Clean Energy Implementation Plan Engagement Series

April 5, 2024















Clean Energy Implementation Plan Engagement Series

This meeting will be recorded

April 5, 2024, 9:00 - 12:00 p.m. PT

For a Better Meeting Experience



Spanish or ASL?

- Navigate to "Interpretation" at the bottom of Zoom
- Select "ASL" under Watch or "Spanish" under Audio
- If the interpretation icon is missing, try the "More" icon



Use Gallery View (icon at top right) when in group discussion



For technical support, chat "Tag G-D / E Source" as recipient, and send your message



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- Questions are welcome at any time
- Please mute until speaking
- Speak by clicking the "Raise Hand" in the tool bar

Agenda

TIMING	TOPIC				
9:00 am	Purpose & Objectives				
9:10 pm	2025 Clean Energy Implementation Plan (CEIP)				
9:40 pm	CEIP Biennial Update Status				
10:15 pm	Integrated Resource Planning				
10:45 pm	Distribution System Planning				
11:25 pm	 2024 Engagements: Additional topics and Advisory Groups' meetings Vulnerable Population Workshops 2025 IRP and CEIP 				

Clean Energy Plan Engagement Series Purpose

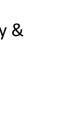
Provide an integrated lens on clean energy planning with expanded learning opportunities to foster a deeper understanding of programs and outreach while gathering public input.

Objectives

- 1. Socialize the Washington Clean Energy Implementation Plan
- Provide updates on the Pacific Power Integrated Resource Plan (IRP)
- 3. Share Distribution System Planning (DSP) background



Matthew McVee
PacifiCorp
Vice President
Regulatory Policy &
Operations

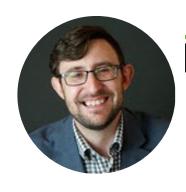




Stephanie MeeksPacifiCorp
Regulatory Manager



Ian Hoogendam
PacifiCorp
Distribution System
Planning Manager



E SourceJeffrey Daigle
E Source Facilitator

Presenters



Randy Baker
PacifiCorp
Director of Resource
Planning

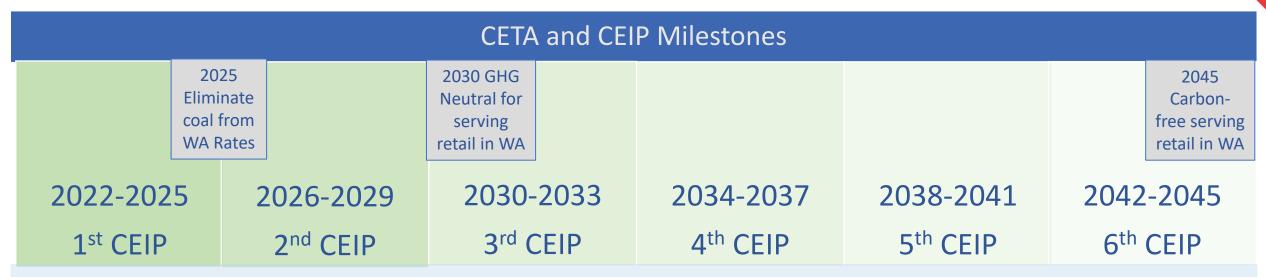
Shauna Thomas
PacifiCorp
T & D Program
Specialist



Morgan WestberryE Source Facilitator



CETA and CEIP Milestones



Each CEIP covers a four-year period, that has a biennial update, and annual progress reports.

Contents of each CEIP includes:

Interim and Specific Targets – paths to meeting clean energy compliance in WA

Specific Actions and Narrative – outlining the specific actions to get to the interim and specific targets

Incremental Cost Calculations – calculations of compliance over the next four years

Customer Benefit Indicators and Public Participation – collaboration with public and advisory groups to continue the development of the customer benefit indicators and a summary public-input process with the CEIP

Alternative Compliance Need – if not able to meet the four-year targets, there is to be a discussion on what steps the company may take.

EAG & Public Feedback

Pacific Power Focus

Regulatory Engagement

Named Communities



Map highly-impacted communities (HICs) and identify vulnerable populations and the challenges they face.

Review and Update Customer Benefit Indicators (CBIs)

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

Scoping for Utility



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

Regulation Alignment



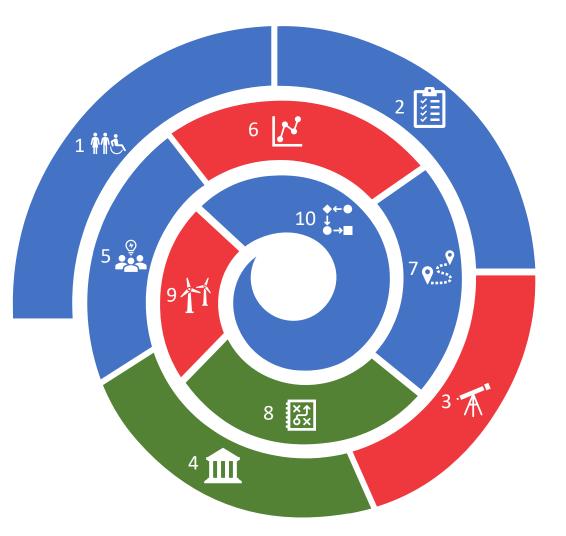
Align CBIs to Washington regulations and commission staff expectations.

