

# Products Coordinating Committee (PCC)

## Q4 2023 Meeting Agenda



**DATE:** **2 Days:** Wednesday, Nov 15 + Thursday, Nov 16, 2023

**TIME:** Wednesday Nov 15: 12:30pm – 4:15pm Pacific  
Thursday Nov 16: 9:15am – 12:00pm Pacific

**LOCATION:** Online via Microsoft Teams – See details 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.

### Day 1 – Wednesday, November 15

(All Times Pacific)	(R) Residential	(C) Commercial	(I) Industrial	Page #
12:30-12:40 (10 min)	<b>Welcome, Agenda &amp; Packet Review</b>			Alisyn Maggiora All <b>p. 1-4</b>
12:40-2:00 (80 Min)	<b>Introductions &amp; Regional Roundtable</b> <i>Committee members and NEEA program staff share program and organization updates, highlight areas of possible interest and coordination with others.</i>  <i>Desired Outcome: All are updated on each other's activities and better understand what's happening across the region.</i>			All --
(10 min)	<b>BREAK</b>			All
2:10-2:55 (45 min)	<u>MOTOR-DRIVEN PRODUCTS REGIONAL PRIORITY TOPIC</u> <b>Role of VFD's &amp; Smart Pumps (C)</b> <ul style="list-style-type: none"> <li>Technology overview, applications, role at midstream</li> </ul> <i>Desired Outcome: Committee members understand and share input about VFD and Smart Pump opportunities.</i>			Warren Fish Nick Michel (NEEA) <b>p. 5</b>
2:55-3:40 (45 min)	<u>WATER HEATING REGIONAL PRIORITY TOPIC</u> <b>Multifamily (R)</b> <ul style="list-style-type: none"> <li>Coordination</li> <li>Space constraints</li> <li>Identifying in-unit solutions</li> </ul> <i>Desired Outcome: Committee members are aware of NEEA's latest learnings on a multifamily project and glean learnings from each other.</i>			Emily Rosenbloom Geoff Wickes (NEEA) <b>p. 6</b>
(5 min)	<b>STRETCH BREAK</b>			All
3:45-3:55 (10 min)	<b>PCC Annual Workplan Check-in</b> <ul style="list-style-type: none"> <li>2024 annual planning session tomorrow (Nov 16)</li> </ul> <i>Desired Outcome: Committee members are aware of plan and understand how to best engage.</i>			Alisyn Maggiora <b>p. 7-9</b>
3:55-4:05 (10 min)	<b>Housekeeping</b> <ul style="list-style-type: none"> <li>Announcements &amp; Upcoming Meetings/Events</li> </ul> <i>Desired Outcome: Committee aware of significant upcoming items.</i>			Alisyn Maggiora --
4:05-4:15 (10 min)	<b>Recap, Next Steps, Adjourn</b>			Alisyn Maggiora --

# Products Coordinating Committee (PCC)

## Q4 2023 Meeting Agenda



### Day 2 – Thursday, November 16

(All Times Pacific)      (R) Residential      (C) Commercial      (I) Industrial				Page #
9:15-9:30	<b>Welcome &amp; Orientation to Annual Planning</b>	Alisyn Maggiora All		p. 7-9
9:30-12:00 <i>Stretch break provided between programs</i>	<b>PCC Annual Planning: 2024 Topic Development</b> <i>Committee members and NEEA program staff co-create and prioritize regional priority topics for 2024.</i>  <u><i>Note: We will progress through the programs in this order, no specific time blocks, please plan to attend the whole session so we can be efficient with our time together, we will end as soon as possible, which may be before 12.</i></u>  <ul style="list-style-type: none"> <li>• Heat Pump Water Heaters (R)</li> <li>• Retail Products Portfolio / Consumer Products (R)</li> <li>• Advanced Heat Pumps (R)</li> <li>• High-Performance Windows (R)</li> </ul> <i>Desired Outcome: Committee members and program Discuss and align on priority topics.</i>	All		--



# Memorandum- *Agenda Items*

November 6, 2023

TO: Products Coordinating Committee (PCC)

FROM: Alisyn Maggiora, Sr. Stakeholder Relations Manager

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

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## 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.

