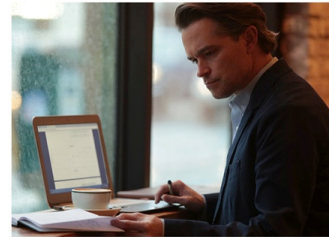


Washington

Demand-side Management Advisory Group

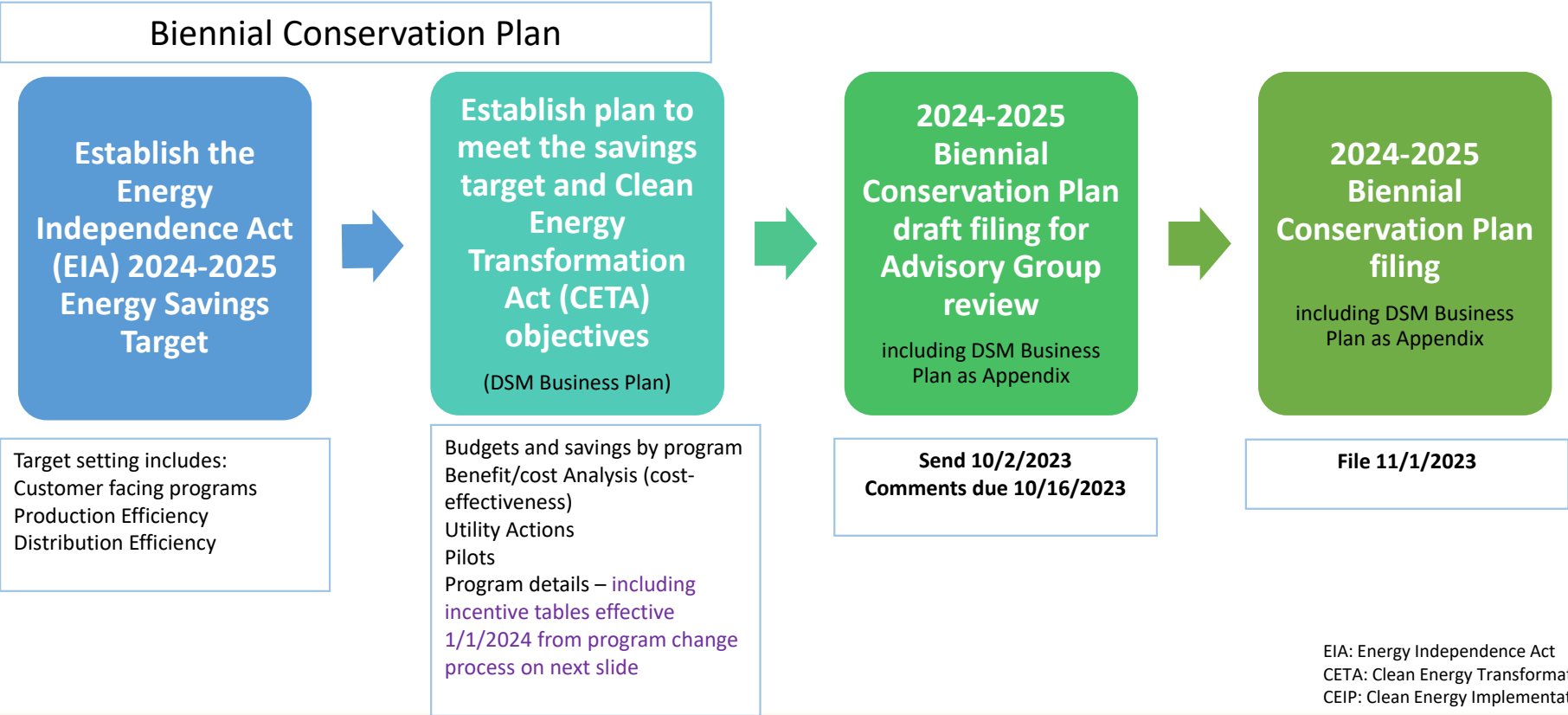
(open to all advisory groups and the public)

August 31, 2023

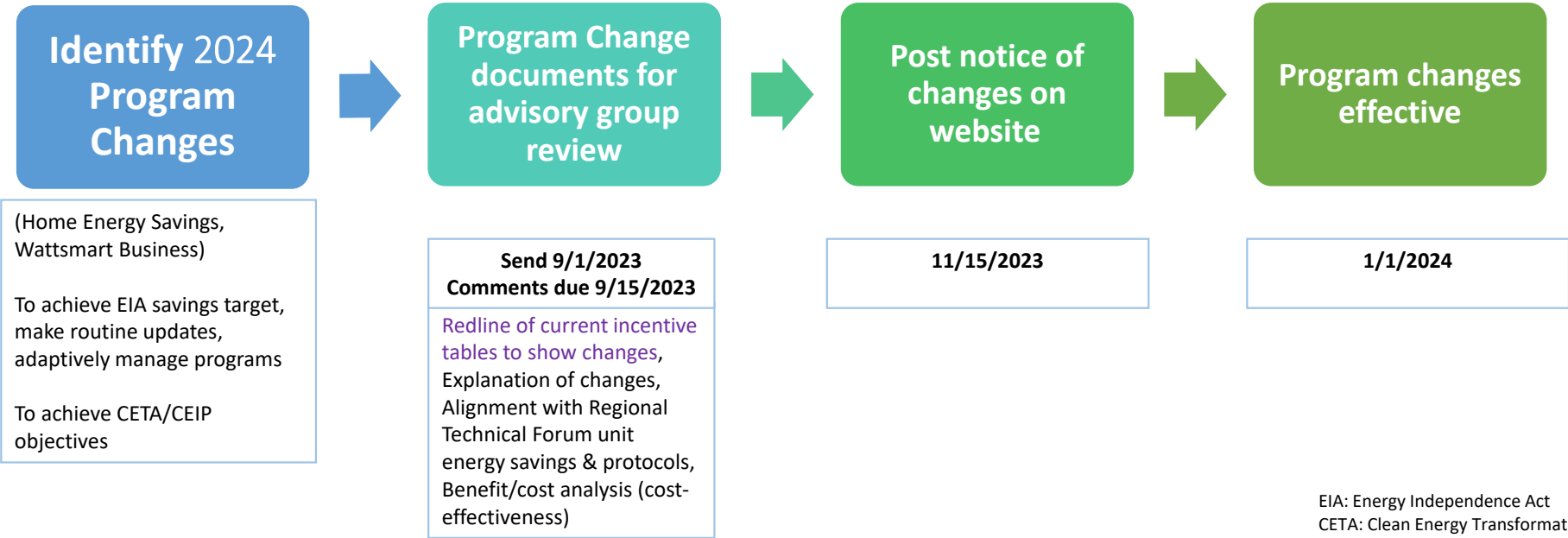


- Brief overview/roadmap of Biennial Conservation Planning
- Draft 2024-2025 Savings Target
- Draft DSM Business Plan: program details, program budgets to meet 2024-2025 target
 - Budgets and savings by program
 - Preview of planned 2024 program changes (including adaptive management, utility actions for Home Energy Savings, Wattsmart Business)
 - Preview of rest of Utility Actions
- 2022-2023 DSM Forecast
- Updates
 - Demand Response – Electric Vehicle Managed Charging Pilot
 - Wrap-up

Biennial Conservation Plan Process



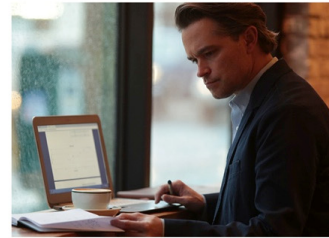
Program Change Process



EIA: Energy Independence Act
CETA: Clean Energy Transformation Act
CEIP: Clean Energy Implementation Plan

Draft 2024-2025 Savings Target

Peter Schaffer



2024-2025 Target Setting – WAC rule and Condition 3f

Docket UE-210830 Order 01 Attachment A	3f	Prior to filing the 2024-2025 Biennial Conservation Plan, PacifiCorp must provide the following information to the Advisory Group: draft ten-year conservation potential, revised four-year target, and two-year target by August 1, 2023; draft program details, including budgets, by September 1, 2023; and draft program tariffs by October 2, 2023.
WAC 480-109-100	2	(2) Ten-year conservation potential. By January 1, 2010, and every two years thereafter, a utility must project its cumulative ten-year conservation potential.
WAC 480-109-100	2a	(a) This projection must consider all available conservation resources that are cost-effective, reliable, and feasible.
WAC 480-109-100	2b	(b) This projection must be derived from the utility's most recent IRP, including any information learned in its subsequent resource acquisition process, or the utility must document the reasons for any differences.
WAC 480-109-100	2b	(b) (cont.) When developing this projection, utilities must use methodologies that are consistent with those used in the Northwest Conservation and Electric Power Plan.
WAC 480-109-100	2c	(c) The projection must include a list of each measure used in the potential, its unit energy savings value, and the source of that value.
WAC 480-109-100	3a,b	(3) Biennial conservation target. Beginning January 2010, and every two years thereafter, a utility must establish a biennial conservation target. (a) The biennial conservation target must identify, and quantify in megawatt-hours, all available conservation that is cost-effective, reliable, and feasible. (b) The biennial conservation target must be no lower than a pro rata share of the utility's ten-year conservation potential.

