



## Clean Energy Plan (CEP) Engagement Series

June 2024 Meeting Notes

Friday, June 21, 2024, 9:00 -11:00 am Pacific Time

*These notes were synthesized and summarized by E Source, PacifiCorp's meeting facilitation partner.*

### Executive Summary

There were 48 people in attendance, including members of the public and PacifiCorp representatives, at the second iteration of the Clean Energy Plan Engagement Series meeting this year. The virtual meeting, which was hosted via the Zoom platform, aims to provide an integrated lens on clean energy planning with expanded learning opportunities to foster a deeper understanding of programs and outreach while gathering public input.

To maximize accessibility, the meeting was recorded for those who could not attend and Spanish and ASL interpretation/translation were provided.

The following is a summary of the content and feedback received during the 3-hour public meeting.

### Session Objectives

1. Communicate regulatory, Clean Energy Plan filing, and biennial report updates
2. Explore the Integrated Resource Planning approach and modeling
3. Define resiliency in Community Benefit Indicators and introduce the Community Based Renewable Energy Resilience Hub pilot

### Opening

PacifiCorp's Matthew McVee opened the CEP meeting by welcoming the attendees and thanking the public for continued participation. Public perspectives are essential to achieving meaningful impacts on communities. E Source's Morgan Westberry reviewed meeting experience items, provided an overview of the agenda and objectives, and introduced the presenters.

## Regulatory Updates

Matthew McVee provided regulatory updates focusing on Oregon rate case issues. On February 14, 2024, the company filed an increase application requesting \$322.4 million, about 18%. A decision approving or denying the application is expected in December 2024. If approved rates will be effective January 1, 2025. Some of the key cost drivers are outlined below:

General Rate Case Drivers	Est. Rev. Req.
Gateway Transmission	\$68.6m
ROE to 10.3%	\$29.1m
New Wind Generation	\$20.9m
Wildfire Restoration Deferral Amortization	\$18.9m
Baseline Vegetation O&M Increase	\$17.0m
Increased Cost of Debt	\$12.6m
2020 Wildfire Restoration Capital	\$11.3m
Cost Escalations	\$10.9m

Rate case drivers are the general costs of doing business, this is the recovery of the investments made to serve customers. Majority of the revenue required is gateway transmission to integrate more renewables and allow an increased flow of renewables to serve customers, which also facilitate more market access to reduce power costs and develop new wind generation. Rock Creek and Rock River projects are an example of modern investments moving the company closer to decarbonization goals. PacifiCorp is also looking at an increase in the baseline to the vegetation operations and maintenance. However, these costs are tracked through regulatory mechanisms and any funds not spent are dispersed back to the customers. The company is also asking for an increase in the return on equity due to the rising cost of equity investments and the elevated risks. Wildfire restoration costs are also in the rate case filing to recoup the cost of replacing poles and wires after wildfire events. Cost of debt is also increasing as the market experiences downgrades, resulting in less favorable terms than used to. The company has been intentional about keeping the cost escalations increase as low as possible, which include cost of salaries, labor, and equipment.

Insurance Drivers	Est. Rev. Req.
2023 Ins. Premium Deferral Amortization	\$15.6m
Liability Ins	\$50.4m
Catastrophic Fire Fund	\$77.7m
WMP AAC True Up*	\$21.2m

Insurance drivers are another factor contributing to the rate case increase due to increasing insurance rates in 2023, primarily due to wildfires. Regardless of wildfire location, utilities across the board are experiencing the same increase in insurance rates. Using the Maui wildfire event as an example, in comparison to rates prior, customers experienced a stark increase in rates after the event as underwriters are becoming wearier as the risk becomes more difficult to gauge. The company is also

exploring additional options such as self-insurance and a catastrophic fire fund, modeled after California. The underlying question is: how would the company allocate the costs? Should the cost allocation model be the typical formula? The Wildfire Mitigation Plan Automatic Adjustment Clause (AAC) True Up is a mechanism that takes \$21 million out of base rates and puts it into the True Up, it is not an additional cost to customers but instead just moves funds from one basis of collection to another. The AAC true up is expected to be filed in July 2024 and the request will be based on costs associated with the Wildfire Management Plan currently under review by the Commission, with Commission deliberation during the June 25, 2024, public meeting.

A final decision regarding the rate case is expected in December 2024 with rates effective January 1, 2025.

Rate making in Oregon encompasses several components, including base rates, which cover the cost of operations, investments, and net power costs (the cost of producing or purchasing power to serve customers). The company does an annual filing, Transition Adjustment Mechanism, to forecast net power costs for the upcoming year. Transition Adjustment Mechanism outlines the transition costs for a customer wanting to choose a different energy provider to prevent cost shifting, which would cause other customers to pick up the remaining share of the cost associated with transitioning. The company filed an initial application on February 14, 2024, requesting a decrease of \$18.3M or 1% in Oregon. An order is expected in October with a final calculation in early November before rates are posted on November 15<sup>th</sup> and effective as of January 1, 2025.

The Power Cost Adjustment Mechanism (PCAM) was initially filed on May 15<sup>th</sup>, 2024, this is where the company recovers actual power costs from the previous year. 2023 actual PCAM costs were \$154.1 million more than base net power costs for 2023 in Oregon. PCAM has deadband which means if the company over or under collect by a certain amount, customers are not charged or refunded. In addition to deadband, PCAM also has a sharing band which requires 90% of any over collection beyond \$15 million be returned to customers with the company keeping 10%. The Wildfire Mitigation Vegetation Management Mechanism is based upon actual spend, which was less than estimates, therefore customers will see a decrease of \$7.9 million based on the initial application filed on May 5, 2024. Rates will go into effect on November 5, 2024.

