

Clean Energy Transformation Act

Washington Equity Advisory Group
Third EAG Meeting

July 21, 2021



PacifiCorp Equity Advisory Group (EAG) Meeting #3

June 21, 2021, 1pm-4pm Pacific Time

- RMI facilitators will change PacifiCorp, RMI, and Equity Advisory Group (EAG) participant names to First Name, Last Initial, PacifiCorp/RMI/EAG.
- We recommend using “Gallery View” (icon in top right) when in group discussions.
- If you called in with your phone, merge your audio and video.
- For technical support, click on “Chat” (icon in tool bar at bottom), toggle to “Matt S, RMI” as the recipient, send your message.

EAG Members:

- If you are able, please keep your camera on for as much of the meeting as possible (icon in bottom left) but stay muted unless speaking.
- Please use the chat at any time to engage in the conversation or ask questions.
- To raise your virtual hand to speak, click on "Reactions" in your tool bar, select “Raise Hand.”

Public Observers:

- Thank you for joining us and observing this meeting.
- You can “Rename” yourself by clicking the “...” on your participant square.
- Please stay on mute with your camera off until the public participation period.
- Please use the chat for technical support by messaging “Matt S, RMI,” but please do not ask questions or respond to prompts in the chat until the public participation period.

Since EAG Meeting #2, what have PacifiCorp and RMI done?

- Input from the Clean Energy Benefits Survey is being gathered through various outlets, including an online link, direct emails, and we are inviting EAG members to share with your networks.
- The input that you gave us during Meeting #2 on vulnerable populations and the challenges that they face is core to our work, and we will share a draft of that output today.
- An initial list of draft Customer Benefit Indicators was compiled.

Meeting #3 Objectives

- Reflect and give feedback on the vulnerable populations list for the Clean Energy Implementation Plan (CEIP) that the EAG helped identify in Meeting #2.
- Learn about CEIP requirements, clean energy, PacifiCorp customer programs, and the role of customer benefit indicators (CBIs).
- Share initial draft CBIs, explain how PacifiCorp has developed this list, and get feedback from the EAG on how these align with the challenges you see in your communities.

Meeting #3 Agenda

Time (Pacific)	Description
1:00 PM	Opening Remarks; Meeting Overview; EAG Member Check-in
1:30 PM	PacifiCorp Presentation: Clean Energy at PacifiCorp and the Clean Energy Implementation Plan
1:55 PM	PacifiCorp Presentation: Customer Programs and Supporting Data
2:10 PM	Review Vulnerable Populations and Challenges from EAG Meeting #2
2:20 PM	Break
2:30 PM	Introduce Customer Benefit Indicators
3:50 PM	Next Steps

Clean Energy at PacifiCorp and the Clean Energy Implementation Plan



Washington's Clean Energy Requirements

Washington's Clean Energy Transformation Act establishes three targets:

2025 – No Coal in Washington Allocation of Electricity

- On or before December 31, 2025, electric utilities serving Washington customers **must eliminate coal-fired resources** from its allocation of electricity.

2030 – Greenhouse Gas Neutral

- All retail sales of electricity to Washington customers **must be greenhouse gas neutral** by January 1, 2030.
- Utilities will meet this standard through a combination of renewable resources, non-emitting resources, environmental attributes, and conservation projects.

2045 – 100% Renewable and Non-emitting

- By January 1, 2045, all sales of electricity to Washington retail customers **must be from renewable resources or non-emitting resources**.
- Utilities will also pursue all cost-effective energy efficiency and conservation programs.

The law also directs an **equitable distribution of energy and non-energy benefits and a reduction of burdens to vulnerable populations and highly-impacted communities (HICs)** as part of the transition to the clean energy requirements

Clean Energy Resources to Meet Washington Requirements

Eligible Renewable Resources

- Hydroelectric
- Wind
- Solar
- Geothermal
- Renewable natural gas
- Renewable hydrogen
- Wave, ocean, or tidal
- Biodiesel (with qualifications)
- Biomass

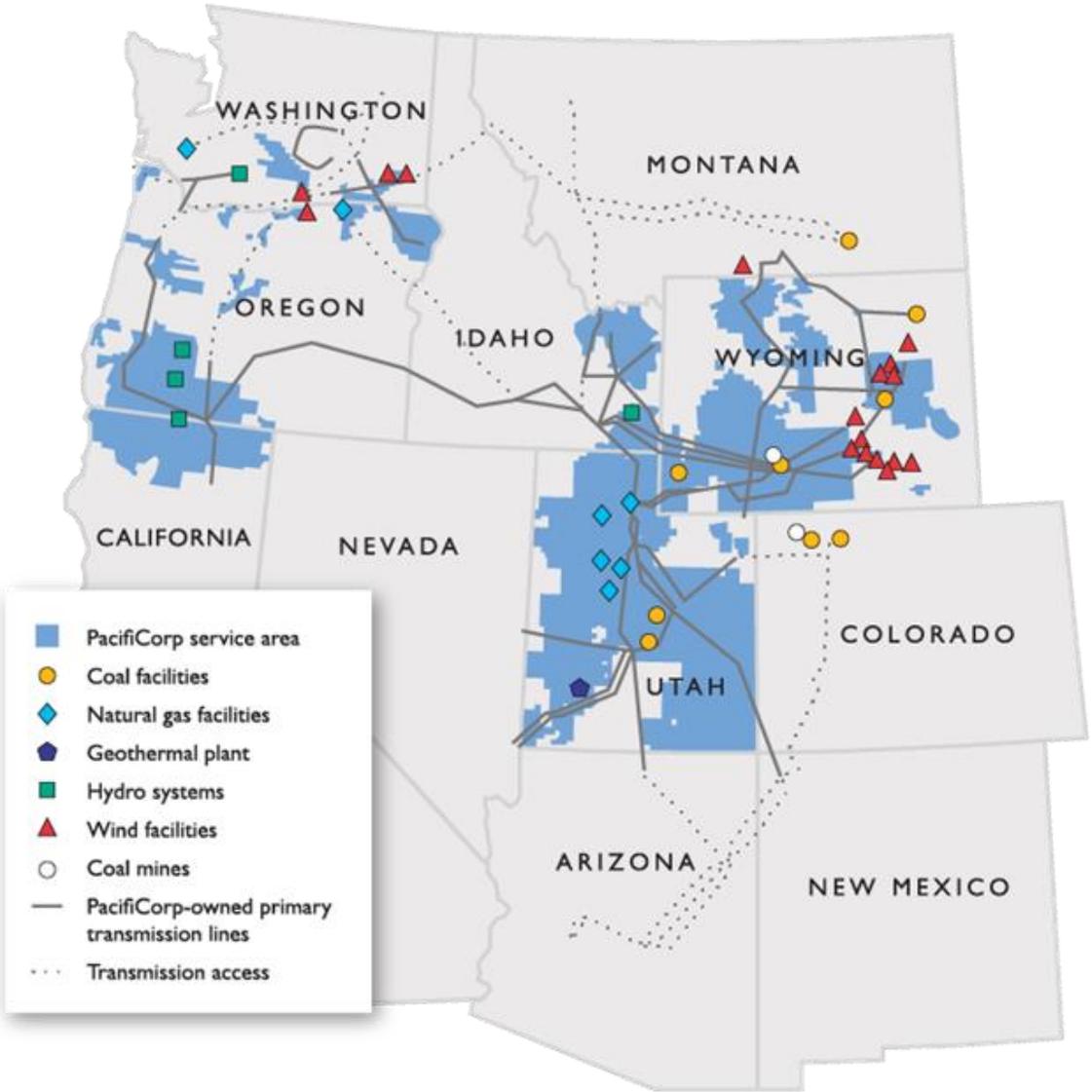
Non-Emitting Resources

Not technology specific, resources defined as:

“Electricity from a generating facility or a resource that provides electric energy, capacity, or ancillary services to an electric utility and that does not emit greenhouse gases as a by-product of energy generation.”