2023 IRP Selections

LT_13338_23I.LT.RP.20.PA1_.EP.MM.PP-D3 29 v109.9

Energy Efficiency (excluding Home Energy Report)*

1st Year Energy Efficiency Energy (MWh) Selected by State and Year

State	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
WA	53,112	40,313	47,072	35,018	39,718	45,721	45,802	48,201	47,697	44,313

- First step is to evaluate first year energy efficiency savings from the Company's preferred portfolio (2023 Integrated Resource Plan) as this forms the basis of our target.
- Preferred portfolio in WA includes social cost of carbon and non-energy impacts.
- Totals do NOT include Home Energy Reports

Draft HER forecast/adjustment

Pacific Power WA - (@ site kWh)		
	2024	2025
2020 Email kWh	1,472,000	1,289,000
2020 Paper kWh	465,000	421,000
2021 Paper&Email kWh	608,000	498,000
2023 Expansion Wave kWh	1,667,203	1,533,495
Total kWh	4,212,203	3,741,495
2020 Email Users	14,821	13,007
2020 Paper Users	14,456	13,141
2021 Paper&Email Users	8,059	6,642
2023 Expansion Wave Users	18,099	16,724
Pacific Power Washington (@gen kWh)		
Treatment Group Category	2024	2025
2020 Email kWh	1,584,991	1,387,944
2020 Paper kWh	500,693	453,316
2021 Paper&Email kWh	654,670	536,226
2023 Expansion Wave kWh	1,795,177	1,651,206
Total kWh	4,535,531	4,028,692
2020 Email Users	14,821	13,007
2020 Paper Users	14,456	13,141
2021 Paper&Email Users	8,059	6,642
2023 Expansion Wave Users	18,099	16,724

Home Energy reports have been delivered in Washington since 2012. Savings are represented in the load forecast based on historical achievements. To avoid double counting, they are only characterized as incremental in the Conservation Potential Assessment/ Integrated Resource Plan. Therefore, we add forecasted savings onto the target to reflect expected achievements.

2023 expansion wave delayed from August to September 2023 with 2024 being the first full year for that cohort.

NEEA forecast/adjustment

		NEEA Reported Savings Estimate (aMW)		
		2024	2025	Total
Pacific Power's Share				
Total for NEEA's Portfolio		0.51	0.65	1.16
Program Measures		0.35	0.39	0.74
Residential	Total	0.33	0.38	0.71
	Ductless Heat Pumps	0.06	0.08	0.14
	Extended Motor Products	0.02	0.02	0.03
	Heat Pump Water Heaters	0.06	0.08	0.14
	Manufactured Homes	0.00	0.00	0.01
	Refrigerators/Freezers	0.04	0.04	0.08
	Clothes Washers	0.06	0.06	0.12
	Clothes Dryers	0.03	0.03	0.06
	Room Air Conditioners	0.00	0.00	0.00
	Televisions	0.06	0.06	0.12
	Air Cleaners	TBD	TBD	TBD
	Home Audio	TBD	TBD	TBD
Commercial	Total	0.02	0.02	0.04
	Extended Motor Products	0.01	0.01	0.03
	High Performance HVAC	0.00	TBD	0.00
	Luminaire Level Lighting Controls	0.00	0.01	0.01
Codes & Standards		0.16	0.25	0.42
Residential	Total	0.10	0.14	0.24
	Residential New Construction	0.09	0.14	0.23
	Consumer Products (Standards)	0.00	0.01	0.01
Commercial	Total	0.07	0.11	0.17
	Commercial New Construction	0.05	0.10	0.15
	Commercial Products (Standards)	0.01	0.01	0.03
Industrial	Total	0.00	0.00	0.00
	Industrial Products (Standards)	0.00	0.00	0.00

Northwest Energy Efficiency Alliance (NEEA) provides energy efficiency savings through their market transformation efforts in the region.

No adjustments needed for savings from NEEA as they align with assumptions used to characterize savings in the Integrated Resource Plan.

RTF Adjustments and IRP Selections

Summary of RTF Adjustments (MWh at Generator)	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2024-33
Total Residential Adjustments for Targeted Measures	(278)	(301)	(190)	(42)	(59)	(74)	(87)	(96)	(99)	(96)	(1,322)
Total Non-Residential Adjustments for Targeted Measures	(2,115)	(2,208)	(2,299)	(2,277)	(2,155)	(3,005)	(3,573)	(3,472)	(3,412)	(3,256)	(27,772)
Overall RTF Adjustment	(2,393)	(2,509)	(2,489)	(2,319)	(2,213)	(3,079)	(3,660)	(3,567)	(3,512)	(3,352)	(29,094)
RTF Adjustment as % of Total WA IRP Selections	-6%	-5%	-7%	-6%	-5%	-7%	-8%	-7%	-8%	-8%	-7%

	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2024-33	10-year Avg
Washington - First Year EE from 2023 IRP	40,313	47,072	35,018	39,718	45,721	45,802	48,201	47,697	44,313	43,396	437,252	43,725
Behavioral Programs (HER)	4,536	4,029	3,578	3,179	2,823	2,508	2,228	1,979	1,758	1,561	28,178	2,818
RTF Adjustments (Total)	(2,393)	(2,509)	(2,489)	(2,319)	(2,213)	(3,079)	(3,660)	(3,567)	(3,512)	(3,352)	(29,094)	(2,909)
NEEA Adjustments	-	-	-	-	-	-	-	-	-	-	-	-
Adjusted Energy Efficiency Forecast	42,455	48,592	36,108	40,578	46,331	45,230	46,769	46,108	42,559	41,605	436,336	43,634

In alignment with WA rules, the Company relies on the Regional Technical Forum (RTF) for energy efficiency savings assumptions where applicable.

Must select the higher of either:

Pro-Rata share of average 10-year annual potential for 2024-2025 (87,268 MWh).

Or the two-year potential (91,048 MWh.)

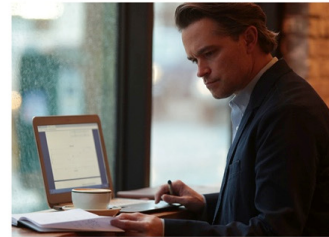
Other Adjustments

Co-generation, Combined Heat and Power (CHP) / Distribution Efficiency

- 10 year potential equal to 130 MWh and 25 MWh in the biennial period based on Conservation Potential Assessment combined heat and power and private generation reciprocating engines.
- Levelized cost bins vary for selections by year and are dependent on capacity contributions, but all measures at the CHP levelized cost were selected in the near term. Therefore, we include high efficiency Co-generation in our target.
- Distribution efficiency included previously approved and funded project “Wiley Substation feeder 5Y164 Reconductor and Voltage Optimization” expected to be completed in 2025 (227 MWh).

Production Efficiency - Thermal

Peter Schaffer



Production Efficiency

For 2024-2025, used the following approach:

- Projects need to be in generating facilities allocated to Washington:
 - Thermal (coal): Jim Bridger and Colstrip
 - Thermal (gas): Chehalis and Hermiston
- No further analysis of any projects at Bridger or Colstrip
 - 2023 IRP shows Jim Bridger and Colstrip allocations to Washington ending by 2025 meaning recovery of investments would not be possible in the reduced lifespan.
- Studies were updated in 2021 for Chehalis and Hermiston
 - New production efficiency opportunities unlikely
 - Production plant systems are established and not likely to change
 - Engineering to review 2021 identified projects to determine if the economics have changed
 - Update project estimates
 - Re-run project evaluation using the generation economic models

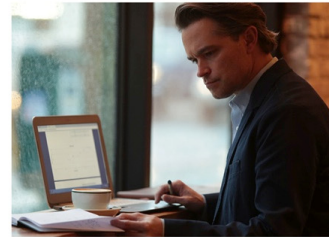
Production Efficiency

Propose to have a target of 0 MWh for thermal production efficiency savings.