PacifiCorp filed its 2023 IRP update on April 1, 2024, in [Docket LC 82](#) to address changes to federal and state policies, including modeling improvements to integrated state requirements. On May 30, 2024, the Company presented before the Commission in a public meeting, comments from interested parties were received on June 14, 2024, and the company will respond to comments by July 12, 2024. The Oregon Public Utilities Commission has a special public meeting scheduled for August 8, 2024. PacifiCorp's next Clean Energy Plan will be based upon the 2025 IRP, which is underway with the public meetings already taking place.

## Integrated Resource Planning

Randy Baker, Director of Resource Planning, reviewed the IRP purpose – to produce a plan on a regular cycle that forecasts the best strategy to generate energy and meet customer energy needs over the next 20 years; as well as the IRP approach and discussed recent activities, improvements, and the outcomes of the long-term planning. Mr. Baker also explored recent activity at the federal level that will impact the Clean Energy Plan.

The IRP process for long-term planning has been long-established and is created with a combination of research, public engagement, and mathematical models with customers as the primary focus. When creating an integrated resource plan, customers are front-and-center. This is structured directly into IRP models. For example, the primary method of comparing different plans for energy resources is searching for the “portfolio” of resources that will allow the company to run the power grid at the least cost and the least risk to customers.

The goal in centering the customer is to:

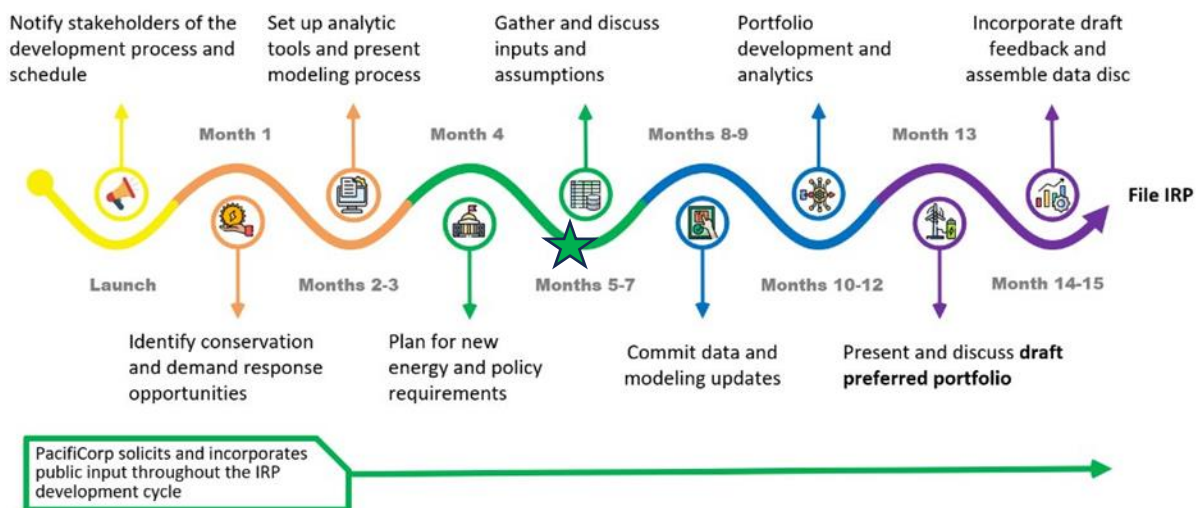
- Increase transparency by minimizing assumptions and constraints
  - Hosting public input meetings
- Close the gap between planning, implementation, and execution
- Developing models that are agnostic to technology such as wind, solar, storage, natural gas, etc.

A portfolio of resources means a coordinated set of resources, working together, that fulfills company obligations to customers, such as supplying reliable energy. Preferred portfolio refers to that one set of coordinated resources that represents the best plan for customers.

The company strives to make sure the inputs to the models are correct so that the outcomes fairly represent the advantages and disadvantages of each technology. Some key factors are fuel cost, operating costs, reliability, and how each resource aligns with customer needs and timing across the PacifiCorp system.

To produce an IRP with a preferred portfolio for the entire system, the company must meet the goals of all the states across PacifiCorp’s six-state territory, the company creates various kinds of portfolios to evaluate. There are specific timing milestones for each state, with the company operating in cooperation with the most restrictive state’s timing. One portfolio is for the entire PacifiCorp system without state requirements. Other portfolios incorporate specific state requirements, like the Oregon Clean Energy Plan. One objective is to make sure that all states are accurately represented without colliding with other states’ interests. In this way PacifiCorp works to represent all its customers while meeting all state and federal requirements across the entire service territory.

Throughout the IRP process, stakeholder feedback is critical to improve the quality of the product and the company welcomes public participation.



