

PUBLIC UTILITY DISTRICT NO. 1 OF CHELAN COUNTY

Clean Energy Implementation Plan Report

2021



CHELAN COUNTY



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2021 Clean Energy Implementation Plan Report

INTRODUCTION

This planning document contains Chelan PUD's first clean energy implementation plan (CEIP).

Developing a CEIP is a requirement under Washington's Clean Energy Transformation Act (CETA). CETA was signed into law in 2019 and imposes new clean energy mandates and planning and reporting requirements on Washington electric utilities. A CEIP is intended to identify a utility's plans, over a four-year period, to meet CETA's clean energy requirements.

Chelan PUD's first CEIP includes:

- An interim target for the percentage of retail load Chelan PUD plans to serve using renewable resources during 2022–2025;
- Specific targets for energy efficiency, demand response and renewable energy for 2022–2025;
- Specific actions Chelan PUD will take between 2022–2025 to reach those targets;
- Information about Chelan PUD's plans to ensure an equitable transition to clean energy;
- Chelan PUD's resource adequacy standard and measurement metrics used to establish the 2022–2025 interim and specific targets.

Chelan PUD intends to adopt this CEIP by January 1, 2022 and will develop subsequent CEIPs every four years. Chelan PUD will also submit its CEIP to the Washington Department of Commerce using the form mandated by the Department.

RENEWABLE ENERGY INTERIM TARGET

Background

CETA requires that a utility's CEIP establish an interim target for the percentage of retail load to be served using renewable and non-emitting resources during the CEIP planning period. CETA considers the following energy sources renewable: water (i.e., hydropower), wind, solar, geothermal, renewable natural gas, renewable hydrogen, wave, ocean or tidal power, biodiesel fuel that is not derived from crops raised on land cleared from old growth or first growth forests and some forms of biomass.

The interim target must demonstrate progress toward meeting CETA's 2030 greenhouse gas neutral or 2045 100% clean standard, if the utility is not already meeting the relevant standard.

In this CEIP, Chelan PUD established its interim renewable energy target based on its understanding that CETA compliance will be measured based on renewable energy ownership/

procurement and renewable energy credit retirement. However, administrative rules implementing CETA's 2030 greenhouse gas neutral standard were still under development during the development of this CEIP. Chelan PUD's approach to establishing interim targets may change in future CEIPs based on final administrative rules or changed circumstances, for example load growth.

Chelan PUD Renewable Energy Interim Target

Chelan PUD's target for the percentage of retail load to be served using renewable resources during 2022–2025 is 90%. This target reflects Chelan PUD's plan to continue to serve its traditional retail electric customers using existing hydropower resources (Rocky Reach, Rock Island, and Lake Chelan). Chelan PUD did not set its target at 100% because it has a large industrial customer that has not committed to purchasing hydropower during 2022–2025. Establishing a 90% target places Chelan PUD in the position of meeting CETA's 2030 requirement to serve at least 80% of retail load with renewable and non-emitting resources eight years early.

RENEWABLE ENERGY SPECIFIC TARGET

Background

CETA requires that a utility's CEIP also include a target for the quantity, expressed in megawatt-hours, of renewable energy to be used during the CEIP planning period. Chelan PUD understands this target to be based on a utility's renewable energy interim target and its forecasted retail electric load for that planning period.

Chelan PUD Renewable Energy Specific Target

Chelan PUD's renewable energy specific target for 2022–2025 is 7,207,667 megawatt-hours. This target is based on Chelan PUD's retail base load forecast for 2022–2025 (8,008,519 megawatt-hours) and its 90% renewable energy interim target.

ENERGY EFFICIENCY SPECIFIC TARGET

Background

CETA requires that a utility's CEIP establish a target for the amount, expressed in megawatt-hours of first-year savings, of energy efficiency resources expected to be acquired during the CEIP planning period. The CEIP energy efficiency target must comply with WAC 194-40-330(1). A utility may update its CEIP to incorporate a revised energy efficiency target to match a biennial conservation target

established by the utility under RCW 19.285.040 (1)(b) and WAC 194-37-070.

