

Clean Energy Plan (CEP) Engagement Series

April 2023 Meeting Notes

Friday, April 28, 2023, 1:00 -4:00 pm Pacific Time

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

Executive Summary

There were 61 people in attendance, including members of the public and PacifiCorp representatives, at the second iteration of the CEP Engagement Series meeting. The virtual meeting, which was hosted via the Zoom platform, provided a holistic overview of the planning and components of the Clean Energy Plan, as well as the pathways to realizing reduced emissions prescribed in HB2021. To maximize accessibility, the meeting was recorded for those who could not attend and Spanish and ASL interpretation / translation was provided.

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

Session Objectives

1. Brief on Clean Energy Plan (CEP)
2. Socialize Clean Energy pathways
3. Deepen understanding of:
 - Community Benefit Indicators (CBIs)
 - Community Benefits & Impact Advisory Group (CBIAG)
 - Resilience
 - Community-Based Renewable Energy (CBRE)

Slides and audio recording available in English and Spanish below:

[Clean Energy Plan Engagement Series 2 Slides](#)

Clean Energy Plan Engagement Series 2 Recording - [part 1](#), [part 2](#)

Opening

PacifiCorp's Stephanie Meeks welcomed participants to the meeting and handed it off to E Source's Morgan Westberry, who covered meeting logistics, and introduced the agenda.

Clean Energy Plan

PacifiCorp's Matt McVee began the discussion with the overarching objective and highlighting the breadth of PacifiCorp's service area and the planning that is occurring simultaneously throughout those systems.

PacifiCorp is a multi-state utility that serves nearly two million customers across six states: Oregon, California, Idaho, Utah, Washington, and Wyoming. To serve the customers in these areas, PacifiCorp developed an extensive and diverse portfolio of generation, resources, transmission, and distribution

infrastructure. To maximize efficiency and decarbonization throughout these robust systems, long-term planning is performed through Integrated Resource Plan (IRP), which is updated every two years to ensure an adaptive approach is accomplished. The most recent iteration was filed this year.

The IRP, generally speaking, identifies and projects the load experienced throughout the multistate network, allowing resources to be allocated and dispatched based on the end load. The Clean Energy Plan (CEP), on the other hand, is Oregon specific and addresses policy driven decarbonization efforts mandated in HB2021. In developing the CEP, PacifiCorp has been working to address load growth and small-scale renewable hurdles in a mindful way.

Clean Energy Pathways

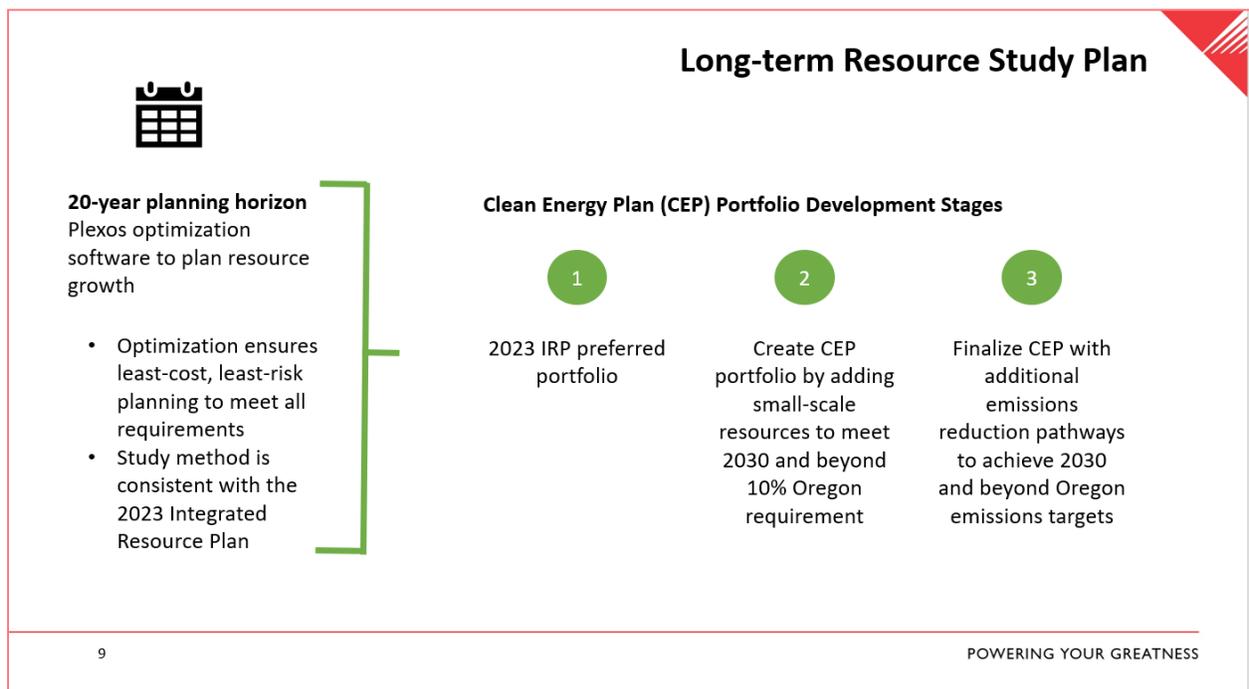
PacifiCorp’s Randy Baker discussed the total system’s emission trajectory of the company, which will achieve net zero emissions by 2050. PacifiCorp is forecasting the following company-wide emission reductions:

