

EXH. JAD-11
DOCKETS UE-240006 & UG-240007
WITNESS: JIM A. DENNISON

RESPONSE TESTIMONY OF JIM A. DENNISON
ON BEHALF OF SIEERA CLUB

EXH. JAD-11
PSE, GRC SETTLEMENT: TARGETED ELECTRIFICATION PILOT
UPDATES

GRC Settlement

Targeted Electrification Pilot Updates

Megan Lacy – Program Manager

May 24, 2024



**PUGET
SOUND
ENERGY**

Exh. JAD-11
Page 1 of 29

Agenda

- ◆ Safety Moment
- ◆ Home Electrification Assessments
- ◆ Low Income Upgrade Track
- ◆ Fuel Switching Heat Pump Rebates
- ◆ Small Business and Multi-Family Direct Installs
- ◆ Pilot Evaluation



**PUGET
SOUND
ENERGY**

Exh. JAD-11
Page 2 of 29

Memorial Day

Safety Tips

Fire



- Never leave a grill unattended.
- Have a fire extinguisher ready.
- Clean off any excess grease.

Food

- Keep hot food heated until served.
- Keep cold food on ice or refrigerated.
- Cover all dishes to keep insects away.



Sun



- Wear a hat and sunglasses.
- Use sunscreen with an appropriate SPF.
- Reapply sunscreen when swimming.

Travel

- Prepare your car for road trips.
- Plan your route ahead of time.
- Never drive after drinking.



**American
Safety Council**

Pilot Objectives

- 30% efforts conducted in Named Communities
- Educational Theme



• Home Electrification Assessments

- 10,000 assessments, PSE gas & dual fuel customers
- \$50 gift card incentive + referral incentives
- Road map to electric lifestyle



• Heat Pump Rebates

- \$3,000 - \$4,000 rebates
- PSE dual fuel customers
- Must remove or decommission natural gas heating



• Special Projects

- 50 LIW + heat pump installs
- 15 SCL Skyway installs
- Multifamily direct installs (1)
- Small Business direct installs (4)



Evaluation!

Exh. JAD-11
Page 4 of 29

Home Electrification Assessments (HEAs)



**PUGET
SOUND
ENERGY**

Exh. JAD-11
Page 5 of 29

HEA Updates

- ◆ Home Electrification Assessments as of Monday (5/20)
 - ◇ 7,712 completed assessments
 - ◇ 2,613 completed assessments in Named Communities or for customers identified as low-income
 - ◇ 600+ scheduled for the next 2-3 weeks

- ◆ Held Q1 review with HEA vendor in April – shifting motivations
 - ◇ Top three reasons why customers signed up: education (20%), to reduce energy usage (19%), and home improvement planning (14%)
 - ◇ Top three reasons why customers in Named Communities signed up: lower utility bill (27%), reduce energy usage (22%), and learn about rebates/incentives (17%)

Question	Average Response	% Change
Understanding of electrification benefits and opportunities BEFORE the assessment	2.81	+56%
Understanding of electrification benefits and opportunities AFTER the assessment	4.40	
Understanding of heat pump systems and their benefits BEFORE the assessment	2.70	+64%
Understanding of heat pump systems and their benefits AFTER the assessment	4.43	

HEA Extension Proposal

Current Program (10 months)	Extension Program (6 months)
~1,000 HEAs/month	~650 HEAs/month
\$50/\$25 gift cards	\$50/\$25 gift cards
<ul style="list-style-type: none">• Custom report with recommendations and resources/incentives	<ul style="list-style-type: none">• Custom report with recommendations and resources/incentives• Bill Discount Rate enrollment (~750)• BYO-Thermostat Demand Response enrollment (~600)
Monthly Cost: \$384k	Monthly Cost: \$240k

Exh. JAD-11
Page 7 of 29

Next Steps

- ◆ Extension Pros
 - ◇ Customer continuity
 - ◇ New offerings
 - ◇ Implement meaningful phase out (ex The Switch is On)
 - ◇ Others?

- ◆ Extension Cons
 - ◇ Substantial investment to extend to year-end
 - ◇ Others?

- ◆ Are there any suggestions for alternative ways to use these funds?
 - ◇ Targeted educational marketing campaigns
 - ◇ Additional fuel-switching heat pump rebates
 - ◇ Others?