Validate CBIs



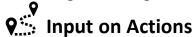
Refine and weigh CBIs based on stakeholder feedback to understand the significance and importance of each.

The Clean Energy Implementation Plan (CEIP) Cycle



Metrics Development

Review and update metrics to continue monitoring and tracking CBIs.



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

Clean Energy Implementation Plan (CEIP) & Integrated Resources Plan

Prioritize actions identified to include in the CEIP and submit drafts for external feedback, including commission staff.



Implement plan with actions and monitor results.



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

POWERING YOUR GREATNESS

Utility Action Categories



SUPPLY-SIDE RESOURCES

These actions support PacifiCorp to generate more electricity from renewable and non-emitting resources for its customers in Washington.



COMMUNITY OUTREACH & ENGAGEMENT

These actions create greater opportunities for the communities PacifiCorp serves to reap the benefits of clean electricity programs, regardless of their economic or cultural circumstances.



ENERGY EFFICIENCY

These actions help customers transform their homes, offices, and businesses to use electricity more efficiently. This has the effect of lowering bills and creating more comfortable spaces.



DEMAND RESPONSE

Demand response is when customers change their electricity usage at certain times to put less pressure on the grid.

These actions help customers access more of the clean electricity produced by PacifiCorp's resources.

2021 CEIP Settlement Conditions Overview

Customer Benefit Indicators (CBIs)

- Track and report CBIs and metrics in future CEIP progress and compliance reports
- Update/revise CBI metrics regarding customers' disconnections and energy burden
- Culturally and linguistically responsive outreach and program communications
- For CBIs on energy efficiency and bill assistance add number and percentage metrics
- Add CBIs in CETA category for energy benefits increase in named communities
- Additional improvements, discussions, and report card reporting
- Convening interested parties for up to two vulnerable populations workshop

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Integrated Resource Plan

- Permit Pacific Power to update its interim targets as necessary in the 2023 CEIP Biennial Update
- Demonstrate how its interim targets ensure that all customers are benefiting from the transition to clean energy
- Participate in future discussions on the incremental cost calculations
- Pacific Power not to rely solely on the 2021 CEIP to justify prudence of utility scale renewable resource acquisitions made on or after January 1, 2022
- Fund the purchase of four PLEXOS model licenses
- Sensitivity run without Natrium

All other conditions

- Engagements outreach, inclusion of advisory groups, and share list of members online and in filings
- Documentation transparency on workpapers
- Request for Proposals identify specific WA dedicated resources and planning and procurement alignment with 2025 CEIP
- Report on if any sale of WA allocated renewable energy credits (RECs)
- Distribution System Planning (DSP) solicit interested parties' input on options and strategies in WA
- Demand Response update and provide steps taken and evaluation methods to achieve targets
- General timing and rate recovery is in separate proceedings



Updated Interim and Specific Targets

	2022	2023	2024	2025	Average
2021 Revised CEIP	31%	31%	40%	60%	41%
2023 Biennial CEIP Update	31%	26%	25%	33%	29%

Updates to the interim targets, particularly in the near-term, reflect several key developments:

- No agreement on new allocation methodology due to participating parties' interest in exploring a new allocation options;
- Significant repricing of renewable resource bids in the 2020 AS RFP following the COVID-19 Pandemic;
- Supply chain issues;
- Rate impacts of continuing high energy market prices; and
- Competition for short-term contract options with growing demand for CETA-qualifying resources

Status

CEIP

- PacifiCorp filed the Initial CEIP
 December 30, 2021, and Final Errata
 filed March 13, 2023
- Multi-Party Settlement with conditions filed September 22, 2023
- Washington Utilities and Transportation Commission Approved Multi-Party Settlement on October 25, 2023

Biennial Update Filing

- Filed on November 1, 2023, immediately following the Commission's approval of PacifiCorp's CEIP
 - Updated interim targets for renewable energy and energy efficiency based on current information
 - Updated CBIs
 - Updated public engagement
 - Revised the incremental cost analysis

Biennial Update Adjudication

- On March 22, 2024, the Commission set the Biennial Update for adjudication
 - PacifiCorp supported adjudication as an alternative to approval with conditions
 - Adjudication allows for more thoughtful consideration of issues addressed in the Biennial Update