- 70% by 2030
- 87% by 2035
- 89% by 2040

In Oregon, however, these are accelerated to the following emission reduction targets that are prescribed in HB2021:

- 80% reduction of emission levels by 2030
- 90% below baseline emissions levels by 2035
- 100% below baseline emissions levels by 2040

These projected reductions are an output of the ongoing IRP and CEP planning efforts. PacifiCorp undergoes three development stages of the CEP, depicted below.



PacifiCorp’s Randy Baker described the study steps, the first of which is the 2023 IRP preferred portfolio. This step focuses on system-wide optimization while ensuring system benefits to Oregon customers. Attributes and assumptions, such as load forecast, price forecast, topology, existing resources and potential resources, are examined and optimized using the Plexos Model. Additionally, unique to the CEP is a 10% small-scale renewable requirement, equaling 802 megawatts, that was included as a study parameter in Plexos and feeds into the overall results, further described below.

Step two of the development process is to create the CEP portfolio by adding small-scale resources to meet the 10% requirement by 2030. Small-scale resources are defined as being of 20 megawatts, or less, in capacity and are generally higher cost. Portfolio considerations include:

- Includes 802 megawatts of small-scale
- 40 projects at the largest 20-megawatt size
- Higher cost than utility scale
- No incremental transmission assumed for small-scale resources
- No small-scale bids were received in the 2022 All-source RFP (Request for Proposal)
- PacifiCorp benchmark options may be a necessary compliance backstop

In order to procure and achieve the small-scale requirement embodied in the CEP the company plans to issue request for proposals (RFPs), a competitive procurement process, in the coming years that specifically target small-scale opportunities. PacifiCorp previously issued RFPs, however, did not receive any that meet the small-scale definition.

Small-scale renewable results for the IRP and CEP are depicted below.

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Create CEP portfolio by adding small-scale resources to meet 2030 and beyond 10% Oregon requirement

Small-Scale Renewable (SSR) Results

2023 IRP – Preferred Portfolio

	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042
SSR - Existing	358	356	352	350	346	346	345	321	319	300	292	292	292
SSR - Planned	12	12	12	12	12	12	12	12	12	12	12	12	12
SSR - Proxy	0	0	0	0	0	0	0	0	0	0	0	0	0
Total SSR	370	368	364	363	358	358	357	333	331	312	304	304	304
SSR %	4.6%	4.6%	3.8%	3.5%	3.4%	3.4%	3.4%	3.2%	3.3%	3.1%	3.3%	3.4%	3.4%

2023 CEP Portfolio

	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042
SSR - Existing	358	356	352	350	346	346	345	321	319	300	292	292	292
SSR - Planned	12	12	12	12	12	12	12	12	12	12	12	12	12
SSR - Proxy	485	489	672	754	757	759	773	802	802	802	802	802	802
Total SSR	855	857	1,036	1,117	1,115	1,117	1,130	1,135	1,133	1,114	1,106	1,106	1,106
SSR %	10.0%	10.0%	10.2%	10.6%	10.5%	10.5%	10.5%	10.5%	11.0%	10.9%	11.7%	11.8%	11.8%

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Chat Question:

- Phil Barnhart asked, “Would my 4k roof solar on my house qualify as small scale?”

