reliability standards developed by the North American Electric Reliability Corporation (NERC) are another major area of regulatory compliance. NERC oversees and regulates the reliability of the electric system in North America. NERC Reliability Standards define the reliability requirements for planning and operating the North American bulk power system. The standards apply to all users, owners and operators of the bulk power system and focus on performance, risk management, and system capabilities.

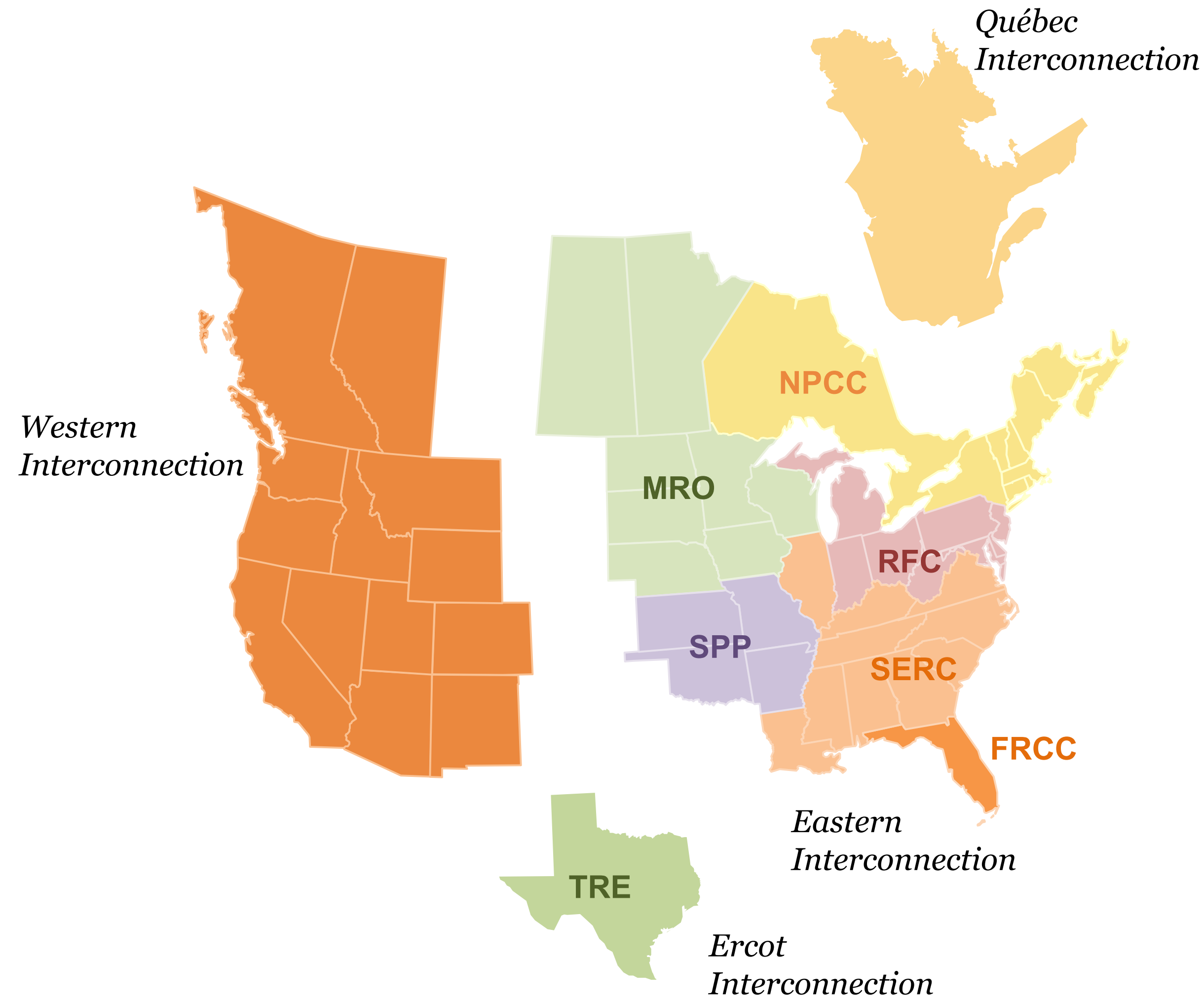
NERC defines a reliable bulk power system as one that is able to meet the electricity needs of customers even when unexpected equipment failures reduce the amount of available electricity.

NERC is divided into regions, and Tacoma Power is a member of the Western Electricity Coordinating Council (WECC). WECC is the regional entity responsible for monitoring and enforcing standards in the western interconnection.

Reliability Standards are continually evolving as new threats emerge or better information about existing standards arise. It is important to remain in compliance with the standards because entities found to be in violation of specific standards can face fines of as much as $1 million dollars a day.

The purpose of the standards is to ensure grid reliability so that major blackouts like the one that occurred in 2003 do not happen again.

NERC Interconnections



As of June 2007, mandatory and enforceable NERC Reliability Standards became effective and applicable to Tacoma Power in its capacity as an owner operator, and use of the bulk power system.

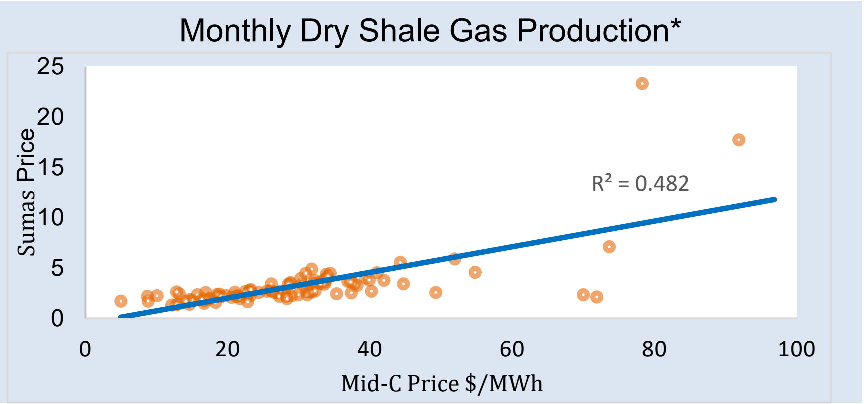
Natural Gas Prices

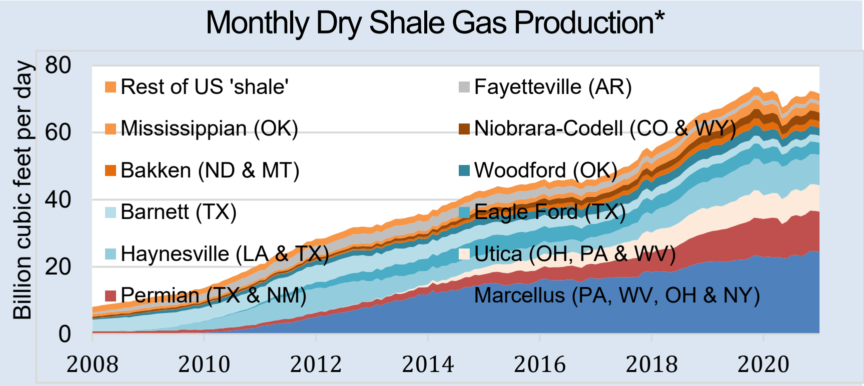
As previously described, Tacoma Power sells surplus power into the wholesale electricity market. The price of natural gas has a significant impact on the price of electricity in the market since gas turbines are used in most utilities' generation mix and therefore influence the price at which they buy and sell power.

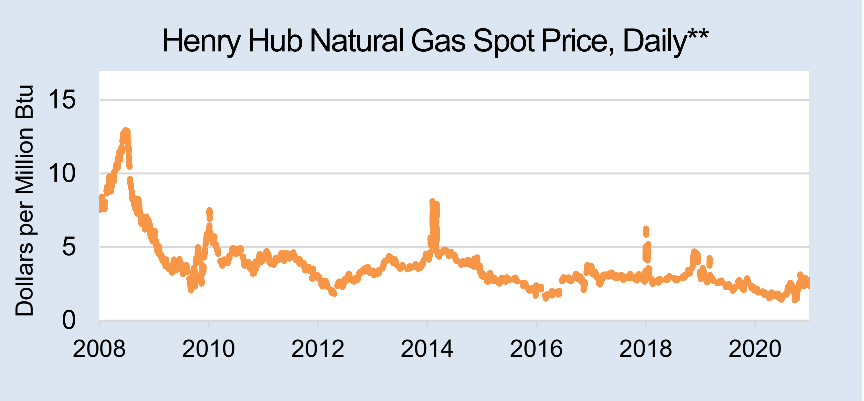
The chart at the upper right illustrates the close correlation between the price of natural gas at Sumas and the price of electricity at the Mid-Columbia, two prominent trading hubs for gas.

There are periods of time, or seasons, when hydro reservoir inflows are higher than normal and the oversupply of generation can also have a heavy influence on wholesale power prices—but historically gas has been the primary driver.

We incorporate the natural gas price forecast into our model for determining anticipated revenues from wholesale electric sales.







These charts help in providing a reasonable explanation for the current depression of wholesale power prices compared to prior years.

Shale gas production has ramped up significantly in recent years, enabled by hydraulic fracturing (or "fracking") technology, and has significantly added to the total amount of natural gas in the marketplace.

This increase in natural gas production, starting in 2006, corresponds with a downward trend in natural gas prices during the same period.

* Source: EIA's Natural Gas Weekly Update. State abbreviations indicate primary state(s).
** Source: U.S. Energy Information Administration (see glossary).