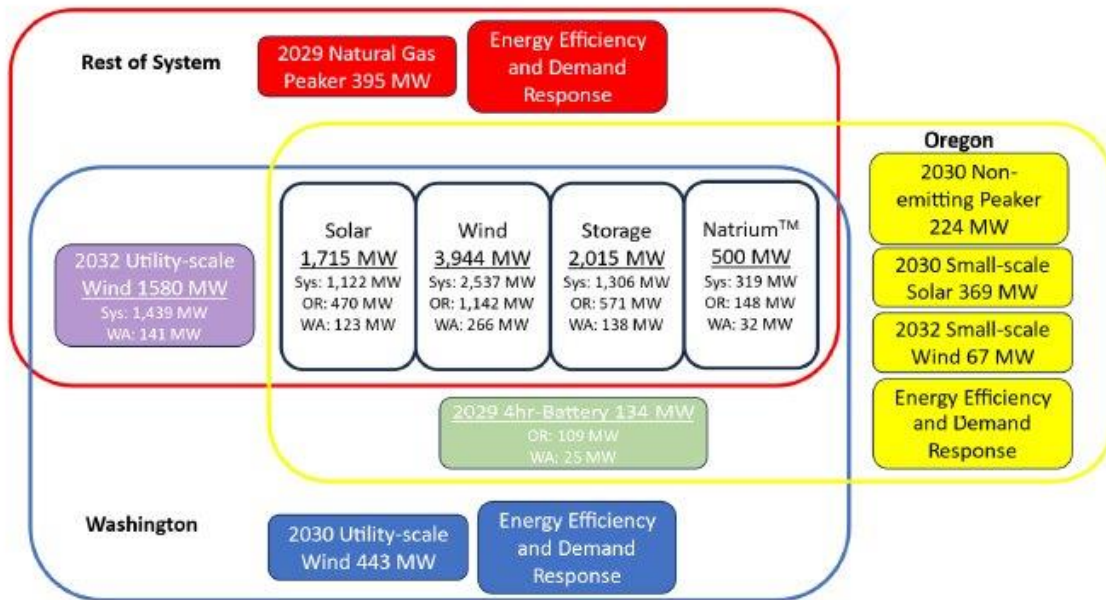
PacifiCorp's IRP is a long-term 20-year resource plan that relies on forecasts of expected future conditions to guide mathematical modeling aimed at finding the best path forward to meet those future conditions. The IRP is published on a 2-year cycle with an update in the off-cycle years. A key point about the cycle is that as the world changes, plans change, and this is reflected in every IRP report distributed. The figure above provides a view of the IRP development cycle, which typically spans about 15 months. During those 15 months, public engagement is ongoing through a series of meetings and other communications. The 2025 IRP cycle launched in January, announcing the meeting schedule, and setting up the first meeting which was held on January 25<sup>th</sup> in preparation for the filing due March 31, 2025. The team is currently in months 5-7 of the process, which encompasses planning for new energy and policy requirements and gathering and discussing inputs and assumption to determine modeling constraints. The next phase is to "commit data" occurring in months 8 and 9 of the cycle. In September, PacifiCorp will lock down data and modeling assumptions and turn attention toward running models and evaluating results. The data and assumptions coming out of current activities will become inputs to the IRP mathematical modeling. Later in the process, IRP models will use those inputs and assumptions as part of calculating the least-cost, least-risk portfolio for each state. For the 2025 IRP PacifiCorp anticipates releasing a public draft on January 1, 2025, with the actual filing on March 21, 2025.

***Meeting discussion:***

- Alessandra de la Torre asked how meetings have been going, who participates, and what kind of topics are addressed.
  - Mr. Baker reiterated that the meetings are public with interested parties attending from many different associations. There are between 50-100 people at any given meeting who are mostly stakeholders associated with community groups but have also been members of impacted communities. To prepare attendees for the meeting, the IRP team will send out an advanced agenda in meetings which can influence who attends based on interest. Topics include every significant data input and assumptions behind mathematical modeling regulatory factors. Recently, meeting attendees suggested ways to improve mathematical modeling.

The company has recently made modeling improvements that effects how Oregon is represented in the preferred portfolio in the IRP. Previous IRP cycles have sought to meet state level requirements by layering on needed resources for each state after the final selection of the system-wide, least cost, least risk portfolio. As of the 2023 IRP update, all portfolios representing PacifiCorp's six-state territory are instead integrated into a final preferred portfolio, so that all state resources are optimal and not incrementally layered "on top." The process completes initial modeling runs, compared for all similarities and differences, to represent the states, including an unconstrained run for those states with no additional state-specific policy requirements. Each portfolio's selections are incorporated into a new preferred portfolio, capturing common features and each state's specific outcomes.

**Figure 1—Allocation of the 2023 IRP Update Preferred Portfolio Through 2032**



This figure is a visual of the modeling improvement explained above to show overlaps and distinction in the latest portfolios. Oregon resources are in yellow, Washington resources in blue and resources from the unconstrained model are in red. The overlaps reveal which resources in each portfolio are shared and which are not. The large red rectangle that is labeled “rest of system” depicts system resources selected in the unconstrained model. The red solid boxes at the top which are not included in Oregon's yellow or Washington's blue, are therefore distinct as they do not overlap with Oregon and Washington. Those resources, not shared with Washington or Oregon, include 395 megawatts of natural gas peakers and are emitting resources and a portion of energy efficiency. The yellow rectangular outline depicts resources selected in the Oregon Clean Energy Plan portfolio. The solid yellow boxes show the resources selected only in the Oregon study, and that includes 224 megawatts of non-emitting peakers, 369 megawatts of small scale solar, 67 megawatts of wind, and energy efficiency and demand response. The green box towards the middle represents an overlap where both Oregon and Washington both selected this resource, whereas the rest of the system did not. Oregon shares 134 megawatts of four-hour batteries with Washington, as well as a great deal with the unconstrained portfolio which is seen in the white boxes at the center. Oregon, Washington, and the rest of the system all share 1,715 megawatts of solar, 3,944 megawatts of wind, 2,015 megawatts of storage and 500 megawatts of clean base load, the Natrium project.

Oregon, which represents approximately 25% of PacifiCorp’s six-state system, implements a small-scale requirement. For example, if a system resource is selected out of the mathematical model, adding 1000 megawatts of solar power, all else being equal, Oregon would have about a 25% interest in that 1000 megawatts or 250 megawatts. There is a ratio required for small scale resources of 10%, so if counting all retail load sales 10% of that number of Oregon’s resources are aimed at serving Oregon requirements needs to be small scale as opposed to utility scale resources. If you apply this small-scale requirement

for Oregon to IRP modeling, roughly 550 megawatts of small scale solar and 200 megawatts of small-scale wind that is needed. So, Oregon's share is that of 25% of resources, 10% of it must be small scale.

