



Residential Coordinating Committee

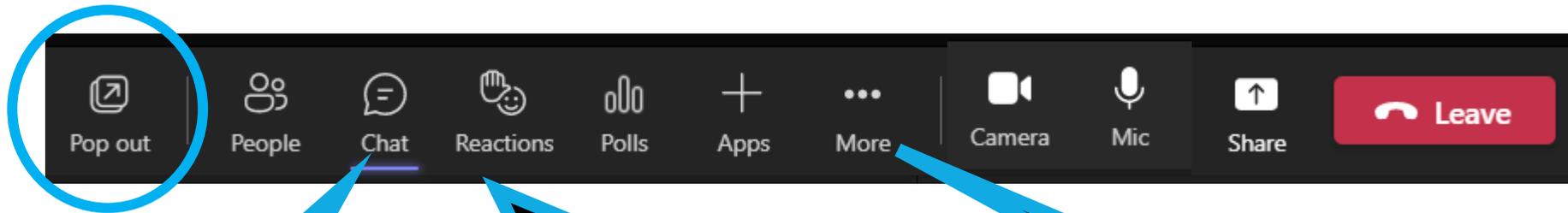
Q1 2025 Meeting – Day 1

Tuesday, March 18, 2025

12:30 pm, Pacific Time



Tools for Today: Engaging on Teams

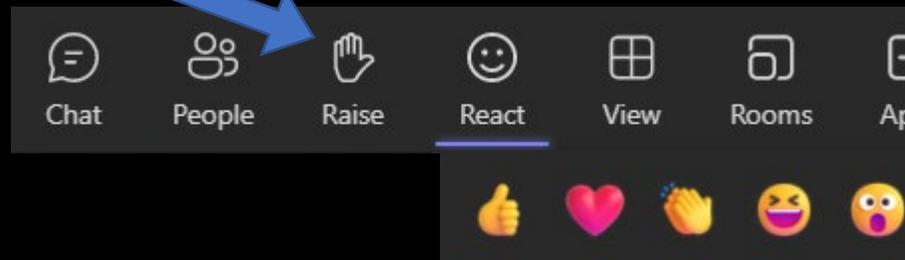


The chat is not captured in the recording.

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

Heads up:

“Spotlighting” Speakers





Collective Role – Working Together

- **Share your organization’s activities**
- **Come prepared to actively participate**
- **Be transparent**
- **Identify any potential conflicts/challenges**
- **Flag any potential opportunities to leverage**
- **Be present in the conversation and stay flexible**

Packet Review & Informational Updates

Tier 1: Agenda Items

- Regional Priority Topic: Heat Pump Water Heater (*pg. 5-6*)
- NEEA Reporting Audit & Potential Streamlining Memo (*pg. 7*)
- Regional Priority Topic: Advanced Heat Pump (*pg. 8-9*)

Tier 2: Informational Items

- Regional Online Marketplace Update (*pg. 10*)

Tier 3: Additional Resources (*links on pg. 3*)

- Committee materials (charters & recent meeting resources,
- Functional newsletters (Market Research & Eval, Emerg Tech, Codes + Standards + New Construction)



AGENDA

All Times Pacific

12:30 -12:45	Welcome, Agenda & Packet Review
12:45 – 2:05	Introductions & Regional Roundtable Share-out
2:05 - 2:15	BREAK
2:15 – 2:45	Regional Priority Topic <ul style="list-style-type: none">• Heat Pump Water Heater<ul style="list-style-type: none">○ Hot Water Innovation Prize update
2:45 – 2:55	Q2 Regional Priority Topic Check In <ul style="list-style-type: none">• Heat Pump Water Heater• <i>Any additional relevant topics</i>
2:55 – 3:10	Housekeeping
3:10 – 3:15	Recap, Next Steps, Adjourn



REGIONAL ROUNDTABLE SHAREOUT



Introductions + Committee Roundtable



Introduction Prompt *(All)*

- **Name**
- **Organization**
- ***And...***



Roundtable Focus *(NEEA PMs & PCC members)*

- **Highlights since Q4 of 2024**
 - Programmatic updates
 - Organizational updates

Please aim for 3-5 min max, thanks!