- PacifiCorp’s Zepure Shahumyan responded that it would not qualify as small-scale as defined but would be considered a net metering resource.

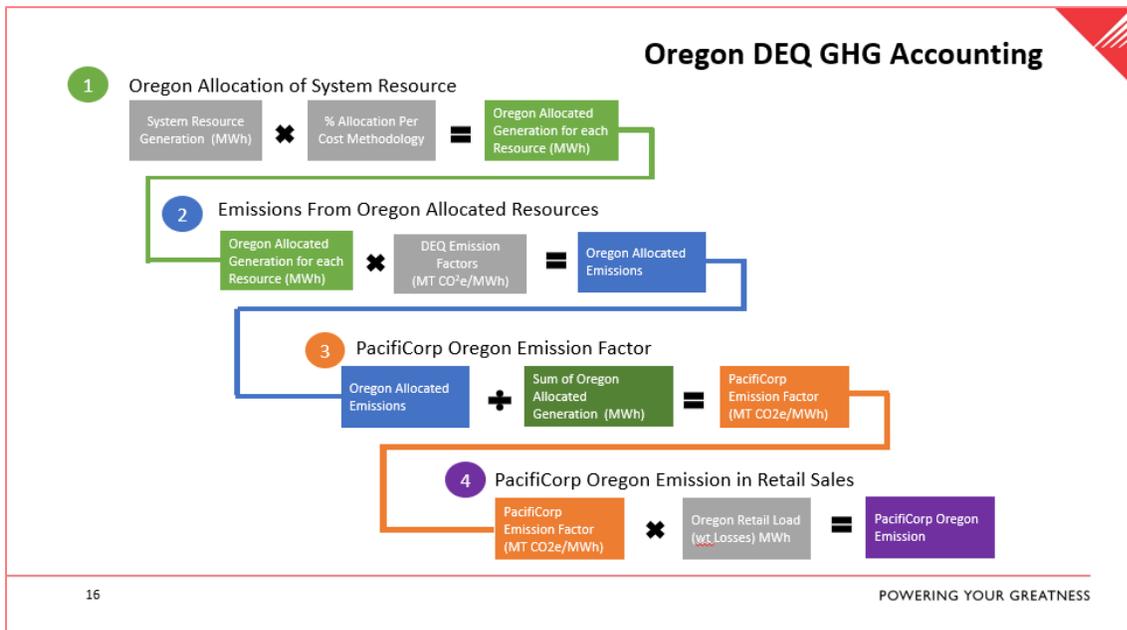
PacifiCorp’s Zepure Shahumyan was introduced and explained the changes in the planning landscape, including the significant load growth that is forecasted for Oregon and the implications and impacts of coal to gas conversions. At a high level, the growing load puts pressure on emissions trajectories because even as emissions per megawatt-hour are decreasing overall, more people are coming on to the system resulting in an increased load and emissions associated. Separately, under Senate Bill 1547, coal facilities are excluded from serving Oregon starting 2030, but when converted to gas the same unit may continue to supply electricity to Oregon. This increases Oregon emissions instead of removing the unit completely.

Question:

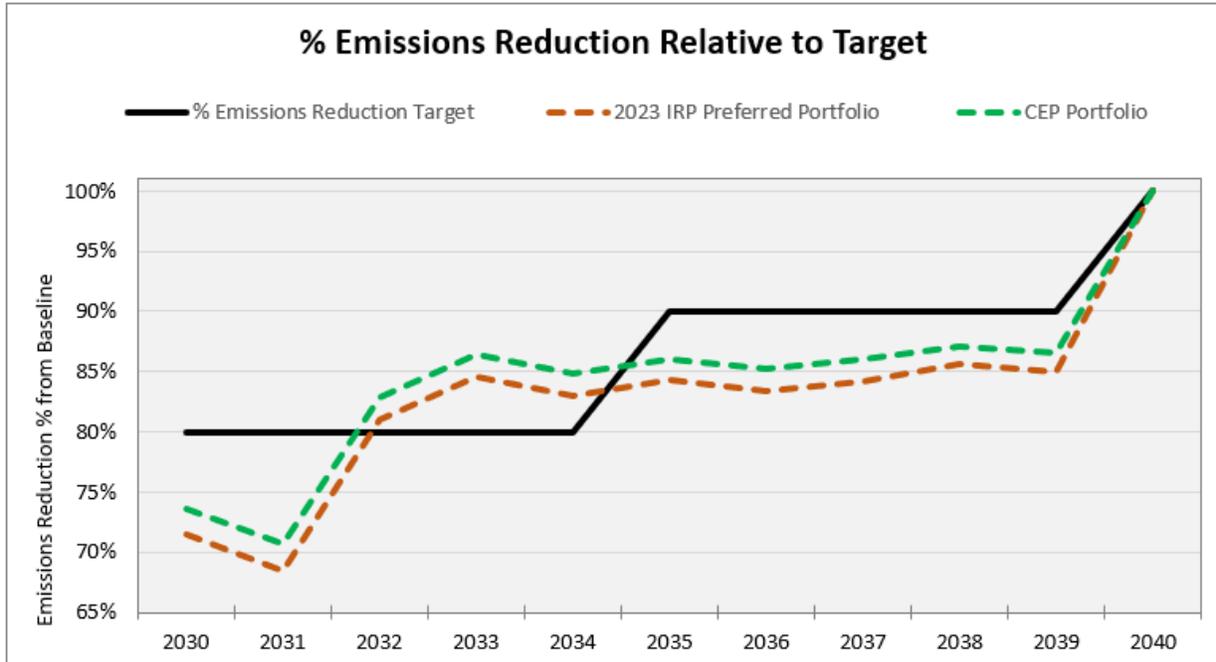
- Phil Barnhart asked about the increased load and where that load is coming from?
 - PacifiCorp’s Zepure Shahumyan responded that the load forecast is covered in the 2023 IRP publication.

PacifiCorp’s Zepure Shahumyan continued by describing ODEQ (Oregon Department of Environmental Quality) GHG (Green House Gas) accounting guidance, including the following specifications:

- Existing owned or specified purchases - use 2021 vintage emission factors supplied by DEQ
- Unspecified purchases use default emission factor of 0.428 MT CO₂e / MWh
- Proxy resources use generic emission factors
- Coal to gas converted resource do not have a default factor form ODEQ and will rely on IRP modeled emissions
- Multi-jurisdictional utility emissions are calculated according to a cost allocation methodology approved by the Oregon Public Utility Commission



The CEP Portfolio emissions, using the assumptions of phasing out coal in 2030, having no thermal allocation in 2040, and the inclusion of small-scale renewables, differentiate from the IRP Preferred Portfolio. The results of these assumptions can be seen in the graph, below, show additional emissions reduction pathways are required.



To overcome these shortfalls, PacifiCorp proposed two pathways.

1. Thermal Allocations Capped
2. Load Growth Served with Non-Emitting Resources with some thermal allocations capped

The graphs below illustrate and compare the results of the two pathways.