## AGENDA ITEMS (Tier 1)

- Page 1: Meeting Agenda
- Page 3: Meeting Packet Overview
- Page 4: Meeting Preparation Highlights
- Page 5: Memo: Regional Priority Topic – Heat Pump Water Heaters – Multifamily
- Page 6: Memo: Regional Priority Topic – XMP Pumps – Smart Pumps & Variable Frequency Drives
- Page 7: Annual Planning Process Memo

## INFORMATIONAL ITEMS (Tier 2)

- Page 8: Coordinating Committee Program Swap memo
- Page 9: NEEA’s Product Groups & Coordinating Committee Structure

## PROGRAM ACTIVITY REPORTS

- Page 10: Heat Pump Water Heaters
- Page 14: Retail Products Portfolio / Consumer Products
- Page 18: Extended Motor Products – Pumps & Circulators
- Page 23: Efficient Fans

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## ADDITIONAL LINKS (Tier 3)

- Committee Materials (*meeting notes include links to recordings, packet and slides*)
  - Q3 2023 Products Coordinating Committee [packet](#), [slides](#), [notes](#)
  - Q3 2023 Integrated Systems Coordinating Committee [packet](#), [slides](#) and [notes](#)
  - 2023 Annual Workplans: [Products \(PCC\)](#) | [Integrated Systems \(ISCC\)](#)
  - Charters: [RPAC](#), [ISCC](#), [PCC](#)
- Q3 2023 [Market Research & Evaluation Newsletter](#)
- Q2 2023 [Codes, Standards and New Construction Newsletter](#)
- Q3 2023 [Emerging Technology Newsletter](#)

# PCC Q4 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

#### ➤ ROUNDTABLE

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

*Specific topics for Committee Members to consider highlighting include:*

- a. Questions/thoughts on NEEA program activity reports*
- b. Program and organizational updates*
- c. Any questions of your peers?*

#### ➤ REGIONAL PRIORITY TOPIC – Motor Driven Products “Role of VFD’s & Smart Pumps”

*Topic format is expected to be a NEEA share-out plus regional discussion the Role of VFD’s and Smart Pumps, particularly at midstream.*

Review Tier 1 memo on p.5 and **come prepared to:**

- (1) Learn more about the unique benefits of Smart Pumps, NEEA’s XMP program and efforts to reduce market barriers to broader adoption of Smart Pumps and other efficient pumps/circulators;*
- (2) Engage in group discussion about broader opportunities to apply variable speed drives to more motor driven systems; consider sharing what you’re seeing in your local territory and beyond.*

Feel free to invite others in your organization who may work more closely with this effort and can contribute to/benefit from the topic.

#### ➤ REGIONAL PRIORITY TOPIC – Water Heating “Multifamily”

*Topic format is expected to be a NEEA share-out on discussion on Multifamily Heat Pump Water Heaters*

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

- (3) Learn more NEEA’s current special project collaboration with PGE on Multifamily*
- (4) Share what your organization is doing, if anything, on Multifamily.*
  - a. How are you engaging with the multifamily market with this technology?*
  - b. What are you hearing from local market actors?*
  - c. What opportunities do you see? What challenges / barriers do you see/experience?*
  - d. What are you excited about?*
  - e. Do you have any needs/questions/thoughts for NEEA?*

Feel free to invite others in your organization who may work more closely with this effort and can contribute to/benefit from the topic.

### DAY 2

#### ➤ Annual Planning Session

*Format will be discussion based.*

Please review the survey results emailed with this packet, plus the Tier 1 memo on p.7, and **come prepared on day 2 to:**

- (1) Engage in brainstorming discussions using Mural board. (No pre-engagement needed on Mural board, just follow along during the meeting)*
- (2) Discuss annual planning survey answers*
  - ✓ Assist with deciding which topics rank high in 2024*
  - ✓ Discuss any additional topics mentioned in the survey*

# Memorandum – Agenda Item (Tier 1)



November 6, 2023

TO: Products Coordinating Committee

FROM: Warren Fish, Program Manager, Extended Motor Products (XMP)  
Nick Michel, Market Transformation Manager, Motor Driven Systems Product Group

SUBJECT: Motor Driven Products Q4 Priority Topic: **Role of VFD's & Smart Pumps**

## Ask of You:

**Objective: Committee members learn more about VFDs and Smart Pumps, and offer NEEA their insights on market barriers and opportunities.**

## Brief Overview:

Variable Frequency Drives (VFDs, also known as Adjustable Speed Drives) are a major energy efficiency opportunity because they enable more precise control of motor driven systems. Recent national research from NEMA, NEEA and Cadeo Group about [Power Drive Systems](#) suggests that most pumps should be paired with a drive. However, recent regional studies of [commercial](#) and [industrial](#) drive penetration levels indicate that many motor driven systems are not paired with a drive. In such cases, control valves, throttling valves, and balancing valves are used to control flow, and sometimes soft start devices are used to protect motors at start-up.

Smart Pumps are pumps which are manufactured with an integrated motor and VFD. They are a packaged solution which are tested and configured at the factory. Their performance is similar to a pump with a wall-mounted VFD, however, they also have some additional benefits.

