

Q2 2023 Products Coordinating Committee (PCC) Agendas (2-Day Mtg)



DATE: **Day 1: Tuesday, June 6, 2023 [HYBRID]**

TIME: 1:00 – 4:30 pm Pacific (lunch available 12:30-1 for those in-person)

LOCATION: In-Person option: Columbia Conference Room, NEEA Office (700 NE Multnomah, Portland)

WEBINAR: MS Teams – See link in calendar invite or [register here](#)

PCC OBJECTIVE + DESIRED OUTCOME: Collaboration on coordination and optimization of NEEA programs and related activities by (1) identifying and managing through potential implementation challenges between NEEA and local utility activities, and (2) identifying and seizing leveraging opportunities that can drive amplified market influence.

**Agenda + timing Updated 6/1*

(All Times Pacific) (R) Residential (C) Commercial (I) Industrial

Page #

12:30-1:00	LUNCH	Those in person	--
1:00-1:30 (30 min)	Welcome, Introductions, Packet Review	Alisyn Maggiora All	p. 1-5
1:30-2:50 (80 min) <i>Includes stretch break</i>	<p>WATER HEATING REGIONAL PRIORITY TOPIC</p> <p><u>NEEA Share-out + Regional Discussion: Installer Engagement (R)</u></p> <ul style="list-style-type: none"> Update on research: Findings from installer focus groups, cold climate status update Regional share-out: training coordination update <p><i>Desired Outcome: Committee members are informed on latest research around HPWHs, specifically around installers' perspectives on the technology, and understand ways they can support contractors in their local territories.</i></p>	Emily Rosenbloom Anu Teja	p. 6
(20 min)	BREAK	All	
* 3:10-4:15 (65 min)	<p>CONSUMER PRODUCTS REGIONAL PRIORITY TOPIC</p> <p><u>Regional Discussion: Online Marketplace/Midstream Retail (R)</u></p> <ul style="list-style-type: none"> Explore opportunity for coordinated engagement around online marketplace activities. <p>*NEW* Part 2 - Priority 2 topic: <u>Online Sales (R)</u></p> <ul style="list-style-type: none"> Collaborative discussion around trends and impacts. <p><i>Desired Outcome: Participants understand what's being done around the region, where collaboration opportunities exist and what would be valuable.</i></p>	Jon Clark Anne Brink Will Dixon (PSE)	p. 7
4:15-4:25 (10 min)	Recap, Next Steps, Adjourn	Alisyn Maggiora	--

Q2 2023 Products Coordinating Committee (PCC) Agendas (2-Day Mtg)



DATE: **Day 2: Wednesday, June 7, 2023 [HYBRID]**

TIME: 9:00am – 12:00pm Pacific

LOCATION: In-Person option: Columbia Conference Room, NEEA Office (700 NE Multnomah, Portland)

WEBINAR: MS Teams – See link in calendar invite or [register here](#)

PCC OBJECTIVE + DESIRED OUTCOME: Collaboration on coordination and optimization of NEEA programs and related activities by (1) identifying and managing through potential implementation challenges between NEEA and local utility activities, and (2) identifying and seizing leveraging opportunities that can drive amplified market influence.

**Agenda + timing Updated 6/1*

(All Times Pacific) (R) Residential (C) Commercial (I) Industrial

			Page #
9:00-9:15 (15 min)	Welcome, Agenda Review, Packet Reminders	Alisyn Maggiora All	p. 1-5
9:15-10:00 (45 min)	<p>MOTOR-DRIVEN PRODUCTS REGIONAL PRIORITY TOPIC</p> <p><u>NEEA Share-out: Distinguishing Circulator Barriers for Res + Comm ECM Markets (R) (C)</u></p> <ul style="list-style-type: none"> Overview on circulators and associated market barriers <p><i>Desired outcome: Committee members increase understanding of ECM circulators and pathways to increased adoption.</i></p>	Warren Fish	p. 8
* 10:00-10:20 (20 min)	<p>Housekeeping <i>*shifted from 6/6 to 6/7</i></p> <ul style="list-style-type: none"> Announcements: <ul style="list-style-type: none"> Business Planning update RPAC Federal Funding Coordination Workgroup Staffing update EFX Recap 	Alisyn Maggiora Emily Moore Jonathan Belais	
(15 min)	BREAK	All	
10:35-11:55 (80 Min)	<p>Regional Roundtable (3-4 min/pp max please) <i>Committee members and NEEA program managers share program and organizational updates, highlight areas of possible interest and coordination with others.</i></p> <p><u>Specific committee member highlights to consider:</u></p> <ul style="list-style-type: none"> Questions/thoughts on NEEA program activity reports Program, organizational updates What did you learn today? <p><i>Desired Outcome: All are updated on each other's activities and better understand what's happening across the region.</i></p>	All	--
11:55-12:00 (5 min)	Recap, Next Steps, Adjourn	Alisyn Maggiora	--

Memorandum – *Agenda Item (Tier 1)*



May 23, 2023

TO: Products Coordinating Committee (PCC)

FROM: Alisyn Maggiora, Stakeholder Relations Manager

SUBJECT: Meeting Packet Agenda Items, Informational Updates and Additional Details

MEETING PACKET APPROACH

This packet follows a “tiered” approach:

- Tier-1 memos for active agenda items
- Tier-2 memos for informational updates on items not currently requiring agenda time
- Tier-3 materials provided as additional detail for those interested, accessible via links in the Tier-1 and Tier-2 memos. All other Tier 3 materials are listed below.

This approach helps keep packets concise and digestible. Any input for improvement is appreciated.

