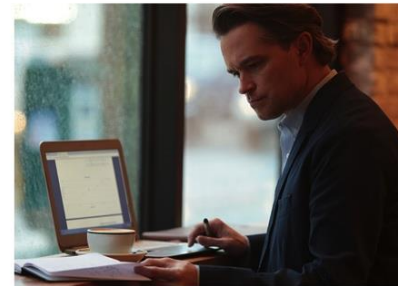


Washington CEIP Technical Workshop

October 19th, 2021
1-3 pm pacific time



Meeting Agenda

1:00-1:15 pm pacific: Introductions

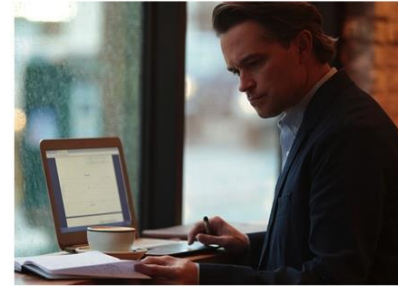
1:15-1:45 pm pacific: Resource Planning and Incremental Cost

1:45-2:15 pm pacific: CBI Update

2:15-2:45 pm pacific: Update on other utility actions

2:45-3:00 pm pacific: Wrap-up and Next Steps

Resource Planning and Incremental Cost



Resource Planning and the CEIP

- The 2021 Integrated Resource Plan (IRP) was developed using the Plexos Long-Term (LT) planning model, Medium-Term (MT) schedule and Short-Term (ST) Model to optimally develop a range of least-cost least-risk portfolios under various policy and cost environments. The policy and cost scenarios include:
 - low, medium, and high natural gas prices
 - zero, medium and high carbon dioxide prices
 - an additional scenario including the social cost of greenhouse gasses
- The CEIP is informed by the IRP preferred portfolio of resources.
- Evaluation of the resulting set of portfolios informed the selection of the 2021 IRP Preferred Portfolio: the top-performing portfolio over a range of metrics including expected costs, low-probability high-cost outcomes, reliability and carbon dioxide emissions, which also demonstrates the ability to meet the requirements of RCW 19.405.040 and 19.405.050.
- The preferred portfolio of resources was analyzed to be the top-performing portfolio that specifically meets CETA targets.

PacifiCorp's IRP-to-CEIP workplan provides additional detail on how the IRP informs CEIP development:

<https://www.pacificorp.com/energy/washington-clean-energy-transformation-act-equity.html>

Incremental Cost Calculation

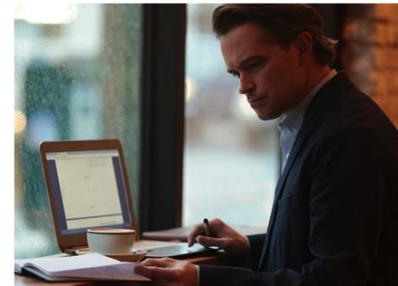
- The incremental cost of meeting CETA's requirements will be determined by the difference between the preferred portfolio of resources that meets CETA targets and the alternative lowest reasonable cost portfolio that would have resulted from the IRP in the absence of CETA, plus differences in costs not modeled in the IRP.
- Additional costs not modeled in the IRP would include:
 - Costs of CETA implementation like the EAG
 - Equity consideration in DSM program
 - Currently, these costs are estimated to be in the \$2 million range annually
- To derive the incremental cost from the IRP portfolios, the preferred portfolio of resources that meets CETA targets would be compared to the alternative reasonable lowest cost portfolio that would have resulted in the absence of CETA:
 - Costs for each portfolio are derived using build costs (LT model) and variable and fixed costs (ST model) with a risk-adjusted premium (MT model).
 - The delta between the portfolios in capital investments, variable and fixed costs are used to derive the incremental cost of CETA – moving from the alternative portfolio to the preferred portfolio of resources.
 - Example costs can include incremental energy efficiency or resource acquisitions added for the purpose of meeting CETA targets.
- The actual calculation of incremental cost is subject to ongoing discussions with Washington staff to decide on the best implementation of the rules for the PacifiCorp system. Methodologically, the process will not change.

