



Clean Energy Implementation Plan (CEIP) Engagement Series

October 2024 Meeting Notes

Tuesday, October 29, 2024, 9:00 -12:00 pm Pacific Time

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

Executive Summary

There were **34 people in attendance**, including members of the public and PacifiCorp representatives, at the fourth iteration of the Clean Energy Implementation Plan Engagement Series meeting this year. The virtual meeting, which was hosted via the Zoom platform, provided Clean Energy Implementation Plan (CEIP) updates, revisited introduced Distribution System Planning (DSP) solutions and engagement, and provided Integrated Resource Planning (IRP) updates. 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. Provide Regulatory, Clean Energy Implementation Plan, and Engagement Updates
2. Share Distribution System Planning Updates
3. Present Pacific Power's Demand Response Activities in Washington
4. Provide Integrated Resource Planning Updates in Washington

Opening

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

Regulatory Updates

Rohini Ghosh, Regulatory Projects Director at Pacific Power, provided regulatory updates, including three recent rate proceedings.

1. Effective August 1, 2024, the Low-Income Bill Assistance (LIBA) surcharge was increased 1%.

2. Effective September 1, 2024, the System Benefits Charge (funding for conservation) was increased 1.1%, meaning the average residential customer can expect to see an estimated 1% increase on their bill.
3. The 2023 Power Cost Adjustment Mechanism was suspended for adjudication.

Meeting Discussion:

- Charlee Thompson asked if the System Benefits Charge is specific to Washington, or does it refer to the Public Purpose Charge in Oregon?
 - Nancy Goddard explained the charge is Washington specific in accordance with Schedule 191.

Ms. Ghosh reviewed Clean Energy Implementation Plan updates and explained the adjudication process and timeline for the inaugural CEIP filed in 2021. The inaugural planning cycle lasts 4 years, 2021-2025. CEIP requires a Biennial Update which serves as a mid-cycle check-in, which was filed on November 1, 2023, and included a revision of clean energy interim targets and modeling assumption changes. Most recently, there was a public comment hearing held on October 10, 2024; however, members of the public did not show which led to an extension for public hearing via written comments, yielding 2 comments. After written comments were received, an evidentiary hearing was held allowing Staff and intervenor parties an opportunity to cross PacifiCorp's witnesses and vice versa. There will be two rounds of post hearing briefs. The goal is to have resolution and impacts mapped out for the 2025 CEIP.

Key CEIP dates are detailed below sequentially:

November 1, 2023, → PacifiCorp filed its Biennial Clean Energy Implementation Plan (CEIP) Update

January 11, 2024, → Commission Staff and other interested parties filed comments, recommending the approval of the Biennial Update subject to conditions

March 22, 2024, → The matter was brought to a Commission Recessed Open Meeting

March 25, 2024, → The Commission suspended the matter and set it for adjudication by Order 09

June 17, 2024, → PacifiCorp testimony

July 11, 2024, → Second settlement conditions (parties only)

August 21, 2024, → Staff, Public Counsel, and Intervenor Response Testimony and Exhibits

October 10, 2024, → Public Comment hearing, 30-day notice provided to interested parties, comment period extended

October 21, 2024, → Evidentiary hearing held by the WUTC, opportunity to cross PacifiCorp's witnesses and other intervenor parties' witnesses

November 12, 2024, → Post hearing simultaneous briefs due

November 27, 2024, → Simultaneous briefs due

In revising the 2021 CEIP, the company committed to engagement specific activities. Miscellaneous Condition 1 states PacifiCorp will: "fully engage with all of its advisory groups in developing future CEIPs and CEIP updates, offer at least one joint consultation session in which all advisory group members are invited to attend and converse with members of other advisory groups with the purpose of sharing

feedback on the CEIP, CEIP updates, and the consultation process itself, and also describe how feedback is incorporated from advisory groups and the public in its CEIP, future CEIPs, and CEIP updates.”

Stakeholder engagement condition 1 states “after consultation with its advisory groups, PacifiCorp will file a draft CEIP on a timeline deemed sufficient by the company and parties to incorporate comments.” The proposal mandates: advisory groups and interested parties are provided with a draft of the 2025 CEIP 45 days prior to the final filing date, the process for comments and feedback is clearly outlined, PacifiCorp reviews all submitted comments and feedback and updates its draft, PacifiCorp files its 2025 Clean Energy Implementation Plan on October 1, 2025. PacifiCorp is still accepting feedback on the proposal and all feedback is being tracked and documented in the online feedback tracker.

The feedback tracker has been updated through August and is live online. The goal is to publish an update each quarter with PacifiCorp staff reviewing, validating, and responding to feedback as needed. The tracker will summarize comments received during the development of PacifiCorp’s Clean Energy Implementation Plan. The tracker is formatted in Excel and is state specific including the month, year, meeting space where the feedback was provided, and notes the topic category to establish context and shared understanding. Feedback tracker can be found externally here: [Washington Clean Energy Implementation Plan Feedback Tracker](#) (within PacifiCorp's Clean Energy Transformation Act webpage)

Ms. Ghosh also shared core feedback from the Vulnerable Populations Workshop #2. Participants proposed using geographic vulnerable population rather than single characteristic approach. The group reviewed initial geographic vulnerable population analysis and facilitators obtained input from participants on methodology and populations to include in vulnerability analysis. The next steps are taking the feedback and incorporating it into the geographic vulnerable population analysis. The 3rd Vulnerable Populations Workshop is anticipated to take place in January 2025, details will be shared as soon as they are available.

Engagement Updates

The Clean Energy Implementation Plan Engagement Series will provide a space for joint consultation among Pacific Power's various Washington advisory groups, interested parties, and members of the public. Participants will have the opportunity to provide input on elements of PacifiCorp's developing CEIP, CEIP updates, Demand-Side Management activities, Distribution System Planning activities, as well as other topics. We hope this addition will help foster shared understanding of complex clean energy planning topics as well as provide additional pathways for meaningful engagement and input.