AGENDA ITEMS (Tier 1)

- Page 1-2: Agenda
- Page 3: Meeting Packet Informational Updates
- Page 4: Meeting Preparation Highlights
- Page 5: NEEA’s Product Groups & Programs Related to Coordinating Committee Structure
- Page 6: Memo: Regional Priority Topic – Heat Pump Water Heaters “Installer Engagement”
- Page 7: Memo: Regional Priority Topic – Consumer Products “Online Marketplace/Midstream Retail”
- Page 8: Memo: Regional Priority Topic – Motor-Driven Products “Smart Circulator Pumps: Barriers to Adoption in Commercial & Residential Applications”

INFORMATIONAL UPDATES (Tier 2 Memos + Program Activity Reports)

- Page 9: Memo: Update on Federal Funding Coordination Work Group
- Page 10-14: Program Activity Report: Heat Pump Water Heaters (HPWH)
- Page 15-18: Program Activity Report: Consumer Products / Retail Products Portfolio (RPP)
- Page 19-23: Program Activity Report: Extended Motor Products (XMP) Pumps & Circulators
- Page 24-27: Program Activity Report: Efficient Fans

ADDITIONAL DETAILS (Tier 3)

Committees: *(meeting notes include links to recordings)*

- Q1 2023 RPAC meeting [packet](#), [slides](#) and [notes](#)
- Q1 2023 Products Coordinating Committee [packet](#), [slides](#), [notes](#)
- Q1 2023 Integrated Systems Coordinating Committee [packet](#), [slides](#) and [notes](#)
- Products Coordinating Committee (PCC) [2023 Annual Work Plan](#)
- Integrated Systems Coordinating Committee (ISCC) [2023 Annual Work Plan](#)
- Charters: [RPAC](#), [ISCC](#), [PCC](#)

Newsletters:

- Q1 2023 [Market Research & Evaluation Newsletter](#)
- Q1 2023 [Codes, Standards and New Construction Newsletter](#)
- Q1 2023 [Emerging Technology Newsletter](#)

PCC Q2 2023 – Meeting Topic Preparation Highlights



Preparation for All Committee Items:

- Review packet, including agenda, informational updates and all memos. See additional preparation for specific agenda items below.

DAY 1 – Tuesday, June 6

➤ **REGIONAL PRIORITY TOPIC – HPWH Installer Engagement**

This topic will take an “inform and discussion” approach.

Review Tier 1 memo on p.6 and **come prepared to:**

- (1) Learn about NEEA’s recent research findings related to installers’ perceptions and challenges, as well as an update on cold climate research efforts;
- (2) Engage in group discussion by sharing your local experiences;

Consider the following questions to spur discussion:

- ✓ What are your observations around installer perceptions and/or installation cost trends in your territory?
- ✓ How are utilities helping with first cost as a result?
- ✓ Do these trends lend an opportunity to boost support to DIY installs?

- (3) Invite others in your organization who may work more closely with this technology and can contribute to/benefit from the topic.

➤ **REGIONAL PRIORITY TOPIC – Online Marketplace/Midstream Retail**

This topic will take a “round-robin share-out and group discussion” approach.

Review Tier 1 memo on p.7 and **come prepared to:**

- (1) Share your organization’s online marketplace activities and discuss potential opportunities for regional collaboration that could enhance your current efforts in this space.
- (2) Some discussion starter questions include:
 - ✓ Do you have an online marketplace and if so, how do you use it? Successes? Challenges?
 - ✓ If you don’t have an online marketplace, why not?
 - ✓ How might collaboration help your efforts? What might that look like?
- (3) Invite others in your organization who may work more closely with this effort and can contribute to/benefit from the topic.

DAY 2 – Wednesday, June 7

➤ **REGIONAL PRIORITY TOPIC – Distinguishing Circulator Barriers**

This topic will take an “inform” approach.

Review Tier 1 memo on p.8 and **come prepared to:**

- (1) Learn about key barriers to adoption and the distinctions between residential and commercial electronically commutated motors (ECMs);
- (2) Share local experiences, challenges and lessons learned in your own territory related to this technology;
- (3) Invite others in your organization who may work more closely with this technology and can contribute to/benefit from the topic.

➤ **ROUNDTABLE**

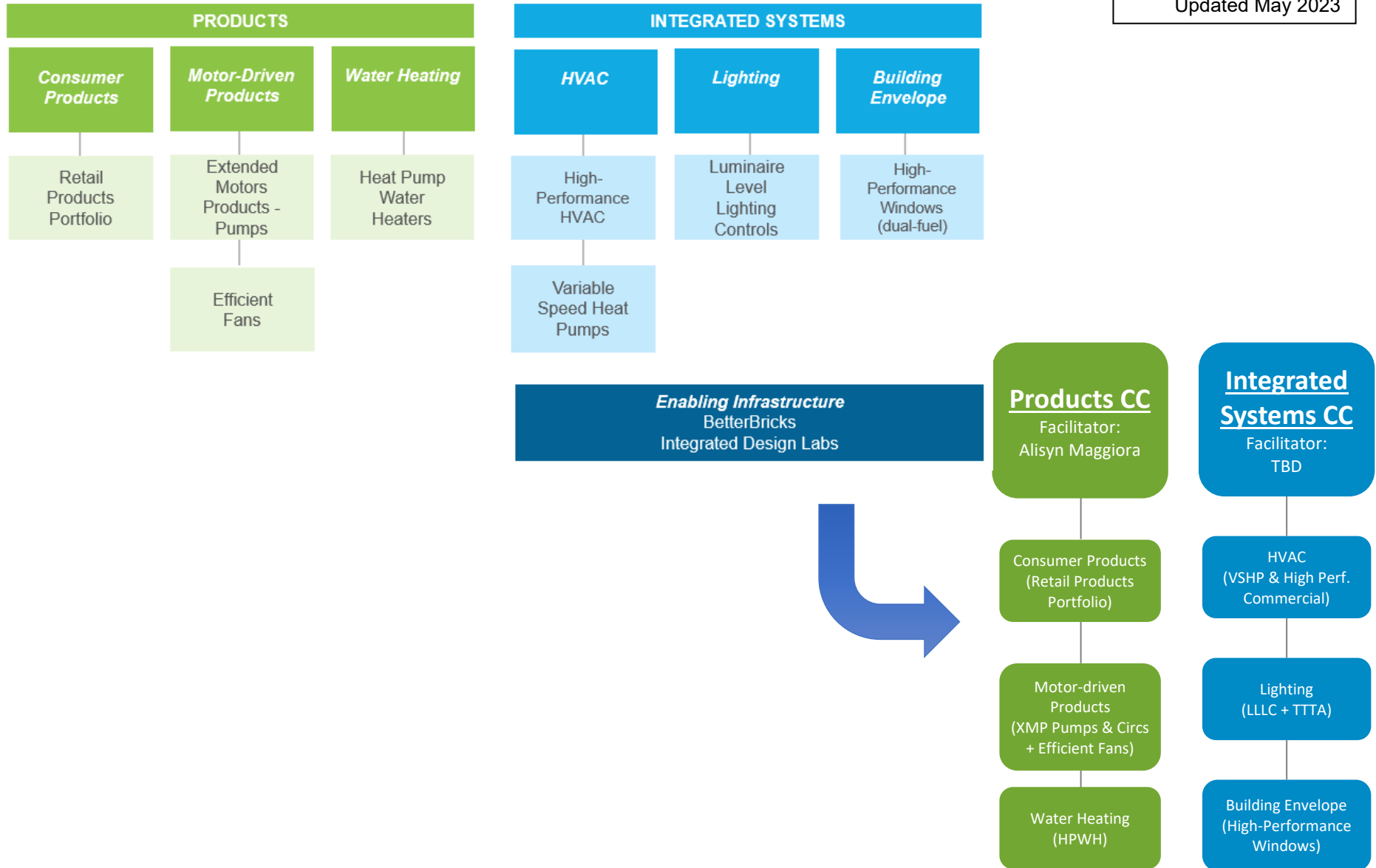
Committee Members & NEEA Program Managers will share highlights from their work, programs and/or organization since the Q1 meeting.