Incremental Cost Calculation

- Example of incremental cost calculation:

<u>Incremental Cost/Revenues Comparison</u>				
	(\$million)		<u>Compliance Year</u>	
<u>Description of Incremental Cost/Revenues</u>	2022	2023	2024	2025
<u>Fixed Costs</u>				
<i>Capital Investments</i>	0.00	0.00	0.00	0.00
<u>Variable Costs</u>				
<i>Energy Efficiency</i>	0.79	1.81	2.51	3.35
<i>Net Power Costs</i>	(0.23)	0.00	3.16	1.27
Total	\$0.56	\$1.81	\$5.67	\$4.62
	NPV	\$10.30		

Revised Draft Customer Benefit Indicators and Metrics



Bold benefit categories are specific to named communities

Revised Draft CBIs and Metrics

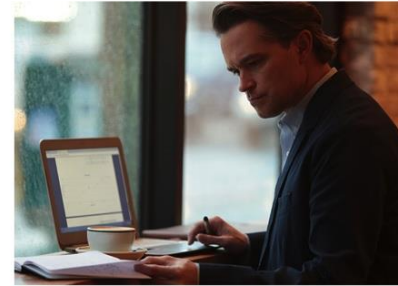
CBI	Benefit Category	Metric
Households experiencing high energy burden	<ul style="list-style-type: none"> • Cost Reduction • Reduction of burden 	<ul style="list-style-type: none"> • Number of customers suffering from high energy burden by: HICs, vulnerable populations, low-income bill assistance (LIBA) and Low-Income Weatherization participants, and other residential customers
Participation in company energy and efficiency programs and billing assistance programs	<ul style="list-style-type: none"> • Cost reduction • Reduction of burden • Non-energy benefit • Energy benefit 	<ul style="list-style-type: none"> • Number of households/businesses, including named communities, who participate in company energy/efficiency programs • Percentage of households that participate in billing assistance programs • Number of households/businesses who participate/enroll in demand response, load management, and behavioral programs
Indoor air quality	<ul style="list-style-type: none"> • Public health • Non-energy benefit 	<ul style="list-style-type: none"> • Number of households using wood as primary or secondary heating
Frequency and duration of energy outages	<ul style="list-style-type: none"> • Energy resiliency • Risk reduction • Energy benefit 	<ul style="list-style-type: none"> • SAIDI, SAIFI, and CAIDI* at area level including and excluding major events
Residential customer disconnections	<ul style="list-style-type: none"> • Energy security 	<ul style="list-style-type: none"> • Number of residential customer disconnections including disconnections within named communities

Bold benefit categories are specific to named communities

Revised Draft CBIs and Metrics

CBI	Benefit Category	Metric
Culturally and linguistically responsive outreach and program communication	<ul style="list-style-type: none"> • Reduction of burdens • Non-energy benefit 	<ul style="list-style-type: none"> • Outreach in non-English languages • Percentage of responses to surveys in Spanish
Community-focused efforts and investments	<ul style="list-style-type: none"> • Non-energy benefit • Reduction of burden 	<ul style="list-style-type: none"> • Workshops on energy related programs • Headcount of staff supporting program delivery in Washington who are woman, minority, or can show disadvantage for energy efficiency programs with exception to low income
Efficiency of housing stock and small businesses, including low-income housing	<ul style="list-style-type: none"> • Energy benefit 	<ul style="list-style-type: none"> • Number of households and small businesses that participate in company energy/efficiency programs • Energy efficiency expenditures • Gas to electric conversions for Low-Income Weatherization program
Renewable energy resources and emissions	<ul style="list-style-type: none"> • Environmental 	<ul style="list-style-type: none"> • Amount of renewables/non-emitting resources serving Washington • Washington allocated greenhouse gas emission from Washington allocated resources • Number of public charging stations in named communities

Draft CEIP Utility Actions



What is a CEIP Utility Action?

