



TACOMA POWER
TACOMA PUBLIC UTILITIES

Customer Energy Programs Plan

2022-2023



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Dear Reader,

I appreciate your interest in our Customer Energy Programs Plan for 2022-2023. This new biennium presents exciting post-pandemic opportunities. During the pandemic, our work locations and some essential work changed to prevent the spread of COVID-19. And we know our customers also had to adapt, sometimes dramatically. As we plan our program portfolio, we are adjusting our programs to reflect the changes we have all made.

As in past years, we continue to offer diverse energy conservation programs tailored to residential, business, industrial, and institutional customers. Recently, we have made serious commitments to apply an equity lens to our customer programs. I am excited by our various initiatives to better assist renters who have traditionally benefited less than homeowners have from programs. Ultimately, we seek to provide programs that serve our community's needs and objectives. We help our residential customers maintain safe and comfortable homes. We help our business customers manage their bottom lines, keep their employees healthy and safe, and save money. And we help all our customers shrink their environmental footprints. A new way that we will serve our residential customers is through our Home Energy Reporting conservation program that will provide energy-use analyses to help customers understand how they use their energy. It will also provide suggestions about how to reduce utility bills through the way they interact with their homes.

In addition to offering tangible conservation programs, we are working to become better energy advisors for our customers and the communities we serve. A growing number of our customers are exploring solar energy, and we are committed to providing reliable information and assistance with the evaluation and installation of solar energy systems. And we design Evergreen Options as the chance for our customers to volunteer a few extra dollars on their bills to further green their energy use beyond the benefits of using our nearly zero-carbon electricity. Moreover, the energy landscape is increasingly complex. New laws and building codes result in new requirements for not only utilities, but also the owners of commercial buildings, tenants, developers, and other parties. We are committed to helping our customers understand and comply with these new requirements.

If you have questions or comments about this plan, I welcome a conversation. Please don't hesitate to reach out.

Sincerely,

Steve Bicker

Sr. Manager, Customer Energy Programs
and Assistant Power Manager



Executive Summary

This Customer Energy Programs Plan outlines our operational approach for 2022-2023. Our collective experience through 2020 and 2021 notably affected our community, therefore our utility underwent considerable operational changes. Regionally, energy conservation proved challenging in 2020-2021. Many local utilities were unable to meet their state mandated conservation requirements. We met our target primarily due to unexpectedly large levels of energy conservation from our participation in the Northwest Energy Efficiency Alliance. Looking toward the biennium, we intend to incorporate many lessons learned from past biennia to improve our offers and better meet our customer needs.

As with past plans, planning starts with our biennial Conservation Potential Assessment (CPA), which we completed in early 2022. Per this CPA, our 2022-2023 energy conservation target is approximately 53,000 MWh, a value about 10% greater than our 2020-2021 CPA. Factors that drive changes in the assessed potential include new conservation measures, increasing State and Federal energy codes and standards, historic conservation accomplishments, and changes to cost-effectiveness and avoided energy purchase costs. Additionally, our most recent Integrated Resource Plan (IRP) concludes that our load will decrease gradually over the next 20 years. Moreover, energy conservation remains among our least cost resource to meet utility loads for the foreseeable future.

We will maintain a robust and varied portfolio of customer energy programs. This biennium, we intend to acquire approximately 53,000 MWh at a cost of \$25 per MWh with a portfolio utility cost test performance ratio of 1.5, a value higher than the minimum 1.0 cost-effectiveness threshold. Savings will originate from a variety of sectors, and we anticipate our commercial and industrial programs to comprise 70% of our savings portfolio. We plan for our residential, income qualified, and external programs to comprise 16%, 2%, and 12% of our savings, respectively.

Our 2022-2023 biennium will usher several changes. First, we will launch a new and sizeable residential behavior-based energy savings program for up to 70,000 residential customers, which will represent one of our single largest residential customer engagements to date. Additionally, we've substantially revised our approach to income-qualified offerings to provide greater financial support. A direct outcome of this modified approach is a new program targeting income-qualified rental homes where we intend to fully cover costs of select conservation measures. For our commercial and industrial sectors, we intend to maintain our current offerings as they are proving successful. We continuously assess our equipment rebates program for expanded offerings and adjusted incentives. Additionally, we intend to sustain expanding our offerings to the indoor horticultural customer segment. Lastly, Washington state

has embarked on an aggressive process to improve the energy performance of commercial buildings via the Clean Buildings Performance Standard (CBPS). This standard will require notable utility resources and provides us with new opportunities for conservation and relationship building.

Moreover, we continue to refine our capabilities and offerings beyond traditional conservation programs. We intend to maintain support for customer sited renewables via net metering and customer renewable choice with our Evergreen Options renewable energy certificate purchasing program. Furthermore, we will continue collaborating with the City of Tacoma to improve tree canopy coverage through its tree coupons. Additionally, we are making investments to further our use of data from our advanced metering infrastructure initiative, better support residential customers with home energy audits and online audit tools, and assist those interested in on-site renewables with our independent Wattplan solar estimator tool. Lastly, we remain engaged with local and state policy makers on topics centered on energy conservation, beneficial electrification, and the City of Tacoma Climate Action Plan.

Beyond program launches and adjustments, we intend to expand several process improvements. First, in part due to the pandemic, we have greatly expanded and streamlined paperless approval and contracting. Relatedly, we've developed an increased capability to perform remote site visits, assessments, project development, and trainings. This enhances the speed, safety, and flexibility of providing direct customer support. Additionally, Tacoma Public Utilities is embarking on a great expansion of its analytical resources and capabilities, and we are increasingly locating and organizing our data within a data lake system. In turn, this permits greatly enhanced analytical capabilities, faster and more flexible reporting, and various dashboards to assist us with organizing work.

In short, we're looking forward to the 2022-2023 conservation biennium and are excited to expand our offerings and improve integration of equity, analytics, and effectiveness of our programs.

Background

2.1. About Tacoma Power and Customer Energy Programs

We are a municipally owned power utility under the Tacoma Public Utilities (TPU) organization. Under the public power framework, citizens have heightened local control over utility operations to provide specialized and higher caliber services reflecting local needs and priorities. Today, TPU provides electric service to nearly 179,000 customers across 180 square miles of our service area, and covers Tacoma and much of Pierce County.

