



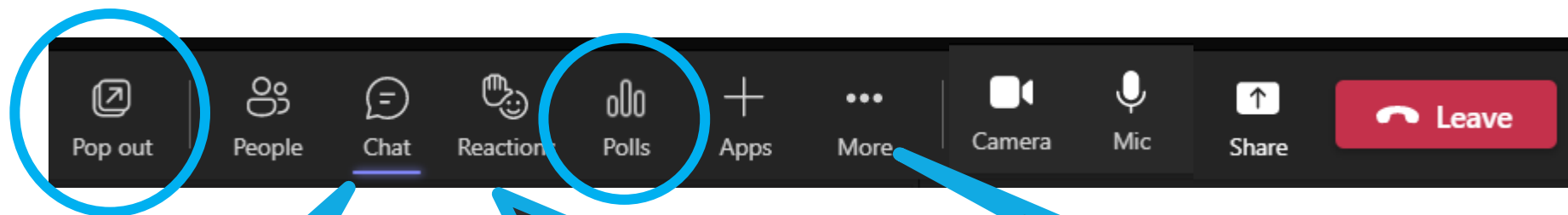
Regional Portfolio Advisory Committee

Q1 2023: February 27
8:30 – Noon (Pacific)
Virtual only





Tools for Today: Engaging on Teams

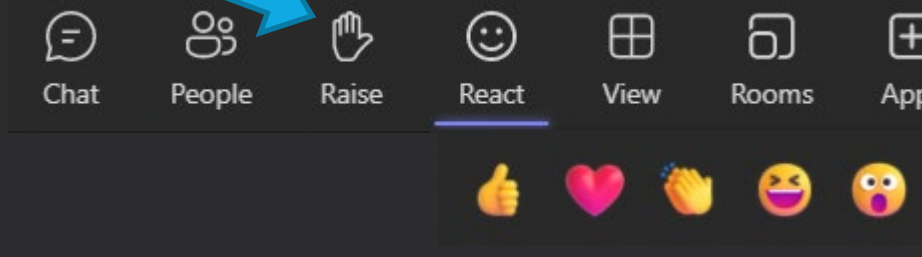


The chat is not captured in the recording.

Do you have any accessibility challenges with this technology today?

Comments/Questions?

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



“...” More includes:

- ✓ Settings: mic & video
- ✓ Background effects



Welcome New RPAC members!

- ❖ *Kevin Smit, NWPCC (replacing Jenn Light)*
- ❖ *Jeff Feinberg, Snohomish PUD (replacing John Petosa)*
- ❖ *Dan Adams, Avista (replacing Vern Malensky)*





Introductions

- Name
- Organization
- *And...*

XXX



Packet Review & Informational Updates



- Tier 1: Agenda Focus Items

- ✓ Charter Review / Check-in (pg. 3)
- ✓ Q2 Meeting Format - Hybrid Check-in (pg. 4)
- ✓ HPWH 2022 Boring But Efficient Campaign Results (pg. 5)
- ✓ Variable Speed Heat Pumps (pg. 6-8)

- Tier 2: Informational Updates

- ✓ Committee Updates (packet pg. 9-10)
- ✓ Federal Funding Opportunities (pg. 11-12)

- Tier 3: Additional Resources

Market Progress Report, recent committee materials, functional newsletters, Charters





Agenda

All times Pacific

8:30-8:50 (20 min)	Welcome, Introductions and Agenda
8:50-9:35 (45 min)	RPAC Round Robin <ul style="list-style-type: none">• Big changes (programs/personnel)• Current challenges, lessons learned• How utility activities relate to NEEA's• Sharable tools/materials• Equity, hard-to-reach markets• Findings, filings, IRPs
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Round Robin

- Big changes (programs/personnel)
 - Current challenges, lessons learned
 - How utility activities relate to NEEA's
 - Sharable tools/materials
 - Equity, underserved markets
 - Findings, filings, IRPs



➤ ***Break!***





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» *Housekeeping and Looking Ahead*

- ✓ **Annual Charter Review**
- ✓ **Upcoming Meetings**
- ✓ **Q2 Hybrid Meeting Option**
- ✓ **Events & Announcements**