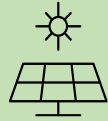
Utility actions are a mix of **resources or programs** that can be implemented to meet specific requirements.

To be included in the CEIP as a utility action, a program or proposal must be directly attributable to PacifiCorp's obligations under Washington statutes RCW 19.405.040 and 19.405.050. These statutes create a number of obligations, including:

- Ensure that all retail sales to Washington electric customers are GHG neutral by January 1, 2030.
- Ensure that non-emitting electric generation and renewable electricity supply 100 percent of all sales of electricity by January 1, 2045.
- Ensure that all customers benefit from the transition to clean energy.

If a utility is required to offer a program or take an action by a different law, then that program or action will not be identified in the CEIP as a utility action, even if it is consistent with CETA. For example, the Modified Low Income Bill Assistance program supports CETA objectives but is not included in the CEIP as a “utility action” because it is required by a different law.

Types of CEIP Utility Actions



RESOURCES

These actions support PacifiCorp to generate more electricity from carbon-free and non-emitting resources for their 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.



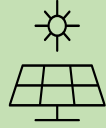
ENERGY EFFICIENCY

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.



RESOURCES

- By 2024, add battery storage capacity and new renewable (wind and solar) resources
- By 2026, add needed renewables and storage (those to be added before 2025 will be included in the CEIP)

Resources coming onto the PacifiCorp system will contribute to the Company's progress toward meeting the clean energy requirements in Washington.

Project Name	Technology Type	Location	Resource Capacity (MW)	Battery Capacity (MW)
Anticline	Wind	Wyoming	100.5	n/a
Cedar Springs IV	Wind	Wyoming	350.4	n/a
Rock Creek I*	Wind	Wyoming	190	n/a
Rock Creek II*	Wind	Wyoming	400	n/a
Boswell Springs	Wind	Wyoming	320	n/a
Two Rivers	Wind	Wyoming	280	n/a
Cedar Creek	Wind	Idaho	151	n/a
Rocket Solar II	Solar with Battery	Utah	45	12.5
Fremont	Solar with Battery	Utah	99	49.5
Rush Lake	Solar with Battery	Utah	99	49.5
Parowan	Solar with Battery	Utah	58	58
Hornshadow I	Solar with Battery	Utah	100	25
Hornshadow II	Solar with Battery	Utah	200	50
Green River I & II	Solar with Battery	Utah	400	200
Hamaker	Solar with Battery	Oregon	50	12.5
Hayden 2	Solar with Battery	Oregon	160	40
Dominguez I	Battery Storage System	Utah	n/a	200
Glen Canyon	Solar Photovoltaic	Utah	95	n/a

Update on 2022AS RFP – Supply Side Resource Actions

- On September 1, 2021, in docket UE-200420, PacifiCorp filed its 2021 Integrated Resource Plan (IRP). According to Washington’s Electric Companies – Purchases of Resources rules,^[1] “a utility must issue an all-source RFP if the IRP demonstrates that the utility has a resource need within four years.” PacifiCorp determined that a 2022AS RFP is required to pursue resource need identified in its 2021 IRP Action Plan; specifically, the 2021 IRP preferred portfolio includes the following incremental resources:
 - 1345 megawatts (MW) of new proxy supply-side generation resources and 600 MW of collocated energy storage resources with commercial operation date by December 31, 2026; and
 - 274 MW of new proxy demand-side resources.
- PacifiCorp will consider proposals offering the following transaction structures:
 - benchmark transaction whereby the utility proposes the project;
 - build-transfer transaction; power purchase agreement transaction;
 - tolling agreement transaction; and
 - professional services contracts for demand-side bids
- Because PacifiCorp anticipates it will participate in the 2022AS RFP bidding process by considering build-transfer and benchmark transactions, PacifiCorp is required to engage an IE to provide oversight, assess and report on the solicitation process.