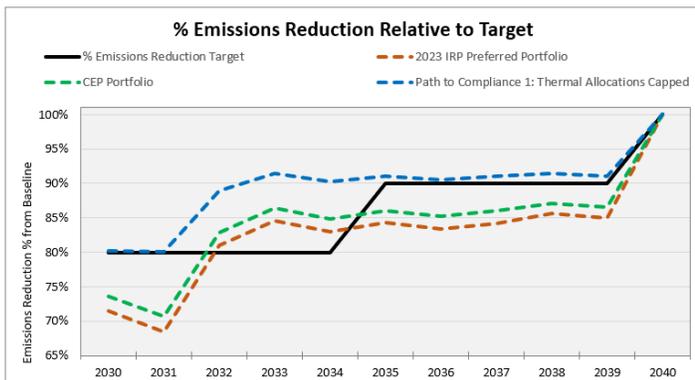


Figure 1: Thermal Allocations Capped

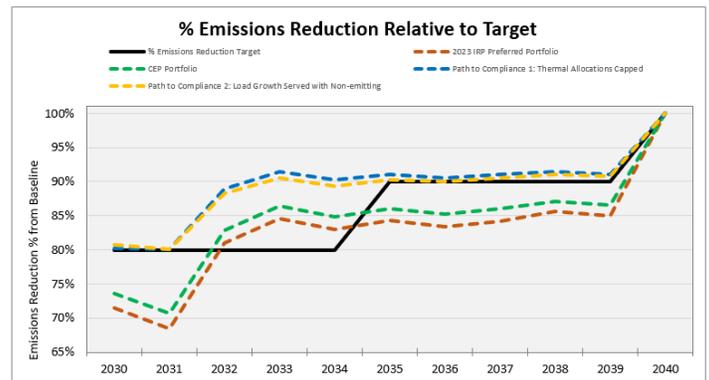


Figure 2: Load Growth Served with Non-Emitting Resources

Chat Questions:

- Silvia Tanner asked “Randy, do SSRs include PURPA QFs (Qualifying Facility)? If so, does this mean that you only have 12 MW of that type of projects "planned"?”
 - PacifiCorp responded that the RFP for SSRs is one tool for PacifiCorp to get cost data and identify small scale resources. CBREs (Community Based Renewable Energy) can participate, potentially using grant funding to be competitive, but we will also look at other avenues to incorporate CBREs. That will be addressed in our CBRE potential study and through ongoing engagement.

Questions:

- Marli Klass asked about the legislation and reference to “additional benefits to communities,” and how PacifiCorp is planning to meet the intent of the legislation where that is concerned.
 - PacifiCorp’s Zepure Shahumyan responded that it is considered in the overall development, and more information in subsequent slides on Community Benefit Indicators will demonstrate specifics on those benefits.
- JP Batmale asked about the difference between the sum of the Oregon allocated generation megawatt hours versus the Oregon retail load.
 - PacifiCorp’s Zepure Shahumyan responded that Oregon retail load is the amount of energy we need to specifically to serve Oregon retail customers, and it requires that we apply transmission losses. The other number is the energy allocated from our system based on cost directed to Oregon customers.
- Rose Anderson asked about market sales treatment, specifically the factor based on PacifiCorp’s generation, and how that factor would be applied. That is, removing market sales from Oregon’s emissions.
 - PacifiCorp’s Zepure Shahumyan responded that market sales are not removed, but for the purpose of the analysis and per the DEQ (Department of Environmental Quality) guidance, the default emission factor is 0.0428 for market purchases.
- Rose Anderson followed up by asking if 10% of the generation was sold at market to other parties, are those emissions included for DEQ reporting?
 - PacifiCorp’s Zepure Shahumyan explained the formula and specific resources aren’t distinguished, but rather prorated. For example, if the PacifiCorp allocation was lower than retail Sales that wouldn’t have to be compensated for. If allocation is higher than retail sales, the generation mix is prorated to equal retail sales.
- Silvia Tanner asked about the system and the emissions allocated to Oregon.
 - PacifiCorp’s Zepure Shahumyan described that PacifiCorp has to balance resources and allocations across different states, and because of policy drivers Oregon retail sales will be met by 100% clean energy by 2040 absent of what occurs outside of the state. That said, the total system is still reducing emissions by a significant amount.
- Silvia Tanner asked if an alternative could be building additional resources and allocating them to Oregon.
 - PacifiCorp’s Zepure Shahumyan explained that because Oregon prescribed an emissions standard, building additional clean sources would not result in reduced emissions. The only way to meet the target would be to turn something off.

Break

Community Benefits Indicators (CBIs)

PacifiCorp's Lee Elder led the discussion around CBIs. Community benefit indicators are one method the utility uses to measure and confirm that communities are benefiting from the transition to a clean energy future. Examples of CBIs include reducing energy burden, increasing renewable energy resources, and reducing disconnections.

The CBI (Community Benefit Indicators) development includes stakeholder input throughout the development process and is completed through regulatory alignment, identification of metrics, scoping, and development and validation processes.

More information on the proposed CBIs can be found in the table below.