- **Lighting upgrades to LED - Hermiston**
 - Field lighting is approximately 70% complete with intent to be at 100% within the next 12-months
 - Main warehouse was completely converted in 2022
 - Raw water building is scheduled to be converted in 2023
 - Plan to report savings in 2022-2023 biennium. No other saving opportunities available after these lighting upgrades are complete.
- **Compressed Air System - Hermiston**
 - New dew-point demand controls for the air dryers were not cost effective at this time.

Production Efficiency - Wind

Travis Brown

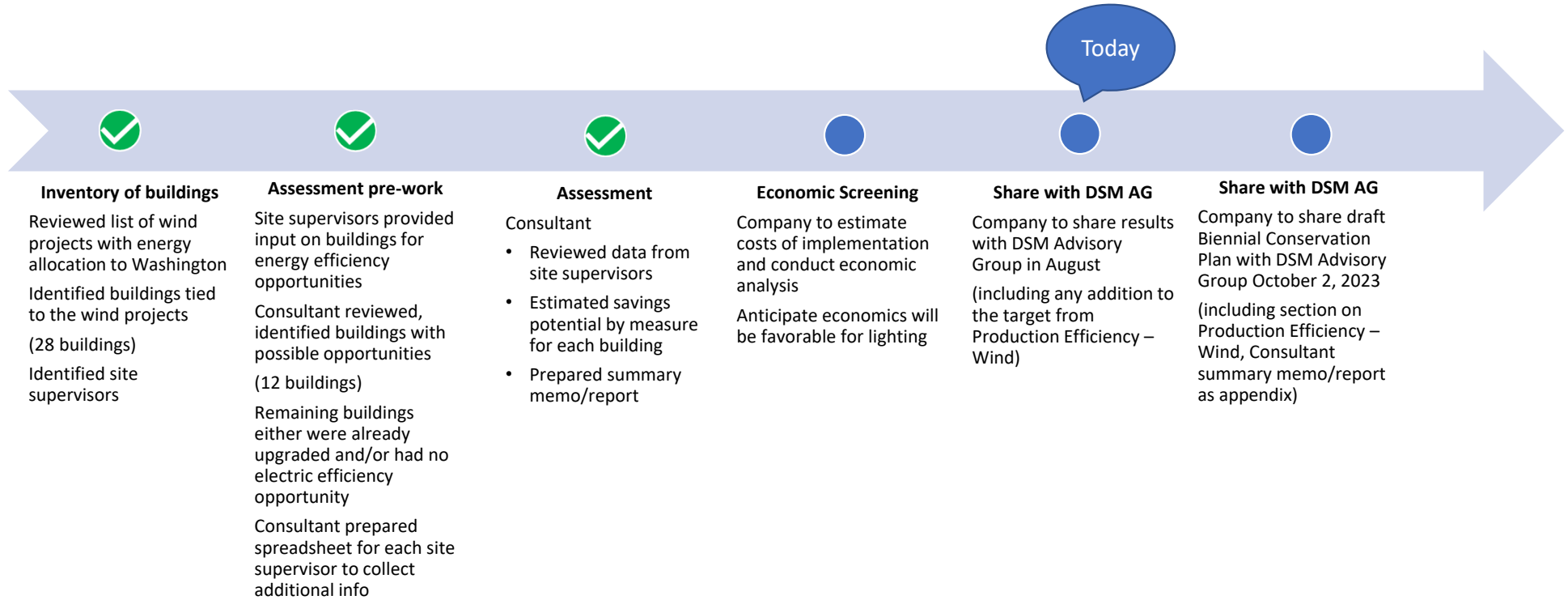


Production Efficiency - Wind

- Goodnoe Hills Wind Project included in 2011 production efficiency study
 - Estimated savings was 1,500 kWh/yr (small)
- For recent biennial conservation plans, focus has been on thermal plants due to larger energy savings potential
- Questions/interest in wind last time (2022-2023 BCP), so completed an assessment for 2024-2025 biennial
 - Focus was on support buildings at the wind project sites allocated to Washington
 - Examples: O&M shops/offices, storage buildings
 - Buildings are very small (~ 3,000 square feet)
 - Expected savings potential to be very small (especially the 7.5% Washington share)
 - Focus was on electric efficiency opportunities

Project	# buildings
Glenrock/Rolling Hills	6
Seven Mile Hill 1 and 2	1
Dunlap	1
High Plains and McFadden Ridge	1
Foote Creek Rim	1
Ekola Flats	1
TB Flats 1 and 2	5
Cedar Springs 2	2
Pryor Mountain	3
Marengo 1 and 2	3
Leaning Juniper	1
Goodnoe Hills	3
	28

Production Efficiency - Wind



Production Efficiency – 2023 Wind Study Results

Table 1. Lighting Savings Estimate

Wind Farm	LED Savings (kWh)	Sensor Savings (kWh)	Total Savings (kWh)
1) Glenrock-Rolling Hills	644	5,493	6,136
2) Seven Mile Hill 1 and 2		4,875	4,875
3) Dunlap		2,860	2,860
4) High Plains and McFadden Ridge		3,250	3,250
5) Foote Creek Rim	283	129	412
6) Ekola Flats			
7) TB Flats 1 and 2			
8) Cedar Springs 2			
9) Pryor Mountain		6,141	6,141
10) Marengo 1 and 2	2,059	936	2,995
11) Leaning Juniper	13,728	6,890	20,618
12) Goodnoe Hills		2,824	2,824
Total	16,714	33,398	50,111

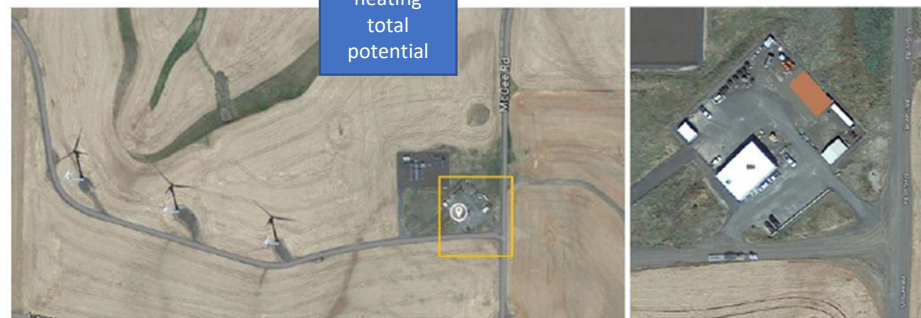
kWh savings from upgrades to LED	16,714
kWh savings from occupancy sensors	33,398
	<hr/>
	50,111
Washington allocation rate	7.5%
kWh savings allocated to Washington	3,758

Lighting total potential

Heat Pump Water Heaters

Energy savings	699 kWh per year per heater
Total for all 12 sites	8,387 kWh savings if all 12 sites change from electric resistance to heat pump water heater
WA Allocation factor	0.075
WA annual savings	629 kWh savings allocated to Washington if all 12 sites convert to HPWH

Water heating total potential



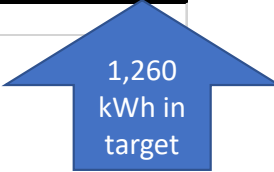
Marengo 1 and 2 near Dayton, WA

Production Efficiency - Wind

- Savings potential is very limited, especially the Washington allocation
 - Buildings are small, occupancy low and intermittent
 - Most already have LED lighting
- Plan:
 - Include 2023 study as appendix in Biennial Conservation Plan
 - Include 1,260 kwh/yr in Wind production efficiency in 2024-2025 target
 - Report savings for projects completed
 - Wait several years to revisit 2023 study for future target setting due to limited savings potential

