

## LEGISLATIVE AND POLICY CHANGE CHAPTER FOUR



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## Introduction

Policy changes and the subsequent legislative changes in the energy sector have increased rapidly in the last five years. Puget Sound Energy (PSE) continues to respond to the quickly shifting landscape with plans that guide the resource acquisition process. This chapter outlines recent state and federal energy legislative and policy changes and how they informed the development of the 2023 Electric Progress Report (2023 Electric Report).

On the state level, we incorporated rules from the Clean Energy Transformation Act (CETA), the Climate Commitment Act (CCA), and new building codes. We also included the impacts of the federal Inflation Reduction Act (IRA) in this report.

## 2. Clean Energy Transformation Act

Clean Energy Transformation Act requires utilities to meet the following mandates:

- One hundred percent of retail utility sales must be greenhouse gas neutral by 2030, with 80 percent of those sales met with renewable and non-emitting resources and 20 percent with other clean investment options, which may include unbundled renewable energy credits.
- Renewable and non-emitting resources must meet one hundred percent of retail utility sales by 2045.
- Utilities must eliminate coal from their allocation of electricity to Washington retail customers after 2025.

This chapter addresses CETA rulemaking enacted after the 2021 IRP was published.

## 2.1. Washington Utilities and Transportation Commission

The Washington Utilities and Transportation Commission (Commission) concluded one CETA rulemaking in 2022, which established rules for electricity purchases from centralized markets, the prohibition of double counting, and the treatment of energy storage. The rules include additional contracting requirements, reporting contracts, and detail other data PSE must submit to the Commission.

#### 2.1.1. Market Purchases and Double Counting

In the Market Purchases and Double Counting Rulemaking, the Commission issued an order on June 29, 2022, establishing rules for energy storage and prohibiting the double counting of clean energy attributes. This order also creates contracting and annual reporting requirements for data associated with the utility's resources and operations.

These rules require that PSE demonstrate compliance with the clean energy standards in CETA by acquiring electricity and associated renewable energy credits (RECs) or non-power attributes. Puget Sound Energy must show that we can deliver clean electricity to our system. We must also report on the source and characteristics of the electricity claimed for compliance.

This new rule did not affect modeling for the 2023 Electric Report.





#### 2.1.2. Impact and Actions

As part of this report, we count the generation from CETA-qualifying renewable and non-emitting resources to meet CETA requirements, including wind, solar, nuclear, and renewable fuels (biodiesel and hydrogen), along with load reducers such as conservation, demand response, and customer voluntary renewable programs. Energy storage resources, such as batteries and pumped hydro storage, are treated as non-generating resources. Energy storage allows us to shift renewable energy to times of greater need, so the renewable energy used to charge those storage facilities is counted toward CETA requirements.

→ A full description of PSE's existing CETA-qualifying resources is in <u>Appendix C: Existing Resource Inventory</u>, and a description of the new resources we modeled is available in <u>Chapter Five: Key Analytical Assumptions</u> and <u>Appendix D: Generic Resource Alternatives</u>.

In its order, adopting rules for market purchases, double counting, and other issues related to CETA, the Commission said further rulemaking and deliberation is needed regarding its interpretation of electricity use to ensure consistency and reliability across Washington's energy market and among electric utilities. PSE will incorporate these topics into our planning processes as appropriate as the Commission completes their rulemaking processes.

#### 2.1.3. Incorporating Equity in Resource Planning

The CETA requires that "all customers are benefiting from the transition to clean energy through the equitable distribution of energy and nonenergy benefits and the reduction of burdens to vulnerable populations and highly impacted communities." Equity is complex to measure and assess, especially in energy system planning; it is an important and new area to develop for resource planning since the enactment of CETA.

#### 2.1.4. Impact and Actions

While PSE has considered equity in its low-income conservation programs in the past, the 2021 IRP saw a significant expansion of equity considerations. The 2021 IRP expanded its consideration of equity through the Economic, Health and Environmental Benefits Assessment (linked below) and the Customer Benefits Analysis (described in Chapter 3: Resource Plan. Since the 2021 IRP, we formed and convened an Equity Advisory Group (EAG) and engaged with this and other advisory groups, community-based organizations, and customers to better understand clean energy values in developing the 2021 Clean Energy Implementation Plan (CEIP). Input from these conversations shaped how we approached equity in this report.