If there are questions, feedback, or if you would like to be added to the distribution list for the Washington Clean Energy Implementation Plan, please email CEIP@PacifiCorp.com.

Meeting Discussion:

- Charlee Thompson said it is easier for participants to provide engagements when they are given something to ponder during the meetings instead of something outside of a meeting and asked to return with feedback. Something other IOUs did during the last round of CEIPs that was helpful was having discussions specifically related to sections of the CEIP. For example, centering discussions around specific actions, interim targets, and CBIs instead of dividing discussions by technical subgroup (DSP, DSM, etc.). Breaking up the conversation in such a format will allow for less technical people to gauge a better understanding of the report.

- Morgan Westberry thanked Ms. Thompson for the feedback and reiterated the importance of uplifting the members' voices to provide value to the group.

Christina Medina, Stakeholder Policy & Engagement Manager, recapped the most recent Equity Advisory Group (EAG) meeting and detailed plans for the engagement space through the end of year. The last EAG meeting was a joint session with the Low-Income Advisory Group held on October 10, 2024. The group learned about the Multi-Family Electric Vehicle Supply Equipment (EVSE) Program and the communications team delivered updates on the Draft WA Language Access Plan. There will be no session in November. EAG meetings will resume December 12, 2024 (1pm-4pm) [Online](#) via Zoom in combination with the Demand Side Management group to reflect on 2024 and plan for 2025.

Charity Spires, Customer Solutions Program Manager, provided an update on Docket UE-230172 settlement stipulations. Docket UE- 230172 requires PacifiCorp to work with its Low-Income Advisory Group (LIAG) and Equity Advisory Group (EAG) to discuss and seek consensus regarding the items below and will propose a package addressing these items by April 30, 2025, requesting Commission approval before October 1, 2025.

- 1) Develop enhancements to Low-Income Bill Assistance (LIBA) program
 - a. Number of discount tiers
 - b. Use of self-declaration of income with eligibility verification for a randomly selected group
- 2) Community-Based Organization Outreach Program
- 3) Create an Arrearage Management Plan (AMP)
- 4) Change to Billing Logic
 - a. Applying Federal assistance before bill discount

The LIAG and EAG dissected the settlement stipulations and decided on four hour long weekly sessions in August and September to further discuss. Working sessions began in August with the group focusing on Community-Based Organization outreach program and low-income bill assistance discount tiers. The sessions continued in September with the group coming together to reach consensus on self-declaration considerations and arrearage management plan. In October, working sessions were paused to evaluate and communicate milestones at the monthly EAG meeting, allowing members to hold time and space for both groups to weigh in on progress made, the work remaining, and how to move forward together. Moving forward, the working group process will be informed by advisory groups and remaining work.

Working sessions were born out of stakeholder feedback to allow additional time outside of monthly meetings to discuss Docket UE-230172 settlement stipulations. Meeting attendees have included Equity Advisory Group, Low-Income Advisory Group members, Washington Utilities and Transportation Commission staff and other interested parties.

Nancy Goddard, Senior Customer Solutions Program Manager, summarized previous and future Demand Side Management Advisory Group engagement efforts including drafts for DSM advisory group and Equity Advisory Group (EAG) review, filings, and CEIP engagement. On August 6, 2024, the third Clean Energy Planning Implementation meeting was held to review 2025 IRP/CEIP updates, the CEIP progress report, and to continue the discussion into Distribution System Planning. The second Vulnerable Populations Workshop was held on August 28, 2024, as recapped above. The third DSM advisory group meeting was held on September 12 in a joint effort with the EAG to review energy efficiency program

changes effective January 1, 2025, 2025 Annual Conservation Plan preview, CEIP utility actions for 2025, and demand response program updates.

On September 16, 2024, program change documents to the 2025 DSM advisory group were submitted with comments requested by September 30. On September 17, 2024, the draft Language Access Plan was shared with advisory groups for review with comments requested by October 10. On October 7, the draft Low Income Weatherization program filing was shared with advisory groups with comments requested by November 6. The 2025 annual conservation draft plan, which includes energy efficiency CEIP utility actions for 2025, was shared with the DSM advisory group and the EAG on October 15, 2024. This was followed by a battery storage demand response draft filing shared with the advisory groups with comments requested by October 31.

Looking ahead, on November 7, 2024, the Low-Income Weatherization program changes (Schedule 114) will be filed, followed by the 2025 Annual Conservation Plan and battery demand response program on November 15. Additionally, the Home Energy Savings and Wattsmart Business program changes for January 1, 2025, will be announced on November 15 on www.pacificpower.net. The December 2024 DSM advisory meeting will be another joint session with the Equity Advisory Group.

Distribution System Planning Adoption in Washington

Ian Hoogendam, Distribution System Planning Director explained Distribution System Planning (DSP) initiatives in Washington, plans to expand Oregon DSP advancements into Washington, barriers, and implementing engagement feedback. The last DSP session focused on key differences between Oregon and Washington service territories, the importance of AMI data, differences in implementation partners, and resiliency measures and efforts.

Differences in the Washington and Oregon service area:

- Oregon service area is larger – 4x more circuits and residential customers
- Oregon service area has 98% AMI adoption-Washington is at 0% adoption
- Larger coverage areas and advanced metering technologies create greater opportunities to identify rare, non-traditional solutions

The importance of AMI data:

- Fills in gaps where utility does not have SCADA measurements
- Provides more granularity and confidence in growth rates and load profiles
- Growth estimates based on AMI data is independent of circuit load transfers

Difference in implementation partners:

- Both states have funds allocated for energy programs
- Oregon implements through Energy Trust of Oregon, Washington implements through internal departments

Resiliency:

- Reviewed how PacifiCorp built community resilience, utility resilience, and the community-utility resilience metric
- Environment Justice 40 layer was added to our process to identify grants opportunities

- FEMA/Red Cross information added to identify sites PacifiCorp could work with

The Distribution System Planning team is collaborating with other Washington initiatives including Demand Side Management (DSM) and Clean Energy Implementation Planning (CEIP) efforts. Demand Side Management efforts focus on load growth forecasting, potential load profiles enhancements, energy efficiency as nontraditional solution, conservation by voltage reduction assessments, and working to understand ongoing projects and initiatives such as ductless heat pumps. CEIP works with integrating DER and other renewable energy resources and with external partners to understand barriers the communities have – DSP has already attended an EAG meeting, the in-person session in May.