^[1] WAC 480-107-009(2)

Update on 2022AS RFP – Supply Side Resource Actions Continued

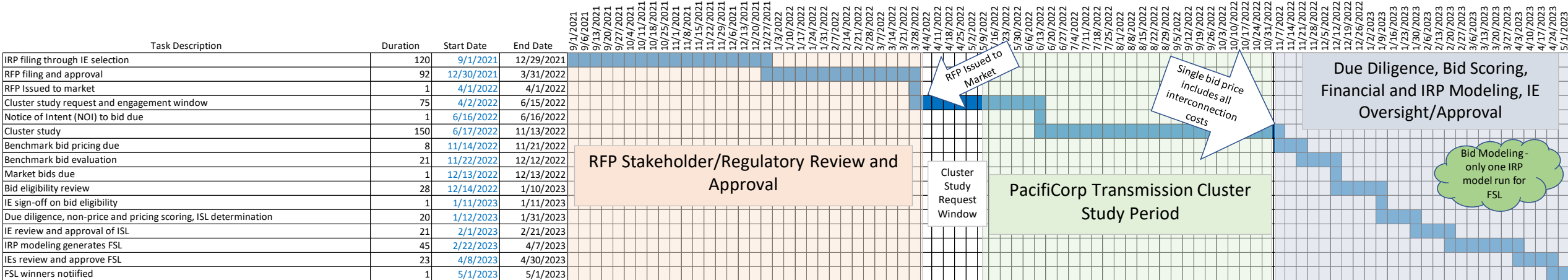
- Washington’s Purchases of Resources rules^[1] require that “[a] utility must engage the services of an independent evaluator (“IE”) to assess and report on the [RFP] solicitation process if:
 - a) The utility or its subsidiary or affiliate participates in the utility's RFP bidding process;
 - b) The utility intends to retain the option to procure resources that will result in the utility owning or having a purchase option in the resource over its expected useful life; or
 - c) The utility is considering repowering its existing resources to meet its resource need.”
- After consulting with Washington utilities and transportation commission (“Commission”) staff and PacifiCorp’s Washington stakeholders, PacifiCorp issued a solicitation for a Washington IE.
- On October 7, 2021 PacifiCorp filed a petition with the Commission requesting the Commission approve the recommended IE as part of its open meeting agenda on Friday, November 12, 2021.
- PacifiCorp has continued to present information about the IE solicitation on its website and at public meetings including the expected RFP timeframe, and the means by which interested parties could participate in the IE and RFP approval processes.
 - <https://www.pacificorp.com/suppliers/rfps/wa-ie-rfp.html>
- Since the September CEIP technical conference, in response to concerns about the RFP schedule, PacifiCorp has proposed a change to its RFP Process and schedule.

[1] WAC 480-107-023(1)