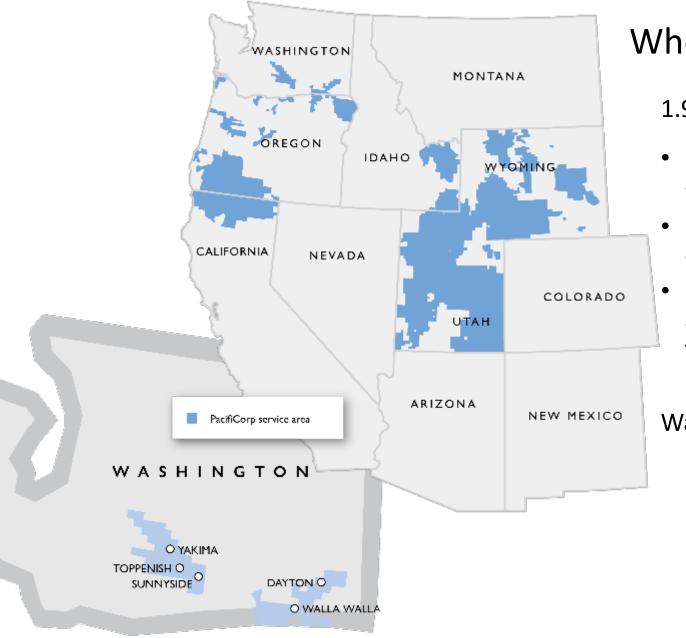
PacifiCorp's Integrated Resource Plan

The primary focus is the customer

- Maximum transparency
 - Assumptions
 - Constraints
- Close the gap between planning, implementation, and execution
- ❖ Agnostic to technology
 - Cost driver
 - Reliability driver



- Specific timing for milestones in six states
- Stakeholder feedback is critical to improving the quality of the work product
- Milestones will be delivered based on the most restrictive state timing
- Abide by each state's specific policies if applicable
- No cost shifting of state policy compliance



Where Do We Provide Service?

1.9 million customers across 6 states

- Rocky Mountain Power serves Utah, Idaho, and Wyoming customers.
- Pacific Power serves Oregon, Washington and California customers.
- Pacific Power in Washington serves approximately 137,000 customers throughout Benton, Columbia, Garfield, Kittitas, Yakima, and Walla Walla counties.

Washington Service Area Demographics

- 43% Hispanic or Latino vs 13% Statewide
- 33% Speak language other than English at home vs 19% Statewide
- 12% impoverished vs 7% Statewide
- 15% of employed population in the agricultural, forestry, fishing, hunting and mining sector vs 3% Statewide

15 POWERING YOUR GREATNESS

How Do We Serve You?



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



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



Solar and energy storage facilities in the highest producing areas such as Utah and Oregon.

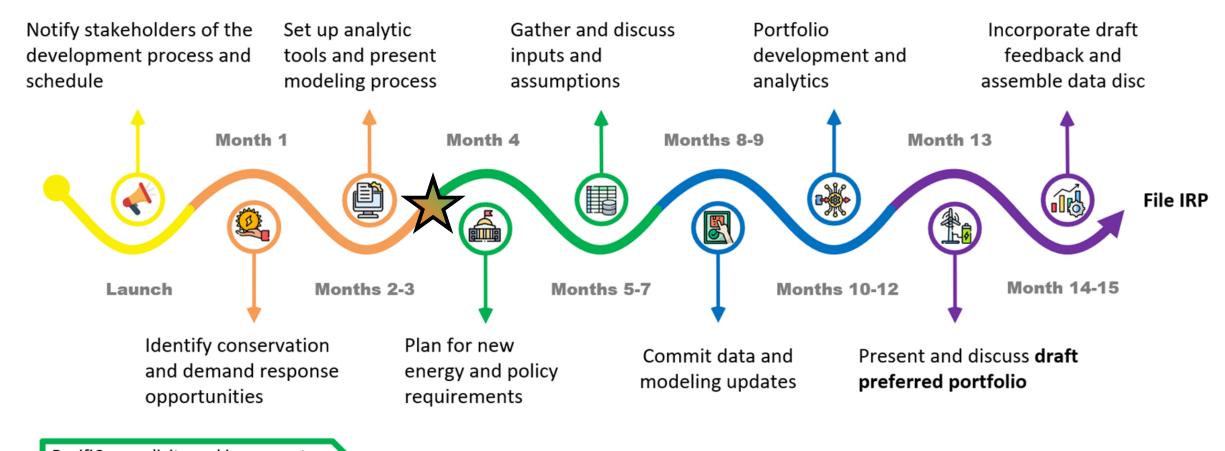


With over 16,900 line-miles of **high-voltage transmission** spanning 10 states and a range of climate zones.



In Washington, Pacific Power has **programs** that help offset the cost of electricity for customers and that provide weatherization and energy efficiency services.