The Q4 PCC discussion will focus on the unique benefits of Smart Pumps, NEEA's XMP program and efforts to reduce market barriers to broader adoption of Smart Pumps and other efficient pumps/circulators, and discuss broader opportunities to apply variable speed drives to more motor driven systems. The group identified these topics in from the pre-meeting survey and PCC annual planning exercise. By the end of this session, participants should have a stronger understanding of the technology and opportunities to apply drives to more motor driven systems in the Northwest. We welcome participation in this session from others within your organizations if it would be useful. Also, please consider what additional pump and motor driven system topics we should plan to cover in future coordination committee meeting agendas.

Please contact [Warren Fish](#) [wfish@neea.org](mailto:wfish@neea.org) if you have questions about this memo.

## Position in NEEA's (Program) Initiative Lifecycle



# Memorandum – Agenda Item (Tier 1)



November 6, 2023

TO: Products Coordinating Committee (PCC) Members

FROM: Emily Rosenbloom, HPWH Sr. Program Manager

SUBJECT: REGIONAL PRIORITY Q4 TOPIC – Water Heating: Multifamily Updates

## Our Ask of You:

***Please review the overview below and come ready to share what you are doing, if anything, on Multifamily.***

## Brief Overview:

At our 2023 Annual Planning session, the Committee agreed to discuss multifamily water heating for this quarter, with a requested focus on coordination, space constraints and identifying in-unit solutions. NEEA program staff are currently collaborating with Portland General Electric (PGE) on a special project around multifamily installs. During the Q4 meeting, NEEA will provide an update on that project, ongoing opportunities for project recruitment, and related support materials (e.g. manufacturer guides) that are underway.

Some utilities in our region are also working on multifamily. In addition to NEEA's updates, we would like to hear from committee members in a roundtable format and encourage you to share your organization's observations, progress, opportunities and challenges with this technology.

## Roundtable discussion questions

- How are you engaging with the multifamily market with this technology?
- What are you hearing from local market actors?
- What opportunities do you see? What challenges / barriers do you see/experience?
- What are you excited about?
- Do you have any needs/questions/thoughts for NEEA?

Please contact [Emily Rosenbloom \(ERosenbloom@neea.org\)](mailto:ERosenbloom@neea.org) if you have questions about this memo.

## Position in NEEA's (Program) Initiative Lifecycle



# Memorandum – Agenda Item (Tier 1)

November 6, 2023



TO: Products & Integrated Systems Coordinating Committee Members

FROM: Anouksha Gardner and Alisyn Maggiora, Stakeholder Relations Team

SUBJECT: Nov 7 (ISCC) & Nov 16 (PCC) Annual Planning Sessions

The annual planning sessions to develop 2024 regional priority topics will take place on the second day of the Q4 2023 Coordinating Committee meetings.

## What to Expect:

We will use the Mural board platform again to discuss and finalize topics; however, based on feedback from last year, this time Committee Members will not need to familiarize themselves with Mural in advance, nor will they need to do any activities on the Mural board during the session. NEEA staff will capture the necessary details on the board. **Our ask is that you follow along, engage in brainstorming discussions and help align on final topics for the 2024 workplan. You are welcome to include any program/product subject matter experts from your organization in the sessions.**

## Process:

NEEA staff will pre-populate the mural board with the topic rankings and any additional topic ideas from the survey results. Each program will have allotted time for discussion, schedule below. We will start with NEEA suggested topics based on the survey rankings and create space to discuss any additional suggested topics offered in the survey. We may follow up with committee members about additional suggested topics before the sessions.

**Please note:** *The XMP Pumps & Circulators and Efficient Fans Programs (commercial/industrial focus) will be covered in the ISCC annual planning session; likewise, the Advanced Heat Pumps and High-Performance Windows (residential focus) will be covered in the PCC annual planning session.*

## Schedule:

### ISCC – Tuesday, Nov 7 (9:15am – 12pm Pacific)

TIME	TOPIC / PROGRAM
9:15 – 9:30	Welcome & Orientation to Process
9:30 – 12:00	<i>We will progress through the programs in this order, no specific time blocks, please plan to attend the whole session so we can be efficient with our time together, we will end as soon as we're finished.</i> Luminaire Level Lighting Controls High-Performance HVAC (VHE DOAS) Extended Motor Products – Pumps & Circulators Efficient Fans

### PCC – Thursday, Nov 16 (9:15am – 12pm Pacific)

TIME	TOPIC / PROGRAM
9:15 – 9:30	Welcome & Orientation to Process
9:30 – 12:00	<i>We will progress through the programs in this order, no specific time blocks, please plan to attend the whole session so we can be efficient with our time together, we will end as soon as we're finished.</i> Heat Pump Water Heaters Consumer Products: Retail Products Portfolio Advanced Heat Pumps High-Performance Windows

Please contact the Stakeholder Relations Team [Anouksha Gardner](#) and [Alisyn Maggiora](#) if you have questions about the annual planning sessions.