Specific topics for Committee Members to consider highlighting include:

- Questions/thoughts on NEEA program activity reports
- Program and organizational updates
- What did you learn today?

NEEA's Product Groups and Coordinating Committees Structure

Updated May 2023



Memorandum – Agenda item



May 23, 2023

TO: Products Coordinating Committee (PCC)

FROM: Emily Rosenbloom, Senior Program Manager, HPWH

SUBJECT: REGIONAL PRIORITY TOPIC – Water Heat: Installer Engagement

Our Ask of You:

Come ready to learn about early findings from recent water heater research focused on understanding installers hesitancy and challenges with efficient water heating equipment. Participate in a discussion about how the program is, and will, apply findings to program activities, and how the region can collectively support installers in the transition to HPWHs as DOE prepares to implement an updated federal standard.

Consider the following questions to spur discussion:

- What are your observations around installation cost trends in your territory?
- How are utilities helping with first cost as a result?
- Do these trends lend an opportunity to boost support to DIY installs?

Brief Overview:

Anu Teja, Senior Market Research & Evaluation (MRE) Scientist, will provide a high-level share out of early research findings from the Water Heater Installers Focus Groups (WHIFG) and a status update on progress for Cold Climate Demonstration Installation Research (CCDI). One of the key objectives of the WHIFG research is to understand reluctant installers' perceptions of HPWHs by identifying the underlying reasons for resistance.

Emily Rosenbloom, Senior Program Manager, will lead a discussion about how the program is applying the early findings to current activities in the marketplace and developing plans for future engagement.

Please contact [Emily Rosenbloom](mailto:erosenbloom@neea.org) erosenbloom@neea.org if you have questions about the Heat pump Water Heater Program.

PROGRAM LIFECYCLE STATUS



Memorandum – *Agenda Item (Tier 1)*



May 23, 2023

TO: Products Coordinating Committee

FROM: Jon Clark, Strategic Accounts Manager, Retail & Wholesale
Anne Brink, Program Manager, Consumer Products/Retail Products Portfolio

SUBJECT: REGIONAL PRIORITY TOPIC: Online Marketplace/Midstream Retail

Our Ask of You:

Please come prepared to share your organization's online marketplace activities and discuss potential opportunities for regional collaboration that could enhance your current efforts in this space.

Some discussion starter questions include:

- Do you have an online marketplace and if so, how do you use it? Successes? Challenges?
- If you don't have an online marketplace, why not?
- How might collaboration help your efforts? What might that look like?

Brief Overview:

Online Marketplace/Midstream Retail was identified as a Regional Priority Topic. PCC members who ranked this topic as a high priority are interested in understanding current activities in this space and exploring opportunities for enhancing individual efforts through regional collaboration.

Please contact Jon Clark JClark@neea.org or Anne Brink ABrink@neea.org if you have questions about this memo.



Memorandum – *Agenda item*

May 23, 2023

TO: Products Coordinating Committee (PCC)

FROM: Warren Fish, Program Manager for XMP

SUBJECT: REGIONAL PRIORITY TOPIC – Motor-Driven Products: Smart Circulator Pumps: Barriers to Adoption in Commercial & Residential Applications

Our Ask of You:

Come ready to learn about key barriers to adoption, engage in the topic with questions, observations, and share any barriers you've experienced in your own territory. Please also consider inviting others in your organization who work with this technology to contribute to the conversation.

Brief Overview:

This topic was identified as a regional priority for this committee through the annual planning process. *Circulator pumps* will be in focus at the PCC meeting on day 2 (June 7th) in the Motor-Driven Products segment.

What are circulators?

Circulators are small pumps, usually less than one horsepower, and they are used to move water in residential and commercial buildings for hydronic heating (HH) and domestic hot water (DHW) circulation loops. HH circulators deliver heated water to radiators, in-floor heating loops, and other terminal units that provide heat to buildings, using water (not forced air) as the heat transfer mechanism. DHW circulators are a part of some plumbing and hot water systems for residential, commercial and multifamily buildings, and they ensure that hot water will be available at the tap as soon as an occupant calls for hot water.

Why are we talking about circulators?

Old technology circulators still make up the vast majority of circulator sales in the Northwest and nationally. But, new Smart Circulators, with electronically commutated motors (ECM) and advanced onboard controls have been available for sale for many years now and have a proven track record. NEEA is working midstream to accelerate adoption of these products, and we saw that qualified circulators (with ECM and advanced controls) comprised about 17% of all circulator sales in 2022. We think these can/should/will eventually comprise 80% or more of all circulator sales, so circulators are an exciting opportunity.

Why don't market actors buy more smart circulators already?

In a word: Barriers. There are many barriers to adoption of these products, and the barriers are different depending on market segments. Specific dimensions we will discuss in the session include unique barriers to adoption in the commercial versus residential sector, and among HVAC decision makers (HH circulators) and plumbing/mechanical decision makers (DHW circulators). Among the key market barriers are: availability; selection; awareness; demonstrated performance; and market acceptance. We will discuss all of these and more, along with an overview of this market, energy savings mechanisms, and a new federal standard for circulators expected to take effect in the next 2 to 3 years.

Please contact **Warren Fish** wfish@neea.org if you have questions about pumps and NEEA's Extended Motor Products (XMP) Program.