Renewable and non-emitting, combined with energy efficiency and conservation programs, will comprise the basis of compliance with the 2045 “100% Renewable and Non-emitting Resources” requirements.

Cost-Effective Renewables



Our **geographic diversity** means that we can provide access to **low-cost renewable energy** where it is most productive throughout the Western United States – decarbonizing our grid and prioritizing affordability.



Wind facilities located in the highest-producing areas such as Eastern Wyoming, Eastern Oregon, Eastern Washington, and Montana.



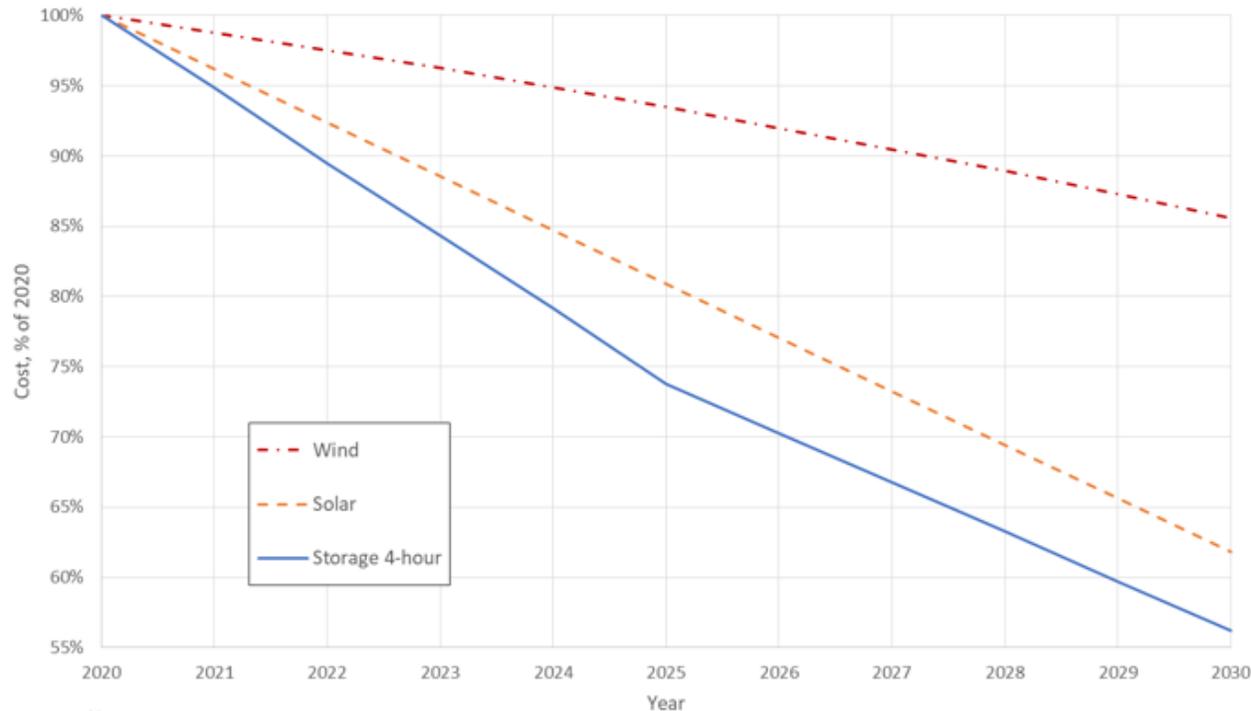
Potential **solar and energy storage** facilities in the highest producing areas such as Utah and Oregon.



With over 16,900 line-miles of **high-voltage transmission** spanning 10 states and a range of climate zones, we're uniquely able to serve our customers with the diverse and abundant natural resources that the West can offer.

Renewable Cost Forecast

CAPEX Cost Forecast By Renewable Resource



Cost data courtesy NREL

- The capital costs of solar, wind, and energy storage resources have fallen significantly over the past decade.
- Renewables have zero fuel cost.
- Wind and solar, and combined with storage, also can qualify for federal tax credits that lower the cost of renewables.
- PacifiCorp initiated a competitive bidding process for new resources in July 2020 and received nearly 600 bids. The final shortlist showed a range of prices for solar, wind and energy storage that were lower than current market price estimates for non-renewables.

PacifiCorp Near-Term Indicative Resource Additions

New Resources in MW Capacity Expected Through 2025 for PacifiCorp's Entire Service Territory

	2021	2022	2023	2024	2025	Total
East						
Battery				200		200
Solar				95		95
PVS Solar				690	457	1,147
PVS Battery				224	258	482
Wind			151	43	1,641	1,835
Energy Efficiency	104	74	79	91	115	463
Demand Response		84	106	35	21	246
West						
PVS Solar				211		211
PVS Battery				53		53
Energy Efficiency	53	48	46	42	48	237
Demand Response		48	70	30	23	171
Total	157	253	452	1,714	2,563	5,140

- Resources and values shown are based on PacifiCorp's final short list of resources from its recent all-source request for proposals and indicative portfolio results discussed at PacifiCorp's 2021 Integrated Resource Plan public-input meeting held June 25, 2021.
- PacifiCorp's serves nearly 2 million customers (~10,500MW) with 137,000 customers in Washington.
- The indicative resource additions shown include wind, solar, solar and storage, and stand-alone battery storage along with energy efficiency and demand response resources.

Clean Energy Implementation Plan Components

Interim and Specific Targets	Company adds/updates pathway to Washington’s clean energy requirements (carbon-neutral by 2030 and 100% renewable and non-emitting by 2045), including what actions can be taken over the next four years.
Specific Actions and Narrative	Building on PacifiCorp’s identified pathway toward Washington’s requirements, this section outlines specifically how that will happen over the next four years.
Incremental Cost	This section calculates the incremental cost of compliance with the law over the next four years when compared to what PacifiCorp may have done had the requirements not existed.
Customer Benefit Indicators and Public Participation	Through collaboration with the public and advisory groups , develops “customer benefit indicators” - a screening tool that helps the Commission assess the impact and/or benefit of resources and programs on the communities served by PacifiCorp. PacifiCorp will also include a summary of the public-input process in the Clean Energy Implementation Plan.
Alternative Compliance Need	Assesses the risk of PacifiCorp being unable to meet the four-year targets and discusses what steps the company may take if the targets are unable to be met.