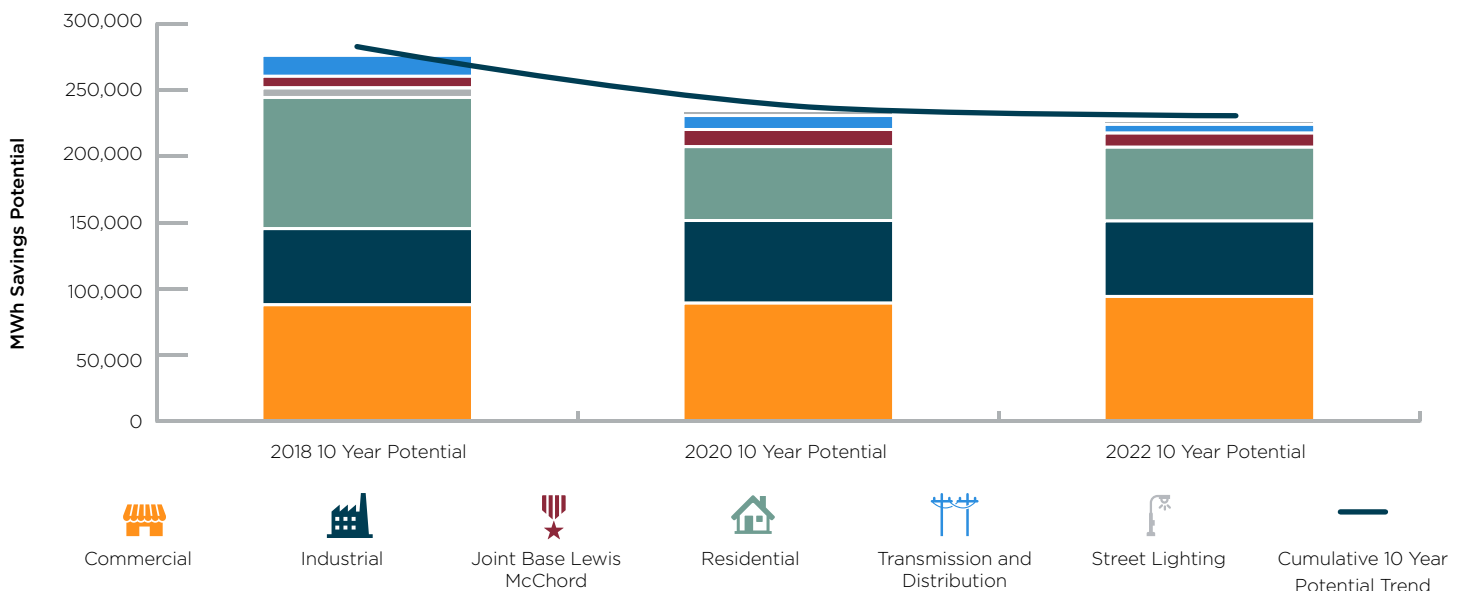
Customer Energy Programs (CEP) is a group within the Power Management Division of Tacoma Power. Power Management is responsible for optimizing our power generation assets, energy trading, long-term planning, power contract management, and conservation. Specifically, CEP is responsible for customer-facing energy programs, including energy conservation. We thoughtfully position our energy programs as critical customer service offerings and an economic tool to acquire a low-cost, carbon-free energy resource.

2.2. A Legislative Mandate for Conservation

A common energy policy tool employed by many states is an Energy Efficiency Resource Standard, whereby energy efficiency is legislatively mandated. In 2006, State of Washington voters voiced their desire for utilities to improve their environmental performance by passing Initiative 937, also known as the Washington Energy Independence Act (EIA). Among many other requirements, this act requires utilities to assess cost-effective energy conservation biennially via a conservation potential assessment (CPA). Specifically, policymakers determined we must use the Total Resource Cost (TRC) method to evaluate conservation cost-effectiveness. Per the CPA, we established a two-year conservation target. We must achieve this two-year target or risk fines of \$50 per MWh. Lastly, the target applies to the compliance biennium, i.e., not to individual years. The target is a single savings value without individual or more detailed product, program, or sector targets.

Figure 1 details the assessed 10-year economic conservation potential over several CPA cycles. As indicated in the chart, our potential has steadily declined, especially in our residential sector, which is a general trend for our region. Factors influencing this development include advancement in local codes and standards; variations in avoided energy costs; changes to conservation equipment costs and performance; and past conservation accomplishments.

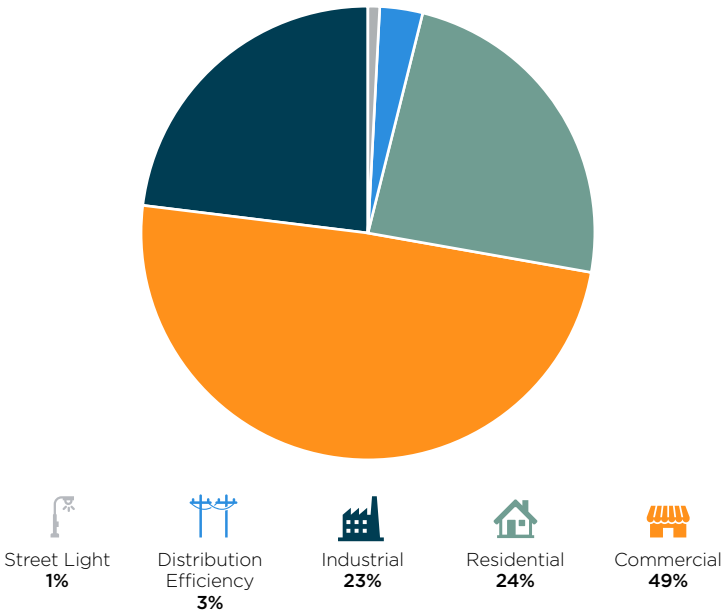
Figure 1: 10-Year Conservation Potential 2018-2022



2.3. 2022-2023 Conservation Potential Assessment

We completed our 10-year 2022-2031 Conservation Potential Assessment (CPA) in 2022. A third party performs this assessment, and we use the results to determine the two-year conservation target approved by the Tacoma Public Utility Board. Our Board approved target for 2022-2023 is approximately 53,000 MWh, and we must achieve this conservation per the EIA. Figure 2 provides the estimated energy conservation potential by sector per the CPA. As you can see, the largest source of savings is from the commercial sector (49%), followed by the residential and industrial sectors (24% and 23%, respectively). As has been the trend in past plans, the residential sector potential is gradually decreasing while the commercial and industrial sectors occupy growing shares of the net potential. The CPA provides valuable insights into potential sources of savings but does not prescribe where and how Tacoma Power achieves its savings. You can view a full copy of the current CPA at: MyTPU.org/CPA.

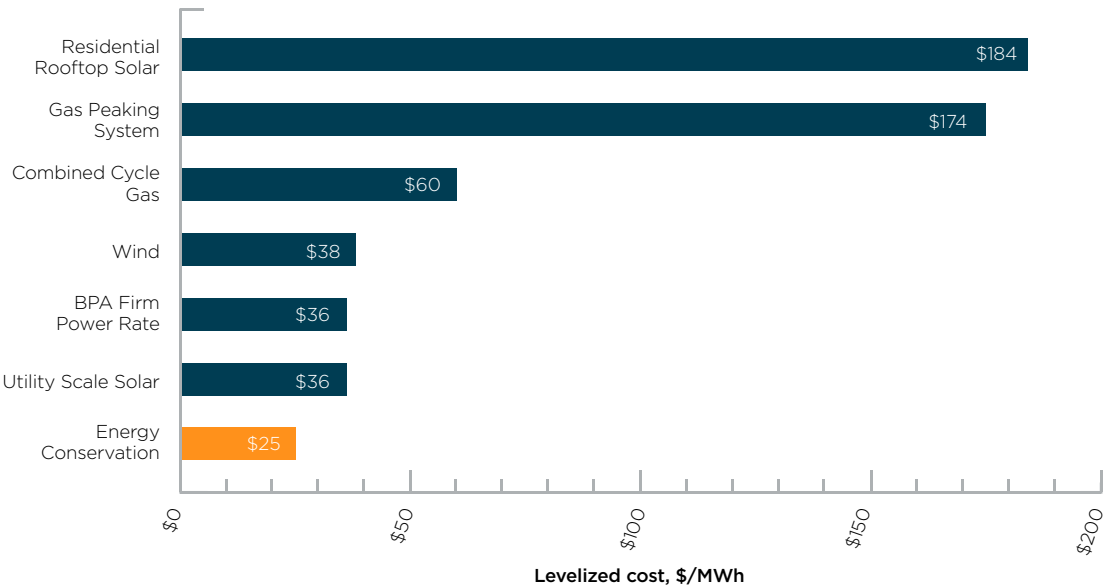
Figure 2: Sector Savings Potential per the CPA



