



Products Coordinating Committee Meeting

Q2 2023 – Day 1

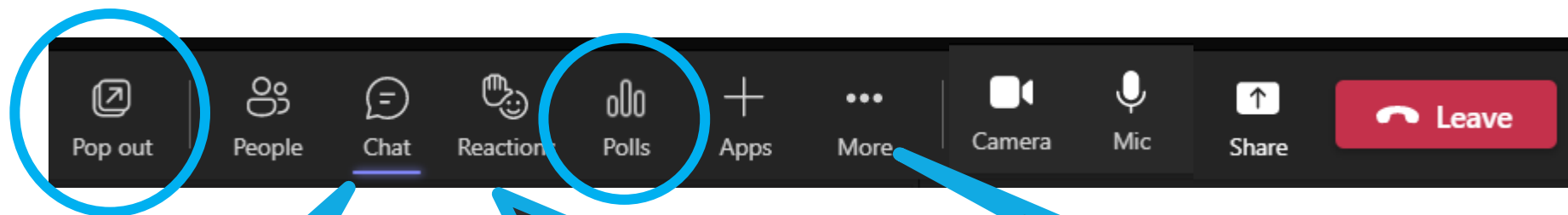
June 6, 2023

12:30-4:30pm Pacific Time





Tools for Today: Engaging on Teams



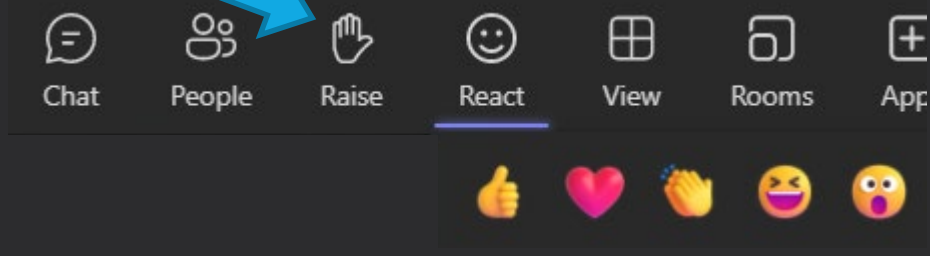
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Do you have any accessibility challenges with this technology today?



Comments/Questions?

Please raise your virtual hand or chime in
Chat & reactions also welcome



“...” More includes:

- ✓ Settings: mic & video
- ✓ Background effects

Heads up:
“Spotlighting” Speakers





Agenda

All times Pacific

1:00-1:30

Welcome, Introductions, Packet Review

1:30-2:50

Regional Priority Topic:
Installer Engagement (R)

(20 min)

BREAK

3:10-4:15

Regional Priority Topic:
Online Marketplace/Midstream Retail
Part 2 - Priority 2 topic:
Online Sales

4:15-4:25

Recap, Next Steps, Adjourn



Welcome New PCC Members

➤ **Jay Olson, Pacific Power (residential)**





Introductions

- Name
- Organization
- *And...*

XXX



Packet Review & Informational Updates (pg. 3)



- Tier 1: Agenda Focus Items

- ✓ *Regional Priority Topic – HPWH Installer Engagement (pg. 6)*
- ✓ *Regional Priority Topic – Online Marketplace / Midstream Retail (pg. 7)*
- ✓ *Regional Priority Topic – Distinguishing ECM Circulator Market Barriers (pg. 8)*

- Tier 2: Informational Updates

- ✓ *RPAC Federal Funding Coordination Work Group (pg. 9)*

- NEEA Program Activity Reports (Q2 + Q4 only)

- ✓ *Heat Pump Water Heaters (HPWH) (pg. 10-14)*
- ✓ *Consumer Products / Retail Products Portfolio (RPP) (pg. 15-18)*
- ✓ *Extended Motor Products (XMP) Pumps & Circulators (pg. 19-23)*
- ✓ *Efficient Fans (pg. 24-27)*

- Tier 3: Additional Resources

- ✓ *Recent committee materials, functional newsletters,*
- ✓ *PCC Committee Charter, 2023 Annual Workplan*





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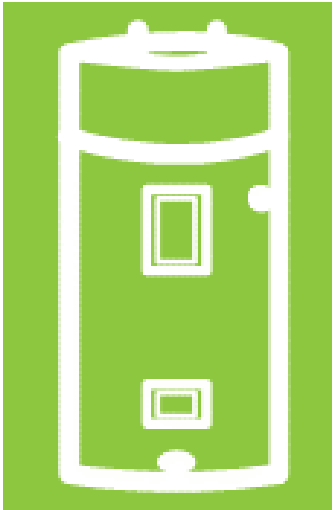


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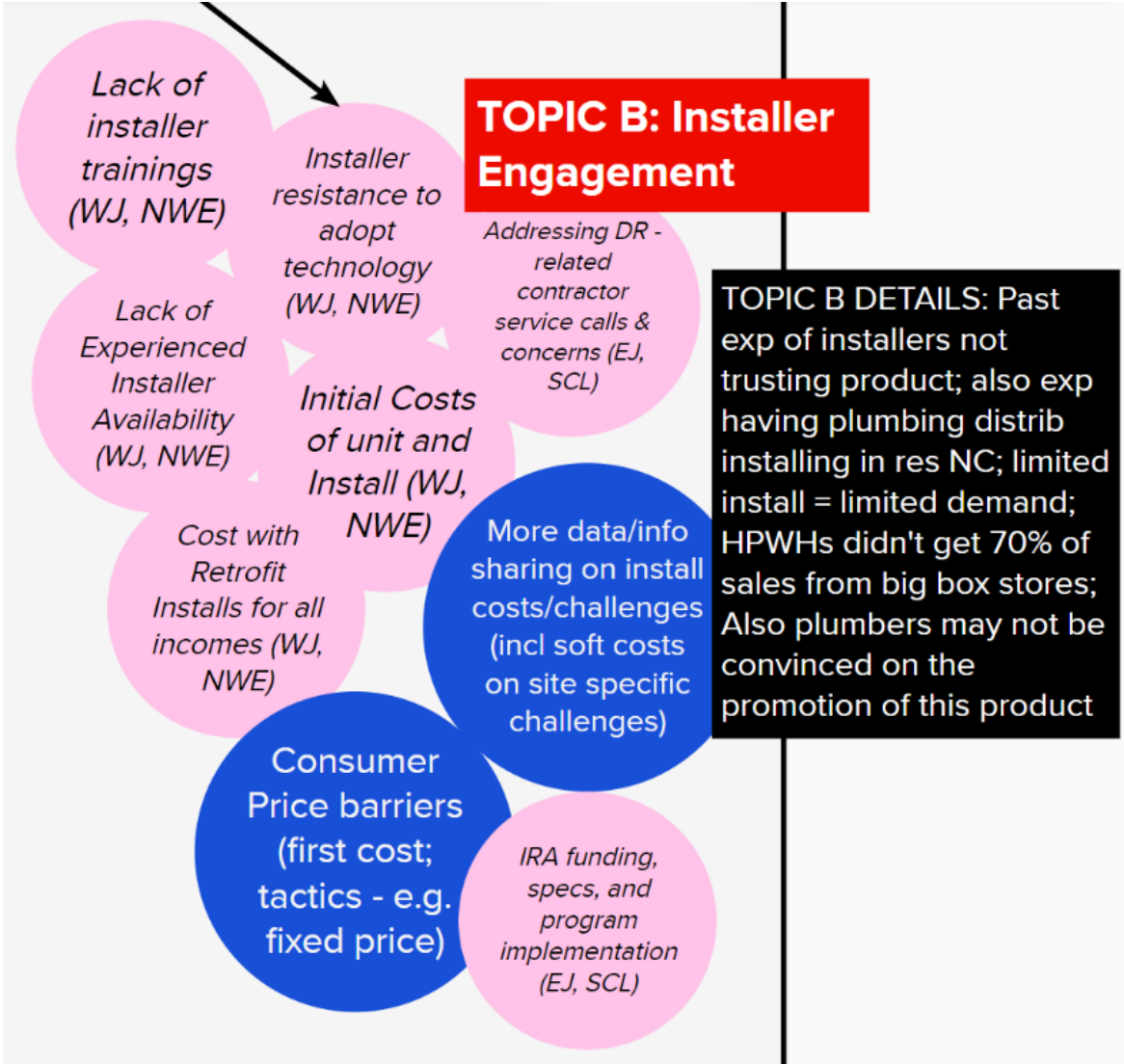




REFERENCE ONLY:
Snip from 2023 Annual Planning board for this topic.