**Meeting discussion:**

- Jim Himelic asked if there are 3 separate models in PLEXOS? One for unconstrained, one for state specific requirements for Oregon, and another for Washington? With a common accessible model for all PacifiCorp clients?
  - Mr. Baker noted a distinction that although there are 3 models, the models can integrate in any direction and get the same results. The difference comes down to making sure the components of the original components are intake while accounting for the overlap. For example, if the company ran a portfolio that showed 1000 extra megawatts of solar for Oregon, that model is still run for the entire system, it just has Oregon requirements and constraints applied. So, when the model picks that extra 1000 megawatts, it is because it needs to meet Oregon requirements which is 25%.
    - Mr. Himelic asked if the additional 25% would come from the cross-state agreement. How is the distribution of the resources determined in the model?
      - Mr. Baker explained that the 25% is the state generation share or the SG factor. How allocations occur and the traits the state agrees to will change over time and the company will adapt appropriately.
  - Marie Barlow questioned if the numbers in the model are hypothetical or actual?
    - Mr. Baker shared that the numbers are rounded but do align with the 2023 IRP update that was recently published.

Mr. Baker reviewed recent federal regulations that impact the Clean Energy Planning results including the Inflation Reduction Act (IRA), the Infrastructure Investment and Jobs Act (IIJA) and EPA rule 111(d). President Joe Biden signed into law the IRA in August 2022 to address clean energy and climate change. The IRA covers many types of credits and activities, but the most important for PacifiCorp is the two types of tax credits which offset the cost of non-emitting resources.

**Inflation Reduction Act:**

- Added resources receive one of two types of tax credit IF in service by 12/31/2037
  - Production Tax Credit (PTC) - based on the megawatt-hours of energy produced by a resource
    - 10-year credit
  - Investment Tax Credit (ITC) - an upfront tax credit on the build costs of a resource

The IRP has included these credits on all future resources built through 2037. Based on location or development, resources can be eligible for a bonus credit. PacifiCorp's IRP modeling makes use of the tax credit, either ITC or PTC, that is most favorable to a given technology. For example, a production tax credit may provide the most cost-savings for solar energy, whereas an ITC may provide the most savings for a battery or energy storage resource. As discussed previously in this meeting series, the IRP model then accounts for these cost offsets when selecting which resources should be added in its 20-year long-term planning.

On November 21, 2021, the bi-partisan Infrastructure Investment and Jobs Act (IIJA) was signed into law. The law provides substantial funding for transportation and infrastructure spending and offers financing options which may be beneficial to some energy companies and developers. PacifiCorp is pursuing these benefits on projects/investments currently on owned items

#### **Infrastructure Investment and Jobs Act**

- This law provides grants or other advantageous financing for projects
- PacifiCorp is pursuing these benefits on projects/investments currently on owned items
- Modeling challenge:
  - PacifiCorp may see reduced cost from developers in the future based on these benefits, but that is not guaranteed
  - From a risk standpoint PacifiCorp has chosen NOT to model any benefits to projects related to this act since these benefits are not guaranteed to pass to customers

There is a modeling challenge presented in that the company cannot guarantee that incentives to resource developers will be passed onto customers. Any benefits passed on to customers will appear in the project costs offered to PacifiCorp in a future procurement process. Prices have proven to be quite volatile in recent years, and these cost savings and grants can mitigate cost increases due to other factors such as supply issues and materials cost. Consistent with most IRP planning, the treatment of these potential benefits in the IRP is conservative, meaning the company does not assume the benefit will be passed to customers. The primary impact to long-term planning now is therefore applications for existing and owned resources, with additional impacts captured in downstream processes.

The U.S. Environmental Protection Agency (EPA) on May 9, 2024, finalized its Standards and Guidelines for Fossil Fuel-Fired Power Plants, issuing new requirements under rule 111(d). The rule addresses emissions from existing coal-fired power plants and ensure that new combustion turbines are constructed to minimize GHG emissions by requiring those plants to achieve emissions reductions equivalent to those possible through use of carbon capture and sequestration (CCS). For the 2025 IRP and the CEP, PacifiCorp will continue to evaluate a number of options for each thermal resource (coal and gas) on the current system. In recent IRPs (Integrated Resource Plan), the company has already evaluated carbon sequestration options and carbon capture technologies. The requirements under 111(d) may require that modeling additional options and constraints. The company also models the conversion of coal-fueled to gas-fueled operations, and alternative fuels. Constraints on unit operations imputed by 111(d) will impact which options are modeled and the cost-effectiveness of each option.

In the 2023 IRP and 2023 IRP Updates, PacifiCorp modeled early retirement options for gas plants in addition to coal. No early gas retirements were selected, however policy drivers such as 111(d) might contribute to a different outcome in future studies.

Mr. Baker shared the 2025 IRP public input meeting schedule with the next general public input meeting scheduled for June 26-27, 2024. The following general public input meeting will be hosted on July 17-18, 2024, with additional monthly meetings in August and September and no meetings in November and December. The 2025 draft IRP is expected to be distributed on January 1, 2025, with the actual filing on March 31, 2025.



The IRP team has received feedback about regulation, publication, requirements, timing of assumption requirements, questions about future resource cost sources, and comments related to coal modeling. Feedback is welcomed using the [stakeholder feedback form](#) which goes directly to the IRP group upon submittal. Currently, there is a technical issue with the feedback form process, resulting in feedback being responded to but not published. This issue is being resolved and is expected to be fixed in the coming weeks, but feedback is being accepted.