CBI Category (Rulemaking Language)	Interim CBIs (Outcomes)	Interim CBI Metrics (How we measure outcomes)	Purpose (Why)
Resiliency (System and Community)	Reduce frequency and duration of energy outages	SAIDI, SAIFI, and CAIDI at area level including major events	SAIDI, SAIFI and CAIDI scores show how reliable and resilient areas of PacifiCorp's system are. Producing these metrics for Census Tracts will demonstrate how reliable and resilient our system at the community level. By beginning to track these metrics, the Company can establish a detailed baseline to measure the impact of future investments.
Environmental Impacts	Increase energy from non-emitting resources and reduce CO2 emissions to meet HB 2021 targets	Oregon CO2 emission from Oregon allocated resources	Reduce fossil fuel resources and increase renewable and non-emitting resources that currently power Oregon's grid, thereby leading to increased environmental benefits, while maintaining system reliability and on-demand service to customers.
Energy Equity (Distributional and Intergenerational Equity)	Decrease proportion of households experiencing high energy burden	Energy burden by census tract Energy burden for low-income customers, bill assistance participants and Tribal members	Energy equity is a concept that all members of society should be able to afford and have access to a necessary and basic amount of energy. Energy-burdened households spend a disproportionate amount of their income on home energy costs. Tracking energy burden by Census Tract indicates energy equity for communities in PacifiCorp's Oregon service area.
Economic Impacts	Increase community-focused efforts and investments	TBD	Working with stakeholders to identify opportunities
Health and Community Well-being	Decrease number of residential disconnections	Number of residential customer disconnections	Access to energy affects the provision and sustainability of basic human needs. Disconnections could be the result of a customer's decision whether to pay utility bills or pay for other basic needs like paying rent, buying food, or

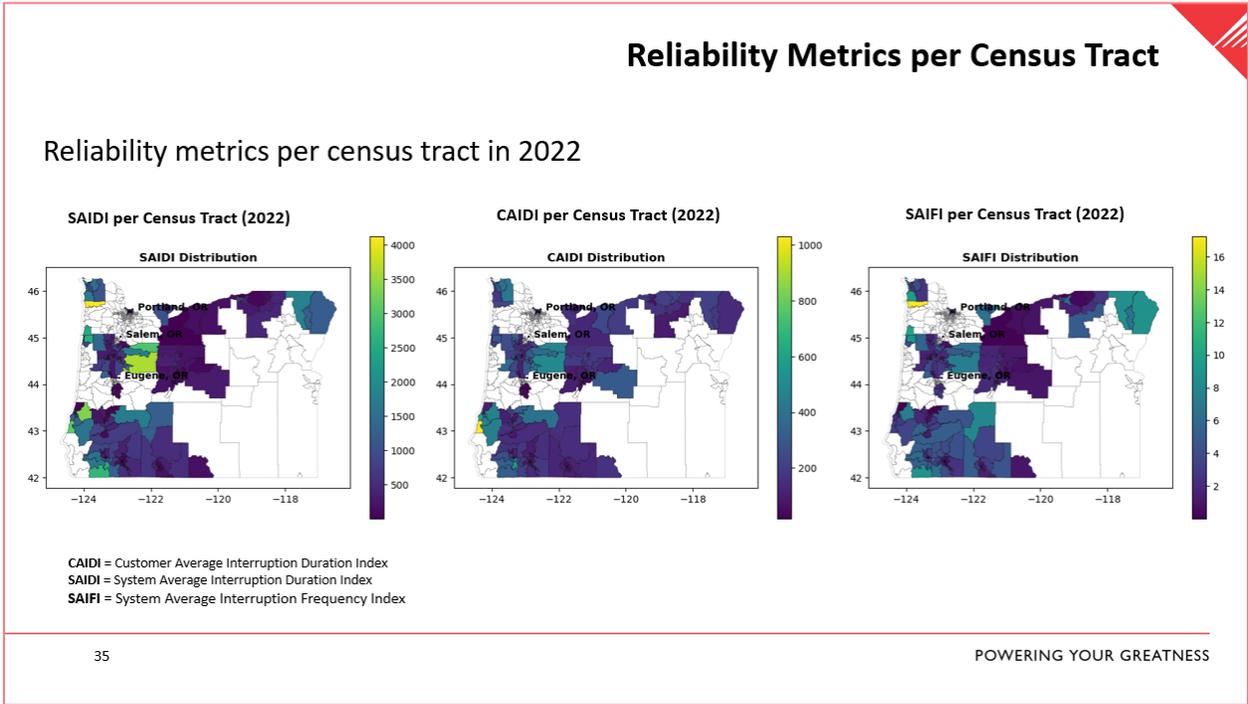
purchasing prescription drugs. Tracking disconnections by Census Tract provides an indicator of how communities may be struggling with their basic needs.