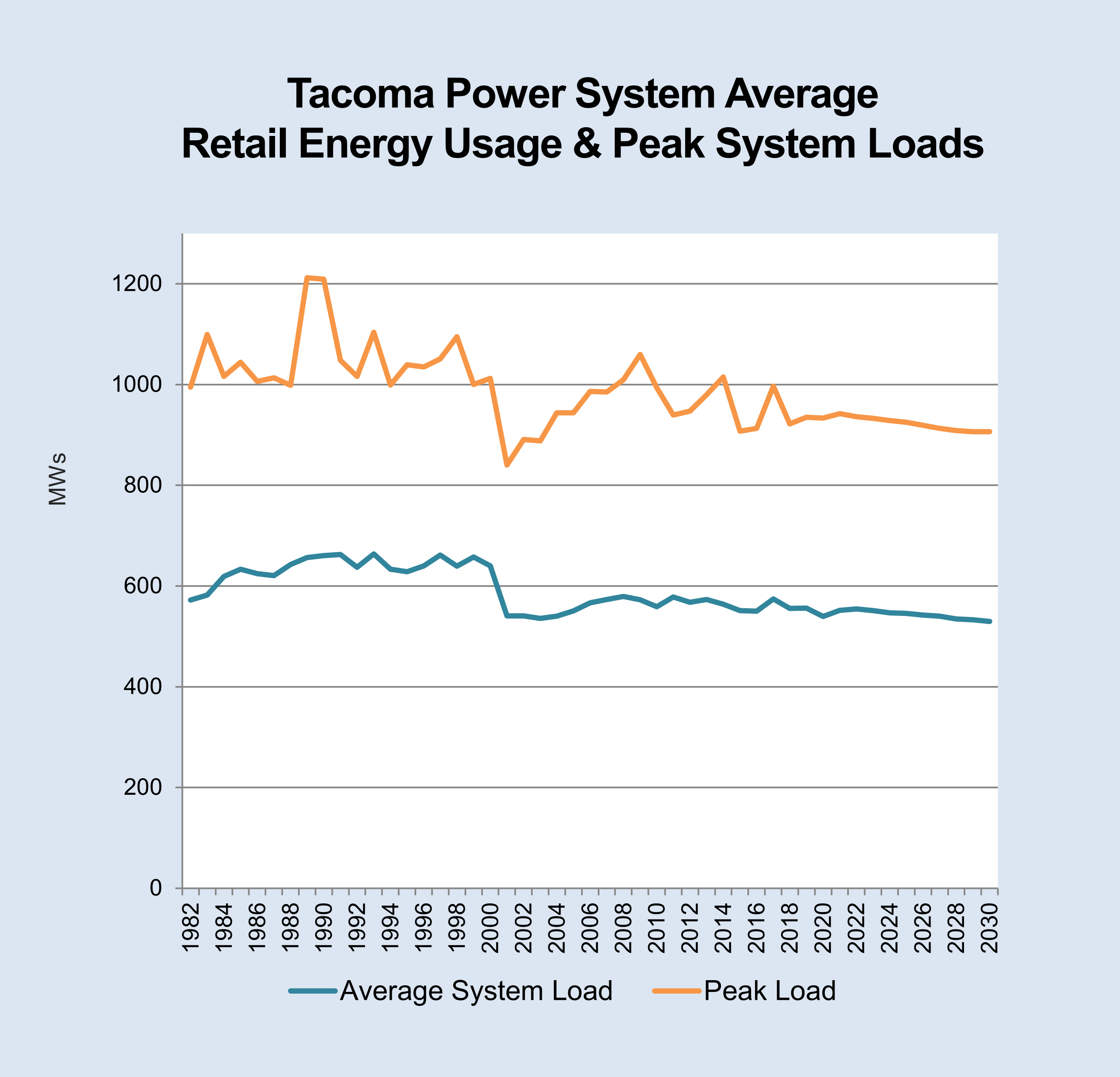
Economic Cycles

Over 75 percent of Tacoma Power's revenue comes from selling electricity to its retail customers. In an economic downturn, Tacoma Power's retail load can decline. A slower economy often results in little to no new business growth. In extended recessionary periods, existing businesses can actually shrink or be forced to shut their doors. Depending on the size of the customer, loss of retail loads can have a significant impact on Tacoma Power.

At one point in the utility's history, several large industrial customers had to close their businesses. Since Tacoma Power is a cost of service utility, those costs had to then be recovered from fewer customers. When this happens, rates must be increased or costs must be reduced through actions such as layoffs or a reduction in services provided.

During times of high demand for electricity, such as when the economy is strong, costs and customer demand for electricity will likely increase. However, the costs of goods and services we buy may go up as well. These are all elements we strive to manage through scenario analysis in this LRFP.

The chart to the right illustrates the actual and projected growth and decline of average and peak customer loads since 1982.



Decreasing Retail Loads

Nationally, electric companies are experiencing a decline in consumption. There are many different reasons for this but one that resonates with many people has to do with changing technology. As the picture below illustrates, the common everyday light bulb has evolved significantly over time. It is difficult to buy a traditional incandescent bulb anymore and often LED bulbs are cheaper for consumers when given the option.

What happens when you replace an incandescent bulb with an LED is that you end up using less electricity. This is a good thing and we actually help people do this! Check out the existing list of programs at knowyourpower.com that our customers can take advantage of.

However, for an organization that sells electricity this means that Tacoma Power receives less revenue every time a customer installs a more efficient light bulb. It's not just light bulbs though. There are insulation upgrades, heating upgrades and many other ways customers are reducing their consumption. In fact, building standards and codes are being updated all the time and more efficient buildings and infrastructure are replacing less efficient buildings.

Additionally, customers are becoming more aware and interested in ways to modify their energy consumption and save money. All of this adds up to a steadily declining retail load forecast. This was one of the reasons for our last rate increase and a challenge we will be continuing to address moving forward.

Section 8

Scenario Analysis

How different scenarios will likely impact the bottom line.

TACOMA POWER
TACOMA PUBLIC UTILITIES

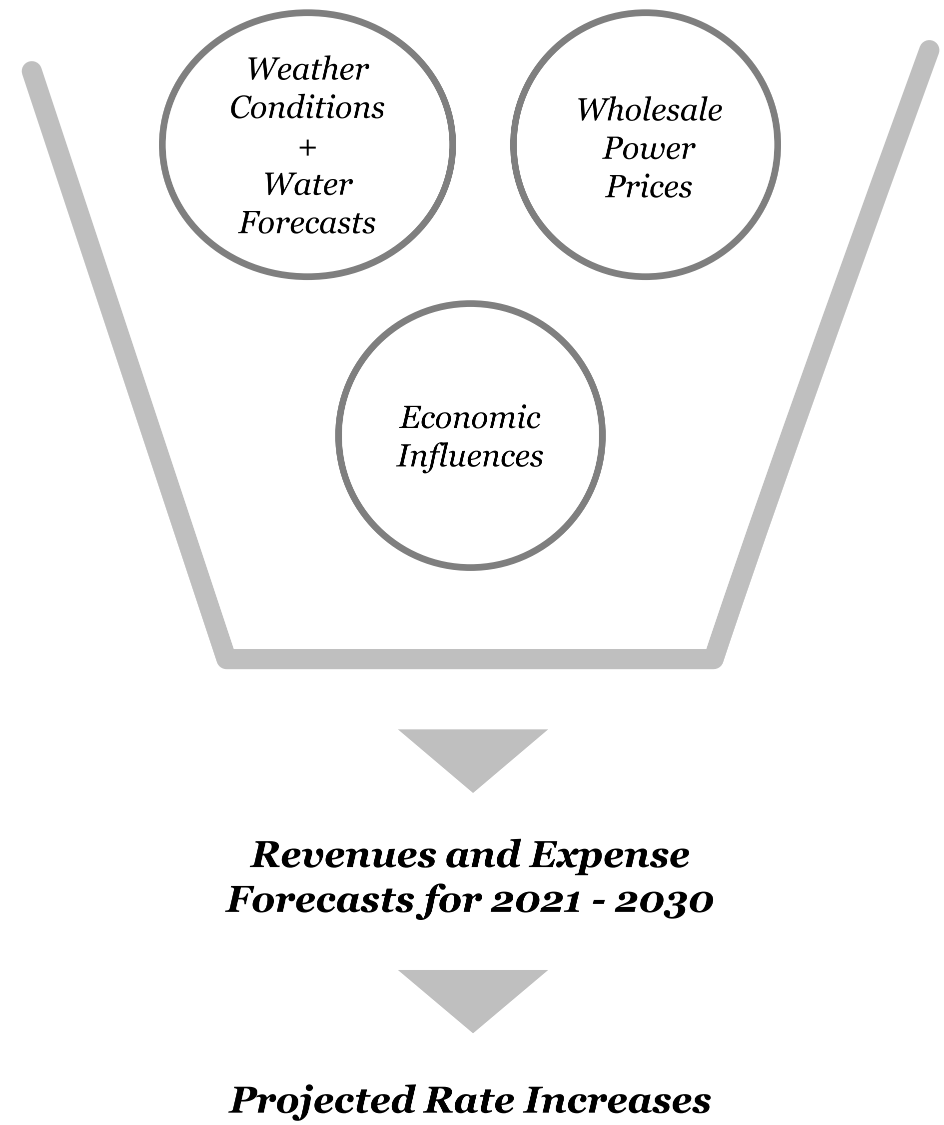
Financial Risk Analysis

Given the risk factors you read about in the previous section, Tacoma Power faces financial variability and uncertainty during the period covered by this LRFP. Analyzing the sensitivity of the Base Case to specific risk factors can help improve Tacoma Power's ability to manage the financial impact of these risks. Let's think of those risks in three categories:

*One of the foremost risk categories is **weather conditions**, which creates the potential for diminished revenue due to changing consumer demand and variable rainfall and snowpack.*

*Another key risk is the impact of **wholesale power prices.** Since wholesale revenues makes up a significant portion of Tacoma Power revenue, changes to the average market price of electricity can greatly impact financial performance.*

***Economic influences** in the region can either increase revenues through new business developments or reduce usage through the loss of customers.*



Selected Scenarios: Financial Impact Summary

The table to the right summarizes how the impacts of some of the various risks we assess can affect our future rate increases. All scenarios are compared to the Base Case, described in more detail in Section 6.