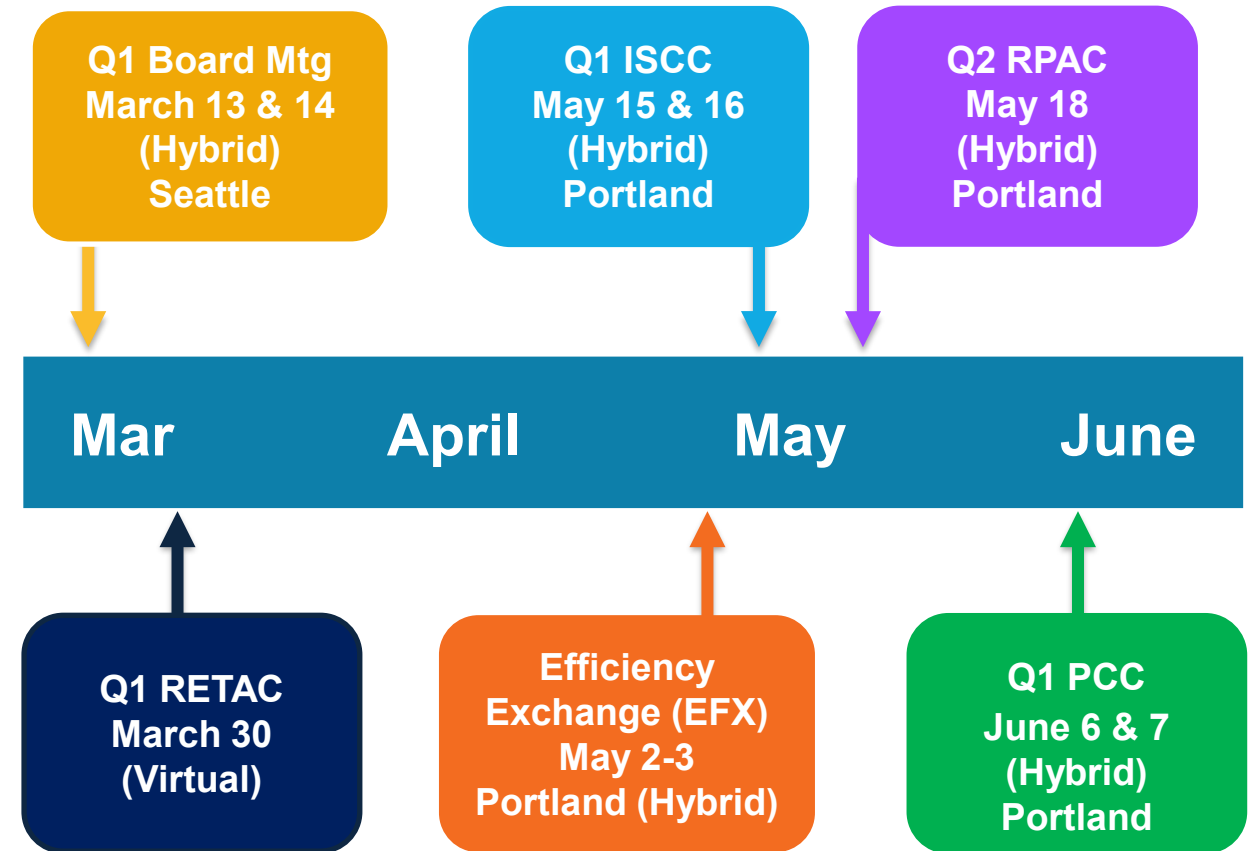


Annual Check-in:
RPAC, ISCC, PCC Charters



➤ *Upcoming NEEA Meetings + Key Dates*

[NEEA events list \(neea.org\)](https://neea.org)





Q2 Meeting: Hybrid Format

- May 18
- In-person option
- Hosted at NEEA office
- RPAC check-in:
 - ***Do you plan to attend Q2 in-person?***
[POLL]
 - Yes
 - No
 - Maybe / It depends
 - ***Do you have any preferences about a frequency for hybrid option going forward?*** *(add to chat)*





Efficiency Exchange 2023 - Registration Now Open



EFX23 Early Bird Registration

February 1 – March 28

neea.org/efx23-registration

EFX23 Hybrid Conference

May 2-3 in Portland

In-person + Virtual



Welcome Becca Yates, NEEA's New ED





Upcoming Events?
Other Announcements?



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2022 HPWH Consumer Awareness Campaign

- **Britt Cutsforth Dawkins**
- Manager, Program Marketing Strategy, NEEA
- February 2022





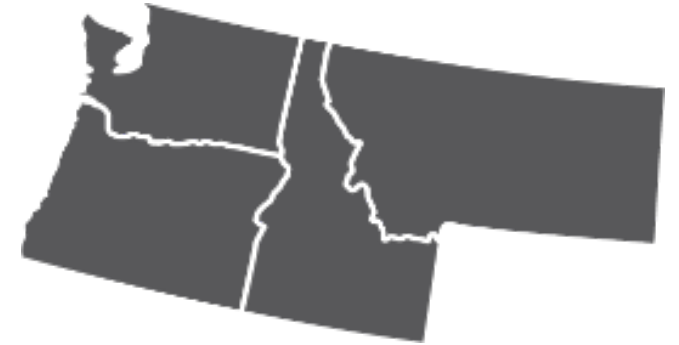
Market Barriers: Demand Side





2022 Campaign Overview

- Brand owner: Hot Water Solutions-branded, benefitting all market actors
- Timing: Late September through early November 2022
- Channels: Digital and social channels
- Media spend: \$150K
- Key performance indicator (KPI): Clicks and clickthrough rate
- Calls-to-Action:
 - From ads: Drive to BoringButEfficient.com landing page
 - From landing page: Drive to utility websites, local installers, retailers, manufacturers
- Targeting
 - Demographic: Northwest homeowners in funder-approved ZIP codes with high levels of electric water heat and/or electric space heat
 - Contextual: Interest in home-focused content (home repair, renovations, remodeling), as well as interest in topics and keywords related to water heaters