**Heat Pump
Water Heaters
/
Electric Hybrid
Water Heaters**





HPWH: Installer Engagement

Emily Rosenbloom
Sr. Program Manager

Anu Teja
Sr. Market Research & Evaluation Scientist

June 6, 2023





Session Format

- Early research findings from the Water Heater Installers Focus Groups (WHIFG)
- Status update on progress for Cold Climate Demonstration Installation Research (CCDI)
- How the program is applying the early findings to current and future market activities
- Committee share-out – reflections and current activities



Discussion

- What questions/comments do you have?
- What are your experiences?
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ILLUME



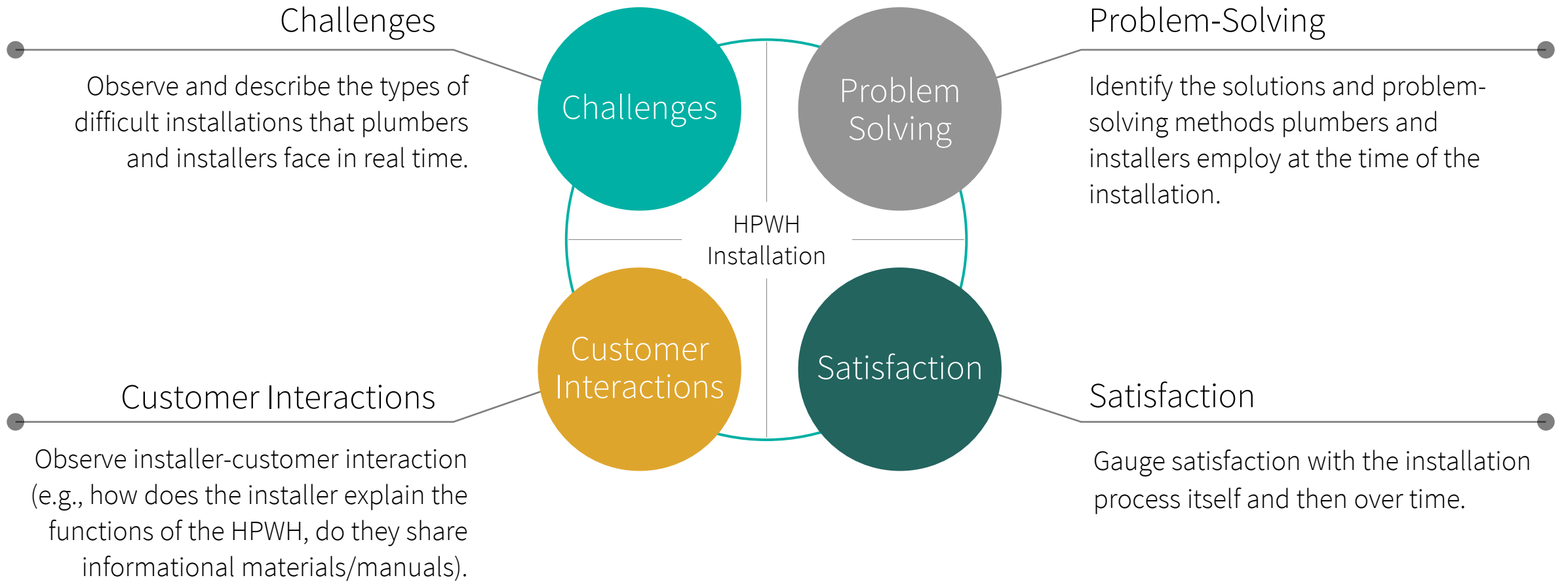
NEEA

Heat Pump Water Heater Cold
Climate Installation Demonstration
(HPWH CCDI)

Maass, Alex Dunn, Arianna Zrzavy

April 2023

HPWH CCDI Research Objectives



The Research Activities

The research focused on cold climates in the Northwest.

10

in-person
observations of
HPWH installs

Observed installers installing HPWHs to understand the challenges they encounter and solutions they implement.

10

in-person
interviews
with installers

Following the observation, Illume speaks to installers about the experience and their decisions.

10

in-person
interviews with
homeowners

Following the observation, ILLUME conducted brief interview the homeowner about their experience with the installation process and the installer.

10

follow-up phone
interviews with
homeowners

Once homeowners have lived with the HPWH for a period during cold weather months, we will interview them again to understand their satisfaction and experience with the HPWH.

Where We've Been



Kalispell

- Installs observed – 2
- No. of installers – 2

Missoula

- Installs observed – 3
- No. of installers – 3

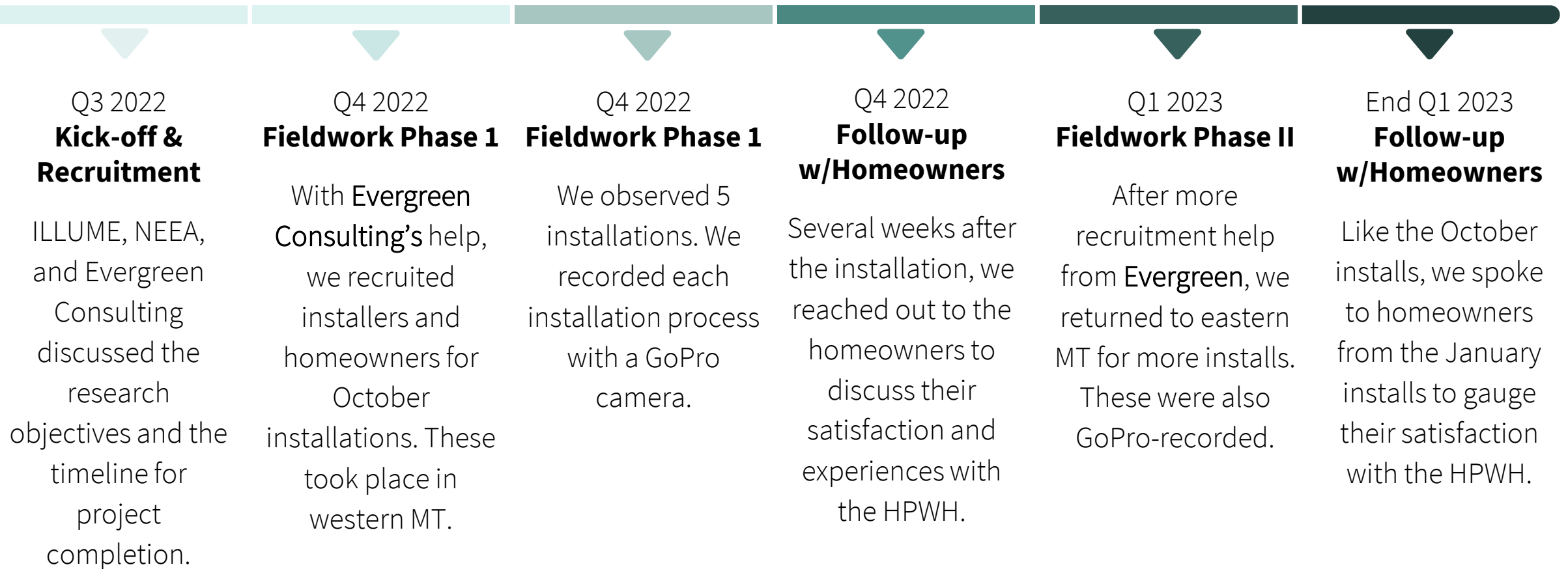
Bozeman

- Installs observed – 4
- No. of installers – 3

Billings

- Installs observed – 1
- No. of installers – 1

Project Timeline



What's next? Analysis is underway & we expect to post a final report late August 2023.