2.4. Incorporating Conservation into Utility Operations

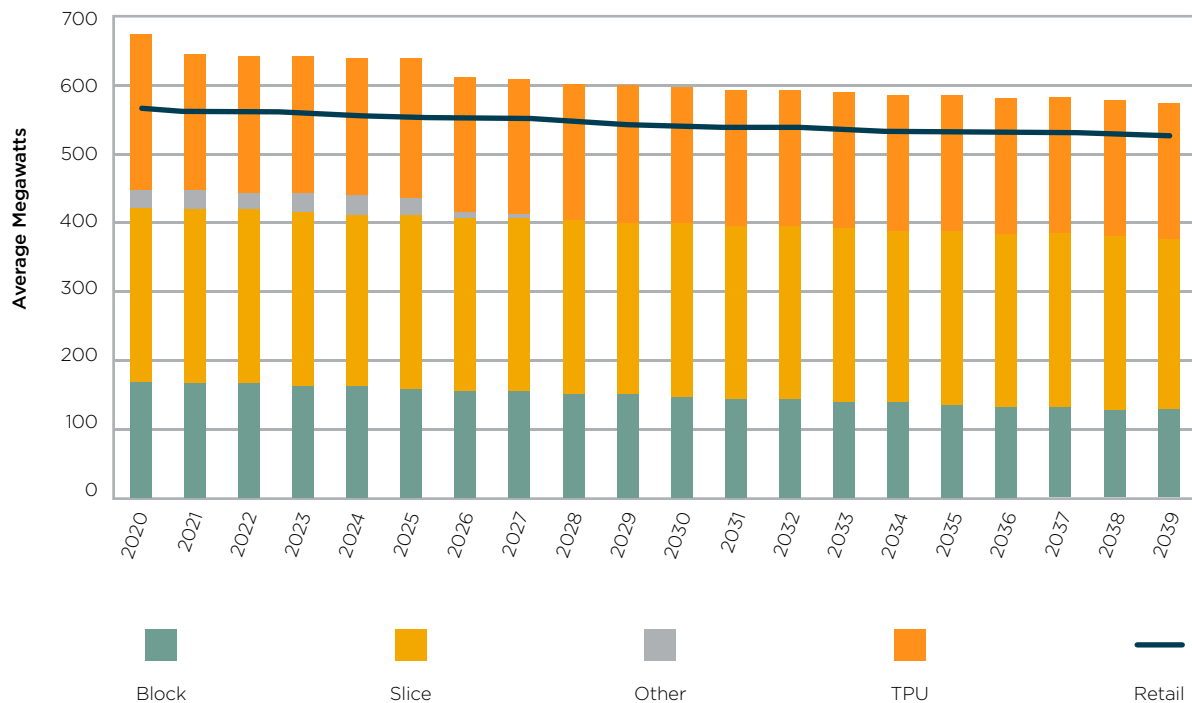
Utility support for conservation might, at first, appear counterintuitive. Utilities generate revenue by selling electricity, and incentivizing customers to consume less might not seem sensible. However, delivering electricity to customers always comes at a cost. We reduce our costs by incentivizing customers to conserve when it is less costly than delivering the same amount of energy from the grid to the customer. This threshold energy cost is known as the “avoided cost.” Per Figure 3, utilities often have a diverse set of energy resources to draw from to meet their loads. Most sources have benefits and disadvantages, e.g., variable vs. dispatchable, high vs. low cost, low carbon vs. fossil, etc. As noted in Figure 3, energy conservation generally costs our utility \$25 per MWh, far less than other common energy resources, with the added benefits of customer engagement and intentional load shaping.

Figure 3: Levelized Cost of Various Energy Resources



To explore the impacts of myriad factors such as resource planning, the role of conservation, risk mitigation, and projected long-term power prices, Power Management regularly conducts an Integrated Resource Plan (IRP). Figure 4 details our 20-year load forecast. As can be seen, the IRP predicts a steadily declining load in the coming decades, a trend that has been sustained over past IRP and load forecasting exercises. Nevertheless, we will continue to need market purchases to meet our load, and acquisition of conservation at a cost less than these market purchases remains financially prudent and makes conservation a preferred energy resource.

Figure 4: 20-Year Load Forecast



2.5. Bonneville Power Administration Dynamics in Utility Conservation

We do not conduct energy conservation in isolation; rather, we rely on a network of relationships, including trade allies, non-profit organizations, utility partners, and the Bonneville Power Administration (BPA). Our utility relations with BPA are broad and include power purchases, regional coordination, power transmission, and conservation. Within the conservation domain, BPA plays a critical regional role in vetting energy savings and participating in regional groups like the Northwest Energy Efficiency Alliance (NEEA) and the Northwest Power and Conservation Council (NPCC). Additionally, BPA provides Tacoma Power financial reimbursement for conservation through a mechanism known as the energy efficiency incentive (EEI). To recover these EEI funds, we must submit documented, vetted, and approved energy savings via a complex system of conservation classification,

reporting rules, and systems. Beyond financial reimbursement, as an Option 2 utility that administers its conservation programs, including our critical custom projects, BPA must approve our measurement and verification (M&V) protocol documents that govern our custom conservation programs.

While at times complex and labor intensive, adhering to these BPA requirements provide Tacoma Power key benefits including: enhanced customer support; reimbursement of millions of conservation dollars; regional conservation advocacy; and a reduction of audit risk due to compliance with trusted BPA processes. In short, BPA helps Tacoma Power deliver conservation with less cost and risk.



Conservation Programs

Developing a robust conservation portfolio requires balancing internal costs, equity considerations, and customer needs. At times, these considerations can be in tension. Nevertheless, we strive to create a portfolio that best addresses these factors to provide Tacoma Power a least cost source resource and efficiently meet our legal obligations under the EIA. To this end, CEP conservation offerings must:

1. **Be cost-effective per established cost-effectiveness metrics.** CEP employs the well-established Utility Cost Test, which compares our program costs (incentives, staff time, etc.) to supply-side resource costs. Conservation is cost-effective when the levelized cost to acquire conservation is less than the levelized supply power costs.
2. **Benefit customers with services that reduce their utility expenditures and improve comfort and safety.**
3. **Equitably distribute spending among the various customer classes,** including residential, income-qualified, commercial, industrial, and hard-to-reach segments such as multifamily.
4. **And be structured to motivate customer purchasing and behavior patterns** that result in energy conservation given various customer priorities and their limited time, funds, and focus.

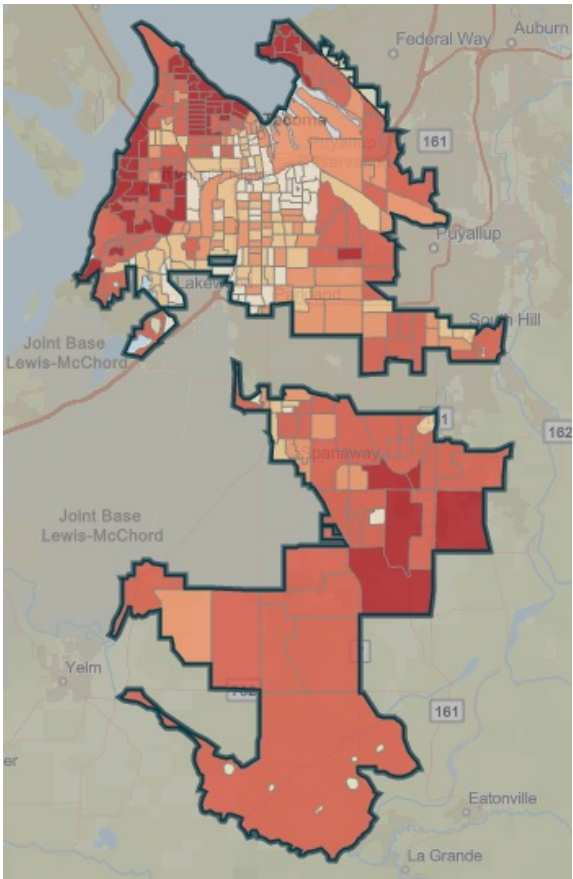
3.1. Striving for Equity in Programs

We fund our energy conservation programs through electric rates. As all customer segments contribute through their utility bills, they should have access to our programs. While commercial and industrial programs offer the least cost conservation resource, residential customers are entitled to access our programs and play a critical role in our utility operations through policy involvement and public engagement. And critically, many income-qualified customers experience high utility burdens where their utility bills represent a disproportionately large portion of their household income. These customers most greatly benefit from participation in energy conservation. Yet, they experience notable barriers to entry due to the high upfront costs of the most effective energy conservation equipment, e.g., heat pumps. We continuously strive to reduce barriers to entry by improving our offers and developing new programs focused on customers in need.