DSP advancements currently overlap with DSM as the DSP is conducting studies for conservation by voltage reduction as a non-traditional alternative for grid needs. Near term planning focuses on conducting advanced DSP studies for areas with SCADA coverage, integrating DSM programs into evaluation of alternative solutions to grid needs identified through DSP studies, continued engagement with Washington stakeholders through this forum, and hosting community engagement workshops throughout the DSP study process. Long term planning will evaluate DSP processes and nontraditional solutions to leverage new technologies as they are deployed in Washington and continue to focus on collaborating with other Washington state initiatives to advance progress towards achieving state goals.

There are technological barriers to Distribution System Planning measures in Washington which requires the team to adapt the approach. Currently, the distribution system in Oregon relies heavily on loading data from the SCADA systems which record time series loading at distribution, substations, and circuits. However, Washington currently has limited SCADA coverage, challenging the ability to analyze load growth across the entire distribution system in Washington. Without SCADA there is a lack of historical measured data, limiting the ability to forecast growth accurately. The lack of granularity and entry errors for manual reads may lead to the use of invalid peak loading conditions used for initial load assumptions. Such gaps are bridged in Oregon by developing processes that aggregate AMI data to be used as a substitute for circuit level measurements. Unfortunately, AMI is not currently in Washington and without it there is limited ability to see where growth is occurring on a distribution circuit and limited ability to identify key customers that could participate in utility run customer programs. This causes barriers with growth calculations after load transfers and limited data on behind-the-meter data such as solar, electric vehicles, and demand response.

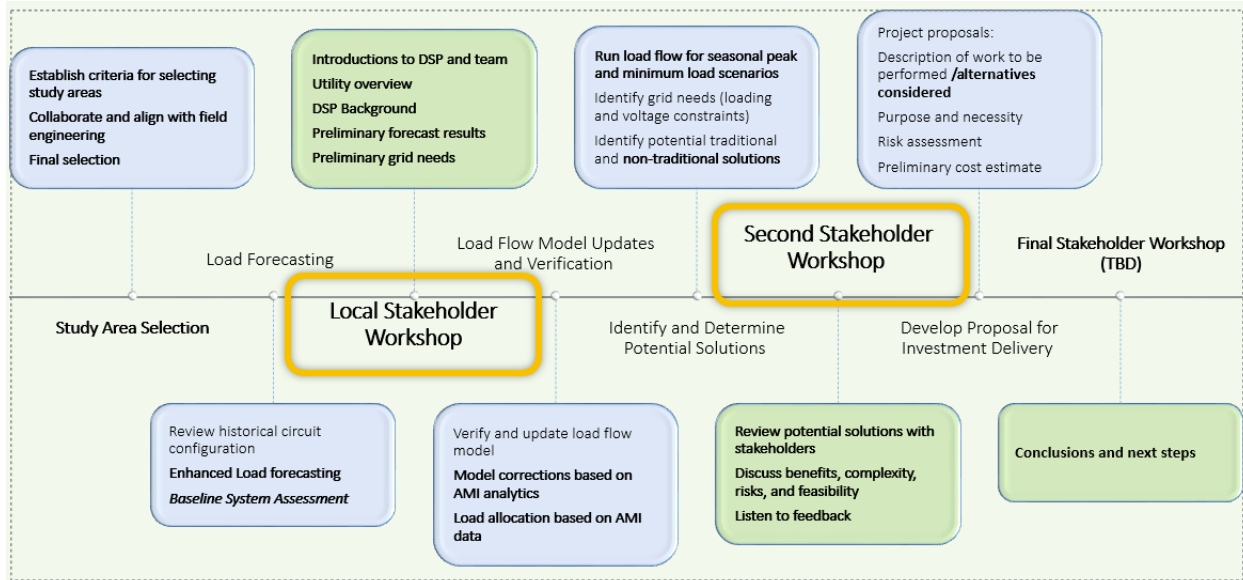
In addition to technological barriers, there are also administrative challenges such as staffing, cost, and time issues. Currently, the DSP team only has two engineers and requires at least one additional engineer, who will have to undergo training on the process, programs, and engagement. With increased staffing comes additional costs and engagement efforts because nontraditional solutions (batteries, solar, etc.) have a high customer burden. Additionally, the time horizon is much longer, typically around 10 years.

The DSP team has devised a community engagement workflow for collecting and incorporating feedback. Throughout the engagement process, feedback is recorded in an Excel spreadsheet for subject matter experts to carry back to their teams for any necessary follow-up. Feedback is then integrated into future agendas and processes with the outcomes documented. The team will regularly review and

analyze feedback database trends to confirm completion and identify trends that can inform future initiatives.

Feedback around the 2024 DSP engagement strategy was collected during CEIP workshop series and during a presentation in the EAG space. The first CEIP workshop discussed changing dynamics in the distribution grid, CEIP settlement conditions, current DSP processes in Washington and a vision for the future. This was followed by the EAG meeting allowing the team to meet with local community members. CEIP workshop #2 explored the lessons and tools learned from Oregon and how they can be applied in Washington, nontraditional solutions, local stakeholder and engagement workshops, and Community Benefit Indicators (CBIs) and equity measures. As a follow-up, the next workshop analyzed Washington baseline comparisons and differences between Oregon and Washington, the importance of AMI and SCADA, and how we define and measure resiliency. The next step is to document plans to begin DSP in Washington in the 2025 CEIP to incorporate feedback from the 2024 workshops.

The chart below is an example of the DSP study process and local engagement plan.