Pacific Power's IRP Approach



PacifiCorp solicits and incorporates public input throughout the IRP development cycle

Regulatory Cycle

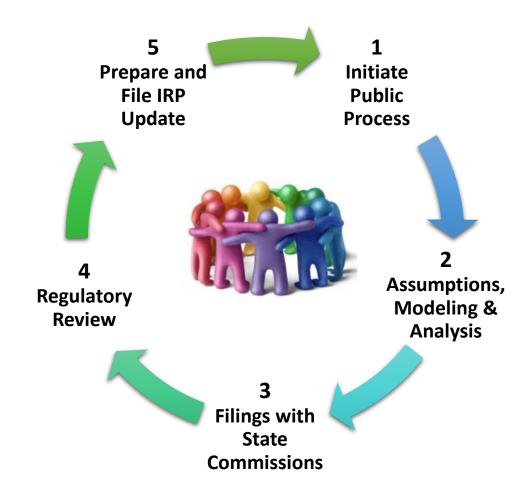
PacifiCorp has been producing resource plans for over two decades (what, when, where, and how much)

PacifiCorp operates its two balancing authority areas as a single system—planning aligns with this paradigm (one plan for all states)

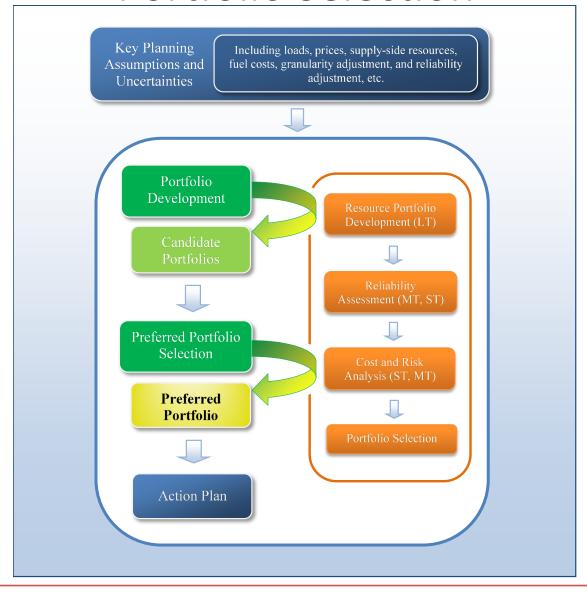
PacifiCorp has a two-year IRP cycle with updates in off years to highlight how changes in the planning environment affect the plan (limited scope)

We include:

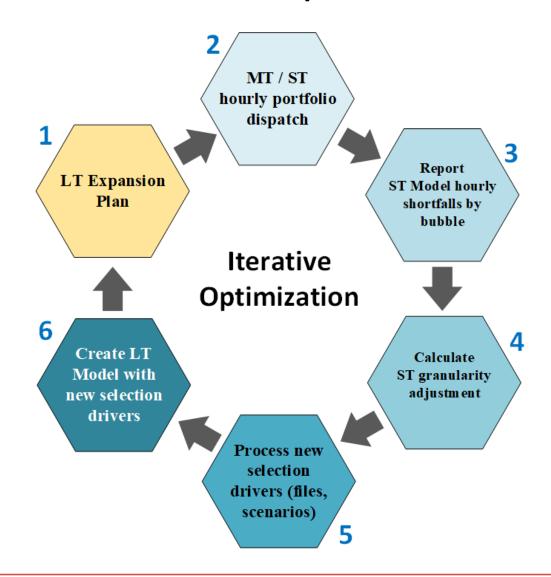
- Costs and risks from our customers' perspective (six states with retail load)
- A 20-year planning horizon
- Extensive stakeholder input and outreach
- Intensive data modeling and portfolio analysis



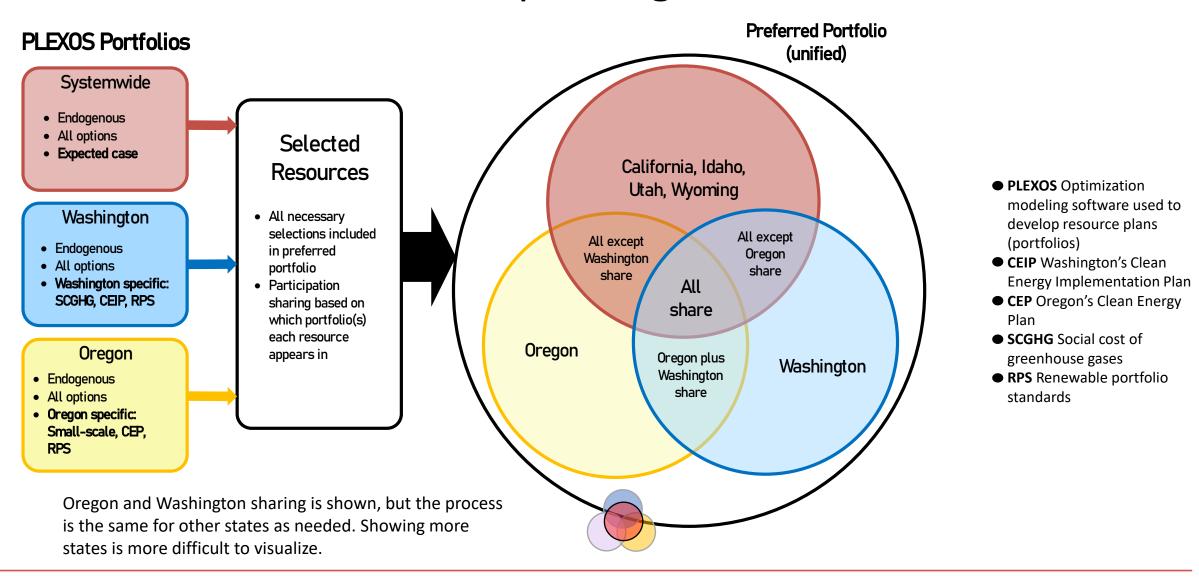
Portfolio Selection



Portfolio Development Process



Explaining the "Preferred Portfolio"