Figure 5 is an updated Equity Map that fully encompasses our power service territory. Areas in lighter colors indicate “low opportunity areas” that require additional focus on services including energy conservation programs. Our CEP programs have been more successful in areas of higher opportunity as they are most suitable for residential customers who own their homes and can leverage excess capital or home equity for higher-cost energy conservation, e.g., whole home heat pumps and windows. While we need to maintain these programs to help achieve our legally mandated energy conservation programs, we must also tailor our offerings for areas with lower opportunities.

In this Customer Energy Programs Plan, we intend to better support marginalized customers who struggle to access our programs. To better serve them, we are expanding our income-qualified offerings and, critically, no longer limit our incentives to this segment based solely on their cost-effectiveness performance. This adjustment allows us to provide higher incentive levels for these customers for select programs.

Figure 5: Our Service Area Equity Map



¹ Note, historically this customer segment has been described as “low income”. As the term “low income” can have a negative connotation that produces barriers to entry, we use the term “income qualified” to describe programs that are available to customers that need and most benefit from additional assistance.



3.2. Customer Energy Programs Portfolio

For 2022-2023, our energy conservation target is approximately 53,000 MWh, the value identified as the economically achievable potential in the current CPA. To achieve our 2022-2023 target, we requested about \$10,500,000 in capital funds in addition to roughly \$11,000,000 in operations and maintenance (O&M) funds. Additional O&M funds are related to costs associated with CEP staff supporting non-conservation programs such as solar, community engagement, and internal initiatives. This budget is marginally lower than past plans, reflecting a slightly lower target and upward pressure due to higher conservation acquisition costs, particularly in the income-qualified sector. Incentives paid to our customers are the largest expense category and account for approximately 50% of planned expenses. Personnel expenses for energy conservation accounts for 38% of overhead, and general overhead accounts for the remaining 15%. Support from external groups, e.g., marketing, CPA development, evaluation, etc., represents approximately 10% of overhead.

Regarding programmatic economic performance, the portfolio UCT BC ratio is 1.5, and the associated resource

levelized acquisition cost is \$25 per MWh (note, this excludes our income-qualified programs). This cost is comparable to the performance of the 2020-2021 plan, which had a respective UCT BC ratio and levelized acquisition cost of 1.4 and \$28 per MWh. In short, the portfolio remains cost-effective, and conservation is our least cost resource.

Sector level performance is comparable to the 2020-2021 plan, where our commercial/industrial and residential sector UCT BC ratios are respectively 2.0 and 1.0. As has been the historical trend, business/industrial conservation is an ever-growing fraction of the total target and currently comprises 70% of the target. Residential programs include 15% of the savings target, and the sector UCT BC ratio is lower than in past years due to the notable influence of the home energy reporting program, which is the single largest residential program and has a UCT BC ratio of 1.0. NEEA and utility voltage optimization comprise 8% and 2% of the total target. Lastly, income qualified programs represent 2% of planned conservation and 20% of planned conservation expenditures. Details are provided in Table 1.

Table 1: Conservation Acquisition, Associated Budgets, and Financial Performance

Energy Efficiency Portfolio Program / Sector	Planned Savings, MWh	Percent of Portfolio	UCT BC Ratio	Resource Cost, \$/MWh	Customer Incentives, \$	Overhead, \$
All Energy Efficiency Programs	53,822	100%	1.5	\$25	\$9,954,500	\$10,839,600
General Energy Programs Overhead						\$1,911,800
Support from External Groups						\$1,045,000
Business & Industrial Efficiency	38,550	72%	2.0	\$19	\$5,832,500	\$3,760,100
Bright Rebates	16,910	31%	3.2	\$12	\$2,427,900	\$546,000
Custom Retrofit	10,780	20%	1.8	\$21	\$2,021,600	\$548,000
New Construction	6,480	12%	2.1	\$18	\$1,117,600	\$489,800
Equipment Rebates	2,440	5%	3.1	\$12	\$241,000	\$148,100
Strategic Energy Management	1,940	4%	1.8	\$21	\$24,400	\$315,600
Non-Program Overhead						\$1,712,600
Residential Efficiency	8,680	16%	1.0	\$42	\$1,982,900	\$1,905,300
Home Energy Reports (HERS)	3,220	6%	1.0	\$38	\$0	\$260,800
Heating and Weatherization	2,670	5%	1.3	\$34	\$934,700	\$679,600
Consumer Products	1,950	4%	1.0	\$39	\$685,000	\$172,100
Custom & New Construction	400	1%	1.1	\$39	\$200,000	\$48,600
Multifamily	440	1%	1.2	\$34	\$163,200	\$123,000
Non-Program Overhead						\$621,200
Residential Income Qualified Efficiency	1,240	2%	0.5	\$99	\$2,139,100	\$795,500
Owner Occupied Heating & Weatherization	800	1%	0.4	\$108	\$1,428,700	\$161,400
Agency Partnerships	440	<1%	1.5	\$31	\$271,400	\$40,000
Renter Occupied Heating & Weatherization	220	<1%	0.4	\$108	\$439,000	\$178,700
Non-Program Overhead						\$415,400
Northwest Energy Efficiency Alliance	4,152	8%	2.0	\$20	\$0	\$1,373,900
Utility Voltage Optimization	1,200	2%	12.6	\$3	\$0	\$48,000

Commercial/Industrial Conservation Programs

We serve a diverse group of over 18,000 businesses, including large facilities like industrial operations, health care, schools, and retail, as well as small businesses such as restaurants, clothing stores, and veterinarians. To meet the needs of businesses, we offer diverse programs that reduce utility costs. Table 2 provides the program-specific estimated energy savings for 2022-2023, and percentage values that contextualize the contribution of each program to the sector and overall portfolio targets. As noted in the table, our commercial lighting program, Bright Rebates, represents approximately half the commercial/industrial sector savings total and nearly one-third of the total portfolio. Custom Retrofit, our most flexible program within the commercial/industrial sector, respectively comprises almost 30% and 20% of the sector and total portfolio. New Construction comprises approximately 20% and 10% of the sector and entire portfolio. The remaining programs provide essential services such as equity, customer engagement, and development of projects for our custom programs, though they generally produce less direct savings than the three custom programs. Additional program details are provided in the following sections.

Table 2: Commercial/Industrial Program

Program	Estimated Savings, MWh	Percent of Sector Total	Percent of Portfolio Total	Resource Cost, \$/MWh
Bright Rebates	16,910	44%	31%	\$12
Custom Retrofit	10,780	28%	20%	\$21
New Construction	6,480	17%	12%	\$18
Equipment Rebates	2,440	6%	5%	\$12
Strategic Energy Management	1,940	5%	4%	\$21
Total	38,550	100%	72%	\$19

There are no significant changes to commercial/industrial sector programs for the 2022-2023 program cycle. However, we are incorporating several minor adjustments over time to streamline offerings and engage with business customers more effectively. Examples include expanding our Equipment Rebates, revising our Commercial Strategic Energy Management program to serve commercial buildings subject to the Clean Buildings Performance Standard, and developing simple rebates for centralized heat pump water heaters in large multifamily or commercial facilities.