# Memorandum – *Informational Update (Tier 2)*



November 6, 2023

TO: Integrated Systems and Products Coordinating Committee Members

FROM: Anouksha Gardner and Alisyn Maggiora, Stakeholder Relations Team

SUBJECT: Program Swap for PCC and ISCC: Residential and Commercial Program Alignment

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## **What you need to know:**

Advanced Heat Pumps and High-Performance Windows programs (residential focus) will move to the Products Coordinating Committee (PCC). The Extended Motor Products Pumps and Circulators (XMP), and Efficient Fans programs (commercial/industrial focus) will move to the Integrated Systems Coordinating Committee (ISCC), starting with 2024 topic planning.

## **Context:**

In 2019 NEEA embarked on a streamlining process<sup>1</sup> for our committees to help reduce redundancy in roles and forums (advising & coordinating/work groups). At that time, NEEA also reorganized itself and its primary engagement strategies to better align with the market – thus creating “Products Groups” around which NEEA programs were organized. Three sector advisory committees (Residential/Commercial/Industrial) were then merged into two coordinating committees, organized by NEEA’s new product group categories: Products (standalone widgets) and Integrated Systems (technologies/systems that are interdependent). These product groups contain both residential and commercial/industrial programs. Most previous sector advisory committee members transferred to respective coordinating committees, and largely the ISCC became comprised of commercial/industrial focused stakeholder staff, and the PCC, residential stakeholder staff, respectively. Over the past four years, external coordination for the residential programs in the ISCC, and likewise, the commercial/industrial programs in the PCC, has been challenging for both NEEA program staff and committee members.

Based on the feedback received from the Coordinating Committee members and NEEA program managers, to better align with committee members’ sector-based composition (for the most part), we are reassigning our residential focused programs (Advanced Heat Pumps and High-Performance Windows) to the Products Coordinating Committee, and our commercial/industrial focused programs [Extended Motor Products Pumps and Circulators (XMP), and Efficient Fans] programs to Integrated Systems Coordinating Committee in 2024. We believe this will help improve coordination and engagement for the programs noted above.

The swapped programs will participate in the new committee structure starting with 2024 annual topic planning process (day 2 of each Q4 2023 coordinating committee meeting), and all ISCC & PCC meetings in 2024 will maintain this revised structure.

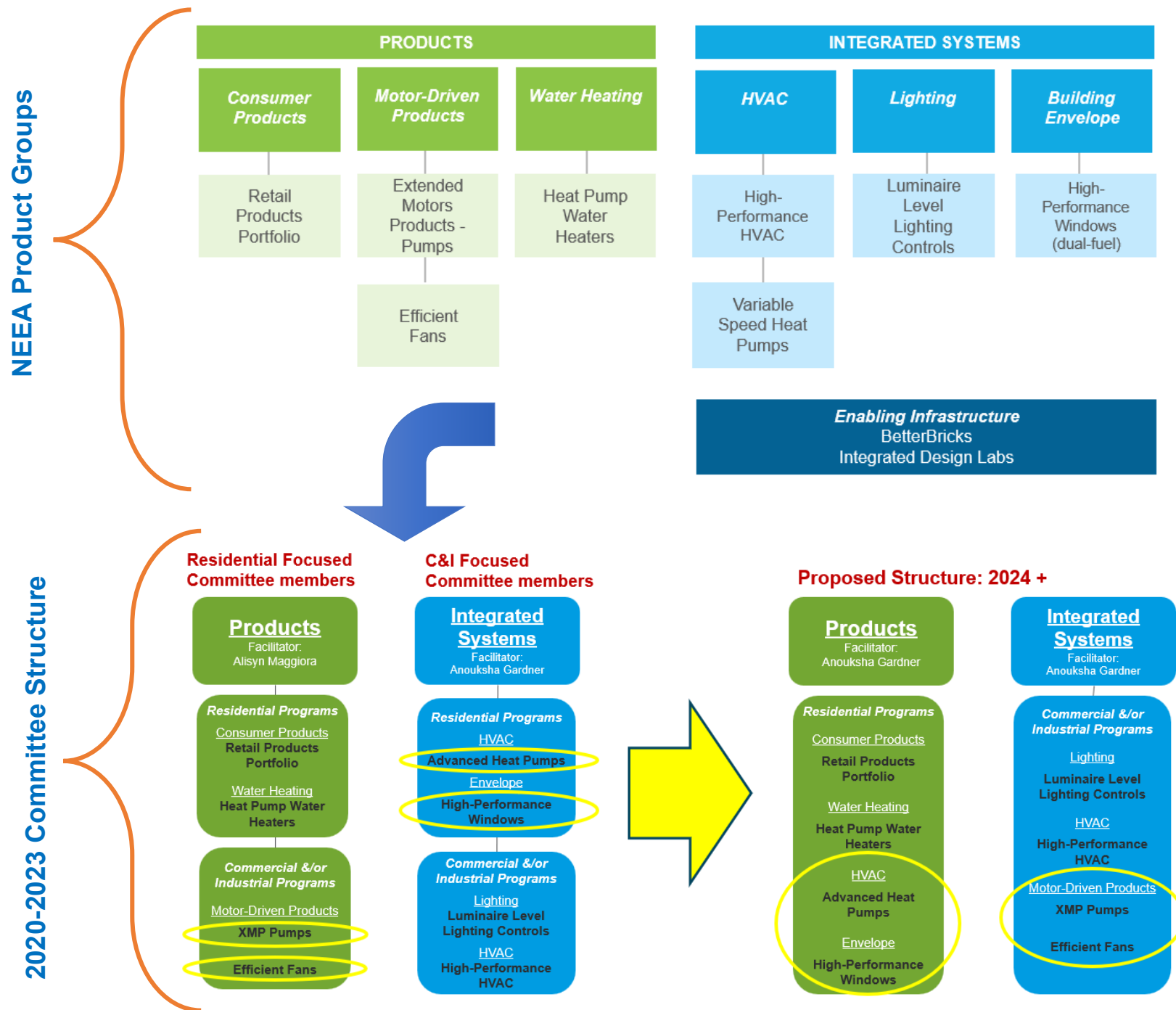
Please contact [Anouksha Gardner](#) if you have questions.