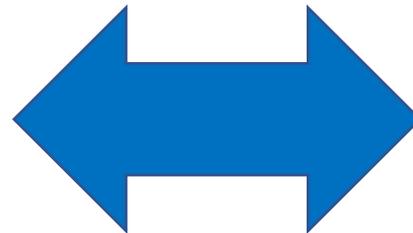
Public participants and advisory groups will **co-develop** Customer Benefit Indicators (CBIs), which identify impacts, benefits, and potential reduction of burdens in the communities PacifiCorp serves based on the actions identified in the Clean Energy Implementation Plan.

Allocation of Cost Under CETA

PacifiCorp will compare 2021 IRP CETA-compliant resource strategy with an alternative portfolio – which will not include CETA requirements – to determine incremental costs.

“Alternative Lowest Reasonable Cost Portfolio”

- PacifiCorp is required to produce data as part of the Integrated Resource Plan that provides a view of **what resources would be selected if Washington’s 100% clean energy requirements did not exist.**
- This comparison portfolio is meant to establish a “**baseline**” to understand any differences in cost and to provide data on which resource decisions are being driven by compliance with the 2025, 2030, and 2045 clean energy standards.



PacifiCorp’s 2021 IRP Preferred Portfolio

- PacifiCorp’s 2021 IRP preferred portfolio will assess **compliance with CETA’s 2025, 2030, and 2045 clean energy targets.**
- The total cost of the 2021 IRP preferred portfolio will include the costs associated with the renewable and non-emitting resources to meet the Washington requirements over the next 20 years. The **comparison of the Preferred Portfolio and Alternative Lowest Reasonable Cost Portfolio** will establish the incremental cost of CETA compliance.

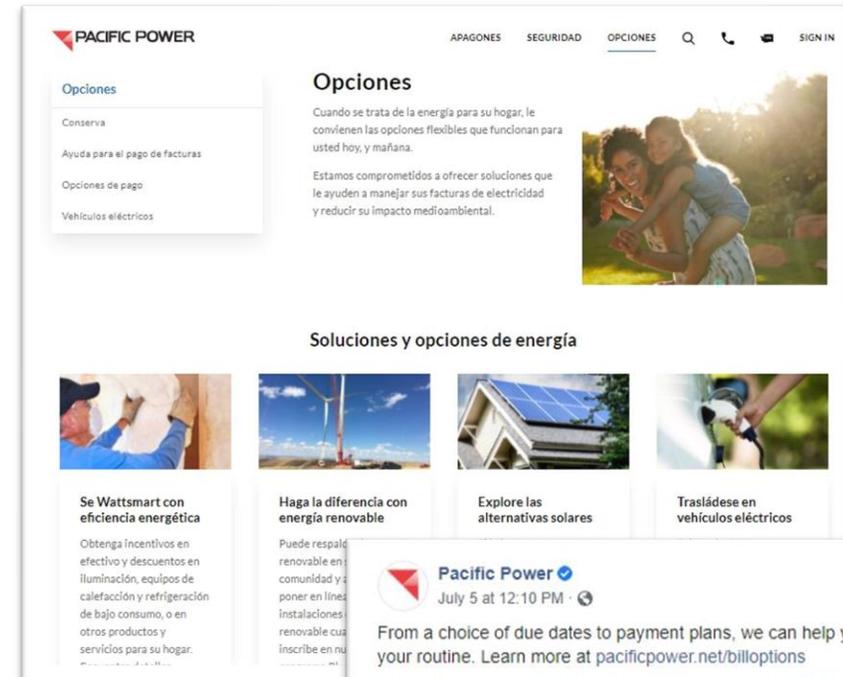
Customer Programs and Supporting Data



Customer Programs

PROGRAMS:

- **Flexible payment and rate options**
- **Bill payment assistance/low-income programs:**
 - Financial assistance, bill discounts, and free weatherization services for income eligible customers
- **Energy efficiency:**
 - Helping residential and business customers reduce costs with incentives and rebates for energy efficiency upgrades
- **Renewable energy and customer generation programs**
- **Time of Use Rates:**
 - **NEW** options available to residential, commercial and irrigation customers in Washington offering lower prices during "off-peak" hours
 - Give customers greater control over the price they pay for energy depending on when they use it



OUTREACH:

- Outreach and materials are often provided in both English and Spanish
- Web content
- Media outreach
- Direct customer and community outreach
 - In person outreach, partnerships with local communities, organizations and agencies
 - Email, mailings, billing notifications, and more
- Customer surveys



ESTAMOS AQUÍ PARA AYUDARLE A *ahorrar*

WATTSMART BUSINESS | PACIFIC POWER POWERING YOUR GREATNESS

Éstos son tiempos sin precedentes y entendemos que muchos negocios enfrentan una multitud de desafíos al implementar proyectos de eficiencia energética.

Para abordar esto, Pacific Power realizó cambios en el programa WattSmart Business, aumentando temporalmente los incentivos para iluminación, HVAC, refrigeración, irrigación y más en aproximadamente un 25% (antes de que se apliquen los límites de incentivos del).

Al elegir la eficiencia energética, puede hacer de su negocio un lugar más cómodo y ahorrar energía y dinero, al mismo tiempo que tiene un impacto positivo al medio ambiente y su comunidad local.

¿No está seguro por dónde empezar? Empezar a ahorrar hoy con unos sencillos pasos:

PASO 1: programe una evaluación gratuita

Regístrese en línea para conectarse con un experto en energía. Recibirá recomendaciones para actualizaciones de energía en su negocio calificadas para incentivos en efectivo de WattSmart Business.

PASO 2: DECIDA LAS MEJORAS Y ACTUALIZACIONES

Trabaje con un proveedor local de WattSmart o un contratista de su elección para elegir e instalar las mejores actualizaciones para su negocio.

PASO 3: ¡AHORRE DINERO, AHORRE ENERGÍA Y GANE INCENTIVOS EN EFECTIVO!

Comience a disfrutar de los beneficios de la eficiencia energética después de completar sus actualizaciones.

SOLICITE UNA EVALUACIÓN GRATUITA

Complete el formulario sencillo en línea y nos comunicaremos con usted para programar su evaluación gratuita.

Estamos aquí para ayudarle a identificar sus objetivos únicos y encontrar actualizaciones e incentivos en efectivo que funcionen para usted.

Para obtener más información, llámenos sin cargo al **1-855-805-7221** o comuníquese con un [asesor de energía](#). Póngase en contacto con nosotros antes de realizar un pedido de equipo nuevo, ya que algunos proyectos requieren una aprobación previa.

¡Esperamos con interés escuchar de usted!



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With plenty of cost-saving tools and rebates to choose from, WattSmart® powers the greatness in all you do.