3.3. Bright Rebates

Overview	Bright Rebates is one of the most established, successful and cost-effective energy conservation programs. This program focuses on commercial, industrial, and institutional lighting retrofits. Overwhelmingly, LED lighting is the dominant lighting retrofit. LED lighting continues to be increasingly cost competitive while providing unparalleled lighting design flexibility, control, and notable nonenergy benefits like reductions in maintenance costs. This program has proven incredibly popular with customers and trade allies alike. Our lighting team produces high volumes of efficient and cost-effective energy conservation for hundreds of customers annually.
Changes	None planned.
Incentives	For customers with larger power loads, this program provides up to \$0.17 per each saved kWh in the first year up to 60% of project costs after the project is complete. For small and medium businesses, we provide up to \$0.19 per kWh saved in the first year up to 100% of the project cost. Additionally, select lighting equipment, such as T-LEDs, is capped at \$2, and we no longer incentivize screw-in LED A-lamps.
Risks	Similar to the residential lighting market, the commercial/industrial lighting market is increasingly dominated by LED lighting. A near perennial risk exists related to the uncertainty of saturation of LEDs in the commercial/industrial segment. While the CPA indicates sustained conservation potential within the lighting sector, we have witnessed declining savings from this program since 2018. The COVID-19 pandemic likely reduced 2020 and 2021 program participation, and sustained supply chain constraints and inflation may dampen consumer uptake. Additionally, we rely on BPA to produce savings calculators, which provides for gains in efficiency, but also results in a lack of direct oversight on crucial equipment and measure life assumptions, which can affect savings and incentive levels.



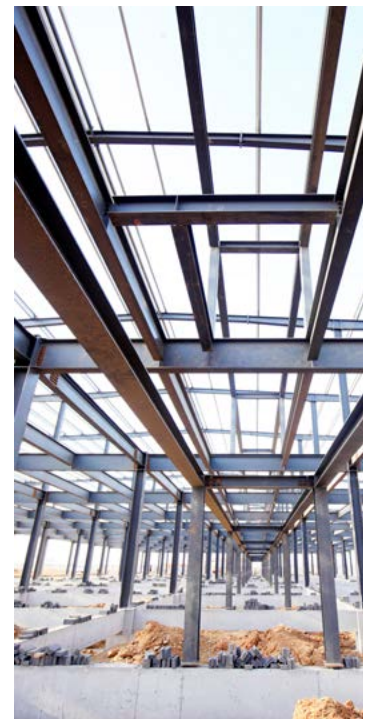
3.4. Custom Retrofit

Overview	Building systems and processes can be complex, and our Custom Retrofit program provides a flexible approach for projects ranging from sophisticated industrial retrofits to simpler water heating system improvements. Additionally, many projects include notable non-energy benefits. Common measures in this program include retrofits for compressed air systems; heating, ventilation, and air-conditioning (HVAC); indoor agriculture process upgrades including horticultural lamps and HVAC systems; pumps, fans, and their controls; industrial processes; and other measures not covered by other programs. Lastly, Custom Retrofit is increasingly used for capturing savings from indoor agricultural conservation projects related to HVAC systems, humidity control systems, and agricultural process lighting. This customer segment is an increasing source of energy savings.
Changes	None planned.
Incentives	This program provides \$0.30 per each saved kWh in the first year for HVAC measures and \$0.23 per each saved kWh in the first year for non-HVAC measures, up to 70% of the project cost after the project is completed. Additionally, we fund up to 50% of the cost for energy studies for complex projects, e.g., high-efficiency HVAC design, compressed air system upgrades, energy modeling, etc.
Risks	This program often relies on large, complex projects that can save millions of kilowatt-hours. While critical, these projects can be challenging to predict and often span conservation bienniums, which results in notable variability to program performance and metrics. Additionally, these projects are highly site specific, require greater internal resources to implement, feature variations in analytical assumptions and approaches, and are exposed to external audit risks due to their complexity. Lastly, increasing and significant portions of savings for Custom Retrofit projects originate from indoor cannabis cultivation. While these projects can be highly cost-effective, they are ineligible for BPA EEI fund reimbursement (i.e., they are self-funded). They are also disproportionately exposed to potential policy changes.



3.5. New Construction

Overview	Tacoma and the greater Pierce County area are witnessing accelerated development, and the planned connection of the light rail system in the 2030s is especially spurring mixed-use multifamily development. This construction boom is also a unique opportunity for conservation during critical building design decisions. Our New Construction program targets newly built buildings and industrial facilities as well as major renovations for existing buildings. Common conservation measures include lighting; HVAC; industrial process loads; indoor horticulture; and domestic water heating.
Changes	None planned.
Incentives	This program provides \$0.20 per each saved kWh in the first year up to 100% of the added cost for conservation measures that exceed the State energy code or standard practice when the energy code is inapplicable, e.g., industrial processes. The program also provides design incentives to facilitate design decisions that result in energy conservation early in the design phase.
Risks	The State of Washington has relatively aggressive energy codes and ambitious plans for increasingly strict future energy codes. Increases in energy code performance generally result in reduced potential for new construction conservation. However, changes in equipment costs, development patterns, and frequent building renovations continue to provide conservation opportunities, and the program has endured several cycles of code updates. Additionally, the 2021 Commercial Energy Code includes broad language that limits the use of fossil energy systems, which increases the presence and conservation potential of electric space and water heating systems.



3.6. Equipment Rebates

Overview	While our custom conservation programs are suitable for medium to large projects, there is a great need for conservation solutions for smaller projects that aren't suitable for the overhead required by custom projects. For these projects, we have a broad and growing set of simple rebates focused on discrete equipment that meets specific technical requirements, and they can be applied for by customers and trade allies alike. Common measures include heat pumps, ductless heat pumps, smart thermostats, and rooftop HVAC control systems.
Changes	Our participation in a regional commercial kitchen rebate program ended in 2021. Future kitchen equipment incentives are yet to be determined.
Incentives	The Equipment Rebates program pays fixed incentives based on equipment quantity or capacity without requiring complex energy calculations or site-specific measurement and verification. Incentives range between \$0.03 and \$0.30 per kWh, depending on equipment type and customer participation.
Risks	Our equipment rebates generally offset a smaller fraction of the project cost than our custom programs, which could dampen customer participation. Additionally, the program is sensitive to administrative overhead, and process efficiency as each project generally produces a limited amount of energy savings. Lastly, the program is increasingly reliant on trade ally support to direct potential projects to our programs. Development and management of trade ally relations are crucial to our sustained program growth and performance.



3.7. Strategic Energy Management

Overview	Notable operational, no/low-cost energy conservation opportunities exist in many large commercial facilities and energy-intensive industrial processes. Our Strategic Energy Management (SEM) program works directly with our commercial and industrial customers to identify building operational changes, process optimizations, and holistic energy management strategies that yield energy savings. Additionally, our continued integrated relationship with participating customers produces conservation projects suitable for other conservation programs. Currently, we offer industrial SEM through the BPA Energy Smart Industrial Program and a limited number of Commercial customers through an extended in-house pilot program.
Changes	None planned.
Incentives	SEM provides \$0.025 per kWh saved annually for operations and maintenance savings beyond a predetermined baseline. We periodically reassess baselines to reflect long-term changes to facility operations. This reassessment then encourages customers to find additional savings opportunities in subsequent years.
Risks	SEM programs rely on sustained customer engagement to produce energy savings. Participants may fail to engage personnel or operations in a manner that results in savings. Moreover, a lack of appreciable utility cost reductions or participant staff bandwidth can cause customers to withdraw from SEM altogether. And unlike traditional capital programs, SEM programs are at heightened risk of disruption from staff turnover. Changes in organizational priorities or the loss of or failure to appoint a key individual or team can counteract recent accomplishments. This risk is exasperated in the face of operational risks when businesses are more averse to changing operations or reallocating staff resources.

Residential Conservation Programs

We provide service to over 160,000 residential customers. Our customers occupy a range of home types, including detached single-family homes, condominiums, town/row homes, and large multifamily developments with hundreds of units. Given the diversity of dwelling types, a blend of owner and tenant-occupied residences, and income levels within our customer population, our residential efforts strive to provide conservation program offerings that reflect the diversity of our customers.

Table 3 provides details of our various residential program offerings, their associated planned energy savings, percentages for each program representing their contribution to the sector and overall target, and their resource acquisition costs. Note that these programs are available to any qualifying residential Tacoma Power

customer regardless of income level. Table 4 details additional programs for income-qualified residential customers.