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<sup>1</sup> Streamlining process RPAC memo: <https://neea.org/img/documents/Q4-2019-RPAC-Packet.pdf#page=7>



# NEEA's Product Groups and Coordinating Committees Structure



## PCC Q4 2023 HEAT PUMP WATER HEATERS (HPWH) ACTIVITY REPORT

### KEY UPDATES:

- **PROGRAM:** During Q3 contracts were awarded to Evergreen Consulting, D&R International and C+C (Marketing) and Scopes of Work (SOW) finalized for the implementation of Hot Water Solutions (HWS), NEEA's HPWH market facing program. Transition and planning are expected to continue through Q4, with implementation activities picking up at the beginning of 2024.
- **MARKET RESEARCH:** Market Progress Evaluation Report #7 was completed during Q2 and will be posted early Q4. The final reports for Water Heater Installers Focus Groups (WHIFG) and HPWH Cold Climate Demonstration Installation (CCDI) are being finalized.
- **TECHNOLOGY RESEARCH:** Leveraged Pacific Gas and Electric funding to continue confined space lab research to include addition brands of water heaters and alternate installation configurations. Evaluated Notice of Proposed rulemaking documentation for technical feasibility.

### 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"> <li>• Market Development (2014-current)</li> <li>• <a href="#">Market Progress Evaluation Report #6</a></li> </ul>
Product Description	Storage electric water heaters utilizing heat pump technology
Sector(s) Target Market(s)	Residential
Key Market Actors	<ul style="list-style-type: none"> <li>• Manufacturers of water heaters</li> <li>• Distributors</li> <li>• Retailers</li> <li>• Contractors</li> <li>• Installers</li> <li>• Homeowners</li> <li>• Electric Utilities</li> </ul>
Implementation Contractors	<ul style="list-style-type: none"> <li>• D&amp;R International</li> <li>• Evergreen Consulting</li> <li>• C+C</li> <li>• Energy350</li> <li>• Summit Conservation Services</li> </ul>

## 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"> <li>Supported the implementation of Market Development Fund (MDF) developed with regional distributors during Q1 aimed at increasing installer adoption of HPWHs. Executed activities in Q2 and Q3 included marketing opportunities in home improvement magazines, tabling at plumber golf tournament to share HPWH resources, sponsoring food trucks at training events held at distributor warehouses. Additional activities are planned for Q4.</li> <li>During Q2 and Q3, several different tactics were employed to reach plumbing and HAVAC companies to support website updates to include HPWHs. Outreach included newsletters, individual emails and phone calls. Outreach efforts have seen little success in engagement.</li> <li>During Q2, coordinated and delivered cold-climate installer trainings in partnership with Northwestern Energy and distributors, Keller Supply and Gensco in billings Montana.</li> </ul>	<ul style="list-style-type: none"> <li>Apply learnings from 2023 Market Development Plans with distributors to finalize 2024 approach, which will include a set list of market development activities distributors can choose from rather than the open ended approach from 2023.</li> <li>Work with Evergreen Consulting to finalize plan for 2024 installer engagement. Plans will include a greater field presence and focused engagement with select installers who are interested in increasing their understanding and experience of HPWH.</li> </ul>	<ul style="list-style-type: none"> <li>Continue to coordinate Hot Water Solutions regional training with field staff representing Energy Trust of Oregon and Comfort Ready Homes who participated in the train the trainer event. Please let <a href="#">Emily Rosenbloom</a> know if your field staff would be interested in future training events or if you need support for planned trainings.</li> </ul>