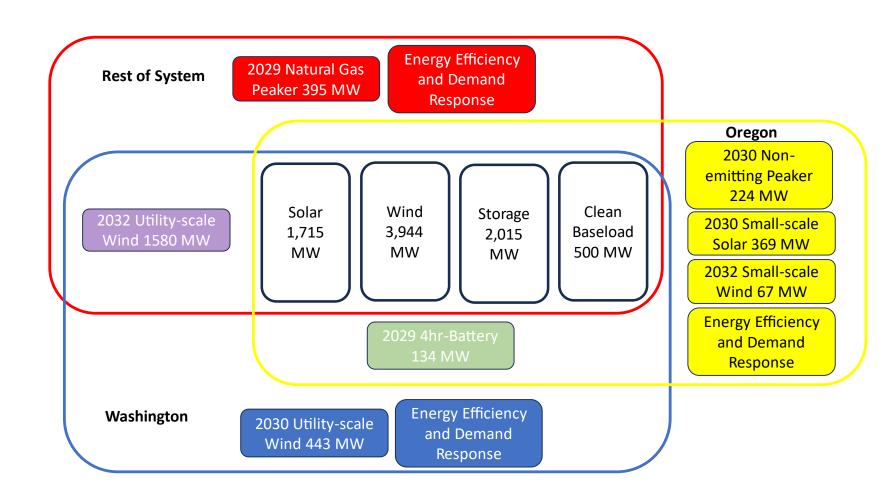


2023 IRP Update Preferred Portfolio through 2032

On April 1, 2024, PacifiCorp issued its 2023 IRP Update as an informational filing in Washington

The filing updates the Two-Year Progress Report filed May 31, 2023, and describes resource planning activities since that time. The report continues the company's commitment to maintain a long-term resource plan that considers cost, risk, uncertainty, and the long-run public interest.

Direct link: 2023 IRP Update.pdf (pacificorp.com)



2025 IRP Public Input Meeting Schedule

2025 IRP Upcoming Meeting Dates and Milestones Calendar Year 2024^{1,2}

Thursday, May 2, 2024 – General Public Input Meeting 3

Wed-Thurs June 26-27, 2024 – General Public Input Meeting 4

Wed-Thurs August 14-15, 2024 – General Public Input Meeting 5

Wed-Thurs September 25-26, 2024 – General Public Input Meeting 6

> September timeframe – Assumptions are locked down for November and December model runs

Wed-Thurs November 6-7, 2024 – General Public Input Meeting 7

Wed-Thurs December 18-19, 2024 – General Public Input Meeting 8

Calendar Year 2025

➤ January 1, 2025 - Distribution of the 2025 Draft IRP

Wed-Thurs January 22-23, 2025 – General Public Input Meeting 9

Wed-Thurs February 26-27, 2025 – General Public Input Meeting 10

➤ March 31, 2025 – Filing of the 2025 IRP

^{1.} Washington law accelerates the IRP draft and final filing by 3 months. Alignment for Washington has been achieved through approved parts of a waiver request. The CEIP schedule remains out-of-sync.

^{2.} The Public Input Meeting schedule has been reviewed to reasonably avoid conflicts with State Commission schedules and known events affecting stakeholders.

Feedback Form Update



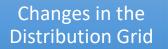
- Two feedback forms submitted to date
- Feedback forms and responses can be located at:
 IRP Stakeholder Feedback (pacificpower.net)
- Depending on the type and complexity of the feedback, responses may be provided in a variety of ways including, but not limited to, a written response, a follow-up conversation, or incorporation into subsequent public-input meeting material
 - Generally, written responses are provided with the feedback form and posted online at the link above

Additional Information

- 2025 IRP Upcoming Public Input Meetings:
 - May 2, 2024 (Thursday)
- Public Input Meeting and Workshop Presentation and Materials:
 - Public Input Process (pacificorp.com)
- 2025 IRP Feedback Forms:
 - o IRP Stakeholder Feedback (pacificpower.net)
- IRP Email / Distribution List Contact Information:
 - o <u>IRP@PacifiCorp.com</u>
- IRP Support and Studies:
 - o IRP Support & Studies (pacificorp.com)



Today's Agenda





Washington Clean
Energy
Implementation Plan
(CEIP) and Distribution
System Planning



