

Washington DSM Advisory Group September 8, 2022 (w/revisions)



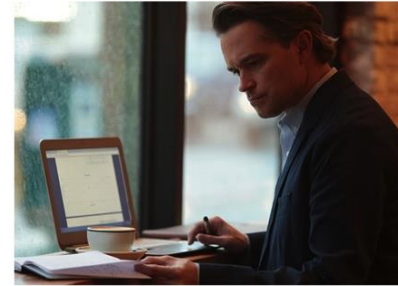
- Follow-ups from last meeting
- 2022 DSM Forecast
 - Condition 3d
- 2023 Draft Annual Conservation Plan, preview of planned program changes
 - Condition 5b
- Conservation Potential Assessment updates
 - NEI update
- Other Conditions
 - Adoption of low global warming potential refrigerants
 - Condition 10b
 - Whether and how to research and evaluate opportunities for cool roof and tree planting conservation
 - Condition 10c
- Updates
 - Demand Response Update – Alex Osteen
 - CETA: Equity Advisory Group – Kimberly Alejandro
 - Clean Energy Implementation Plan utility actions – Nancy
 - Pilots - Nancy
 - Non-residential Lighting Controls
 - Recent filings, upcoming drafts due to the DSM Advisory Group – Nancy
 - 2022 DSM Advisory Group meetings – Nancy

Follow-ups from last meeting

- Low global warming potential refrigerants –
 - Share link from recent product council presentation
 - Emailed 8/4/2022
- Tree planting conservation
 - Follow up with Amy on contacts at the Department of Natural Resources
 - Amy set up a meeting – thank you Amy!
 - Research additional programs (beyond Idaho Power’s program) such as those from California
 - Asked ESource
 - More in slides on this topic
 - Curious about less savings per tree. Are there other studies.
 - Still on the f/u list

2022 DSM Forecast

Nancy Goddard



2022 Forecast

| 2022 PacifiCorp Washington Conservation Estimates | | | |
|---|----------------------------|---------------------------|------------------------|
| Program or Initiative | Gross kWh/Yr Savings @site | Gross kWh/Yr Savings @gen | Estimated Expenditures |
| Low Income Weatherization (114) | 143,110 | 154,095 | \$ 951,579 |
| Home Energy Savings (118) | 2,225,274 | 2,396,086 | \$ 3,760,789 |
| Home Energy Reports (N/A) | 3,126,053 | 3,366,009 | \$ 381,308 |
| Total Residential Programs | 5,494,437 | 5,916,190 | \$ 5,093,677 |
| Wattsmart Business (140) - Commercial | 23,159,062 | 24,919,614 | \$ 6,879,778 |
| Wattsmart Business (140) - Industrial | 7,270,922 | 7,766,435 | \$ 2,023,226 |
| Wattsmart Business (140) - Irrigation | 706,413 | 760,637 | \$ 227,295 |
| Total Business Programs | 31,136,397 | 33,446,687 | \$ 9,130,299 |
| Northwest Energy Efficiency Alliance | 3,112,195 | 3,350,145 | 862,100 |
| Distribution Efficiency | | 82,000 | |
| Total Other Conservation Initiatives | 3,112,195 | 3,432,145 | \$ 862,100 |
| Be wattsmart, Begin at Home | - | - | \$ 64,523 |
| Customer outreach/communication | - | - | \$ 250,000 |
| Program Evaluations (& savings verification) | - | - | \$ 192,837 |
| Potential study update/analysis | - | - | \$ 120,115 |
| System Support | - | - | \$ 98,378 |
| End use load research & RTF funding | | | \$ 109,500 |
| Total Portfolio-Level Expenses | - | - | 835,352 |
| Total PacifiCorp Conservation | 36,630,834 | 39,444,877 | \$ 15,059,328 |
| Total System Benefit Charge Conservation | 39,743,029 | 42,795,022 | 15,921,428 |
| Total Conservation | 39,743,029 | 42,795,022 | \$ 15,921,428 |
| 2022 Total Pac Conservation in Plan | 48,839,500 | | \$ 21,946,103 |
| 2022 Total Conservation in Plan | 51,917,615 | | \$ 22,808,203 |
| 2022 Total Pac Conservation Forecast % of Plan | 75% | | 69% |
| 2022 Total Conservation Forecast % of Plan | 77% | | 70% |

- Includes updates for all programs and portfolio level expenses
- 2022 Pac savings ~75% of plan for 2022
 - (June meeting: 76%)
 - Business is up, res is down
 - Supply chain and labor issues continue to impact projects
 - Price increases (inflation) negating impact of 1/1/2022 incentive increases, causing some customers to put off new equipment purchases
- 2022 Pac \$ ~69% of plan, 2022 total \$ ~70% of plan.
 - (June meeting: 79/80%)
 - Residential is down (aligned with lower savings)
 - Business similar to last forecast
 - Updated portfolio costs lower
- *Note: %'s are % of 11/1/2021 plan, not % of EIA penalty threshold*

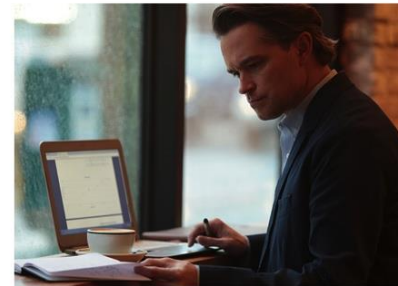
2022 Forecast

- Condition 3d
- Providing the forecast at DSM Advisory Group meetings to meet this condition:

| | | | |
|---|----|--------------------|--|
| Docket UE-210830 Order 01 Attachment A | 3d | DSM Advisory Group | 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. |
|---|----|--------------------|--|

2023 Draft Annual Conservation Plan

Nancy Goddard, Peter Schaffer



Big Picture for 2023 Annual Conservation Plan

- Asked delivery teams to make up 2022 shortfall in 2023 – not realistic
 - Home Energy Savings shortfall from last biennial period continues in 2022-2023 for many of same reasons (supply chain, skilled labor shortage and now also inflation)
 - Wattsmart Business picking up some of the Home Energy Savings shortfall
 - Home Energy Reports – expansion planned
 - **2022-2023 savings forecast is 94% of the EIA penalty threshold**
- Expenditure forecast is 85% of the forecast in the Business Plan filed in 2021
 - Reflects more savings coming from Wattsmart Business (costs less than Home Energy Savings)

| | 2022-2023 Gross MWh Savings @ site | | |
|---|------------------------------------|--|-----|
| | Approved in Conditions List | 2023 Draft Annual Conservation Plan Forecast | |
| pro-rata share of 10-year conservation potential | 94,210 | | |
| EIA Target | 94,210 | 88,618 | 94% |
| decoupling | 4,711 | | |
| Total utility conservation goal | 98,921 | 88,618 | 90% |
| Excluded programs (NEEA) | (6,774) | (6,777) | |
| Utility specific conservation goal | 92,147 | 81,841 | 89% |
| EIA penalty threshold (EIA target minus NEEA savings) | 87,436 | 81,841 | 94% |
| EIA penalty threshold plus decoupling | 92,147 | 81,841 | 89% |

2023 Annual Conservation Plan (draft as of 9/2/2022)

| Table 1 (BP) | 2022-2023 Biennial Target Savings and Budget Projections by Program | | | | | | | | |
|---|---|---------------------------|------------------------|--|---------------------------|------------------------|-------------------------|------------------------|------------------------|
| | 2022 PacifiCorp Washington Conservation Estimates | | | 2023 PacifiCorp Washington Conservation Estimates | | | 2022 + 2023 | 2022 + 2023 | 2022 + 2023 |
| Program or Initiative | 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 | Gross MWh Savings @gen | Estimated Expenditures |
| Low Income Weatherization (114) ¹ | 143,110 | 154,095 | \$ 951,579 | 130,100 | 140,086 | \$ 1,193,659 | 273 | 294 | \$ 2,145,238 |
| Home Energy Savings (118) ² | 2,225,274 | 2,396,086 | \$ 3,760,789 | 3,649,900 | 3,930,066 | \$ 5,645,780 | 5,875 | 6,326 | \$ 9,406,569 |
| Home Energy Reports (N/A) ³ | 3,126,053 | 3,366,009 | \$ 381,308 | 432,475 | 465,672 | \$ 462,996 | 3,559 | 3,832 | \$ 844,304 |
| Total Residential Programs | 5,494,437 | 5,916,190 | \$ 5,093,677 | 4,212,475 | 4,535,824 | \$ 7,302,434 | 9,707 | 10,452 | \$ 12,396,111 |
| Wattsmart Business (140) - Commercial | 23,159,062 | 24,919,614 | \$ 6,879,778 | 24,052,821 | 25,881,317 | \$ 9,127,973 | 47,212 | 50,801 | \$ 16,007,750 |
| Wattsmart Business (140) - Industrial | 7,270,922 | 7,766,435 | \$ 2,023,226 | 16,179,211 | 17,281,824 | \$ 4,591,939 | 23,450 | 25,048 | \$ 6,615,164 |
| Wattsmart Business (140) - Irrigation | 706,413 | 760,637 | \$ 227,295 | 766,007 | 824,805 | \$ 264,069 | 1,472 | 1,585 | \$ 491,364 |
| Total Business Programs | 31,136,397 | 33,446,687 | \$ 9,130,299 | 40,998,039 | 43,987,947 | \$ 13,983,980 | 72,134 | 77,435 | \$ 23,114,279 |
| Northwest Energy Efficiency Alliance ⁴ | 3,112,195 | 3,350,145 | 862,100 | 3,664,463 | 3,941,523 | 877,438 | 6,777 | 7,292 | \$ 1,739,538 |
| Distribution Efficiency | | 82,000 | | | 83,000 | | - | 165 | \$ - |
| Total Other Conservation Initiatives | 3,112,195 | 3,432,145 | \$ 862,100 | 3,664,463 | 4,024,523 | \$ 877,438 | 6,777 | 7,457 | \$ 1,739,538 |
| Be wattsmart, Begin at Home | - | - | \$ 64,523 | - | - | \$ 70,008 | - | - | \$ 134,531 |
| Customer outreach/communication | - | - | \$ 250,000 | - | - | \$ 250,000 | - | - | \$ 500,000 |
| Program Evaluations (& savings verification) ⁵ | - | - | \$ 192,837 | - | - | \$ 254,497 | - | - | \$ 447,333 |
| Potential study update/analysis ⁶ | - | - | \$ 120,115 | - | - | \$ 15,368 | - | - | \$ 135,483 |
| System Support ⁷ | - | - | \$ 98,378 | - | - | \$ 98,378 | - | - | \$ 196,756 |
| End use load research & RTF funding | | | \$ 109,500 | | | \$ 65,500 | - | - | \$ 175,000 |
| Total Portfolio-Level Expenses | - | - | 835,352 | - | - | 753,750 | - | - | \$ 1,589,103 |
| Total PacifiCorp Conservation ⁸ | 36,630,834 | 39,444,877 | \$ 15,059,328 | 45,210,514 | 48,606,771 | \$ 22,040,165 | 81,841 | 88,052 | \$ 37,099,493 |
| Total System Benefit Charge Conservation | 39,743,029 | 42,795,022 | 15,921,428 | 48,874,977 | 52,548,294 | \$ 22,917,603 | 88,618 | 95,343 | \$ 38,839,031 |
| Total Conservation | 39,743,029 | 42,795,022 | \$ 15,921,428 | 48,874,977 | 52,548,294 | \$ 22,917,603 | 88,618 | 95,343 | \$ 38,839,031 |
| 2022 Total Pac Conservation in Plan | 48,839,500 | | \$ 21,946,103 | EIA penalty threshold (EIA target minus NEEA savings) | | | 87,436 | | |
| 2022 Total Conservation in Plan | 51,917,615 | | \$ 22,808,203 | | | | | | |
| 2022 Total Pac Conservation Forecast % of Plan | 75% | | 69% | 2022 + 2023 Forecast % of EIA penalty threshold | | | 94% | | |
| 2022 Total Conservation Forecast % of Plan | 77% | | 70% | | | | | | |

Variance Table for 2023 Annual Conservation Plan (draft as of 9/2/2022)

| | Business Plan Nov. 1, 2021 | 2023 Annual Conservation Plan Nov. 15, 2022 | Variance | | Business Plan Nov. 1, 2021 | 2023 Annual Conservation Plan November 15, 2022 | Variance | |
|---|-------------------------------|---|-----------------|-------------|-------------------------------|---|-----------------------|-------------|
| | 2022-2023 | | | | 2022-2023 | | | |
| Program or Initiative | Gross MWh Savings @ site | | | | Estimated Expenditures | | | |
| Low Income Weatherization (114) | 338 | 273 | (65) | | \$ 1,981,250 | \$ 2,145,238 | \$ 163,988 | |
| Home Energy Savings (118) | 19,814 | 5,875 | (13,938) | | \$ 18,961,967 | \$ 9,406,569 | \$ (9,555,398) | |
| Home Energy Reports (N/A) | 3,930 | 3,559 | (372) | | \$ 755,974 | \$ 844,304 | \$ 88,330 | |
| Total Residential Programs | 24,082 | 9,707 | (14,375) | 40% | \$ 21,699,191 | \$ 12,396,111 | \$ (9,303,080) | 57% |
| Wattsmart Business (140) - Commercial | 42,658 | 47,212 | 4,554 | | \$ 13,062,312 | \$ 16,007,750 | \$ 2,945,438 | |
| Wattsmart Business (140) - Industrial | 25,944 | 23,450 | (2,494) | | \$ 6,731,486 | \$ 6,615,164 | \$ (116,322) | |
| Wattsmart Business (140) - Irrigation | 1,736 | 1,472 | (264) | | \$ 547,594 | \$ 491,364 | \$ (56,230) | |
| Total Business Programs | 70,338 | 72,134 | 1,796 | 103% | \$ 20,341,392 | \$ 23,114,279 | \$ 2,772,886 | 114% |
| Northwest Energy Efficiency Alliance | 6,774 | 6,777 | 3 | | \$ 1,724,200 | \$ 1,739,538 | \$ 15,338 | |
| Distribution Efficiency | - | - | - | | \$ - | \$ - | \$ - | |
| Total Other Conservation Initiatives | 6,774 | 6,777 | 3 | 100% | \$ 1,724,200 | \$ 1,739,538 | \$ 15,338 | 101% |
| Be wattsmart, Begin at Home | | | | | \$ 129,046 | \$ 134,531 | \$ 5,485 | |
| Customer outreach/communication | | | | | \$ 500,000 | \$ 500,000 | \$ - | |
| Program Evaluations (& savings verification) | | | | | \$ 809,186 | \$ 447,333 | \$ (361,853) | |
| Potential study update/analysis | | | | | \$ 135,483 | \$ 135,483 | \$ - | |
| Technical Reference Library | | | | | \$ 324,278 | \$ 196,756 | \$ (127,522) | |
| End use load research | | | | | \$ 175,000 | \$ 175,000 | \$ - | |
| Total Portfolio-Level Expenses | | | | | \$ 2,072,993 | \$ 1,589,103 | \$ (483,890) | |
| Total PacifiCorp Conservation | 94,420 | 81,841 | (12,579) | 87% | \$ 44,113,576 | \$ 37,099,493 | \$ (7,014,083) | 84% |
| Total System Benefit Charge Conservation | 101,194 | 88,618 | (12,576) | 88% | \$ 45,837,776 | \$ 38,839,031 | \$ (6,998,745) | 85% |
| Total Conservation | 101,194 | 88,618 | (12,576) | 88% | \$ 45,837,776 | \$ 38,839,031 | \$ (6,998,745) | 85% |

Forecast Highlights

- Includes 1/1/2023 program changes for Home Energy Savings and Wattsmart Business
- Reflects a drop in Home Energy Report savings per household and an expansion
- Non-Energy Impacts forecast
 - 2022 Forecast includes RTF and original DNV study values: \$521K
 - 2023 Forecast includes RTF and updated DNV study values: \$760K
- Cost-effectiveness analysis – still reviewing
 - Home Energy Savings not cost-effective in the 11/1/2021 plan and not cost-effective in 2023 Annual Conservation Plan either
- Principles behind program changes for Home Energy Savings
 - Prioritizing participation (kWh savings) and equity over improving cost-effectiveness at the program level
 - Retaining non-cost-effective measures with participation and/or for equity reasons
 - Equity example – lighting buydown in value retailers (CEIP utility action)

Current biennial targets are set using pro-rata and the 2021 IRP EE selections.