Project	LED Savings (kWh/yr)	Sensor Savings (kWh/yr)	Total Lighting Savings (kWh/yr)	Include in 2024-2025 Target?	Savings for sites included in target (kWh/yr)	Washington 7.5% Allocation (kWh/yr)
Glenrock/Rolling Hills	644	5,493	6,137			
Seven Mile Hill 1 and 2		4,875	4,875	Yes	4,875	366
Dunlap		2,860	2,860	Yes	2,860	215
High Plains and McFadden Ridge		3,250	3,250	Yes	3,250	244
Foote Creek Rim	283	129	412			
Ekola Flats						
TB Flats 1 and 2						
Cedar Springs 2						
Pryor Mountain		6,141	6,141			
Marengo 1 and 2	2,059	936	2,995	Yes	2,995	225
Leaning Juniper	13,728	6,890	20,618			
Goodnoe Hills		2,824	2,824	Yes	2,824	212
Total	16,714	33,398	50,112		16,804	1,260

kWh @ site = kWh @ gen for Production Efficiency



Draft Target Summary

Washington 2024-2025 Target Analysis
MWh at Site

Updated Draft Biennial Target (MWh/yr at Site)

Category	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2024-2033 Cumulative
Adjusted Energy Efficiency	35,293	41,472	30,291	34,823	40,509	39,777	41,461	41,078	37,984	37,270	379,958
Home Energy Reports	4,212	3,742	3,323	2,952	2,622	2,329	2,069	1,838	1,633	1,450	26,169
High-Efficiency Co-Generation	12	12									23
Distribution Efficiency	-	227									
Production Efficiency	0.6	0.6									
Total	39,518	45,453	33,614	37,776	43,131	42,106	43,530	42,916	39,616	38,719	406,379
										Draft 2024-2025 Target	84,971

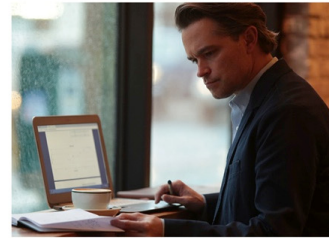
Updated Draft CEIP Target (MWh/yr at Site)

Category MWh at Site	2022	2023	2024	2025
Washington - first year Energy Efficiency from the IRP Preferred Portfolio	31,871	34,651	37,517	43,803
Behavioral Programs (HER)	4,100	(169)	4,212	3,742
RTF adjustments (total)	313	378	(2,223)	(2,331)
Adjusted Energy Efficiency Forecast - annual	36,284	34,860	39,506	45,214
Adjusted Energy Efficiency Forecast - Pro-rata	47,089	47,089	40,613	40,613
Co-Generation	-	-	12	12
Decoupling commitment - five percent	1,814	1,743	1,976	2,261
Annual Target	48,903	48,832	41,493	47,487
2022-2025 target				186,714

2024-2025 DSM Business Plan

Draft program details, program budgets

Nancy Goddard



Conditions 3f, 9b

Docket UE-210830 Order 01 Attachment A	3f	Prior to filing the 2024-2025 Biennial Conservation Plan, PacifiCorp must provide the following information to the Advisory Group: draft ten-year conservation potential, revised four-year target, and two-year target by August 1, 2023; draft program details, including budgets, by September 1, 2023 ; and draft program tariffs by October 2, 2023.
Docket UE-210830 Order 01 Attachment A	9b	PacifiCorp must consider how and whether existing conservation programs serve the highly impacted communities and vulnerable populations identified in its CEIP. In addition, PacifiCorp must adjust existing conservation programs or design new programs and offerings so that the portfolio of programs ensures an improvement in the equitable distribution of energy and nonenergy impacts to the same communities identified in its CEIP. See WAC 480-100-640(4).

Draft Budgets and Savings by Program

Nancy Goddard



Draft 2024-2025 Targets, DSM Business Plan Forecast

Category	Targets	2024-2025 DSM Business Plan	Forecast % of Target
	Gross MWh Savings @site	Gross MWh Savings @site	
Energy Independence Act (EIA) Target	84,971	91,123	107%
Decoupling threshold	4,249		
Total Utility Conservation Goal	89,220	91,123	102%
Excluded programs (NEEA)	(10,132)	(10,132)	
Utility Specific Conservation Goal	79,088	80,991	102%
EIA Penalty Threshold (EIA Target minus NEEA savings)	74,839	80,991	108%
EIA penalty threshold plus decoupling	79,088	80,991	102%

2024-2025 DSM Business Plan Savings and Expenditures Forecast		
	MWh @ site	\$
Residential efficiency programs	17,750	\$ 18,395,915
Non-residential efficiency program	63,013	\$ 27,366,680
Northwest Energy Efficiency Alliance (NEEA)	10,132	\$ 1,939,531
Distribution Efficiency	227	
Production Efficiency	-	
Portfolio expenses		\$ 1,553,887
Total	91,121	\$ 49,256,013
2024-2025 Total Portfolio Benefit Cost Ratios (including NEEA and Non-Energy Impacts)		
PacifiCorp Total Resource Cost Test (PTRC)		1.51
Utility Cost Test		1.42

Business Plan is slightly higher than target subject to penalty

Goal is > 1; > 1 means benefits exceed costs

Draft 2024-2025 DSM Business Plan

Program or Initiative	2024 PacifiCorp Washington Conservation Estimates		2025 PacifiCorp Washington Conservation Estimates		2024 + 2025	2024 + 2025
	Gross kWh/Yr Savings @site	Estimated Expenditures	Gross kWh/Yr Savings @site	Estimated Expenditures	Gross MWh Savings @site	Estimated Expenditures
Low Income Weatherization (114)	179,524	\$ 1,549,500	179,524	\$ 1,589,060	359	\$ 3,138,560
Home Energy Savings (118)	4,411,367	\$ 6,803,544	5,026,161	\$ 7,785,282	9,438	\$ 14,588,826
Home Energy Reports (N/A)	4,212,000	\$ 330,101	3,741,000	\$ 338,427	7,953	\$ 668,529
Total Residential Programs	8,802,891	\$ 8,683,145	8,946,685	\$ 9,712,770	17,750	\$ 18,395,915
Wattsmart Business (140) - Commercial	23,629,370	\$ 10,488,281	24,776,945	\$ 11,079,429	48,406	\$ 21,567,709
Wattsmart Business (140) - Industrial	6,761,000	\$ 2,646,595	6,480,625	\$ 2,592,714	13,242	\$ 5,239,309
Wattsmart Business (140) - Irrigation	672,498	\$ 275,785	692,498	\$ 283,876	1,365	\$ 559,661
Total Business Programs	31,062,868	\$ 13,410,661	31,950,068	\$ 13,956,018	63,013	\$ 27,366,680
Northwest Energy Efficiency Alliance	4,471,095	\$ 950,118	5,660,650	\$ 989,413	10,132	\$ 1,939,531
Distribution Efficiency	-		227,000		227	
Production Efficiency	630		630		1	
Total Other Conservation Initiatives	4,471,725	\$ 950,118	5,888,280	\$ 989,413	10,360	\$ 1,939,531
Be wattsmart, Begin at Home		\$ 71,758		\$ 73,552		\$ 145,310
Customer outreach/communication		\$ 250,000		\$ 250,000		\$ 500,000
Program Evaluations (& savings verification)		\$ 293,885		\$ 167,584		\$ 461,469
Potential study update/analysis		\$ 120,000		\$ 25,000		\$ 145,000
System Support		\$ 68,416		\$ 68,416		\$ 136,832
End use load research		\$ 20,700		\$ 43,200		\$ 63,900
Regional Technical Forum (RTF) funding		\$ 50,688		\$ 50,688		\$ 101,376
Total Portfolio-Level Expenses		\$ 875,447		\$ 678,440		\$ 1,553,887
Total PacifiCorp Conservation	39,866,389	\$ 22,969,254	41,124,383	\$ 24,347,228	80,991	\$ 47,316,482
Total System Benefits Charge Conservation	44,337,483	\$ 23,919,372	46,785,032	\$ 25,336,641	91,123	\$ 49,256,013

Pac kWh

- Home Energy Savings
 - ~90% HVAC
- Business
 - ~50/50 Lighting/Non-lighting
 - ~20% from small business offer
- Home Energy Savings/Wattsmart Business
 - kWh savings by year could vary: RFP underway, if a new vendor is selected, there could be a transition impact on savings in 2024 that would need to be made up in 2025

Pac \$

- Home Energy Savings, Wattsmart Business
 - Delivery cost uncertainty
 - Estimates from current vendors, RFP underway
 - Planned 2024 incentive increases in place both years

Notes:

Total PacifiCorp Conservation line is everything except NEEA.

Total System Benefits Charge Conservation is everything including NEEA.