Low Income Upgrade Track



**PUGET
SOUND
ENERGY**

Exh. JAD-11
Page 9 of 29

Low Income Upgrade Track

- ◆ Have stood up internal payment processing for CAP Agencies
- ◆ Identified ~1,000 potential candidates through HEAs
- ◆ 14 LIW+HP projects to date
 - ◇ CAC Lewis-Mason-Thurston: 7
 - 3 submitted for payment!
 - ◇ King County Housing Authority: 5
 - ◇ HomeWise (Skyway): 1
 - ◇ Pierce County: 1
- ◆ Average project cost thus far is lower than estimated, providing opportunity to increase number of projects completed (dependent on Agency capacity)
- ◆ Will be releasing Spanish versions of application and one-pager to Agencies next week

Exh. JAD-11
Page 10 of 29



Fuel Switching Heat Pump Rebates



**PUGET
SOUND
ENERGY**

Exh. JAD-11
Page 11 of 29

HP Rebate Updates

- ◆ Total number of rebates to date: 852
- ◆ 2024 rebates:
 - ◇ Standard ducted/ductless \$3k rebate: 295
 - ◇ Moderate-income/Manufactured-home \$4k rebate: 22
 - ◇ Average cost for ducted system: \$17k
 - ◇ Average cost for ductless system: \$14k
- ◆ Rebate spend to date: \$2.8M
- ◆ Expected to meet max budget for rebates (\$4.4M) in early Q4
 - ◇ Utilizing Commerce HEAR funds may extend these
 - ◇ Could phase out standard rebate offering and focus on moderate-income, expand to 150% AMI?
- ◆ Will be piloting Spanish targeted digital ads in early Q3

Exh. JAD-11
Page 12 of 29



Small Business & Multi-Family Direct Installs



**PUGET
SOUND
ENERGY**

Exh. JAD-11
Page 13 of 29

Small Business Projects

- ◆ Direct install vendor has been providing on-site assessments for EE and electrification feasibility
- ◆ 2 sites currently receiving contractor bids
 - ◇ Mountainview Community Center/Teen Center - DHP
 - ◇ Cle Elum Community Builders - HPWH
- ◆ Goal to serve 4 Community Based Organizations (CBO) or non-profits
 - ◇ Switched to non-profit model as CCA programs will not be able to serve non-profits until 2025

Multi-Family Project

- ◆ Have incorporated current EE MF vendor, CLEAResult to complete direct install
- ◆ 2 sites/buildings have been identified as potential candidates and will be receiving on-site assessments within next couple of weeks

Exh. JAD-11
Page 14 of 29



Pilot Evaluation



***PUGET
SOUND
ENERGY***

Exh. JAD-11
Page 15 of 29

Pilot Goals

1. Identify barriers and recommendations for improving heat pump market penetration
2. Identify barriers to named communities accessing heat pumps
3. Develop policies and programs to support adoption of heat pump technologies by named communities
4. Provide and measure demonstrated material benefits to low-income participants, and include appropriate low-income customer protections
5. Identify opportunities for incremental DER investment as a mechanism to offset electric system reliability risk during peak load events and begin deploying these investments
6. Evaluate whether providing a financial incentive to existing gas customers for fuel switching to electric-only appliances would incentivize and promote increased adoption of high-efficiency electric-only appliances
7. Engage 10,000 customers through at least 2 measures
8. Deploy strategies to maximize effective carbon reduction measures (heat pumps)
9. Inform Targeted Electrification Strategy Development and future BCP cycles

Exh. JAD-11
Page 16 of 29



Evaluation Objectives (Impact)

- ◆ Assess the energy use of program participants before, after, and as a result of the STEP program.
 - ◇ Determine electric energy, summer demand, winter demand, and therm savings for each participant.
- ◆ Evaluate participant energy use cost savings due to the program.

Evaluation Objectives (Process)

- ◆ Identify barriers and recommendations for improving heat pump market penetration and electrification adoption
- ◆ Identify barriers and recommendations for improving heat pump market penetration and electrification adoption on Named Communities
- ◆ Assess Distributed Energy Resources (DER) readiness among participants, with analysis of how DER may mitigate system risk
- ◆ Identify benefits of electrification to participants including rebates, bill discount enrolls, lower energy costs, improved comfort/non-energy benefits (NEIs), and financial savings to participants
- ◆ Identify sociodemographic characteristics of participants
- ◆ Quantify the attribution and net impacts of PSE rebates
- ◆ Evaluate the performance of electrification outreach channels, success and response rates, and benchmark comparisons to similar programs

Exh. JAD-11
Page 18 of 29

Evaluation Approach and Activities

Impact Evaluation	Assessment of cost savings and energy use of participants before, after, and as a result of the STEP program.	<ul style="list-style-type: none">• Review of Tracking Database• Billing Analysis
--------------------------	---	--

Process Evaluation	Identification of barriers, benefits to participants; quantification of the attribution and net impacts of rebates; evaluation of outreach channels.	<ul style="list-style-type: none">• Staff and Implementer Interviews• Participant Surveys• Materials and Marketing Review• Program Benchmarking
---------------------------	--	--



Evaluation Activity Status

Task	Status
Review of Tracking Database	Data Collection in Progress
Sampling and Data collection	Data Collection in Progress
Utility Billing Analysis	Data Collection in Progress
Desk reviews (benchmark and marketing)	Data Collection in Progress
Survey and Interview Guide Development	HEA and HP survey design complete, interview guides in progress
Survey Fielding	HEA in field, HP waiting on data
Interviews	Program Manager and regulatory interviews completed
Draft Report	July 31, 2024
Final Report	August 31, 2024





Questions?