- WAC 480-109-100 => The biennial conservation target must be no lower than a pro rata share of the utility's ten-year conservation potential.

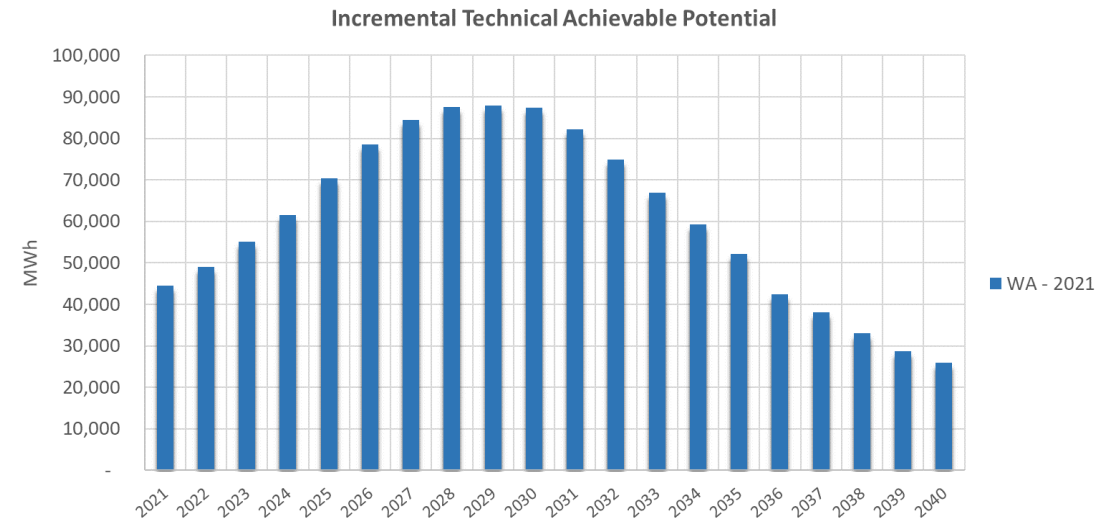
Ramp rates used in the CPA are derived from the NWPCC's latest Power Plan. Council ramp rates assume that:

“most short-term savings will be via direct-funded utility programs, but this [ramp rate] recommendation also includes efficiency accomplished through market transformation initiatives through NEEA, building codes, appliance standards, and natural market adoption.”

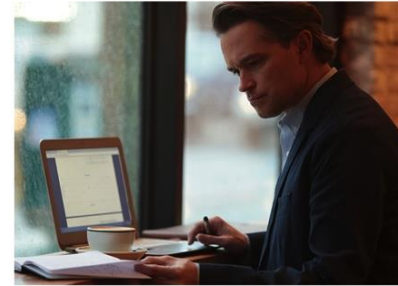
These non-utility funded savings mechanisms for acquiring savings are not accounted within the pro-rata strategy.

Current opportunities are likely being captured but cost-effectiveness and pandemic issues make accelerated targets and acquisition of outer year savings more challenging to achieve.

| Potential/Target Category (@gen) | 2022+2023 |
|---|-----------|
| EIA Target (incl. NEEA savings) | 101,191 |
| 2021 IRP Technical Achievable Potential (TAP) | 106,570 |
| EIA Target as % of TAP | 95% |
| 2021 IRP EE selections | 75,466 |
| IRP EE selections as % of TAP | 71% |



Preview of 2023 Plans, Program Changes (DRAFT)



Wattsmart Business

Nancy Goddard



Wattsmart Business – planned changes for 2023

For the main offer for all business customers:

Increase Lighting Incentives

(+20%)

- Typical Lighting System Retrofits
- New Construction/Major Renovation Lighting

Add New Measures

- HVAC
 - Additional tier for ≤ 5 -ton Advanced Rooftop Unit Control (Existing RTU)
- Food Service
 - Electric Convection Oven - Half Size
- Engine Block Heater Control
- Small Business Lighting
 - LED Exterior Replacement Lamps

Other minor changes for RTF alignment, etc.

Wattsmart Business – planned changes for 2023

For the offer limited to small businesses only:

Continue

- Continue to offer higher customer incentives for lighting retrofits for small businesses in Highly Impacted Communities and very small businesses regardless of location
 - Higher incentive per kWh annual savings than the small business offer
 - Higher incentive cap (up to 100% of project cost)
- Continue to offer higher vendor incentive for projects installed for HIC small businesses and very small businesses
- Continue to target small business outreach to customers in HIC (postcard mailings with vendor follow-up)

Planned changes

- Add non-lighting measures with enhanced incentives to the small business offer (available for HIC and non-HIC customers)
- Increase the maximum annual usage for the small business offer from 200,000 to 300,000 kWh annually
 - More businesses eligible for the enhanced incentives in the small business offer

Yellow highlighting = equity component

Wattsmart Business 2023 Plans

Business Plan/CEIP Utility Actions – continued effort in 2023

Increase outreach and participation for small businesses and named community small businesses identified by census tract and rate schedule

- Create a new offer within the current small business enhanced incentive offer targeting the smallest businesses using less than 30,000 kilowatt-hours per year and Named Community small businesses on Schedule 24. **(Done)**
 - Offer a higher incentive and increase the incentive cap for this new offer from 90 percent to 100 percent of project costs to reduce the customer out-of-pocket cost barrier. **(Done)**
- Target a portion of company initiated proactive outreach to small businesses located in Highly Impacted Communities. Continue to tie proactive outreach to approved small business vendor capacity to respond to customer inquiries. **(Continue)**
- Offer approved small business lighting vendors a higher vendor incentive for completed lighting retrofit projects with small businesses located in Highly Impacted Communities. **(Continue)**

Wattsmart Business 2023 Plans

Plans for largest businesses (one delivery channel)

- Work the current pipeline of projects (this is always ongoing)
- Seek engagement using personalized outreach emails (put the offer in writing)
 - Personalized approach depending on customer, appeal to that customer's priorities and constraints
 - Follow up on previously proposed projects
 - Offer energy management services
 - Not impacted as much by supply chain issues, etc.
 - Potentially offer dedicated engineer time on site (x hours per week) to identify projects, keep them moving
- Schedule a big group of refrigeration tune-ups for tree fruit customers

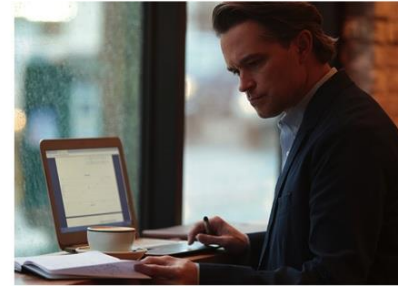
Wattsmart Business 2023 Plans

Clean Buildings Accelerator Pilot – continue in 2023

- Clean Buildings Accelerator helps building owners comply with the Clean Buildings law while achieving energy and money savings at the same time. Building owner teams participate in a cohort or group made up of other building owner teams.
- First cohort completed the four monthly “sprint” workshops
 - One-on-one coaching calls taking place
 - Group made up of both Highly Impacted Community and non-HIC customers
 - Energy savings results not clear yet
- Recruit soon for second cohort that would start in first quarter 2023
 - Continue to target customers in Highly Impacted Communities

Home Energy Savings

Nancy Goddard



Home Energy Savings – planned changes for 2023

New Measures

- **Multi-Family Direct Install**
 - Add Smart Thermostat
 - Add Communicating line voltage thermostat
 - For baseboard heating
- Air purifier (retail and instant coupon)
- Engine block heater controls
- Heat pump water heaters for new construction

Other Plans

- **Enhanced HVAC incentives for customers in Highly Impacted Communities**
- Ductless heat pumps replacing fuel oil/wood/propane heating:
 - Expand to all customers
 - Higher incentives for HIC customers
- Ramp up single-family home direct install Duct Sealing – target HICs
- Add efficiency tiers and increase most single-family home window incentives

Expanded Offerings for Existing Measures

- Smart thermostats available in retail, coupon or direct install delivery, and available for all home types.
- Heat pump water heaters
 - Remove the 0-55 gallon size restriction
 - Home type eligibility specified to single family and manufactured homes to align with the Regional Technical Forum (RTF).
- Allow for self-install of ductless heat pumps.

Yellow highlighting = equity component

Underline – more detail in slides to come

Home Energy Savings – planned changes for 2023

Increased Outreach Efforts

- Focus marketing and outreach efforts for direct install initiatives on customers in Highly Impacted Communities
 - Smart thermostats, line voltage connected thermostats, lighting, single family duct sealing, and manufactured home duct sealing.
- Continue to build trade ally network, multi-family trade ally network, connections to Housing Authority Groups
- New Hire: Outreach Representative, Boots on the Ground, Counter Days, etc.

Expand New Homes Incentives

- **Pay for Savings** - Provide incentive per kWh savings based on modeled home performance and verified by an independent third-party home energy rater. The program will maintain the current Performance Path incentives for builders that exceed energy code by at least 10% for single family and 5% for multifamily homes.
- **Standalone New Construction measures** - efficient heat pumps and heat pump water heaters that are better than energy code.

Home Energy Savings – planned changes for 2023

Business Plan/CEIP Utility Actions – continued effort in 2023

- Enhanced incentives for windows in multi-family units on residential rate schedules. Initial focus on buildings in Highly Impacted Communities.
- Continue direct install residential lighting in multi-family units. Maintain and expand if possible general-purpose lamp buy down in “dollar stores” in Highly Impacted Communities.
- Continue manufactured home direct install duct sealing and lighting. Continue focus in Highly Impacted Communities.
- Continue promoting new construction offerings for multifamily and single-family dwellings.
- Continue to target residential customers in Highly Impacted Communities who use non-electric and non-natural gas fuel sources in their primary heating systems by decommissioning these systems and installing ductless heat pumps (**more detail on changes in coming slides**).

Home Energy Savings – planned changes for 2023

HVAC Equipment Measures

Current

- Same customer incentives for HIC and non-HIC
- Single-Family Home examples:
 - Ductless Heat Pump: \$1,400
 - Federal Standard Heat Pump Conversion: \$1,750
 - 9.0+ HPSF Heat Pump Conversion: up to \$2,750

Planned changes

- Increased customer incentives (approx. 10%) for all customers
- Higher incentives for Single-Family Homes in Highly Impacted Communities (approx. 20% above current)
 - Ductless Heat Pump: \$1,800
 - Federal Standard Heat Pump Conversion: \$2,250
 - 9.0+ HPSF Heat Pump Conversion: up to \$3,250

Home Energy Savings – planned changes for 2023

Ductless Heat Pump – replacing fuel oil/wood/propane heating

Currently

- Ductless Heat Pump replacing fuel oil/wood/propane heating available for customers in HIC only
- Incentive and savings same as the electric baseline DHP measure
- Single-Family Home examples:
 - Ductless Heat Pump: \$1,400 customer incentive

Planned changes

- Ductless Heat Pump replacing fuel oil/wood/propane heating available for HIC and non-HIC customers
- Savings varies depending on existing fuel source (fuel oil/wood/propane)
- Increase incentive over the electric baseline version of the measure for non-HIC customers (incentive is TBD)
- Higher incentive for HIC customers
- Target HIC customers first

Home Energy Savings – planned changes for 2023

Windows

Current incentive for single-family home windows

\$1/sq-ft with a single tier for U 0.25 and lower

Current incentive for multi-family windows

\$25/sq-ft

Planned changes for single-family homes:

Add efficiency tiers and increase incentives

(based on input from Equity Advisory Group member - Sustainable Living Center)

| U-Value | Pre-Condition | Incentive/sq-ft |
|---------|------------------------|-----------------|
| U-22 | Single Pane Wood/Metal | \$10.00 |
| U-22 | Double Pane Metal | \$ 6.00 |
| U-30 | Single Pane Wood/Metal | \$ 5.00 |
| U-30 | Double Pane Metal | \$ 3.00 |
| U-25 | Any | \$ 1.00 |

No planned changes for multi-family windows

Maintain increase in place in 2022 (see Utility Actions)

Low Income Weatherization

Charity Spires

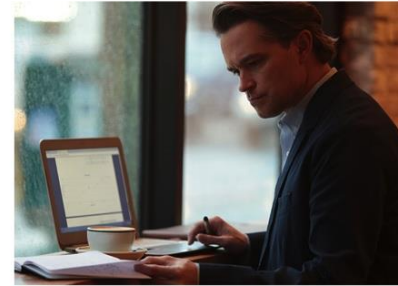


Low Income Weatherization

- Forecast for 2023 includes 100 homes; 1,300 kWh per home
- Challenges related to the pandemic remain including supply chain and weatherization workforce issues
- Partner weatherization agencies working on completing multi-family projects some of which were delayed due to the pandemic. Projects were to begin in 2019 Q3. One project with 16 units completed and billed in July 2022. Expecting another project with 13 units in early Q4 2022.