<b>2025 IRP Upcoming Meeting Dates and Milestones</b>
<b>Calendar Year 2024<sup>1,2</sup></b>
Wed-Thurs June 26-27, 2024 – General Public Input Meeting 4
Wed-Thurs July 17-18, 2024 – General Public Input Meeting 5
Wed-Thurs August 14-15, 2024 – General Public Input Meeting 6
Wed-Thurs September 25-26, 2024 – General Public Input Meeting 7
<ul style="list-style-type: none"> <li>September timeframe – Assumptions are locked down for November and December model runs</li> </ul>
<b>Calendar Year 2025</b>
<ul style="list-style-type: none"> <li>January 1, 2025 - Distribution of the 2025 Draft IRP</li> </ul>
Wed-Thurs January 22-23, 2025 – General Public Input Meeting 8
Wed-Thurs February 26-27, 2025 – General Public Input Meeting 9
<ul style="list-style-type: none"> <li>March 31, 2025 – Filing of the 2025 IRP</li> </ul>

**Meeting Discussion:**

- Will Mohan asked if the IRP team plans to share the preferred portfolio changes in the 2023 IRP update? Will there be information on the HB2021 targets?
  - Mr. Baker does not have that information prepared currently. For the IRP update the team planned to show the key distinctions between various states and how they may or may not be shared. If additional questions are not answered in meetings or in the documents, Mr. Baker encourages attendees to reach out to the IRP mailbox at [IRP@pacificorp.com](mailto:IRP@pacificorp.com)

**Biennial Updates**

Jeffrey Daigle, E Source facilitation team shared Biennial report updates. Section 6 of HB2021 calls for the development of a biennial report that, in consultation with the CBIAG, must include the assessment and description of the following:

- Energy burden for residential customers
- Disconnections for residential customers
- Opportunities for contracting with businesses owned by women, veterans, or Black, Indigenous or People of Color

- Actions within environmental justice communities intended to improve resiliency
- Grid investments in environmental justice communities that facilitate compliance with clean energy targets
- Social, economic or environment justice co-benefits
- Review of annual customer satisfaction surveys
- Actions to encourage customer engagement
- Other items as determined by the utility and the CBIAG

The biennial report aims to be reflective of the community including a community summary, an introduction, an overview of engagement and outreach, an explanation of CBIs, a customer experience portion, and a timeline for future updates.

- Community summary will include CBIAG and Tribal Nations background and summary on structure and engagement
- The introduction will include an overview of the layout of the report and map HB2021 items to specific pages
- The engagement and outreach section will provide a summary of the CBIAG and Tribal nations engagement
- The CBI section will describe the initial development of the interim CBI, share updates on progress of the CBIs (including engagement feedback, actions, and impact), review CBI framework, topics, and categories, surface any additional CBIs
- Customer experience will describe the company and voice of customer feedback mechanisms, including operational data
- Timeline for future updates will show when upcoming related filings will take place and outline net steps

## Community Benefit Indicators (CBIs) | Resilience

Lee Elder, Load Forecasting Manager, discussed CBI progress related to resiliency with the group. CBIs are the desired outcomes that utility actions could either incentivize, influence, or cause. Each CBI identifies a desired outcome, while metrics allow for PacifiCorp to monitor progress at achieving these outcomes.

The current CBI framework is as follows with resilience outcomes and metrics highlighted in blue.

CBI Category	CBIs (Outcomes)	Metrics
1) Resilience	a) Improve Resiliency of Vulnerable Communities During Energy Outages	SAIDI, SAIFI, CAIDI at area level including major events
	b) Reduce Frequency and Duration of Energy Outages	Energy Not Served (ENS) for IRP portfolios are included as an output from portfolio development

2) Community Health and Well-being	a) Decrease Residential Disconnections	Number of residential disconnections by census tract
3) Environment	a) Increase Energy from Non-emitting Resources and Reduce CO2e Emissions	Oregon GHG emissions (from Oregon-allocated resources)
		Oregon allocated renewables
4) Energy Equity	a) Decrease Proportion of Households Experiencing High Energy Burden	Average Energy burden by census tract, for low-income customers, bill assistance participants, Tribal members and for all customers
	<b>b) Increase Efficiency of Housing and Small Businesses in Disadvantaged Areas*</b>	<b>TBD</b>
5) Economic	a) Increase Community-Focused Efforts and Investments	Headcount of DSM program delivery staff & grants
		Public charging stations
		Pre-apprenticeship / educational program participation
		Energy supply resource development - workforce and spend
	<b>b) Reduce Barriers for Disadvantaged Communities for Company Program Participation*</b>	<b>TBD</b>

Kevin Benson, Director of Risk Assessment, provided a deeper dive into resilience and reliability analysis to quantify and map community resilience. Resilience is defined as the capacity to withstand or to recover quickly from difficulties, toughness. Resilience in energy gauges the preparedness of the system and its ability to cope with various hazards that can disrupt electricity. Reliability, on the other hand, is defined as the quality of being trustworthy of performing consistently well. Reliability in energy is gauged by the availability of the electric system when it is needed.

PacifiCorp reviews utility specific data per census block groups, which is the smallest geospatial data available from the Census Bureau. This vantage point allows for more specific insight into where variation may be found.