Chelan PUD's Energy Efficiency Specific Target

Chelan PUD's energy efficiency target for 2022-2025 is 33,989 megawatt-hours over the four-year planning period. This target was developed in compliance with WAC 194-40-330 using methodologies outlined in RCW 19.285.040 (1) (b) and WAC 194-37-070. To meet this target, Chelan PUD has developed programs targeting residential, commercial, and industrial customers. This includes supporting low-income programs implemented by the Chelan-Douglas Community Action Council. Chelan PUD will also initiate additional low-income programs to target low-income customers with high energy burdens. This program is in response to Chelan PUD's five-year strategic plan to minimize potential rate increases to our most vulnerable customers as well as meeting CETA goals.

DEMAND RESPONSE SPECIFIC TARGET

Background

CETA requires that a utility's CEIP specify a target for the amount, expressed in megawatts, of demand response resources to be acquired during the CEIP planning period. This demand response target must comply with WAC 194-40-330 (2).

Chelan PUD Demand Response Specific Target

Chelan PUD's Demand Response target for 2022-2025 is zero (0) megawatts. Chelan PUD conducted a Demand Response Potential Assessment in compliance with WAC 194-40-330 (2) utilizing methodologies outlined in RCW 19.285. No cost-effective demand response measures were identified.

SPECIFIC ACTIONS

Background

A utility's CEIP must identify the specific actions the utility will take during the CEIP planning period toward meeting the CEIP's interim and specific targets.

Chelan PUD Renewable Energy Specific Action

To meet its interim and specific renewable energy targets Chelan PUD intends to retire renewable energy credits from its hydropower resources in amounts based on the targets.

Chelan PUD Energy Efficiency Specific Action

To meet the energy efficiency specific target, Chelan PUD has developed programs targeting residential, commercial, and industrial customers. Examples of these programs are weatherization, rebates for high efficiency HVAC, pumps, motors, lighting, and smart thermostats, and conducting Strategic Energy Management outreach to large

commercial and industrial customers. These projects generally include a mix of low-cost/no-cost operational actions and supporting energy efficient capital improvements using utility incentives. Actions also include continuing support of low-income programs implemented by the Chelan-Douglas Community Action Council in the form of an annual grant. Chelan PUD will also initiate an additional low-income program to target low-income customers with high energy burdens. This program is in response to Chelan PUD's five-year strategic plan to minimize potential rate increases to our most vulnerable customers as well as meeting CETA goals. The program was developed in coordination and with feedback from the PUD's Low Income Advisory Group.

Chelan PUD Demand Response Specific Action

Although Chelan PUD's Demand Response Potential Assessment, performed by a consultant, did not identify cost-effective demand response resources at this time, Chelan PUD staff will continue monitoring for demand response opportunities. Both technology, measures, and market conditions that could increase the benefit side of the equation will change over time. For example, the cost-effectiveness of a demand response resource may be impacted by the implementation of the Western Resource Adequacy Program and the

adoption of electric vehicles in the service territory.

ACTIONS TO ENSURE AN EQUITABLE TRANSITION

Background

CETA places an emphasis on equity in Washington electric utility planning. Specifically, when complying with CETA's 2030 greenhouse gas neutral standard, CETA requires a utility to "ensure that all customers are benefiting from the transition to clean energy: Through the equitable distribution of energy and nonenergy benefits and reduction of burdens to vulnerable populations and highly impacted communities; long-term and short-term public health and environmental benefits and reduction of costs and risks; and energy security and resiliency." RCW 19.405.040(8). The CEIP process supports meeting this directive through the identification of highly impacted communities and vulnerable populations as well as the development of customer benefit indicators.