Home Energy Reports

Ryan Harvey



Home Energy Reports (w/correction)

- Savings per household decreased from 2022 to 2023
 - Email – from 87 to 4983 kWh/household
 - Paper – from 40 to 34 kWh/household
- Expand digital offering to include 15,000 more households (maximum expansion possible)
- \$70,350 will see a forecasted increase of 944,500 kwh savings
- Total forecasted savings for 2023: 3,558,528 kwh
 - *Note this is prior to the adjustments made in the biennial conservation report; 2023 savings in Business Plan table on slide 9 reflects adjustments.*

Conservation Potential Assessment Updates

Peter Schaffer



Conservation Potential Assessment – Milestones



If there is interest, we will plan to share additional Washington specific draft results during a fall/winter DSM AG meeting.

| Timeframe | Milestone | Input Request |
|--|--|--|
| February 22, 2022 | Share Work Plan | Provide input on scope |
| February 25, 2022 | Present on Scope of Work | Additional input on scope |
| April 1, 2022 | Share Draft EE & DR Measure List | Provide feedback on included measures |
| April 7, 2022 | Present on Measure List | Ask questions and provide feedback by April 18. |
| April 22, 2022 | Finalize Measure List | n/a – feedback incorporated |
| May 12, 2022 | Share Key Drivers of Potential and Assumptions | Participate in meeting, provide input on key drivers |
| September 1/2, 2022 | Present Draft Results | Review materials and provide feedback |
| October 13/14, 2022 December 1-2, 2022 | Present Final Supply Curves | Review changes made due to feedback |
| November/December 2022 | Draft CPA Report for Review | Provide input on draft report |
| January 2023 | Publish Final Report | n/a – feedback incorporated |

2023 CPA Analysis Themes



CPA Forecasting is Dynamic

- CPA forecasting is dynamic and markets change quickly
- Analysis every two years to capture these changes

Lighting Changes

- Finalization of federal EISA 2020 backstop in 2022
- Adjusted federal lamp type definitions

Segmentation

- Income thresholds for residential sector in all states

State Specificity

- Regional measure and market data sourcing
- State specific codes, standards and lighting assumptions

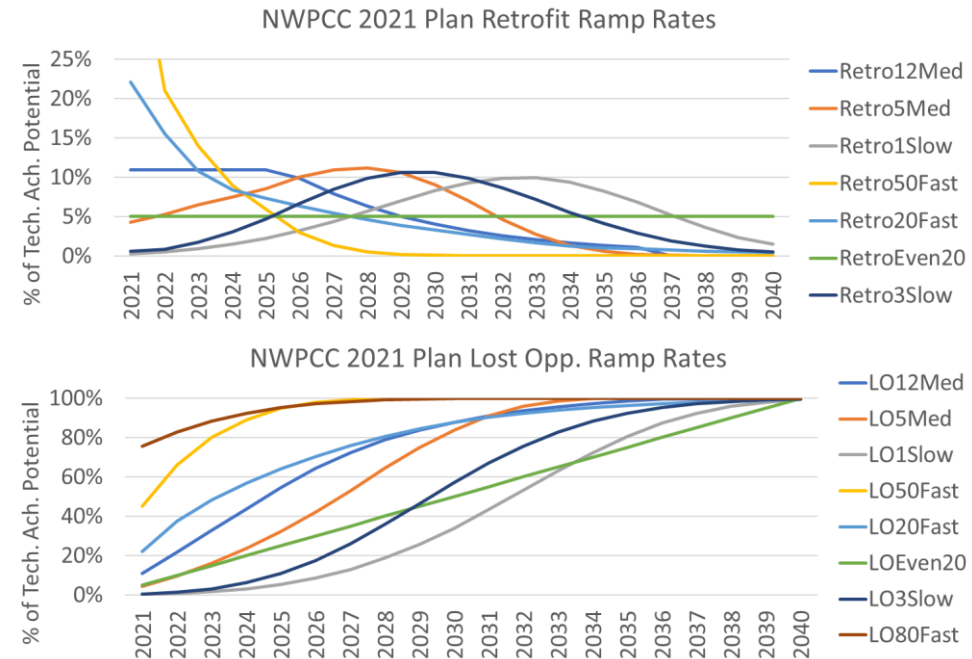
Load Forecast

- Baseline forecast includes climate change, building and vehicle electrification

Ramp Rate Adjustments



- In 2021 CPA, AEG made several adjustments to ramp rate assignments in the NWPCC 2021 Power Plan
- Many residential categories were adjusted for faster ramp rates
- For C&I, only lighting went to faster ramp rate from 2021 Plan
- PacifiCorp/AEG team still reviewing appropriate ramp rates and any necessary changes. Will present any updates at final results meeting.



Key Drivers of WA Potential Changes



Key Updates Relative to the 2021 CPA

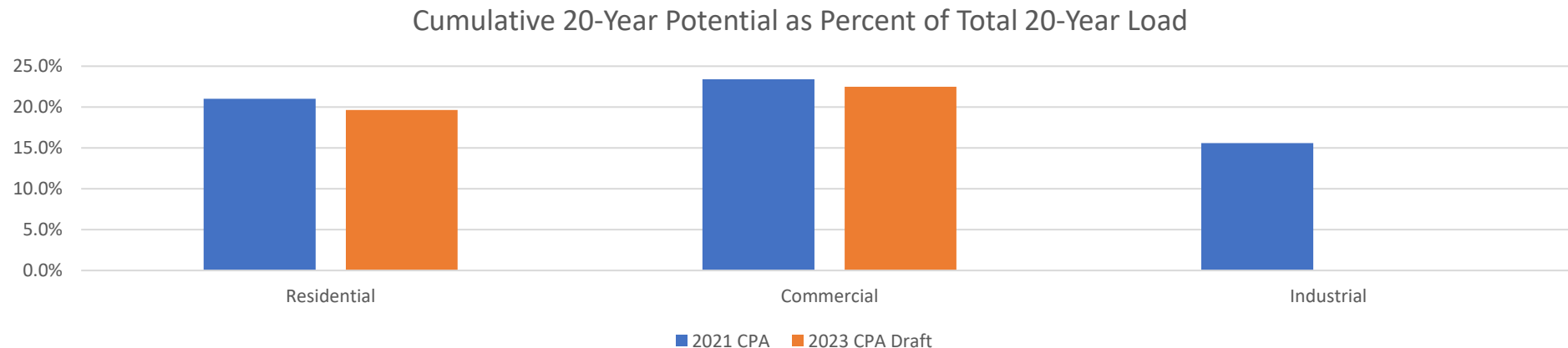


| Change Area | Detail |
|----------------------------|---|
| State-Specific Adjustments | Improved state-specific measure and market data sourcing |
| | Updated residential surveys |
| | Updated load forecast data |
| | Codes & Standards updates |
| | Expanded integration of non-energy impacts in Washington |
| Forecasting Methodology | Residential Low- and Moderate-Income segmentation added |
| | Lighting savings methods (market baseline and EISA) |
| | Inclusion of climate change in main forecast |
| | Building electrification assumed in baseline forecast in all states |
| | Scenario and sensitivity analysis |
| Other | Other updated secondary sources (AEO purchase shares and trends) |
| | Renewed emerging technology screen |
| | Applicability and Saturation Sourcing Updates (2019 CBSA) |
| | Incremental HERs only in California/Oregon and New Construction |

Drivers of WA Potential Changes



- Commercial:
 - Billing data with more accurate NAICS code mapping analysis resulted in ~20% lower Commercial consumption than in 2021 CPA – load reallocated into Industrial
 - Measure characterization drove further differences in 20-year potential (from 23.4% to 22.5% of total load)
- Industrial:
 - Expect industrial potential to increase due to reallocation of Commercial load (~50% increase in industrial load from study to study)
 - Less opportunity in industrial (~15.6% of load), so additional industrial load will result in less overall potential
- Residential and Commercial potential shown here only show part of the story; looking at Commercial and **Industrial** together provides a more accurate picture of changes for Commercial
 - Overall C&I load up ~2% in base year of the study across C&I
 - If % industrial savings stay the same, overall 20-year C&I potential should only decrease by 2.5%



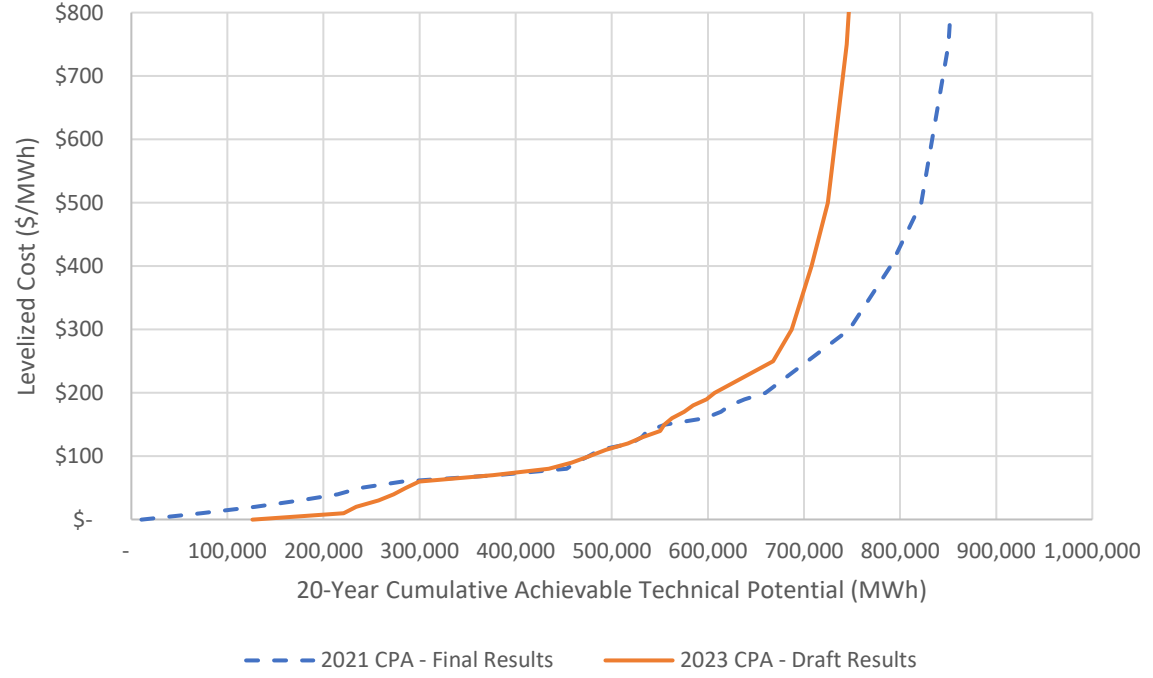


2023 CPA – Energy Efficiency Draft Potential Results



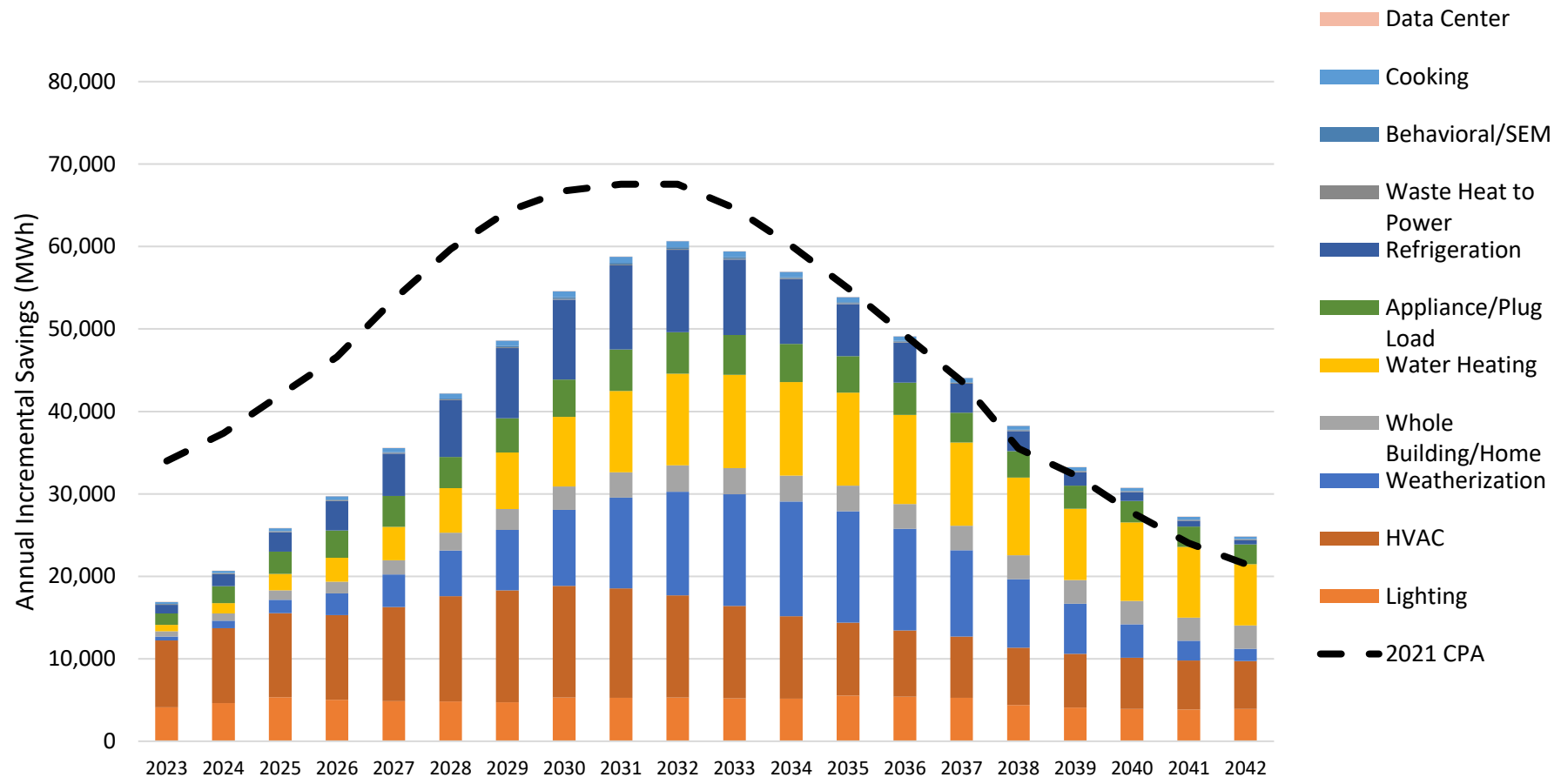


Achievable Technical Potential Supply Curve (Washington, Cumulative MWh, Res and Com Only)