Megan Lacy

Program Manager
Energy Efficiency Services
PUGET SOUND ENERGY
megan.lacy@pse.com

Reference Slides



***PUGET
SOUND
ENERGY***

Pilot Objectives

- ◆ Identify **barriers**, **recommendations**, and develop programs/policies to **improve heat pump market penetration**, particularly in named communities.
- ◆ Provide and measure demonstrated **material benefits** to low-income participants and include appropriate low-income customer protections.
- ◆ Deploy strategies to maximize effective **carbon reduction** measures (heat pumps) and identify opportunities to offset electric system reliability risk.
- ◆ Inform targeted electrification **strategy development** and future BCP cycles (2026-27+).

Home Electrification Assessments

- ◆ Goals:
 - ◇ Help customers plan for energy-saving home improvements
 - ◇ Customer recommendations to switch to an electric lifestyle (home heating, electric vehicle charging, solar, and more)
 - ◇ Provide recommended resources such as utility rebates, and incentives from local, state and federal agencies
 - ◇ Estimated average heating cost impacts from fuel switching provided in HEA report
 - ◇ Conduct 10,000 assessments by June 2024

Home Electrification Assessments

- ◆ Details:
 - ◇ Free to active PSE gas (or dual fuel) customers
 - ◇ Participants receive a \$50 Visa gift card at completion of HEA
 - ◇ Participants can receive up to two \$25 e-gift cards for referrals that complete an assessment
 - ◇ Provided by Franklin Energy Services' Electrification Coaches in-home, takes approx. 60 minutes
 - ◇ Customers can schedule their appointment up to 2 weeks in advance

- ❖ Registration opened September 7, 2023 at www.pse.com/ElectricPlan

- ❖ For questions, please contact pseHEA@franklinenergy.com / 866-574-3294

Exh. JAD-11
Page 25 of 29



Fuel Switching Heat Pump Rebates

Rebates available for PSE dual fuel customers:

- For installs on or after June 19, 2023
- Gas furnace/boiler must be fully removed/decommissioned and replaced by heat pump to qualify; dual-fuel or hybrid systems are not eligible
- 2023 rebates:
 - \$2,400 when switching to a qualifying ducted or ductless heat pump system
 - \$4,000 when switching to a qualifying ducted cold-climate heat pump system
 - Equipment requirements match IRA Tax Credit
 - Standard HP midstream rebate eligible; up to \$600
- 2024 rebates:
 - \$3,000 for ducted or ductless heat pumps
 - \$4,000 for manufactured homes and moderate income customers

Talking Points

Customer wants to know why PSE could not offer a rebate for fuel switching before, but can now.

“This rebate offering is being funded by PSE’s targeted electrification pilot that will be used to inform PSE’s future electrification strategy. The standard, non-pilot rebates must adhere to current state legislation that does not allow for incentivizing fuel switching.”

Customer using Cascade natural gas wants to know why they cannot receive a PSE fuel switching rebate.

“This rebate offering is being funded by PSE’s targeted electrification pilot that will be used to inform PSE’s future electrification strategy. PSE must be able to assess the impacts of this pilot before and after, thus participating customers must use both PSE gas and electricity. With this knowledge, as a part of the future electrification strategy, PSE hopes to work with other utilities to provide more electrification options for customers.”

Exh. JAD-11
Page 27 of 29



LI Upgrade Track Requirements

- ◆ Full costs covered whole home weatherization with space/water fuel switching for 50 single-family homes only (manufactured homes included)
 - ◇ Braiding LIW funding with pilot funds
 - ◇ Income qualifications are the same as LIW program (<80% AMI, gross)
- ◆ Must be active PSE dual fuel customer heating home with PSE gas
 - ◇ Skyway being the exception – 15-20 homes planned to participate
- ◆ Must completely remove/decommission gas furnace and replace main source of heating with a heat pump
 - ◇ May receive reimbursement for HPWH as well when replacing gas WH
- ◆ Must go through full LIW with agency partner: King County Housing Authority, CAC of Louis/Mason/Thurston counties, or HomeWise

Small Businesses

- ◆ Electrification awareness, barrier identification, and financial preparedness questions included in Fall 2023 downtown associations survey
- ◆ Plan to provide 4 direct installs (space/water heating heat pumps) for dual-fuel SMB customers in 2024
 - ◇ Utilizing previous SBDI participants and active CBO partnerships

Multi-Family

- ◆ Plan to provide 1 direct install for MF dual-fuel building in 2024