Under Settlement Condition 25, the first DSP condition states “PacifiCorp will conduct distribution system planning for Washington, including incorporating relevant learnings from the Company’s similar efforts in Oregon, and evaluate Washington-specific costs and benefits including the equitable distributions of benefits and burdens to:

1. *Vulnerable populations (CBI EAG Group definitions)*
2. *Highly Impacted Communities*

During this process, PacifiCorp will solicit stakeholder input regarding options and priorities for various strategies, including resources that are not owned or controlled by PacifiCorp.

The parties do not object to the Company seeking full cost-recovery of these DSP costs and expenses. Due Date: 2025”

The next steps are to develop and document the plan to implement DSP in Washington as part of 2025 CEIP filing in collaboration with the CEIP and DSM teams.

Meeting Discussion:

- Jaclynn Simmons questioned if the company is looking into AMI in Washington?
 - Mr. Hoogendam shared that currently there are no plans for implementing AMI in Washington and the DSP team is not the group that would lead that effort. However, the DSP team will be advocating for AMI in Washington when the state begins to explore the idea.
- Katie Ware asked if there are plans to introduce Grid Enhancing Technologies (GETs)? Ms. Ware described GETs as an umbrella term that captures different methodologies to modernize the grid and allow for more efficient communication. Born out of Docket 210590, GETs strive to capitalize on energy that could be serving customers but is restricted by grid limitations.
 - Mr. Hoogendam expressed that the DSP team does not limit the different types of solutions considered to address the grid needs. The team looks for areas of the grid that are overloaded and explores ways to manage the load instead of increasing the capacity so new technologies are always considered.
- Paul Barrager asked about the differences between Washington and Oregon, specifically why AMI is implemented in Oregon but not Washington. Also, are there other examples of nontraditional solutions that can be offered in addition to energy efficiency?
 - Mr. Hoogendam is not aware of the specifics that influenced AMI in one state but not the other, but both states do have similar SCADA coverage. Initially, the DSP team had plans to expand SCADA coverage throughout the entire Oregon service area and found that using AMI data is a good substitute. However, some of the funding for SCADA has been consumed by wildfire mitigation efforts. In addition to energy efficiency, the team is leveraging energy programs for demand response, pushing smart thermostats, and incentivizing the adoption of solar.

Demand Response

Laura James, Senior Customer Solutions Program Manager, reviewed the Demand Response portfolio including Schedule 106, updates to existing programs, introducing new programs, and a general portfolio overview. Schedule 106 is an umbrella tariff for all demand response outlining the process for introducing new programs and making changes to existing programs, under Docket UE-220550. New programs will submit a draft filing to UTC staff and stakeholders for comment prior to final submission to WUTC. Once the filing has been acknowledged by the WUTC, the program will be effective. Regarding existing programs, the proposed changes have been sent to the DSM advisory group and EAG with a deadline for comments. Final changes and responses to comments will be posted to the Pacific Power website with changes effective after 45 days.

Existing programs undergoing updates are irrigation load control, commercial and industrial demand response, residential demand response, and optimal time rewards.

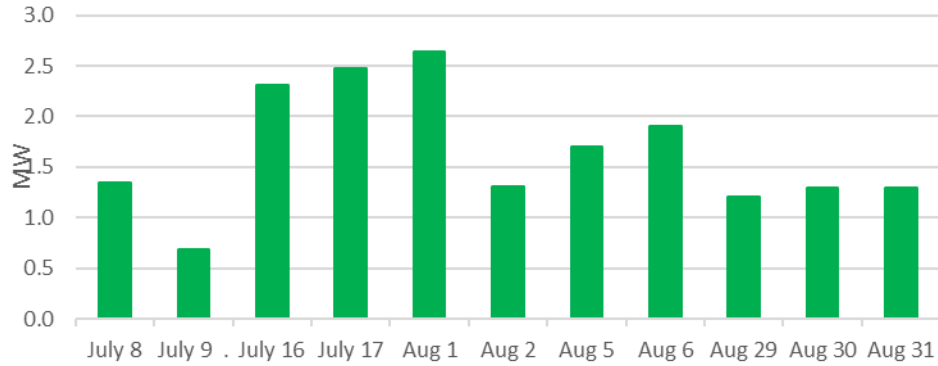
- **Irrigation load control:**
 - Positives
 - 224 new participants
 - Increased use by ESM team

- Average capacity curtailed and available increased due to continued successful recruitment and enrollment
- Negatives
 - Capacity per device below target of 15 kw
 - Opt-out rate continues to be around 50% of capacity, including several of largest pumps
 - Great majority of capacity in 20-min notice group, above target 1/3
 - 34 participants unenrolled
 - Likely not cost-effective
- Objectives for 2025
 - Align program options with grid management needs
 - Improve usability for Energy Supply Management
 - Improve cost-effectiveness by increasing average capacity per pump
- Proposed program changes
 - Streamline parameters by merging 3 notice options into single 4-hour notice option
 - Set single incentive level (\$30/kw-yr), with 50% bonus option for no opt-outs
 - Limit eligible days and hours to weekdays from 2 to 9 PM (instead of all days, 12 PM – 10 PM), and end season
 - Introduce Voluntary component:
 - Voluntary events may occur any time, for any duration, through September 30
 - Voluntary events are 100% voluntary – no penalty for opting out
 - Separate incentive of \$0.38/kwh for voluntary event participation

The table below maps the preliminary results of 2024 summer season. Based on the numbers below the program has made considerable progress in growth.

	2023 Season	2024 Season
Devices enrolled	75	299
Avg Capacity Available (MW)	1.1	4.0
Events	5	11
Average Duration (Hours)	3.1	3.4
Avg Capacity Controlled (MW)	0.1	2.1
Avg Capacity per device (kW)	4.9	7.5
Opt-out Rate (% MW)	~50%	~50%

The chart below shows 2024 capacity by event.