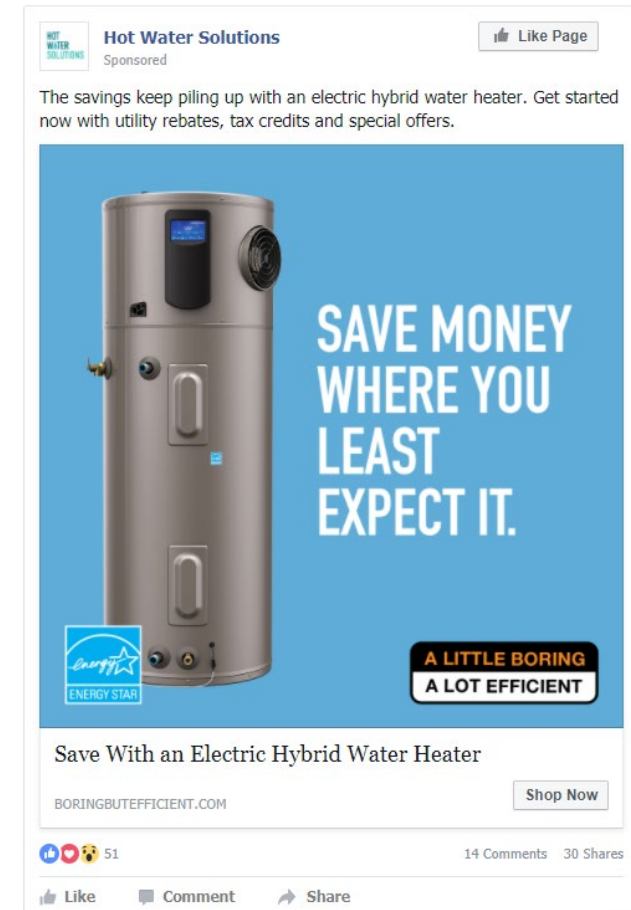
2022 Campaign Strategy Review

- Increase awareness
 - Build on regional awareness (57%) in support of increased interest in (and demand for) HPWHs
 - Act on Market Research recommendations* to increase HPWH awareness specifically in rural areas and areas with historically lower awareness and adoption rates
- Focus on efficiency
 - Reuse the pre-approved *Boring But Efficient* creative and landing page vetted by the RPAC+ committee in 2021
 - Run a significantly smaller campaign (just ¼ of the 2021 media spend)
- Ensure alignment
 - Connect with funders to understand any new considerations in 2022
 - Collaborate with mid- and upstream market actors throughout the campaign



Campaign: High-level Metrics

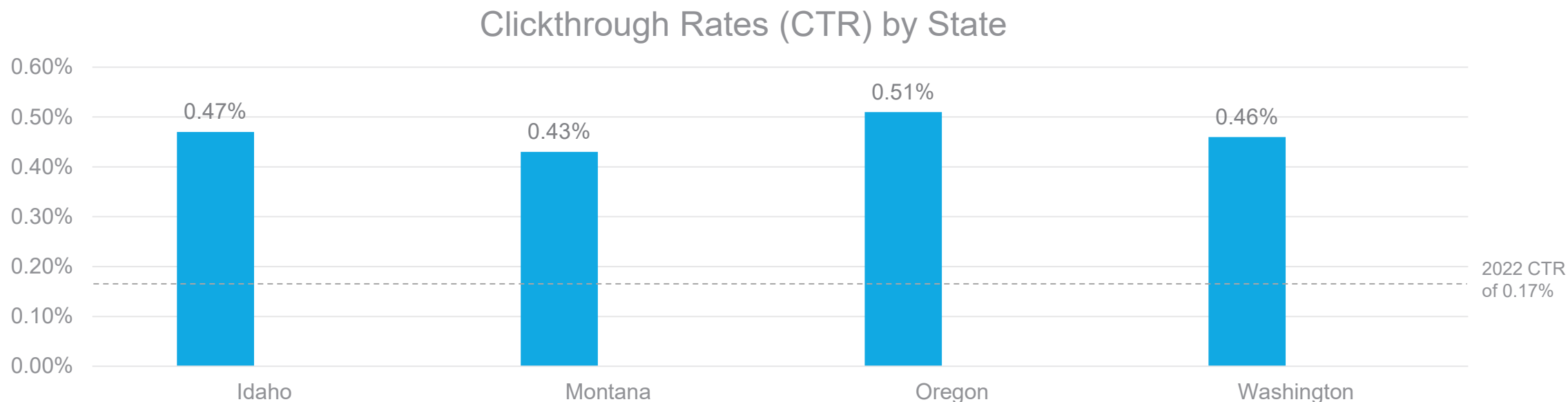
- 20.3 million impressions across the desired audience
- 96,000+ clicks to the BoringButEfficient.com campaign landing page
- .47% clickthrough rate
- 2,114 conversions beyond the campaign landing page
- Approximately 225 consumer comments posted to social media





Results: Strong response from across the region

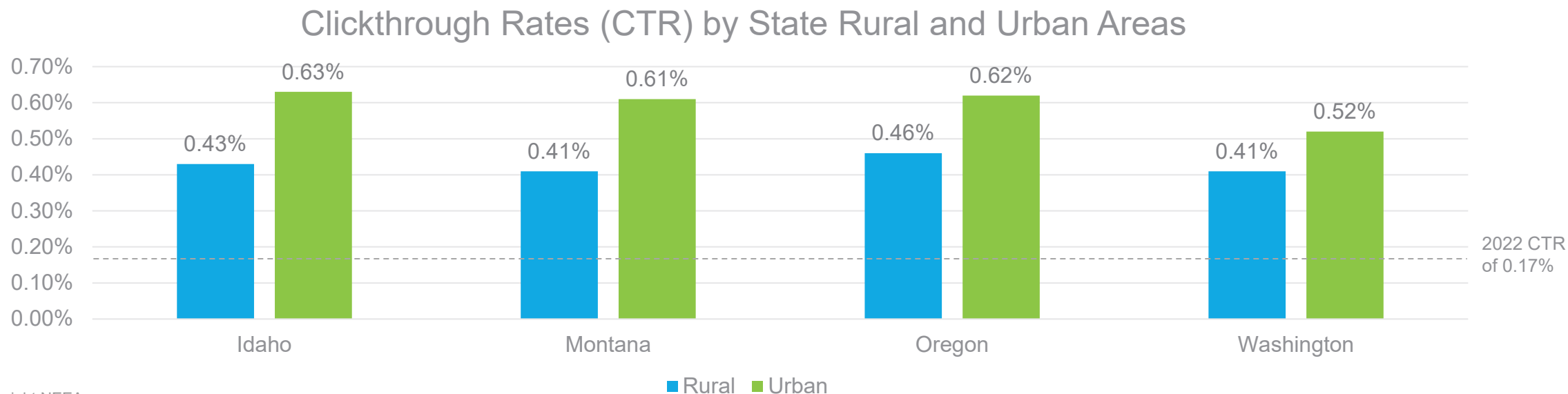
- Response was higher than expected from both rural and urban consumers, indicating a general increase in HPWH interest
 - Significantly higher YoY campaign clickthrough rate: 3x