The EAG comprises representatives from various community advocacy interests to advise PSE on the equitable transition to clean energy. The EAG also includes frontline customers. We encourage participation from environmental justice and public health advocates, tribes, and representatives from highly impacted communities and vulnerable populations. In the 2021 CEIP, the EAG initially advised on equity elements related to understanding the

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<sup>&</sup>lt;sup>1</sup> RCW 19.405.060



benefits and burdens customers may face, defining vulnerability factors, guiding principles for program implementation, and helped develop customer benefit indicators used in this report.

We revised and updated the customer benefits analysis used in the 2021 IRP to enhance the portfolio benefit analysis in this 2023 Electric Report. The portfolio benefit analysis incorporates a revised set of customer benefit indicators developed in the 2021 CEIP through collaboration among PSE staff, the EAG, and interested parties. The portfolio benefit analysis also incorporates methodological updates, informed by discussion with interested parties, to better quantify the distribution of portfolio-level metrics related to the customer benefit indicators. A full description of the portfolio benefit analysis and its results is available in Chapter Eight.

We also updated the Economic, Health, and Environmental Benefits Assessment in the 2023 Electric Report to reflect recent developments in identifying named communities. Named communities are customers burdened by social, economic, health, and environmental impacts, including highly impacted communities and vulnerable populations. We defined Highly Impacted Communities in our Department of Health Cumulative Impact Analysis, which we updated in August 2022. Puget Sound Energy staff collaborated with the EAG to define Vulnerable Populations as part of the 2021 CEIP and we used that definition in this report.

→ A full description of the Economic, Health, and environmental Benefits assessment and its results is available in <u>Appendix J: Economic, Health and Environmental Assessment of Current Conditions.</u>

## 2.2. Clean Energy Implementation Plan

The Clean Energy Implementation Plan (CEIP) is a state-mandated four-year roadmap guiding PSE's clean energy investments for 2022–2025.

#### 2.2.1. CEIP Overview

Consistent with CETA rules, we filed the company's first CEIP in December 2021. The plan illustrated our path toward meeting the requirements of CETA and the specific actions we will take from 2022–2025 to meet those goals. The CEIP proposed an interim target of serving customers with 63 percent clean, CETA-eligible renewable resources by the end of 2025. The CEIP also proposed targets and specific actions that include:

- 23.7 MW of Demand Response
- 25 MW of Distributed Energy Resources (DER) storage
- 50 MW of utility-scale storage
- 80 MW of DER solar,
- 1,073,434 MWh of energy efficiency, as determined in the 2022–2023 Biennial Conservation Plan

By rule, the Commission can approve, deny, or approve with conditions the filed CEIP. We are still waiting for a decision from the Commission on PSE's CEIP. However, we continue moving forward on specific actions to





implement the CEIP by the end of 2025. These efforts include ongoing public participation with advisory groups and interested parties, completing the All-source and DER/DR resource acquisition processes, and beginning to develop tariff filings for new DER programs.

We used the 2021 IRP as the foundation for Puget Sound Energy's first CEIP. We will use the 2023 report to inform the 2023 biennial CEIP update. The 2023 report includes critical updates to the inputs and assumptions used in the AURORA modeling, which will directly feed into the 2023 biennial CEIP Update. The 2023 Electric Report rules (WAC 480-100-625)<sup>2</sup> require updates for the following items: load forecast, conservation, resources costs, state and federal requirements, significant economic and market changes, and other elements identified in the CEIP.

→ See <u>Chapter Eight: Electric Analysis</u> for a discussion on substantive changes for the 2023 Electric Report.

#### 2.2.2. Impact and Actions

The 2023 Electric Report includes the following CEIP targets and actions:

- 25 MW of Distributed Energy Resources (DER) storage
- 80 MW of DER solar
- Updates to the customer benefit indicators

We did not include targets for energy efficiency and demand response from the 2021 CEIP since we conducted a new conservation potential assessment and demand response assessment for the 2023 Electric Report. We used the new assessments to create new economic and achievable energy efficiency and demand response resource options in the preferred portfolio.

Another critical CETA goal bridging the 2023 Electric Report to the 2023 biennial CEIP update is including and embedding equity in decision-making and resource selection, via the revised customer benefit indicators and the portfolio benefit analysis, as described in Section 2.1.2 and detailed in Chapter Eight.