- **Commercial and Industrial Demand Response:**

- Positives

- Usage by ESM increasing
- Enrolled capacity increasing
- Available capacity more stable, based on performance history
- Participant performance improving with experience

- Negatives

- Reached 98% of event cap on Real-Time product in October
- Rate of enrollment slower than expected due to difficulty re-engaging customers, site-specific issues
- Big box retailer pulled out of DR programs nationwide, possibly temporarily (reduced 60 Min capacity by 33%)

Objectives for 2025

- Align program options with grid management needs
- Improve usability for Energy Supply Management
- Improve cost-effectiveness by increasing average capacity per pump

- Proposed program changes

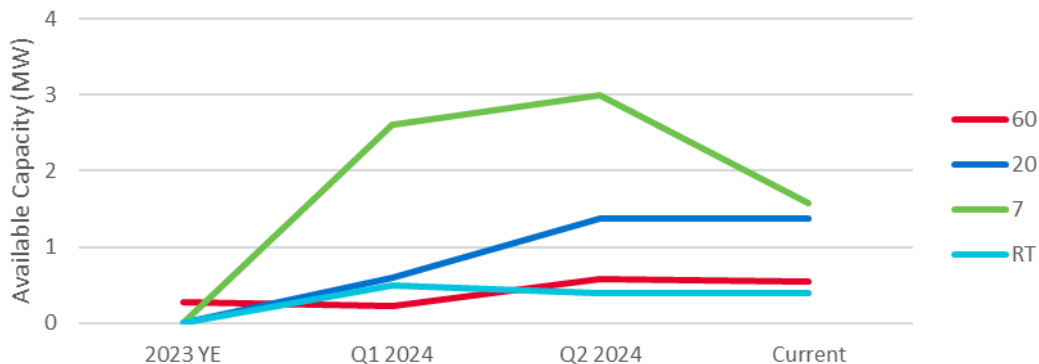
- Eliminate the 20 Minute product, which does not fit with grid needs
- Change the 60 Minute product to Peak Shaving, with a 4-hour minimum notice, 4 hr. max duration, and hours 2-9PM
- Change caps on dispatch for 7 Minute and Real-Time products:
 - Remove cap on number of events for both products
 - Increase hourly cap for Real Time to 15 hours from 5
 - [No change to 7 Minute cap of 60 hours]

The table below maps the preliminary results of 2024 mid-year results of the three products offered.

Product	Events	Avg Curtailment* (kw)	Performance – First 2024 Event	Performance – Latest 2024 Event
60 Min	4	430	-85%	84%
20 Min	5	339	-97%	63%

7 Min	4	1,043	105%	84%
Real Time	n/a	n/a	n/a	n/a
*Final performance analysis not yet available for all participants				

The chart below shows the changes in available capacity over 2023 – 2024.



- **Residential Demand Response:**

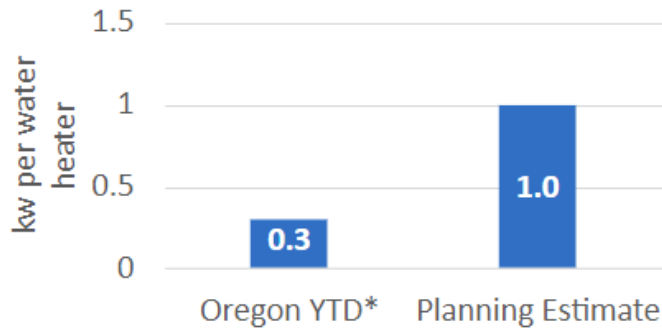
- Optimal Time Rewards program will end by November 1, 2024
 - Program not cost-effective despite substantial efforts at redesign and contract review
- PacifiCorp will introduce three new programs targeting the residential sector:
 - CoolKeeper, for residential AC
 - EV Managed Charging
 - Battery DR, for residential and small commercial batteries

- **Optimal Time Rewards:**

- Data from 2024 events shows per water heater unit capacity 70% lower than expected
- Wi-Fi-based communication presents significant barrier
 - Residents unwilling/unable to connect, or do not have Wi-Fi
- Program is not cost-effective
 - Thermostats are unlikely to generate enough volume to offset fixed administration costs, without water heater contribution
- Water heaters are a highly reliable, low impact resource
- BYOD Thermostats are a low-cost, broadly available resource, and potentially a growing market
- *PacifiCorp will continue to monitor market trends for water heater and thermostat DR programs, and may reconsider these resources if economics change*

The graph below shows available capacity per water heater.

Available Capacity per Water Heater



*Using Oregon data as a proxy because to date, no devices installed in Washington.

Existing program change draft documents will be circulated to the DSM advisory group and the EAG by October 30, 2024, with comments due 11/25/2024. Final changes and a response to comments posted will be due by December 16, 2024, with changes effective January 1, 2025.

Ryan Harvey, Community Renewables Program Manager, introduced a new battery program. The battery program provides financial incentives so the utility may dispatch a customer-owned battery to address specific needs of the larger electric grid. During a demand response event, the battery would serve the customer’s load to help decrease the grid strain. Although this program is new, PacifiCorp has successfully implemented battery programs since 2019. However, PacifiCorp would not leverage this program during an outage.

The batteries are dispatched using Distributed Battery Grid Management (DBGMS) System, specifically developed for PacifiCorp’s internal energy management team, allowing for faster response times to maximize grid benefits. DBGMS allows for flexibility in battery control and produces real time battery connectivity reports. The battery program has initial enrollment and annual incentives. The enrollment incentives allow for \$150 per kW during the commitment period of 4 years. However, in the event of early termination, customers must repay the upfront incentive which will be prorated. Annual incentives allow for \$15 per kW during commitment period years 2-4 and \$50 after. The team is evaluating potential future lease options based on customer feedback and participation levels.

Estimated program costs and participation for the initial few years of implementation are outlined below. These tables call out low fixed costs and year over year increase driven by participation assumptions. It is estimated that 84% of costs are customer incentives with higher incentives for early adopters – projected to decrease over time.