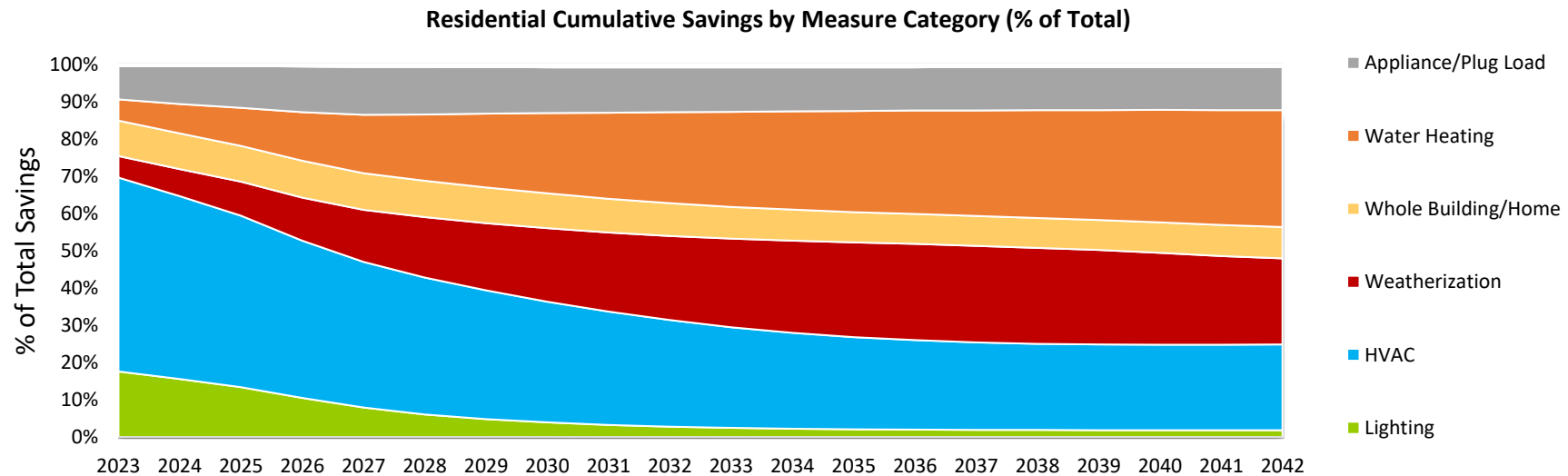
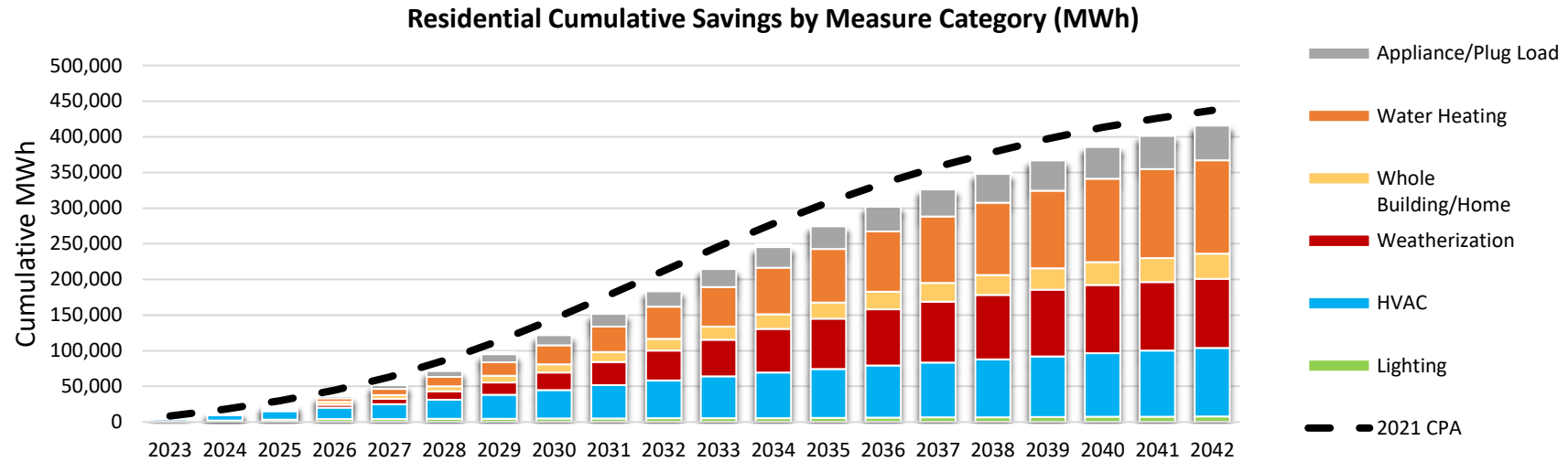
| Washington Residential and Commercial Cumulative 20-year Potential Comparison (GWh) | | |
|---|----------|--------------|
| 2021 CPA | 2023 CPA | % Difference |
| 784 | 895 | -12% |

Achievable Technical Potential Comparison (Washington - Incremental MWh - Res & Com Only)



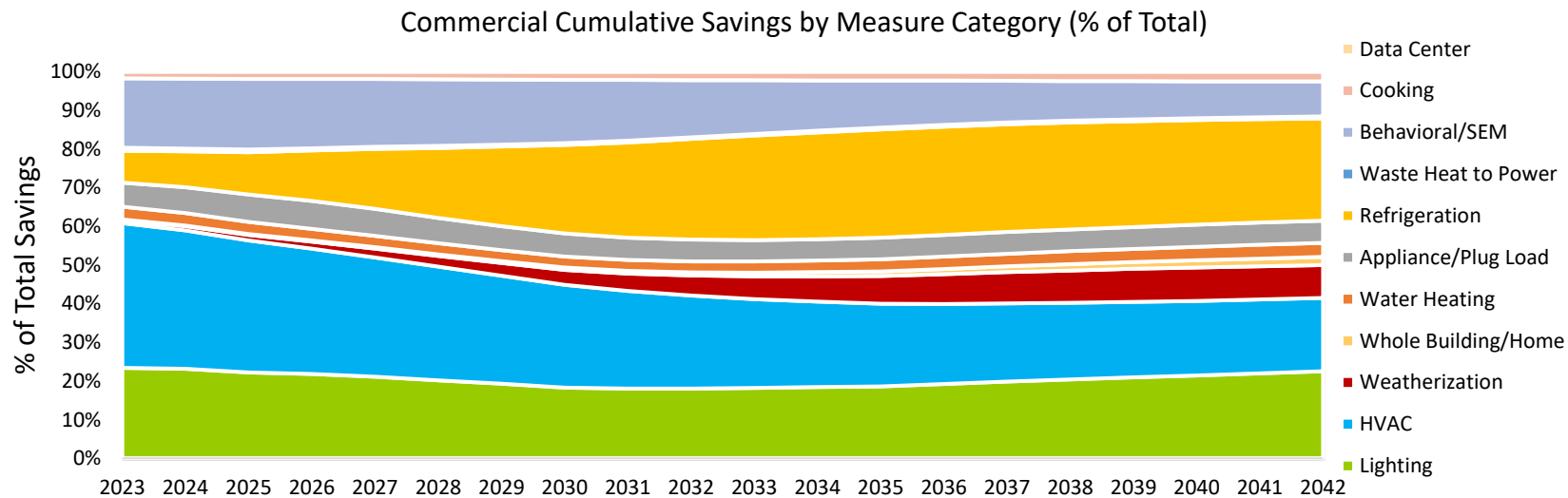
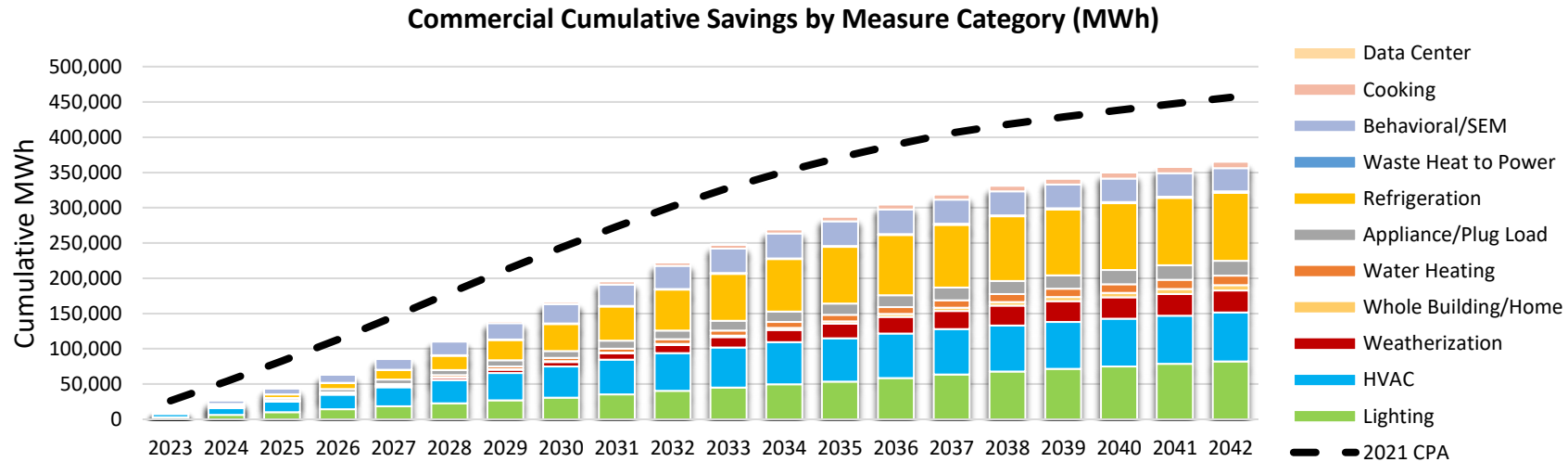
*Curves only showing residential and commercial sectors; No HERs

Residential Draft Results (Washington)





Commercial Draft Results (Washington)



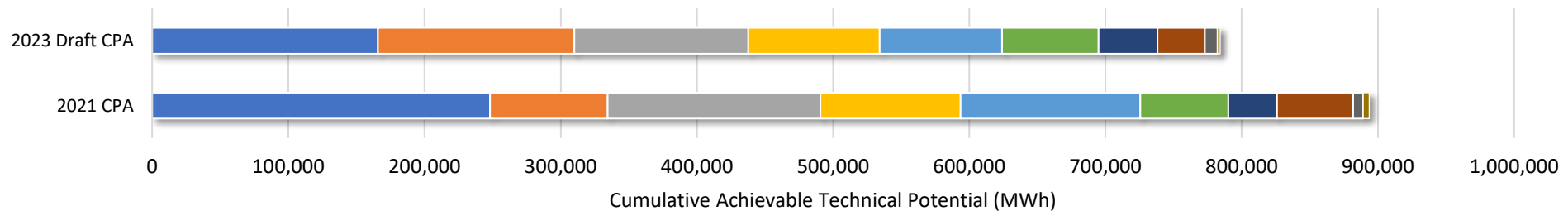
Note: Industrial and Irrigation results not ready for presentation across all states at this time.



Washington – Top Measure Types (Res & Com)

| 2042 Rank | Measure Type | 2023 CPA Draft: 20-Year Cumulative Potential | % of Total | 2021 CPA 20 Year Cumulative Potential | % Change |
|-----------|---------------------|--|---------------|---------------------------------------|---------------|
| 1 | HVAC | 165,813 | 21.1% | 248,092 | -33.2% |
| 2 | Water Heating | 144,260 | 18.4% | 86,422 | +66.9% |
| 3 | Weatherization | 127,652 | 16.3% | 156,113 | -18.2% |
| 4 | Refrigeration | 96,496 | 12.3% | 102,968 | -6.3% |
| 5 | Lighting | 89,937 | 11.5% | 131,901 | -31.8% |
| 6 | Appliance/Plug Load | 70,786 | 9.0% | 64,809 | +9.2% |
| 7 | Whole Building/Home | 43,179 | 5.5% | 35,695 | +21.0% |
| 8 | Behavioral/SEM | 34,763 | 4.4% | 55,758 | -37.7% |
| 9 | Cooking | 9,345 | 1.2% | 7,559 | +23.6% |
| 10 | Waste Heat to Power | 2,010 | 0.3% | 4,406 | -54.4% |
| 11 | Data Center | 114 | 0.0% | 124 | -7.6% |
| | Total | 784,358 | 100.0% | 893,847 | -12.2% |

20-Year Cumulative Achievable Technical Potential - Washington
Residential and Commercial Only

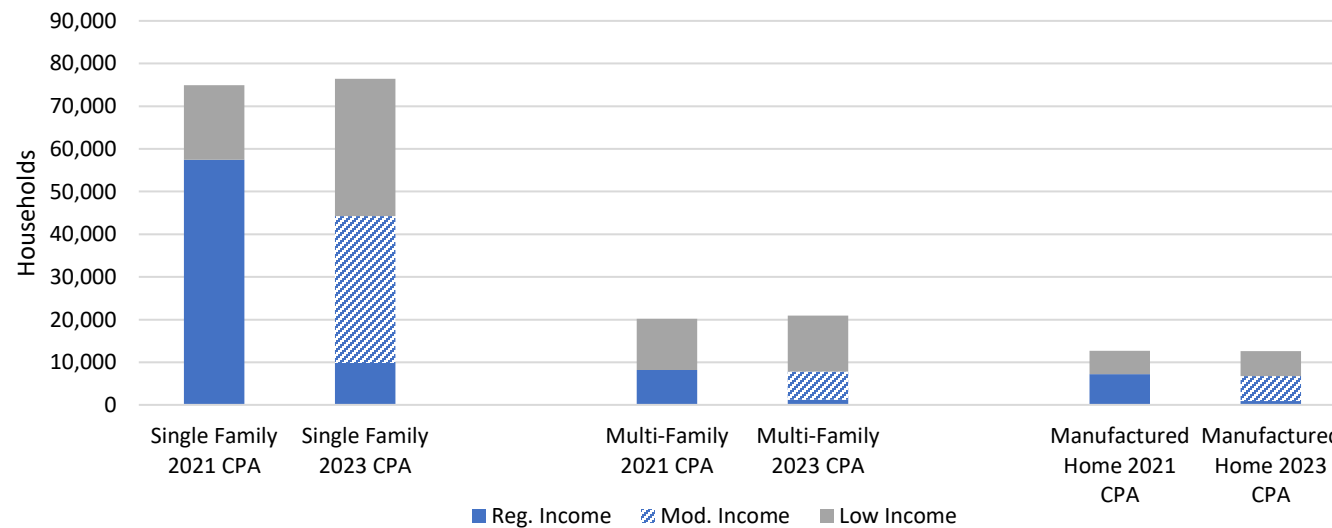


Washington Residential Comparison: Segmentation



| | 2021 CPA | 2023 CPA |
|---------------------------|--|---|
| Segmentation | Low-Income and Non-Low Income | Low, Moderate, and Regular Income |
| Low-Income Threshold | ≤ 200% of federal poverty guidelines (FPG) | ≤ minimum of (200% FPG or 60% State Median Income) |
| Moderate Income Threshold | n/a | > Low Income Threshold and ≤ 100% State Median Income |
| Regular Income Threshold | > Low Income Threshold | > 100% State Median Income |