Current
Distribution
System Planning



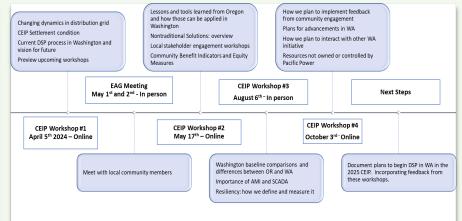
Baseline Data in Washington



Preview of Upcoming Workshops







Changes in the Distribution Grid



Electric Grid Overview

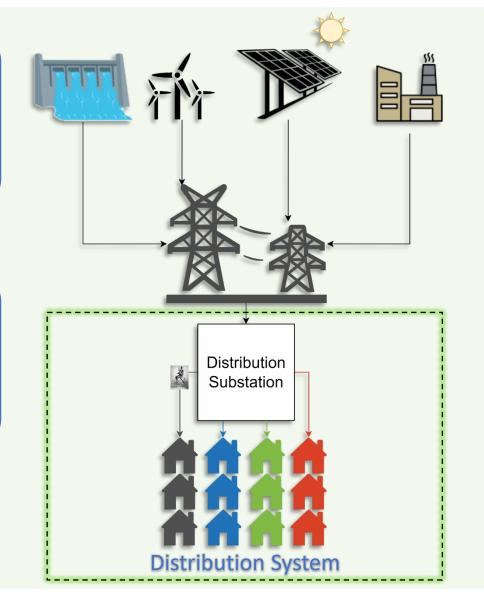


Generation and Transmission System

- Generates power from various resources
- Transmission lines transmits power from generation plants to distribution substations

Distribution System

- Starts at distribution substation and ends at customer meter
- Delivers power to consumers via poles and wires (overhead and underground)





The Modern Grid and Distribution System Planning (DSP)

Why is DSP Changing?

- Advancements to traditional DSP based on guidelines proposed by Oregon PUC staff
- Increased transparency of DSP processes to meet the needs and leverage the capabilities of the modern grid

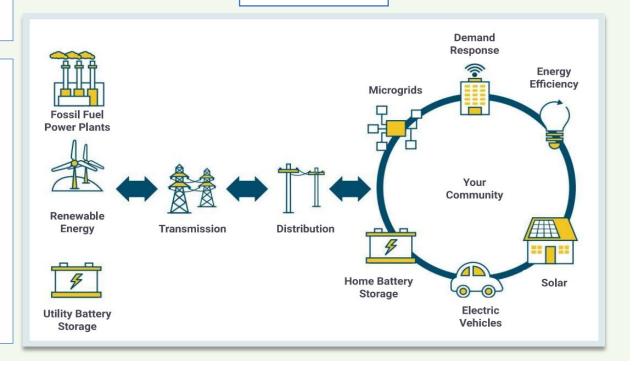
Key Changes to Traditional DSP

- Enhanced <u>forecasting</u>:
 - 24-hour demand profiles
 - Inclusion of incremental electric vehicle (EV) and solar adoption rates
- Evaluation of <u>nontraditional solutions</u> to address grid needs
- Increased <u>community engagement</u>

Past Grid



Modern Grid



Washington Baseline Overview



Distribution System

• Substations: 33 substations

• Circuits: 140

• Line miles (sum of pole-to-pole distance):

• Overhead: 3,363 miles

• Underground: 751 miles

Customers

• Residential: 114,450

• Commercial: 17,833

• Irrigation: 5,040

• Industrial: 479

Other Characteristics

- SCADA Coverage: 53% of circuits, 66% of substations
- No Advanced Metering Infrastructure (AMI)
- Net Metered DER Capacity: ~42 MW

Current Distribution System Planning in Washington



Traditional Distribution System Planning Study Process (5-Year Cycle)

Load Forecasting

Tasks Required:

- ✓ Review historical summer/winter peak load SCADA data at circuit breaker level
- ✓ Adjust for large load additions and planned system changes
- ✓ Adjust for large Distributed Generation additions

Load Flow Model Verification/Updates

Tasks Required:

- ✓ Review equipment and line data in load flow model
- ✓ Field verification and updating of load flow model

Identify Grid Needs

Tasks Required:

- ✓ Load flow analysis based on load forecast
- ✓ Identify and analyze grid need
- ✓ Identify timing requirements

Example Grid Needs:

- Voltage above/below acceptable limits
- Loading exceeds equipment rating

Identify Potential Solutions

Tasks Required:

✓ Identify primary solutions and alternatives to resolve grid needs

Solution Examples:

- Load transfer
- Phase balancing
- Capacitor bank
- Upgrade equipment

Develop Project Proposals

Tasks Required:

- ✓ Develop proposal for each project that includes:
 - Description of work to be performed
 - Purpose and Necessity
 - Risk Assessment
 - Alternatives
 Considered
 - Preliminary Cost Estimate

- ✓ Apply each solution to model and re-analyze
- ✓ Iterate until solutions have addressed issues



Distribution System Planning Studies vs. Ad-Hoc Studies

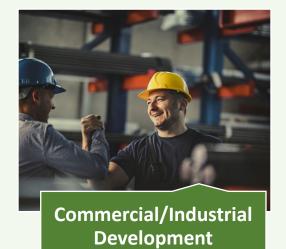
Distribution System Planning Studies

- Scheduled to be completed on a 5-year cycle
- 5–10-year planning horizon
- Schedule may shift depending on several factors (high load growth activity, large load additions, etc.)
- 13 planning studies are on 5-year cycle in Washington service area
- Study process takes multiple months