Estimated/preliminary program costs

Cost Category	2025	2026	2027
Program Administration	\$15,000	\$20,000	\$25,000
Software Costs	\$15,000	\$30,000	\$50,000

Marketing	\$5,000	\$5,000	\$5,000
Total Incentives	\$150,000	\$303,750	\$411,250
Total Program Costs	\$185,000	\$358,750	\$491,250

Estimated/preliminary program participation

Year	Estimated Battery Participation	Estimated kW - Cumulative
2025	50	250
2026	100	750
2027	200	1750
2028	200	2750
2029	500	5250
2030	750	9000

Currently, the battery program is in the period of stakeholder review and will be filed on November 15, 2024, with anticipation of being kicked off on January 1, 2025.

Meeting Discussion:

- Paul Barrager asked if there are no geographic or technical limitations to the battery program? Would the program include those who cannot afford the upfront installation costs?
 - Ryan Harvey explained that there are no geographic limitations. The system devised to dispatch the batteries will only allow eligible batteries meeting program criteria to ensure batteries are meeting speed and communication requirements. The potential lease option is being explored as an alternative model for those who cannot afford upfront installation costs. Other participating states have opted not to move forward with the lease option, but it is still on the table for Washington.

Chris Kanoff, Demand Response Team, elaborated on the CoolKeeper program, expanding to Washington after over a decade of success in Utah. Currently in Utah, there are about 119,000 air conditioners enrolled in the program resulting in 100-320 MWs of peak load reductions and frequency control. The Washington program would only include residential and small commercial customers with split system air conditioning units, window units or evaporative cooling units are not eligible for program participation. The CoolKeeper program is an air conditioner direct load management program targeting residential and commercial customers who cool their dwellings with electric central air conditioners. Due to the flexibility of the program and real-time dispatch capabilities, the resources can be utilized for various smart grid application. When there is a grid need, the CoolKeeper control equipment installed on a participating customer’s cooling equipment is sent a signal to cycle the operation of the compressor “off and on” for brief periods each hour in coordination with other participating customers.

CoolKeeper uses autonomous dispatch with EMs for frequency response and real time dispatch for contingency events, by using modified cellular Load Control Receiver for communications. Customers enrolling in the program help keep energy prices low while protecting the environment and ensuring a reliable energy grid. For participating, customers receive a monthly bill credit with a maximum annual participation incentive of \$30-\$60 depending on the size of the unit. Program participants not enrolled for the season will receive pro-rated credit daily for the days they participate.

The CoolKeeper load control system is operated through a two-way communication with a wireless RF mesh network for improved control, measurement, and verification of program performance. The program operates on a dispatch period between May 1 – September 30 during 2:00 – 9:00PM, with emergency dispatch eligible at any time. Maximum dispatch hours are capped at 100 per program year with dispatch days limited to Monday – Friday (excluding holidays) and limited to four hours daily. CoolKeeper is administered by Frankin Energy to conduct field operations, maintenance, installations, marketing, and data.

Currently, the program is in the stakeholder review period, but filing dates are still undetermined. Program kickoff is anticipated for kickoff early 2025.

Sierra Gentry, Program Manager, reviewed the proposed Electric Vehicle Program, rooted in frequency demand response. With the program, during demand response events, a signal will be sent directly to vehicles to pause charging for up to 5 minutes. Only vehicles charging in PacifiCorp territory will receive a dispatch signal and customers can opt out of an event. Regardless of purpose of use, any eligible vehicle can enroll in the program. For the first year of participation, customers can receive up to \$100 and up to \$50 each year following. Customers are allotted two free opt outs, however, each additional opt out reduces the incentive by \$10.

The tables below show projected costs and program load for the initial startup years, 2025 – 2027, and accounts for a one-time platform startup fee with an assumption of 1,200 electric vehicles registered in PacifiCorp Washington service territory.

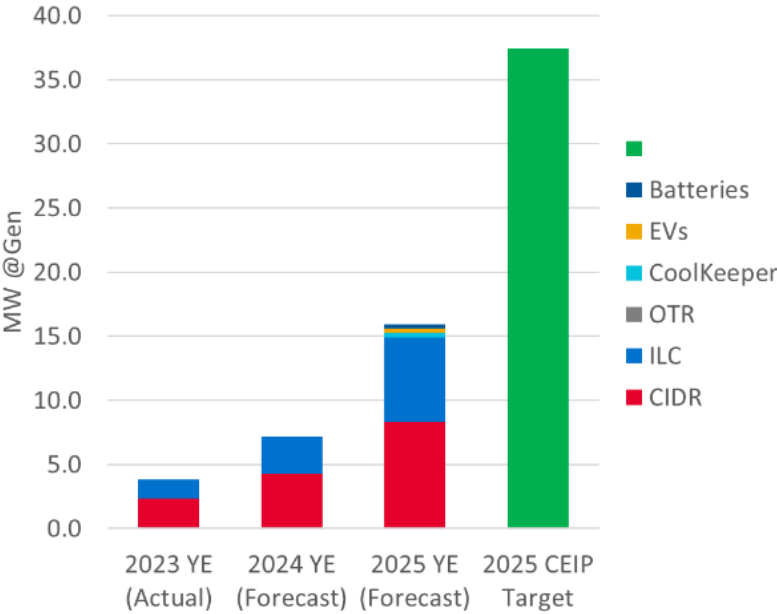
	2025	2026	2027
Program Administration	\$15,000	\$20,000	\$25,000
Vendor	\$35,000 - \$45,000*	\$60,000 - \$70,000	\$90,000- \$110,000
Marketing	\$1,000	\$2,500	\$5,000
Incentives	\$2,500	\$3,800	\$7,500
Total	\$53,500 - \$63,500	\$86,300 - \$96,300	\$127,500 - \$147,500

	2025	2026	2027
Forecasted EVs Enrolled**	25	50	100
Estimated kW (Cumulative)	80	160	330

Eligible makes include Lexus, Hyundai, Mini, Tesla, Kia, Jaguar, Land Rover, Nissan, Toyota, and Volkswagen. There are limitations on the models and the years in which these makes can participate.

The next steps of the EV demand response program are finalizing cost estimates, undergoing stakeholder review, with filing around November/December. PacifiCorp will review the launch plan with the appropriate vendors and establish a marketing plan in the community. The program kickoff is anticipated for January 2025.