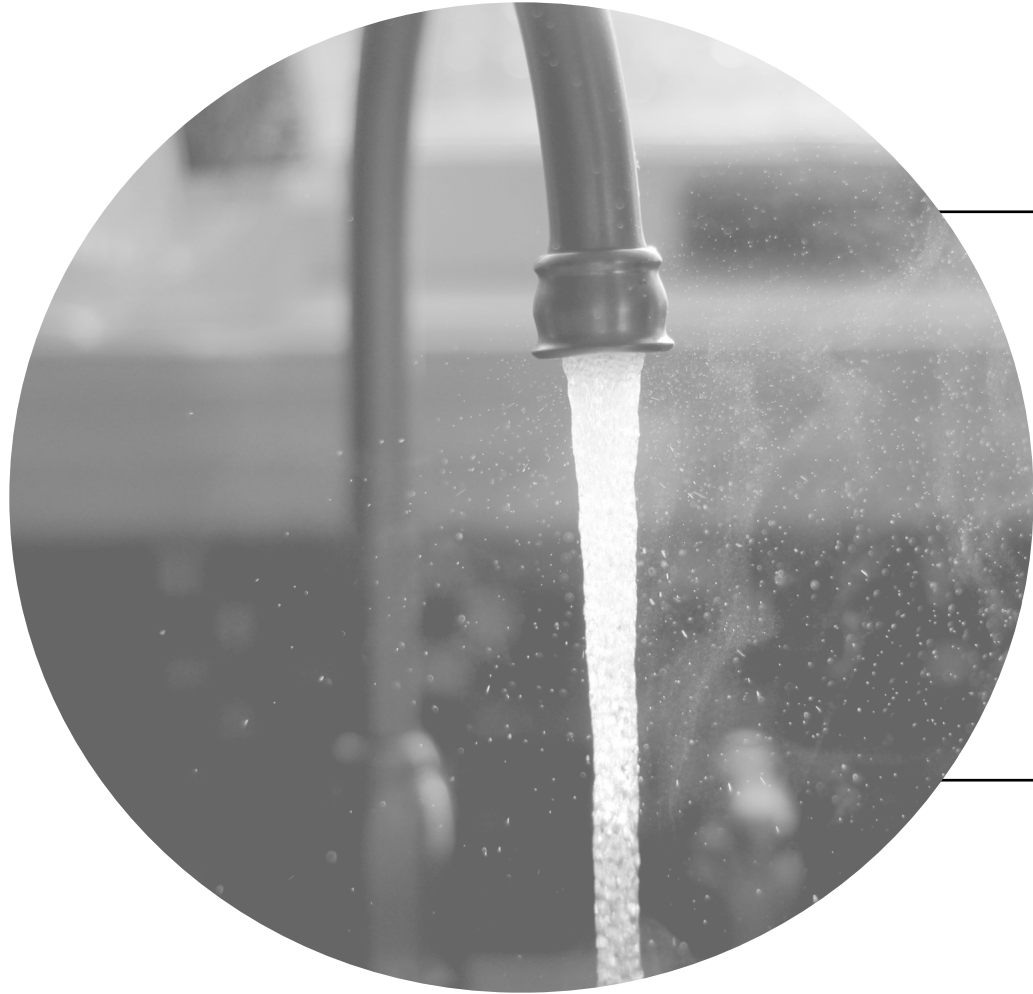
Preliminary Findings

Water Heater Installer Focus Groups
(WHIFG)

Maass, Arianna Zrzavy, Alex Dunn

May 2023

Research Objectives



Understand the contexts of water heater installers in the Northwest (Idaho, Montana, Oregon & Washington)

Understand HPWH-reluctant installers' perceptions of HPWHs by identifying the underlying reasons for resistance

Understand how installers might react to the passage of the proposed federal standard and identifying what behaviors installers might use to meet the proposed standard

What's Been Happening?

**October-December
2022**

NEEA & ILLUME kicks off project, developed the research materials, and compiled the recruitment list of 929 installers.

**January
2023**

Recruitment and scheduling process underway for the focus groups.

**February
2023**

Three 90-minute, online focus groups. Difficulty in scheduling additional focus groups so NEEA pivots to IDIs.

**March/April
2023**

Five in- depth interviews (IDIs) with installers from Idaho and Montana.

**May
2023**

Synthesis of the results & analysis for interim findings share-out.

Who We Spoke With

State	Total
Idaho	5
Montana	3
Oregon	3
Washington	10
Total	21

Research Activities

3

virtual focus groups with 16 water heater installers



5

phone interviews with water heater installers



Materials review

of manufacturer HPWH spec sheets/use guides



PRELIMINARY FINDINGS

Preliminary Findings

1

Installers have low awareness of national appliance standards and are not deliberately working around them.



Preliminary Findings

2

Installers *will* install HPWHs, though not in all circumstances.

“We’ve been involved with a few heat pump water heater installations, and I think they’re a great idea, especially in some of our mechanical rooms... there’s a lot of mechanical rooms up here...”

“They’re great for that application but probably not so much in some of the other applications that we’ve come across, so. I think they’re a great concept, and they’ve got a spot for ‘em, it’s just a matter of finding the right spot.”

– Montana installer

Preliminary Findings

3

Installers cite concerns with a new standard, even those who are “bought into” HPWH technology.

“Water heaters are already getting bigger in diameter. There’s not room in a lot of these houses to get 2 or 3 inches of more space to get the new water heater in there. A lot of homes don’t have room for extra width or height. They’re in closets under shelves and crawlspaces and basements that are barely big enough to stand up in. There’s not room to go much bigger.”

– Idaho installer

Preliminary Findings

4

Collaboration with other market actors may help installers transition to future water heater standards.

“I’d like for it to get implemented before it becomes a law, so our suppliers are able to stock up on set equipment. And each shop maybe is able to get this piece of equipment – even if they have to cut it up to see how it works, whatever, to learn about it hands-on before it’s – make it not theory, before we have to do it.”

– Washington installer

Questions?



Stretch Break!

The background features a large, faint, light-blue watermark of the NEEA logo, which is a stylized diamond shape composed of four interlocking chevrons.

Current NEEA Program Activities



Train the Trainer

Goal: Increase the number of qualified trainers providing CEUs and ensure consistent messaging across the region

- Event held at Northwest College of Construction on April 13th
- Training delivered by Bruce Manclark and Steve Brotton of Great Northwest Installations
- All day event – included hands of learning





Train the Trainer – Regional Representation

- Nine attendees representing regional programs:
 - Comfort Ready Home
 - Energy Trust of Oregon
 - Northwestern Energy
 - Opportunity Council/Washington Building Performance Center
 - Oregon Training Institute





Train the trainer – Next Steps

- Complete certification through state agencies:
 - Oregon Construction Contractor Board (CCB) - complete
 - Oregon Building Code Division (BCD)– reciprocal agreement with Montana Labor and Industry (L&I)
 - Washington L&I – reviews applications on a quarterly basis – approval by end of August
- Quarterly cohort meetings



Dominant Water Heating Companies - Outreach

Goal: Following the momentum from Inflation Reduction Act (IRA) and increased consumer awareness, reengage with large installers.

- Q2: Initial conversations with Fast Water Heating and Washington Energy Services
 - Common themes: sees opportunity with electrification push and federal tax credits, interested in training. Current call center or commissioning structure disincentivizes or does not allow HPWH sales.
- Q2: Visit to “amazing shrinking room” for leadership
- Q3-Q4: Possible training for installers and call center employees



On-Demand Training

Goal: Reach wider audience of installers in recognition of labor shortage and time constraints on industry

Current stats:

- 80 enrollments
- 21 completions

Next steps:

- Break up trainings into smaller sections
- Postcard for distributor sales desk with QR code
- Follow up with registries that did not complete training



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Future NEEA Program Activities



Market Progress Evaluation Report (MPER) #7

- Survey water heater installers
- Retailer interviews
- Report available late Summer 2023

HPWH Installers Survey

*Insights about decision-making and
HPWH awareness*

Web & Telephone survey

- Target 100 completes
- \$50 incentive
- Email and telephone outreach

Topics

- Awareness
- Confidence in Installation
- Impact of NEEA trainings on behavior
- Stocking practices
- Factors influencing recommendations

NMR January 2023 kick-off presentation



Proposed HPWH Consideration Campaign

- Ensure consumers are moving along in their journey
- Consumer awareness of HPWHs has grown significantly in the Northwest—and it is expected to continue to grow
- Build demand to encourage installer engagement
- Run a small-scale consideration campaign
- Q1 2024: Proposed campaign runs





On-going Activities

- Distributor engagement
 - Influence stocking throughout region
 - Support training and awareness opportunity (events, marketing i.e.)
- Manufacture Engagement
 - Product feedback – research, market engagement
- Qualified Product List
- RFP: Implementation and Marketing
 - Award June 2023





Discussion

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- Do these trends lend an opportunity to boost support to DIY installs?

» Emily Rosenbloom

Sr. Program Manager

Erosenbloom@neea.org

Anu Teja

Sr. Market Research & Evaluation Scientist

ATeja@neea.org





Quick Topic Poll - How was it?

Installer Engagement - How was this topic for you?



1 - Was hoping for something more or different - please contact me



4 - Useful topic/discussion and met or exceeded my expectations

Add to the chat:

What was one thing you took away from this topic?



➤ ***Break!***





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Consumer Products: Online Marketplace/ Midstream Retail

**Jon Clark, Anne Brink (NEEA)
Will Dixon (PSE)**

June 6, 2023





Online Marketplace: *Regional Discussion*

Desired Outcome:

Participants understand what's being done around the region, where collaboration opportunities exist and what would be valuable.

Discussion Questions:

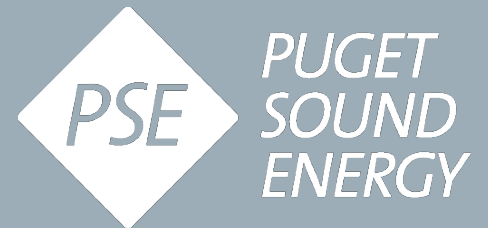
- Does your organization have an online marketplace?
 - How do you use it? Successes? Challenges?
- If your organization doesn't have one, why not?



Online Marketplace Discussion: Finding Areas of Collaboration

June 6, 2023

Will Dixon



Intention



Consider how we might approach our marketplaces in a collaborative way

Discussion



Who here has had some involvement with an utility online marketplace?

What was the reason for launching one?

- A source of EE savings?
- Building trust as a source of reliable EE products?
- Behavior / impacting purchasing decisions?
- Another channel to reach customers?

What were the obstacles to setting it up?

Discussion



What products do you offer?

Have any of you had DR enrollment as part of the marketplace?

Do you have any best practices to offer?

A bit about PSE's marketplace...