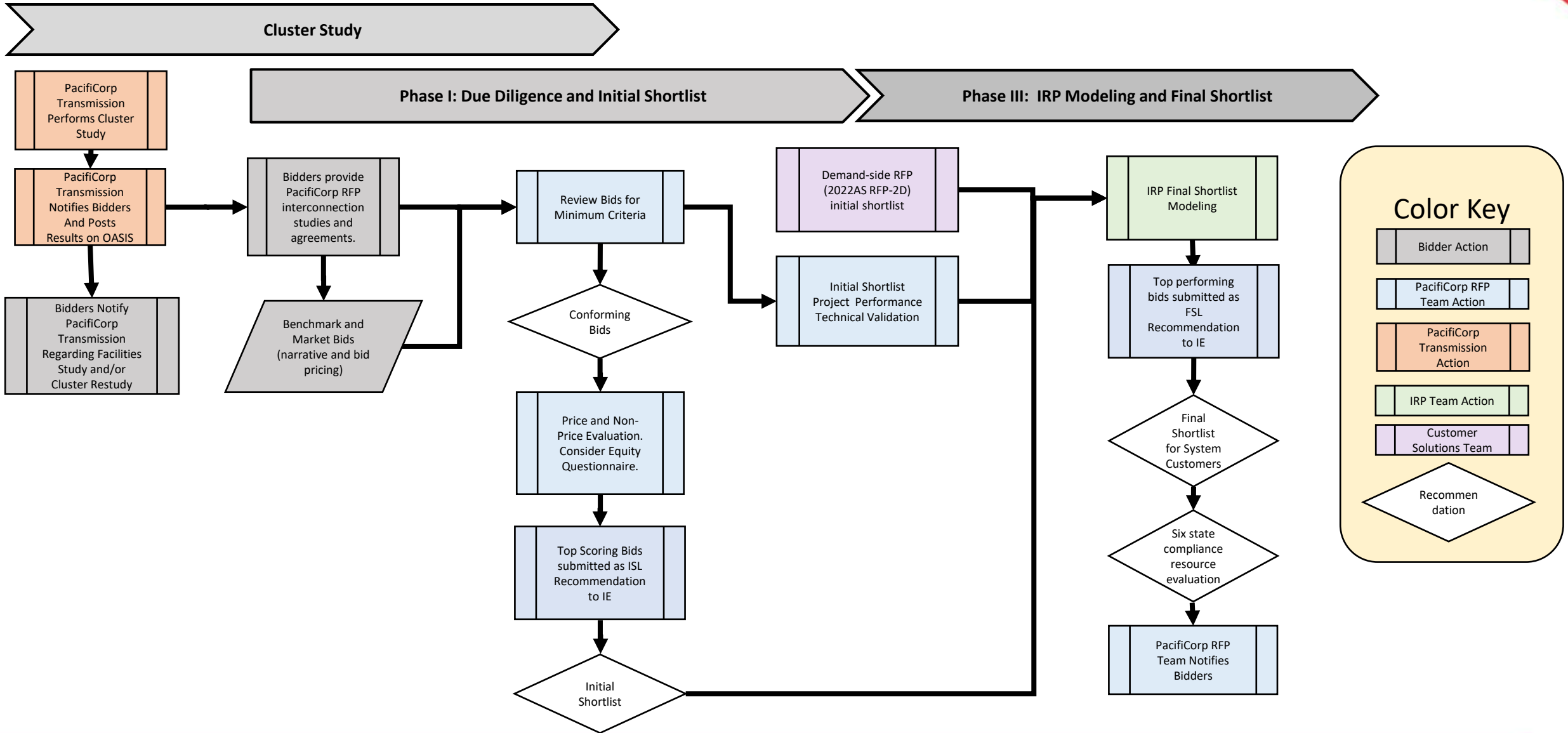
Proposed 2022AS RFP Process

PROPOSED RFP SCHEDULE

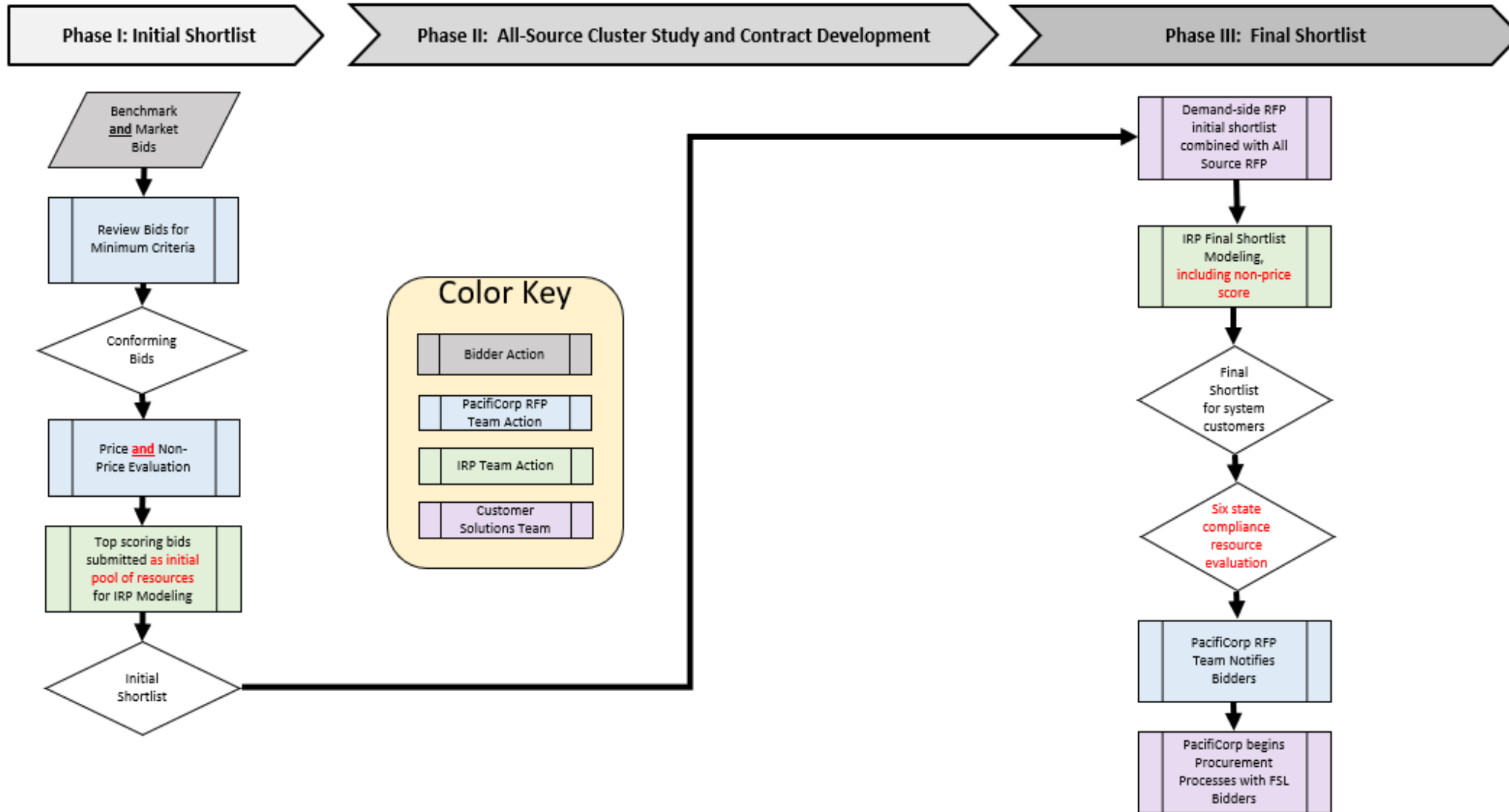
RFP DURATION	RFP START DATE	RFP END DATE
607	9/1/2021	5/1/2023



2022AS RFP - Proposed Evaluation Process



2022 Demand-side RFP - Proposed Evaluation Process



Update on 2022AS RFP Schedule

Milestone	Date
Washington IE RFP issued	09/10/2021
Washington IE bids due	09/24/2021
Washington Commission (WUTC) public meeting to approve IE	11/12/2021
PacifiCorp files 2022AS RFP with WUTC	12/30/2021
WA interested persons – deadline to file comments on 2022AS RFP	02/14/2022
WUTC public meeting – seek approval of 2022AS RFP	03/17/2022
2022AS RFP issued to market	Early April 2022
Notice of intent to bid due	June 2022
Demand-side RFP Issued to Market	Q2 2022
2022AS RFP bids due	December 2022
Final Shortlist Recommendation	Q2 2023



COMMUNITY OUTREACH & ENGAGEMENT

- Provide the infrastructure for greater participation in utility programs (translation, outreach, incentives, bill assistance, grants, and education)
- Improve language accessibility



Language

Improve language accessibility by assessing needs, reviewing current programs, identifying gaps, and developing clear plans and processes for action



Education

Develop a webpage to host educational resources



Outreach

Continue to identify and expand outreach to non-profits that provide services to named communities with the goal of increasing grant applications and approvals