Draft 2024-2025 Direct Benefit to Customers

Program or Initiative	Estimated Expenditures	Direct Benefit to Customer (\$)	Direct Benefit to Customer (%)
Low Income Weatherization (114)	\$ 3,138,560	\$ 2,694,400	86%
Home Energy Savings (118)	\$ 14,588,826	\$ 5,488,136	38%
Home Energy Reports (N/A)	\$ 668,529		
Total Residential Programs	\$ 18,395,915	\$ 8,182,536	44%
Wattsmart Business (140) - Commercial	\$ 21,567,709	\$ 15,565,132	
Wattsmart Business (140) - Industrial	\$ 5,239,309	\$ 3,654,393	
Wattsmart Business (140) - Irrigation	\$ 559,661	\$ 281,148	
Total Business Programs	\$ 27,366,680	\$ 19,500,673	71%
Northwest Energy Efficiency Alliance	\$ 1,939,531	\$ 1,344,789	69%
Distribution Efficiency	\$ -		
Production Efficiency	\$ -		
Total Other Conservation Initiatives	\$ 1,939,531		
Be wattsmart, Begin at Home	\$ 145,310		
Customer outreach/communication	\$ 500,000		
Program Evaluations (& savings verification)	\$ 461,469		
Potential study update/analysis	\$ 145,000		
Systems Support	\$ 136,832		
End use load research	\$ 63,900		
Regional Technical Forum (RTF) funding	\$ 101,376		
Total Portfolio-Level Expenses	\$ 1,553,887		
Total PacifiCorp Conservation	\$ 47,316,482	\$ 27,683,209	59%
Total System Benefit Charge Conservation	\$ 49,256,013	\$ 29,027,998	59%

Trying to keep this % high, in balance with adding more administratively complex equity work

Direct benefits include

- Costs associated with direct installation of measures
 - Low Income Weatherization
 - Home Energy Savings
- Customer and Vendor Incentives
 - Home Energy Savings
 - Wattsmart Business
- Energy engineering services provided for specific business customer sites
 - Wattsmart Business

Note - NEEA direct benefits are assumed to be 70% of NEEA expenditures

Note – these are direct benefits from program expenditures and don't include energy cost savings and other non-energy benefits

Draft 2024-2025 Cost-Effectiveness

Table 5: Portfolio-Level Benefit/Cost Ratios - PY2024 and PY2025

Program	PTRC	TRC	UCT	PCT	RIM
Total Portfolio	1.17	1.06	1.28	2.46	0.57
Total Portfolio with NEIs	1.38	1.27	1.28	2.81	0.57
Total Portfolio with NEEA	1.31	1.19	1.42	2.78	0.59
Total Portfolio with NEEA and NEIs	1.51	1.39	1.42	3.12	0.59

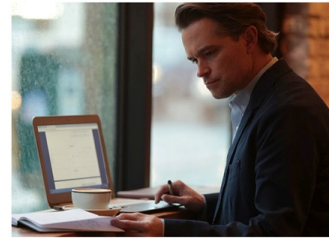
Table 10: Benefit/Cost Ratios by Program - PY2024 and PY2025

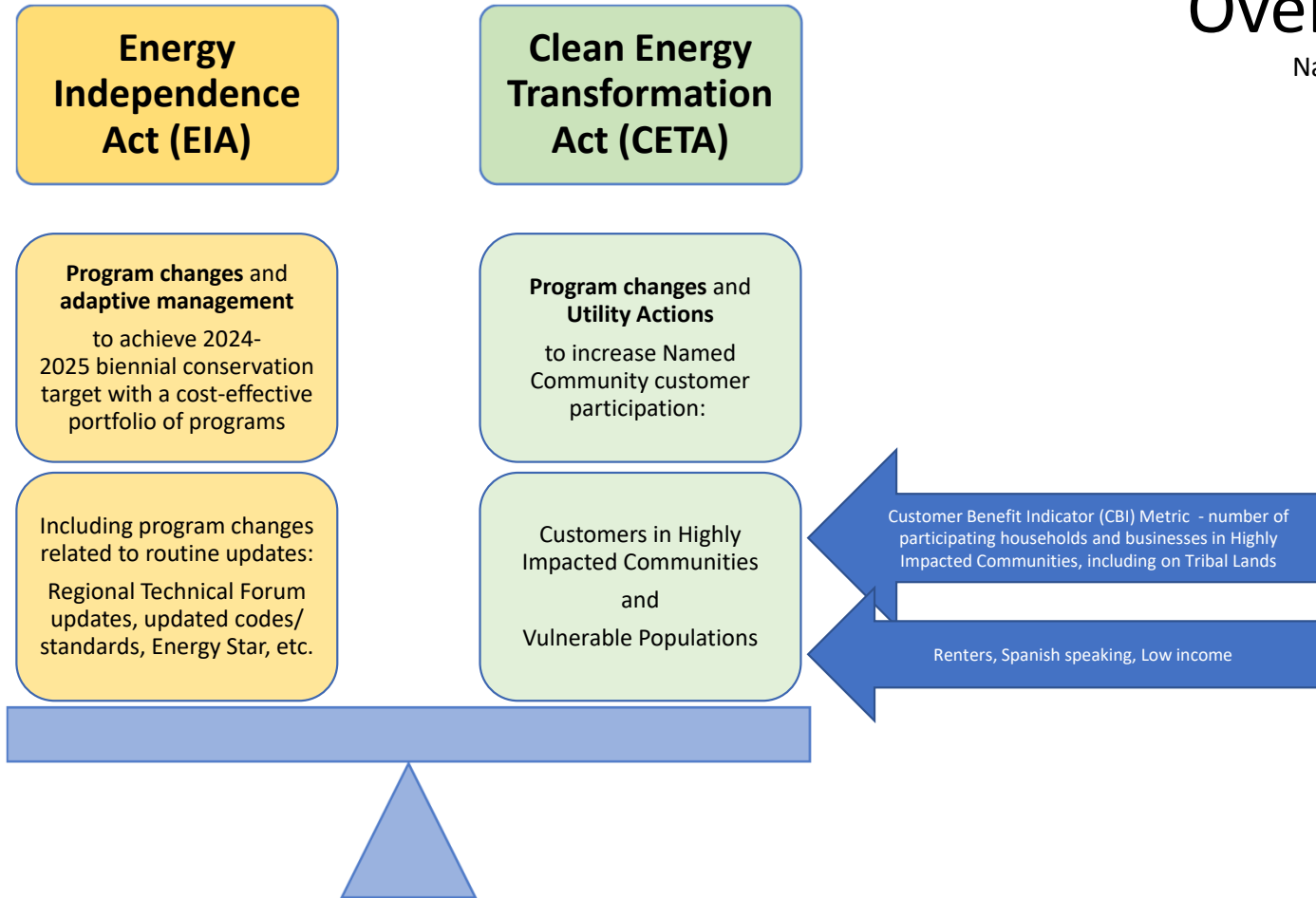
Program	PTRC	TRC	UCT	PCT	RIM
Home Energy Savings	0.38	0.34	0.54	1.09	0.33
Home Energy Savings with NEIs	0.50	0.46	0.54	1.29	0.33
Home Energy Reports	1.65	1.50	1.50	0.00	0.73
Wattsmart Business	1.88	1.71	1.74	3.48	0.66
Wattsmart Business with NEIs	2.18	2.00	1.74	3.94	0.66
NEEA	5.12	4.65	4.65	0.00	0.75

- Portfolio passes the primary benefit cost tests, which are the PTRC, TRC, and UCT.
- All programs pass primary benefit cost tests with the exception of home energy savings. This is similar to prior years and what we see in other states for residential programs.
- We will continue to report on all tests to understand impacts and weight investments in the portfolio.

Preview - planned 2024 program changes, adaptive management, utility actions

Jay Olson (Home Energy Savings)
Nancy Goddard (Wattsmart Business)





2024 Program Change Highlights - Home Energy Savings

Jay Olson

Energy Independence Act (EIA)

- **Program changes** to achieve 2024-2025 biennial conservation target
- **Program changes** related to routine updates
 - Align with Regional Technical Forum (RTF) updates
 - Unit Energy Savings measures
 - Standard Protocols
 - Align with updated standards (Energy Star, etc.)