The scenarios shown here provide a range of possible outcomes which help us assess some of the possible financial risks facing the utility. Due to our current strong financial position, Tacoma Power can presently absorb many potential risk factors with minimal impact on rates relative to the base case. Critical water remains one of the largest potential impacts.

In each of the scenario pages that follow specific details are provided to help you understand some of the different components that are unique to that individual scenario.

The scenarios displayed here and in this section are not intended to represent all of the scenarios that we may analyze. However, they provide you with the ability to see some of the expected impacts of possible events.

Projected Rate Increases

Scenario	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Base Case: Average Water Conditions	**2.0%**	**2.0%**	**1.5%**	**2.0%**	**3.0%**	**3.0%**	**3.0%**	**3.0%**	**3.0%**	**3.0%**	**3.0%**	**3.0%**
Adverse Water in 2022 & 2023	2.0%	2.0%	1.5%	2.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%
Critical Water in 2022*	2.0%	2.0%	1.5%	2.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%
Loss of Large Customer	2.0%	2.0%	1.5%	2.0%	3.2%	3.2%	3.2%	3.2%	3.2%	3.2%	3.2%	3.2%
Lower Wholesale Prices: 2022 through 2030	2.0%	2.0%	1.5%	2.0%	3.4%	3.4%	3.4%	3.4%	3.4%	3.4%	3.4%	3.4%
Economic Downturn in 2021 & 2022	2.0%	2.0%	1.5%	2.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%

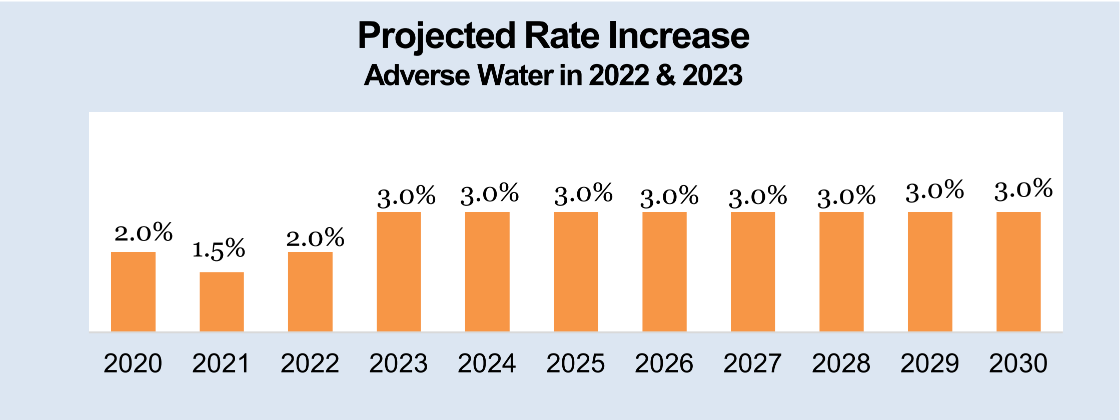
** $15 million from Rate Stabilization Fund assumed*

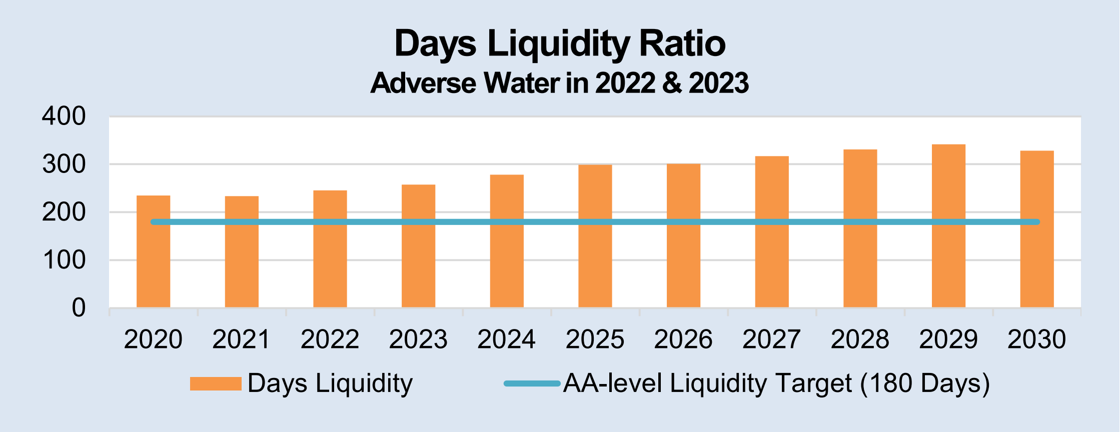
Adverse Water Conditions in 2022 and 2023

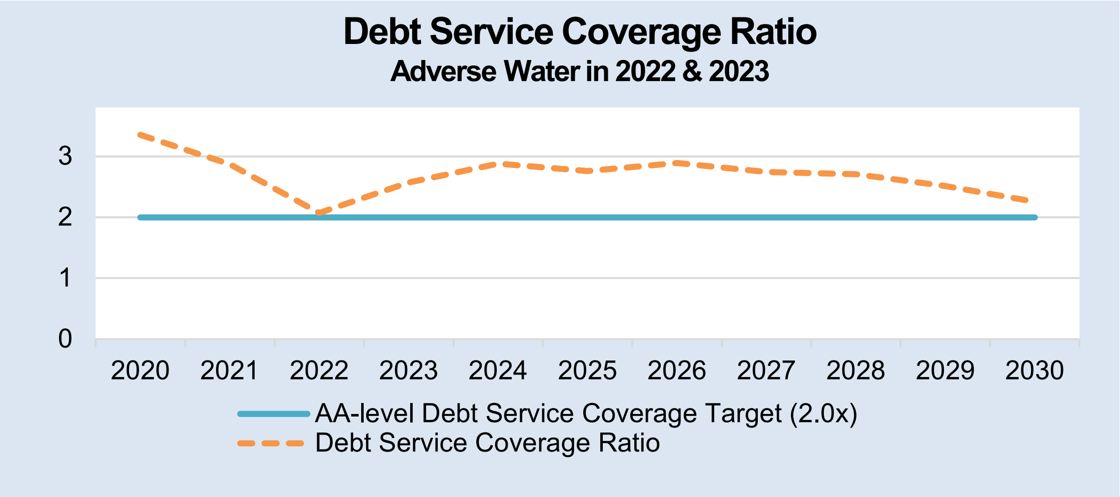
This scenario represents how we traditionally plan for water conditions when we set biennium budgets. To assess the impact of sustained lower-than-average water conditions, we forecast the rate increases necessary to maintain our financial metrics, given adverse water conditions in 2022 and 2023.

Due to many of the changes Tacoma Power has made to manage its financial performance in the last several years, like calling the outstanding 2005B Bonds in 2015, there is more flexibility in the near-term to absorb the impacts of two adverse water years in a row, as reflected in the charts shown here.

While this is a relatively low probability type of event, the combination of prices and water conditions in the 2015/2016 biennium resulted in wholesale revenue levels equivalent to this very condition. This decline in wholesale revenue is one of the items that contributed to a need for two 5.9 percent rate increases in 2017 and 2018.