EV Grant

Establish an Electric Vehicle (EV) Supply Equipment Grant program that provides additional support for low income and customers living in multi-family dwellings

Deliver new demand response (DR) resources in WA by the end of 2025

- Proposed DR programs provide incentive payments to customers to induce lower electricity use during critical times.
- All demand response programs will be new to Washington, most programs are expected to launch in Q1 of 2022.
- Intend to make programs available for residential, commercial, industrial and irrigation customers.
- Demand response first identified as a result of the 2019 IRP initiated the process of procuring DR resources via an RFP.
- The 2021 IRP identified 78 MW of cost-effective DR that included planned resources as well as additional demand response resources.
- In response to cost-effectiveness outcomes in the 2021 IRP, PacifiCorp expects to leverage the DR RFP to acquire 38 MW of DR between 2022-2025.



DEMAND RESPONSE

- The 2019 IRP identified a need for new demand response programs beginning an RFP procurement process.
- New programs are expected to be available to residential, business, and irrigation customers.

Year	2022	2023	2024	2025	Total
Draft CEIP DR Target (Incremental MW)	8	14	10	6	38
Draft CEIP DR Target (Cumulative MW)	8	22	32	38	38



ENERGY EFFICIENCY

- Deliver programs to help customers improve energy efficiency and save energy/money
- Target named communities



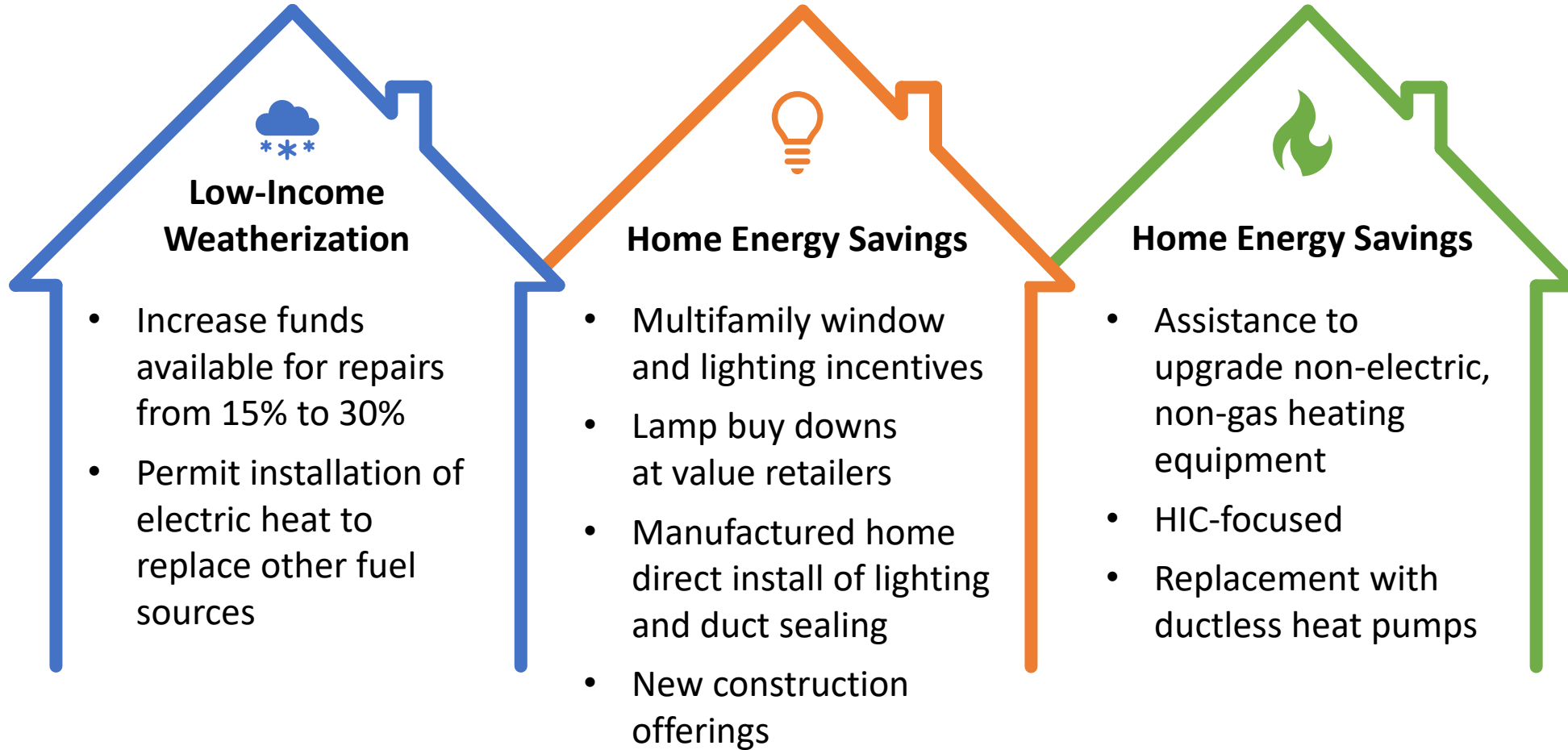
Continue to deliver energy efficiency programs and savings*