PSE Online Marketplace

Browser tabs: PSEWeb - Home, PSE - Reserve & Connect, sf Your session has expired, stock exchange trading floor, PSE | Get Rebates to Lower Your..., pse-marketplace.com/welcome

URL: pse-marketplace.com/welcome?utm_source=direct&utm_medium=shorturl&utm_campaign=ee-d2c-marketplace

Welcome to the PSE Marketplace

Get great deals on lighting and products to make your home more comfortable, warm, and energy-efficient.

Please confirm your eligibility for instant discounts

This information is required to verify your eligibility for instant discounts on the products we offer through the PSE Marketplace.

* PSE Service Zip Code * myPSE Account Phone - (555) 555-55

* Home Heating Method


SUBMIT

Visit the [PSE Efficiency Boost Marketplace](#) to see if you qualify for higher rebates on smart thermostats and line voltage connected thermostats based on your income.


"I loved my experience with the PSE Marketplace. My order shipped sooner than I expected and I really loved the option of the instant rebate. I have been telling everyone I know to check out the PSE Marketplace!"

- **Natasha H.**


See the deals waiting inside for qualified residential customers



Nest Thermostat
as low as
\$54.99



ecobee Premium Thermostat
as low as
\$174.99



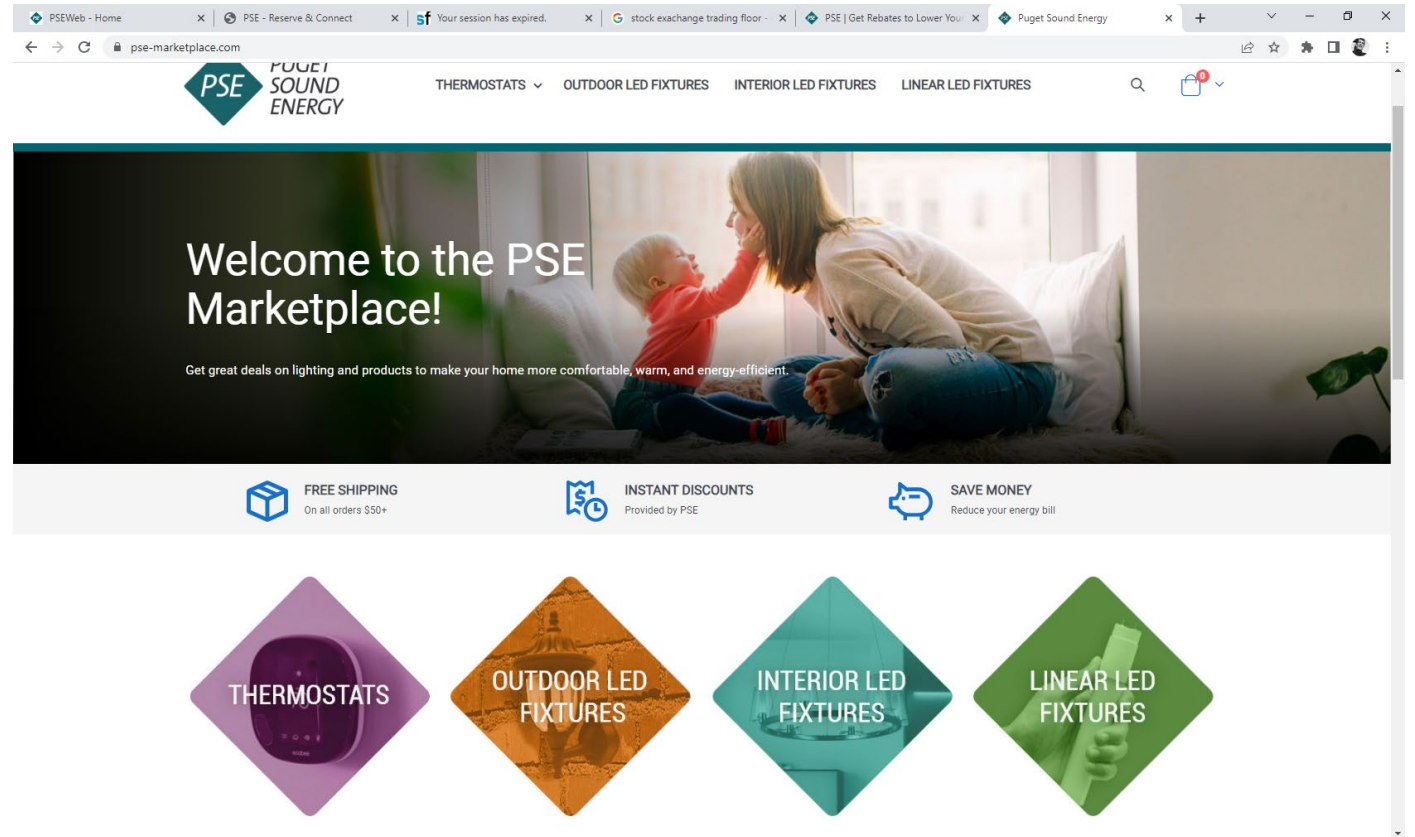
Mysa V2 Smart Thermostat
as low as
\$74.00

zendesk chat

Chat with us

Type your message here

PSE Online Marketplace



PSE Online Marketplace

Compare Features

All smart and connected thermostats make it easy for you to control the temperature of your home wherever you are to save energy and money. Beyond that, choosing the right thermostat for you depends on your specific needs. Below, we compare the features of the thermostats we offer.

Smart thermostats - compatible with single and multi-stage heating and cooling systems

Smart Thermostat	Smart Home Protocol	Control Type	Smart Tech	Smart Home Compatibility	Retail Price	Heating System Compatibility
Sensi Smart ST55	Wi-Fi	Phone Controlled, Manual	Intuitive Scheduling, Smart Home Hub Compatible, Smart Phone/Android App Compatible	Alexa, Google Assistant, Apple HomeKit, Samsung SmartThings, Siri	\$129	2 Stage
Sensi Touch ST75	Wi-Fi	Phone Controlled, Touchscreen	Geo Fencing, Intuitive Scheduling, Smart Home Hub Compatible, Smart Phone/Android App Compatible	Alexa, Google Assistant, Apple HomeKit, Samsung SmartThings, Siri, IFTTT	\$169	2 Stage
ecobee3 Lite	Wi-Fi	Phone Controlled, Touchscreen	Energy History Tracking, Geo Fencing, Intuitive Scheduling, Smart Home Hub Compatible, Smart Phone/Android App Compatible, Proximity Sensor	Google Assistant, Apple HomeKit, Amazon Alexa, Samsung SmartThings, IFTTT	\$149	2 Stage
ecobee Enhanced	Wi-Fi	Phone Controlled, Touchscreen	Smart Home Hub Compatible, Smart Phone/Android App/Apple Watch Compatible, Proximity and Occupancy Sensors, Intuitive Temperature Preferences	Google Assistant, Amazon Alexa, Apple HomeKit, IFTTT, Samsung SmartThings, ecobee Smart Security, Alarm.com	\$189.99	2 Stage
ecobee Premium	Wi-Fi	Phone Controlled, Touchscreen, Voice Controlled	Smart Home Hub Compatible, Smart Security Hub, Smart Phone/Android App/Apple Watch Compatible, Proximity and Occupancy Sensors, Air Quality Sensors (VOC and eCO2) Intuitive Temperature Preferences	Google Assistant, Amazon Alexa, Apple HomeKit, IFTTT, Samsung SmartThings, ecobee Smart Security, Alarm.com, Spotify	\$249.99	2 Stage

Thank you!





Priority 2 PCC Topic:

→ *Online Sales*

**Will
Dixon**

PSE

Will.Dixon@pse.com



» Jon Clark, Anne Brink

NEEA

ABrink@neea.org | JClark@neea.org

Will Dixon

Puget Sound Energy

William.Dixon@pse.com



NW Natural®

PACIFIC POWER





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Online Marketplace / Online Sales - How was this topic for you?



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What was one thing you took away from this topic/topic theme?





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A piece of brown paper with a string tied in a bow. The string is a light brown, twisted cord. It is tied in a bow that is centered horizontally and slightly above the vertical center. The bow has two loops on the left and two on the right. The string extends horizontally across the paper, and vertically down the right side. The background is a solid, textured brown paper.

Let's wrap it up!



Action Items | Any Final Qs?