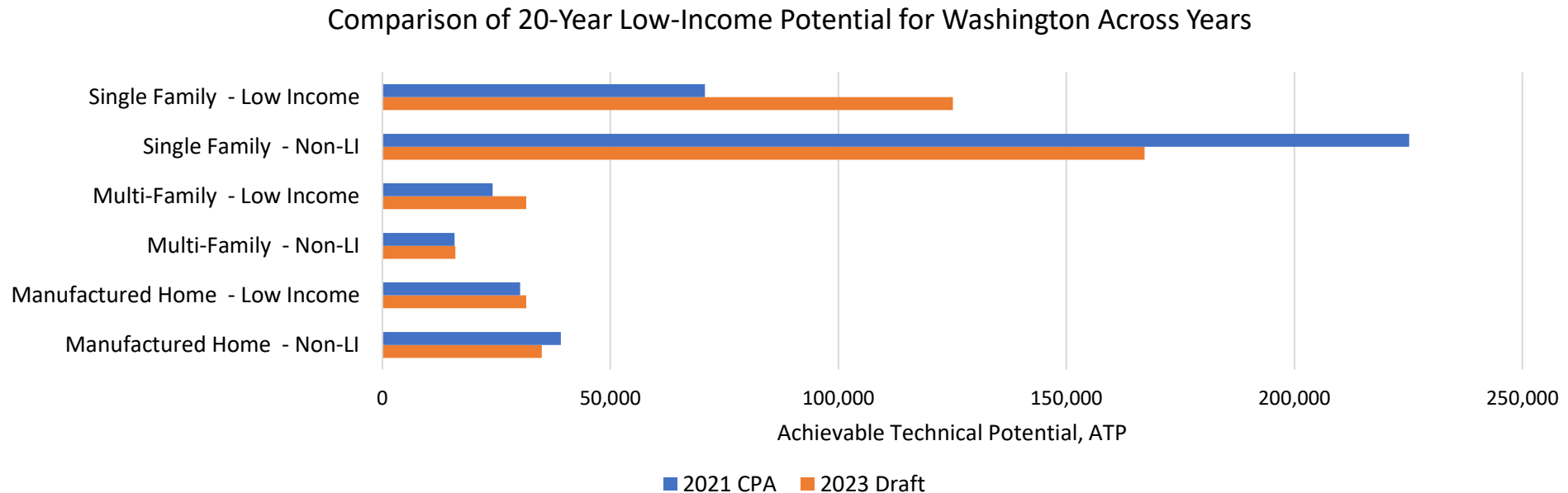
Washington Residential Segmentation Comparison - Number of Households



Washington Residential Comparison: Potential by Income



- Income threshold definitions likely driving the Single-Family differences – overall Single-Family potential decreased by just 1.2% from 2021 → 2023.
- For the comparison in the graph below, moderate and regular income combined into “Non-LI” income level.



Residential Potential by Income

Savings per Household – original slide, graph removed



- Trends:
 - HVAC, lighting more dependent on household size. Larger income = larger size = more load
 - For weatherization, disparity between income levels isn't as large as in HVAC
 - For water heating, dependent on number of occupants per household. Typically, more occupants in low-income homes, resulting in higher low-income water heating potential
- Removed graph

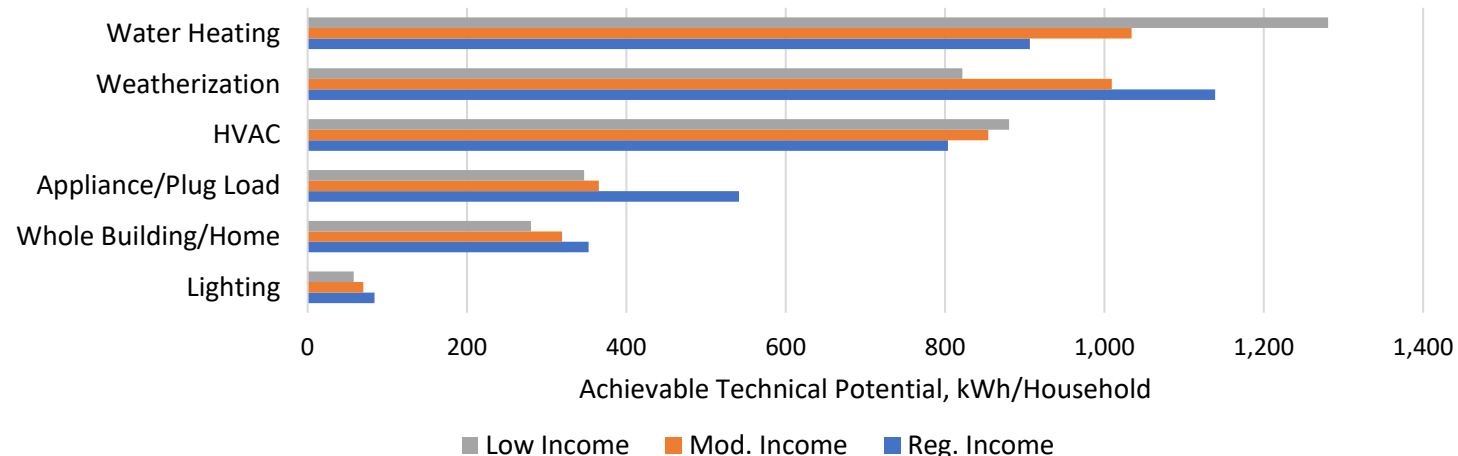
Residential Potential by Income

Savings per Household – replacement slide



- Trends:
 - HVAC, weatherization, lighting more dependent on household size. Larger income = larger size = more load
 - In Washington, higher low income NEIs tend to push the needle for HVAC measures and provide higher achievable potential in low income
 - For HVAC, disparity between income levels isn't as large as in weatherization
 - For water heating, dependent on number of occupants per household. Typically, more occupants in low-income homes, resulting in higher low-income water heating potential

20-Year Residential Technical Potential per Household by Measure Type and Income Level: Washington



Scenario Analysis



- End-use load forecasting model allows for deep insight into EE potential **and** customized scenario analysis around inputs
- In 2023 CPA, PacifiCorp proposes to run a scenario and sensitivity analysis for two distinct energy efficiency scenarios.
 - Climate change already in main load forecast – using Bureau of Reclamation Study
- Proposed High Scenario:
 - More aggressive ramp rates, higher incentive and administrative costs to drive measure take-up.
 - Risky to assume that accelerated measure take-up is only driven by broader policy shifts, C&S, or upstream manufacturer processes
- Possible Low Scenarios:
 - Higher costs based on more recent inflationary estimates
 - Ramp rates would be consistent, higher costs should result in similar achievable technical potential but different LCOEs and bundling in IRP
 - Potential without electrification in load forecast
 - How much of the base case potential is tied to electrification?



Demand Response



Key Changes Relative to the 2021 CPA



Key Similarities

Program options cover traditional and smart/interactive DLC, energy storage, and third-party curtailment

Incorporates changes in equipment efficiency and adoption of enabling technology from energy efficiency forecast

Assesses impacts from sustained and fast events enabled by technology

Aligns with CTA 2045 water heaters regulations in Washington and Oregon

Key Differences

Uses a technology-based and program-based approach

- Allows for separate impacts when appropriate (e.g., electric resistance vs. heat pump water heaters)
- Weights impacts using EE study saturations while treating as traditional program bundles for shared costs

Limits grid service assessment to technologies that enable a faster, automated response

Updates assumptions to reflect the final NWPCC 2021 Power Plan

DR Resources Assessed



| Program Category | Program Bundle | Eligible for Fast Event Potential?* | Current Offering |
|--|--|-------------------------------------|---------------------|
| Direct Load Control (Conventional) | Electric Vehicle Connected Charger Direct Load Control (DLC) | X | |
| | HVAC DLC | X | UT |
| | Irrigation Load Control | X | UT, ID, Pilot in OR |
| | Pool Pump DLC | X | |
| | Domestic Hot Water Heater (DHW) DLC | X | |
| Direct Load Control (Smart / Interactive) | DLC of Smart Home | | |
| | Grid Interactive Water Heater | X | |
| | Connected Thermostats DLC | | |
| Energy Storage | Battery Energy Storage DLC | X | UT, Pilot in ID |
| Curtailment | Third-Party (Fast Event) | X | Underway in UT |
| | Third-Party (Sustained Event) | | Underway in UT |

*All program bundles eligible for sustained events, some are eligible for fast events

Interpreting Draft Potential



Caveats

- **Potential is overestimated** - no interaction between competing resources to avoid double counting (e.g., DLC of central AC and controllable thermostats)
- **Potential is cumulative** - Includes modeled impacts of existing PacifiCorp programs, which will be netted out when assessing new resource options within the IRP
- Potential for customer-sited energy storage not included
- Program-specific inputs and some equipment saturations still undergoing review and are subject to change

Notes

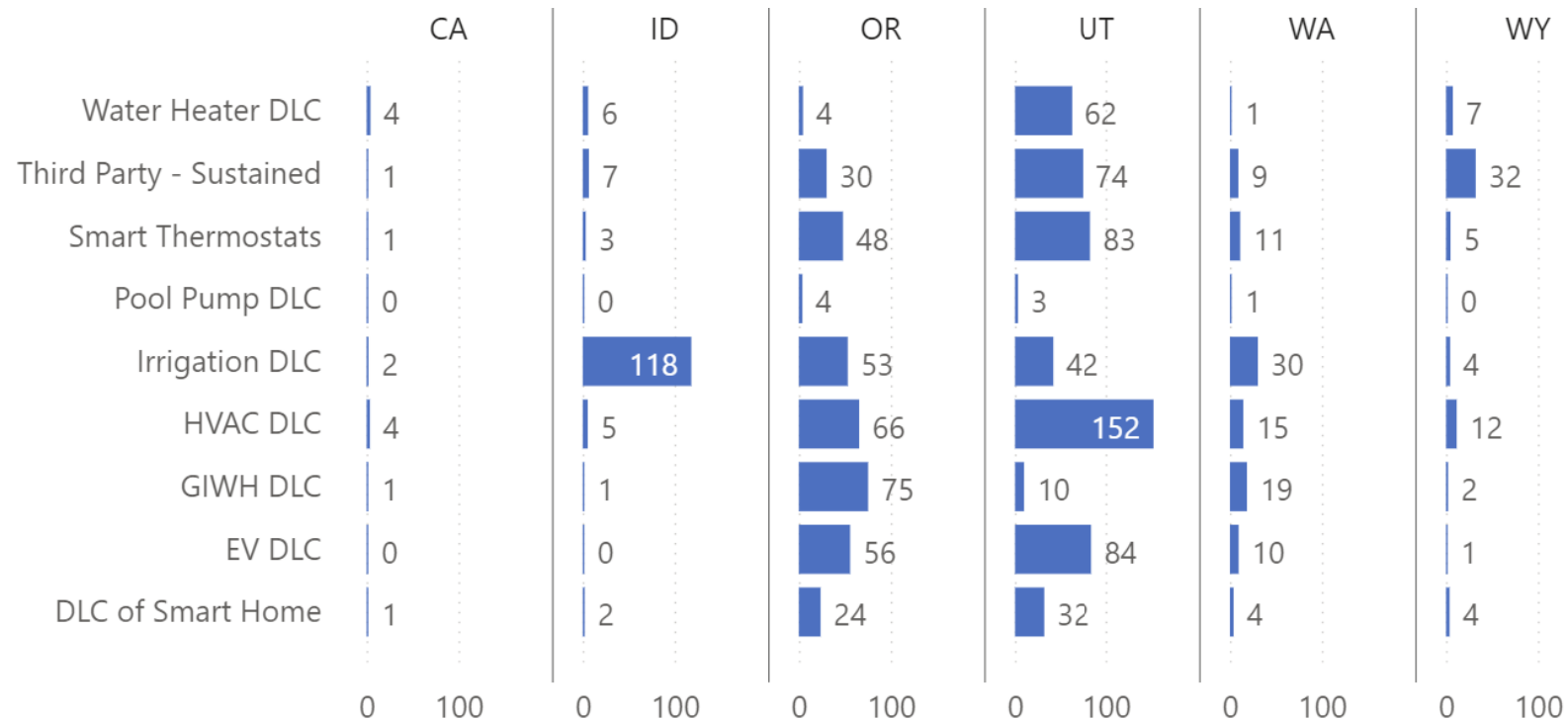
- Results represent the potential in 2042
- Impacts are based on PacifiCorp's summer and winter system peaks and may not align with state, sector, or technology peaks
- Assumes all programs (except existing) available for the model in 2023.
- Impacts associated with fast events in progress and not presented

20-Year Potential Summary - Summer



- Some calibration to existing and planned resources required
- Currently assumes a conservative portion of water heaters are Grid-Interactive Water Heaters (GIWH) in states where there are no current or planned codes for adoption (CA, ID, UT, and WY)
- Assumes a significant increase in EV adoption, consistent with the load forecast