Highly Impacted Communities

Background

A utility's CEIP must identify each highly impacted community located within its service territory. A highly impacted community is a community designated by the Washington Department of Health (DOH) based on a cumulative impact analysis or a community

located in a census tract that is fully or partially in Indian country. According to DOH, the goal of designating highly impacted communities is to highlight communities that are currently experiencing a disproportionate share of environmental risk factors and that must, according to CETA, benefit equitably from the transition to a clean energy economy.

DOH used the Washington Environmental Health Disparities map to designate highly impacted communities. According to DOH, the Environmental Health Disparities map ranks the risks communities face from environmental burdens including fossil fuel pollution and vulnerability to climate change impacts that contribute to health inequities. DOH designated any census track with an overall rank of nine (9) or ten (10) as a highly impacted community. Additional information on the Washington Environmental Health Disparities map is available on the DOH website.

Chelan PUD Highly Impacted Community

DOH designated Chelan County census track 53007961000 as a highly impacted community. Census track 53007961000 is identified in the map images below and is in central Wenatchee. DOH found that this census track scored as a 9 or 10 for the following environmental health disparities indicators:

- PM2.5 concentration (fine particulate matter);
- Lead risk from housing;
- Proximity to risk management plan (RMP) facilities;
- American Community Survey (ACS): Limited English Proficiency (LEP);
- No high school diploma;
- People of color (race/ethnicity);
- Population living in poverty <= 185% of Federal Poverty Level (FPL);
- Unaffordable housing (>30% of income); and
- Low birth weight.