Results: Rural areas responded well

- Targeting rural areas was effective: Rural consumers engaged at a rate close to that of the urban consumers
- Increased rural awareness by 20%, per early findings
 - More refined data to come: HPWH Market Progress Evaluation Report #7





Results: Common concerns emerged on social

- The campaign garnered approximately 225 consumer comments on Facebook and Instagram
- These comments confirmed owner satisfaction in line with research findings
- Provided insights into common concerns or misperceptions, which included:
 - Cool air + HVAC interaction
 - Upfront pricing barriers
 - Location + installation requirements





Next Steps

- Produce a memo on the campaign results
- Focus 2023 HPWH marketing efforts on installers
- Determine how to leverage insights from comments

» Thank you

- Britt Cutsforth Dawkins - Manager, Program Marketing Strategy
- bdawkins@neea.org





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Portfolio Update

Emily Moore
Director – Electric Portfolio






Portfolio success driven by two primary goals:

1. Ensure success of mature programs


- Focus on Heat Pump Water Heaters, Retail Product Portfolio. Savings potential extends well past Cycle 6.



90% of cycle savings in active investments from RPP, HPWH and Res Codes

2. Build more diversified portfolio

- Deliver savings through more program opportunities, more diversity in markets, less risk concentration
- Build for Cycles 7 & 8 in both electric and natural gas



Many new programs are in slow moving & slow to move markets (ramp speed)



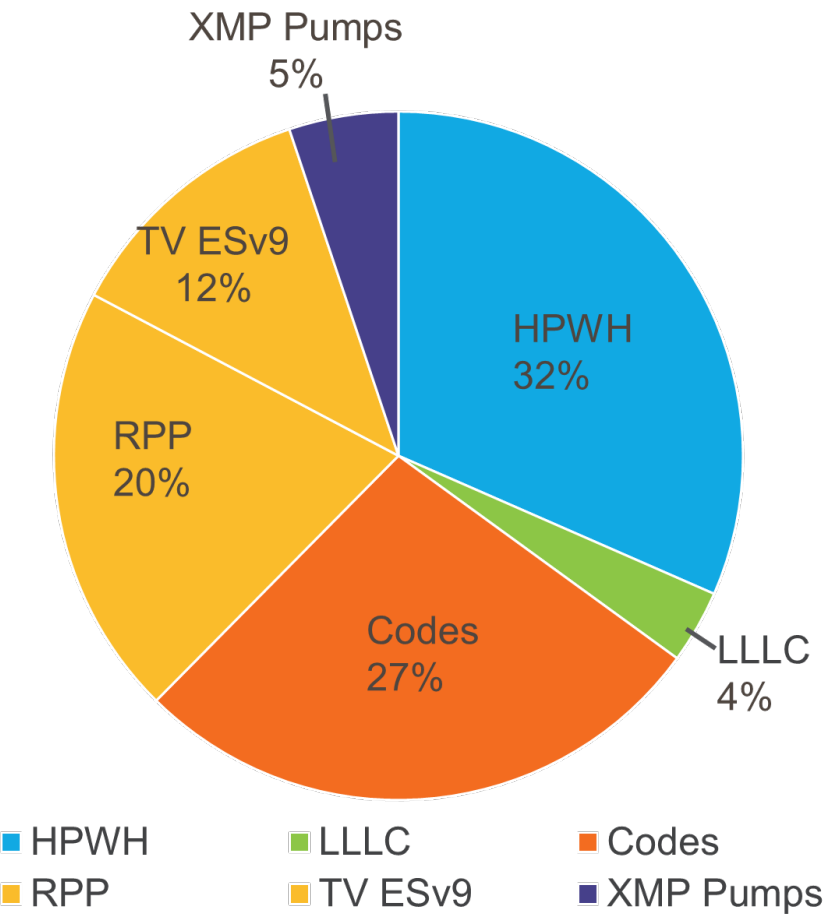
2023: Electric Portfolio by Maturity Stage





Electric Portfolio: Diversification

Co-created Savings from Active Investments 2020-2024 = 57 aMW



- Consumer demand strong and adoption of energy efficient products growing – despite supply chain and inflationary pressures
- Leading TV manufacturers sign on to ENERGY STAR v9 test procedure ahead of schedule