Memorandum – *Informational Update*



May 23, 2023

TO: Products Coordinating Committee (PCC)
FROM: Jonathan Belais, Policy Manager
SUBJECT: Update on RPAC Federal Funding Coordination Work Group

Our Ask of You:

Please review the memo and bring any questions, recommendations, feedback, or concerns to the Q2 PCC meeting, or contact NEEA staff listed below.

Context

Following the Q1 RPAC meeting, NEEA staff solicited feedback regarding the creation of a regional work group to discuss federal funding opportunities and support regional coordination on these opportunities. Receiving unanimously supportive feedback, NEEA and BPA staff organized a kickoff meeting for this work group, which was held on May 4, 2023.

Kick-off Meeting

During the first meeting, work group members shared their current activities, priorities and questions related to the federal opportunities created as part of the Inflation Reduction Act (IRA) and the Infrastructure Investment and Jobs Act (IIJA). This conversation was followed by a short presentation by US Department of Energy (DOE) staff working on [Home Rebate Programs](#) and group discussion of priorities related to these programs. The meeting concluded with a brief discussion of preferred cadence, priority topics for future discussion, and next steps.

During the roundtable shareout and discussion, a few thematic topics were identified for additional near-term discussion. Work force needs were highlighted repeatedly, both availability and quality issues, with suggestions to coordinate and pool training and best practice resources where possible. Additionally, the risks associated with customer confusion was discussed, and work group members suggested regional coordination of communication and marketing may reduce both confusion and costs. Further discussion around needs specific to low-income, tribal, and multifamily communities highlighted additional knowledge and coordination gaps that may be require future inclusion of non-energy stakeholders in these discussions.

Next Steps

In discussion of next steps the committee coalesced around the convening another broadly focused meeting sometime in Q3, aligned with the planned release of DOE guidance on the Home Rebates Program. In the interim, NEEA staff will work with interested work group members on more targeted discussions for the priority topics identified during the meeting. Additionally, work group members are encouraged to share questions, information, and new activities with the group via email.

Please contact Jonathan Belais (jbelais@neea.org) if you have questions.

PCC Q2 2023 HEAT PUMP WATER HEATERS (HPWH) ACTIVITY REPORT

KEY UPDATES:

- **PROGRAM:** 2022 Boring But Efficient report out provided at Q1 RPAC meeting. CTA-2045 requirement implemented in Washington state beginning in January and will become requirement in Oregon in July. Hot Water Solutions (HWS), NEEA's HPWH market facing program, released an RFP for both implementation and marketing support. Contract(s) will be awarded at the end of Q2.
- **MARKET RESEARCH:** Market Progress Evaluation #7 kicked off in January 2023. Bridgerview Market Research Project, Water Heater Installers Focus Groups (WHIFG) and HPWH Cold Climate Demonstration Installation (CCDI) are in process. [HPWH Market Research: Challenging Installations Scenarios](#) posted on NEEA.org in March 2023.
- **TECHNOLOGY RESEARCH:** Rheem and Bradford White products are currently being tested in the confined space lab mirroring the testing completed with AO Smith in 2022. Several new products are coming to market and have submitted product assessment data sheet for inclusion on the Advanced Water Heater Specification (AWHS) QPL. These products include both unitary and split systems.

RESOURCES FOR UTILITIES:

- [Advanced Water Heater Specification](#)
- [Qualified Products List](#)
- [Training](#) Tools
- [Sales and Marketing](#) materials

Program Overview	
Program Manager	Emily Rosenbloom
Product Group	Water Heating
MT Goal	Influence adoption of a federal standard Final Rule requiring HPWHs for all electric storage tanks 40 gallons or larger by 2023, ensuring HPWH is the dominant technology for electric water heating for tanks 40 gallons or greater.
Program Status	<ul style="list-style-type: none"> Market Development (2014-current) Market Progress Evaluation Report #6
Product Description	Storage electric water heaters utilizing heat pump technology
Sector(s)	Residential
Target Market(s)	
Key Market Actors	<ul style="list-style-type: none"> Manufacturers of water heaters Distributors Retailers Contractors Installers Homeowners Electric Utilities
Implementation Contractors	<ul style="list-style-type: none"> CLEAResult C+C Energy350 Summit Conservation Services

PCC Q2 2023 RETAIL PRODUCTS PORTFOLIO (RPP) ACTIVITY REPORT

NEEA IDENTIFIED COORDINATION OPPORTUNITIES SUMMARY (SEE PAGE 4 FOR DETAIL):

- Utilities may offer incentives on RPP products and also have the opportunity to drive awareness through in-store signage.

KEY UPDATES:

- PROGRAM:** Incentives underway with four retail partners (see pages 2-3 for detail). Portfolio finalized for 2023; minor change to refrigerator tiers, no new products added.
- EVALUATION RESEARCH:** In late Q2 2023, NEEA will publish a revised review of its baseline assumptions for refrigerators that accounts for updated market share data. Work is wrapping up on NEEA's Market Progress Evaluation Report #2. The report will be published in late Q2 or early Q3 2023.
- EMERGING TECH:** DOE signed the final rule making on the TV test procedure aligning with the ENERGY STAR version 9 requirement. This procedure will be required by Q3.
- CODES AND STANDARDS:** No energy conservation standards or test procedure comment letters were submitted in Q1. Submitted comment letter for refrigerator and freezer standards on 4/28.

RESOURCES FOR UTILITIES (available on request):

- RPP 101 slide deck; overview of ESRPP strategies
- Retail sales data by territory for products in the portfolio

Program Overview	
Program Manager	Anne Brink
Product Group	Consumer Products
MT Goal	Manufacturers respond to market changes and build energy efficiency into product design, creating permanent change to their processes.
Program Status	<ul style="list-style-type: none"> Market Development (September 2019) Market Progress Evaluation Report #1 complete
Product Description	RPP offers midstream incentives on a portfolio of consumer products to influence retailer decisions and buying/assortment practices, as well as manufacturer production practices aimed at increasing the energy efficiency, availability, and consumer adoption of products sold via the retail channel. Data received from retailers in exchange for incentive funds leads to the development of individual market transformation strategies for each product category, as well as activities to improve the effectiveness of the initiative theory of market transformation.
Sector(s)	Residential
Target Market(s)	Residential, Mass Markets
Key Market Actors	<ul style="list-style-type: none"> National retailers
Data and Channel Support Contractors	<ul style="list-style-type: none"> ICF Energy Solutions Navitas Partners
Program Partners	<ul style="list-style-type: none"> EPA ENERGY STAR® Program Other utilities and efficiency organizations

KEY 2023 OPERATIONS PLAN ACTIVITIES – click [here](#) for link to current Operations Plan (p 74-78)

The Retail Products Portfolio (RPP) Program is a midstream retail program that partners with utility organizations and large retailers around the country to offer incentives for a portfolio of consumer products. In exchange for these incentives, participating retailers provide full-category sales data for each product in the portfolio, which NEEA and partners use to support stricter ENERGY STAR specifications and federal standards.