Discussion:

- Marli Klass suggested resources and encouraged PacifiCorp to be more creative in thinking about CBIs, particularly environmental impact.
 - PacifiCorp’s Lee Elder responded that PacifiCorp will take this feedback into consideration.

Resilience

PacifiCorp’s Kevin Benson discussed the resilience component of the CEP, including the performance and metrics of the system that is reported on. Resilience is the preparedness of the system and its ability to cope with various hazards that can disrupt electricity, while reliability is the availability of the electric system when it is needed. Traditional measures include System Average Interruption Duration Index (SAIDI), System Average Interruption Frequency Index (SAIFI), and Customer Average Interruption Duration Index (CAIDI).



Upon analysis, PacifiCorp did not identify a strong correlation between social vulnerability and resilience and the reliability metrics but identified that additional analysis is required. New datasets will be an integral part of fleshing out resilience, and PacifiCorp is interested in input on this.

Discussion:

- Silvia Tanner suggested looking into a level further down from census tract. For example, Northeast Portland is a diverse area of homes and incomes which might not be captured correctly with the census tract.
 - PacifiCorp's Kevin Benson responded that PacifiCorp would take this feedback to the team into consideration.

Community Based Renewable Energy (CBRE)

PacifiCorp's Ryan Harvey explained what Community-Based Renewable Energy (CBRE) is, how it connects to the CEP, and discussed the path forward with a spotlight on some topics PacifiCorp would like feedback and recommendations on. PacifiCorp invites people to share feedback by emailing ORCBIAG@pacificorp.com.

What is a CBRE?

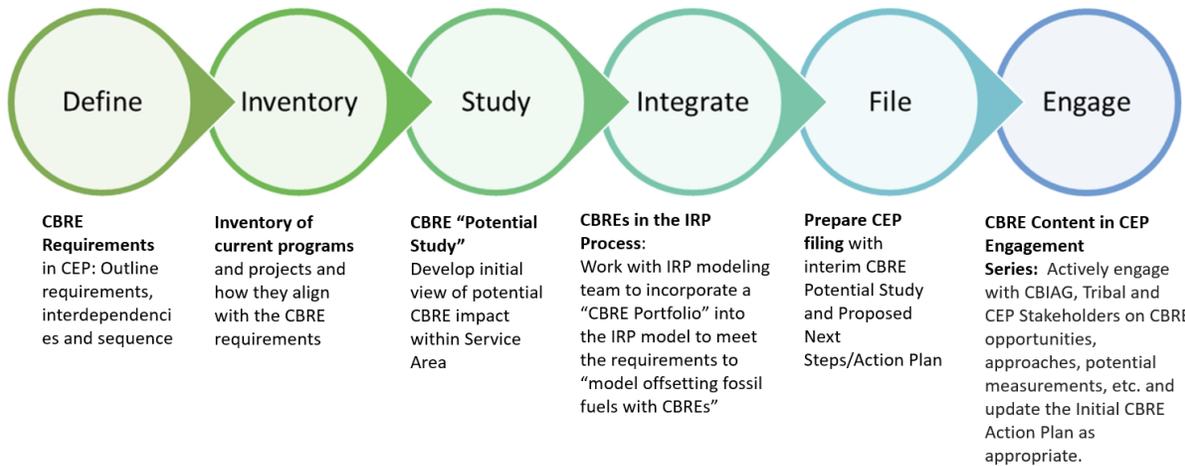
The definition of a CBRE was provided by the CEP legislation and guidance. It should have three elements: renewable energy source(s), connection to the grid, and benefits or is owned by the community. The Community could benefit by owning a project or going in on a contract or other agreement that would specify the benefits that would be granted to the community.

Community benefits might be resilience, local jobs that are generated because of the development of the project, community stability, or economic development. CBREs are aimed at resilience instead of lowering electric bills for the community.

CBRE projects will be woven together with the other aspects of the CEP. The 10% requirement of small-scale renewables that Randy spoke about gives us over 800 MW of capacity to seek out. CBRE projects would not necessarily meet the definition of what is needed, but there will likely be some overlap. The more overlap we can find the more CBRE projects we are likely to see actualized in Oregon. Our future conversations will include determining how best to do that.