- Action Items

- Action Items



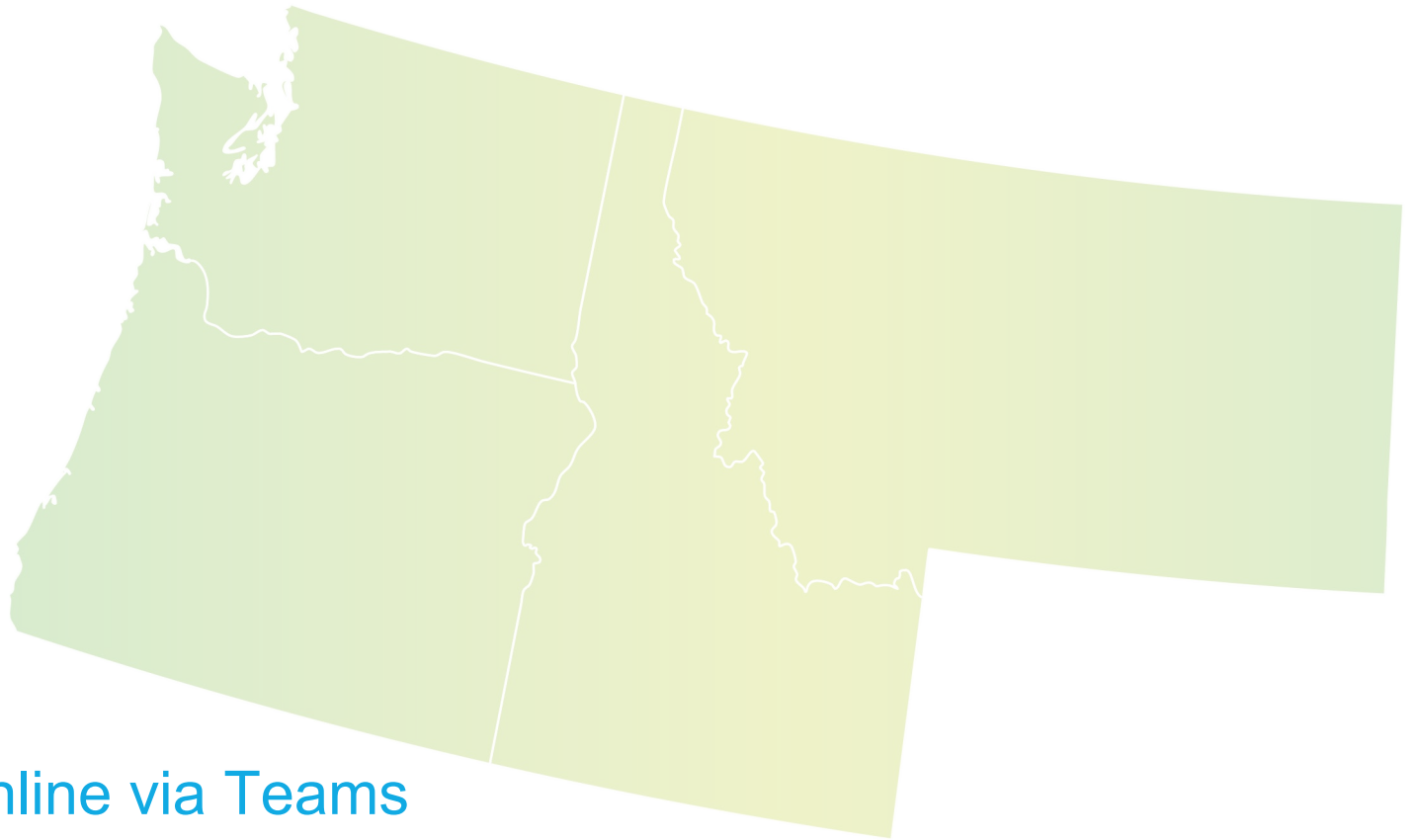
Public Comment?



Thank you, PCC!

See you tomorrow for Day 2!

June 7 @ NEEA's office **OR** online via Teams





Products Coordinating Committee Meeting

Q2 2023 - Day 2

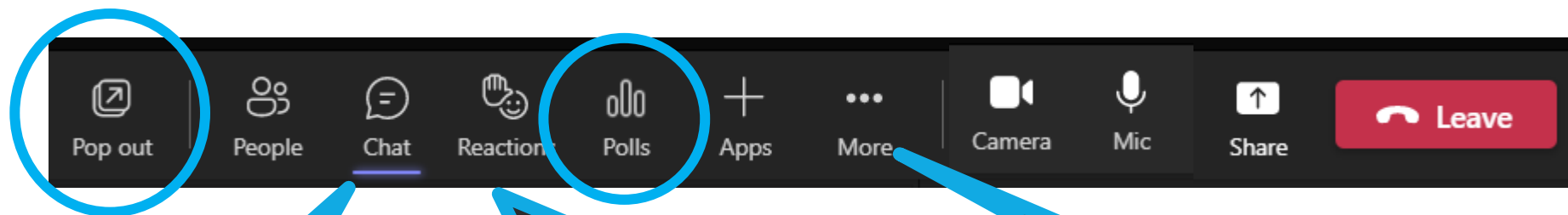
June 7, 2023

9:00am – 12:00pm Pacific Time





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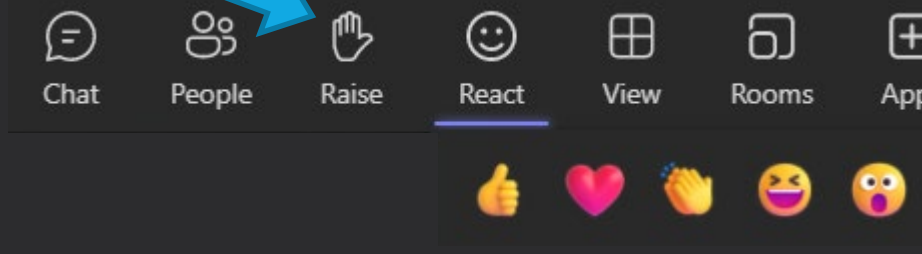


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9:00-9:15	Welcome, Agenda Review, Packet Reminders
9:15-10:00	<u>REGIONAL PRIORITY TOPIC:</u> Distinguishing Circulator Barriers for Res + Comm ECM Markets
10:00-10:20	Housekeeping
(15 min)	BREAK
10:35-11:55	Regional Roundtable (3-4 min/pp max please) <u>Specific committee member highlights to consider:</u> <ul style="list-style-type: none">– Questions/thoughts on NEEA program activity reports– Program, organizational updates– What did you learn today?
11:55-12:00	Recap, Next Steps, Adjourn



Ask of You:



***LISTEN FOR, OR SHARE, ANY
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LEVERAGING OPPORTUNITIES***



» Topic Development

REFERENCE ONLY: Snip from 2023 Annual Planning board for this topic.

Topic Development Notes

WHAT: Diff market actors selling in the res ECM circ (<30HP) ; how can this program influence these market actors and specifically work with plumbers, eg. circ in in-floor heating applications; potentially look at education/ training/ having confidence in product/ comm benefit story (longevity & eff of syst, being prone to catastrophic failure if over pump through syst); also look at plumber survey; support region in outbounding comm and amplifying message

WHY: To address potential market barriers in res ECM circ market, in res & MF buildings

WHO: EJ/SCL, NEEA

Distinguishing the market barriers in the residential ECM circulator markets vs commercial (EJ, SCL)

TOPIC B: Distinguishing circulator barriers for Res + Comm ECM markets





Motors: Distinguishing Circulator Barriers for Res + Comm ECM Markets

Warren Fish

Program Manager, NEEA

June 7, 2023





Agenda

1. **Goals for today**
2. **Circulator Overview & Applications**
3. **Energy Saving Mechanisms**
4. **ER Label & Calculator Tool**
5. **Market Barriers**
6. **Codes & Standards**
7. **Circulator Opportunities**
8. **XMP Program**
9. **Collaboration Opportunities**



Goals

- **Increase understanding and awareness of ECM circulators**
- **Discuss barriers and challenges to ECM circulator adoption**
- **Consider how to accelerate & broaden market adoption of ECM circulators**



Circulator Overview & Applications



Overview of Circulators

- Primary purpose = move water for heating / domestic water
- Small, generally less than 1hp
 - Most common size is 1/25 hp
- Sold as a complete assembly via wholesale distribution
- Not yet regulated by DOE
- From US DOE Definition of Circulator Pumps:

Single-stage, overhung, in-line style rotodynamic pumps

Can be wet-rotor or dry-rotor

Supported in-line by the system piping

- *Rotating assemblies that must be horizontally mounted*
- *Motor shaft power that shall not exceed 3.75 kW (5 hp)*





Sectors & Applications

Sectors

- Commercial
- Residential

Applications

- HVAC hydronic heating (HH) system distribution - moves hot water in a radiant system
- Domestic Hot Water (DHW) recirculation - maintains hot water at the tap



Installation Details

	Hydronic Heating (HH)	Domestic Hot Water (DHW) Recirculation
Use		
Size		
Installer (typically)		
Materials		
Energy Savings		



Circulator Case Studies

- [XMP-Case-Study-Providence.pdf](#)
[\(betterbricks.com\)](#)

SMART PUMPS HELP KEEP COSTS DOWN AT PROVIDENCE DOWN MANOR

Upgrading to efficient circulators provides performance and savings



The Problem and Opportunity:

Providence Down Manor is the only independent retirement community in Hood River, OR. Down Manor provides comfortable living for independent and active seniors, without any of the burden or worries of homeownership. With amenities like personal gardens, exercise classes and a quarter-mile walking path around the premises, Down Manor creates a healthy, vibrant and relaxed environment for its 115 residents.