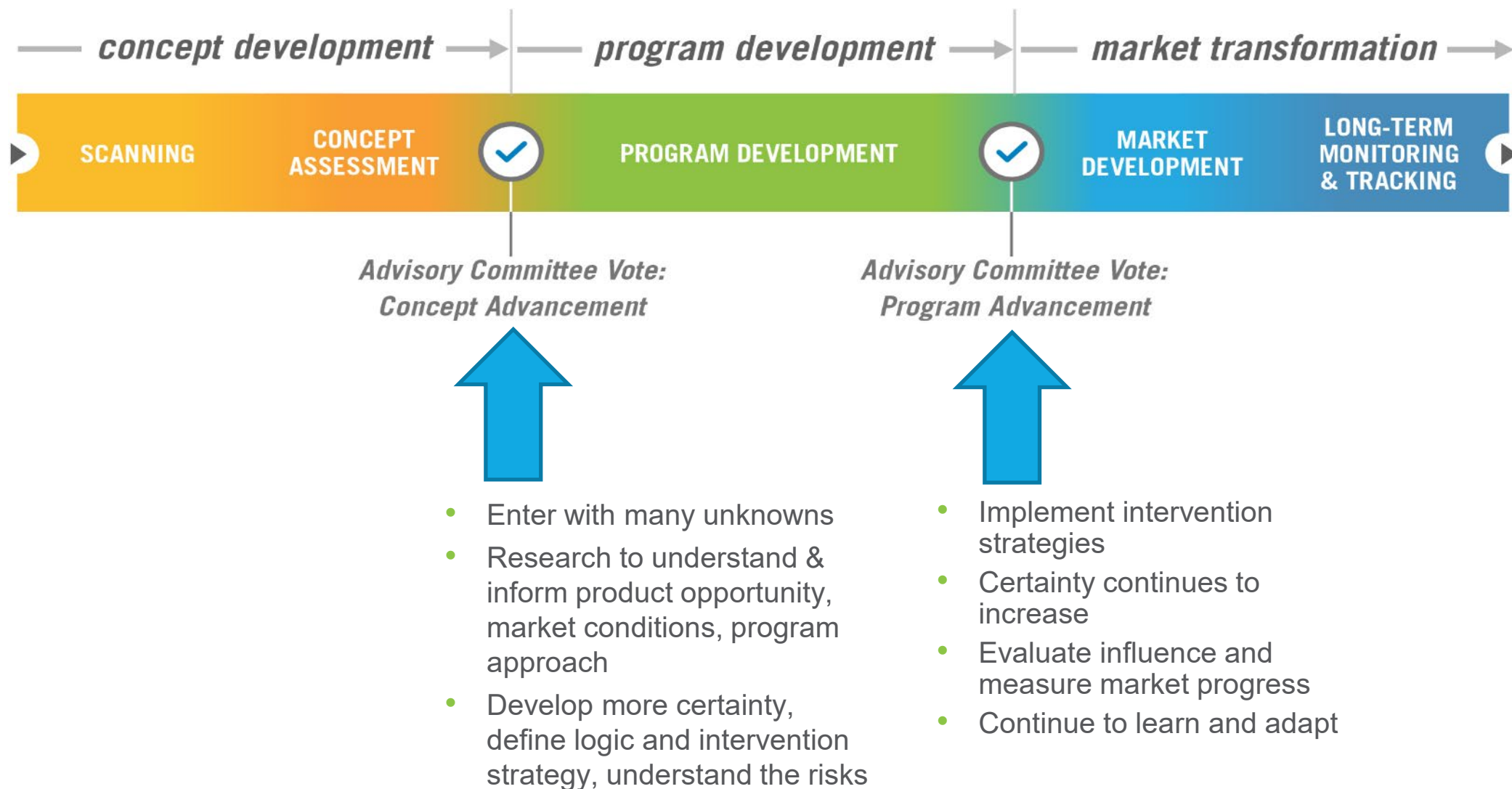


Anticipated Milestones in 2023



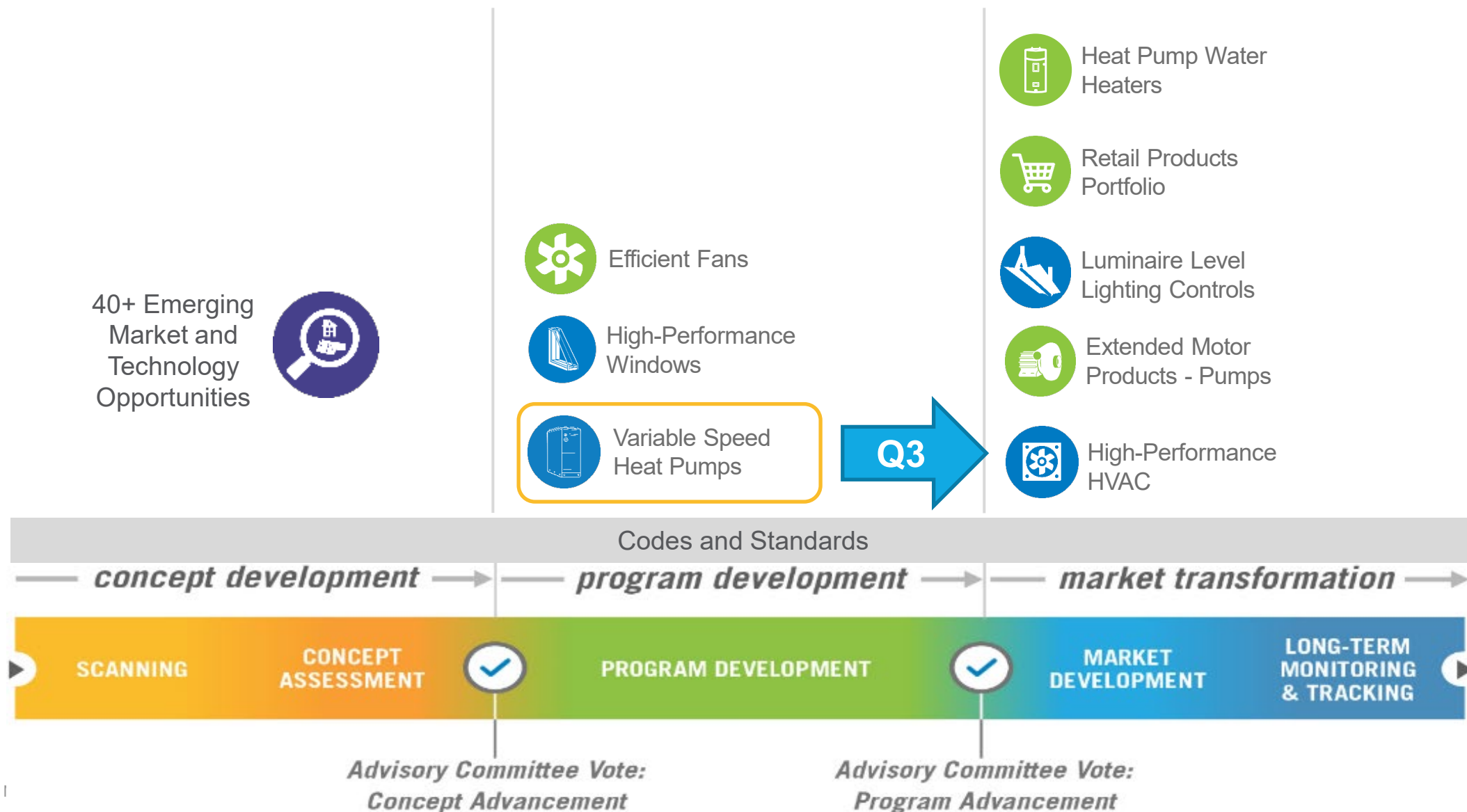


Decision Points in Initiative Lifecycle





Anticipated Milestones in 2023





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➤ ***Break!***





Variable Speed Heat Pumps: Update on Program Development and Preview for Q3 Vote

Emily Moore
Director – Electric Portfolio

Suzi Asmus
Program Manager





What We'll Cover

1. Background/Context
2. Program Development Update
3. Market Transformation Theory and Program Approach
4. Milestone Preparation





Program Development Activities

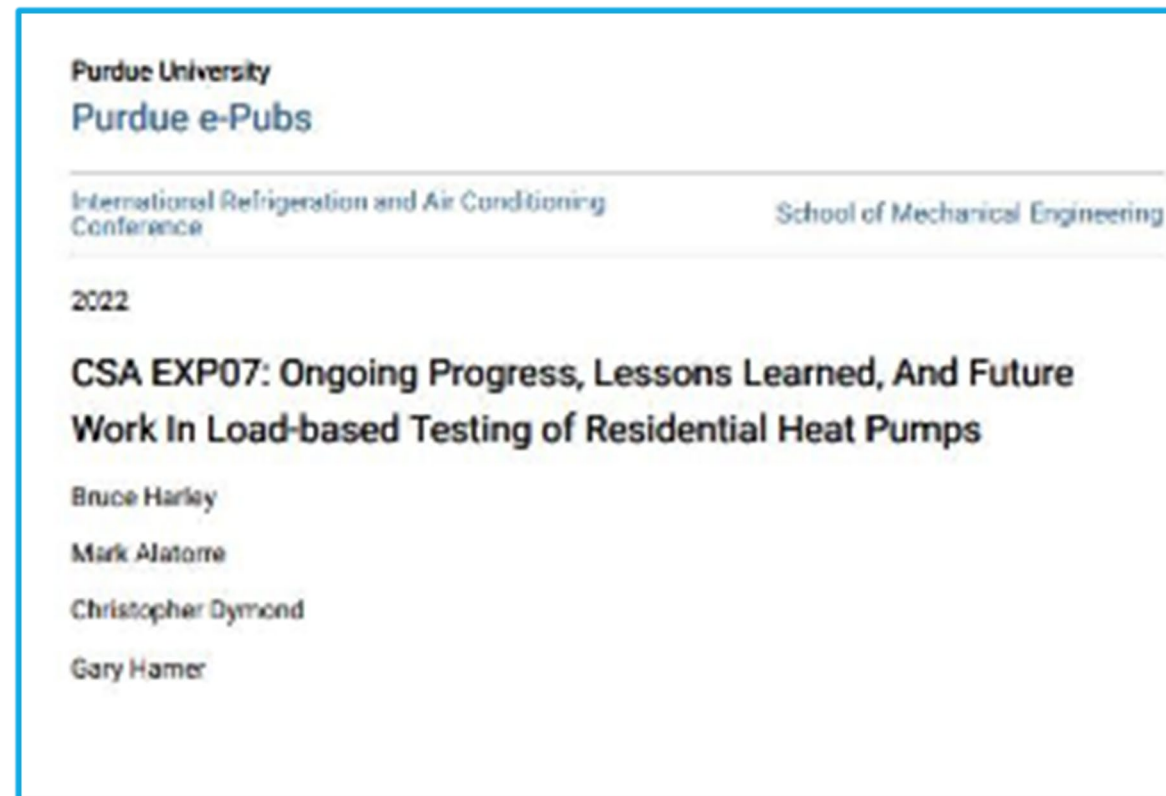
Proposed Activities	Desired Outcomes
1. Develop VSHP specification based on an improved test procedure. <ul style="list-style-type: none">- Conduct field and lab testing to inform improved test procedure.- Improve the accuracy and stringency of a qualifying product list	Improved test procedure and rating, resulting in improved product differentiation
2. Expand VSHP market and product understanding. <ul style="list-style-type: none">- Complete studies to better understand available products, their capabilities, and efficiency opportunities.- Conduct targeted market characterization, building on market insights gained through DHP Program and scanning work to date.	Inform program interventions
3. Engage manufacturers and distributors who we have existing relationships with to explore and test intervention concepts and strategies for measuring program impact.	Program logic model, intervention strategies, and data plan