### 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"> <li>Water Heater Installers Focus Groups (WHIFG) research key findings draft completed. NEEA program staff completed review of final report. Key learnings were applied to 2024 operations plan.</li> <li>Collected feedback on one pager draft - <i>Best Practices Heat Pump Water Heater Installation Locations by Climate in Single-Family</i> – based on confined space research and PNNL RECs data from manufacturers and installation contractors.</li> </ul>	<ul style="list-style-type: none"> <li>Water Heater Installers Focus Groups (WHIFG) report will be posted to NEEA.org in Q4.</li> <li>Finalize <i>Best Practices Heat Pump Water Heater Installation Locations by Climate in Single-Family</i> one pager. Post to Hot Water Solutions website as resource in as well as send out to the Hot Water Solutions distribution list in monthly newsletter.</li> </ul>	<ul style="list-style-type: none"> <li>Keep active utility programs and trade ally networks that support HPWH sales growth and in particular support for installer engagement and education with non-complicated installs.</li> </ul>

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

#### Recent Progress

- NEEA continues to collaborate with PGE and Energy Trust of Oregon on a pilot as part of the Smart Test Bed to work on multifamily new construction unitary HPWHs.
- Engaged two major manufacturers in discussions about publishing multifamily installation guides for their unitary products.

#### What's Ahead

- Continue recruiting efforts and review of projects for technical feasibility.
- Continue to support manufacturers in developing installation guides for multifamily by sharing research findings from the shrinking room experiment and reviewing draft guides.

#### Coordination & Leveraging Opportunities

- Continue collaborating with Energy Trust of Oregon on recruiting multifamily participants for PGE pilot.

### 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 Products 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 Q4 2023 RETAIL PRODUCT 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:** The program is in the process of planning for the 2024 program year (begins April 1, 2024).
- EVALUATION RESEARCH:** NEEA's Market Progress Evaluation Report 2 was published in Q3. The ESRPP Retailer Survey will be published in early Q4.
- EMERGING TECH:** TV's are now being tested using the test procedure developed and advocated for by NEEA.
- CODES AND STANDARDS:** A multiproduct agreement was reached with the Association of Home Appliance Manufacturers (AHAM), the Appliance Standards Awareness Project (ASAP), NEEA and other energy efficiency proponents to propose new federal standards to the DOE for clothes washers, clothes dryers, refrigerators, freezers, cooking products and dishwashers. These recommended standards would go into effect in 2027 – 2030 if agreed to by the DOE.

### RESOURCES FOR UTILITIES (available by 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"> <li>Market Development (September 2019)</li> <li><a href="#">RPP Market Progress Evaluation Report 2</a> complete</li> </ul>
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"> <li>National retailers</li> </ul>
Data and Channel Support Contractors	<ul style="list-style-type: none"> <li>ICF</li> <li>Energy Solutions</li> <li>Navitas Partners</li> </ul>
Program Partners	<ul style="list-style-type: none"> <li>EPA ENERGY STAR® Program</li> <li>Other utilities and efficiency organizations</li> </ul>

## 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"> <li>A multiproduct agreement was reached with the Association of Home Appliance Manufacturers (AHAM), the Appliance Standards Awareness Project, NEEA and other energy efficiency proponents to propose new federal standards to the DOE for clothes washers, clothes dryers, refrigerators, freezers, cooking products and dishwashers. These recommended standards would go into effect in 2027 – 2030 if agreed to by the DOE.</li> <li>Research into real-world energy use of clothes washers has completed field testing and is moving into data analytics and reporting.</li> <li>Continued participation in industry group working to revise audio-visual (soundbar) test procedure.</li> <li>Submitted comment letters on air cleaner, dryer, and clothes washer standards.</li> <li>Completed testing on 27 new heat pump dryer models. Results have been integrated into NEEA QPL.</li> </ul>	<ul style="list-style-type: none"> <li>Continue testing new heat-pump dryer models.</li> <li>Continue participation in industry group working to revise audio-visual (soundbar) test procedure.</li> <li>Submit letter on air cleaner test procedure rule-making.</li> <li>Continue effective coordination with NEEA Codes &amp; Standards team.</li> </ul>	<ul style="list-style-type: none"> <li>NEEA has not identified any opportunities at this time.</li> </ul>