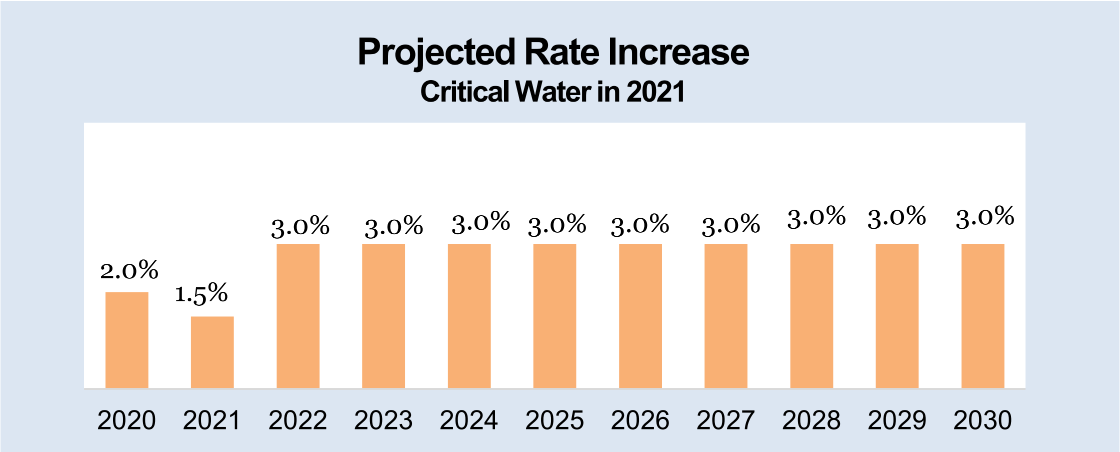


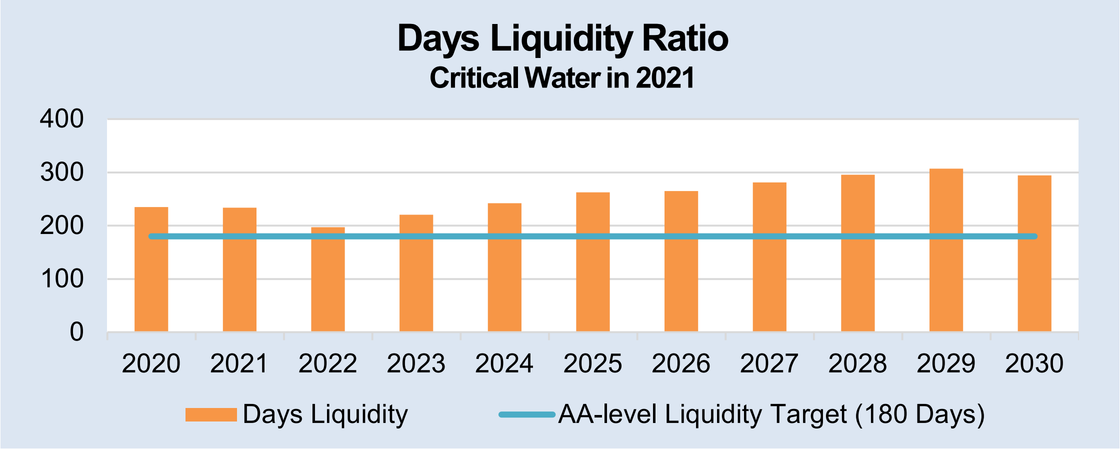


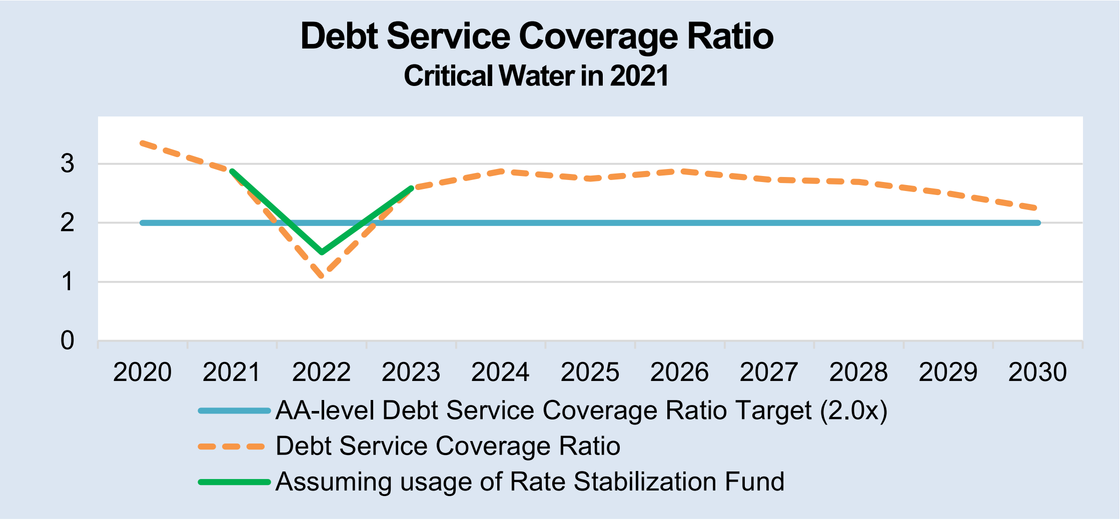
Critical Water Conditions

Tacoma Power is affected by the variability of snowpack and precipitation. Multiple years of dry weather and water shortages can have a significant impact on the financial strength of the utility through reduced revenues. In fact, in 2019 Tacoma Power had a near-critical water year, and the inflows into the reservoirs that we rely on to generate electricity were much lower than we normally experience. Under this scenario, most of the electricity that was generated needed to be used to serve our customers' needs. When this occurred, Tacoma Power had less electricity to sell into the wholesale market, thereby reducing the amount of wholesale revenue the utility earned.

This scenario demonstrates how one year of critical water inflows in 2022 may impact Tacoma Power financially. Illustrated in the Debt Service Coverage Ratio chart on the bottom right, the ratio falls well below the target in the critical water year, 2022. We would likely use the Rate Stabilization Fund in such an event to increase our Debt Service Coverage Ratio (shown as the green line in the chart to the right). The Rate Stabilization Fund may be replenished over the next few biennia.







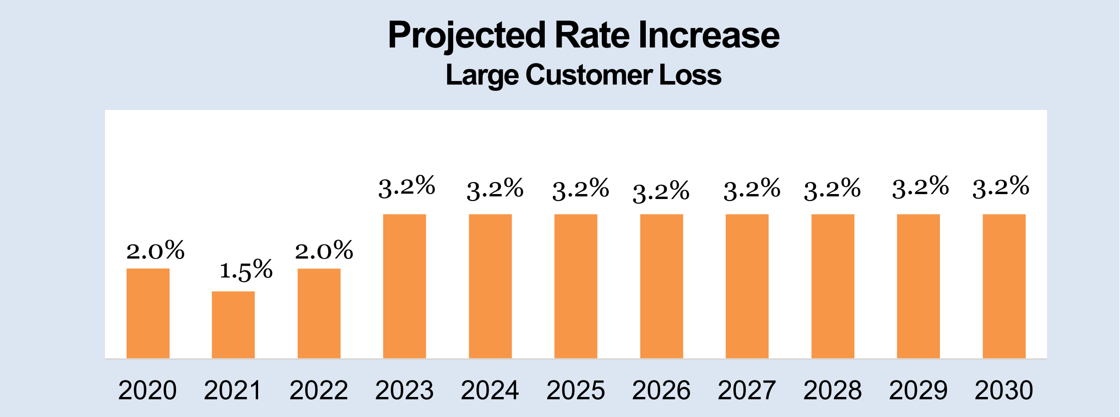
Loss of Large Customer

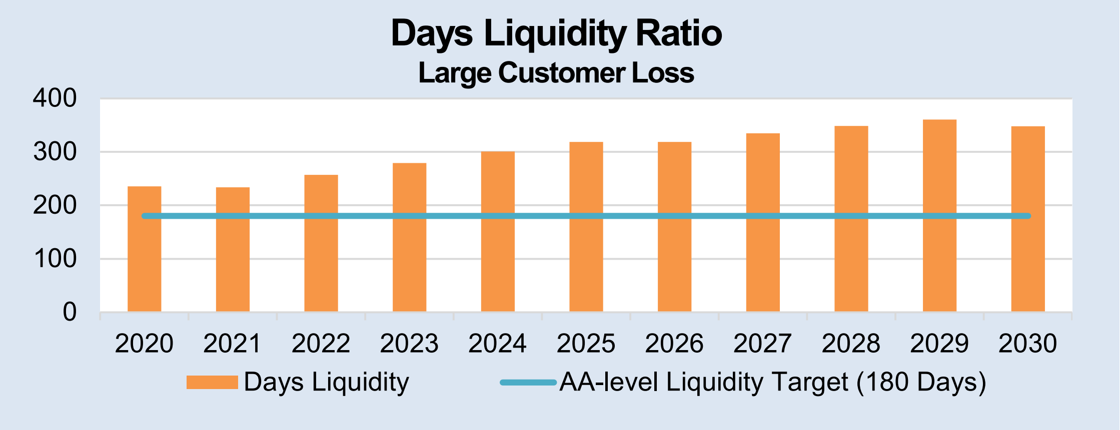
Under typical economic scenarios, retail sales represent about 75 percent of total revenue.

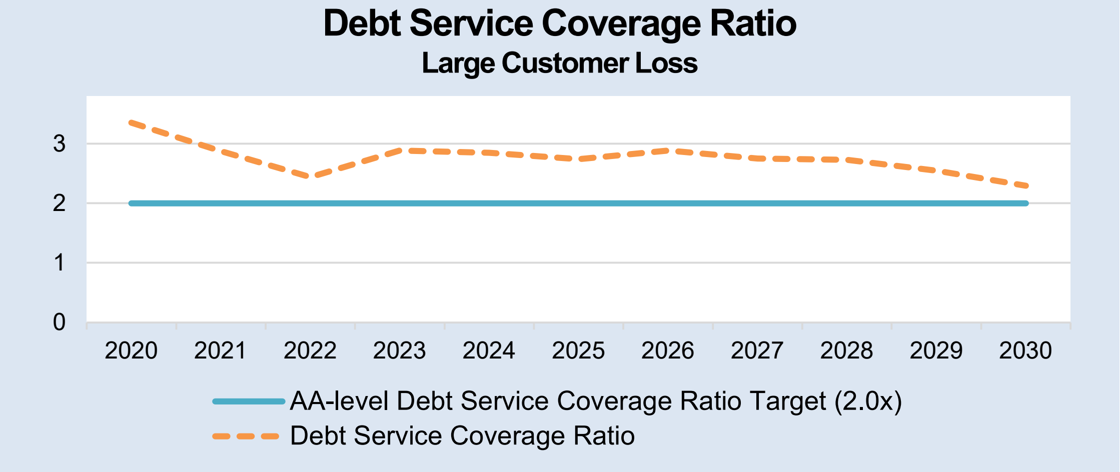
Losing a large retail customer due to local economic influences is one of the potential external risk factors facing Tacoma Power. If Tacoma Power were to lose a large retail customer, it makes sense that the amount of retail revenue earned would decrease. This would result in a decline in net revenues for Tacoma Power and affect rate increases in future years.