The Demand Response portfolio shown below illustrates the pace at which programs have been ramping up since 2023. By 2025, the portfolio is expected to have 16 MW. Unfortunately, this is significantly below the CEIP target of 37.4 MW by 2025. To bridge the gap, the Demand Response team is launching new programs – Cool Keeper, EV Managed Charging, Batteries, streamlining existing programs for easier sales and recruitment, and targeting focus on removing barriers for large customer participation.



Meeting Discussion:

- Jaclynn Simmons asked if enrollment in the EV program means customers must allow the company access to geolocation data of their vehicles?
 - Sierra Gentry explained that there is a set of permissions the customer must allow the company to enroll in the program, including geolocation data.

- Paul Koenig asked if the Demand Response team forecasts further than 2025, if so, is there a graph with this information?
 - Laura James shared that the team does forecast ahead of 2025, however, this graph was not presented today as formal forecasts are only for existing programs out through mid-2026.

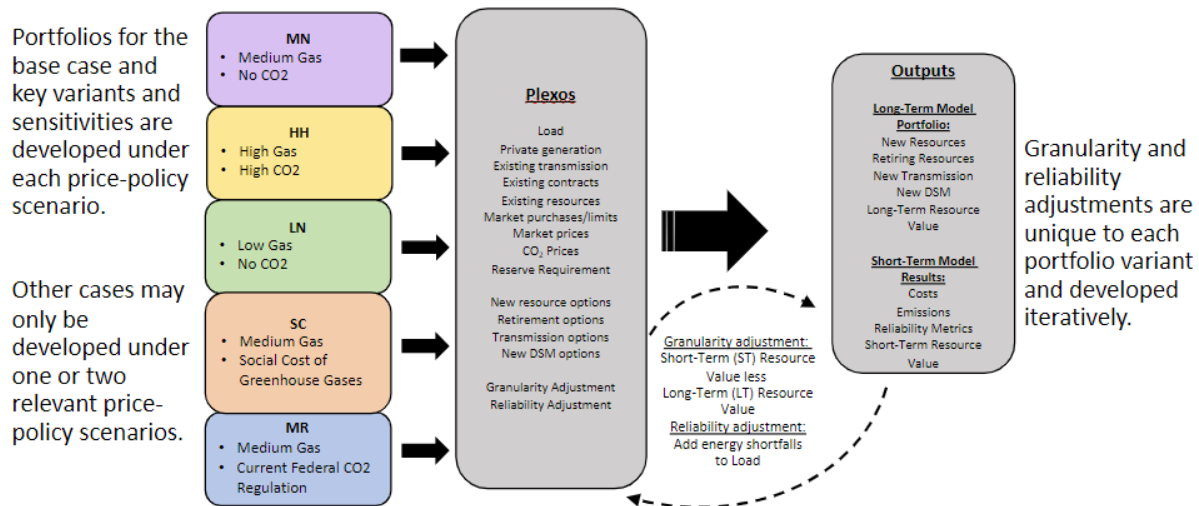
Integrated Resource Plan

Randy Baker, Director of Resource Planning, reviewed the Integrated Resource Planning (IRP) portfolio development and selection. Traditionally, the IRP provides an optimized view of long-term planning, covering a 20-year horizon. The focus of the long-term plan has been to evaluate the least cost, least risk plan for our entire six-state service territory. The plan's ultimate expression is the combination of coordinated resources called the 'preferred portfolio.' The IRP modeling determines when, where, how much, and what type of resources to add given forecasts of energy need and energy prices across the long-term future.

PacifiCorp's Clean Energy Implementation Plan for Washington uses the same tools as the IRP but focuses more directly on meeting Washington's planning needs. In the first CEIP portfolio for Washington, the approach was to first establish the resource plan for the entire system and then evaluate additional resources that would need to be layered on to meet Washington's CETA standards and other legislated goals. At the time, this approach made sense because the direction of the six-state system and Washington's CEIP objectives aligned closely. There was a possibility that no additional resources would be needed for Washington, depending on the system-level outcome for all states, and indeed this is very nearly what was seen in earlier model outcomes. However, this strategy has evolved, and instead of layering on resources to the preferred portfolio, the approach is now to determine the optimal portfolio for each state, and then to integrate the results into a final preferred portfolio for everyone. In this approach, each initial portfolio is optimal for the state/states to which it applies. When the portfolios are integrated, resources selected by multiple states are shared by those states.

Washington has constraints and requirements that are different from the other states. These requirements and constraints are made by the model, and not based on any external or subjective determinations. Washington's primary requirements are embodied in the Clean Energy Implementation plan: CETA standards compliance, SCGHG cost driver, and requirements for renewable portfolio standards.

Portfolio development is visualized below.



There are fundamental model setups describing five price-policy scenarios. Each portfolio will be evaluated for cost and risk among three natural gas price scenarios (low, medium, and high) and three carbon dioxide (CO₂) price scenarios (zero, regulatory mandate and high). An additional emissions cost scenario evaluates performance assuming a price signal that aligns with the social cost of greenhouse gases (SCGHG). Taken together, there are five distinct price-policy scenarios as labeled in the bubbles at left. Each price-policy scenario will be used for many cases to evaluate portfolios and portfolio dispatch under many conditions. This gives insight into how robust a portfolio may be under future conditions, which may inform final selection of the preferred portfolio.