Mr. Benson breaks down the reliability data acronyms, CAIDI, SAIDI, and SAIFI (all inclusive- MEDs ((Major Event Days)) and no MEDs):

- CAIDI: Customer Average Interruption Duration Index
  - Customer specific – for a customer that does experience an outage how long would that outage last? Analyzes subset of total customers served in a specific area
  - A measure of restoration time
  - $CAIDI = SAIDI / SAIFI$
- SAIDI: System Average Interruption Duration Index
  - Indicates how long the average customer can expect to see outages for a given year
  - Defined in minutes per year
  - $SAIDI = \text{Total minutes every customer was without power due to sustained outages} / \text{total number of customers}$
- SAIFI: System Average Interruption Frequency Index
  - How many outages the customer can expect to see
  - Count of outages
  - $SAIFI = \text{Number of sustained customer outages experienced by all customers} / \text{total number of customers}$
- MAIFI: Momentary Average Interruption Frequency Index
  - Any interruption to service that is less than 5 minutes
  - $MAIFI = \text{Number of customers who experience momentary outages} / \text{total number of customers}$

The CEP discusses social vulnerability characteristics defined by FEMA as an indicator of community resilience including:

- Human wellbeing
- The economic and financial health of communities
- Local infrastructure
- The institutional capacity of the community to respond to disasters
- Environmental characteristics including the likelihood of various types of hazard events
- Wealth and income
- The racial and ethnic composition of a community
- Age
- The access and function needs (AFN) population

This data considers socioeconomic factors, the state of the infrastructure, how capable the local government agencies are at responding to disasters, and environmental characteristics to answer how do these characteristics make a community vulnerable or resilient to power disruption?

Some factors making a community more vulnerable during long duration power outages are health, acknowledging the detrimental health risk one may face, preparedness, the impact may be harsher

when a household is unprepared, and evacuation, considering the obstacles a households may in facing evacuating.

Indicators of health vulnerabilities as identified by government agencies include but are not limited to:

- Indicators of temperature vulnerabilities
  - Heart disease (CDC)
  - Diabetes (CDC)
  - Asthma (CDC)
  - Younger and Older Populations (under 5, over 65) (Census)
  - 30-Year Temperature Norms (OSU Prism)
    - Summer peak month average daily t-max
    - Winter peak month average daily t-min
- Populations with electrically dependent medical equipment
  - Nursing home residents (Census)
  - Medical flag (Utility data from CSS)
- Populations with ambulatory difficulties (Census)
  - Difficulty going up or down stairs
- Critical medical facilities (Utility data from CSS)

Indicators of preparedness vulnerabilities as identified by government agencies include but are not limited to:

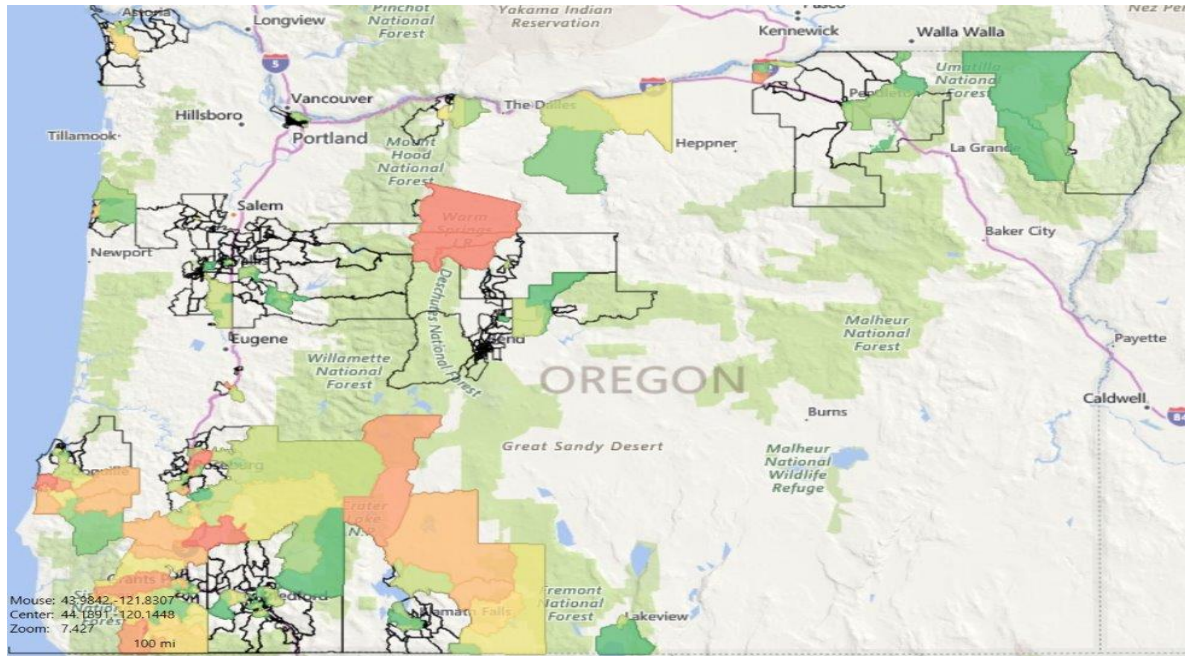
- Lower median age (Census)
- Non-English-speaking households (CSS)
- Lower median income (Census)
- LID indicator from (CSS)
- SNAP/Food Stamp recipients (Census)
- Educational attainment (Census)
- Multi-family housing (CSS)
- Elderly adults who live alone (Census)
- Households with children under 6 (Census)

Evacuation vulnerabilities to outages as identified by government agencies include but are not limited to:

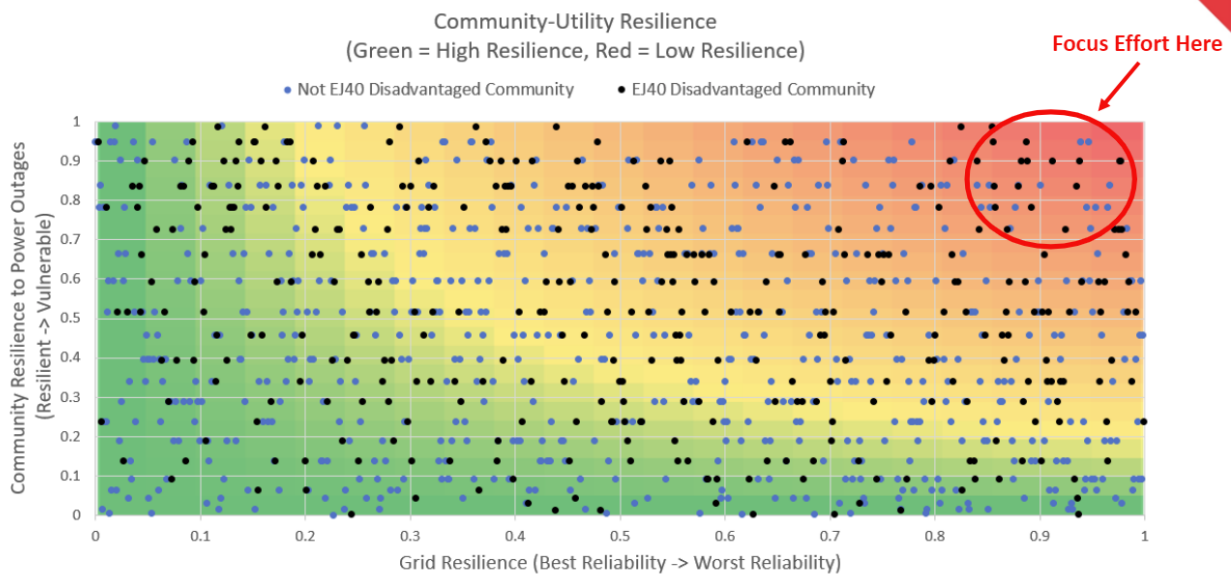
- Households with children (Census)
- Higher average household size (Census)
- Measures that indicate barriers to evacuation:
  - Households with 1 or more persons with a disability (Census)
  - Lower household income (Census)
  - Availability of emergency facilities (lower number of facilities in proximity indicates higher barrier)
    - National Shelter System facilities with generation (National Shelter System database)
    - Utility Community Resource Center locations (Wildfire mitigation plan)

- No access to vehicles (Census)
- Critical public safety/protection facilities within area (Utility CSS data)

PacifiCorp created a map highlighting the health, preparedness, and evacuation vulnerabilities to create a combined community utility resilience score with EJ40 disadvantaged communities. 0.00 indicates the highest resilience and lowest vulnerability while 0.90 represents the lowest resilience and highest vulnerability.



In the figure below, green represents high resilience while red highlights low resilience. When factoring in impacts, southwestern Oregon has a larger impact on performance when major events occur. Those areas have a medium resiliency score of community vulnerability on day-to-day operating conditions. Major events occur in southwestern Oregon more than other service areas. This scoring allows PacifiCorp to identify within vulnerable areas opportunities to support resilience through the customers directly with the community. Each blue dot represents one census block. The Y axis (vertical) the community resilience and vulnerability score. The X axis (horizontal) is the reliability score. 100% is the worst end of the spectrum, 0 is the best. Green areas represent satisfactory performance and higher community resilience. It is typical to see worse reliability performance in more vulnerable communities, these are the areas where PacifiCorp needs to take a little more action to understand what is driving the results.



### Meeting Discussion:

- Jeni Hall asked if the analysis was done at the census tract level?
  - Mr. Benson explained that the analysis was completed using a combination of different geographic scales, dependent upon the level at which the data is available. This data is then overlaid on the community map.
    - Jeni Hall asked if the comparisons of vulnerability were done statewide? Comparing one area of the state to another
      - Mr. Benson clarified that comparisons are made statewide, primarily focusing on PacifiCorp service territory.
- Alessandra de la Torre asked if the data shared can be added to the Resilience Hub metrics to show where and how many hubs the company is investing in to show an increase in community resilience to highlight PacifiCorp's efforts, past and present to track program success.
  - Lee Elder shared that initial CBIs and metrics have materialized over time and as things evolve, an idea like that would make a lot of sense.
- Sylvia Tanner questioned if the team is starting to look forward to 2025 as CBIs evolve to go beyond the current metrics. It would be useful to have data backing up programs that are supported by the company to provide data outlining how resilience is increasing overtime based on company community programs. Other green investments can be used to support improving resiliency metrics.
  - Mr. Elder thanked Ms. Tanner for the feedback and called out Mr. Benson's team for their great work.
  - Ms. De La Torre echoed Ms. Tanner's point, specifically calling out the HB 2021 CREP grant program and OREM's Resilience Hub grant program.

The next steps are to produce scores, produce maps, look in more detail at major events to find root causes/trends and locations that may be impacted more frequently or for a longer duration to help for future planning and upgrades to the grid. PacifiCorp is looking at directly applying resilience analysis through the CBRE-RH pilot, asking how it can be factored in? Is the data useful? What adjustments need to be made?

## Community Based Renewable Energy (CBRE) Intersectionality

Morgan Westberry introduced Ryan Harvey, Community Renewables Program Manager, to discuss CBRE intersectionality as it relates to HB2021 as the company moves forward with the approach of advancing CBRE projects. CBRE is an umbrella term that applies to a variety of projects, in various stages of development, that are renewable energy focused and provide community benefits. The CBRE-RH pilot consists of 3 components: 1) technical assessments 2) ongoing project support 3) grant matching.