## 2.3. Climate Change

Under WAC 480-100-620 (10)(b), "at least one scenario must be a future climate change scenario. This scenario should incorporate the best science available to analyze impacts including, but not limited to, changes in snowpack, streamflow, rainfall, heating and cooling degree days, and load changes resulting from climate change." Temperature data that reflects climate change is a critical piece of our planning analysis. This crucial information impacts the demand forecast and influences how much energy PSE will need to serve our customers.

<sup>3</sup> WAC 480-100-620





<sup>&</sup>lt;sup>2</sup> WAC 480-100-625



#### 2.3.1. PSE Actions

The 2023 Electric Report is our first effort incorporating climate change data into the baseline forecast. We incorporated climate change in two key aspects of the analysis. First, we included climate change in the load forecast, as described in <a href="Chapter Six: Demand Forecast">Chapter Six: Demand Forecast</a>. We also included climate change impacts on regional loads and hydro generation in this report. We also included climate change in the resource adequacy analysis, the planning reserve margin, and the peak capacity contribution of resources, as described in <a href="Chapter Seven: Resource Adequacy">Chapter Seven: Resource Adequacy</a>.

## 2.4. Department of Health Cumulative Impact Analysis

The Clean Energy Transformation Act (CETA) directs the DOH to develop a CETA Cumulative Impact Analysis (CIA) of the impacts of climate change and fossil fuels on population health to designated highly impacted communities. The DOH released an initial CIA in February 2021 and an update in August 2022.

#### 2.4.1. Impact and Actions

We used the results of the CIA to inform planning in our transition to clean energy. The CIA helps us identify, measure, and track equity-related metrics in several ways. Primarily, the CIA directs which communities we should geographically identify as highly impacted. Highly impacted communities may experience more public health and environmental burdens than other segments of our service area. Identifying, measuring, and tracking equity-related metrics in highly impacted communities helps us move toward an equitable transition to clean energy. By highlighting these highly impacted communities, we can identify disparities within our service territory, target specific actions to alleviate existing burdens, and benefit frontline communities.

The CIA also provides valuable data to support equity-related analysis. The DOH Environmental Health Disparities Map is a component of the CIA that offers a range of environmental and public health metrics that we use in our Environmental, Health, and Economic Benefits and Burdens Analysis.

→ More information is available in the Environmental, Health, and Economic Benefits and Burdens Analysis in <u>Appendix H: Electric Analysis and Portfolio Model</u>.

## 2.5. Department of Ecology

The Washington State Department of Ecology is responsible for adopting rules that provide methods for assigning greenhouse gas emission factors for electricity and establishing a process to determine what types of projects may be eligible as energy transformation projects under CETA.

Ecology adopted a new rule on January 6, 2021, that establishes: WAC-173-4464

A general process to determine eligible energy transformation projects

<sup>4</sup> https://ecology.wa.gov/Regulations-Permits/Laws-rules-rulemaking/Rulemaking/WAC-173-446





- A process and requirements for developing standards, methodologies, and procedures to evaluate energy transformation projects
- The default unspecified emissions factor in CETA

#### 2.5.1. Impact and Actions

We did not evaluate any specific energy transformation projects as alternative compliance in this 2023 Electric Report. Instead, we bound the cost of alternative compliance measures using a forecast of renewable energy credit purchases to represent the lower bound and a 100 percent renewable portfolio by 2030 to represent the upper bound.

→ A full description of the alternative compliance assumptions and methodology is available in <a href="#">Chapter Five: Key Analytical Assumptions</a>.

We use the unspecified emission factor for the emission rate of the unspecified market purchases in the portfolio.

→ You will find an accounting of the emissions from generating thermal resources and unspecified market purchases in the results from <a href="#">Chapter Eight: Electric Analysis</a> and <a href="#">App I Input Carbon Prices</a> spreadsheet from <a href="#">Appendix H: Electric Analysis and Portfolio Model</a>.

## 3. Climate Commitment Act

In 2021, the Washington State Legislature passed the Climate Commitment Act (CCA) establishing a comprehensive cap-and-invest program to reduce statewide greenhouse gas (GHG) emissions through a price on emissions. The law directs Ecology to develop rules to implement and administer the program beginning January 1, 2023. As part of this process, Ecology adopted the final program rules on September 29, 2022. Puget Sound Energy is preparing to comply with this state law in alignment with our Beyond Net Zero Carbon (BNZC) commitments and aspirations.