In this scenario, the loss of a large customer in July 2022 doesn't severely impact rates because we assumed that we will be able to sell their power in the wholesale market.

Conversely, a scenario where Tacoma Power acquires a new large customer, such as a new large industrial customer, new apartment spaces, or retail businesses moving to the Tacoma service area, may increase net revenues for the utility. This could lead to lower rate increases in the near-term and future years.





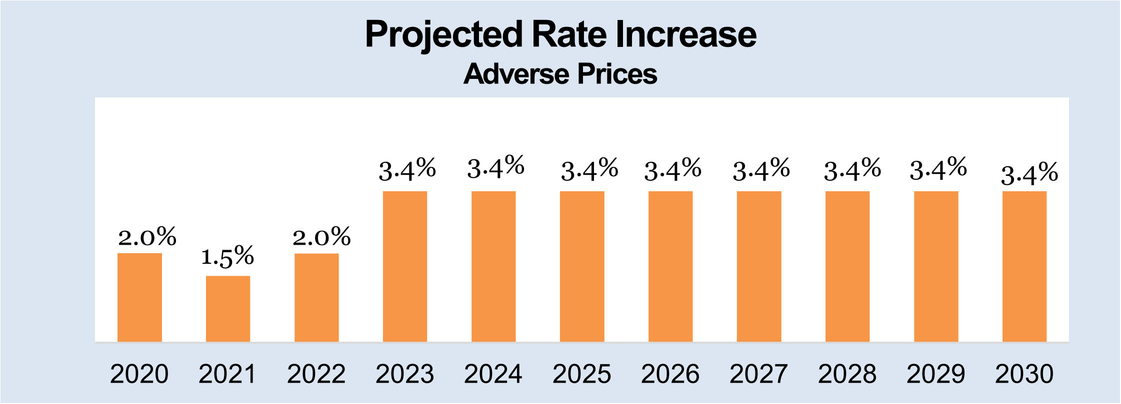


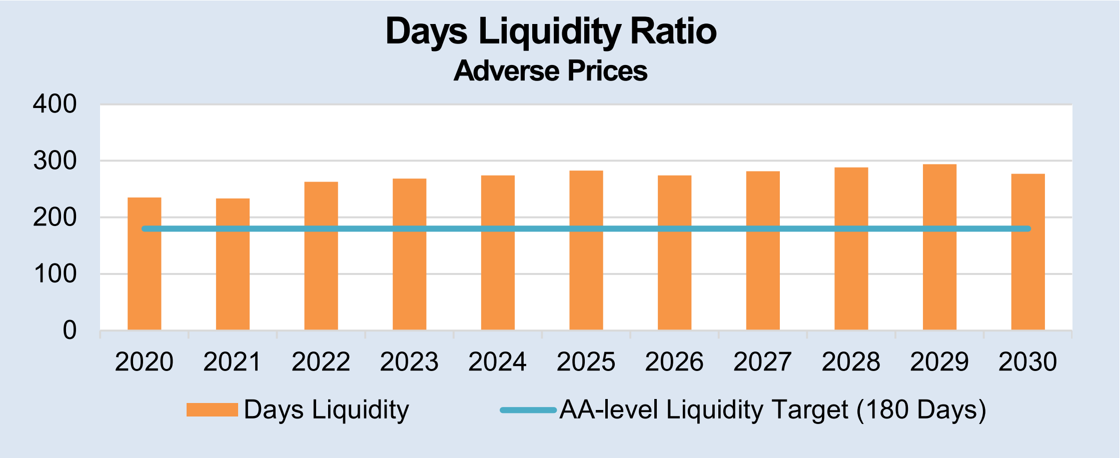
Lower Wholesale Prices

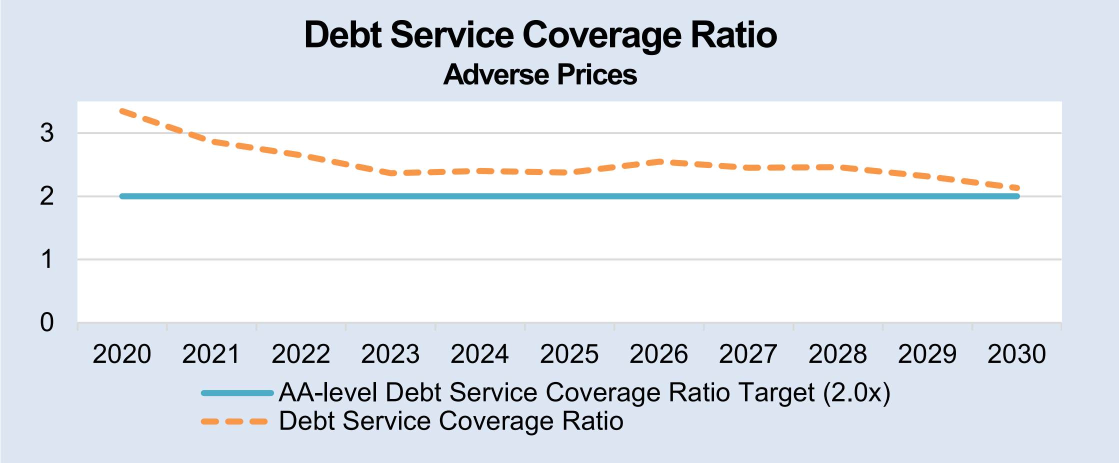
Most of the time we talk about adverse in terms of the water inflows into our system. However, we also consider the effect of wholesale market prices being something less than the current forecasted level, since these revenues are relied upon to help keep retail rates low. For this reason it also makes sense to look at the effect of lower than expected market prices.

Our wholesale revenue is a product of the amount of surplus electricity available to be sold to other users and the prevailing market price for power in the wholesale market. In this scenario, we assumed the market prices were at the 25th percentile of the forecast used in the base case beginning in 2021. This impacts Tacoma Power and puts upward pressure on future rate increases beginning in 2023.

While it is unlikely for prices to fall this much for a sustained period, some of the risks outlined in the transformation of the market on page 100 could push prices in this direction.