20-Year Summer Potential (MW) by Program Option and State

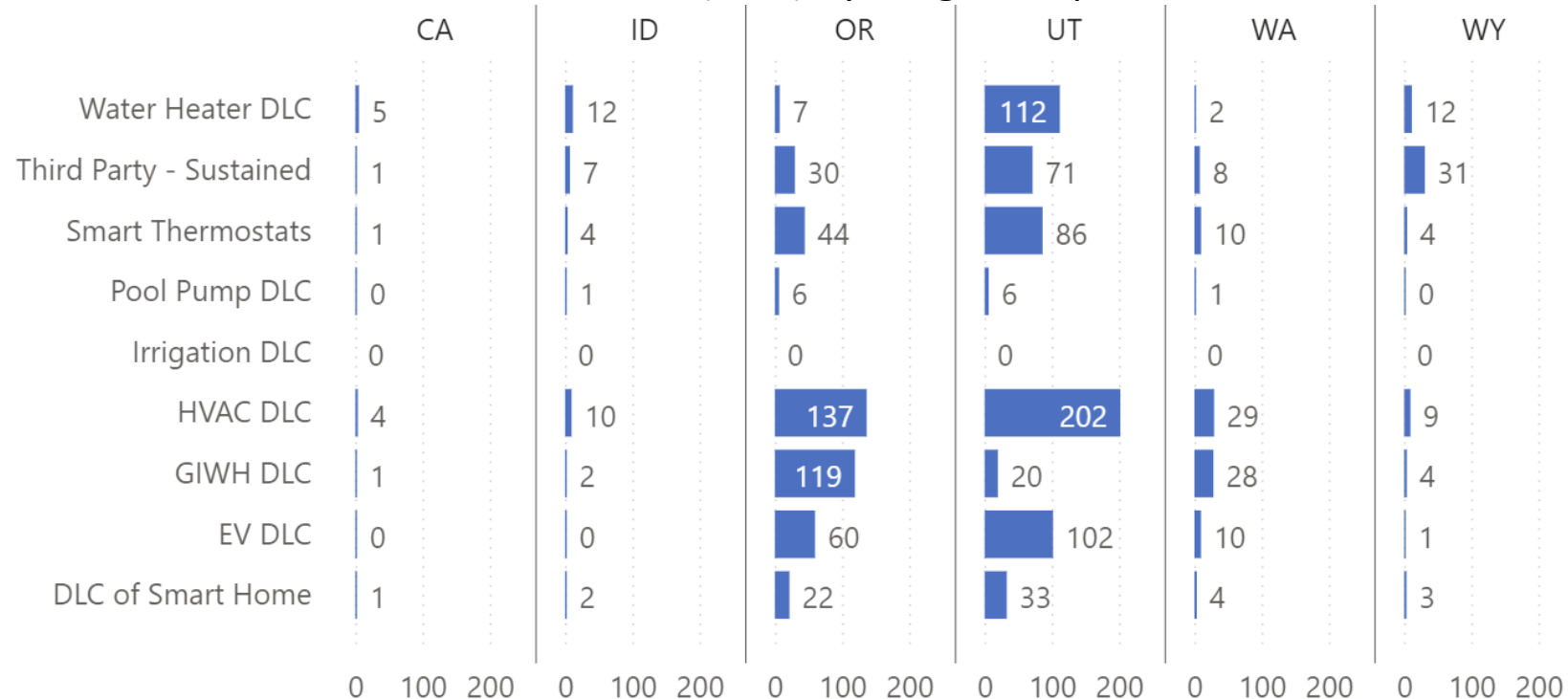




20-Year Potential Summary - Winter

- Some calibration to existing and planned resources required
- Currently assumes a conservative portion of water heaters are Grid-Interactive Water Heaters (GIWH) in states where there are no current or planned codes for adoption (CA, ID, UT, and WY)
- High UT winter HVAC driven by forecasted electrification in the state: consistent with the load forecast

20-Year Winter Potential (MW) by Program Option and State





NEI Updates



Condition 11a - Non-Energy Impacts Research

11) Equitable Distribution of Nonenergy Benefits

- a) During this biennium, PacifiCorp must continue to demonstrate progress towards identifying, researching, and properly valuing nonenergy impacts. The nonenergy impacts considered must include the costs and risks of long-term and short-term public health benefits, environmental benefits, energy security, and other applicable nonenergy impacts. In consultation with the Company's conservation, equity, and resource planning advisory groups, nonenergy impacts and risks must be included in the next Biennial Conservation Plan and Conservation Potential Assessment.

Energy Efficiency - NEI Updates

We made the updated DNV study for NEIs:

1. Expanded confidence and plausibility factor floor from 50% to 60%, meaning that no factor will drop below 60% derate regardless of their scoring. This decreases how conservative our NEI discounts are across the board.
2. Updated CF scoring to exclude 2 of the 5 original measure matching-related criteria:
 - I. Is the study measure specific? (0%)
 - II. Is the study segmented by sector? (0%)
 - III. Was the sample drawn using a statistical method? (33.33%)
 - IV. Does the study incorporate identifiable economic factors? (33.33%)
 - V. Does the study consider and account for open ended questions? Additivity? Double Counting (33.33%)
3. Adjusted measure matching scores to be more inclusive
4. Amended study year scoring to discount less for older studies.

These values will be incorporated into measures costs for the 2023 CPA. We will continue to examine NEIs for specific measures, the DNV study helped to cast a broad net for NEIs, next steps will be to focus on specific values and their application. For example,

- Low-income bill assistance reductions
- Refrigerant and GHG reductions

Demand Response - NEI Updates



Refreshed literature review from 2023 CPA (Appendix J of 2021 CPA report)

Key Findings:

- Research indicates that many non-energy benefits and cost could apply to DR resources
- However, the industry has not attributed, quantified, or monetized DR NEIs with the rigor to support using them in resource planning efforts
- One exception: participant costs estimated in the CPUC DR Protocols (PacifiCorp currently incorporates these in its analysis)

Sources:

- (CPUC) 2016 Demand Response Cost Effectiveness Protocols
- (EPRI) The Total Value Test: A Framework for Evaluating the Cost-Effectiveness of Efficient Electrification
- (National Energy Screening Project) National Standard Practice Manual for Benefit-Cost Analysis of Distributed Energy Resources
- (NWPPCC) 2021 Power Plan Demand Response Supply Curves

Other Conditions

Nancy Goddard



Condition 10b

| | | |
|--|-----|---|
| Docket UE-210830 Order 01 Attachment A | 10b | In accordance with RCW 19.285.040(1)(g), PacifiCorp is encouraged to promote the adoption of air conditioning with refrigerants not exceeding a global warming potential (GWP) of 750 and the replacement of stationary refrigeration systems that contain ozone-depleting substance or hydrofluorocarbon refrigerants with a high GWP. At a minimum, PacifiCorp must explore the feasibility of determining and incorporating of the avoided emissions associated with replacing refrigerants exceeding 750 GWP in its cost-effectiveness calculations and discuss the results with its Advisory Group as necessary. |
|--|-----|---|

Condition 10b

- From NEEA at last meeting:
 - With federal regulation already in place, and even more stringent WA regulation on the way, Washington is on track for conversion to low GWP refrigerants by 2025
 - Small window of opportunity to endorse, incentivize low GWP products between now and 2025; *but* manufacturers are already moving as quickly as they can – product availability may be an issue before 2025
 - WA DoE rulemaking continues through 2023 – opportunity to submit comments (NEEA role).
- PacifiCorp proposal:
 - Investigate possibility of incorporating NEI for refrigerant emissions using refrigerant tool from CA
 - Work on this jointly with PSE and Avista if possible
 - Explore uses for cost-effectiveness

Condition 10c

10 Research Efforts and Innovative Programs

c) PacifiCorp should consult with its Advisory Group to determine how it should implement RCWs 80.28.260(2) and 80.28.300. Such consultation should include, but is not limited to: whether and how to research and evaluate opportunities for cool roof and tree planting conservation, with special consideration given to highly impacted communities and vulnerable populations; whether and how to provide information to their customers regarding landscaping that includes tree planting for energy conservation; and what outreach and education efforts should be conducted to inform customers of the energy and nonenergy benefits of cool roofs and strategic tree planting. PacifiCorp should utilize the department of health's environmental health disparities map and coordinate with the department of natural resources to identify areas within the utility's service territory that would benefit from heat island mitigation and strategic tree planting programs.

Current work and next steps

Based on input from Amy, met with Pacific Power WA team from Vegetation Management July 28, 2022 –

- PacifiCorp is a [Tree Line USA](#) utility
- Discussed community-based tree planting events they participate in
 - Some tree planting is occurring now (not always near homes for energy savings)
- Provided link to Highly Impacted Community map
- Reviewed website on tree planting - [Tree Pruning & Planting \(pacificpower.net\)](#)

Researching other programs

- Met with Idaho Power regarding their program, Shade Tree Project, June 13, 2022
 - Discussed this at June DSM Advisory Group meeting
- Four of our communities have earned [Tree City USA](#) recognition
 - Walla Walla, College Place, Yakima, Grandview
 - City of Walla Walla has a [Free Tree Planting](#) program
- Contacted ESource to research other tree planting programs
 - For follow-up item from June DSM AG meeting
- Based on input from last meeting – pursue using SBC funding if cost-effective

Condition 10c – added link from Amy to resources from the meeting

Current work and next steps

- Amy set up joint utility meeting in August with Department of Natural Resources
 - Unfortunately, the invite was sent but not received by the PacifiCorp team
 - Ask Amy if she can summarize the meeting -

<https://docs.google.com/document/d/1FUf39nI5kbxjWr3XleahgcmG53tXdkpyGRIAZfJj8/edit?usp=sharing> . There can be another meeting w/them in November if needed.

PacifiCorp should utilize the department of health's environmental health disparities map and coordinate with the department of natural resources to identify areas within the utility's service territory that would benefit from heat island mitigation and strategic tree planting programs.

- Working with Vegetation Management and others, identify improvements for website
- AEG refining CPA assumptions, results expected October 2022
 - Share results at December DSM Advisory Group meeting (addresses f/u item about savings per tree and studies available)

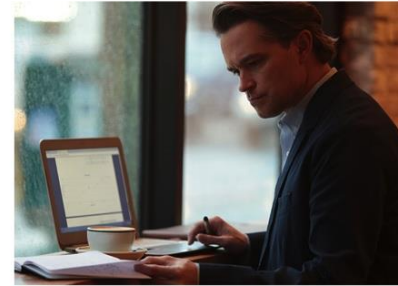
Updates



- Demand Response Update – Alex Osteen
- CETA: Equity Advisory Group – Kimberly Alejandro
- Clean Energy Implementation Plan utility actions – Nancy
- Pilots - Nancy
 - Non-residential Lighting Controls
- Upcoming drafts due to the DSM Advisory Group – Nancy
- 2022 DSM Advisory Group meetings – Nancy

Demand Response Update

Alex Osteen



Status Updates on the Demand Response Tariff in Washington

- Demand response (DR) tariff:
 - First DR action in CEIP
 - Filed on July 22, 2022
 - Updated with further details on the process for adding new DR programs
 - WUTC approved on Aug 25, 2022
- Irrigation DR program (ILC) also approved w/ effective date of Aug 26, 2022
- Upcoming feedback requested:
 - C&I Program Draft Filing, expected tentatively week of Sept 12th



Washington Utilities and Transportation Commission
Respect. Professionalism. Integrity. Accountability.

Open Meeting Agenda

08/25/2022
9:30 A.M.

| | | | |
|----|-----------|-----------|---|
| 1. | UE-220550 | 7/22/2022 | PacifiCorp |
| | | 8/26/2022 | Revises Tariff WN U-76, adding new Schedule 106, providing demand response programs to its Washington customers, including a voluntary irrigation load control demand response program. |
| | | | Tariff Revision |
| | | | Staff Contact: Jade Jarvis +1 (360) 664-1251 jade.jarvis@utc.wa.gov |

Refresher on PacifiCorp's Irrigation Load Control Program Design



| Draft Program Details: Irrigation Load Control | |
|--|---|
| Season | May 1 to Sept 15 |
| Eligible event hours | 12 PM - 10 PM |
| Maximum event duration | 4 hours |
| Maximum number of events per year | 20 |
| Total event hours per season | 52 |
| Event notification | Day, hour, and 20-min ahead |
| Customer incentives | \$18/kW Day Ahead \$30/kW Hour Ahead \$45/kW 20-Min Ahead |
| Incentive calculation | Payment is calculated at the end of the season based on average kW delivered during events. |

Proposed Upcoming Commercial & Industrial DR Program Design

- **Program design.** Is based on Front Office needs, informed by customer classification and market assessment, DR vendors’ proposals to the 2021 RFP, IRP needs, as well as Customer Solutions planning.
- **Incentives.** Are available on a \$/kilowatt (kW) per year basis and vary by parameter/advance notification. Using data from the control devices, the “average available load for curtailment (kW) during the product hours” is calculated and multiplied by the product specific Incentive rate.
- **Eligibility.** All C&I customers are eligible to participate in two longer lead time products. Focus will be on larger loads for two fast acting products to reflect higher costs to enable. Customers can choose the product(s) to enroll in annually.

| | J | F | M | A | M | J | J | A | S | O | N | D | |
|--|---|---|---|---|---|---|------------------------------|---|---|---|---|---|------------|
| All C&I Customers Eligible | | | | | | | 60 Minute DR; Weekdays 3-9pm | | | | | | \$30/kW-yr |
| | 20 Minute DR; Weekdays 7am-10pm | | | | | | | | | | | | \$55/kW-yr |
| For Customers w/500+ kW Curtailable Load | 7 Minute DR (Contingency Reserve); 24/7 | | | | | | | | | | | | \$75/kW-yr |
| | Real-Time DR (Frequency Response); 24/7 | | | | | | | | | | | | \$85/kW-yr |

Clean Energy Transformation Act

Washington Equity Advisory Group
Schedule and Updates

Kimberly Alejandro



| Equity Advisory Group Meetings | Topics (<i>future meeting topics may be refined</i>) – with update |
|--------------------------------|--|
| January 19, 2022 | <ul style="list-style-type: none"> Clean Energy Implementation Plan (CEIP) updates Reflections of 2021 and ideas for 2022 |
| February 16, 2022 | <ul style="list-style-type: none"> Energy efficiency programs (Wattsmart Business) Electric vehicle (EV) plan and transportation electrification grant program |
| March 16, 2022 | <ul style="list-style-type: none"> EAG member presentations Low-income bill assistance (LIBA) Transportation electrification grant program (continued) |
| April 13, 2022 | <ul style="list-style-type: none"> EAG member presentations (continued) Time of use (TOU) pilot Residential energy efficiency and agriculture demand response Transportation electrification grant program update |
| May 23-25, 2022 | <ul style="list-style-type: none"> In person meetings with EAG members in Walla Walla and Yakima |
| June 15, 2022 | <ul style="list-style-type: none"> Updates: System Benefits Charge for Energy Efficiency (EE)/DSM Forecast Energy Burden Assessment Non-Energy Impacts |
| July 13, 2022 | <ul style="list-style-type: none"> Wattsmart Education Program in Schools Utility Action Customer Benefit Indicators (CBIs) - # of households and businesses participating in programs; workshops |
| September 14, 2022 | <ul style="list-style-type: none"> Updates: Home Energy Savings and Wattsmart Business Proposed Program Changes Community Connections (Calendar) Comms Energy Resource Center (Landing Page) Wildfire Safety and Preparedness Communications |
| October 19, 2022 | <ul style="list-style-type: none"> EE Updates, TE Update, and Irrigation DR Updtes WA Disconnection Reduction Plan CBI Update: Residential Customer Disconnections CEIP Update: Segmenting data sources per your requests Wildfire Safety and Preparedness Communications |
| December 7, 2022 | Reflections on 2022 and Plans for 2023 |

Updates – CEIP Utility Actions

Nancy Goddard



Condition 9b – improved participation for Named Communities

- b) 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).