GOAL 1) Effectively implement product-specific strategies

Recent Progress	What's Ahead	Coordination & Leveraging Opportunities
<ul style="list-style-type: none"> Continued research into real-world energy use of clothes washers Continued participation in industry group working to revise audio-visual (soundbar) test procedure Submitted comment letters on air cleaner, dryer, and clothes washer standards 	<ul style="list-style-type: none"> Continue testing new heat-pump dryer models Continue participation in industry group working to revise audio-visual (soundbar) test procedure Submit letter on air cleaner test procedure rule-making Continue effective coordination with NEEA Codes & Standards team 	<ul style="list-style-type: none"> NEEA has not identified any opportunities at this time

GOAL 2) Explore alternative opportunities to promote efficient TV's.

Recent Progress	What's Ahead	Coordination & Leveraging Opportunities
<ul style="list-style-type: none"> DOE signed the final rule making on the TV test procedure, which will be required by Q3 2023. This method aligns with ENERGY STAR version 9.0. Seven manufacturers have signed the voluntary agreement to align with this standard. 	<ul style="list-style-type: none"> Exploring the opportunity to work with the EPA on a most efficient or emerging tech award for TVs September The first batch of TV performance test data from those manufacturers who have signed the voluntary agreement for the new test standard will be available in August. 	<ul style="list-style-type: none"> Coordination with funders regarding the ENERGY STAR Partner meeting

GOAL 3) Grow and strengthen ESRPP program through targeted recruitment and retention activities

Recent Progress

- NYSERDA joined as a program sponsor April 1, 2023.
- Hawaii Energy is scheduled to join the program July 1, 2023.

What's Ahead

- The program is engaging with several other potential program sponsors including utilities in Massachusetts, New Hampshire and Arizona.

Coordination & Leveraging Opportunities

- NEEA has not identified any opportunities at this time

Position in NEEA's (Program) Initiative Lifecycle



MARKET ACTORS AND TIMING

	Market Actors							Utility Role
	Retailers	Manufacturers	ENERGY STAR	Extra-regional utilities			Other (specify)	
Key Program Activities	Lab & Field Testing							
	Data Collection & Assessment	Q1-Q4						
	Incentives	Q1-Q4						Q1-Q4
	Market Channel Dev	Q1-Q4	Q1-Q4	Q1-Q4				Q3
	Market Evaluation	Q1-Q4	Q1-Q4	Q1-Q4				
	Market Research							
	Marketing							Q1-Q4
	Technical Support							
	Training							
	Technical Research	Q1-Q4						
	Other (specify)							

= Potential Coordination Opportunities (see Coordination Opportunities also noted on p.1)

The following to be **Completed by Product Coordinating Committee Member**

Utility/Program Administrator Related Activities			
Check the box under the activities you are currently implementing			
Incentives	Marketing	Other	
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Notes:			

KEY 2023 OPERATIONS PLAN ACTIVITIES– click [here](#) for link to current Operations Plan (p 96-100)

The Heat Pump Water Heater (HPWH) Program works to increase adoption of HPWHs for emergency and planned replacements in single-family homes and influence a Federal Standard in 2023 that will require HPWHs for all electric storage tanks that are 45 gallons or larger.

GOAL 1) Increase installer adoption of HPWH in retrofit installations

Recent Progress	What's Ahead	Coordination & Leveraging Opportunities
<ul style="list-style-type: none"> • Collaboratively developed concepts and began documentation to provide Market Development Funds (MDF) to regional distributors to implement activities that drive replacement sales. • The Program completed drafts of multiple plug and play versions of HPWH web content for installers. During Q2, outreach will begin to installation companies to support website updates. • In recognition of the limited resource of individuals providing in person HPWH regional trainings that provide CEU's to installers, NEEA held a train the trainer event to expand the number of qualified trainers. Nine individuals participated representing regional utility programs as well as weatherization programs. • Held initial conversation with large installation companies, Washington Energy Services and Fast Water Heating about how NEEA can support their adoption of HPWH. • Began coordination efforts for cold-climate installer trainings in partnership with Northwestern Energy and distributors, Keller Supply and Gensco. • In partnership with Energy Trust of Oregon provided a HPWH Technology Overview & Customer Solutions virtual training to 80 attendees with a focus of reaching rural participants. 	<ul style="list-style-type: none"> • Finalize MDF plans with distributors and begin tracking activities and impact to HPWH sales. Planned activities range from spiffs for sales staff to direct marketing support for key contractors to sponsoring a hole at a golf tournament. • Complete the process to have individuals who participated in the train the train event certified through the states to provide CEUs to participants. • Facilitate two installer training in Billings Montana at Keller supply and Gensco to support Northwestern Energy's upcoming program efforts. 	<ul style="list-style-type: none"> • Coordinate with Northwestern Energy on Billings training. • Field staff representing Energy Trust of Oregon and Comfort Ready Homes, participated in the train the trainer event. Please Let Emily know if your field staff would be interested in future training events.