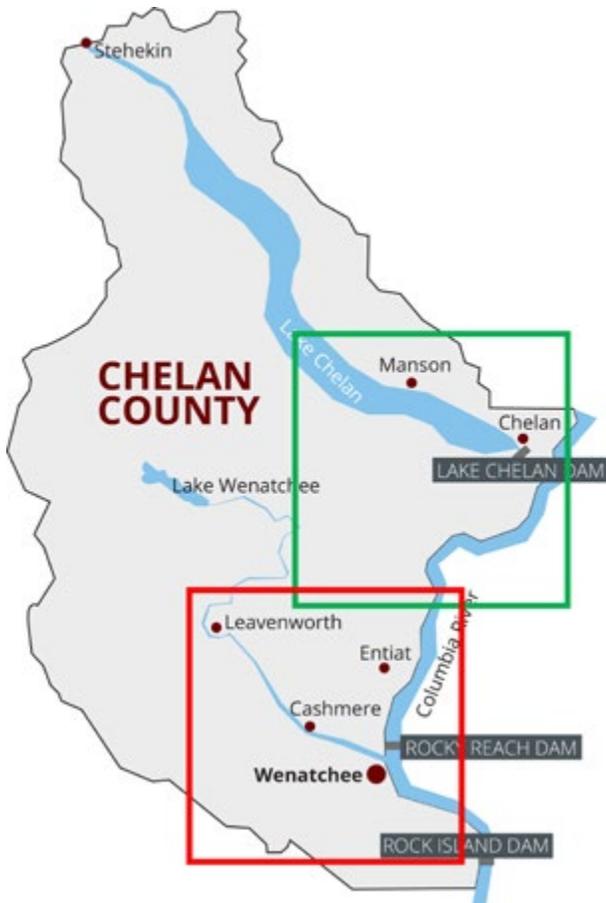


Figure 1
Chelan County Map with locations of the DOH Disparity maps

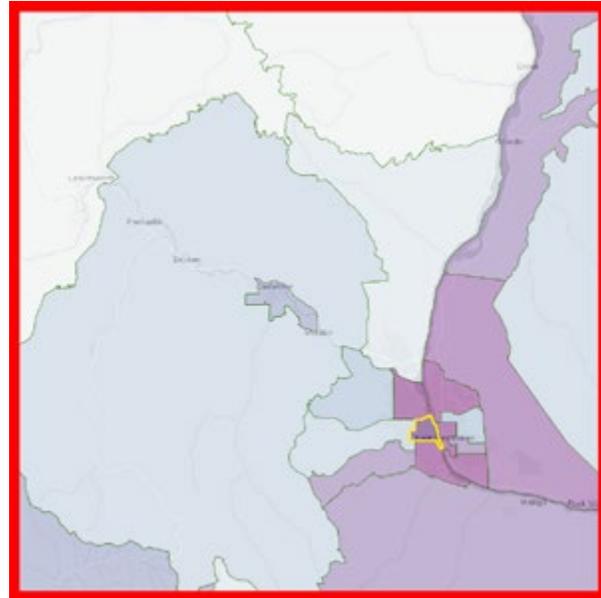


Figure 2



Figure 3

DOH Washington Environmental Health Disparities maps of Chelan County. Top image includes the sole highly impacted census tract (dark purple highlighted in yellow).

At the time of development of this CEIP, the DOH's highly impacted communities list also included several other census tracts located outside Chelan County that were identified as within Chelan PUD's jurisdiction. Chelan PUD understands that the inclusion was due to mapping inaccuracies and does not include these census tracts in its CEIP.

Vulnerable Populations

Background

A utility's CEIP must identify vulnerable populations based on the adverse socioeconomic factors and sensitivity factors developed through a public process established by the utility.

Chelan County PUD Vulnerable Populations

In 2021, Chelan PUD convened a Low-Income Advisory Group (LIAG) consisting of the organizations located in Chelan County that support and aid members of our low-income and vulnerable populations. The LIAG was brought together to support the effort of developing a low-income energy efficiency program, aid in identifying vulnerable populations, and help identify appropriate indicators. The LIAG primarily identified customers with high energy burdens as a population at risk. Additional sub-groups of high energy burdened customers were also identified that can have challenges accessing assistance.

1. Those that live in homes with high energy burdens (2,100).
 - a. Members of our community that live in non-traditional housing that may have difficulty accessing program assistance. For example, recreational vehicles, campers, mobile homes, etc.
 - b. Those that don't have their names on the utility bill but still pay the bill through their landlord. These customers can have trouble accessing assistance.

The socio-economic and sensitivity factors utilized by the LIAG were household income and home energy usage. These factors allow Chelan PUD to identify the customers that have a high energy burden. The LIAG and Chelan PUD staff reviewed Chelan PUD's Low Income Needs Assessment model and data to ensure it comported with the experience of LIAG members.

During this CEIP's planning horizon, Chelan PUD will focus on high energy burdened customers through the implementation of a new low-income energy efficiency program. Additionally, staff will investigate ways to support customers that can have challenges accessing aid.

Distribution of Costs and Benefits

Background

A utility's CEIP must report the forecasted distribution of energy and nonenergy costs and benefits for the utility's portfolio of specific actions in its CEIP, including impacts resulting from achievement of the specific targets in its CEIP. This report must:

- I. Include one or more indicators applicable to the utility's service area and associated with energy benefits, nonenergy benefits, reduction of burdens, public health, environment, reduction in cost, energy security, or resiliency developed through a public process;
- II. Identify the expected effect of specific actions on highly impacted communities and vulnerable populations and the general location, if applicable, timing, and estimated cost of each specific action. If applicable, identify whether any resource will be located in highly impacted communities or will be governed by, serve, or otherwise benefit highly impacted communities or vulnerable populations in part or in whole; and
- III. Describe how the specific actions in the CEIP are consistent with, and informed by, the utility's longer-term strategies from its integrated resource plan and the clean energy action plan from its most recent integrated resource plan.

A utility's CEIP must also describe how the utility intends to reduce risks to highly impacted communities and vulnerable populations associated with the transition to clean energy.

Customer Benefit Indicators

CETA requires utilities to identify one or more indicators developed through a public process. Chelan PUD engaged with the LIAG to identify appropriate indicators. For 2022–2025 Chelan PUD's CEIP indicators are:

- Energy burden reduction; and
- Indoor air quality improvement.