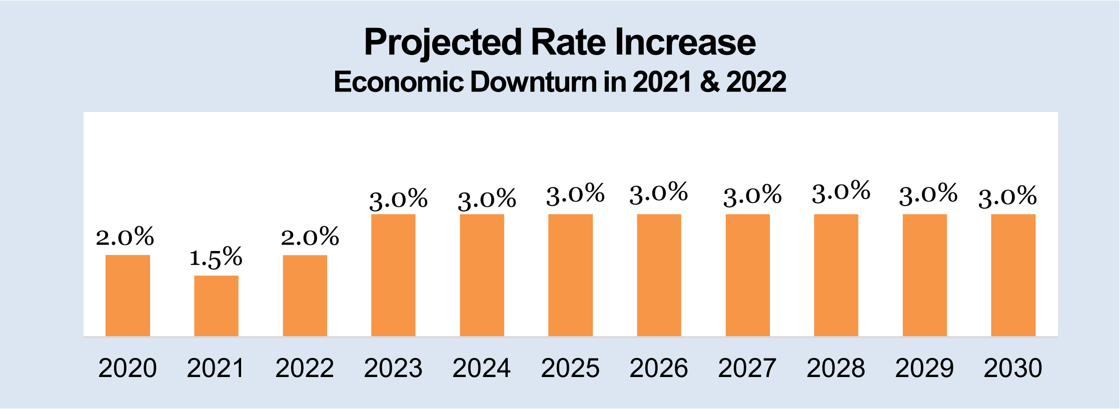


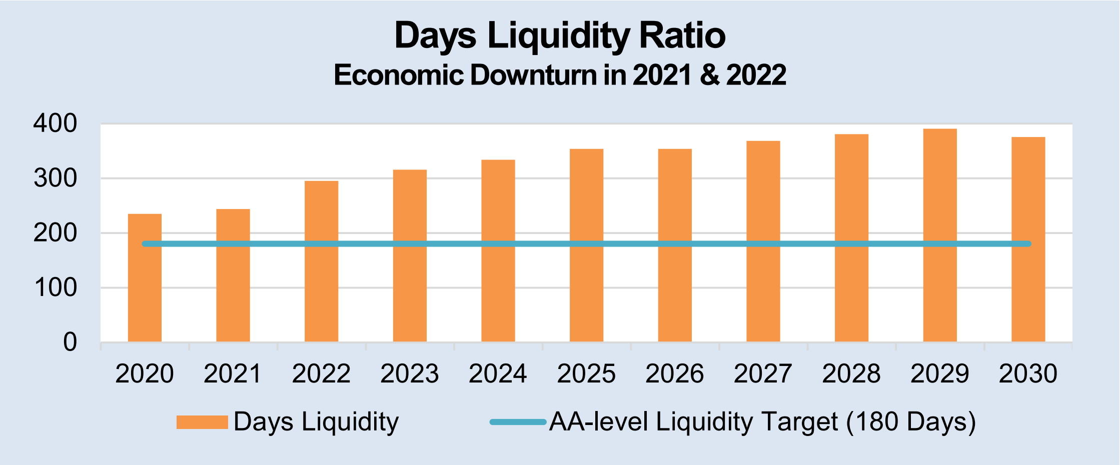
Economic Downturn

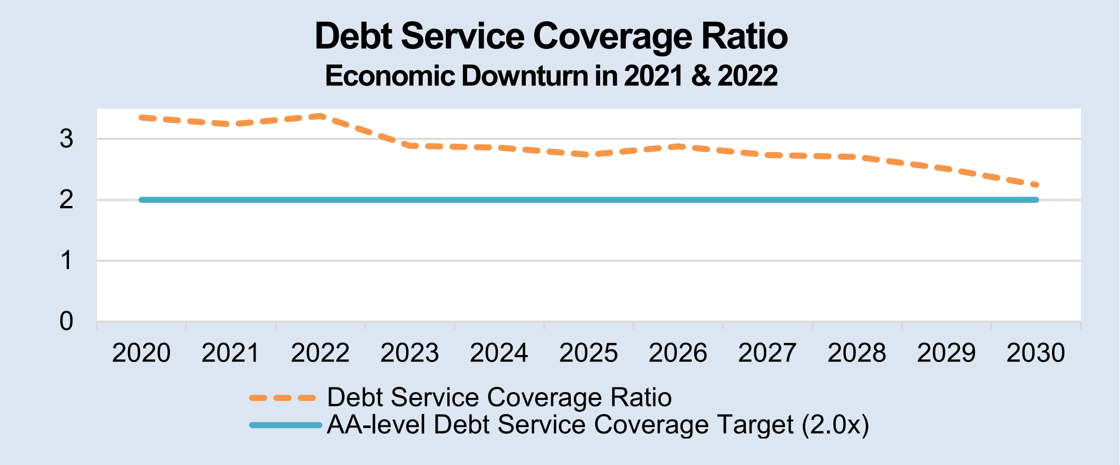
Over 75 percent of Tacoma Power's revenue comes from retail loads. In an economic downturn, or recession, the economy slows down and Tacoma Power's retail load can be at risk. In extended recessionary periods, existing businesses can actually shrink or be forced to shut their doors. Depending on the size of the customer, loss of retail loads can have a significant impact on Tacoma Power.

This year, a global pandemic initiated a recession, causing several businesses in the Northwest to shutter. At the height of the pandemic, Tacoma Power's revenue fell by over 7 percent. Since Tacoma Power is a cost of service utility, those costs must then be recovered from fewer customers. Whenever this happens, rates must be increased, typically in future years.

This scenario assumes that a second wave of a global pandemic will result in another economic downturn of similar proportion as 2020, beginning in 2021 with recovery into 2022. This may result in high future rate increases over the next several biennia.







Section 10

Glossary

Defining a few key terms.

TACOMA POWER
TACOMA PUBLIC UTILITIES

Glossary

Accrual method
Under the accrual basis of accounting, expenses are matched with the related revenues when they occur, regardless of when the cash is paid.

Additions and replacements (A&R)
Costs to improve existing assets. Capital additions can take the form of replacing or adding new parts that may increase useful life or potential performance.

Administrative & general (A&G)
Expenses necessary to operate a business, which are not related to materials, labor, or sale of goods or services, such as office supplies, rent, and janitorial services.

Adverse water
The amount of water that came into the Tacoma Power reservoirs during the lowest 25 percent of recorded historical years on record. This amount of water flow occurs one out of every four years.

Average water
The amount of water that comes into the Tacoma Power reservoirs on a regular basis. This amount of water flow occurs one out of every two years, or fifty percent of the time.

Base case
A set of expectations that represent a “best guess” of the financial outcomes if the expected version of the future should happen. The base case assumes that there will not be major policy changes, unforeseen disasters, or other game-changing events.

Base case analysis
Comparing the base case forecast with alternative scenarios. It shows the relative effects of scenario changes to the “base case” version of the future.

Bonds
A debt security where an investor loans money to a corporation or government for a defined period of time at a variable or fixed interest rate. Bonds are used by corporations, municipalities, and governments to raise money and finance a variety of projects and activities.

Bond call
When an issuer calls its bonds, the issuer buys back the bonds from the investors prior to the bonds’ maturity date. The issuer pays investors the call price (usually the face value of the bonds) together with accrued interest to date and, at this point, the issuer stops making interest payments.

Capital
Assets or property having value owned by a person or organization.

Capital Improvement Program (CIP)
A four to ten year plan that identifies capital projects and equipment purchases. It provides a planning schedule and options for financing the plan.

Capital Steering Committee (CSC)
A committee of individuals that leverages their experiences, expertise, and insight to make informed decisions and drive the capital program. The CSC prioritizes potential capital projects, and monitors the project status to ensure that the business objectives are adequately addressed.

Glossary cont.

Conservation
Energy conservation is the effort made to reduce the consumption of energy by using less of an energy service.

Cost of service analysis (COSA)
The process of allocating utility expenses among the different classes of customers. Not all customers use the same resources. The COSA ensures users pay for their share of the costs they impose on the utility in the form of rates.

Cost of service utility
A utility where customers are charged rates based on what it costs to provide service.

Credit rating
An estimated ability of an organization to fulfill their financial commitments.

Critical water
The amount of water that came into the Tacoma Power reservoirs during the lowest year on record.

Customer classes
Customer classes are the broad rate groups used to allocate costs to customers. Examples are residential, commercial and industrial.

Days liquidity ratio (days cash on hand)
The number of days that an organization can continue to pay its operating expenses, given the amount of cash available.
(Unrestricted Cash x 365 Days)/(Total Operating Expenses)

Debt service
The cash that is required to cover the repayment of interest and principal on a debt for a particular period.

Debt service coverage ratio (DSCR)
A measure of the cash flow available to pay current debt interest, principal and lease payments.
DSCR = (Operating Revenues – Operating Expenses)/Debt Service

Debt ratio
The ratio shows the percentage of debt used to finance a company’s assets. Debt Ratio = Total Debt Service Owed/Value of Total Assets

Defease
Setting aside funds to pay for the interest and principal owed on debt. This removes the liabilities from the balance sheet of the borrower.

Financial plan
A financial plan is a comprehensive evaluation of the utility’s current and future financial state by using currently known variables to predict future revenues, expenses, asset values and debt service plans.

Heavy load hours
Heavy load hours are defined as the morning through evening hours when energy demand is highest. Heavy load hours are typically 6 a.m. to 10 p.m., Monday through Saturday.

Henry Hub
A natural gas distribution hub and trading point in the North America natural gas pipeline system, located near Erath, Louisiana. Henry Hub is also the standard delivery point for the NYMEX natural gas futures contract in the U.S. The contracts are traded 18 months into the future and are used as a primary financial hedging tool in the marketplace. When you hear someone say, “Natural gas is trading for $XX,” they're referring to the Henry Hub price for the current month's contract.

Hydroelectric
The generation of electricity using flowing water to power a generator.

Glossary cont.

Hydrology
The scientific study of the movement, distribution, and quality of water, including the water cycle and water resources.

Light load hours
Light load hours include the later night time and early morning hours when energy demand is the lightest. Light load hours are typically 10 p.m. to 6 a.m., Monday through Saturday and all day Sunday.

Load
Generic term for something in the electric system that draws power, such as lights and appliances.

Load forecast
Load forecasting is a technique used to predict the energy needed to meet the demand and supply of power. The accuracy of forecasting is of great significance in managing the expected power provided by a utility company.

Megawatt-hours
A unit for measuring power that is equivalent to one million watts. One megawatt is equivalent to the energy produced by 10 automobile engines. A megawatt hour (MWh) is equal to 1,000 Kilowatt hours (KWh) used continuously for one hour.

Mid-Columbia trading hub
Mid-C is a power trading hub for the Northwest U.S. comprising the control areas of three public utility districts in Washington that run hydroelectric projects on the Columbia River. The three PUDs are Grant, Douglas and Chelan.

Power purchase agreements
A contract between two parties, one which generates electricity (the seller) and one which is looking to purchase electricity (the buyer).

Public Utility Board
The five-member Board that oversees the management and operations of Tacoma's electric, water, and rail utilities.

Rating agency
A credit rating agency rates a borrower's ability to pay back debt by making timely interest payments and the likelihood of default.

Renewable Resources
A resource which can be used repeatedly and replaced naturally. Examples include oxygen, fresh water, solar energy and biomass.

Renewable Portfolio Standard
Initiative 937 in Washington state calls for electric utilities that serve more than 25,000 customers in the state of Washington to obtain 15 percent of their electricity from new renewable resources by 2020 and to undertake all cost-effective energy conservation.

Scenarios
A potential future situation that creates risk or provides an opportunity.

Shale gas
Natural gas trapped within shale formations. Shales are fine-grained sedimentary rocks that can be rich sources of petroleum and natural gas.

Sumas
Northwest Sumas, located in Washington on the border with Canada, forms the primary natural gas trading hub for consumers in the Pacific Northwest (Washington, Oregon, and Idaho).

Surety
Surety is the guarantee of the debts of one party by another. The party that guarantees the debt, known as the surety, is often an organization assuming the responsibility of paying the debt in the event that the debtor is unable to make the payments.

Wholesale
"Wholesale" is the sale of electricity to other power providers, and not regular customers.

Section 11
Appendix

Maybe you want to see a few more of the numbers?