## 3.1. Program Overview

The cap-and-invest program sets an overall cap on state GHG emissions, which declines over time in line with the state's statutory GHG emissions limits. Covered entities must report their GHG emissions to Ecology and obtain allowances to cover them. An allowance is a mechanism created by the Ecology equal to one metric ton of GHG emissions and may be directly distributed by Ecology, purchased at auction, or traded with others in the program. The program aims to establish a greenhouse gas emissions price and create a marketplace for covered entities to find the most efficient means to reduce emissions. The CCA mandates the state to equitably invest revenues raised through state-run allowance auctions in projects that reduce emissions and address climate resiliency and environmental justice, among other priorities.





### 3.2. Impacts and Actions

As an electric and natural gas utility, PSE is covered under the CCA. We will report emissions and have annual compliance obligations under the program.

Electric utilities subject to CETA are allocated no-cost allowances to mitigate the cost burden of the CCA program on electric customers until 2045. Allocations must be consistent with a supply and demand forecast approved by the Commission. Utilities may consign allowances to auction for the benefit of ratepayers, deposit them for compliance, bank them for future compliance, or a combination of these actions. All proceeds from the consignment of allowances must benefit ratepayers with priority to mitigating rate impacts to low-income customers.

Natural gas utilities must also comply with the CCA, and how they do may impact electric utilities, such as through a shift to more electrification of customer end uses. Our 2023 Gas Utility IRP includes an electrification analysis citing impacts on possible future electric infrastructure requirements. The 2023 Gas IRP analysis highlights the importance of a dual-fuel energy system as we transition to a low-carbon economy. Since this is a progress and an update of assumptions from the 2021 IRP, the results for the electrification scenarios are in the 2023 Gas Utility IRP; such studies are beyond the scope of this 2023 Electric Report. Combining this analysis with the 2023 Gas IRP also allowed us to better integrate the analysis between the electric and gas portfolios. We anticipate electrification analysis may influence future electric IRPs.

Puget Sound Energy must comply with the CCA; as a result, we expect price impacts for all our customers. We will work hard to mitigate those impacts through decarbonization efforts to manage our allowances.

In this progress report, we modeled CCA prices as a direct cost applied to economic dispatch on greenhouse gas emissions to reflect the opportunity cost of emission allowances introduced by the CCA. A full explanation of the methodology and assumptions we used to model the impacts of the CCA is available in Chapter Five.

Please visit the Washington State Department of Ecology's <u>CCA rulemaking website</u> to learn more about this state program.

# 4. Energy Efficiency Technology, Codes and Standards, and Electrification

Energy efficiency technology and changing codes and standards impact customer choices and energy efficiency programs. For example, when federal minimum lighting performance standards included screw-in LED lighting, PSE could no longer offer LEDs as energy efficiency program offerings. Although LEDs continue to achieve savings, we can no longer take credit for those savings in our incentive programs.

The two energy codes that impact our customers, the Washington State Energy Code (WSEC) and the Seattle Energy Code, are transitioning to focus on greenhouse gas emissions and energy efficiency. These changes emphasize the electrification of systems formerly fueled by natural gas. Since February 2021, the 2018 WSEC no longer gives





builders efficiency credits for new single-family homes that install natural gas space or water heating; instead, it gives them credits for installing electric heat pumps for heat and hot water.

#### Impact and Actions 4.1.

The codes and standards included in the 2023 Electric Report CPA and demand forecast include:

- 2018 WSEC
- Provision of RCW 19.27A.160

In 2021, the Seattle Energy Code<sup>5</sup> created significant barriers to using natural gas for space and water heating in new commercial and multi-family buildings. With few exceptions, new buildings will use various types of heat pump technology to meet the demands of these systems. The Seattle Energy Code will affect the gas utility that serves the city of Seattle, but the change in demand for electricity will impact Seattle City Light, the electric utility for the city of Seattle, and will not affect PSE's electric system.

Another provision included in the 2023 Electric Report CPA is a statutory requirement (RCW 19.27A.160) that directs the WSEC revision process to achieve a 70 percent reduction in energy consumption by 2031 compared to a 2006 code baseline.6

> → See <u>Appendix E: Conservation Potential and Demand Response Assessment</u> for details on the CPA.