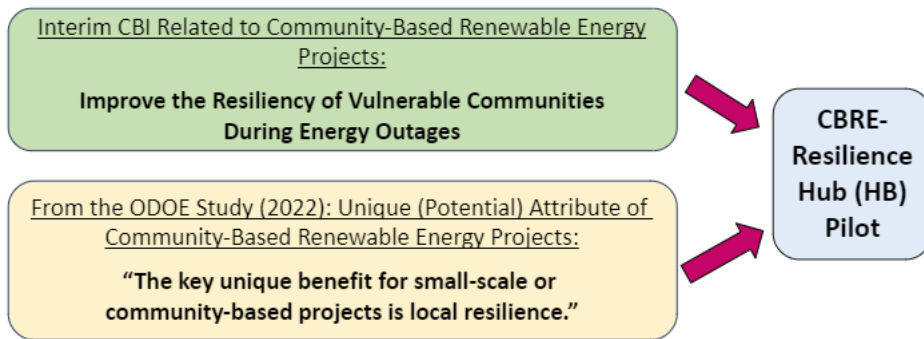
- Technical assessments: Continue to provide feasibility studies (begun in 2020) to communities interested in better understanding the costs and requirements of solar and battery energy storage systems at critical community facilities
  - Provide a mechanism of support for communities that have yet to begin CBRE project development
- Ongoing project support: Leverage expertise and provide supplemental funding to support the planning for, and installation of, the battery storage component of planned and existing resilience projects to provide grid-enabled system-wide benefits and learning outcomes
  - Aid in the interconnection of funded, in-flight resilience projects with grid enabled storage to capture takeaways and learning with:
    - Design support
    - Incentive offering
    - Ongoing data collection
- Grant matching: Establish a mechanism to provide matching funds for communities seeking external grant awards for resilience projects at critical facilities
  - Assist communities as they take advantage of existing funding opportunities

### **Meeting Discussion:**

- Alessandra de la Torre questioned if/how high-risk zones (based on PacifiCorp's wildfire data) are considered in resilience scores? If not, can it be considered?
  - Kevin Benson shared that high fire risk zones are not directly incorporated into the risk zone analysis, as the company primarily looks at how the customer data and the outage data, susceptibility to specific hazards comes from community resilience characteristic data such as evacuation and preparedness. The question does raise a good point about further data and maps could be incorporated where available such as earthquake risk maps, this idea can be taken back to the team.

Mr. Harvey highlighted the CBRE-RH as a key vehicle that will be used to advance the resilience CBI metrics, citing a study done by the Oregon DOE in 2022 on small scale renewable energy projects. The key takeaway was that local resilience in one unique potential benefit of projects like the CBRE-RH pilot. The projects that are going to be associated with this pilot are designed to provide community resilience for local emergencies and the immediate community and surrounding area.





ODOE Study on Small-Scale and Community-Based Renewable Energy Projects (Sept. 2022) (available <https://www.oregon.gov/energy/Data-and-Reports/Documents/2022-Small-Scale-Community-Renewable-Projects-Study.pdf>).

There is an opportunity to provide input by June 30, 2024, by answering the following questions:

1. What metrics (related to the CBI above) might be tracked/measured, or prioritized, when considering community outreach about CBREs at critical facilities?
2. What are some effective methods we could use to reach critical facilities in communities prioritized with the resilience metrics?
3. How important do you perceive the timing of incentive payment delivery to be? And if applicable, what % of the award should be delivered prior to project completion?
4. Do you believe that the incentive payment should be tied to a specific project purpose or type of equipment?

**Meeting Discussion:**

- Ms. De la Torre asked if PacifiCorp has grant funding amount per project or as an estimate?
  - Mr. Harvey shared that the numbers are still being worked out, but the primary focus is battery storage, so the sizing of that system will be how funding is determined (i.e., per kWh, size, capacity of battery). Larger batteries will receive more funding.
- Ms. Tanner asked if there is a sense of finances or money allocated yet?
  - Mr. Harvey shared it is a balance between giving the community the resources needed to be successful and making enrollment meaningful enough, while keeping the funding properly allocated to ensure best use of resources.
- Ms. Tanner asked if the definition of critical facilities may be more expansive to include community accessibility spaces?
  - Mr. Harvey shared that the company is in the draft stages of the filing proposal and are using a definition that includes nontraditional facilities that communities would find critical such as a corner store or spaces that can be used to provide food, water while also acting as a place to gather and receive information.
- Ms. De la Torre asked when thinking of PacifiCorp’s long-term investments and smaller components of resiliency, can the company consider more niche instances related to preparedness such phone charging stations at the local hospital in the event of an emergency.

- Ms. Westberry offered to circle back on this topic with the appropriate SMEs, while the feedback is being documented.
- Nikita asked what are the next steps in the other CBIs as they are being discussed with the CBIAG? How far along is the group in the process? What are the next steps? What will they be used to assess?
  - Mr. Elder shared CBI progress including two additional CBIs related to energy efficiency programs, since the filing in May 2023, there have been two additional CBIs added. The company is having conversations with the Tribal Nations Engagement group to learn more about challenges in Tribal communities. Currently, the company is taking feedback on the existing CBIs and CBIs that are yet to be developed to assess if further CBIs need to be incorporated to address community challenges.

## Public Comment

- Silvia Tanner asked how the company sees the space interacting with the IRP forum? How does the space inform that work? Is the feedback received here going to be incorporated into the IRP/CEP development space?
  - Ms. Westberry shared that there is a lot of work at the backend to ensure the company is bringing the information across different spaces. For more context, Ms. Westberry will follow up with Randy Baker.
  - Mr. Elder shared that there are two CBIs, environmental and energy not served, with a direct relationship to IRP as it relates to emissions and have metrics being tracked in the CBI space.

## 2024 Engagement Opportunities

- Oregon Clean Energy Plan Engagement Series Public Meeting #3
  - September 2024
  - Time & Date: TBD
- Clean Energy Engagement Series for Oregon Tribal Nations
  - June 28, 2024
  - Time: 9:00AM – 12:00PM
  - <https://esource.zoom.us/j/89043084177?pwd=6lJL7RsInby5vwUUyHq53L0yUhrPoB.1>
- Community Benefits and Impacts Advisory Group
  - July 17, 2024
  - Time: 1:00 – 4:00PM
  - <https://esource.zoom.us/j/84476382295?pwd=Uiabzk7ehp4YqV4tp85kBwdp7001Y7.1>