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• General data characteristics

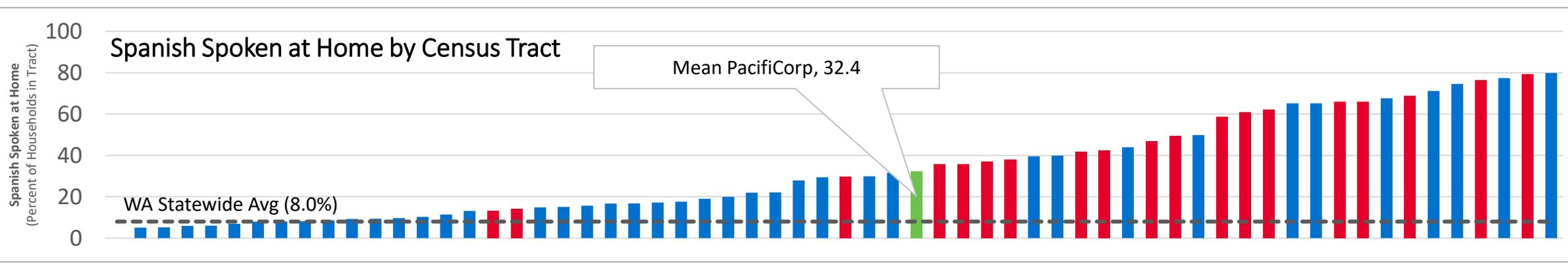
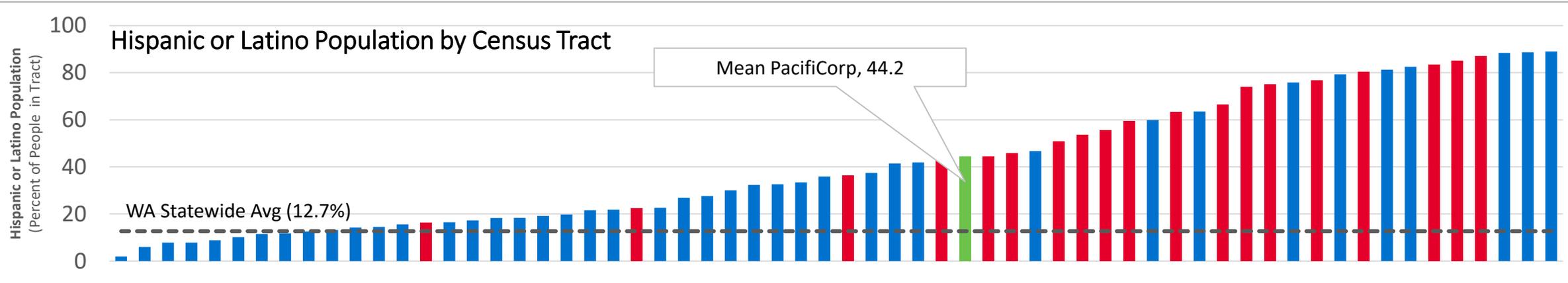
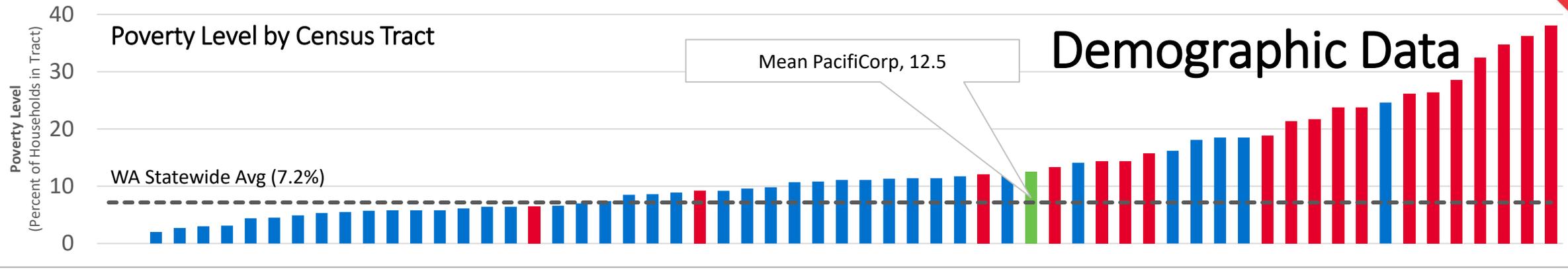
- Program Participation levels
 - Ex: In 2020, 46 homes were treated as part of the low-income weatherization program
- Language flags
- Energy usage
- Outage information
- Paid media performance
- Census data
- Survey data
 - Ex: 64% of Washington customers surveyed have taken actions to save energy in 2020

• Challenges

- We face a variety of challenges bringing together data and how it relates to equity
 - Limited email addresses
 - Connecting with hard-to-reach customers
 - Integrating data from a variety of sources