As noted in Table 3, our newly developed Home Energy Reports program represents nearly 40% of our planned residential sector savings. In comparison, our heating and weatherization offerings and consumer product rebates comprise approximately 30% and 20% of the entire sector. Multifamily and residential custom/new construction programs respectively target hard-to-reach and unique conservation opportunities. These programs combined represent 10% of anticipated sector energy conservation. Additional program details are provided in the subsequent sections.

Table 3: Residential Program Details

Program	Estimated Savings, MWh	Percent of Sector Total	Percent of Portfolio Total	Resource Cost, \$/MWh
Home Energy Reports	3,220	37%	6%	\$38
Heating and Weatherization	2,670	31%	5%	\$34
Consumer Products	1,950	22%	4%	\$39
Multifamily	440	5%	1%	\$34
Custom/New Construction	400	5%	1%	\$39
Total	8,680	100%	16%	\$42

3.8. Home Energy Reports

Overview	A new offering for 2022-2023 is our Home Energy Reports (HERS) program. Under this program, approximately 70,000 residential customers will receive quarterly reports featuring: household energy use information, a comparison of home energy performance relative to similar households, and tips for reducing home energy consumption. A third party will implement the program under our direct guidance. Program launch is slated for Q3 of 2022 and spans two conservation bienniums, the last year of 2022-2023 and the first year of 2024-2025.
Incentives	This program does not provide direct incentives to customers.
Risks	Launching a new program entails risks, including schedule challenges and a positive customer experience. Additionally, the use of a third-party implementer introduces additional complexity and risk. Moreover, unlike most other programs where savings are produced gradually over two years, HERS only provides reportable savings after each full year. As HERS will not launch until Q3 of 2022, it will only produce one year of reportable savings for 2022-2023 reporting period. This introduces challenges as HERS represents 6% of planned savings but accounts for 16% of economically achievable savings per the current CPA, i.e., the CPA target includes savings from HERS that will not be achievable in the same conservation biennium. Consequently, other conservation programs will need to produce additional savings during the 2022-2023 period to accommodate this lack of overlap between CPA assessed and actual achievable savings.

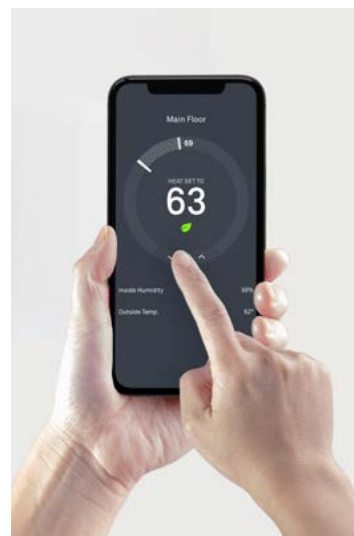
3.9. Weatherization and HVAC

Overview	We have a 40-year history of helping residential customers improve the comfort and efficiency of their homes. Measures supported by this program include insulation, high-efficiency windows, and heating/cooling systems like ductless and central heat pumps. Additionally, this program relies on excellent trade ally relations as they are the primary method of identifying customers eligible for this program.
Changes	None planned.
Incentives	Rebates for attic, wall, and floor insulation are \$500 per area. Single-pane window retrofits are eligible for \$100 per window and \$400 per sliding door, while double pane and metal frame window retrofits are eligible for \$50 per window and \$200 per sliding door. Ductless heat pumps have a rebate of \$500 per home, while central heat pumps are eligible for \$1,000 per home. Additionally, customers can access our zero-interest loan fund to cover a significant portion of the project costs.
Risks	Many weatherization and heating system measures can be marginally cost-effective and have relatively long payback periods, which may not be attractive to some customers. Additionally, these measures are susceptible to changes in the BPA deemed savings values, which often negatively affect their cost-effectiveness performance and can result in their removal from the BPA maintained list of measures eligible for EEI reimbursement.



3.10. Consumer Products

Overview	Certain conservation measures are best served by rebates provided by retailers at the point of sale. Our Consumer Products Program encourages customers to buy energy-efficient equipment by providing instant rebates at various retail locations. Additionally, we regularly offer limited-time bonus rebates to drive product sales or when additional energy savings are needed. Equipment covered by this program includes web-enabled smart thermostats; heat pump/hybrid water heaters; and direct line voltage thermostats for baseboard and cadet heaters. This program is implemented by a third party with CEP oversight.
Changes	We have reduced our incentives for most measures, but eligible equipment now includes hybrid water heaters, line voltage thermostats, and smart thermostats.
Incentives	Rebates for direct line thermostats are \$25 per unit; smart thermostats are \$50 per unit; and hybrid water heaters are \$500 per unit.
Risks	In past conservation cycles, our consumer products program experienced a decrease in scope and savings potential. This decrease is primarily due to advances in codes and standards that limit what equipment is eligible for rebates. In turn, this introduces a cost-effectiveness challenge as the contract costs of the third-party implementer are concentrated on limited savings and equipment types.



3.11. Multifamily

Overview	Improvements in rental housing efficiency benefit tenants through lower utility bills. Property owners may also experience benefits, though they are often not the utility bill payer; therefore the benefits are nuanced and not equivalent to cash in pocket. Conservation measures supported by this program include insulation, double pane windows, smart thermostats, and heat pump/hybrid water heaters.
Changes	We added hybrid water heaters as an eligible measure.
Incentives	Insulation is eligible for rebates of \$0.80/sq. ft. and \$1.50/sq. ft. for low and high-rise buildings, respectively. For low-rise buildings, windows are eligible for \$12/sq. ft. for single pane to double pane retrofits and \$8/sq. ft. for metal frame, double pane to efficient double pane retrofits. High-rise buildings are eligible for \$8/sq. ft. for single pane to double pane window replacements.
Risks	Rental properties generally struggle with energy conservation due to the split incentive whereby the beneficiary of reduced utility bills, which is usually the tenant, and the entity with authority to install energy conservation measures, generally the property owner, are not the same entity. Therefore, there is a split incentive to perform the work as the property owner does not reduce their annual operating costs with conservation, and the tenant lacks the authority or capital to install conservation measures that could be economical. For this reason, robust energy codes are vital in promoting energy conservation within rentals. Nevertheless, CEP maintains a range of energy conservation offerings for property owners in the event non-energy benefits provide additional motivation to invest in energy conservation.



3.12. Custom and New Construction Projects Program

Overview	Occasionally, residential energy conservation opportunities exist that do not fit our standard programs or exist in newly constructed homes with beyond-code designs. In these circumstances, CEP offers a performance-based incentive of up to \$0.50 per first year saved kWh up to 100% of the project cost. Due to its flexible nature, most measures that meaningfully produce cost-effective electricity conservation are eligible for incentives.
Incentives	We incent these projects at \$0.50 per first year saved kWh.
Risks	Both custom and new construction conservation projects require site-specific energy savings calculations to determine incentives. Consequently, these projects are time intensive to develop and are often not cost-effective unless the energy savings are appreciable. Moreover, Washington state has a strict energy code, which introduces challenges for new construction measures to achieve significant energy savings beyond what is required by regulation while also being cost-effective. Consequently, supporting customers with these offerings is challenging, and uptake will likely remain low.



Residential Income Qualified Conservation Details

The City of Tacoma and Pierce County have witnessed notable change and development over the last several decades. Population levels continue to climb, housing affordability faces challenges, and income inequality is growing. Moreover, Tacoma has a higher percentage of individuals considered impoverished than other large metropolitan areas in the Puget Sound region. This inequality coupled with the COVID-19 pandemic and the associated spikes in inflation, has placed increasing financial pressures on vulnerable households. In response, we have a range of income-qualified conservation programs to reduce utility cost burdens.