The Washington State Building Codes Council (WSBCC) has proposed mandating builders install electric heat pumps in new commercial buildings and multi-family homes instead of natural gas heating and cooling technologies. The WSBCC is also developing residential building codes, which would encourage using electric heat pumps in new residential buildings and penalize using natural gas heating appliances. These proposals are currently under consideration for adoption as part of the WSEC. Although not modeled in this analysis these changes would likely affect PSE by increasing the electric energy and peak demand more than forecasted. The amount of difference in the peak demand forecast will be affected by the technology installed in these new buildings.

Washington State issued the WSBCC proposed code updates after we conducted the 2023 Electric Report CPA so, it is not included in this report.

#### Inflation Reduction Act 5.

The Inflation Reduction Act (IRA) was passed and signed into law in August 2022 and represented the single most significant federal investment in clean energy and climate-focused solutions in U.S. history — approximately \$370

<sup>6</sup> RCW 19.27A.160





<sup>&</sup>lt;sup>5</sup> The cities of Bellingham and Shoreline also passed similar gas bans in their jurisdictions in 2022.



billion. The IRA addresses climate change by providing tax incentives and consumer rebates to move project developers and households toward lower-carbon or zero-carbon technologies. The two main incentives applicable to renewable projects are the Production Tax Credits (PTCs) and Investment Tax Credits (ITCs), both scheduled to phase out before the IRA was enacted.

Production Tax Credits provide an energy tax credit (\$/MWh) for the first 10 years of energy output after a utility places a project in service. Before the IRA was enacted, PTCs had expired for any new projects placed in service in 2022 and beyond. The IRA bill extends PTCs to 100 percent for eligible projects placed in service before the end of 20327; solar projects have also been added back into the eligible technology definitions of the PTC for the first time since 2005. The IRA also gives taxpayers new authority to transfer their credits to parties with tax appetite, providing taxpayers an additional means to monetize earned credits.

Investment Tax Credits provide an energy tax credit based on the percentage of the investment in the project. Before the IRA was enacted, the old ITC rate for projects placed in service in 2022 had phased down to 10 percent. The IRA increased the ITC rate to 30 percent through 20328. Taxpayers will also have new authority to transfer their credits to parties with tax appetite, giving taxpayers an additional monetization option for earned credits.

Previously, the ITC for battery storage projects was restricted to only battery storage projects paired with solar or other renewable energy generation assets in a hybrid configuration. The IRA now extends the ITC to cover all standalone energy storage applications. This change ensures the tax credits support a more flexible system because the battery can charge from the grid and its paired solar project.

The IRA provides more long-term certainty in investment decisions by providing 10 years of energy tax incentive eligibility and enhanced tools to accelerate or support credit monetization. Where previous tax rules for PTC (wind) and ITC (solar) were technology-specific, the new tech-neutral credit may allow the entity receiving the credit to choose the most efficient incentive type. The rules also provide bonuses for where and how projects are built. The rules give project developers incentives to utilize domestically sourced materials, drive economic opportunity by placing projects in service in low-income communities, and leverage an existing workforce in census tracts deemed energy communities where new clean energy developments may impact fossil-fuel extraction and generation activities.

## 5.1. Impact and Actions

We included the updated and extended PTC and ITC tax credits in the 2023 Electric Report analysis. We also extended the ITC to stand-alone energy storage — batteries, pumped hydro storage, and nuclear. The inclusion of the IRA in the analysis results in over \$10 billion in projected savings to the customer.

Many other provisions in the IRA may impact electricity demand. For example, electric vehicle adoption rates may increase due to provisions of the IRA that provide buyer and charging facility owners tax incentives, incentives to help





<sup>&</sup>lt;sup>7</sup> The existing PTC and ITC are extended at full value through 2024. After 2024, the existing PTCs and ITCs will expire. In their place, functionally similar clean energy production tax credits and clean energy investment tax credits take effect with broader flexibility to capture a greater number of eligible technology neutral energy sources. The new credits are similar value and definition to the prior credits if prevailing wage and apprenticeship requirements are met. Taxpayers are allowed to elect which credit they choose when placing an eligible project into service.

<sup>8</sup> See footnote 3.

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consumers add rooftop solar and battery storage options, rebates intended to help low and moderate-income households achieve higher levels of energy efficiency and a host of other provisions. However, because the law was enacted late in our planning process, we could not add these policies to our demand forecast and could not consider all the nuances of the bill.