GOAL 2) Understand barriers to market acceptance of the proposed standard

Recent Progress	What's Ahead	Coordination & Leveraging Opportunities
<ul style="list-style-type: none"> • Installer focus groups and one on one interviews completed in Q1. One of the key objectives of the research is to understand HPWH reluctant installers' perceptions of HPWHs by identifying the underlying reasons for resistance. A total of 21 installers representing Idaho, Montana, Oregon, and Washington participated in the study. • One pager drafted - <i>Best Practices Heat Pump Water Heater Installation Locations by Climate in Single-Family</i> – based on confined space research and PNNL RECs data. Began reviewing the content and soliciting feedback from market actors including program implementers, manufacturers, and installation contractors. • Visited manufacturer sound room to understand how sound energy testing is performed. This will inform AWS 9.0 to standardize sound energy testing to ensure repeatable and consistency in manufacture sound claims. • Challenging Installations Scenarios study was posted to NEEA.org and includes a brief report in the appendix prepared by Optimized Thermal Systems, Inc. (OTS), an independent research firm, which compares the findings of this study against the U.S. Department of Energy (U.S. DOE) assumptions pertaining to the prevalence of challenging installations for HPWHs in the residential stock. The OTS report indicates the findings presented in the Challenging Installations Scenarios study align with U.S. DOE assumptions. 	<ul style="list-style-type: none"> • Water Heater Installers Focus Groups (WHIFG) research key findings finalized, and report posted to NEEA.org late summer. • Socialize <i>Best Practices Heat Pump Water Heater Installation Locations by Climate in Single-Family</i> with manufactures to encourage including the document as part of their installation manuals. Share content with regional installers and distributors through blog post and HWS monthly newsletter. 	<ul style="list-style-type: none"> • Keep active utility programs and trade ally networks that support HPWH sales growth and in particular support for install engagement and education.

GOAL 3) Explore appropriate solutions and applications of heat pump water heaters in multifamily

Recent Progress	What's Ahead	Coordination & Leveraging Opportunities
<ul style="list-style-type: none"> NEEA collaborated with PGE and Energy Trust of Oregon on a pilot outline that was submitted to the OPUC as part of the Smart Test Bed to work on multifamily new construction unitarity HPWHs. Recruiting of participants in the pilot began during Q1. Planning began for phase two of the design charrette held in Q4 of 2022. This phase two will focus on barrier and design solutions for existing multifamily applications. Key take aways from the charrette will be shared with OEMs at a virtual report out to support development to their technical documents. 	<ul style="list-style-type: none"> Continue recruiting efforts and review of projects for technical feasibility. Existing multifamily design charrette planned for Q3 2023. 	<ul style="list-style-type: none"> Continue collaborating with Energy Trust of Oregon on recruiting multifamily participants for PGE pilot. Let Emily know if you have known a designer or installer that might be interested in participating in the existing multifamily design charrette.

Position in NEEA's (Program) Initiative Lifecycle



MARKET ACTORS AND TIMING

	Market Actors										Utility Role
	Manufacturers	Manuf Reps/ Sales Agencies	Distributors	Retailers	Builders/ Developers	Contractors/ Installers	Architects/ Engineers	Designers/ Specifiers	End Use Customers/ Building Owners & Managers	Other (specify)	
Key Program Activities	Lab & Field Testing	Q1-Q2									
	Data Collection & Assessment	Q1-Q4		Q1-Q4			Q1-Q4				Q4
	Incentives										Q1-Q4
	Market Channel Dev	Q1-Q4	Q1-Q4	Q1-Q4			Q1-Q4				
	Market Evaluation										
	Market Research			Q1-Q2	Q2-Q4	Q1-Q2	Q3-Q4	Q3-Q4			
	Marketing	Q1-Q4	Q3-Q4			Q3-Q4			Q3-Q4		Q3-Q4
	Technical Support					Q1-Q4					
	Training		Q1-Q4			Q1-Q4					Q1-Q4
	Technical Research										
	Other (specify)										

 = Potential Coordination Opportunities (see Coordination & Leveraging Opportunities on p.2-3 for details)

The following is to be Completed by Product Coordinating Committee Member

Utility/Program Administrator Related Activities			
Check the box under the activities you are currently implementing			
Retail	Incentives	Marketing	Other
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Notes			

PCC Q2 2023 EXTENDED MOTOR PRODUCTS (XMP) ACTIVITY REPORT

NEEA IDENTIFIED COORDINATION OPPORTUNITIES SUMMARY (SEE 'ASKS' ON PAGES 2-3 FOR DETAIL):

- Collaborate with NEEA and manufacturers' representatives on presentations to relevant groups in your service territory
- Share smart pumps [video](#), leverage marketing [tools](#), encourage attendance at pumps [technical training](#) opportunity in Seattle
- Insights from the supply chain about their sales mix
- Help develop in-depth case studies on Smart Pumps.

KEY UPDATES:

- **PROGRAM:** Eight regional pump distributors sharing full category sales data with NEEA and promoting energy efficient products. RPAC approval of Program Advancement in 2023.
- **MARKET RESEARCH:** Market Test Assessment [report](#) published in Q1-22; Energy Rating (ER) Label follow-up research [report](#) published in Q2-22; Non-participant market sizing [research](#) project completed Q3-22; Baseline and savings methodology [review](#) for VL pumps and CL to VL upgrades; Commercial ASD penetration study pending for Q3-23.
- **EMERGING TECH:** Working with manufacturers and trade association on training and ER label awareness building; Investigating electric double-diaphragm pump opportunity.
- **CODES AND STANDARDS:** Test Procedure refinements for federal pumps standard in progress, NOPR expected in early 2023. For circulator pumps, first ever federal standard expected in 2023.

RESOURCES FOR UTILITIES:

- "All About Smart Pumps" two-minute [video](#), hosted on Hydraulic Institute (HI) website, YouTube, and BetterBricks
- [Case study on](#) smart pumps at Tower 333 in Bellevue, WA
- [BetterBricks](#) page and [technical training](#) in Seattle
- Pump industry marketing [tools](#) and collateral developed for utilities: Lifecycle Cost Calculators for C&I pumps and for circulators, Energy Rating label marketing materials and FAQ, HI pumps infographic, Example TRM workbook, CEE Pumps Program Specification guidebook

Program Overview	
Program Manager	Warren Fish
Product Group	Motor Driven Systems
MT Goal	The marketplace specifies, stocks and sells efficient motor driven products, focusing on pumps and circulators 50hp and below, which will influence future federal standards
Program Status	Market Development
Initial Product Description	Motor-driven systems with an active-end that converts electric power into mechanical power; initial focus on high efficiency Energy Rating (ER) labeled pumps and circulators, including Smart Pumps with integrated drives and controls
Sector(s) Target Market(s)	All Office, municipal, healthcare, schools, hospitality, multifamily, municipal water conveyance, industrial, irrigated agriculture
Key Market Actors	<ul style="list-style-type: none"> • Manufacturers' representatives & manufacturers • Distributors • Installation contractors • Mechanical engineers and equipment specifiers • Building owners and managers
Implementation Contractors	<ul style="list-style-type: none"> • Cadeo, Summit Conservation Strategies
Program Partners	<ul style="list-style-type: none"> • Hydraulic Institute

PCC Q2 2023 EFFICIENT FANS ACTIVITY REPORT

NEEA IDENTIFIED COORDINATION & LEVERAGING OPPORTUNITIES SUMMARY:

- ❖ Utilities are encouraged to continue promoting efficient fan options through their current programs.
- ❖ As the program moves into market development, there may be an opportunity to coordinate on education and training. We'll continue to update you via this committee on any coordination opportunities.