For the energy burden reduction indicator, Chelan PUD will require participants in the program to provide a self-certification of income. This requirement should lower the hurdle for program participation and is meant to alleviate barriers caused by too much administration. This will also reduce the administrative overhead for Chelan PUD, allowing more funds to flow to those that need it. Chelan PUD has access to energy billing data and will be able to utilize the information to assess program effectiveness of reducing energy burden.

The indoor air quality indicator will focus on tracking how many non-recirculating air-conditioning and HVAC units are changed out to recirculating units in a home. Recirculating units can filter the air within the home, increasing air quality during wildfire smoke events.

Effect of Chelan PUD Specific Actions

Specific Action: Retire renewable energy credits based on the renewable energy targets.

Chelan PUD REC retirement should have not a direct impact on customer energy burden. However, Chelan PUD's customers—including those living in census track 53007961000 and its energy-burdened vulnerable population—generally benefit from being served by existing PUD hydropower resources both due to the relatively low cost of operation and because the PUD can utilize surplus wholesale sales to partially subsidize electric rates locally.

Chelan PUD REC retirement also does not directly impact customer indoor air quality. However, Chelan PUD's customers—including those living in census track 53007961000 and its energy-burdened vulnerable population—generally benefit from being served by existing PUD hydropower resources because those resources do not emit greenhouse gases.

Specific Action: Implement Low-Income Energy Efficiency Program

Chelan PUD will implement an energy efficiency program targeted towards low-income and high energy burdened customers. This will enable customers to participate that have generally not been able to participate in programs

due to the cost-share aspect of traditional energy efficiency programs. This will have the effect of further lowering energy bills, and depending on the measure, improving the comfort and indoor environment of this group of customers.

Specific Action: Implement current energy efficiency programs

Chelan PUD will continue to implement residential, commercial, and industrial programs. These programs support low electricity bills for all our customers. The energy we save with the programs is then available for sale at the wholesale level. These sales support low rates. Additionally, the energy saved in Chelan County increases the amount of clean hydropower available for sale throughout the region.

Specific Action: Continue to assess demand response technologies and opportunities

The 2021 Demand Response Potential Assessment did not identify cost-effective demand response in our service territory. However, staff will continue to assess technology and capacity markets to identify opportunities in the future. More options are likely to be available as Chelan PUD implements advanced metering infrastructure (AMI) technology over the next couple of years.

Consistency with Long Term Planning

Chelan PUD developed its 2021 CEIP and 2021 Integrated Resource Plan (IRP), including the Clean Energy Action Plan portion of the IRP, simultaneously. Chelan PUD's 2021 Conservation Potential Assessment informed conservation assumptions for both the CEIP and IRP and both planning processes utilized the same resource mix and retail customer load assumptions.

Reducing Risks to Highly Impacted Communities and Vulnerable Populations

Chelan PUD is taking several actions to reduce risks to its highly impacted community and to its vulnerable populations. First, Chelan PUD's energy source for its customers is low-cost, clean renewable hydropower. Second, Chelan PUD's standard energy efficiency programs support low energy bills by providing the utility with more energy to sell in the wholesales market. Revenue from these sales is used to maintain low, stable rates for all customers, especially our most vulnerable populations. Finally, Chelan PUD's Board of Commissioners has authorized the development and implementation of a low-income energy efficiency program targeted at reducing the energy burden of the most vulnerable populations by lowering energy bills. An additional benefit of the program is

expected to be improvement to comfort and indoor air quality, especially during wildfire smoke events.

RESOURCE ADEQUACY

Background

In its integrated resource plan, a utility must identify an appropriate resource adequacy requirement and measurement metric consistent with prudent utility practice in implementing CETA's greenhouse gas neutral by 2030 and 100% renewable and non-emitting by 2045 standards. The specific actions identified in a utility's CEIP must be consistent with the utility's resource adequacy requirements and the CEIP must identify the resource adequacy standard and measurement metrics adopted by the utility and used in establishing the CEIP targets.