Among the cases that will be run under various price-policy scenarios are:

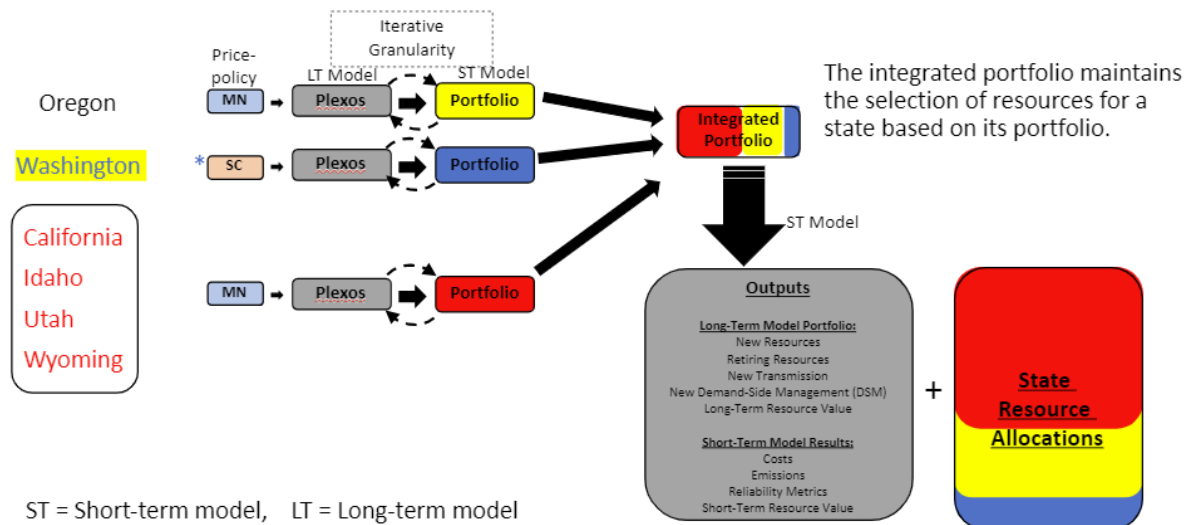
- The base assumptions – these are the assumptions representing the company's expected set of requirements and constraints, of which you can see a sampling in the large center gray bubble.
- Alternative assumptions, such a variant that assumes no new gas resources are allowed, or no climate change considerations are made.

Each model run produces a set of outputs, including the portfolio itself – possible retirements, coal-to-gas conversions, Carbon Capture and Sequestration technology, demand-side resources, and supply-side proxy resource selections, for example. Also included are endogenously selected transmission options, market purchase and sales, emissions output, reliability metrics and of course, the cost of each portfolio.

Each study includes a process of integrating short-term modeling results back into long-term modeling inputs using granularity and reliability adjustments. Both adjustments are mathematically dictated by the short-term model outcomes. This information is given back to the long-term model so that it can make better decisions. The reliability adjustment is simply the shortfalls in short-term modeling outcomes, such as energy not served. These shortfalls are given back to the long-term model as additional load or energy requirement for the long-term model to meet.

Regarding outputs in the gray box at right, PacifiCorp is committed in the 2025 IRP and the upcoming CEP to build on the reporting improvements and transparency achieved in the 2023 IRP.

The same tools and processes that serve the IRP also serve modeling for the Clean Energy Plan. Below is an example illustrating how the initial portfolio is developed and integrated.



There are three initial portfolio runs relevant to all of PacifiCorp States, Oregon and Washington have their own runs and California, Idaho, Utah, and Wyoming collectively have their own run. Washington requires the social cost of greenhouse gas cost drivers for CO₂, noted as SC in the chart. Price policy assesses initial portfolios under various price policy scenarios, but the key scenarios are anticipated to be the MN, medium natural gas price assumption with no additional CO₂ costs beyond what is currently forecasted to be.

The 2025 IRP runs those three initial models through the long-term model then begins those iterations through the short-term model, testing those portfolios and closing in on what the ideal portfolio is under each of those three scenarios and then performs the integration.

The IRP team anticipates that many of the resources selected will be shared amongst all the states, but it is expected to see variances and additional selections that come in for Washington based on Washington's optimal selections. All resources are brought together into one package which becomes the final preferred portfolio.

The 2025 IRP will include:

1. Initial studies that cover state-specific policies and constraints that will be integrated into the unified preferred portfolio
2. Variant studies eligible to be the preferred portfolio, including:
 - No Natrium nuclear project
 - No new technology (nuclear and non-emitting peaking)
 - Offshore wind counterfactual
 - Retire all coal by 2032
 - No new natural gas
3. Sensitivity studies that require fundamentally different inputs for informational purposes:
 - Bookend studies for load, distributed generation, federal opportunities adoption

The 2025 CEIP will include additional Washington studies:

- a. CETA compliance (initial and integrated portfolios)
- b. Alternative Lowest Reasonable Cost
- c. Climate change counterfactual
- d. Maximum Customer Benefits
- e. Other

Currently, the IRP schedule is in months 9-10 with data committed and modeling updates made. The next phase is portfolio development and analytics, followed by presenting and discussing the draft preferred portfolio, and incorporating draft feedback and assembling data disc to close out the IRP cycle after 15 months.

2025 IRP upcoming meeting dates and milestones:

- January 1, 2025 – distribution of the 2025 draft IRP
- January 22-23, 2025 – General public input meeting 8
- February 26-27, 2025 – General public input meeting 9
- March 31, 2025 – Filing

Meeting Discussion:

- Rose Monahan asked if “MN price policy” indicates that PacifiCorp is anticipating selecting that scenario for its preferred portfolio? That policy has a \$0 CO2 price and does not incorporate federal regulations and selecting it would impact the pool of resources that might be selected by other states.
 - Randy Baker explained that there has been a consistent trajectory toward federal and state legislation, which is represented by the CO2 proxy price. The MN price policy is not *no* CO2 price driver, but instead, no CO2 price driver *beyond what is forecasted or existing*. Federal regulations will be incorporated into the forecasts.
 - Rose Monahan shared that the 111 deregulation has happened and is going through litigation. Ignoring 111 deregulation is problematic and risky for customers.
 - Mr. Baker agreed with the risk and assured that the team is running studies on 111 deregulation to figure out how to move forward

Public Comment

There was no public comment

Upcoming Engagement Opportunities

- Washington Equity Advisory Group Meeting
 - December 12, 2024 (Online) 1pm – 4pm
 - Zoom: <https://esource.zoom.us/j/83334278010?pwd=iy6cXTasljrxdU00pX6LpWMOo98b69.1>

Meeting ID	Passcode
833 3427 8010	708043