ACTIVITY 1: Improved Test Procedure & Spec

Results:

- Field and lab research completed/wrapping up
- HSPF, SEER, EER not sufficient
- Value in differentiating more efficient HPs



CSA EXP07: Ongoing Progress, Lessons Learned, and Future Work in Load-based Testing of Residential Heat Pumps ([Purdue University, 2023](#))



ACTIVITY 2: *Expand Market Understanding*

Results:

- Completed Product Assessment and identified priority EE improvements
- Completed Market Characterization and Market Transformation role for NEEA clarified

Published Reports:

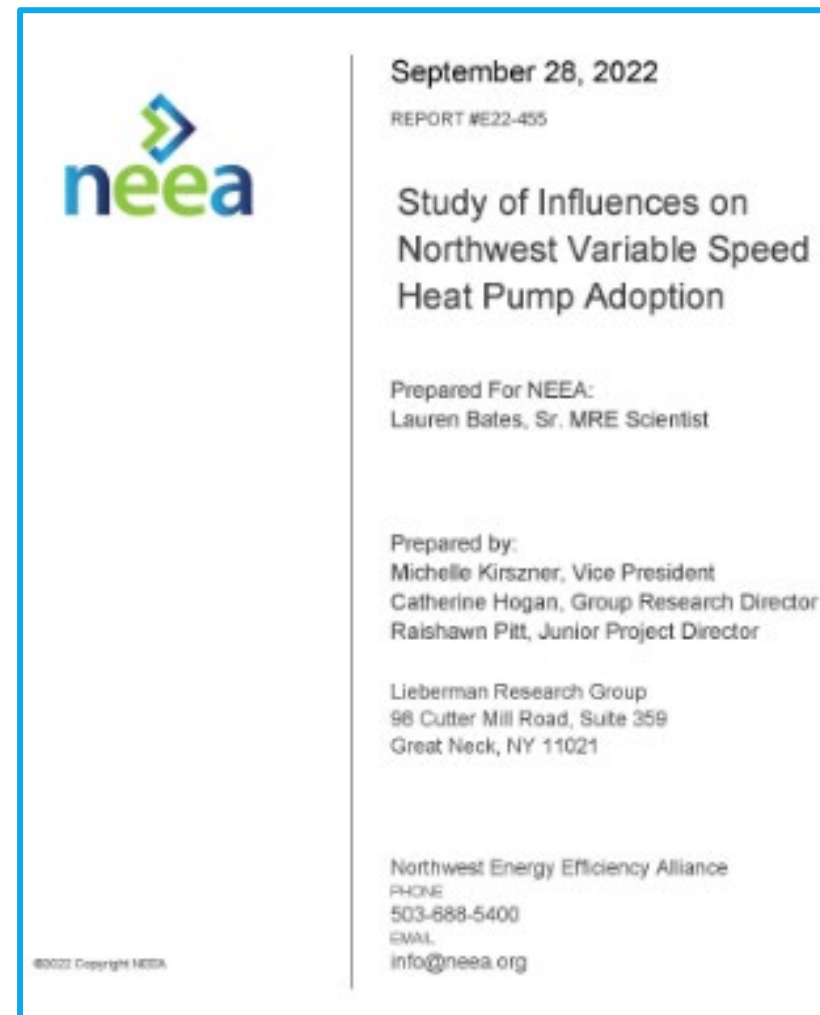
- Variable Speed Heat Pump Product Assessment and Analysis (Minnesota Center for Energy and Environment, [2022](#))
- Residential HVAC Contractor Market Research ([Lieberman Research, 2022](#))
- Variable Speed Heat Pumps Technical Best Practices Gap Analysis ([TRC Engineers, Inc, 2022](#))
- Demand Response of Residential HVAC ([Cadeo, 2022](#))
- Heat Pump and Air Conditioner Efficiency Ratings: Why Metrics Matter (Bruce Harley Energy Consulting, [2022](#))



ACTIVITY 3: Engage market actors to test intervention concepts and strategies

Results:

- Researched influence of DHP program interventions on VSHP adoption
- Engaged manufacturers and distributors on improvements and market innovations and informed program approach



Study of Influences on Northwest Variable Speed Heat Pump Adoption
([Lieberman, 2022](#))



What We Learned

1. Heat pump adoption rate is high
2. Load-based test procedure provides valuable performance differentiation... which...
3. Revealed opportunities for efficiency improvements in heat pumps