The Six Steps of the CBRE Development Plan

CBRE Development Plan



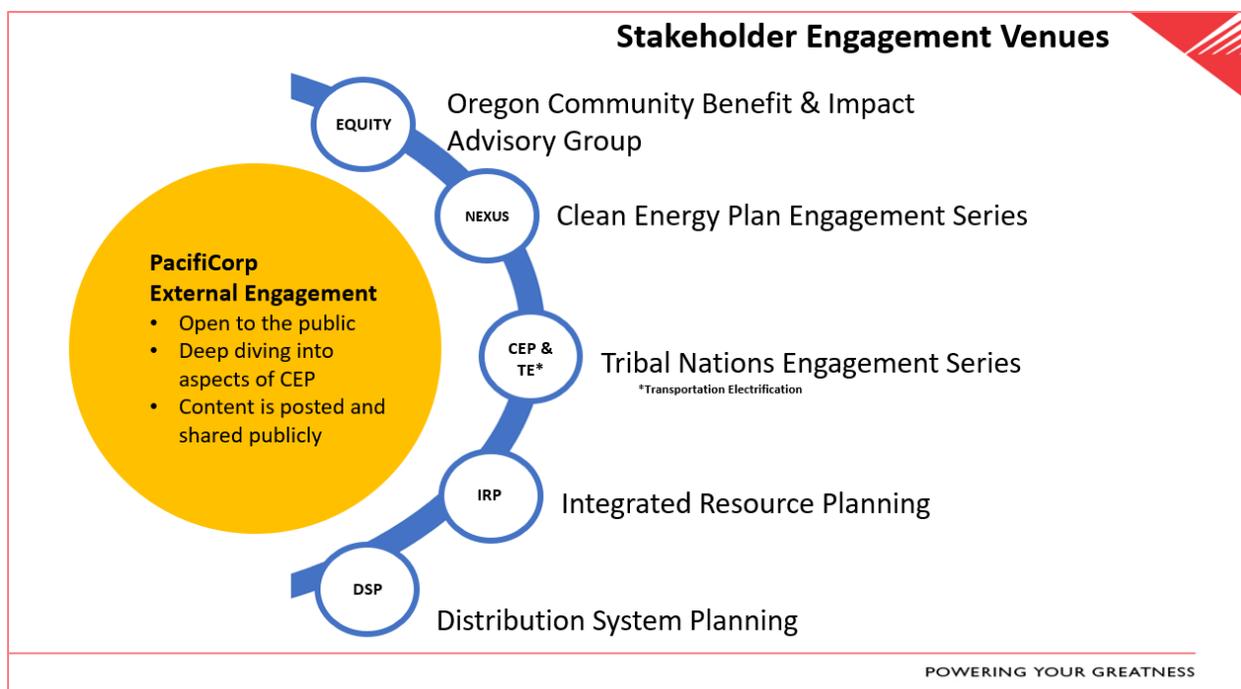
At the “Integrate” phase, PacifiCorp is currently modeling what happens to the big electrical system when these potential CBREs are added. This results in an understanding of the costs and benefits for the CEP. This is laying groundwork now for more engagement in future meetings to get stakeholder and public thoughts.

Our analysis has yet to conclude. The total capacity outlined in the Potential Study will be modeled as a “before and after” snapshot to see what CBRE projects would do to the system.

The Company is interested in working to find a better way to understand what other opportunities exist for CBRE projects and how they can fit into the framework of the broader, significant changes related to HB 2021 and Clean Energy Planning.

External Engagement

PacifiCorp’s Christina Medina provided an overview of the engagement efforts and encouraged participation in all of the venues that PacifiCorp has.



Public Comments

- Silvia Tanner appreciates the explanations and is interested in more information on the specifics of how PacifiCorp plans to move the needle.
 - PacifiCorp’s Stephanie Meeks responded that the comment as well as the others during the engagement are appreciated, and PacifiCorp will consider them as they continue to develop their CEP and will provide in their feedback tracker to show transparency.

Next Steps – External Engagement for 2023

PacifiCorp’s Stephanie Meeks closed the meeting and discussed the upcoming engagement opportunities. Participants were also reminded that this recording and public notes will be made available.