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

Recent Progress	What's Ahead	Coordination & Leveraging Opportunities
<ul style="list-style-type: none"> <li>TV's are now being tested using the new DOE v 9 test procedure. 54 TV's are now certified to the ENERGY STAR version 9 standard as of end of Q3.</li> </ul>	<ul style="list-style-type: none"> <li>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 Q4.</li> </ul>	<ul style="list-style-type: none"> <li>NEEA has not identified any opportunities at this time.</li> </ul>

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

Recent Progress	What's Ahead	Coordination & Leveraging Opportunities
<ul style="list-style-type: none"> <li>Hawaii Energy joined the program July 1, 2023.</li> <li>Dominion Energy, Virginia is scheduled to join the program January 1, 2024.</li> </ul>	<ul style="list-style-type: none"> <li>The program is engaging with several other potential program sponsors including utilities in New Hampshire.</li> </ul>	<ul style="list-style-type: none"> <li>NEEA has not identified any opportunities at this time.</li> </ul>

### 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				
	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 is 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:			

## PCC Q3 2023 EXTENDED MOTOR PRODUCTS (XMP) ACTIVITY REPORT

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

- Identify and co-develop case studies on Smart Pumps with NEEA
- Collaborate with NEEA and manufacturers' representatives on presentations to relevant industry assns in your service territory
- Share smart pumps [video](#) and leverage marketing [tools](#)
- Offer local insights from the supply chain and pump end users

### KEY UPDATES:

- **PROGRAM:** Eight regional pump distributors sharing full category sales data with NEEA and promoting energy efficient products.
- **MARKET RESEARCH:** Baseline and savings methodology [review](#) for Variable Load (VL) pumps and Constant Load (CL) to VL upgrades; Commercial ASD penetration [study](#) published in Q3-23.
- **EMERGING TECH:** Working with manufacturers and trade association ER label awareness building and industry education; Investigating electric double-diaphragm pump opportunity.
- **CODES AND STANDARDS:** Final Rule for first-ever circulator pump standard is expected to be issued by US DOE anytime in the next ~six months.

### 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
- 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.

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"> <li>• Manufacturers' representatives &amp; manufacturers</li> <li>• Distributors</li> <li>• Installation contractors</li> <li>• Mechanical engineers and equipment specifiers</li> <li>• Building owners and managers</li> </ul>
Implementation Contractors	<ul style="list-style-type: none"> <li>• Cadeo, Summit Conservation Strategies</li> </ul>
Program Partners	<ul style="list-style-type: none"> <li>• Hydraulic Institute</li> </ul>

## 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 Energy Rating (ER) label, and the specific benefits of smart pumps related to installation and maintenance costs***

Recent Progress	What’s Ahead	Coordination & Leveraging Opportunities
<ul style="list-style-type: none"> <li>29 outreach events educating pump buyers about energy efficiency completed through Q3-23 by participating manufacturer’s rep firms, with over 300 contact hours in 2023 .</li> <li>Supporting distributor-led trainings, lunch-and-learns, webinars, hands-on learning</li> <li><a href="#">BetterBricks pumps and motors</a> blog posts</li> <li>Co-branded “All About Smart Pumps” video with Hydraulic Institute (HI)</li> <li>Spoke at Powerful Facilities Energy Conference in Seattle to a breakout session of ~90 people on Smart Pumps &amp; Circulators</li> </ul>	<ul style="list-style-type: none"> <li>Continuing to support ER label awareness <ul style="list-style-type: none"> <li>Promoting lifecycle cost calculator tool with sales teams at rep firms</li> <li>Developing Smart Pump case studies in partnership with utility programs</li> <li>Program Support Plan activity implementation by participating distributors (using NEEA funding)</li> </ul> </li> <li>Active participation with Hydraulic Institute and pump manufacturers on current awareness building campaign: “What Does BEP (Best Efficiency Point) Mean to You.” Supporting efforts to include a follow-up campaign: “What Does ER Mean to You?”</li> </ul>	<ul style="list-style-type: none"> <li>Partner with NEEA and manufacturers’ representatives on smart pump presentations to groups in your service territory</li> <li>Support case studies about smart pumps, by sharing completed case studies with customers and identifying additional case study opportunities</li> <li>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</li> </ul>

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

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

**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**

Recent Progress	What's Ahead	Coordination & Leveraging Opportunities
<ul style="list-style-type: none"> <li>Socialized our ER Label research findings with manufacturers and the HI at their Fall Conference in October 2023, with our proposal to improve the ER Label Program approved and implemented</li> <li>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 Adjustable Speed Drive (ASD) penetration research, in coordination with BPA's ASD study</li> <li>Supporting Product Group strategy development for variable speed drives and electronically commutated motors (ECM) in ways that complement our discreet pump and fan programs</li> </ul>	<ul style="list-style-type: none"> <li>Expand regional coverage to include more of the region's smart circulator and smart pump market</li> <li>Educate the market about the benefits of variable speed pumping through additional presentations of the NEEA &amp; National Electric Manufacturers Association (Motors Industry Group) Power Drive Systems research findings</li> <li>Gather data to support future federal standard updates to a higher minimum ER requirement</li> <li>Collaborate with Hydraulic Institute and pump manufacturers on various energy efficiency awareness efforts</li> <li>Continue to expand presence on <a href="#">BetterBricks</a> with additional original content</li> </ul>	<ul style="list-style-type: none"> <li>SEM Coaches and Energy Efficiency Account Managers can identify and help develop in-depth smart pump case studies</li> <li>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</li> <li>Promote smart pump value proposition to end users, engineers and installation contractors</li> </ul>