Large, multi-unit buildings like Down Manor and the neighboring Providence Brookside Manor use circulators to ensure that every apartment gets hot water quickly, so residents don't have to wait while the tap runs. With long runs of plumbing to connect centralized water heaters with apartments at the end of the building, running the tap to draw a hot shower can waste considerable time and water. Hot water circulation solves the inconvenience, but it can also waste energy. When hot water is moved up multiple floors

and along hundreds of feet of pipe, heat leaks out of the system. Plus, it requires the use of a pump that is continually running, and the return water must be reheated constantly.

- [XMP-Case-Study-Bellwether.pdf](#)
[\(betterbricks.com\)](#)

SMART CIRCULATORS PROVIDE CONVENIENCE AND SAVINGS FOR BELLWETHER HOUSING



The Problem and Opportunity:

Bellwether Housing is the largest nonprofit affordable housing provider in Seattle, Washington. With locations near businesses, job opportunities, schools and daycares, Bellwether strives to bring stability and opportunity within reach of its 3,200+ tenants. Affordable housing options promote a more vibrant and equitable city by supporting many of Seattle's community members including independent seniors, immigrants seeking opportunity, families exiting homelessness, preschool teachers, social workers and young people just starting out.

Bellwether manages 2,100 units across the city in buildings that range from new construction to century-old apartments. This diversity can pose a challenge for the maintenance team — in the past, it has led Bellwether to participate in weatherization programs like Seattle City



Energy Saving Mechanisms



How Do Circulators Save Energy?

EFFICIENT MOTORS

Application: HVAC and DHW

Efficient Electronically Commutated Motors (EC Motors or ECMs) require less power to do the same work, saving ~20% compared to traditional induction motors. They do not change the circulator's speed or operating hours

SPEED CONTROL

Application: HVAC

HVAC systems are designed for peak load days, but rarely require the full heating capacity. Advanced speed controls match the circulator's rotation to the load, reducing the motor power consumption significantly. A 25% reduction in rotating speed reduces power draw by ~50%.

REDUCE OPERATING TIME

Application: DHW

Like turning off a light when you leave a room, occupants don't need hot water available at the tap 24/7. Automatic controls limit operating time, saving energy both in the motor and at the water heater.



Electronically Commutated Motors

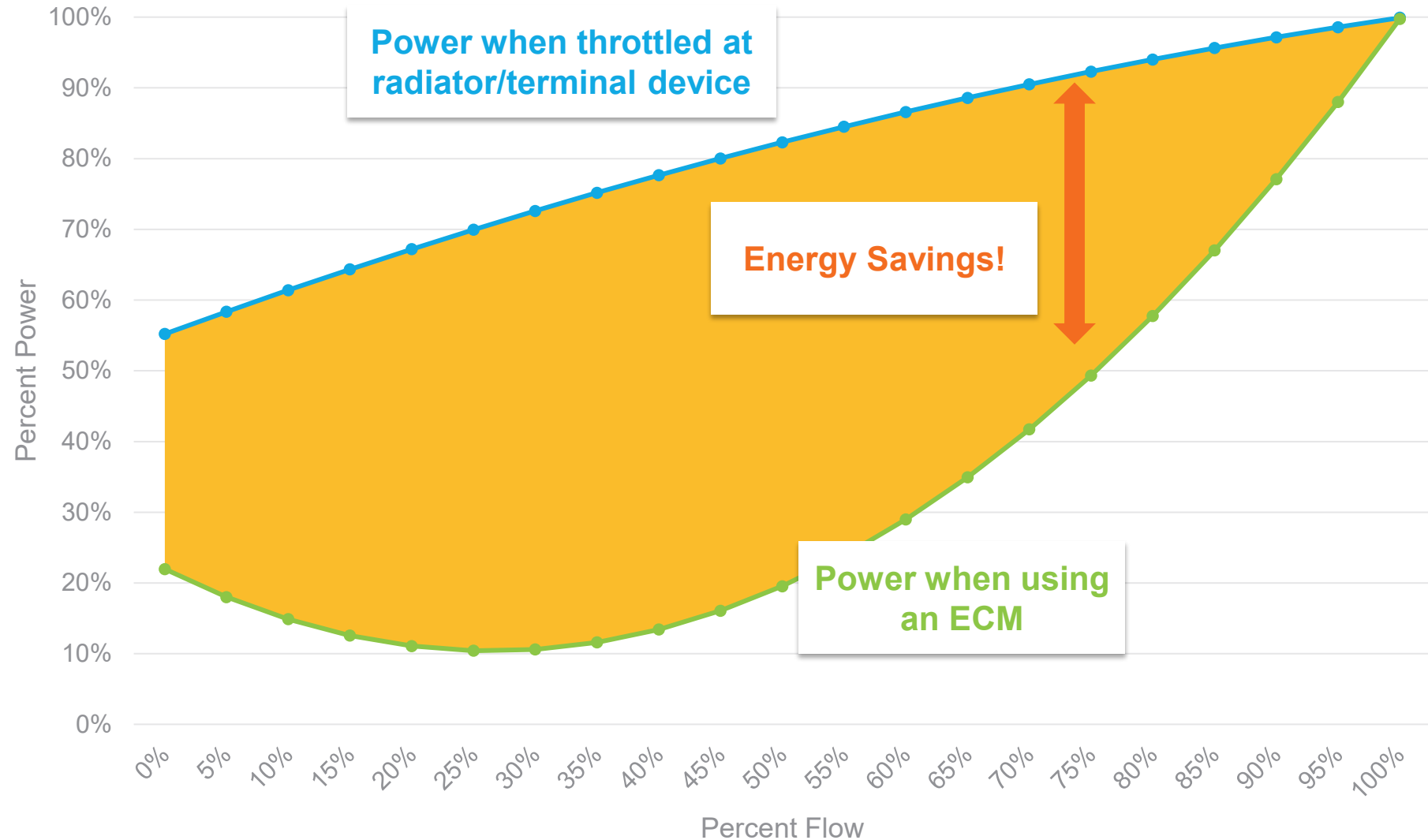
Benefits of ECMs:

- Highest efficiency, even at variable load conditions
- Brushless DC motors – quieter, less friction, less prone to noise/vibration, less energy wasted as heat
- Extended product life due to low operating temperature





Speed Controls for Hydronic Heating Systems



**At 75% flow,
43% input
power reduction**



Run-hour Controls for DHW

AQUASTAT

Temperature control automatically turns pump off based on temperature in hot water distribution piping

ON-DEMAND CONTROL

- Initiates water circulator based on receiving a signal from the action of a user [of a fixture or appliance] or sensing the presence of a user of a fixture and cannot initiate water circulation based on other inputs, such as water temperature or a pre-set schedule.
- Automatically terminates water circulation once hot water has reached the pump or desired fixture.

LEARNING CONTROL

- Develops schedule of operation based on actual use patterns
- Determined based on sensing the presence of a user at a fixture





ER Label

ER Label Components

ER Range

Energy Rating min and max

- Higher is better!
- Lab tested performance

Speed Control Options

Range of options provide different ER ratings



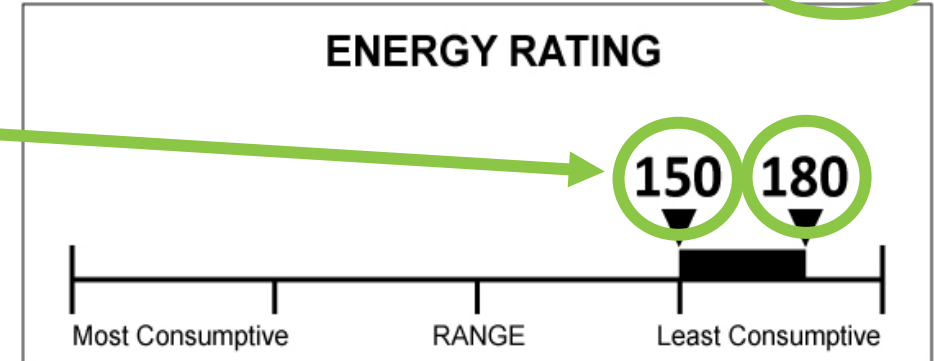
Brand XYZ

WAIP: 0.068

Model #: ABC123

CIRCULATOR PUMP

CEI: 0.60 (ER 180)



Note: The ER value is dependent on the selected control. Multiple options may be available on this pump, as follows.

- Full Speed
- Manual Speed
- External Input Signal
- Pressure (Rated)
- Temperature

Power savings (watts) over a baseline case can be estimated by multiplying the ER by WAIP and multiplying by 7.46. Multiplying power savings by operating hours and cost of energy will yield estimated cost savings.

Q45RTE

er.pumps.org

Jun 2021



Hydraulic Institute Circulator Calculator

Life Cycle Cost Calculator

A tool for users to learn about the potential energy savings and financial payback from the selection of efficient circulators.