A key change for the 2022-2023 income qualified conservation programs is a decision to permit programs to operate beyond the traditional cost effectiveness threshold used to evaluate non-income qualified programs. In turn, this permits CEP to provide improved offerings to income qualified customers. However,

to transparently operate under Washington state constitutional provisions concerning support for income-qualified residents, we must more rigorously verify income qualifications when programs operate below the cost-effectiveness threshold.

Table 4 details our various income-qualified conservation programs, their associated planned energy savings, percentages for each program demonstrating their contribution to the sector and overall target, and their resource costs. As noted in the table, our owner-occupied income-qualified heating and weatherization program will likely be our most active program for 2022-2023 as it is an established program known to our trade allies. We expect our recently launched Agency Partnerships program to comprise 35% of income-qualified savings. Lastly, our new heating and weatherization program for property owners with income-qualified tenants will launch in 2022.

Table 4: Income Qualified Residential Program Details

Program	Estimated Savings, MWh	Percent of Sector Total	Percent of Portfolio Total	Resource Cost, \$/MWh
Owner Occupied Heating and Weatherization	800	65%	1%	\$108
Agency Partnerships	440	35%	<1%	\$31
Renter Occupied Heating and Weatherization	220	18%	<1%	\$108
Total	1,240	100%	2%	\$99

3.13. Owner Occupied Income Qualified Residential Customers

Overview	We have a comprehensive set of offerings for income-qualified customers that own and occupy their homes. We help our income-qualified customers by combining our standard rebate with an additional zero-interest deferred loan. This combination allows customers to reduce their utility bills with no upfront cost and permits flexible loan repayment at any time before or during a home sale. Standard measures supported by this program include insulation, high-efficiency windows, duct sealing, hybrid water heaters, and heat pumps.
Changes	None planned.
Incentives	The combination of a deferred loan and rebates covers 100% of the project cost.
Risks	In past biennia, we have witnessed a significant decline in the volume of income-qualified conservation projects. We developed a differed loan offering to buoy program participation, but there has been modest uptake in this offer, and it has not placed a strain on the conservation loan fund. We have increased the deferred loan cap and will continue to explore how to increase access of this program for income-qualified participants.



3.14. Agency Partnerships

Overview	Local organizations that provide or facilitate access to affordable housing to income-qualified customers are a natural partner for conservation. This program provides funds to augment existing partner budgets to cover the added cost of installing energy-efficient equipment. Standard measures supported by this program include insulation, high-efficiency windows, and heat pumps.
Changes	None planned.
Incentives	Incentive levels are unique to each agency partner per the agreements that govern the partnership.
Risks	Understandably, the primary mission of our Agency Partners is to provide and secure affordable housing in contrast to maximizing energy savings. While energy conservation is important for our partners, it may not always be their primary consideration. Additionally, as the incentives do not fully cover equipment costs, our Agency Partners may not consistently secure the necessary additional funding to install conservation equipment. Lastly, reporting conservation accomplishments from these partner agencies to the State and BPA for reimbursement can be challenging. As this program remains relatively new, we continue to assess it for potential areas of improvement.

3.15. Tenant Occupied Income Qualified Residential Customers

Overview	We identified a need for a tailored conservation program for rental homes with income-qualified customers. Rental homes are a challenging market for utility energy conservation due to the split incentive issue, i.e., energy conservation does not incent rental property owners to invest in conservation they do not see a return from reduced utility costs. To address this split incentive challenge, we developed a program to fully fund a select set of energy conservation measures provided the property owner has income-qualified tenants and adheres to an affordability covenant that regulates rent increases. Property owners who do not sign an affordability covenant can receive incentives to cover 30% of the equipment costs and finance the remaining costs with a zero-interest loan. Additionally, the program has set aside a small fund for minor repairs, e.g., drywall repairs, window frame repairs, to enable installation of conservation measures. Supported measures include insulation, windows, and heat pumps.
Changes	This is a new program.
Incentives	This program will pay for 100% of the project cost in alignment with historic measure costs when a property owner signs an affordability covenant. Alternatively, when an affordability covenant is not in effect, the program will pay for 30% of the project cost and cover the remaining 70% with a zero-interest loan.
Risks	Launch of a new program brings a range of risks. First, identification and recruitment of rental property owners will be challenging. Secondly, the incentive structure coupled with the affordability covenant may not sufficiently motivate property owners to participate. Specifically, the affordability covenant requires property owners to forego potential income in exchange for equipment that does not provide them a direct and fungible financial benefit. And in most circumstances, the installed equipment may not appreciably affect home value, especially as the equipment value depreciates significantly after installation. Alternatively, if the property owner forgoes the affordability covenant, they must pay for 70% of the project cost out of pocket. This expense might not be financially feasible or sensible to property owners. In short, without thoughtful consideration of the stakeholder perspectives of the utility, property owner, and the income-qualified household, the program might not effectively address the split incentive dynamic. Lastly, we may inadvertently financially disadvantage the property owner by virtue of their participation.



3.16. Northwest Energy Efficiency Alliance

Overview	<p>NEEA is a regional alliance of 15 utilities and energy efficiency organizations representing 13 million energy consumers. By operating at scale, NEEA provides our utility with unique access to energy conservation approaches, e.g., mid-stream incentives and energy code enhancement, which operate best at an economy of scale otherwise inaccessible to our budgets, staff levels, and customer base. Consequently, NEEA leverages regional collaboration and the pooling of regional resources and market risks to achieve cost-effective energy conservation.</p> <p>NEEA serves our customers through market transformation efforts via two primary strategies. First, NEEA helps identify new energy conservation products and services for our customers. Past efforts have promoted high-efficiency lighting and ductless heat pumps. Secondly, NEEA accelerates adoption of emerging energy efficiency products, services, and practices. Examples of market transformation include encouraging retailers and distributors to stock and promote products such as efficient air conditioning units, pumps with integrated controls, and lower-cost triple pane windows.</p>
	<p>During the 2020-2021 conservation period, NEEA played a critical role in helping Tacoma Power meet its mandated energy conservation targets primarily due to COVID-19-driven consumer purchases of remote work equipment, e.g., computer equipment, monitors, and to a lesser extent, air conditioning units during the 2021 Western North American heatwave.</p> <p>Below are the associated planned energy savings, percentage contribution to the overall target, and the resource costs for NEEA. At a resource cost of \$20 per MWh, NEEA provides us with notable energy savings at a cost below our average resource acquisition cost.</p> <p>NEEA details:</p> <ul style="list-style-type: none"> Estimated savings, MWh: 4,152 Percent of portfolio total: 8% Resource Cost, \$/MWh: \$20
	<p>NEEA operates on five-year planning cycles. We are in the latter half of the 6th cycle, and the 7th cycle starts in 2025. Costs will remain fixed for the 2022-2023 conservation period. However, we anticipate savings to be lower in the latter half of the 6th cycle due to natural ebbs and flow in program activity. We expect additional savings during the start of the 6th cycle.</p>
Risks	<p>The savings achieved through NEEA vary yearly depending on NEEA initiatives and in response to mid-business cycle when baselines change due to an updated Northwest Power and Conservation Council power plan.</p>

3.17. Transmission and Distribution Utility Voltage Optimization

Overview	<p>We partner with the Transmission and Distribution (T&D) Division of our utility and the BPA Energy Smart Utility Efficiency program to acquire energy savings from T&D improvements. Utility voltage optimization (VO) produces energy savings by finely optimizing line voltage to improve the efficiency of power transmission. T&D intends to complete a few modest VO projects during this conservation biennium.</p> <p>Below are the associated planned energy savings, percentage contribution to the overall target, and the resource costs for VO. With a resource cost of \$3 per MWh, utility VO projects are highly cost effective, though opportunities for this conservation activity are limited.</p> <p>Transmission and Distribution Utility Voltage Optimization Details:</p> <ul style="list-style-type: none"> Estimated savings, MWh: 1,200 Percent of portfolio total: 2% Resource Cost, \$/MWh: \$3
	<p>This conservation activity does not receive direct incentives.</p>
Risks	<p>Utility voltage optimization projects are dependent on T&D priorities and opportunities to perform this activity.</p>

3.18. Mitigating Risks in Our Energy Conservation Portfolio

We have an established record of meeting and generally exceeding our EIA and internal conservation targets. Missing our target results in financial penalties and increased scrutiny; exceeding our target introduces more nuanced outcomes such as challenges in budget forecasting and producing uneven market dynamics. While we can bank excess savings for future reporting periods, banked savings expire after two subsequent reporting biennium periods. Over-production of savings without sufficient withdrawal of banked savings will inevitably produce stranded savings assets incapable of being claimed for compliance. Additionally, uneven and unpredictable conservation acquisition can strain our conservation network comprised of trade allies, marketing initiatives, loan funds, and staff resources. In short, we seek to maintain a sustainable rate of conservation that facilitates long-term and stable conservation programs, and doing so requires careful consideration and mitigation of risks.