Changes Since Concept Advancement

CHANGE	Concept Advancement Proposal	Program Advancement Proposal
MT Approach	Grow market adoption of heat pumps	Improve efficiency of all installed heat pumps
Product Definition	Product-focused (e.g. central ducted) Variable speed only	Improvement-focused (e.g. low load efficient) Two- and three-stage, & variable speed
Target Market	Electric resistance heat replacement	All heat pump sales \leq 65,000 Btu
Intervention	Identify and disseminate best practices	Focus on product improvements

Work Group Outcomes





Current Market Transformation Theory and Program Approach



Market Barriers & Opportunities

Lack of product differentiation for improvements that impact efficiency and capacity

Lack of awareness of energy efficient improvements and their value propositions

Increasing end user demand, incentives and requirements for IAQ, Decarbonization and Cooling (AC)

Many other programs/orgs investing and incenting HPs for efficiency, decarb and capacity

Spec updates enable manufacturers to differentiate more efficient products for competitive advantage



Market Transformation Approach

Continuously improve the **average installed efficiency** and **increase peak savings** -

- In all residential-size heat pumps
- With new cost-effective improvements
- Locking into specifications, manufacturing and federal standards.



Intervention Approach



Identify qualifying products for each improvement, continue validating energy savings



Build support among manufacturers and efficiency program partners for incorporating recommended improvements into specs and standards.



Leverage existing manufacturer, distributor and efficiency/decarbonization program training and marketing to drive contractor and consumer awareness and education.

Why NEEA? Why now?



- Heat pump adoption taking off
- Federal Standards activity
- Product improvements
- Voice for efficiency instead of installing “any heat pump”

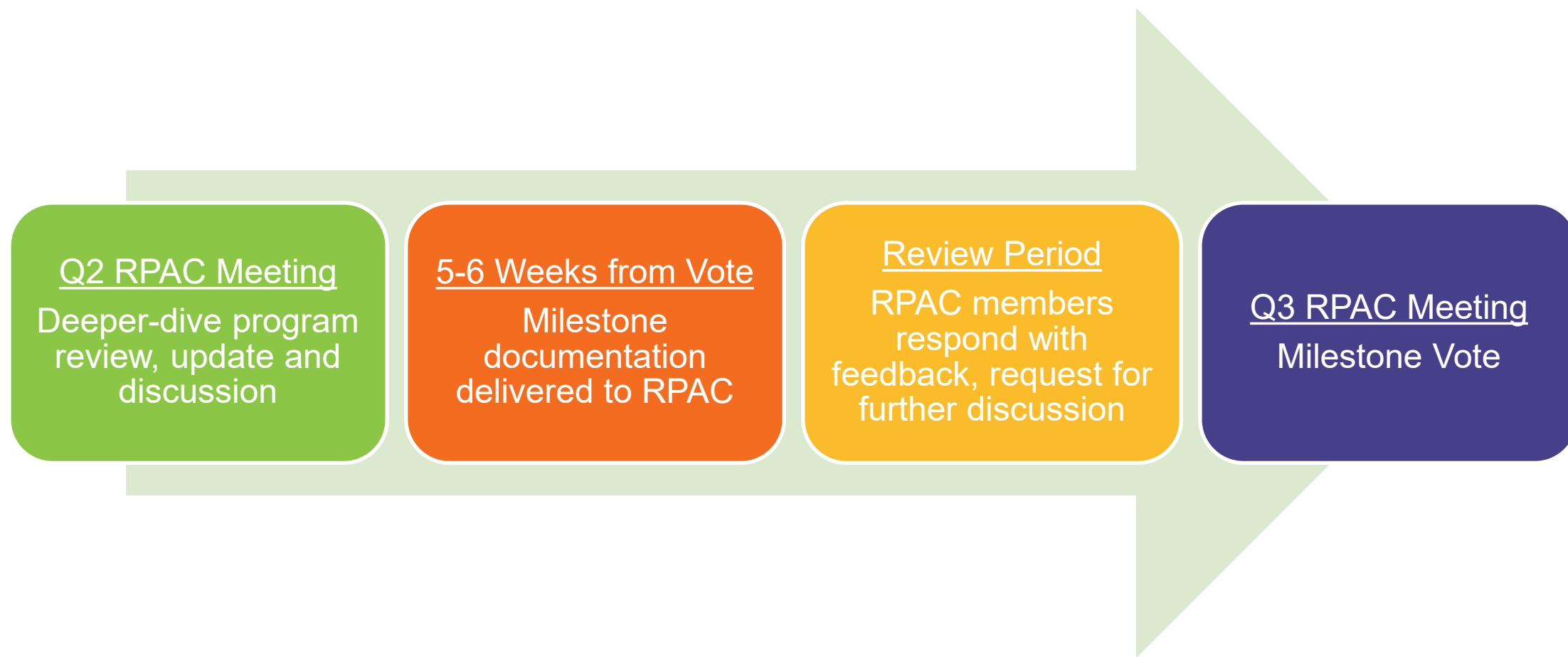


Preparing for the Program Advancement Milestone in Q3





Preparing for RPAC Votes





Questions

Are there any critical questions to address as we prepare for the RPAC milestone review?

Thank you!

➤ Suzi Asmus

Program Manager – Variable Speed Heat Pumps

Sasmus@neea.org



Topic Feedback [Poll]

Select all that apply

- HPWH Campaign overview was helpful
- HPWH Campaign overview left me with more questions
- Portfolio Update was helpful
- Portfolio Update left me with more questions
- VSHP Update was helpful
- VSHP Update left me with more questions
- Please contact me



Public Comment?



Thank you, RPAC!

Q2 Meeting (hybrid option):

May 18 @ NEEA's office or on Teams