## 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	
Key Program Activities	Lab & Field Testing		Q1-Q4								
	Data Collection & Assessment		Q1-Q4	Q1-Q4							
	Incentives		Q1-Q4								
	Market Channel Dev	Q1-Q4	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	Q1-Q4
	Technical Support					Q1-Q4	Q1-Q4	Q1-Q4	Q1-Q4	Q1-Q4	Q1-Q4
	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:			



# PCC Q4 2023 EFFICIENT FANS ACTIVITY REPORT

## NEEA IDENTIFIED COORDINATION & LEVERAGING OPPORTUNITIES SUMMARY:

- ❖ **NEEA, through its BetterBricks platform, is collaborating on trainings with Twin City Fan Dec. 5<sup>th</sup> in Seattle, and Dec. 6<sup>th</sup> in Portland.**  
Utilities are invited to attend and share information with mechanical contractors on their program offerings – for fans and fan system components including variable speed drives, motors, and/or custom projects. Please reach out to Tamara Anderson [tanderson@neea.org](mailto:tanderson@neea.org) for more information.
- ❖ Utilities are encouraged to continue promoting efficient fan options through their current programs.

## KEY UPDATES:

- **PROGRAM:**  
**Twin City Fan is the first to join the program pilot.** We are continuing outreach and conversations with additional key manufacturers who may be potential partners.
- **MARKET RESEARCH:**  
Fan Systems Market Characterization Study is underway and due to be completed by Q4, and will be posted on neea.org in early 2024.

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"> <li>• Fan manufacturers</li> <li>• Specifiers</li> <li>• Engineers</li> </ul>
Implementation Contractors	<ul style="list-style-type: none"> <li>• DNV (Fan Systems Market Characterization Study)</li> </ul>
Program Partners	<ul style="list-style-type: none"> <li>• Air Movement and Control Association (AMCA)</li> </ul>

## 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"> <li>NEEA is working with a major manufacturer on developing a total cost of ownership calculator within their fan selection software to overcome the first cost barrier for efficient fans.</li> <li>We have acquired data from two major fan manufacturers.</li> </ul>	<ul style="list-style-type: none"> <li>Continued relationship building to identify more opportunities to test target interventions to promote more efficient fans with manufacturers.</li> <li>Assessing data quality</li> </ul>	<ul style="list-style-type: none"> <li>None at this time</li> </ul>

### 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"> <li>NEEA is contracting with DNV for the Fan Systems Market Characterization work. 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.</li> </ul>	<ul style="list-style-type: none"> <li>The Market Characterization Study is on track, with preliminary results expected in November. The report is expected to be complete in December 2023.</li> </ul>	<ul style="list-style-type: none"> <li>The final report is expected to be published on neea.org in early 2024.</li> </ul>

### GOAL 3) Assess the landscape around codes and standards activities

Recent Progress	What's Ahead	Coordination & Leveraging Opportunities
<ul style="list-style-type: none"> <li>The team developed a codes and standards plan to document the current landscape as it relates to Efficient Fans in Q1 of 2023.</li> <li>The <a href="#">final test procedure</a> was a huge win since it 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.</li> <li>NEEA expects the Notice of Proposed Rulemaking for Commercial and Industrial Fans and Blowers to be released before the end of the year.</li> </ul>	<ul style="list-style-type: none"> <li>Identifying topics that we'll want to consider when we prepare for the forthcoming Notice of Proposed Rulemaking (NOPR) later this year.</li> </ul>	<ul style="list-style-type: none"> <li>None at this time.</li> </ul>

### 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"> <li>With a vacancy in product management for the program for the first half of 2023, the team pivoted its focus to recruiting additional manufacturer partners and investigating fan manufacturer selection software.</li> </ul>	<ul style="list-style-type: none"> <li>With a new product manager onboarding in Q3, the product plan development will resume and continue into 2024.</li> </ul>	<ul style="list-style-type: none"> <li>None at this time.</li> </ul>

## Program Lifecycle



## MARKET ACTORS AND TIMING

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

The following is to be Completed by Product Coordinating Committee Member