CEIP Energy Efficiency CBI Metrics

(from 12/30/2021 Clean Energy Implementation Plan)

| Customer Benefit Indicator | Metric(s) |
|---|--|
| Participation in company energy and efficiency programs and billing assistance programs | <ul style="list-style-type: none"> • Number of households/businesses, including named communities, who participate in company energy/efficiency programs |
| Efficiency of housing stock and small businesses, including low-income housing | <ul style="list-style-type: none"> • Number of households and small businesses that participate in company energy/efficiency programs • Energy efficiency expenditures |

Highly impacted community (HIC): a community designated with a score of 9 or 10 based on the DOH cumulative impact analyses or a census tract that is fully or partially on sovereign tribal territory. Scores are assigned based on several indicators that express: 1) environmental exposures, 2) environmental effects, 3) sensitive populations, and 4) socioeconomic factors. This information is available on the Washington Department of Health’s Information by Location Environmental Health Disparities (EHD) map.

CEIP Energy Efficiency CBI Metrics – 2020 (from CEIP) vs 2022 YTD

**Updates following July 2022 EAG Meeting Highlighted in Yellow*

| Energy / Efficiency Program 2020 (baseline) | HIC | | Tribal Lands | | All Customers | |
|--|------------|--------------------|--------------|-----------------|---------------|--------------------|
| | Count | Expenditures | Count | Expenditures | Count | Expenditures |
| Low Income Weatherization | 11 | \$78,756 | 4 | \$23,805 | 40 | \$295,907 |
| Home Energy Savings | 103 | \$83,968 | 27 | \$5,350 | 976 | \$855,941 |
| Wattsmart Business | 61 | \$892,458 | 13 | \$22,392 | 221 | \$2,485,993 |
| Wattsmart Small Lighting | 22 | \$105,182 | 1 | \$1,400 | 43 | \$228,158 |
| "Very small": <30,000 kWh annual usage | 10 | -- | -- | -- | 19 | -- |
| "Small": 30,000+ kWh annual usage | 12 | -- | -- | -- | 24 | -- |
| Grand Total | 197 | \$1,160,364 | 45 | \$52,947 | 1,280 | \$3,865,999 |

| Energy Efficiency Program 2022 Year to Date as of 8/30/2022 | HIC | | HIC - Tribal Lands | | All Customers | |
|--|-------------------|--------------------------|--------------------|--------------------------|-------------------|--------------------------|
| | YTD 2022 Count | YTD 2022 Expenditures | YTD 2022 Count | YTD 2022 Expenditures | YTD 2022 Count | YTD 2022 Expenditures |
| Low Income Weatherization | 18 | \$75,969 | 8 | \$30,730 | 65 | \$357,850 |
| Home Energy Savings | 166 | \$125,605 | 25 | \$40,836 | 834 | \$781,442 |
| Wattsmart Business | 49 | \$498,021 | 7 | \$60,117 | 113 | \$1,103,246 |
| Wattsmart Small Business | 60 | \$870,410 | 9 | \$80,947 | 78 | \$1,047,401 |
| Very Small Business (<= 30k kWh) | 21 | \$109,944 | 2 | \$9,308 | 24 | \$129,652 |
| Small Business (<= 145k kWh) | 33 | \$463,430 | 6 | \$48,641 | 46 | \$580,336 |
| Small Business (<= 200k kWh) | 6 | \$297,036 | 1 | \$22,998 | 8 | \$337,412 |
| Grand Total | 293 | \$1,570,006 | 49 | \$212,631 | 1,090 | \$3,289,938 |

CEIP Energy Efficiency CBI Metrics – 2020 (from CEIP) vs Jan-Jun 2022

*Updates following July 2022 EAG Meeting Highlighted in Yellow

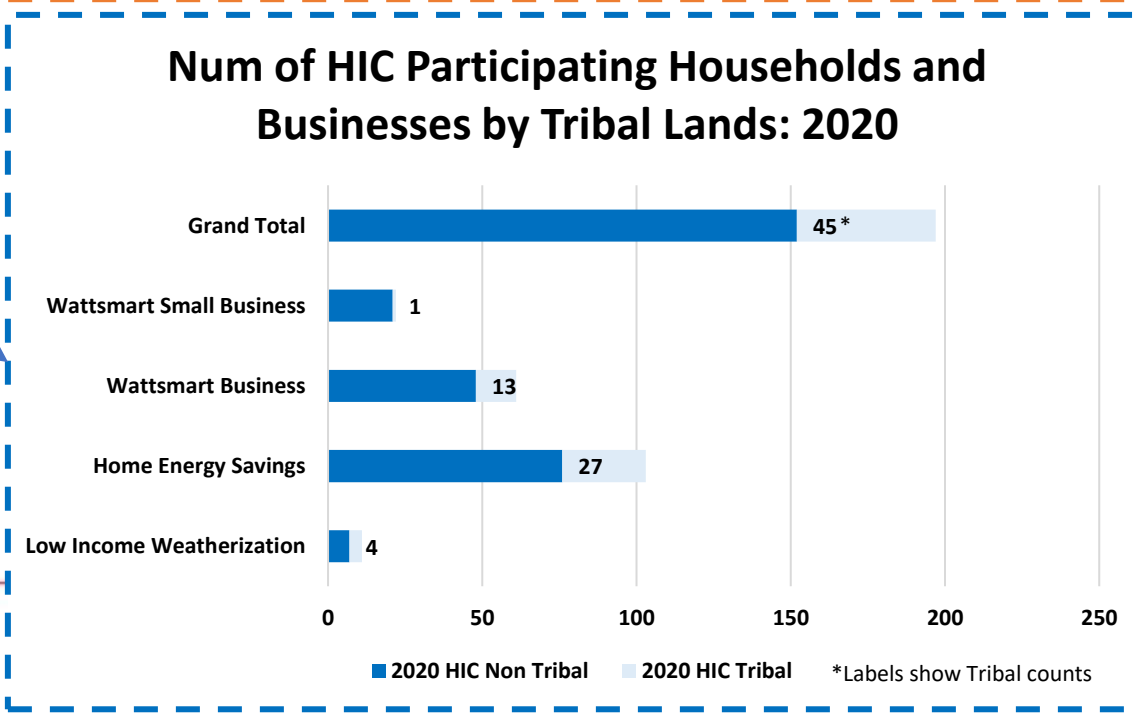
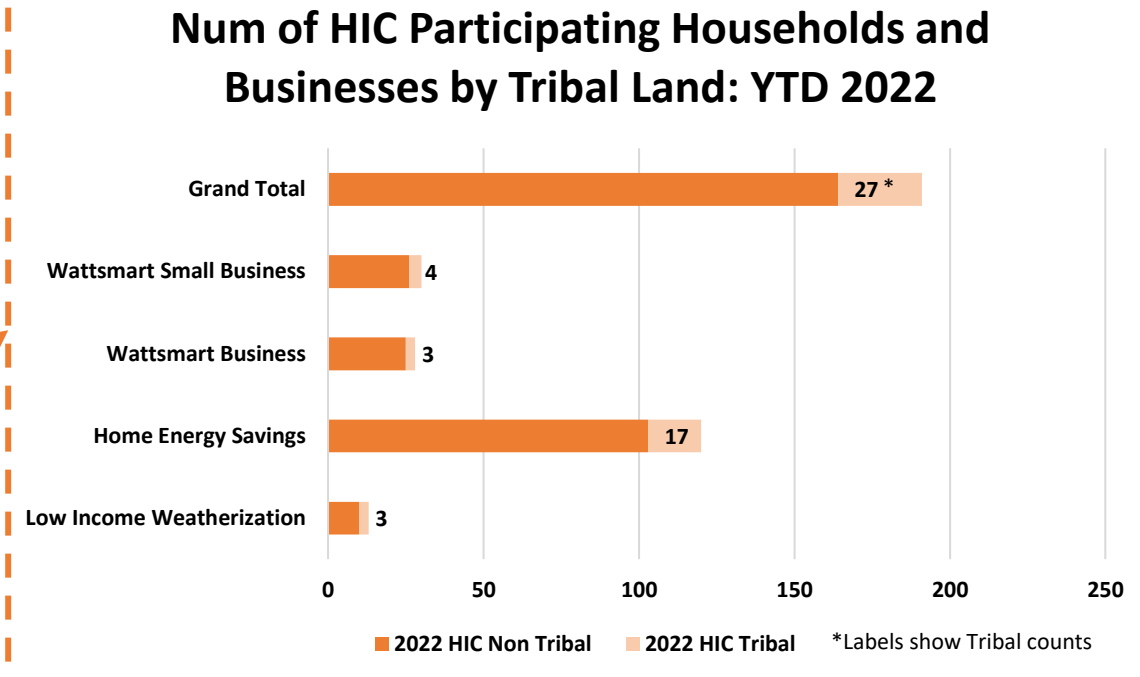
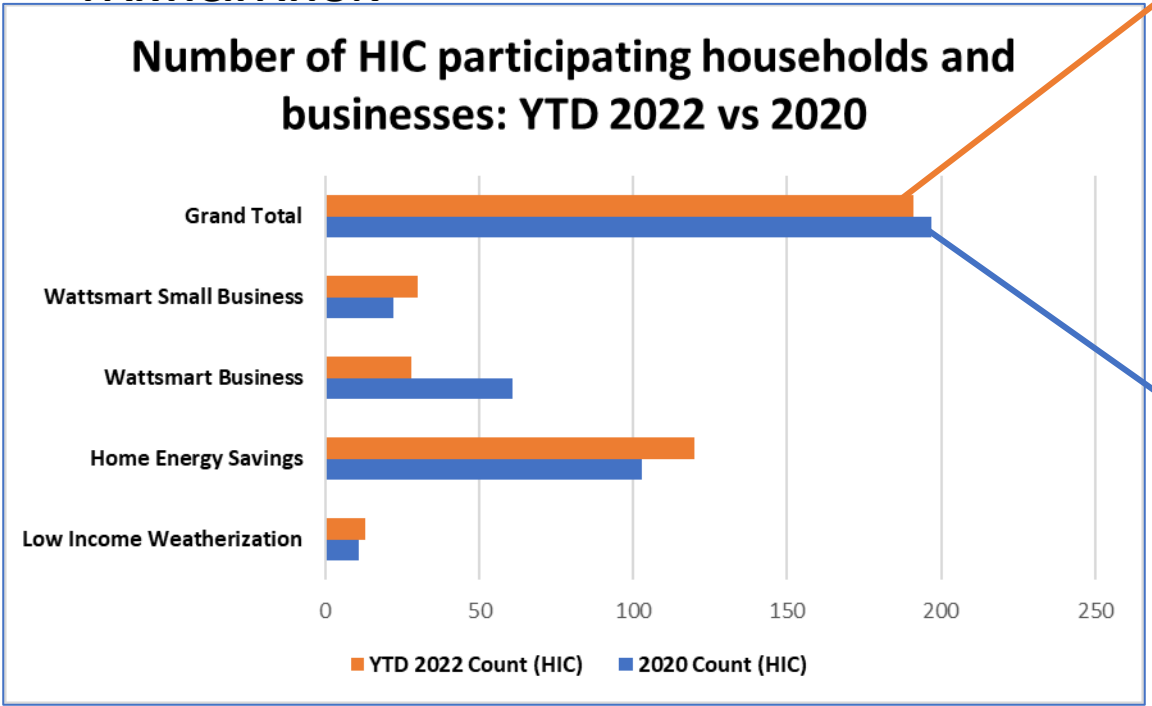
| Energy / Efficiency Program 2020 (baseline) | HIC | | Tribal Lands | | All Customers | |
|--|------------|--------------------|--------------|-----------------|---------------|--------------------|
| | Count | Expenditures | Count | Expenditures | Count | Expenditures |
| Low Income Weatherization | 11 | \$78,756 | 4 | \$23,805 | 40 | \$295,907 |
| Home Energy Savings | 103 | \$83,968 | 27 | \$5,350 | 976 | \$855,941 |
| Wattsmart Business | 61 | \$892,458 | 13 | \$22,392 | 221 | \$2,485,993 |
| Wattsmart Small Lighting | 22 | \$105,182 | 1 | \$1,400 | 43 | \$228,158 |
| "Very small": <30,000 kWh annual usage | 10 | -- | -- | -- | 19 | -- |
| "Small": 30,000+ kWh annual usage | 12 | -- | -- | -- | 24 | -- |
| Grand Total | 197 | \$1,160,364 | 45 | \$52,947 | 1,280 | \$3,865,999 |

| Energy / Efficiency Program 2022 Year to Date Jan-June (June data is partial) | HIC | | Tribal Lands | | All Customers | |
|---|-------------------|--------------------------|----------------|--------------------------|-------------------|--------------------------|
| | YTD 2022 Count | YTD 2022 Expenditures | YTD 2022 Count | YTD 2022 Expenditures | YTD 2022 Count | YTD 2022 Expenditures |
| Low Income Weatherization | 13 | \$57,330 | 3 | \$12,091 | 33 | \$205,608 |
| Home Energy Savings | 120 | \$79,086 | 17 | \$28,861 | 510 | \$469,398 |
| Wattsmart Business | 28 | \$278,851 | 3 | \$15,741 | 67 | \$580,364 |
| Wattsmart Small Business | 30 | \$469,800 | 4 | \$39,434 | 42 | \$577,776 |
| <i>Very Small Business (<= 30k kWh)</i> | 7 | \$36,343 | -- | -- | 10 | \$56,051 |
| <i>Small Business (<= 145k kWh)</i> | 19 | \$266,955 | -- | -- | 28 | \$355,222 |
| <i>Small Business (<= 200k kWh)</i> | 4 | \$166,503 | -- | -- | 4 | \$166,503 |
| Grand Total | 191 | \$885,068 | 27 | \$96,127 | 652 | \$1,833,146 |