Ad-hoc Studies (Generation Interconnect or System Impact Study)

- Initiated by load, generation interconnection, or transmission service requests
- Focused on a limited area, and the immediate effects of the request on reliability and load service
- Shorter timeframes to meet customer needs (~120 days for initial study)
- Customer shares in solution costs and has input into what solutions are implemented

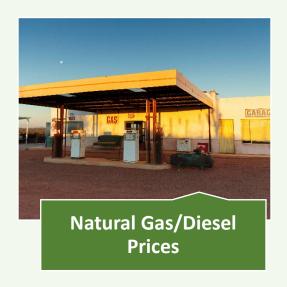
Drivers for load growth





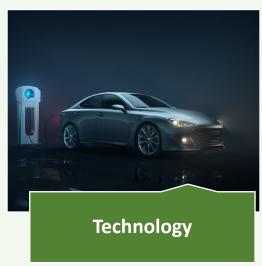




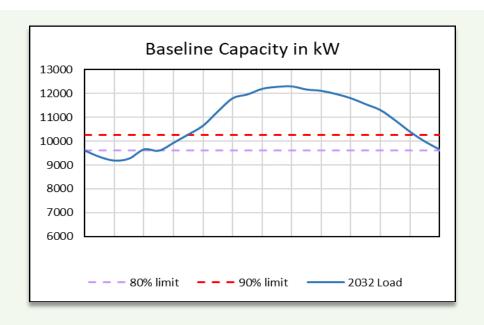


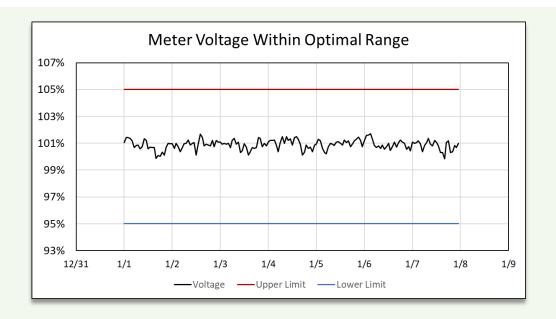






Types of Grid Needs





Capacity Demand exceeds capacity of distribution system equipment

Voltage | Voltage levels that result in unsatisfactory performance of customer equipment

Protection Expected loading conditions compromise the grid's ability to operate safely and reliably

Inefficiencies that result in avoidable power costs to the utility and can lead to other grid needs

Efficiency

Traditional Solutions: Poles, Wires, Equipment

Equipment Upgrades

➤ Increase capacity of system equipment

New Equipment

➤ New equipment to address voltage/protection needs or facilitate load transfers

New Substations and Circuits

Sometimes required in conjunction with other traditional solutions

Load Transfers

➤ Transfer load to circuits with spare capacity

Phase Balancing

➤ Balancing load among circuit wires

Settings Changes

➤ Update equipment settings to ensure safe and reliable service for expected loading conditions



Clean Energy Implementation Plan Settlement Condition



Clean Energy Implementation Plan Settlement Condition

Settlement Condition 25:

DSP Condition 1. 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 distribution 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 CEIP.

2024 WA Distribution System Planning Engagement

Changing dynamics in distribution grid

CEIP Settlement condition

Current DSP process in Washington and vision for future

Preview upcoming workshops

Lessons and tools learned from Oregon and how those can be applied in Washington

Nontraditional Solutions: overview

Local stakeholder engagement workshops

Community Benefit Indicators and Equity Measures

How we plan to implement feedback from community engagement

Plans for advancements in WA

How we plan to interact with other WA initiative

Resources not owned or controlled by Pacific Power

EAG Meeting May 1st and 2nd - In person

CEIP Workshop #3
August 6th - In person

Next Steps

CEIP Workshop #1 April 5th 2024 – Online CEIP Workshop #2 May 17th – Online CEIP Workshop #4
October 3rd Online

Meet with local community members

Washington baseline comparisons and differences between OR and WA

Importance of AMI and SCADA

Resiliency: how we define and measure it

Document plans to begin DSP in WA in the 2025 CEIP. Incorporating feedback from these workshops.