Enter information here:

Do you have an ER label?	Yes
Application	Domestic Hot Water
Sector	Commercial

I have an ER Label

Minimum ER from label	150
Maximum ER from label	180
Weighted Average Input Power "WAIP"	0.068
CEI	0.60

Input

Output

ENERGY RATING

150

Minimum Energy Savings			
Pump Savings	514	kWh / year	
Pump Savings	\$54	/year	
Payback Period (only Pump Savings)	5.5	years	
DHW Savings	217	kWh / year	
DHW Savings	\$23	/year	
Payback Period (incl DHW Savings)	3.9	years	





Barriers to Adoption



Commercial Barriers

What might be preventing commercial installers from using ECM Circulators?

Barriers

Controls: hesitancy to connect circulator to BMS

- Don't see the added value
- Cost of connection to BMS is higher than cost of circulator

Callbacks: concern about customer satisfaction

- If DHW timers are not programmed correctly, wait time for hot water at tap may increase leading to user frustration

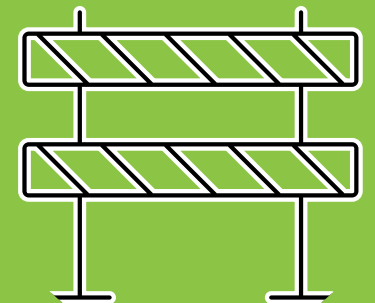
Opportunities

Design Intent: commercial systems most often designed vs installed at replacement

- Integrated self-sensing controls avoid installation costs

Education: Commercial contractors more likely to receive regular training & education

- Highlight the benefit of integrated controls





Residential Barriers

What might be preventing residential installers from using ECM Circulators?

Barriers

Awareness: low product familiarity/education

Purchasing Decisions

Contractors tend to purchase familiar items

- May purchase bulk supply stock for fleet of trucks
- Higher cost

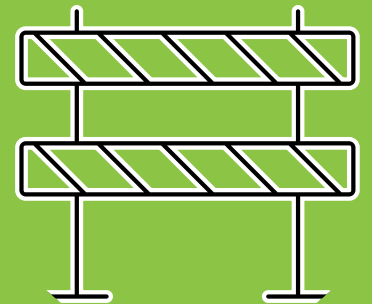
Opportunities

Education: Controls are typically easy to program

Incentives: Reduce incremental costs and get more people using the product

Warranty

- Over-pumping concerns
- PEX pipe warranties may be invalidated if circulator is not controlled properly



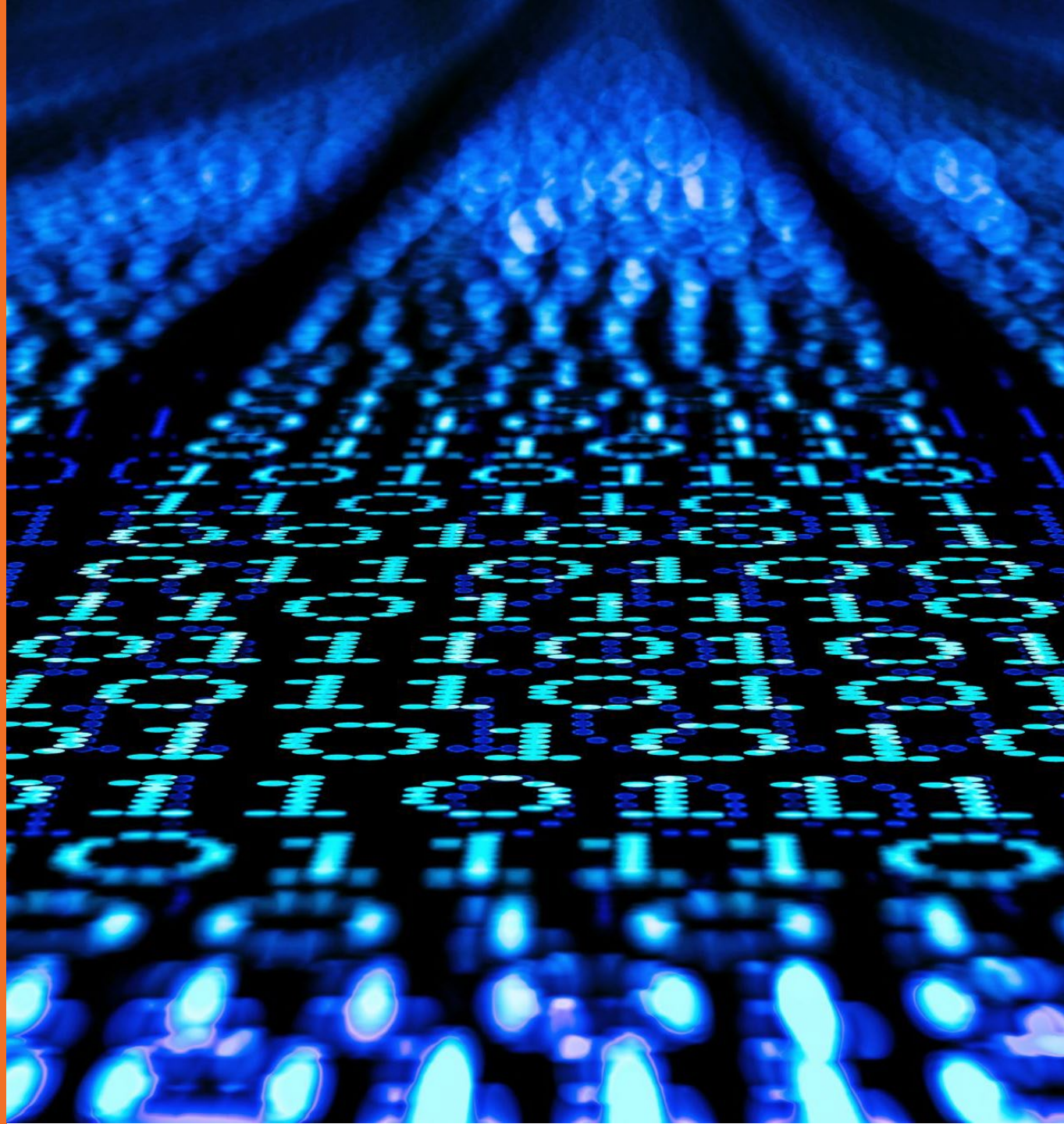


Discussion

- *Do these barriers resonate with your experience?*
- *What other barriers may exist?*
- *Any service territory-specific nuances or challenges?*



Codes & Standards





Code Requirements

Federal Standards

- Currently no standards in place
- **DOE is finalizing a federal standard which we expect will go into effect in late 2025**
- **Will require ECMs on all circulator equipment**

State Codes

- Codes may require on-demand for commercial new construction DHW



Circulator Opportunities





Extended Motor Products (XMP)

Accelerating the adoption of more efficient motor-driven products

- Raising awareness through hands-on training
- Driving change in sales/inventory through manufacturers representatives



Selling the value of ECM circulators with qualified controls thru Manufacturers' Reps

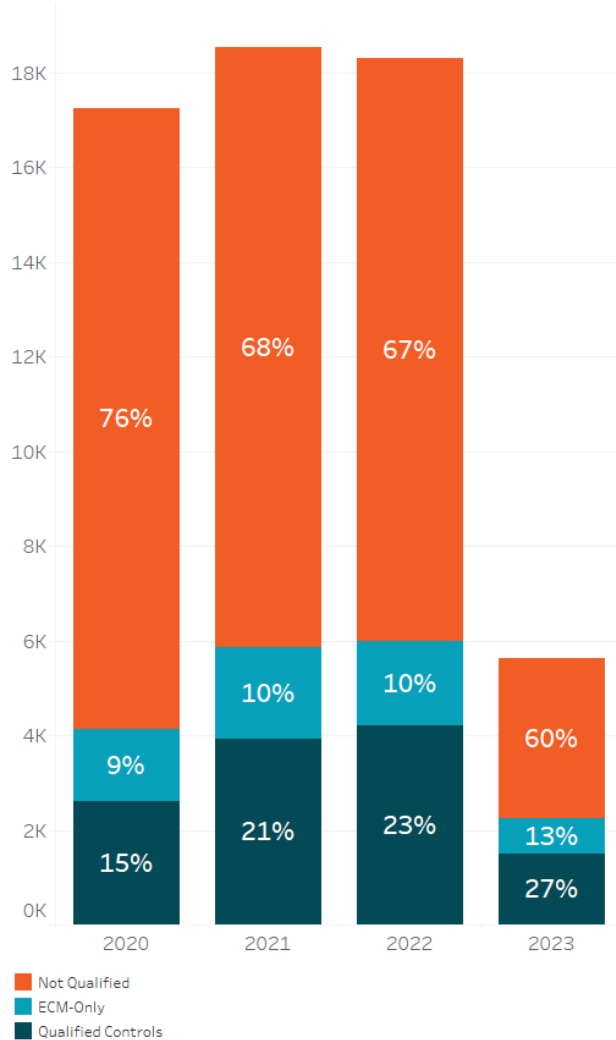
Motivating large-scale changes in regional inventory practices and in the sales mix by working midstream

Enhancing regional training of contractors and wholesale counter staff through hands-on learning





Circulator Market Trends



Potential

- ~20,000 annual circulator sales in the Northwest (~25% qualify currently)
- Total savings potential of current sales mix ~ 2 aMW

*2023 values for the first 4 months





Collaboration Opportunities

- What is your organization doing so far on circulators?
- What are the big challenges for downstream programs?
- Can the ER label, savings calculator, or other training resources better support the circulator decision makers in your local service territory?
- How can we work together as a region to further accelerate?