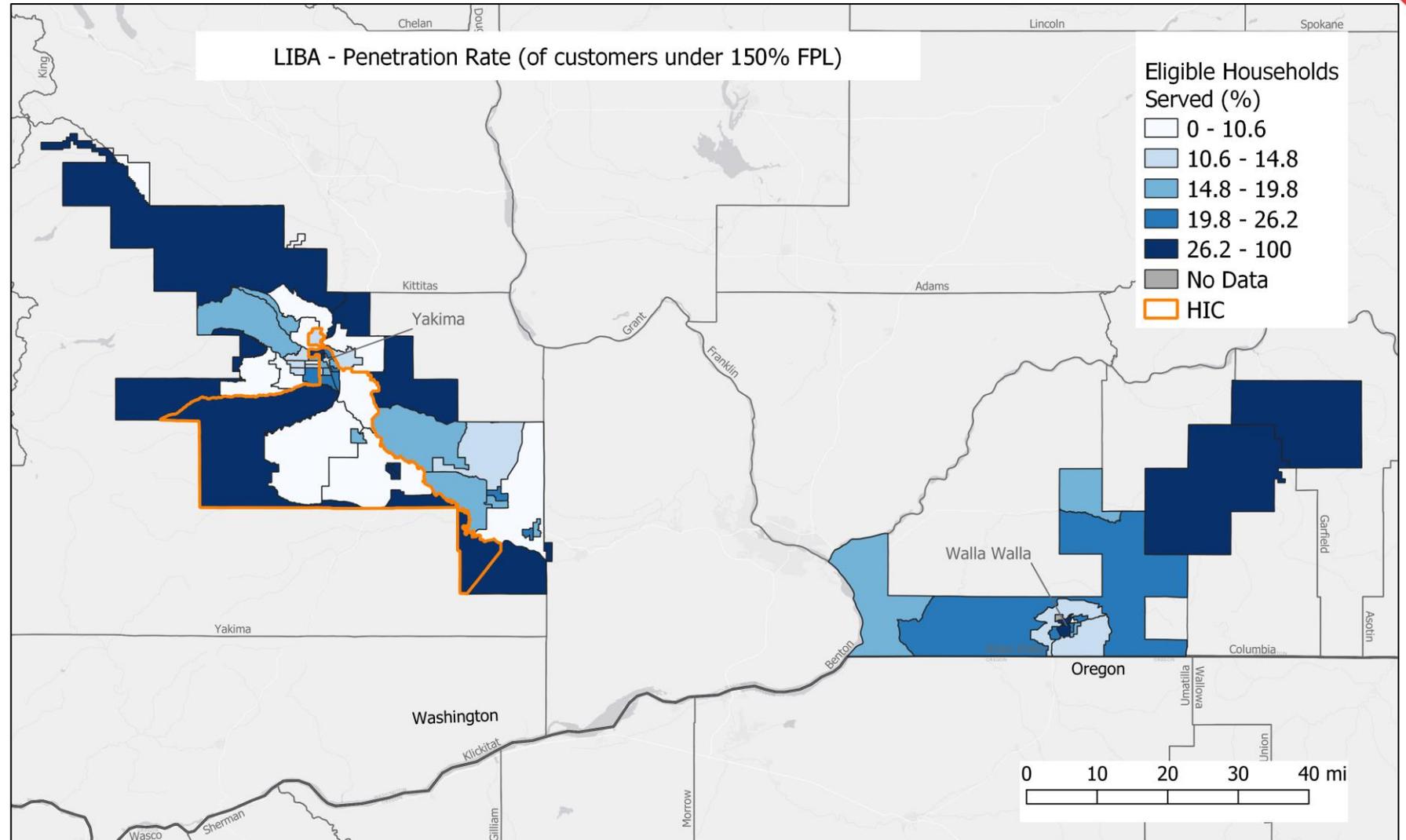


Demographic Data



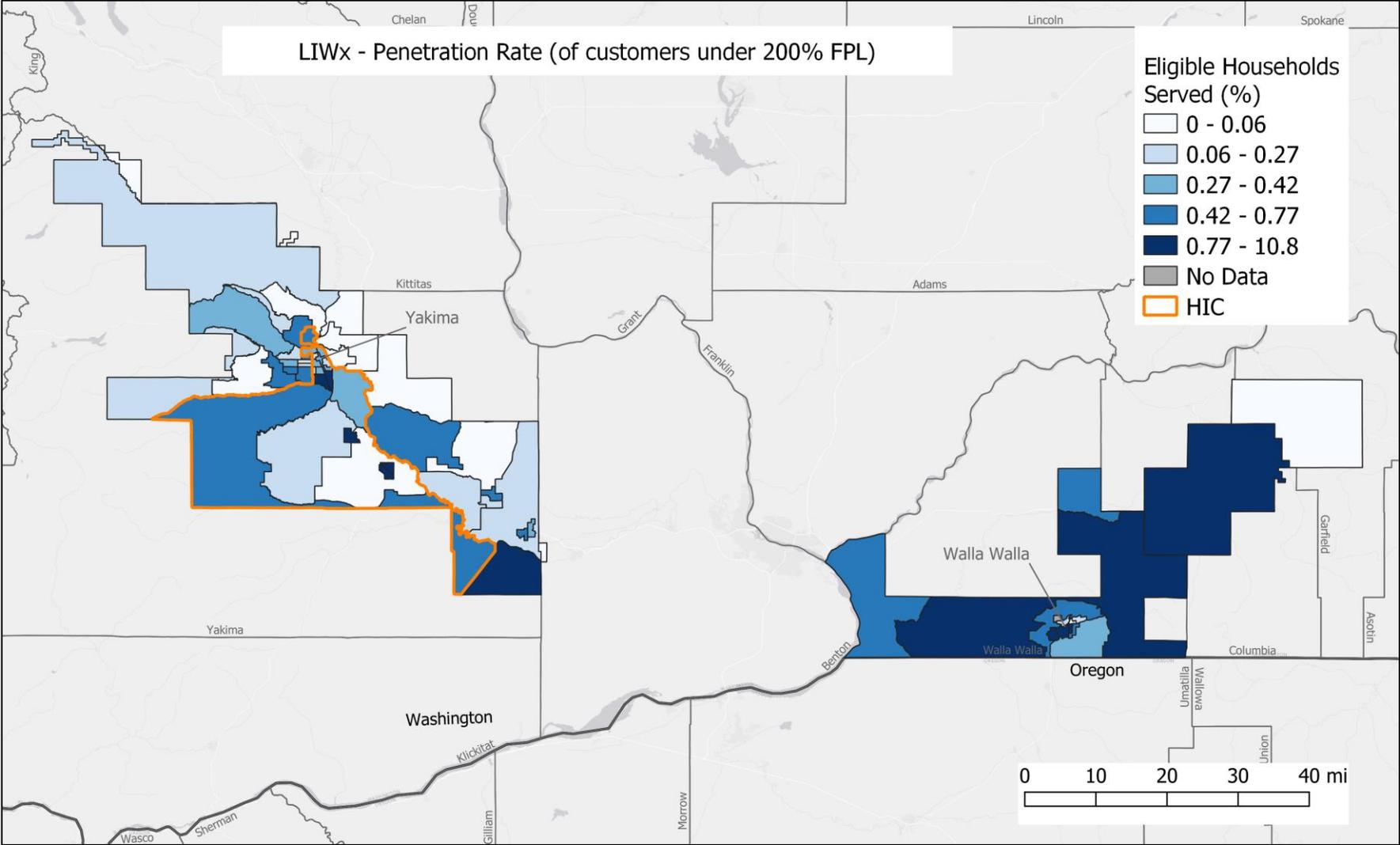
Low-Income Bill Assistance Program

- Low-Income Bill Assistance (LIBA) program provides a bill discount to income eligible households year-round
- 3 tiers based on Federal Poverty Level (FPL); Income level no more than 150% of the Federal Poverty Level
- 16,487 Washington customers have received LIBA program assistance. Of those, 7,405 (44.9%) customers live within HICs