Date / Time / Meeting Format	Washington Equity Advisory Group 2024 Meeting Schedule Proposed Agenda Topics*
January 11, 2024 (1pm-4pm) Online	Transportation Electrification New Programs (WA) Residential Demand Response (DR) Program General Rate Case Background Information & Updates
February 8, 2024 (1pm-4pm) Online	Weatherization Presentation Transportation Electrification Integrated Resource Planning (IRP) Introduction
March 14, 2024 (1pm-4pm) Hybrid: WorkSource Yakima	Community Connections: • South Central Workforce Council Presentation Activity: Revisiting Community Priorities Energy Efficiency Updates
April 11, 2024 (1pm-4pm) Online	Emergency Management & Preparedness Presentation • Horace Ward (Sr. Emergency Management Specialist) • Distribution System Planning (DSP) Introduction Integrated Resource Planning (IRP) Update
May (Dates TBD)	Local, in-person visits with the WA Equity Advisory Group • May – Wildfire Awareness Month
June 13, 2024 (1pm-4pm) Online	Integrated Resource Planning (IRP) Update Energy Efficiency Updates
July 11, 2024 (1pm-4pm) Online	Clean Energy Implementation Plan (CEIP) Annual Progress Report Demand Response Program Updates Disconnections Presentation
August	No Meeting
September 12, 2024 (1pm-4pm) Hybrid: Marcus Whitman Hotel & Conference Center 2nd Floor Boardroom	Community Connections: • Blue Mountain Action Council Presentation Energy Efficiency Updates: • (Preview 2025 Annual Conservation Plan including potential updates to Utility Actions and preview 2025 program changes) Integrated Resource Planning (IRP) Update
October 10, 2024 (1pm-4pm) Online	Communications Update (Community Case Studies) Multi-Family Electric Vehicle Supply Equipment (EVSE) Program
November	No Meeting
December 12, 2024 (1pm-4pm) Online	End of the Year Reflection; 2025 Planning

Planned 2024

DSM Advisory Group Meetings, Drafts for DSM AG Review, Filings

March

Advisory Group meeting #1 March 26

System Benefits Charge Review (Schedule 191)

Schedule 191 (SBC) Filing

If no change, draft request for exception to DSM AG by Mar 31, file by May 1

If change needed, draft filing to DSM AG by May 1, file by June 1 April

April 5:

CEIP Meeting - all Advisory Groups and open to the public. IRP/CEIP Update, Distribution System Planning (DSP) in WA, and a preliminary look into the upcoming Vulnerable Population Workshops May

Advisory Group meeting #2

2023 Annual Report 2022-2023 Biennial Conservation Report

NEI applications

CPA market and measure characterization

May 1:

SBC Exemption filing (if needed)

May 1:

Draft 2023 Annual Report and 2022-2023 Biennial Conservation Report to DSM AG

May 15:

Comments on reports due

May 17:

CEIP Meeting - more updates, diving into Distribution System Planning, and Vulnerable Population Background Information June

June 1:

File 2023 Annual Conservation Report and Commerce Report

File 2022-2023 Biennial Conservation Report

SBC filing (if needed)

July

July 1:

File CEIP Progress Report (on 2023)

ACP: Annual Conservation Plan **BCP:** Biennial Conservation Plan

CEIP: Clean Energy Implementation Plan

DSM AG: Demand-side Management Advisory Group

Planned 2024

DSM Advisory Group Meetings, Drafts for DSM AG Review, Filings

August

August 6:

CEIP Hybrid Meeting 2025 IRP/CEIP Updates, CEIP Progress Report, continue the discussion into Distribution System Planning.

September

Advisory Group meeting #3

1/1/2025 program changes 2025 Annual Conservation Plan

Sept 16:

Program change documents to DSM AG

(incorporating RTF UES and protocols expected as of 10/1/2024 RTF cutoff date)

Comments on program change docs due

October

Oct 15:

Draft 2025 Annual **Conservation Plan**

Oct 30:

Comments on draft ACP due

November

Nov 15:

File 2025 Annual **Conservation Plan**

Nov 15:

Home Energy Savings and Wattsmart Business program changes for 1/1/2025 announced on website

December

Advisory Group meeting #4

Draft 2025 Communications Plan

ACP: Annual Conservation Plan **BCP:** Biennial Conservation Plan

CEIP: Clean Energy Implementation Plan

DSM AG: Demand-side Management Advisory Group

Sept 30:

Low Income Advisory Group

LIAG Meeting - April 2024 (Date TBD)

Under Docket UE-230172 Settlement Stipulation – Company will work with LIAG and EAG to discuss and seek consensus regarding the following:

- Develop enhancements to Low Income Bill Assistance (LIBA) program
 - Number of discount tiers
 - Use of self-declaration of income with eligibility verification for a randomly selected group
- Create an Arrearage Management Plan (AMP)
- Community-based organization outreach program
- Changing the billing logic so that federal assistance is applied before bill discount

Based on discussions, PacifiCorp propose package addressing above by April 30, 2025, requesting Commission approval before October 1, 2025

On-going 2024 CEIP Engagements

CEIP Engagement

- Integrated Resource Planning
- CEIP Updates filing updates
- Distribution System Planning
- Vulnerable Population
- Customer Benefit Indicators
- Resource-side and Demand-side Resources
- Incremental Cost Calculations

Distribution System Planning

For 2024, Distribution System Planning (DSP) will be a part of the CEIP

- Background of DSP today
- Advancements to DSP May 17th CEIP Engagement
- Differences and Challenges in DSP August CEIP Engagement
- Implementation and next steps November CEIP Engagement

Vulnerable Population Workshops

Three Vulnerable Population Workshops consisting of:

- Background on current methods for identifying the Vulnerable Population
 May 17th CEIP Engagement
- Walk through and discuss settlement condition's factors – August Workshop (2 hours)
- Review results from the workshops –
 October Workshop (2 hours)

For more information:

Washington Clean Energy Implementation Plan

Public Comment



Appendix