Base Case

Page 87

Projections ($ in Millions)	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
System Average Rate Increase	**2.0%**	**1.5%**	**2.0%**	**3.0%**	**3.0%**	**3.0%**	**3.0%**	**3.0%**	**3.0%**	**3.0%**	**3.0%**
Retail Sales of Electricity	$371.45	$386.53	$394.30	$402.66	$412.19	$422.23	$432.75	$443.40	$454.41	$465.56	$477.19
Revenues from Wholesale Sales	59.62	73.92	88.54	94.79	96.12	87.01	90.55	87.46	91.31	90.92	94.70
Rate Stabilization Fund Transfer		-10.00	-10.00	-5.00	-5.00	-5.00		-5.00	-5.00	-10.00	11.00
Other Operating Revenues	49.70	31.23	33.74	30.82	35.84	33.47	37.18	34.33	38.86	36.31	40.86
Total Revenues	**$480.77**	**$481.68**	**$506.59**	**$523.26**	**$539.15**	**$537.71**	**$560.48**	**$560.19**	**$579.58**	**$582.79**	**$623.75**
Operations & Maintenance	329.69	348.40	364.29	368.24	377.03	378.73	389.41	395.47	405.77	415.28	430.06
Operating Taxes	21.36	19.86	22.18	22.55	23.30	23.78	24.56	25.06	25.87	26.41	27.25
Total Operating Expenses	**$351.06**	**$368.26**	**$386.47**	**$390.79**	**$400.32**	**$402.51**	**$413.97**	**$420.53**	**$431.64**	**$441.68**	**$457.31**
Gross Earning Taxes	36.81	34.96	38.11	39.64	40.87	40.80	42.20	42.56	44.03	44.65	46.15
Revenue Available for Debt Service	**$92.90**	**$94.40**	**$104.31**	**$97.09**	**$103.92**	**$96.46**	**$120.28**	**$94.40**	**$104.31**	**$97.09**	**$103.92**
Total Debt Service	27.71	27.32	30.88	31.81	33.91	34.12	36.02	35.32	38.32	38.32	53.28
Debt Service Coverage Ratio*	3.4	2.87	2.66	2.92	2.89	2.77	2.90	2.75	2.71	2.52	2.26
Days Liquidity**	235	233.7	262.9	285.0	305.3	326.2	327.4	343.0	356.5	367.1	352.9

* Debt Service Coverage Ratio reflects our coverage after the transfer of 7.5% Gross Earnings Taxes to the City of Tacoma. Tacoma Power's Debt Service Coverage Ratio target is 2.0x.

** Days Liquidity target ratio is 180 days.

Adverse Water Conditions in 2022 & 2023 Scenario

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Projections ($ in Millions)	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
System Average Rate Increase	**2.0%**	**1.5%**	**2.0%**	**3.0%**	**3.0%**	**3.0%**	**3.0%**	**3.0%**	**3.0%**	**3.0%**	**3.0%**
Retail Sales of Electricity	$371.45	$386.53	$394.30	$402.66	$412.19	$422.23	$432.75	$443.40	$454.41	$465.56	$477.19
Revenues from Wholesale Sales	59.62	73.92	69.27	83.28	96.12	87.01	90.55	87.46	91.31	90.92	94.70
Rate Stabilization Fund Transfer		-10.00	-10.00	-5.00	-5.00	-5.00		-5.00	-5.00	-10.00	11.00
Other Operating Revenues	49.70	31.23	33.65	30.64	35.55	33.18	36.88	34.03	38.55	36.00	40.56
Total Revenues	**$480.77**	**$481.68**	**$487.22**	**$511.57**	**$538.86**	**$537.41**	**$560.18**	**$559.89**	**$579.28**	**$582.48**	**$623.44**
Operations & Maintenance	329.69	348.40	364.45	368.51	377.03	378.73	389.41	395.47	405.77	415.28	430.06
Operating Taxes	21.36	19.86	22.18	22.55	23.29	23.77	24.55	25.05	25.85	26.40	27.24
Total Operating Expenses	**$351.06**	**$368.26**	**$386.63**	**$391.06**	**$400.31**	**$402.50**	**$413.96**	**$420.52**	**$431.62**	**$441.67**	**$457.30**
Gross Earning Taxes	36.81	34.96	36.67	38.76	40.85	40.78	42.18	42.54	44.00	44.63	46.13
Revenue Available for Debt Service	**$92.90**	**$113.43**	**$100.59**	**$120.52**	**$138.55**	**$94.14**	**$104.05**	**$96.83**	**$103.65**	**$96.19**	**$120.01**
Total Debt Service	27.71	27.32	30.88	31.81	33.91	34.12	36.02	35.32	38.32	38.32	53.28
Debt Service Coverage Ratio*	3.4	2.87	2.07	2.57	2.88	2.76	2.89	2.74	2.70	2.51	2.25
Days Liquidity	235	234	246	258	279	299	301	317	331	342	328

* Debt Service Coverage Ratio reflects our coverage after the transfer of 7.5% Gross Earnings Taxes to the City of Tacoma.

Critical Water in 2022 Scenario

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Projections ($ in Millions)	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
System Average Rate Increase	**2.0%**	**1.5%**	**2.0%**	**3.0%**	**3.0%**	**3.0%**	**3.0%**	**3.0%**	**3.0%**	**3.0%**	**3.0%**
Retail Sales of Electricity	$371.45	$386.53	$394.30	$402.66	$412.19	$422.23	$432.75	$443.40	$454.41	$465.56	$477.19
Revenues from Wholesale Sales	59.62	73.92	17.99	94.79	96.12	87.01	90.55	87.46	91.31	90.92	94.70
Rate Stabilization Fund Transfer		-10.00	10.00	-15.00	-5.00	-5.00		-5.00	-5.00	-10.00	11.00
Other Operating Revenues	49.70	31.23	33.37	30.13	35.15	32.77	36.47	33.62	38.14	35.59	40.14
Total Revenues	**$480.77**	$481.68	$455.66	$512.58	$538.46	$537.01	$559.78	$559.48	$578.86	$582.07	$623.02
Operations & Maintenance	329.69	348.40	366.95	368.24	377.03	378.73	389.41	395.47	405.77	415.28	430.06
Operating Taxes	21.36	19.86	22.18	22.53	23.27	23.76	24.53	25.04	25.84	26.38	27.23
Total Operating Expenses	**$351.06**	$368.26	$389.13	$390.77	$400.30	$402.48	$413.95	$420.51	$431.61	$441.66	$457.29
Gross Earning Taxes	36.81	34.96	32.83	39.59	40.82	40.75	42.15	42.51	43.97	44.60	46.10
Revenue Available for Debt Service	**$92.90**	$113.43	$66.53	$121.81	$138.16	$93.78	$103.68	$96.46	$103.28	$95.81	$119.63
Total Debt Service	27.71	27.32	30.88	31.81	33.91	34.12	36.02	35.32	38.32	38.32	53.28
Debt Service Coverage Ratio*	3.4	2.87	1.09	2.58	2.87	2.75	2.88	2.73	2.70	2.50	2.25
Days Liquidity	235	234	197	221	242	263	265	281	296	307	294

* Debt Service Coverage Ratio reflects our coverage after the transfer of 7.5% Gross Earnings Taxes to the City of Tacoma.

** $16 million from the Rate Stabilization Fund (RSF) is applied to Wholesale Sales in 2022, and is repaid in even annual installments from 2023 to 2026.

Loss of Large Customer Scenario

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Projections ($ in Millions)	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
System Average Rate Increase	**2.0%**	**1.5%**	**2.0%**	**3.2%**	**3.2%**	**3.2%**	**3.2%**	**3.2%**	**3.2%**	**3.2%**	**3.2%**
Retail Sales of Electricity	$371.45	$386.53	$386.71	$384.53	$394.34	$404.76	$415.66	$426.70	$438.10	$449.74	$461.85
Revenues from Wholesale Sales	59.62	73.92	88.54	109.62	106.97	101.69	106.52	103.46	107.66	107.11	111.37
Rate Stabilization Fund Transfer		-10.00	-10.00	-5.00	-5.00	-5.00		-5.00	-5.00	-10.00	11.00
Other Operating Revenues	49.70	31.23	33.73	30.75	35.77	33.38	37.07	34.22	38.75	36.21	40.77
Total Revenues	**$480.77**	**$481.68**	**$498.98**	**$519.90**	**$532.07**	**$534.83**	**$559.25**	**$559.39**	**$579.51**	**$583.06**	**$624.99**
Operations & Maintenance	329.69	348.40	364.29	366.88	372.68	377.67	389.35	395.41	405.77	414.97	429.95
Operating Taxes	21.36	19.86	21.89	21.85	22.60	23.10	23.89	24.41	25.23	25.79	26.65
Total Operating Expenses	**$351.06**	**$368.26**	**$386.18**	**$388.73**	**$395.28**	**$400.77**	**$413.24**	**$419.82**	**$431.00**	**$440.76**	**$456.60**
Gross Earning Taxes	36.81	34.96	37.54	39.39	40.34	40.58	42.11	42.50	44.02	44.67	46.25
Revenue Available for Debt Service	**$92.90**	**$113.43**	**$112.81**	**$131.17**	**$136.79**	**$93.47**	**$103.89**	**$97.07**	**$104.49**	**$97.63**	**$122.14**
Total Debt Service	27.71	27.32	30.88	31.81	33.91	34.12	36.02	35.32	38.32	38.32	53.28
Debt Service Coverage Ratio*	3.4	2.87	2.44	2.89	2.84	2.74	2.88	2.75	2.73	2.55	2.29
Days Liquidity	235	234	257	279	301	318	319	334	348	360	348

* Debt Service Coverage Ratio reflects our coverage after the transfer of 7.5% Gross Earnings Taxes to the City of Tacoma.