Customer incentive increases

- HVAC: Heat pumps, t-stats, etc.
- Heat Pump Water Heaters
- Windows
- Air purifiers and generator block heater controls

Adding

- Low-E storm windows
- Adding new delivery platform for HPWH that allow customers a fixed fee contractor install or self-install

Alignment with RTF updates

- Removal of the 9.0+ HSPF to 10.0+ HSPF for heat pumps
- Removal of retail lighting

2024 Adaptive Management Highlights - HES

Energy Independence Act (EIA)

- **Adaptive management** to achieve 2024-2025 target

Vendor Incentives

- Increase direct-install payment for smart thermostats
- Improve incentive language for HPWHs to avoid contractor and customer confusion

New Services and Approaches

- Use a web platform for direct delivery of Heat Pump Water Heaters to customers
 - Sharing results with NEEA's Products Coordinating Committee and other utility members
- Replace the retail lighting offer with no cost LED bulb kits distributed to vulnerable population communities
 - No savings but will use as an engagement opportunity to introduce underserved customers to energy efficiency services and support

2024 Utility Actions – Home Energy Savings

Clean Energy Transformation Act (CETA)

Utility Actions to increase Named
Community customer participation

- **Highly Impacted Community customers**
 - Goal: continue to increase energy efficiency Customer Benefit Indicator (CBI) Metric results for households in Highly Impacted Communities, including those on Tribal Lands

Highly Impacted Communities (Customer Benefit Indicator (CBI) Metrics)

- Continue direct-install duct sealing and lighting with focus on HIC **single-family** homes
- Introduce Low-E storm windows with focus on Highly Impacted Communities
- Continue with increased incentives for customers in Highly Impacted Communities for HVAC measures
 - Ductless Heat Pump replacing heating systems that use oil, wood, or propane
 - Ductless Heat Pump replacing electric heating
- Customers and contractors in Highly Impacted Communities are able to confirm HIC eligibility for an enhanced incentives through a web-based confirmation screening application.

Clean Energy Transformation Act (CETA)

Utility Actions to increase Named
Community customer participation

- **Vulnerable Populations**
 - Renters
 - Spanish speaking (limited English)

New/continuing program services, support, and enhanced incentives

- Continue enhanced incentives for windows in multi-family units on residential rate schedules.
- Continue no-cost direct install residential lighting to renters living in multi-family units.
- Launch a Community Based Distribution offering that provides LED bulbs to Tribal and Vulnerable Population customers at no cost. (This program offering replaces the “value retailer” bulb buy-down.)

Outreach, marketing, communications to support customers that use Spanish as primary language

- Continue efforts to reach Spanish speaking customers through all aspects of program delivery including:
 - Customer facing staff fluent in Spanish
 - Pacific Power representation at cultural events, associations, community groups, and media
 - Provide communications, marketing, web, and program materials in Spanish

2024 Planned Program Change Highlights - Wattsmart Business

Energy Independence Act (EIA)

- **Program changes** to achieve 2024-2025 biennial conservation target and achieve a cost-effective portfolio of programs
- **Program changes** related to routine updates
 - Align with Regional Technical Forum (RTF) updates
 - Unit Energy Savings measures
 - Standard Protocols
 - Align with updated standards (Energy Star, etc.)

Proposed Program Change

Customer incentive increases

(no change to incentive caps)

- Lighting: Approx 20% increase
- Non-lighting: 17% increase (for custom non-lighting and select listed measures)

HVAC

- Significantly increase incentive for air-cooled heat pumps replacing electric resistance heating (in alignment with change in savings methodology)

Make Combined Heat and Power eligible for incentives (since co-generation is added to the target)

Replacement lamp measures

- Modify midstream offer, remove most Type A TLEDs
- Modify but continue most replacement lamp incentives for lighting retrofit and small business lighting

Add new RTF food service equipment measure

2024 Adaptive Management Highlights - Wattsmart Business

Energy Independence Act (EIA)

- **Adaptive management** to achieve 2024-2025 target



Adaptive Management

Vendor Incentives:

- Continue lighting vendor incentives
- Expand vendor incentives for HVAC (heating/cooling)
 - Note launching this 9/2023

Small Business offers - Customer Eligibility:

- Modify **maximum annual usage threshold** for eligibility for small business offers from 300,000 kWh to 200,000 kWh

2024 Planned Utility Actions - Wattsmart Business

Clean Energy Transformation Act (CETA)

- **Utility Actions** to increase Named Community customer participation
 - Highly Impacted Community customers
 - Goal: continue to increase energy efficiency Customer Benefit Indicator (CBI) Metric results for businesses in Highly Impacted Communities, including those on Tribal Lands



Continue to increase the number of businesses in Highly Impacted Communities and small businesses that participate
2024-2025 results to be reflected in the energy efficiency CBI metrics

- Continue **enhanced customer incentives** for Small Businesses in Highly Impacted Communities and Very Small Businesses
- **Enhanced vendor incentives** - Continue to offer approved small business lighting vendors a higher vendor incentive for completed lighting retrofit projects with Small Businesses in Highly Impacted Communities and Very Small Businesses.
- **Targeted outreach**
 - Continue to target a portion of company initiated proactive outreach to Small Businesses in Highly Impacted Communities and Very Small Businesses; continue to tie proactive outreach to approved small business vendor capacity to respond to customer inquiries.
 - Target a portion of company initiated proactive outreach to business customers located on Tribal land.

Continue development of program materials in Spanish; continue and increase outreach to *Latine* business customers, vendors and community groups.

2024 Planned Program Change Highlights - Wattsmart Business

Clean Energy Transformation Act (CETA)

- **Program changes** to increase Named Community customer participation
 - Highly Impacted Community customers
 - Goal is to continue to increase energy efficiency Customer Benefit Indicator (CBI) Metric results for businesses in Highly Impacted Communities, including those on Tribal Lands

Proposed Program Change

Customer incentive increase

(no change to incentive caps – still capping at 100% of project costs)

- **Named Community Small Business Lighting**

- 10% increase for lighting fixture retrofits

Note: % increase is smaller than other lighting categories since current incentives for many Named Community small business projects cover 100% of eligible project costs already.

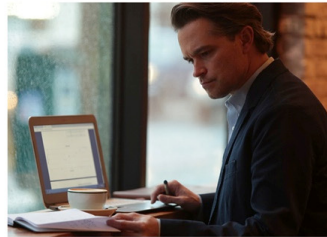
- Add separate lamp replacement and exterior lighting incentives at lower \$/kWh incentive

Separate incentives provide a good/better/best incentive structure with the highest incentives for “best” to encourage the best retrofits for Named Community small businesses.

Named Community small business lighting incentives still higher than other lighting offers, to increase participation (CBI metric)

Preview – 2024-2025 Utility Actions

Heather Beery/Amy Kort (Communications)
Charity Spires (Low Income Weatherization)
Nancy Goddard (Participation Tracking)



Communications – CEIP Utility Actions

Heather Beery/Amy Kort

Continue and improve on Utility Actions from 2022-2023 biennium

Continue to support programs with an increased equity focus using effective communication strategies to reach Named Communities.

- Continue to increase culturally and linguistically responsive outreach and marketing to increase awareness of energy and conservation programs
- Continue to expand in-language services across written, spoken, and visual services
 - As appropriate, include Spanish versions of collateral and/or posters at community events that Pacific Power is sponsoring. Have interpreters and translated materials at public meetings.
 - ★ ○ Promote energy efficiency programs on Spanish TV, radio and newspapers with local, trusted messengers, with call to action to the Spanish website and phone number

Communications utility actions continue from 2022-2023 plan; **change noted with a “star”**

Low Income Weatherization – CEIP Utility Actions

Charity Spires

Continue Utility Actions from 2022-2023 plan, focus on low income Vulnerable Population

1. Continue to allow reimbursement for **repairs** up to 30% of the annual reimbursement on energy efficient measures received (increased from 15% in 2022)
2. Continue to allow installation of electric heat to replace permanently installed electric heat, space heaters or any fuel source except natural gas with adequate combustion air as determined by the Agency
 - This is designed to promote the installation of electric heat and minimize use of wood heat, solid fuels or natural draft equipment in specific applications where combustion safety (and indoor air quality) cannot be maintained.