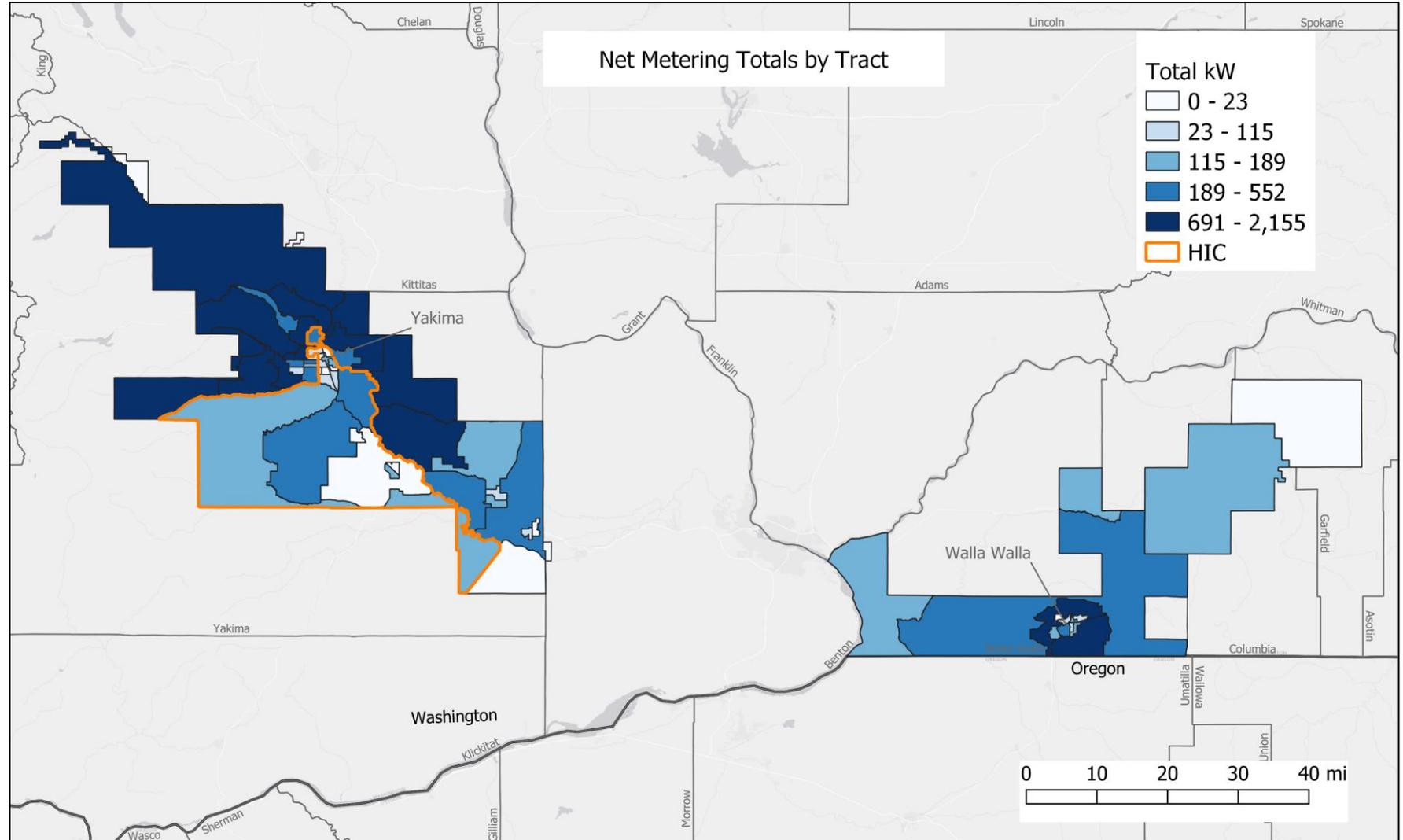
Low-Income Weatherization Program

- Local agencies provide free weatherization services to income-qualifying homeowners and renters living in single-family homes, mobile homes, or apartments
- Eligibility based on 200% Federal Poverty Limit (FPL) or 60% State Median income, whichever is greater
- 720 Washington customers have received assistance from the low-income weatherization program administered by PacifiCorp since 2014. Of these customers, 269 (37.4%) live within HICs



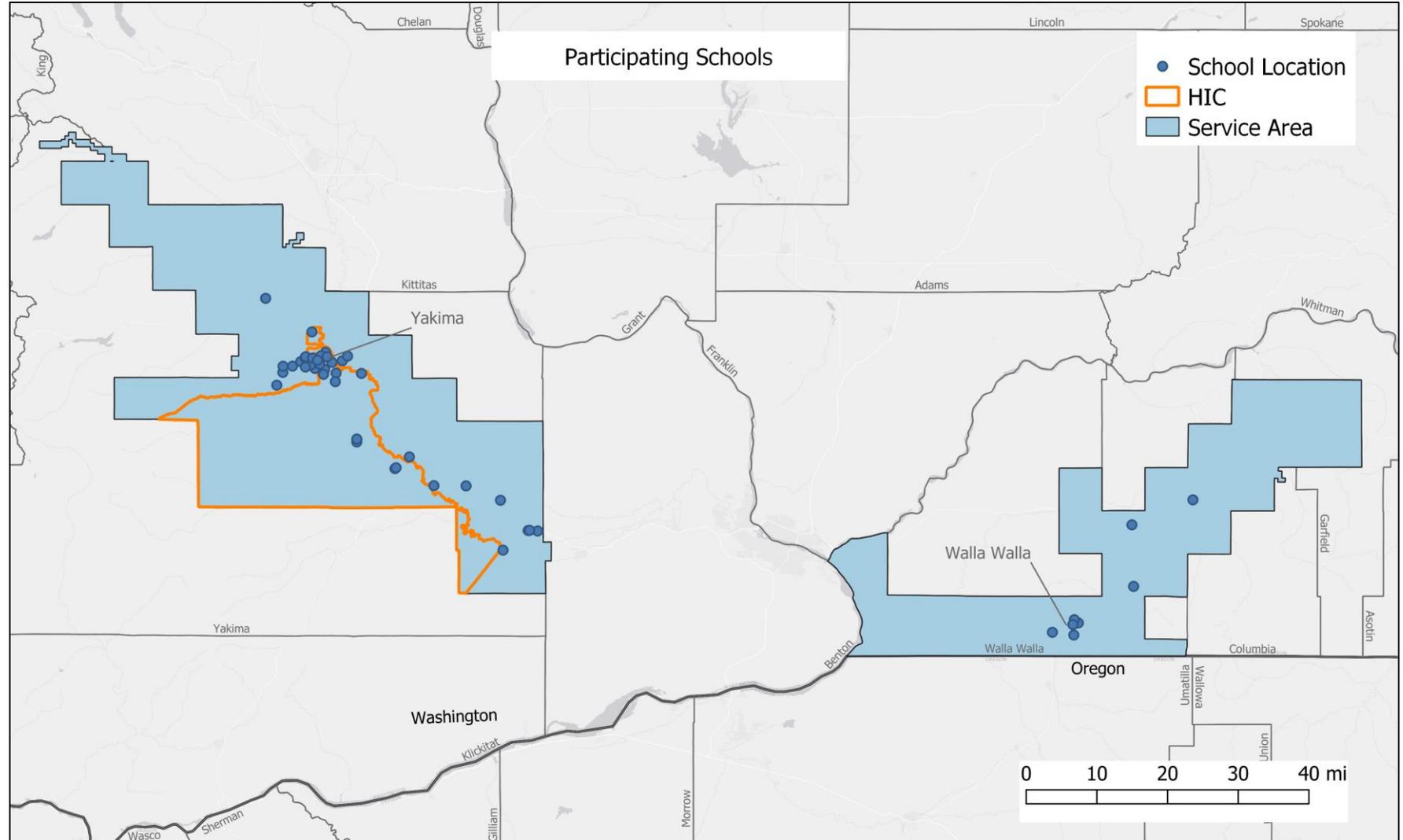
Net Metering Program Participation

- Measures the difference between the electricity you consume from your utility and the electricity you generate and send to the utility using your own solar, wind, or other acceptable renewable generating equipment
- 1,558 Washington customers have installed a total of 20,348 kW of private generation since 2005. Of this amount, 2,070 kW (10.2%) has been installed within HICs
- Based on residential survey results, private generation systems tend to be installed by customers with higher income



Be Wattsmart, Begin at home

- Expands and promotes energy awareness through school-based education program that encourages Washington students and teachers to change behaviors which impacts energy consumption at home or in the community
- In 2020, 47 schools and 3,399 fourth-grade students participated in the program. Of these schools, 15 are located within HICs – or 31.9%