KEY UPDATES:

- **PROGRAM:**
The program is continuing outreach to key manufacturers to partner with for program pilots.
- **MARKET RESEARCH:**
[Fan Manufacturer Regional Market Share Study](#) completed and report posted April 3.

Fan Systems Market Characterization Study is underway and due to be completed by Q4.

Program Overview	
Program Manager	Tamara Anderson
Product Group	Motor-Driven Systems
MT Goal	Manufacturers will produce and promote efficient fan systems, resulting in an overall increase in fan efficiency of 20 – 25% above baseline and the first federal test procedure and standard for fans.
Program Status	Program Development
Product Description	Fans are motor-driven systems that are used for circulating air. The Efficient Fans program will initially focus on fan systems, non-embedded fans, and AMCA certified fans with a Fan Energy Index rating.
Sector(s) Target Market(s)	Commercial: Office, lodging, multifamily, education, healthcare, assembly, food service, grocery, retail, and schools Industrial: Manufacturing, general, warehouse
Key Market Actors	<ul style="list-style-type: none"> • Fan manufacturers • Specifiers • Engineers
Implementation Contractors	<ul style="list-style-type: none"> • DNV (Fan Systems Market Characterization Study)
Program Partners	<ul style="list-style-type: none"> • Air Movement and Control Association (AMCA)

KEY 2023 OPERATIONS PLAN ACTIVITIES – click [here](#) for link to current Operations Plan (p 81-84)

The Efficient Fans Program focuses on non-embedded, or stand-alone, motor-driven fan systems that are not packaged by the manufacturer as part of any equipment with additional operating functions (e.g., HVAC, Make-up Air or Outdoor-Air units), and may include a fan, motor, and drive (including controls). 2023 is the first full year of Program Development, and the program will be piloting a lean, targeted approach focused on manufacturers and testing whether they can be motivated to produce more efficient fans and promote those efficient models during the selection process via their fan selection software.

GOAL 1: Identify and scope initial manufacturer/s to partner with for program pilots

Recent Progress	What's Ahead	Coordination & Leveraging Opportunities
<ul style="list-style-type: none"> The team completed the Fan Manufacturer Regional Market Share Research Study, which is published on neea.org and informed which strategic partners to reach out to for the program pilot. Outreach is underway with several major fan manufacturers and the program expects to meet the target by the end of the year. 	<ul style="list-style-type: none"> Continued outreach with key manufacturers focused on highlighting the Fan Energy Index metric within their selection software, data acquisition and assessment of that data, and identifying opportunities for market channel development to promote more efficient fans. 	<ul style="list-style-type: none"> None at this time

GOAL 2: Understand factors supporting and constraining the decision to purchase an efficient fan, including within manufacturers' selection software

Recent Progress	What's Ahead	Coordination & Leveraging Opportunities
<ul style="list-style-type: none"> NEEA is contracting with DNV for the Fan Systems Market Characterization work. The project kicked off in March and is scheduled for completion in November. Specific research objectives focus on (a) profiling and sizing the regional fan system market, (b) understanding market barriers, and (c) describing the path to purchase for fan systems, including the roles, motivations, and perspectives of relevant market actor groups. 	<ul style="list-style-type: none"> DNV is developing sample frames and data collection instruments, and the team anticipates study recruitment to begin in Q2 and run through Q3 2023. The team expects a final report to be complete in Q4 2023. 	<ul style="list-style-type: none"> To provide visibility and ensure appropriate coordination regarding key accounts, NEEA will proactively communicate with regional stakeholders regarding industrial and large commercial facilities identified for potential inclusion in the Market Characterization study.

GOAL 3: Assess the landscape around codes and standards activities

Recent Progress	What's Ahead	Coordination & Leveraging Opportunities
<ul style="list-style-type: none"> The team developed a codes and standards plan to document the current landscape as it relates to Efficient Fans. The codes and standards plan identifies future opportunities especially the final rule on the first ever test procedure and the forthcoming Notice of Proposed Rulemaking (NOPR) for Commercial and Industrial Fans and Blowers. 	<ul style="list-style-type: none"> Understanding the final test procedure, which was released in April, and identifying topics that we'll want to consider when we prepare for the forthcoming Notice of Proposed Rulemaking (NOPR) later this year. The final test procedure was a huge win for the program as the pre-publication notice establishes Fan Energy Index (FEI) as the metric for fans and blowers, other than air circulating fans, and not Weighted Fan Energy Index (WFEI) as DOE had initially proposed. 	<ul style="list-style-type: none"> NEEA will be coordinating with AMCA and their manufacturers partners on developing a strategy and comments for the forthcoming Notice of Proposed Rulemaking (NOPR).

Goal 4: Understand components of fan systems, and what drives fan efficiency

Recent Progress	What's Ahead	Coordination & Leveraging Opportunities
<ul style="list-style-type: none"> The team has initiated a bid for a proposal to inform this technical research, and the research is still in the scoping phase. 	<ul style="list-style-type: none"> The program team anticipates having a report completed by the end of the year, which will inform the Product Plan development in late 2023 or early 2024. 	<ul style="list-style-type: none"> The final report may be published in the Emerging Technology section on neea.org or shared via other formats to be determined (potentially Product Council).

Program Lifecycle



MARKET ACTORS AND TIMING

		Market Actors				Utility Role
		Manufacturers	Architects/ Engineers	Designers/ Specifiers	AMCA	
Key Program Activities	Lab & Field Testing					
	Data Collection & Assessment	Q2 – Q4			Q1 – Q4	
	Incentives					
	Market Channel Dev	Q2 – Q4	Q2 – Q4	Q2 – Q4		
	Market Evaluation	Q1 – Q4	Q1 – Q4	Q1 – Q4	Q1 – Q4	
	Market Research					
	Marketing					
	Technical Support					
	Training	Q2 – Q4	Q2 – Q4	Q2 – Q4		
	Technical Research	Q2 – Q4				
	Other (specify)					

 = Potential Coordination Opportunities (see Coordination & Leveraging Opportunities on p.2-3 for details)

Utility/Program Administrator Related Activities			
Check the box under the activities you are currently implementing			
Training	Incentives	Marketing	Other
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

KEY 2023 OPERATIONS PLAN ACTIVITIES – click [here](#) for link to current Operations Plan (p 85-90)

The XMP program uses a multi-faceted approach incorporating midstream partnerships with manufacturer’s representatives, market awareness building, training, utility program support, and integration with energy codes and standards to transform the market so that selecting energy efficient pumps with Energy Rating (ER) labels and integrated controls becomes common practice.