Lower Wholesale Price Scenario

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Projections ($ in Millions)	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
System Average Rate Increase	**2.0%**	**1.5%**	**2.0%**	**3.4%**	**3.4%**	**3.4%**	**3.4%**	**3.4%**	**3.4%**	**3.4%**	**3.4%**
Retail Sales of Electricity	$371.45	$386.53	$394.30	$403.71	$414.87	$426.63	$438.96	$451.50	$464.52	$477.76	$491.60
Revenues from Wholesale Sales	59.62	73.92	88.54	74.82	75.92	68.73	71.52	69.06	72.11	71.80	74.78
Rate Stabilization Fund Transfer		-10.00	-10.00	-5.00	-5.00	-5.00		-5.00	-5.00	-10.00	11.00
Other Operating Revenues	49.70	31.23	33.74	30.82	35.67	33.13	36.70	33.73	38.15	35.51	39.98
Total Revenues	**$480.77**	**$481.68**	**$506.59**	**$504.34**	**$521.46**	**$523.48**	**$547.18**	**$549.30**	**$569.78**	**$575.06**	**$617.36**
Operations & Maintenance	329.69	348.48	364.33	368.30	377.07	378.77	389.44	395.57	405.81	415.37	430.14
Operating Taxes	21.36	19.86	22.18	22.59	23.39	23.94	24.78	25.35	26.23	26.85	27.77
Total Operating Expenses	**$351.06**	**$368.34**	**$386.50**	**$390.89**	**$400.46**	**$402.71**	**$414.22**	**$420.92**	**$432.03**	**$442.22**	**$457.91**
Gross Earning Taxes	36.81	34.96	38.11	38.22	39.54	39.73	41.21	41.75	43.29	44.07	45.68
Revenue Available for Debt Service	**$92.90**	**$113.34**	**$120.08**	**$113.45**	**$121.00**	**$81.04**	**$91.75**	**$86.63**	**$94.45**	**$88.78**	**$113.78**
Total Debt Service	27.71	27.32	30.88	31.81	33.91	34.12	36.02	35.32	38.32	38.32	53.28
Debt Service Coverage Ratio*	3.4	2.87	2.65	2.36	2.40	2.38	2.55	2.45	2.46	2.32	2.14
Days Liquidity	235	234	263	268	274	283	274	281	289	294	277

* Debt Service Coverage Ratio reflects our coverage after the transfer of 7.5% Gross Earnings Taxes to the City of Tacoma.

Economic Downturn in 2021 and 2022 Scenario

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Projections ($ in Millions)	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
System Average Rate Increase	**2.0%**	**1.5%**	**2.0%**	**3.0%**	**3.0%**	**3.0%**	**3.0%**	**3.0%**	**3.0%**	**3.0%**	**3.0%**
Retail Sales of Electricity	$371.45	$386.34	$389.66	$400.44	$409.72	$420.24	$431.32	$442.45	$453.54	$464.59	$476.12
Revenues from Wholesale Sales	59.62	84.37	114.45	93.54	96.06	86.79	90.47	87.22	91.32	90.94	94.71
Rate Stabilization Fund Transfer		-10.00	-10.00	-5.00	-5.00	-5.00		-5.00	-5.00	-10.00	11.00
Other Operating Revenues	49.70	31.23	33.94	31.14	36.16	33.77	37.47	34.62	39.14	36.59	41.14
Total Revenues	**$480.77**	**$491.94**	**$528.05**	**$520.12**	**$536.94**	**$535.80**	**$559.27**	**$559.29**	**$579.00**	**$582.13**	**$622.97**
Operations & Maintenance	329.69	347.85	362.07	366.32	376.03	377.85	388.91	395.03	405.53	415.01	429.74
Operating Taxes	21.36	19.85	22.00	22.48	23.21	23.72	24.51	25.03	25.84	26.38	27.22
Total Operating Expenses	**$351.06**	**$367.70**	**$384.07**	**$388.80**	**$399.24**	**$401.56**	**$413.42**	**$420.07**	**$431.37**	**$441.39**	**$456.96**
Gross Earning Taxes	36.81	35.71	39.71	39.40	40.70	40.66	42.11	42.50	43.98	44.60	46.10
Revenue Available for Debt Service	**$92.90**	**$124.23**	**$143.98**	**$131.32**	**$137.70**	**$93.58**	**$103.73**	**$96.73**	**$103.65**	**$96.14**	**$119.91**
Total Debt Service	27.71	27.32	30.88	31.81	33.91	34.12	36.02	35.32	38.32	38.32	53.28
Debt Service Coverage Ratio*	3.4	3.24	3.38	2.89	2.86	2.74	2.88	2.74	2.70	2.51	2.25
Days Liquidity	235	244	295	316	334	354	353	368	381	391	375

* Debt Service Coverage Ratio reflects our coverage after the transfer of 7.5% Gross Earnings Taxes to the City of Tacoma.

Scheduled Debt Service

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Year	2010B (BABs)	2010C (CREBs)	2013A	2013B	2017	2021	Total *
2020	$ 8,691,824	$ 1,364,276	$ 11,731,100	$ 1,616,110	$ 3,286,800		$ 26,690,110
2021	$ 8,691,824	$ 1,364,276	$ 3,892,600	$ 5,411,110	$ 5,436,800	$ 1,481,221.81	$ 24,796,610
2022	$ 8,691,824	$ 1,364,276	$ 3,892,600	$ 5,411,360	$ 5,434,300	$ 4,983,550.00	$ 24,794,360
2023	$ 8,691,824	$ 1,364,276	$ 3,892,600	$ 5,411,110	$ 5,436,550	$ 4,983,550.00	$ 24,796,360
2024	$ 8,691,824	$ 1,364,276	$ 3,892,600	$ 5,412,860	$ 5,438,050	$ 4,983,550.00	$ 24,799,610
2025	$ 8,691,824	$ 1,364,276	$ 3,892,600	$ 5,408,813	$ 5,433,550	$ 4,983,550.00	$ 24,791,063
2026	$ 8,691,824	$ 25,549,276	$ 3,892,600	$ 736,750	$ 2,693,050	$ 4,983,550.00	$ 41,563,500
2027	$ 8,691,824		$ 3,892,600	$ 5,411,750	$ 5,438,050	$ 4,983,550.00	$ 23,434,224
2028	$ 8,691,824		$ 3,892,600	$ 5,408,000	$ 5,435,800	$ 4,983,550.00	$ 23,428,224
2029	$ 8,691,824		$ 3,892,600	$ 5,412,750	$ 5,436,800	$ 4,983,550.00	$ 23,433,974
2030	$ 36,001,824		$ 3,892,600		$ 2,260,550	$ 4,983,550.00	$ 42,154,974
2031	$ 35,445,302		$ 3,892,600		$ 2,260,550	$ 4,983,550.00	$ 41,598,452
2032	$ 34,789,416		$ 3,892,600		$ 2,260,550	$ 4,983,550.00	$ 40,942,566
2033	$ 34,164,289		$ 3,892,600		$ 2,260,550	$ 4,983,550.00	$ 40,317,439
2034	$ 33,517,046		$ 3,892,600		$ 2,260,550	$ 4,983,550.00	$ 39,670,196
2035			$ 14,882,600		$ 5,435,550	$ 10,338,550.00	$ 20,318,150
2036			$ 14,878,100		$ 5,436,800	$ 10,340,800.00	$ 20,314,900
2037			$ 14,881,350		$ 5,435,050	$ 10,349,550.00	$ 20,316,400
2038			$ 14,880,600		$ 5,435,050	$ 10,358,800.00	$ 20,315,650
2039			$ 14,881,800		$ 5,436,300	$ 10,297,800.00	$ 20,318,100
2040			$ 14,877,600		$ 5,438,300	$ 10,303,700.00	$ 20,315,900
2041			$ 14,882,400		$ 5,435,550	$ 10,373,600.00	$ 20,317,950
2042					$ 5,437,800	$ 10,386,600.00	$ 5,437,800
2043					$ 5,434,000	$ 10,396,600.00	$ 5,434,000
2044					$ 5,433,200	$ 10,402,850.00	$ 5,433,200
2045					$ 5,435,000	$ 10,414,600.00	$ 5,435,000
2046					$ 5,434,000	$ 10,345,600.00	$ 5,434,000
2047						$ 10,346,350.00	
2048						$ 10,353,475.00	
2049						$ 10,356,600.00	
2050						$ 10,360,525.00	

* Debt Service is shown based on the amount that is accrued in each year. Actual payments of the amount accrued may occur in the following year.

Projected Capital Improvement Program Expenditures

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Project Expenditures ($000)	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Power Supply	$4,211	$5,695	$5,695	$8,018	$5,908	$5,972	$8,574	$8,253	$11,420	11,065	11,173
Transmission and Distribution	22,961	23,575	23,575	30,216	22,339	23,016	30,686	28,836	49,432	39,738	42,098
General Plant and Technology	23,766	30,521	30,521	21,849	18,157	22,279	9,865	7,403	4,352	4,147	5,094
Generation	10,952	15,159	15,159	22,320	35,741	32,256	31,773	35,930	25,101	26,760	25,426
Total Project Expenditures	**$61,890**	**$74,950**	**$74,950**	**$82,409**	**$82,145**	**$83,523**	**$80,898**	**$80,422**	**$90,305**	**$81,710**	**$83,791**

More Information & Contact Info

This document is a product of Tacoma Power's Rates, Planning & Analysis Team

After making it this far, you may have additional questions. We aimed to produce a document that informs, increases transparency, and starts essential conversations around some of the things we're thinking about. If you direct your questions to the email below, we will get back to you.

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Tacoma Power Website
Investor Relations Page
http://bit.ly/tpwr-investorinfo

Tacoma Power Homepage
https://www.mytpu.org/tacomapower

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