Named Communities



Clustered Vulnerable Populations with Challenges

Vulnerable Populations

Education

Students

Age

65+ adults
Young children

Health

Hard of hearing
Mental health challenges
Physical/Mental disabilities

Income

Energy burdened
Low-income migrants
Low income

Challenges

low barrier access rural challenges
multi family housing language barriers
zoning affordable housing education and employment
cost of living limited income federal v state standards
mental health needs access to transportation
access to information lack of education
technology barriers immigration status mental health stigmas
financial barriers community engagement
trust building discrimination information on use
access to education seasonal work
utility consistency access to broadband
monetary resources land management

Location and Housing

Unhoused
People living in rural areas
Multi-family households
Single parents
Multi-generational households
Gas heated homes
Agricultural/farm workers
People living in different land statuses

Immigration and Language

Non-English speakers
Immigration status (outside of U.S. citizen)

Definitions Update

Highly-Impacted Communities*

A community designated with a score of 9 or 10 based on the DOH cumulative impact analyses or a census tract that is fully or partially on sovereign tribal territory. Scores are assigned based on several indicators that express: 1) environmental exposures, 2) environmental effects, 3) sensitive populations, and 4) socioeconomic factors. This information is available on the Washington Department of Health's Information by Location Environmental Health Disparities (EHD) map.

Vulnerable Populations*

Communities that experience a disproportionate cumulative risk from environmental burdens due to: (a) Adverse socioeconomic factors, including unemployment, high housing and transportation costs relative to income, linguistic isolation, and access to food, education, technology, broadband, health care, capital and credit; and (b) Sensitivity factors, such as mental health, low birth weight, and higher rates of hospitalization.

Named Communities*

A term for both “highly-impacted communities” and “vulnerable populations”

**We recognize these terms do not reflect the strength, individuality, and cultural values of the communities referenced. These are the terms we are using to align with CETA legislation, however, we modified CETA's Vulnerable Population definition to include the insights and perspectives of our EAG.*

Introduction to Customer Benefit Indicators



Customer Benefit Indicator Definition

A customer benefit indicator (CBI) is an **attribute**, either quantitative or qualitative, of resources or related distribution investments associated with customer benefits described in RCW 19.405.040(8).

Customer benefit indicators will:

- Inform **program actions** and investment decisions
- Inform energy **resource planning** decisions

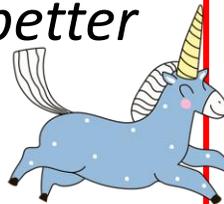
A customer benefit indicator is the “benefit” in this framework:

- Community: Customer segment
- Challenge: How they are affected
- Action: PacifiCorp program or resource
- **Benefit:** Improved outcome for customers



If this process was like a fairy tale:

Once upon a time there was a (named community). Most days they struggled because (challenge). One day the utility did this (action). The (named community) got better because (CBI) improved.



Adapted from Hassan Shaban, Empower Dataworks
Images from Pixabay

PacifiCorp's CBI and CETA Development Process

1. Named Populations

Map HICs and identify vulnerable populations and the challenges they face.

2. Identify Draft CBIs

Identify corresponding WA CETA CBI categories based on challenges faced by HICs and vulnerable populations as identified by the EAG, other PacifiCorp advisory groups, and Washington Customer base input.

3. Scoping for Utility

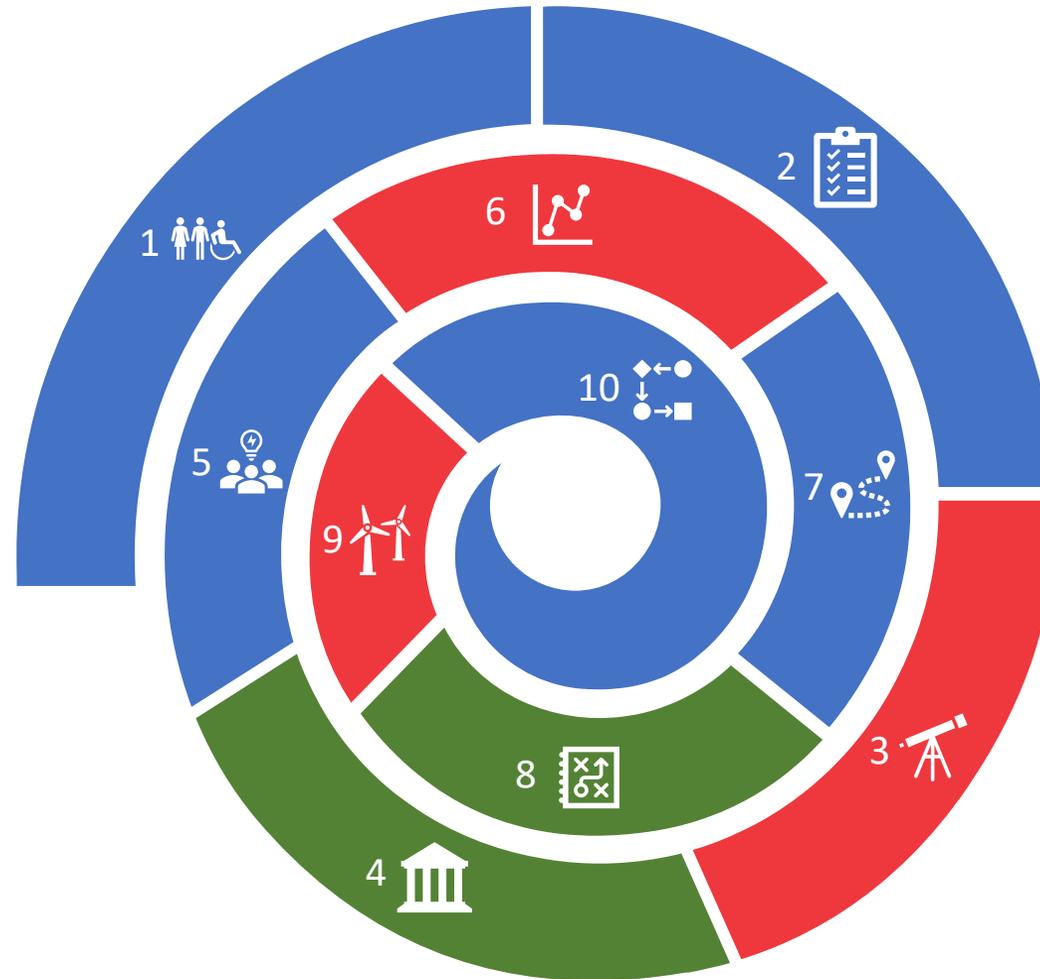
Determine which challenges faced by HICs and vulnerable populations PacifiCorp can influence.

4. Regulation Alignment

Align CBIs to Washington regulations and UTC expectations.

5. Validate CBIs

Refine and weigh CBIs based on stakeholder feedback to understand the significance and importance of each.



6. Metrics Development

Define metrics to monitor and track CBIs.

7. Input on Actions

Identify actions that PacifiCorp can take to positively influence CBIs and their defined metrics and present to EAG for feedback.