A perennial concern is not meeting our State-mandated conservation target. To avoid missing our goal, we employ multiple techniques to manage this risk. First, RCW 19.285 permits utilities to meet up to 20% of a current biennial conservation target with excess savings acquired in the previous two biennial periods. Under this provision, we cultivated a comfortable buffer of banked savings to meet the maximally permitted 20% fraction of our current biennial target, a value equal to approximately 10,500 MWh. Additionally, we are launching HERS, a new residential program with significant energy conservation potential. We are also attempting to better align our internal resources to sectors and programs with greater conservation potential. Also, we have been conservative estimating anticipated savings from programs outside our direct control and intend to mitigate potential shortfalls with internal programs. Furthermore, our industrial indoor horticulture market segment has continued to display notable growth, and we can further develop this segment to produce significant and highly cost-effective savings. Lastly, we maintain a savings forecasting system that permits us to execute promotions to spur additional savings.

There is also risk related to predicting expenditures and managing budgets. Although CEP assesses historic spending rates and considers future financial pressures, accurately planning for budgets without significant contingencies is challenging. Several considerable budgetary pressures are frequently outside our purview. For example, large projects play a crucial role in achieving our targets, but they can have unexpectedly significant budget impacts when they start and end within a budget period and are challenging to predict when developing budgets.

Moreover, our various programs provide incentives at different rates. Unanticipated, high participation in select programs may result in budget stresses. In response, we can adjust our incentives due to unexpected participant behavior or forestalling projects to future budget periods. Additionally, we maintain a budget reservation system to avoid over-commitment of funds. If the budget reservation system indicates that we might overspend, we respond by slowing program participation, reducing incentives, and/or requesting additional funds.

Lastly, as clearly demonstrated by the events of 2020 and 2021, national and international factors introduce unique risks. COVID-19 had a sizeable impact on utility operations, including conservation. We witnessed a notable reduction in customer participation in 2020 and 2021. Although the peak of pandemic-related impacts might wane in the next years, challenges persist related to supply chain disruptions, which can originate in China and other major suppliers well beyond our purview. These disruptions affect both equipment availability and equipment costs.

Furthermore, equipment costs appear to be increasing in response to inflationary pressures. This increase creates multiple pressures, including reduced conservation cost-effectiveness and decreased return on investment on the part of participants. These risks are beyond our control. We can attempt to adjust incentives, reduce barriers to entry, and realign internal resources when facing strong headwinds, but we may be principally reliant on banked savings to weather unanticipated deviations from our plans.



Non-Conservation Customer Energy Programs and Initiatives

Increasingly, we have expanded into various non-conservation, customer-facing programs in response to customer interest and policy mandates. In response to these needs, we have developed a range of offerings related to customer-sited renewable energy, ancillary energy services such as audits, and new laws such as the Clean Buildings Performance Standard. These efforts provide us with beneficial engagement with customers and community partners outside the traditional roles of energy sales and conservation.

4.1. Customer Sited Renewable Energy Systems

Overview	Many customers elect to install grid-connected renewable energy systems such as solar arrays at their homes and businesses. Customers with these systems may be eligible for various incentives, including net metering, a Washington state-administered production credit (before the cessation of the program), Federal tax credits, and State sales tax exemptions. While many of these offerings do not require utility involvement, we offer payment for solar production credits for customers in the State production credit system. We then receive a refund for these payments via reduced utility tax obligations.
Changes	None planned.



4.2. Evergreen Options

Overview	Evergreen Options offers customers an opportunity to buy electricity from newly developed renewable sources. Customer funds are then used to buy renewable energy certificates (RECs). Periodically, we use these funds to provide grants for local organizations, e.g., schools, non-profits, and institutional facilities, to install on-site renewable systems within our service area.
Changes	We will offer one \$50,000 grant in 2022-2023.
Risks	Ongoing enrollment in Evergreen Options is necessary to support the renewable energy grant program. Additionally, management of the grant process requires staff time and overhead.

4.3. Tree Coupon Partnership

Overview	In 2018, the City of Tacoma assessed that our urban tree canopy coverage was 18%, a value notably lower than other cities in the Puget Sound region. We joined the City’s Shade Tree Program to help increase tree canopy coverage to 30% by 2030. Our utility collaborates with the Department of Environmental Services Urban Forestry Program to encourage residents to plant and care for their trees. Planting trees produces myriad benefits, including reduced need for air conditioning, improved storm water management, and beautification. Qualifying residents submit a tree coupon application to the Urban Forestry Program to participate in this program. Once their information is verified, they receive a coupon redeemable for \$30 off per tree for up to three trees from participating nurseries. Participants also receive guidance on how to plant trees for energy conservation, care, and watering, and planting assistance if needed. Customer surveys find that the tree coupon program is popular and that initial tree survival is greater than 90% one year after planting.
Changes	None planned.
Risks	Long-term care of trees is site and participant-dependent. Management of the program requires additional staff time and overhead.



4.4. Clean Buildings Performance Standard

Overview	<p>In 2019, the Washington state Legislature passed the Clean Buildings Act establishing a State Clean Buildings Performance Standard (CBPS). This standard sets energy performance standards for Tier 1 Buildings, i.e., commercial buildings larger than 50,000 square feet. We estimate that 500 to 700 buildings within the service territory fall under this law. Compliance involves developing an energy management plan and meeting either an energy performance target or investing in all cost-effective energy conservation. Building owners must report compliance with the law every five years starting in 2026. Failure to comply results in fines.</p>
	<p>Additionally, in 2022 the legislature passed an expansion to the CBPS for Tier 2 Buildings, defined as commercial buildings ranging from 20,000 sq. ft. to 50,000 sq. ft. and any multifamily building greater than 20,000 sq. ft. We estimate that 5,000 to 7,000 buildings within our service area fall under this expanded law. Building owners must benchmark the energy performance of these buildings in addition to developing an energy management plan starting in 2027 and every five years thereafter. By 2030, the State must implement recommendations for a performance-based standard for Tier 2 buildings like that of Tier 1 buildings.</p>
	<p>These standards will likely prompt a wave of capital projects eligible for our conservation programs. Additionally, regional utilities are developing CBPS-specific programs to support building owners.</p>
Changes	<p>Utilities are responsible for providing building owners aggregated building energy data on demand via the Energy Star Portfolio Manager (ESPM) system. While our legacy system was capable of providing some customers with this data, our data system is oriented around customers with utility accounts in contrast to building owners and their buildings. An additional complication is that many building owners lease their facilities, have no utility account information, and often employ property management firms and other companies to manage their operations. Consequently, we are updating the ESPM system to operate efficiently at scale without requiring users to be utility customers.</p>
Risks	<p>Support of such a large quantity of buildings via ESPM is unprecedented and requires considerable staff time. Additionally, our existing programs may not optimally position us to identify and support conservation projects associated with the CBPS. Consequently, we may miss opportunities to help building owners with our programs.</p>

TACOMA POWER

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