Participation Tracking CEIP Utility Actions

Nancy Goddard

All tracking-related utility actions continue from 2022-2023 plan; **changes noted with a “star”**

Low Income Weatherization

- CBI metric:
 - Participants located in a Highly Impacted Community, including Tribal lands
- Vulnerable Population:
 - Language - Participants whose primary language is other than English
 - ★ Ask question for the **household** starting in 2024
 - Renters – participants where the occupant is a renter (tenant)
 - Low income – all participants
- Participants living in a manufactured home

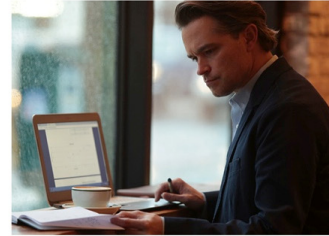
Home Energy Savings

- CBI metric:
 - Participants located in a Highly Impacted Community, including Tribal lands
- Vulnerable Population:
 - Language - Participants whose primary language is other than English
 - ★ Ask question for the **household** starting in 2024
 - Renters
 - ★ Participants where the **home is a rental**
 - Participants living in a multi-family unit
- Participants living in a manufactured home

Wattsmart Business

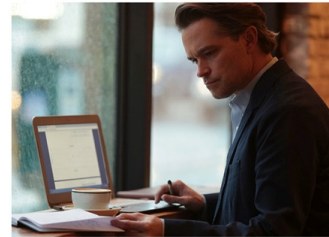
- CBI metric:
 - Participants located in a Highly Impacted Community, including Tribal lands
- Language - Participants whose primary language is other than English
 - ★ Considering change to ask primary language spoken for the **business** (as opposed to the contact person completing the application)
- Small Business - Participants who are smaller businesses
 - (e.g., account associated with project receives electric service on Schedule 24)

Feedback? Comments?



2022-2023 DSM Forecast

Nancy Goddard



August 2023 Forecast for 2022-2023

Source of 2023 Forecast

- Orange = 2023 Annual Conservation Plan
- Green = 8/2023 implementer forecasts

Pac kWh 2023 Forecast

90% of 2023 ACP

- Residential - 113% of 2023 ACP
- Business - 86% of 2023 ACP
 - Significant projects cancelled
- Price increases (inflation), interest rate increases, supply chain (long lead times) and workforce issues stemming from the pandemic continue to impact projects

Pac \$ 2023 Forecast

92% of 2023 Annual Conservation Plan

Note: %'s are % of 2023 Annual Conservation Plan, not % of EIA penalty threshold

Program or Initiative	2022 PacifiCorp Washington Conservation Estimates (6/1/2023 Final Report for 2022)			2023 PacifiCorp Washington Conservation Estimates (Forecast)			2022 + 2023	2022 + 2023
	Gross kWh/Yr Savings @site	Gross kWh/Yr Savings @gen	Estimated Expenditures	Gross kWh/Yr Savings @site	Gross kWh/Yr Savings @gen	Estimated Expenditures	Gross MWh Savings @site	Estimated Expenditures
Low Income Weatherization (114)	261,515	281,589	\$ 747,702	179,524	193,304	\$ 1,193,659	441	1,941,361
Home Energy Savings (118)	2,625,379	2,826,903	\$ 3,629,851	3,960,664	4,264,684	\$ 5,879,594	6,586	9,509,445
Home Energy Reports (N/A)	4,289,670	4,618,945	\$ 137,990	4,069,000	4,381,336	\$ 462,996	8,359	600,985
Total Residential Programs	7,176,564	7,727,437	\$ 4,515,543	8,209,188	8,839,325	\$ 7,536,248	15,386	12,051,791
Wattsmart Business (140) - Commercial	21,570,220	23,209,989	\$ 6,779,816	25,983,906	27,959,203	\$ 8,768,953	47,554	15,548,769
Wattsmart Business (140) - Industrial	4,727,777	5,049,975	\$ 1,486,005	7,724,945	8,251,400	\$ 2,606,986	12,453	4,092,991
Wattsmart Business (140) - Irrigation	552,321	594,717	\$ 173,602	1,404,535	1,512,348	\$ 473,997	1,957	647,599
Total Business Programs	26,850,318	28,854,680	\$ 8,439,423	35,113,387	37,722,951	\$ 11,849,937	61,964	20,289,360
Northwest Energy Efficiency Alliance	3,328,800	3,582,421	905,984	3,664,463	3,941,523	877,438	6,993	1,783,422
Distribution Efficiency	24,611	26,453			83,000	-	25	-
Total Other Conservation Initiatives	3,353,411	3,608,874	\$ 905,984	3,664,463	4,024,523	\$ 877,438	7,018	1,783,422
Be wattsmart, Begin at Home			\$ 64,523			\$ 70,008		134,531
Customer outreach/communication			\$ 217,121			\$ 282,879		500,000
Program Evaluations (& savings verification)			\$ 276,541			\$ 254,497		531,038
Potential study update/analysis			\$ 117,239			\$ 15,368		132,607
System Support			\$ 70,863			\$ 98,378		169,241
End use load research & RTF funding			\$ 58,090			\$ 65,500		123,590
Total Portfolio-Level Expenses			804,378			786,629		1,591,007
Total PacifiCorp Conservation	34,051,493	36,608,571	\$ 13,759,344	43,322,574	46,645,275	\$ 20,172,813	77,374	33,932,157
Total System Benefit Charge Conservation	37,380,293	40,190,992	14,665,328	46,987,037	50,586,799	\$ 21,050,251	84,367	35,715,579

2022-2023 Forecast

	Target 2022-2023	2023 Annual Conservation Plan (11/15/2022)		August 2023 Forecast	
	Gross MWH/yr @ site	Gross MWH/yr @ site	% of Target	Gross MWH/yr @ site	% of Target
Pro-rata share of 10-year conservation potential	94,210				
EIA Target	94,210	89,647	95%	84,367	90%
Decoupling threshold	4,711				
Total Utility Conservation Goal	98,921	89,647	91%	84,367	85%
Excluded programs (NEEA)	(6,774)	(6,777)		(6,993)	
Utility Specific Conservation Goal	92,147	82,870	90%	77,374	84%
EIA Penalty Threshold (EIA target minus NEEA savings)	87,436	82,870	95%	77,374	88%
EIA penalty threshold plus decoupling	92,147	82,870	90%	77,374	84%

<u>2022-2023 Expenditure Forecast (including NEEA):</u>	
2023 Annual Conservation Plan	\$38,573,826
August 2023 forecast	\$35,715,579

2022-2023 Forecast – Conditions 3d and 3e

Providing the forecast at DSM Advisory Group meetings to meet this condition:

Docket UE-210830 Order 01 Attachment A	3d	PacifiCorp must inform the Advisory Group members when its projected expenditures indicate that PacifiCorp will spend more than 120 percent or less than 80 percent of its annual conservation budget.
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Events beyond PacifiCorp’s reasonable control stemming from the COVID-19 pandemic continue from the 2020-2021 biennium into 2022-2023 in addition to cancellation of significant projects

Docket UE-210830 Order 01 Attachment A	3e	If PacifiCorp believes that an event beyond its reasonable control has occurred that may prevent it from meeting its combined EIA Penalty Threshold and Decoupling Penalty Threshold, PacifiCorp will confer with the Advisory Group members as soon as possible to determine a path forward. See RCW 19.285.040(1)(e) and RCW 19.285.060(2).
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Updates

Nancy Goddard



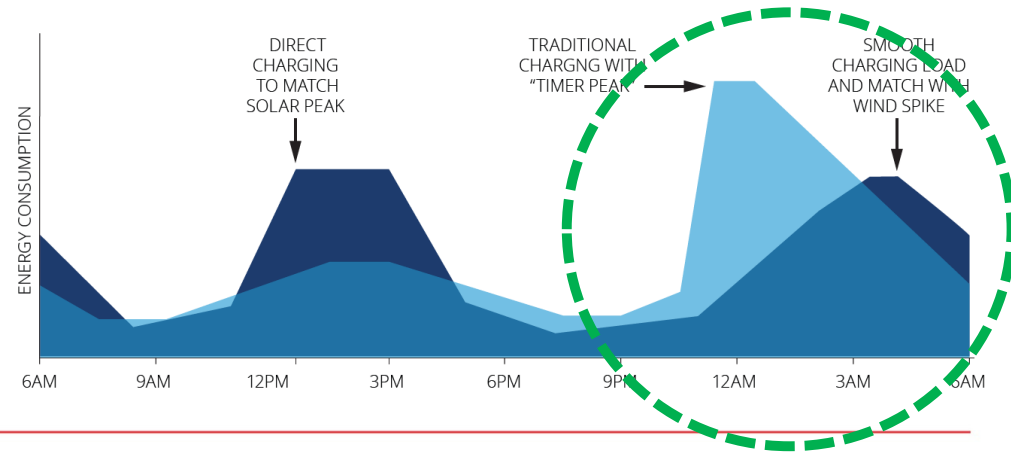
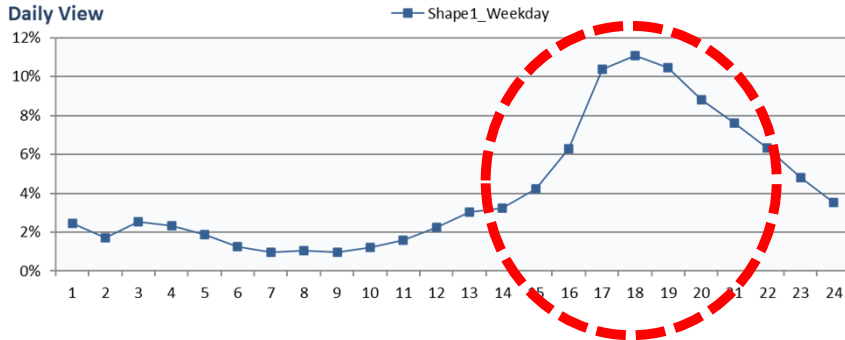
- EV Managed Charging Pilot
- Wrap-up
 - Recent filings, recent drafts, upcoming drafts due to the DSM Advisory Group
 - 2023 DSM Advisory Group meetings