Goals Recap
Feedback
Next Steps

- **Increase understanding and awareness of ECM circulators**
- **Discuss barriers and challenges to ECM circulator adoption**
- **Consider how to accelerate & broaden market adoption of ECM circulators**

» Warren Fish

Program Manager, NEEA

506.688.5402, WFish@neea.org



On a scale of 1-4 lightbulbs...



Quick Topic Poll - How was it?

Distinguishing ECM Market Barriers (Res vs Comm) -
How was this topic for you?



1 - Was hoping for
something more or
different - please contact
me



4 - Useful
topic/discussion and met
or exceeded my needs



Add to the chat:

What was one thing you took away
from this topic/topic theme?





Agenda

All times Pacific

9:00-9:15	Welcome, Agenda Review, Packet Reminders
9:15-10:00	<u>REGIONAL PRIORITY TOPIC:</u> Distinguishing Circulator Barriers for Res + Comm ECM Markets
10:00-10:20	Housekeeping
(15 min)	BREAK
10:35-11:55	Regional Roundtable (3-4 min/pp max please) <u>Specific committee member highlights to consider:</u> <ul style="list-style-type: none">– Questions/thoughts on NEEA program activity reports– Program, organizational updates– What did you learn today?
11:55-12:00	Recap, Next Steps, Adjourn

» *Housekeeping & Looking Ahead*

- Reminder: PCC Co-Chair opportunity
- Recap: Efficiency Exchange (EFX) May 2-3
- RPAC Related:
 - Heads up! Q3 RPAC Vote for Variable Speed Heat Pumps (August 29)
 - RPAC Federal Funding Work Group Update
- Business Planning Update
- Upcoming
 - NEEA Meetings
 - Other events or announcements?





PCC Co-Chair Opportunity

Thank you, Matt Babbitts (Q1 2020 - Q1 2023)!

- Co-Chair Role & Time Investment:
 - ✓ Meet in advance to review quarterly agenda
 - ✓ Contribute to topic prep, if have expertise
 - ✓ Promote committee engagement during meetings
 - ✓ Support Annual Planning Sessions
 - ✓ Time Investment: 4-6hrs/quarter





Efficiency Exchange Conference



Save the Date: May 14-15, 2024

Coeur d'Alene, Idaho

neea.org/EFX



(Northwest) Federal Funding Coordination Work Group

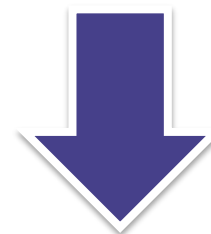
Kickoff Meeting (5/4)

Share-out of
activities, priorities,
questions



Near-term Priorities:

- Workforce
- Marketing/Communication
- Tribal Engagement



Next Steps

Q3 Meeting aligned with
(planned) Home Rebates
Guidance



Interim deep-dives on
near-term priorities



Business Plan Milestones - 2023

Date	Business Plan Milestone
March	Draft Business Plan Outline Review
May	First Draft Strategic + Business Plan Review
June	Second Strategic + Business Plan Review
July/August	Regional Outreach: <ul style="list-style-type: none">• 1-2 Regional Webinars;• Targeted presentations/ outreach to NWEAC, NWPCC, PNUCC, State Energy Offices, Commissions• Email outreach through NEEA channels/nea.org
September	Summary of regional outreach, implications for plan, any final edits
November	Final Draft Strategic + Business Plan Review
December	Final Business Plan Approval



Upcoming NEEA Meetings

AC = Advisory Committee
CC = Coordinating Committee

June

- June 13-14 → Q2 NEEA Board (Hybrid, Montana)

August

- August 14 → Q3 Integrated Systems CC
 - August 17 → Q3 Products CC
 - August 24 → Q3 Cost Effectiveness & Eval AC
 - August 29 → Q3 Regional Portfolio AC
- } virtual

September

- September 21 → Q3 Regional Emerging Tech AC

***Any Other Upcoming
Events?
Announcements?***



Break!



Agenda

All times Pacific

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11:55-12:00	Recap, Next Steps, Adjourn

Regional Roundtable

(3-4 min max/pp, please)



Raise your virtual hand to get in the queue

Who:

- ✓ **Committee Members**
- ✓ **NEEA PMs**

Focus:

- ✓ **Organizational & program highlights since February**
- ✓ **Questions/follow up on Program Activity Reports**
- ✓ **What did you learn this quarter?**





Agenda

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A piece of brown paper with a string tied in a bow. The string is a light brown, twisted cord. It is tied in a bow that is centered horizontally and slightly above the vertical center. The bow has two loops on the right side and two tails extending to the left and right. The background is a solid, textured brown paper.

Let's wrap it up!



Action Items | Any Final Qs?



- Action Items

- Action Items

» Let's hear it!

Add to the chat:

*What's one key
takeaway for you this
quarter?*

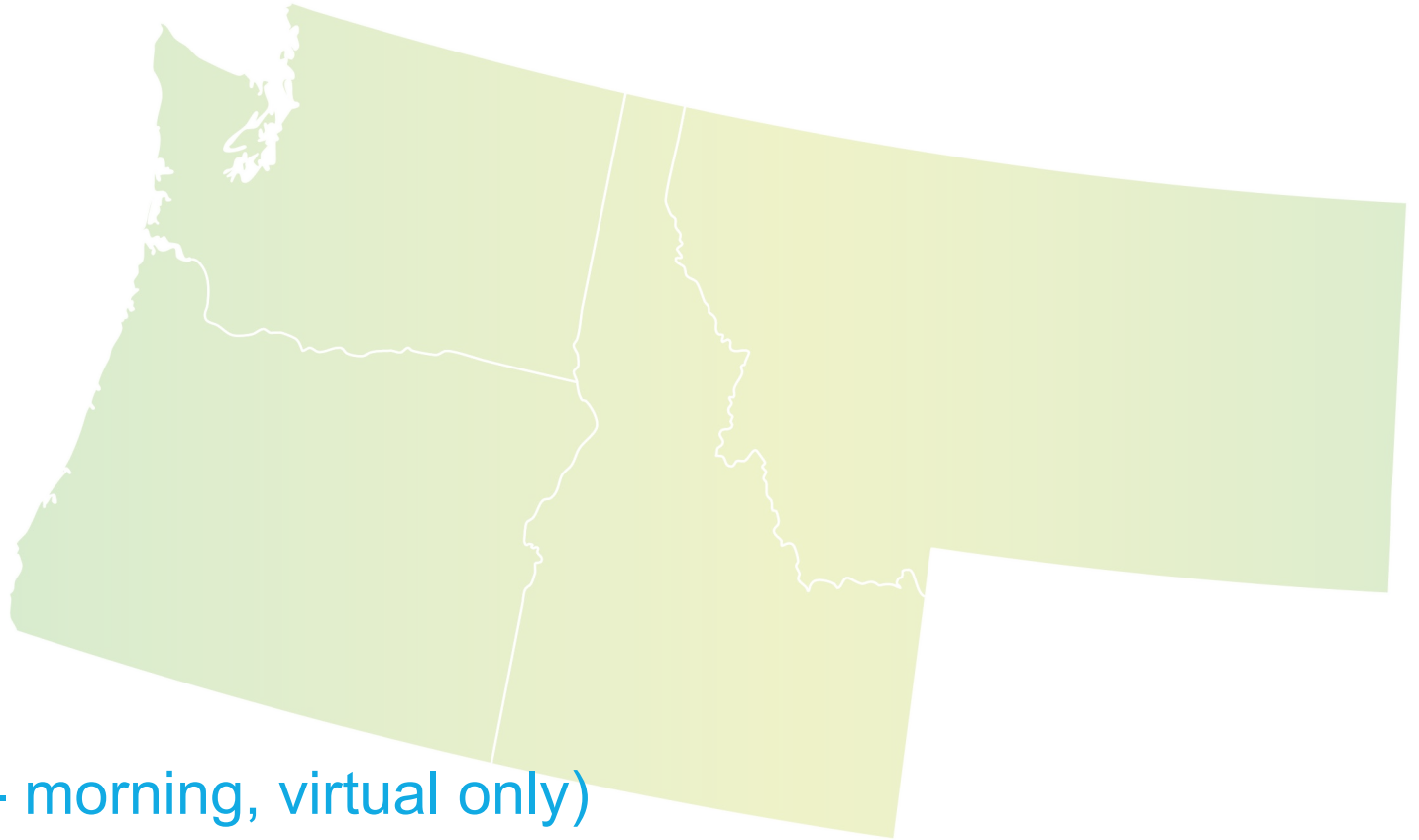




Public Comment?



Thank you, PCC!



Next Meeting:

Q3: August 17, 2023 (1/2 day - morning, virtual only)