GOAL 1) *Raise awareness of energy-efficient pumps, the ER label, and the specific benefits of smart pumps related to installation and maintenance costs.*

Target: 400+ contact hours with NW pump buyers / specifiers to educate them about the ER label and HI’s lifecycle cost calculator

Recent Progress	What’s Ahead	Coordination & Leveraging Opportunities
<ul style="list-style-type: none"> 17 outreach events educating pump buyers about energy efficiency completed through Q1-23 by participating manufacturer’s rep firms and NEEA staff. 206 contact hours YTD. Supporting distributor-led trainings, lunch-and-learns, webinars, hands-on learning BetterBricks pumps and motors blog posts Co-branded “All About Smart Pumps” video with Hydraulic Institute (HI) Spoke at Powerful Facilities Energy Conference in Seattle to a breakout session of ~90 people on Smart Pumps & Circulators 	<ul style="list-style-type: none"> Continuing to support ER label awareness <ul style="list-style-type: none"> Promoting lifecycle cost calculator tool with sales teams at rep firms Developing Smart Pump case studies in partnership with utility programs Program Support Plan activity implementation by participating distributors (using NEEA funding) Active participation with Hydraulic Institute and pump OEMs on awareness building campaign: “Great Things Happen at BEP” In-person Pump System Fundamentals training in Seattle on August 9th 	<ul style="list-style-type: none"> Partner with NEEA and manufacturers’ representatives on smart pump presentations to groups in your service territory <i>Support case studies about smart pumps</i>, by sharing completed case studies with customers and identifying additional case study opportunities Promote the ER label, smart pumps and smart circulators, lifecycle cost calculators to your customers and trade allies using marketing and technical tools from BetterBricks and Hydraulic Institute

GOAL 2) Motivate participating manufacturers' representative firms to preferentially stock and sell highly efficient pumps and circulators.

Target: Highly efficient market share of 25%+

Recent Progress	What's Ahead	Coordination & Leveraging Opportunities
<ul style="list-style-type: none"> Eight Northwest pump distributors participating, enabling data collection on pump and circulator sales, and refinement of program design Database housed in NEEA cloud; data visualization dashboards to analyze progress Customized Program Support Plans in place with each participating distributor, enabling co-investment on energy efficiency focused marketing, sales, inventory, and training 	<ul style="list-style-type: none"> Continued collaboration with participating companies to increase fleetwide average ER, increase sales of the highest efficiency pumps and circulators (Smart Pumps) Manufacturers' representatives delivering hands-on demos, lab trainings, webinars and lunch and learns Encouraging rep firms to use ER in all quotes 	<ul style="list-style-type: none"> Bring pump training content to your utility SEM cohorts Leverage data from XMP to enhance utility DSM portfolios For those interested in a midstream pumps program, join regional program alignment meetings

GOAL 3) Leverage relationships with pump manufacturers, distributors and industry associations to benefit long-term MT and accelerate the pace of smart pump and variable load pump market adoption.

Target: Smart pump market share of 20%+; Smart circulator market share of 15%+

Recent Progress	What's Ahead	Coordination & Leveraging Opportunities
<ul style="list-style-type: none"> Socialized our ER Label research findings with manufacturers and the HI at their Annual Conference in February 2023, with proposal made for improving the ER Label Program to better support highly efficient sales Broadened the program's understanding of the technical potential, non-energy benefits, and end-user value proposition for variable speed drives (both integrated and wall-mounted) through recently completed commercial ASD penetration research, in coordination with BPA's ASD study Supporting Product Group strategy development for variable speed drives and electronically commutated motors (ECM) in ways that complement our discreet pump and fan programs 	<ul style="list-style-type: none"> Expand regional coverage to include more of the region's smart circulator and smart pump market Educate the market about the benefits of variable speed pumping through additional presentations of the NEEA & NEMA Power Drive Systems research findings Gather data to support future federal standard updates to a higher minimum ER requirement Collaborate with Hydraulic Institute and pump manufacturers on various energy efficiency awareness efforts Continue to expand presence on BetterBricks with additional original content 	<ul style="list-style-type: none"> SEM Coaches and EE Account Managers can identify and help develop in-depth smart pump case studies Extensive educational content on pump efficiency is available – work with NEEA to leverage it to support technical topic engagement with implementation contractors, Account Managers, and trade ally networks Spread the word about the upcoming Pump System Fundamentals course in Seattle.

Position in NEEA's (Program) Initiative Lifecycle



MARKET ACTORS AND TIMING

Key Program Activities	Market Actors										Utility Role
	Manufacturers	Manuf Reps/ Sales Agencies	Distributors	Retailers	Builders/ Developers	Contractors/ Installers	Architects/ Engineers	Designers/ Specifiers	End Use Customers/ Building Owners & Managers	Other (specify)	
	Lab & Field Testing	Q1-Q4									
	Data Collection & Assessment	Q1-Q4	Q1-Q4								
	Incentives	Q1-Q4									
	Market Channel Dev	Q1-Q4	Q1-Q4								
	Market Evaluation	Q1-Q4	Q1-Q4								
	Market Research	Q1-Q4	Q1-Q4								
	Marketing	Q1-Q4	Q1-Q4		Q1-Q4	Q1-Q4	Q1-Q4	Q1-Q4	Q1-Q4		
	Technical Support										
	Training				Q1-Q4	Q1-Q4	Q1-Q4	Q1-Q4	Q1-Q4		Q1-Q4
	Technical Research										
	Other (specify) Case Studies										

 = Potential Coordination Opportunities (see Coordination & Leveraging Opportunities on p.2 for details)

The following to be completed by a Member of the Products Coordinating Committee

Utility/Program Administrator Related Activities Check the box under the activities you are currently implementing			
Training	Incentives	Marketing	Other
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Notes:			