EV Managed Charging Pilot

- Electric vehicle (EV) owners who participate will agree to allow their EV charging to shift to off-peak hours
- PacifiCorp will control the EV charging via either EV telematics or chargers (“EVSE”), similar to bring-your-own-thermostat (BYOT) demand response programs
- PacifiCorp will pay participants financial incentives upon sign-up and then seasonally or annually for ongoing, “active” participation, allowing for a degree of opt-outs and maintaining minimum charging threshold

Pre – most residential charging occurs after work, coinciding with peak hours

Post – residential charging is “flexed” to evening / overnight hours, outside peak



EV Managed Charging Pilot

- **RFP is anticipated to go live by 9/1/2023**
- PacifiCorp is submitting an informational filing for the RFP in WUTC [Docket UE-220359](#)
- PacifiCorp invites any and all qualified bidders to submit proposals, including diverse suppliers. Please share widely if you know of any interested firms:
 - Interested bidders should email DemandResponse@pacificorp.com to be put on bidders' list and receive registration instructions
- Diversity, Equity, and Inclusion is an important selection criteria in the RFP– PacifiCorp anticipates finding a vendor with track record of creating program benefits for named communities
- Deadline to submit proposals is six weeks after RFP posting (apx Oct 15, 2023)

Exhibit A-
Scope of Work
and
Request for Proposal Requirements

Residential Electric Vehicle
Managed Charging
Pilot Program, 2024-2026+



Wrap-up

Nancy Goddard



Recent Filings

	Draft to you	Comments due	Response to Comments	Filed	Approval Decision
Informational Filing for Voluntary RFP - EV Managed Charging Pilot docket UE-220359	n/a	n/a	n/a	9/1/2023 (anticipated)	n/a

Recent Drafts

	Draft to you	Comments requested by	Response to comments	Final due
2024-2025 Competitive Procurement Framework – request for comments <i>(Provided redline relative to the 2022-2023 Biennial Conservation Plan)</i>	7/27/2023 (EAG will see the framework 10/2/2023 in the Draft 2024-2025 Biennial Conservation Plan)	8/31/2023		11/1/2023 (as part of 2024-2025 Biennial Conservation Plan)

Drafts coming soon

	Draft to you	Comments requested by	Response to comments	Final due
Home Energy Savings and Wattsmart Business 1/1/2024 program change documents (including explanation of changes, redlined incentive tables, explanation of alignment with Regional Technical Forum, cost effectiveness memo; also Measure Installation Verification redlines)	9/1/2023	9/15/2023		
2024-2025 Biennial Conservation Plan - draft filing; Note: Draft program tariff changes also due by 10/2/2023 - no changes planned	10/2/2023	10/16/2023		11/1/2023
<i>Clean Energy Implementation Plan Biennial Update - draft filing</i>	10/2/2023	10/16/2023		11/1/2023

Recap of YTD 2023

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

March

March 30: Advisory Group meeting #1

System Benefits Charge
Review (Schedule 191),
Distribution Efficiency

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

Apr 17:
Draft Wattsmart
Business/Home Energy
Savings program details
to DSM AG for review
(for July 1 Washington
State Energy Code
change)

Apr 28:
Comments on program
changes due

Apr 28:
Low Inc Wx draft filing
to add smart
thermostats to DSM AG

May

May 1:
SBC Exemption filing

May 1:
Draft 2022 Annual
Report to DSM AG

May 15:
Comments on 2022
Annual Report due

May 15:
Post notice of July 1
program changes on
website

May 29:
Comments on Low
Income Wx draft filing
due

June

June 29: Advisory Group meeting #2 (by July 1)

Begin 2024-
2025 Target Setting
Production Efficiency -
thermal

June 1:
File 2022 Annual
Conservation Report
and Commerce
Report

July

July 27: Advisory Group meeting #3 (by Aug 1)

Draft ten-year conservation potential,
revised four-year target, and two-year
target
Production Efficiency
Distribution Efficiency
NEIs
Competitive Procurement Framework

July 3:
File CEIP Progress Report

July 1:
Wattsmart Business, Home
Energy Savings changes effective

BCP: Biennial Conservation Plan
CEIP: Clean Energy Implementation Plan
DSM AG: Demand-side Management Advisory Group

Planned 2023

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

August

**August 31:
Advisory Group
meeting #4
(by Sept 1)**



Draft program details, program budgets (2024-2025)

Preview Utility Actions

Preview 2024 program changes

Note: This meeting includes all advisory groups and the public (and CEIP engagement topics)

September

**Sept. 13:
Advisory Group
meeting #5**

Preview 2024-2025 Biennial Conservation Plan (including Pilots, CETA incremental costs, any other open items)

Sept 1:
Program change documents to DSM AG

Sept 15:
Comments on program change docs due

October

Oct 2:
Draft 2024-2025 Biennial Conservation Plan (BCP); draft tariffs (if any) to DSM AG

Oct 16:
Comments on draft BCP due

November

**Nov 1:
File
2024-2025 Biennial
Conservation Plan**

Nov 15:
Home Energy Savings and Wattsmart Business program changes for 2024 announced on website

December

**Advisory Group
meeting #6**
Draft 2024 Communications Plan

BCP: Biennial Conservation Plan
(includes savings target for 2024-2025, business plan to achieve the target, pilots, utility actions)

CEIP: Clean Energy Implementation Plan

DSM AG: Demand-side Management Advisory Group

2023 DSM Advisory Group Meetings

	Key Topics	Updates
#1 March 30 1:30-4:30pm	<ul style="list-style-type: none"> System Benefits Charge Review 2022-2023 DSM Forecast Procurement: Delivery Contracts (Home Energy Savings, Wattsmart Business) Distribution Efficiency Preview: 7/1/2023 program changes 	<ul style="list-style-type: none"> Home Energy Reports Demand Response CETA: Equity Advisory Group CEIP: Utility Actions/Customer Benefit Indicator Metrics Pilots Wrap-up
#2 June 29 1-4pm	<ul style="list-style-type: none"> 2024-2025 Target Setting Production Efficiency - thermal 2022 Annual Report 2022-2023 DSM Forecast and adaptive management Clean Energy Implementation Plan (CEIP) CEIP Progress Report – energy efficiency CBI metrics, utility actions 	<ul style="list-style-type: none"> CETA: Equity Advisory Group Demand Response Procurement: Delivery Contracts (Home Energy Savings, Wattsmart Business) Wrap-up
#3 July 27 1-4pm	<ul style="list-style-type: none"> Distribution Efficiency Production Efficiency – thermal and wind Draft ten-year conservation potential, revised four-year target, and two-year target NEI progress: EE and Resiliency Competitive Procurement Framework – 2024-2025 2022-2023 DSM Forecast 	<ul style="list-style-type: none"> Clean Energy Implementation Plan, Equity Advisory Group Wrap-up
#4 August 31 12:30-4pm	<ul style="list-style-type: none"> Draft program details, program budgets (2024-2025) Preview of planned program changes, adaptive management for 2024 Preview of Utility Actions 2022-2023 DSM Forecast 	<ul style="list-style-type: none"> Demand Response –EV Managed Charging Pilot Wrap-up
#5 Sept 13, 2-4pm	<ul style="list-style-type: none"> Draft 2024-2025 Biennial Conservation Plan (incl. pilots, CETA incremental costs, other open items) 2022-2023 DSM Forecast 	
#6 December	<ul style="list-style-type: none"> 2024 communications and outreach plan 2022-2023 DSM Forecast 	

Thank you