Chelan PUD Resource Adequacy Assessment

Chelan PUD currently plans on having enough resources available to exceed the expected hourly peak load forecast for each month, along with meeting reliability operating reserve requirements. In addition, to consider the impact of streamflow variability in resource adequacy planning, Chelan PUD currently assesses this metric under adverse (1 in 20 year) streamflow conditions.

Chelan PUD is also an active participant in the development of the new Western

Resource Adequacy Program, a regional resource adequacy program that would result in coordinated resource adequacy planning among participating entities. Assuming this program is implemented, Chelan PUD anticipates in the future it will perform its resource adequacy assessments using common standards and metrics developed by the program.

ALTERNATIVE COMPLIANCE OPTIONS

CETA allows a utility to meet up to 20% of its greenhouse gas neutral compliance obligation through December 31, 2044 by using alternative compliance options. Alternative compliance options include making an alternative compliance payment, using unbundled renewable energy credits and investing in energy infrastructure projects. CETA's greenhouse gas neutral compliance standard begins on January 1, 2030 and therefore the potential use of alternative compliance options is not applicable during the planning period for this CEIP, 2022-2025.

PUBLIC PARTICIPATION

Background

CETA requires that a utility provide reasonable opportunities for its customers and interested stakeholders to provide input to the utility during the development of its CEIP. A utility may use a single coordinated public input process in the development of its CEIP,

its integrated resource plan and its clean energy action plan. In assessing whether a public input opportunity is reasonable, the utility must consider barriers to public participation due to language, cultural, economic, technological, or other factors consistent with community needs. The CEIP must include a description of the public input process and how public comments were reflected in the specific actions identified in the CEIP, including the development of one or more indicators and other elements of the CEIP and the utility's supporting integrated resource plan, as applicable.

Description of District Public Input Process

Chelan PUD decided to use a coordinated public engagement process for development of both its first CEIP and its 2021 Integrated Resource Plan. Chelan PUD created an external webpage to serve as a one-stop-shop for information about its CEIP development with information on how stakeholders could provide feedback to the PUD. Chelan PUD staff utilized three public PUD Board of Commissioners meetings to provide additional opportunities for public comment and for Board review and adoption of the CEIP (October 15, December 6 and December 20). Additionally, Chelan PUD staff met with an external stakeholder group known as the Low-Income Advisory Group to solicit

feedback specifically on the equitable distribution of benefits portion of the CEIP. The LIAG provided input regarding vulnerable populations and customer benefit indicators. Input from the LIAG was also used to develop Chelan PUD's low-income energy efficiency program through multiple meetings earlier in 2021.

Summary of Public Comments

The LIAG identified vulnerable populations as homes with high energy burdens. Additionally, the LIAG spoke about the challenges customers living in what was termed as "non-traditional" housing experience in accessing utility assistance. Examples of "non-traditional housing" include recreational vehicles, mobile homes, or even people who may pay the energy bill without having their names on the utility bill (i.e., utility bill is in the name of the landlord). The LIAG further identified energy burden reduction and indoor air quality improvement as important indicators.

The LIAG advised that in general, substandard housing and informal rental agreements are big issues that frequently bar people in need from accessing assistance. Basic needs are heating, cooling, safety, and health (including indoor air quality). The LIAG stressed that Chelan PUD should prioritize addressing these basic needs before pursuing upgrades solely for the purpose of energy efficiency (such as upgrading windows that otherwise

work versus replacing broken ones), other "nice-to-haves" (such as smart thermostats) or potentially out of reach technology (like electric vehicles).

Chelan PUD also received two written comments encouraging the PUD to consider incentivizing rooftop solar.

How Public Comments Were Reflected in the CEIP

The comments from the LIAG were used to identify vulnerable populations in Chelan PUD's service territory. Additionally, Chelan PUD used the LIAG recommended indicators in the CEIP. Finally, Chelan PUD will use the additional feedback from the LIAG in the design of the low-income energy efficiency program to lower barriers to participation in the program. Regarding rooftop solar, although Chelan PUD is not including any rooftop solar programs within the scope of this first CEIP, it does intend to consider a new solar program in 2022.