- Energy efficiency programs are available to residential, business, and irrigation customers
- Increased focus on delivery to named communities
- At least 202,367 MWh* of energy efficiency by the end of 2025 (equivalent to energy use from approximately 26,000 homes)¹
- Includes Home Energy Reports
- Exceeds sum of 2022-2025 energy efficiency selections (156,018 MWh) from the 2021 IRP preferred portfolio

¹ EPA Calculator: <https://www.epa.gov/energy/greenhouse-gas-equivalencies-calculator>



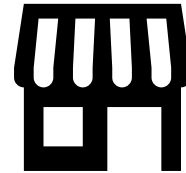
Residential Customer Energy Efficiency Actions





Business Customer Energy Efficiency Actions

Small Business Offerings through Wattsmart Business



- Continue enhanced lighting retrofit incentives
- New offer for smallest of small businesses and those located in HICs
 - Higher incentive cap: up to 100% of project costs to reduce/eliminate out of pocket cost barriers

Access



- Target small businesses in HICs with outreach campaign
- Offer higher vendor incentives for completed projects with small businesses in HICs



Participation Tracking/Reporting CEIP Utility Actions Starting in 2022

Low-Income Weatherization

- Participants:
 - Located in a highly-impacted community
 - Whose primary language spoken is other than English
 - Who rent or lease rather than own
 - Living in a manufactured home

Home Energy Savings

- Participants:
 - Located in a highly-impacted community
 - Whose primary language spoken is other than English
 - Who rent or lease rather than own
 - Living in a manufactured home
 - Living in a multi-family unit

Wattsmart Business

- Participants:
 - Located in a highly-impacted community
 - Whose primary language spoken is other than English
 - Who rent or lease rather than own
 - Who are small businesses

Energy Efficiency Action Example – Wattsmart Business Program

Tactic

Target proactive vendor outreach and increase lighting retrofit incentives for highly-impacted community (HIC) small businesses, very small businesses

Applicable CBIs

Participation in company energy and efficiency programs and billing assistance programs

Measurement & Metrics

Number of projects completed at small businesses, including named communities

Number of projects completed at very small businesses, including named communities

CEIP Next Steps

Continued Opportunities for Feedback:

- 10/20/2021 – Equity Advisory Group Meeting (6A)
- 11/10/2021 – CEIP Third Public Meeting
- 11/17/2021 – Equity Advisory Group Meeting (6B)
- No later than 1/1/2022 – CEIP Filed

To join the CEIP distribution list or submit comments, questions, and recommendations, please contact us at: CEIP@pacificorp.com

The most up-to-date materials, meeting dates, and information can be found at:

<https://www.pacificorp.com/energy/washington-clean-energy-transformation-act-equity.html>