8. CEIP Feedback

Prioritize actions identified in Step 7 to include in the CEIP and submit drafts for external feedback, including UTC.

9. CEIP Implementation

Implement plan with actions and monitor results.

10. Iterate

Iterate on the CBIs and actions as a result of new ideas or monitoring for the next CEIP.

Customer Benefit Indicator Framework

Challenge Assignment	Draft CBI Outcome Related to Challenges
Can the challenge be addressed through increased awareness, engagement, marketing and outreach of PacifiCorp programs?	Improved education and awareness
Can the challenge be addressed by reducing burdens attributable to participation barriers?	Reduced barriers for program participation
Can the challenge be addressed through the equitable implementation of community-based projects and investing in communities?	Increased economic/community engagement
Can the challenge be addressed by having a higher amount of renewable energy that combats climate change?	Increased amount of renewable energy
Can the challenge be addressed through cleaner air, cleaner water, reducing greenhouse gas emissions and slowing climate change?	Reduced greenhouse gas emissions
Can the challenge be addressed through the reduction of income dedicated to energy expenditures?	Minimize cost of the clean energy transition
Can the challenge be addressed through air quality improvements that help to reduce health issues?	Improved Health and Well-being
Can the challenge be addressed through the reduction of duration and frequency of outages?	Low frequency and duration of energy outages
Can the challenge be addressed through the installation of energy infrastructure?	Improved local energy system

Challenge/Draft CBI Summary

Primary CBI Category	Draft CBI (Outcomes)	Challenges Addressed
Reduction of Burdens	Reduced barriers for program participation and Improved education and awareness	Access to education and outreach due to technology and financial barriers, support with housing inequity, access to educational resources, scarcity of sign language interpreters, access to language resources, access to information, lack of education, federal energy efficiency standards for trust land, linguistic isolation, access to employment opportunities, access to program information and the need to choose between utility bills and education
Nonenergy Benefit	Increased community/economic engagement	Employment opportunities, access to education, high rates of unemployment, limited income, lack of high-quality jobs, access to local employment resources, access to translation materials, employment/financial cost of living ratios, limited/fixed income and access to trade schools or higher education leading to quality jobs
Energy Benefit	Increased amount of renewable energy	Households with natural gas and/or wood as a primary heating source
Environmental	Reduced greenhouse gas emissions	
Cost Reduction	Minimize cost of the clean energy transition	Lack of support due to income challenges with multi-generational households, lack of parental financial support, cost of electricity, access to local financial resources, access to financial information about programs, the need to choose between utility bills and transportation, health, technology and financial resources, housing/financial cost of living ratio and limited/fixed income
Public Health	Improve Health and Well-being	Access to local health resources, lack of parental health support, rates of hospitalization and long-term COVID-19 health issues
Energy Resiliency/Risk Reduction	Low frequency and duration of energy outages	Lack of reliable heating source
Energy Security	Improve local energy system	Access to transportation
Unknown	Unknown	Support with needs such as food and isolation, depression, anxiety and loneliness, access to healthcare, access to accommodations, access to rehabilitation programs, unhoused access to education, housing and food, lack of affordable housing, undercounted and underrepresented, discrimination, access to legal and governmental support for finances, housing and education, access to insurance and access to resources to gain legal status

Draft Customer Benefit Indicators Flowing to Named Communities

Primary CBI Category	Draft CBI (Outcomes)	Draft CBI (Examples)
Reduction of burdens	Improved education and awareness	<ul style="list-style-type: none"> • Increase efforts to support clean energy education • Improve marketing and outreach to increase awareness of energy and conservation programs
Reduction of burdens	Reduced barriers for program participation	<ul style="list-style-type: none"> • Increase participation in programs and grant opportunities • Expand Spanish translation services
Non-Energy benefit	Increased economic/community engagement	<ul style="list-style-type: none"> • Increase participation in community-focused efforts and investments • Provide support for job training programs • Track and support increased diversity in local program delivery
Energy benefit	Increased amount of renewable energy	<ul style="list-style-type: none"> • Expand electrification opportunities • Increase participation in company energy and efficiency programs

Draft Customer Benefit Indicators Flowing to All Customers Including Named Communities

Primary CBI Category	Draft CBI (Outcomes)	Draft CBI (Examples)
Environmental	Reduced greenhouse gas emissions	<ul style="list-style-type: none"> • Increase in renewable energy resources • Lower CO2 emissions
Cost Reduction	Minimize cost of the clean energy transition	<ul style="list-style-type: none"> • Reduce number of households experiencing high energy burden • Increase participation in company energy and efficiency programs • Increase awareness of and participation in billing assistance programs
Public Health	Improved Health and Well-being	<ul style="list-style-type: none"> • Decrease in wood use for home heating • Improve home comfort
Energy Resiliency/ Risk Reduction	Low frequency and duration of energy outages	<ul style="list-style-type: none"> • Emergency Preparedness: Improve system readiness to respond to major disasters • Optimize grid investments • Support customer programs related to community resiliency
Energy Security	Improved local energy systems	<ul style="list-style-type: none"> • Develop local/regional infrastructure to promote long-term reliable service

Closing: Looking Ahead and Next Steps



Looking Ahead

Meeting Date	Topics
1. May 13	Background and introduction <ol style="list-style-type: none">1. Background on PacifiCorp and the Clean Energy Transformation Act (CETA)2. EAG member perspectives, backgrounds, and experiences
2. June 16	Highly-impacted communities (HICs) and vulnerable populations <ol style="list-style-type: none">1. HICs and vulnerable populations2. Potential benefits, burdens, and opportunities of clean energy for HICs and vulnerable populations
3. July 21	Customer benefit indicators (CBIs) <ol style="list-style-type: none">1. List of vulnerable populations2. Overview of PacifiCorp's Clean Energy Implementation Plan (CEIP), initial view of existing customer programs, and the role of CBIs3. CBI alignment with challenges for HICs and vulnerable populations4. Initial Draft of CBIs
4. Aug 18	Refining and measuring CBIs <ol style="list-style-type: none">1. Input from EAG on CBIs2. Methods and data to support CBI metrics3. Constraints and challenges of CBI metrics
5. Sept 15	Final CBIs and draft Clean Energy Implementation Plan (CEIP) <ol style="list-style-type: none">1. Prioritization of final CBIs2. Initial list of PacifiCorp actions3. Overview of draft CEIP
6. Oct 20	Final input <ol style="list-style-type: none">1. Input from EAG on PacifiCorp actions and their prioritization2. Recommendations for the CEIP filing based on community input
7. Dec 15	EAG next steps <ol style="list-style-type: none">1. EAG process in 20212. Next steps for the EAG in 2022

Dates and content may shift based on EAG input and actual meeting execution.

- **Survey.** Please take a few minutes to complete the survey or send feedback directly to CEIP@pacificorp.com.
- **Materials.** Notes from this meeting will be shared and posted to the website next week. We will share and post EAG Meeting #4 materials in advance of the **next meeting on August 18, 1-4 pm Pacific Time.**
- **Additional Context.** Clean energy education materials are being created and will be shared with the EAG.