CEIP Energy Efficiency CBI Metrics – 2020 (from CEIP) vs 2022 YTD

*Updates following July 2022 EAG Meeting Shown on Right

- 2022 YTD data (in orange) is for 5 ½ months
- Overall, there are almost as many HIC participants YTD in 2022 as in all of 2020
- PARTICIPATION

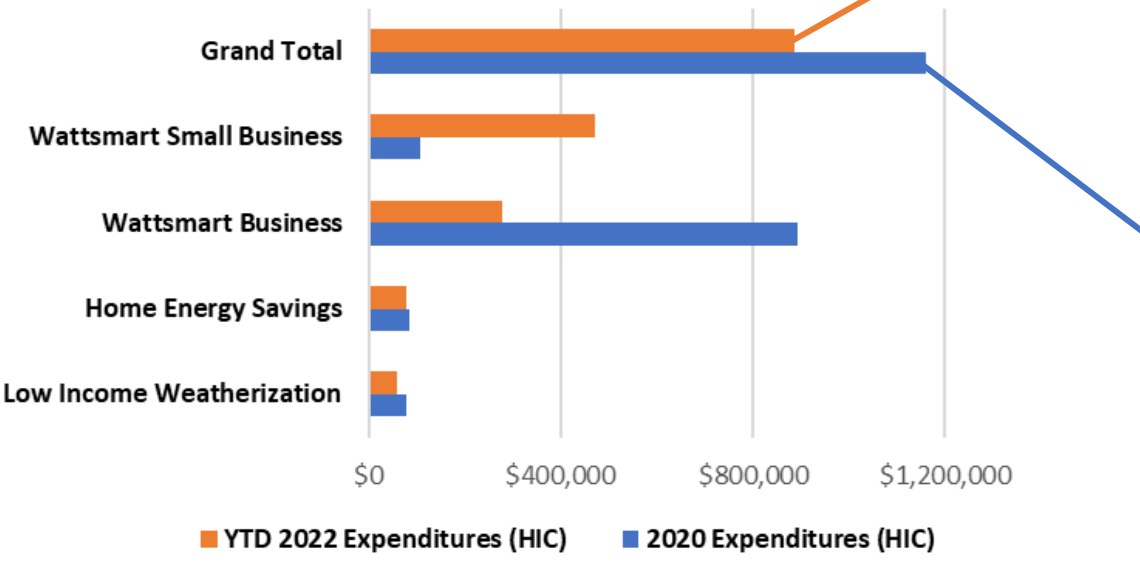


CEIP Energy Efficiency CBI Metrics – 2020 (from CEIP) vs 2022 YTD

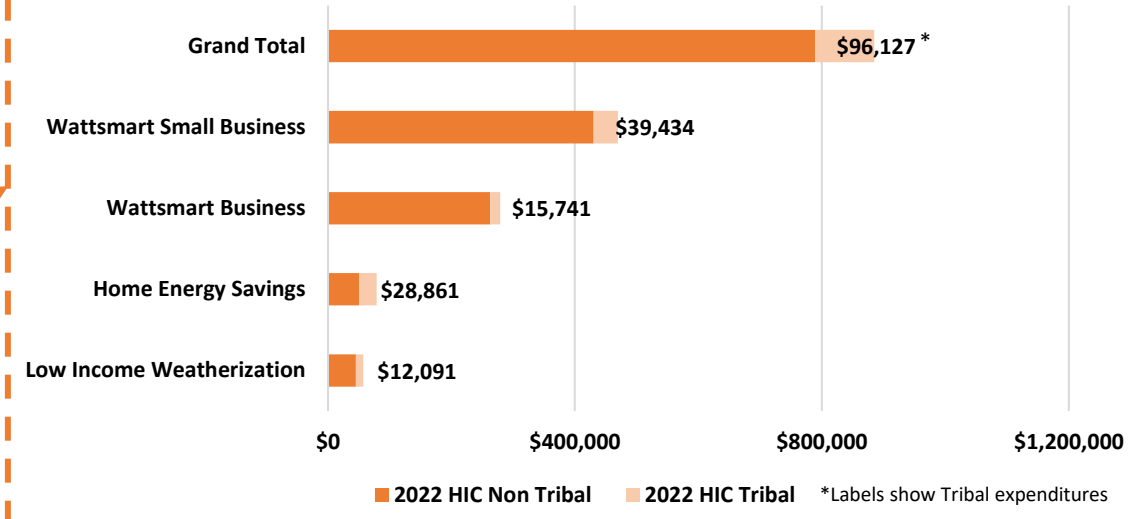
*Updates following July 2022 EAG Meeting Shown on Right

- 2022 YTD data (in orange) is for 5 ½ months
- Overall, there are almost as many HIC participants YTD in 2022 as in all of 2020
- EXPENDITURES

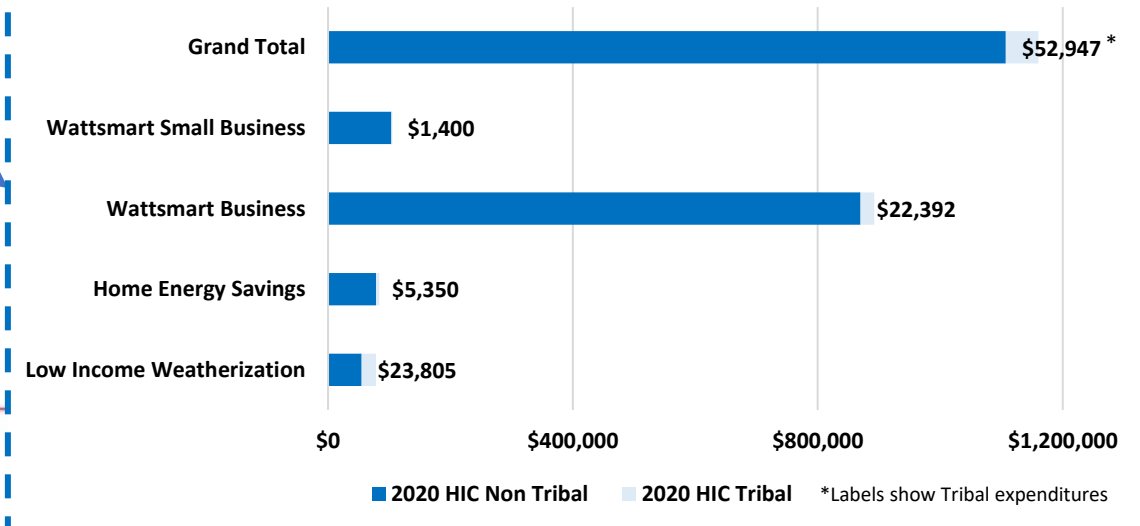
HIC Expenditures: YTD 2022 vs 2020



HIC Expenditures by Tribal Lands: YTD 2022

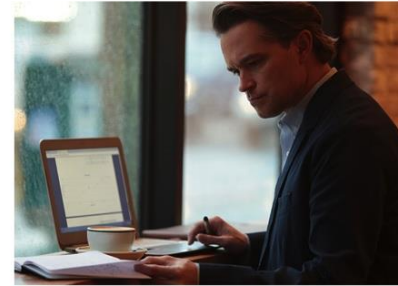


HIC Expenditures by Tribal Lands: 2020



Pilots

Nancy Goddard



Non-Residential Lighting Controls

(from Pilots section of Demand-side Management 2022-2023 Business Plan – Washington – 11/1/2021)

Non-Residential Lighting Controls

- **Purpose:** Increase installation of lighting controls as part of business customer lighting retrofit projects.
- **Costs:** Included in existing program delivery budgets.
- **Size:** Up to 15 projects.
- **History:** Continuation of pilot from the last biennial period as part of an overall effort in the region to build momentum and market support for advanced lighting controls.
- **Implementation:** Leverage NEEA's Luminaire Level Lighting Control (LLLC) initiative including vendor training support. Customer incentives are structured so that lighting upgrades combined with advanced networked lighting controls provide the highest incentive for lighting projects. Continue and evolve vendor incentives for lighting controls.
- **Marketing:** NXT Level training and good/better/best communications, continuing and improving lighting controls training for vendors, and providing outreach coordinator feedback to approved Wattsmart Business Vendors on lighting control opportunities in their projects.

Non-Residential Lighting Controls

Vendor Training

When: Tuesday, October 4, 2022 Time: 7:30 am to noon

Where: Benton PUD, 2721 W 10th Ave, Kennewick, WA 99336

Co-sponsors (cost sharing):

NEEA/Pacific Power/BPA Northwest Trade Ally Network

Luminaire Level Lighting Control (LLLC) Training Outline

Course designed to help vendors understand the variety of lighting controls, how to appropriately apply those controls to lighting projects, and how to obtain incentives

Training Format

Combination of PowerPoint presentations and interactive learning. NEEA has developed several LLLC demonstration boards for vendors' hands-on experience to explore the variety of lighting control applications. Lighting manufacturer reps will be on hand to talk about the products and to answer vendors' questions.



Presented by Northwest Energy Efficiency Alliance (NEEA) and hosted by Pacific Power and Trade Ally Network NW!

You are invited to a Luminaire Level Lighting Control (LLLC) training course and a delicious, hearty breakfast at the Benton PUD building on October 4, 2022, from 7:30 a.m. to noon. LLLC combines LEDs, controls, connectivity and data for a flexible lighting product that can transform any space.

This course can help vendors understand the variety of lighting controls, how to appropriately apply those lighting controls for your lighting projects, and how to determine available incentives for these applications. In addition, four Continuing Education Units (CEUs) are available for industry professionals.

You will learn:

- How LLLC can maximize energy savings, optimize comfort and integrate building systems to streamline operational performance.
- The advantages of integrating LLLC to elevate all users' health, safety and comfort.
- How LLLC delivers a cost-effective, future-proof solution for any facility and retrofit and new construction applications.

For more information or questions, please contact your WattSmart Business outreach coordinator or Trade Ally Network NW field specialist.

Thank you for looking out for each other and taking all necessary precautions to keep yourselves, our customers, and our communities safe. As a reminder, if you are feeling sick or test positive for COVID-19, please stay home.

CEUs for Electrical Professions are available from the Washington State Department of Labor & Industries and the Idaho Division of Building Safety. Certificates will be issued to all attendees for self-reporting.

Space is limited. Register TODAY!

Register NOW!

We thank you for looking out for each other and taking all necessary precautions to keep yourselves, our customers, and communities safe. As a reminder, if you have symptoms or test positive for COVID-19, please stay home.

WATTSMART
BUSINESS PARTNER

PACIFIC POWER
POWERING YOUR GREATNESS

TRADE ALLY
NETWORK
NORTHWEST

Wrap-up



Recent Filings

| | Draft to you | Comments due | Filed | Approval Decision |
|---|--------------|--------------|-----------|-------------------|
| Irrigation Load Control program filing Docket 220550 | 6/27/2022 | 7/11/2022 | 7/22/2022 | 8/25/2022 |

Drafts coming soon

| | Draft to you | Comments requested by | Final due |
|---|-------------------------------|-----------------------|------------|
| Commercial/Industrial Demand Response Program Draft Filing | Tentatively week of 9/12/2022 | 9/30/2022 | |
| Wattsmart Business and Home Energy Savings proposed program changes ("program details") | 9/16/2022 | 9/30/2022 | |
| Draft 2023 Annual Conservation Plan | 10/14/2022 | 10/28/2022 | 11/15/2022 |

2022 DSM Advisory Group Meetings

| | Key Topics | Updates |
|----------------------------|--|--|
| #1, 2/28/2022 | <ul style="list-style-type: none"> • All Source Request for Proposals • Review of the 2022 communications and outreach plan • Business Energy Reports • Future Non-Energy Impacts research | <ul style="list-style-type: none"> • Conservation Potential Assessment • Low-income DHP Conversion Measures • Washington Equity Advisory Group schedule/updates • Clean Energy Implementation Plan process/next steps • Clean Energy Implementation Plan utility actions • 2022-2023 DSM forecast |
| #2, 4/28/2022 | <ul style="list-style-type: none"> • 2020-2021 Biennial Conservation Report preview • 2022-2023 DSM forecast • System Benefits Charge (Schedule 191) review, condition 12d • Conservation Potential Assessment, Non-Energy Impacts (condition 11a) • Demand Response programs – preview of upcoming filings • Procurement update – Home Energy Reports / Business Energy Reports | <ul style="list-style-type: none"> • Follow-up from 2/28/2022 meeting • CETA: Equity Advisory Group, Clean Energy Implementation Plan • Clean Energy Implementation Plan utility actions • On-Bill Financing, Craft3 requested amendments • Upcoming drafts due to the DSM Advisory Group • DSM Advisory Group meetings for balance of 2022 |
| #3, 6/28/2022 | <ul style="list-style-type: none"> • NEI and CPA updates • Demand Response • Adoption of air conditioning with low global warming potential refrigerants (condition 10b) • Whether and how to research and evaluate opportunities for cool roof and tree planting conservation (condition 10c) • 2022-2023 DSM Forecast • Energy Burden Assessment | <ul style="list-style-type: none"> • Follow-up from 2/28/2022 meeting – The Energy Project proposal • CETA: Equity Advisory Group • Clean Energy Implementation Plan utility actions – CBI metrics for 2022 YTD • Recent filings (EIA reports, SBC filing) – status and next steps • On-Bill Financing • Clean Buildings Accelerator • Upcoming drafts for DSM Advisory Group review • DSM Advisory Group meetings for balance of 2022 |
| #4, 9/8/2022 1-4pm | <ul style="list-style-type: none"> • 2023 Annual Conservation Plan, preview of planned program changes (condition 5b) • Conservation Potential Assessment updates • 2022-2023 DSM Forecast | |
| #5, 12/14/2022 1-4pm | <ul style="list-style-type: none"> • 2023 communications and outreach plan • Conservation Potential Assessment results • 2022-2023 DSM Forecast | <ul style="list-style-type: none"> • Whether and how to research and evaluate opportunities for cool roof and tree planting conservation (condition 10c) |

Thank you