Let's take a *BREAK*



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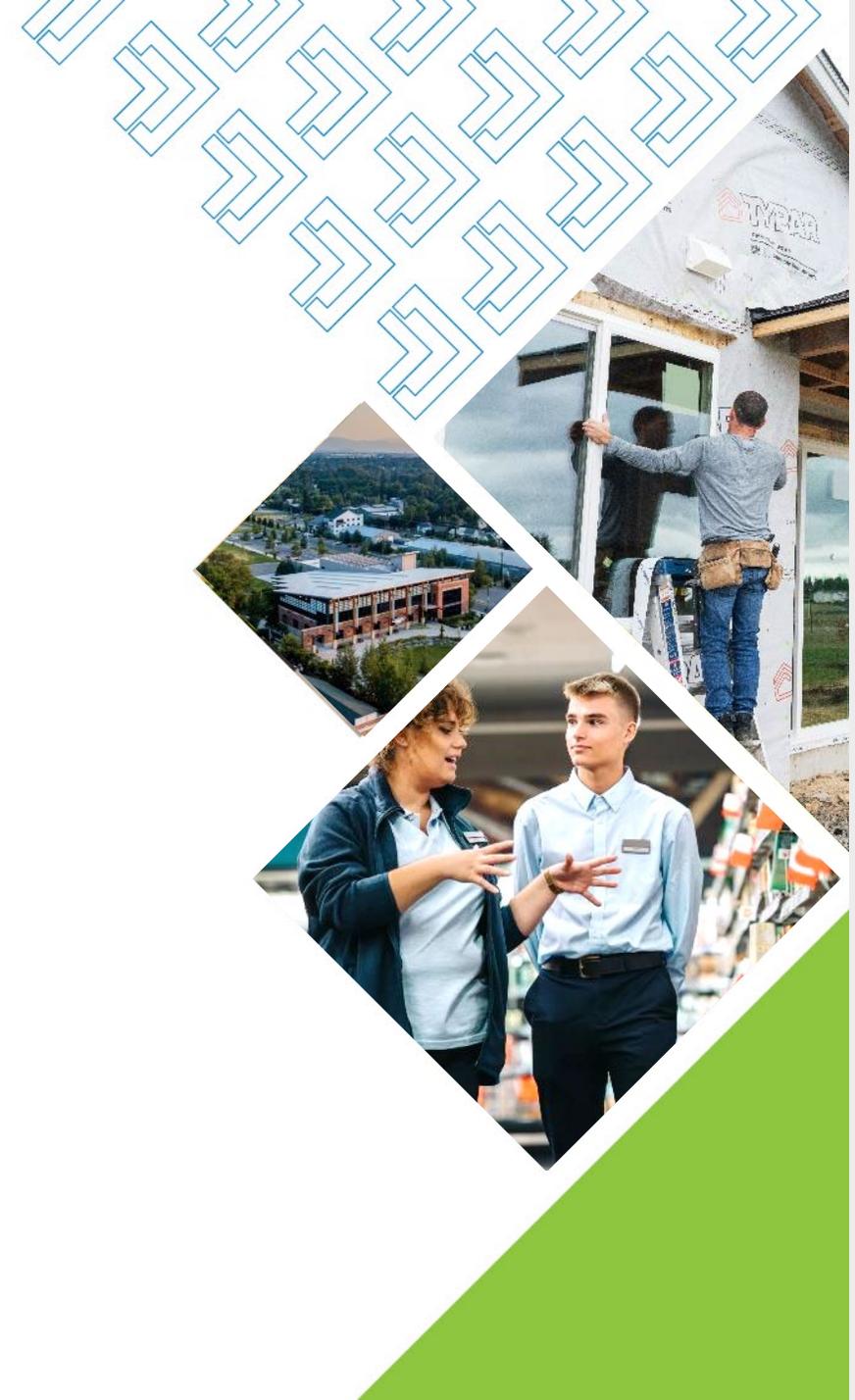


Heat Pump Water Heater - Hot Water Innovation Prize

Emily Rosenbloom

Sr. Program Manager

erosenbloom@neea.org



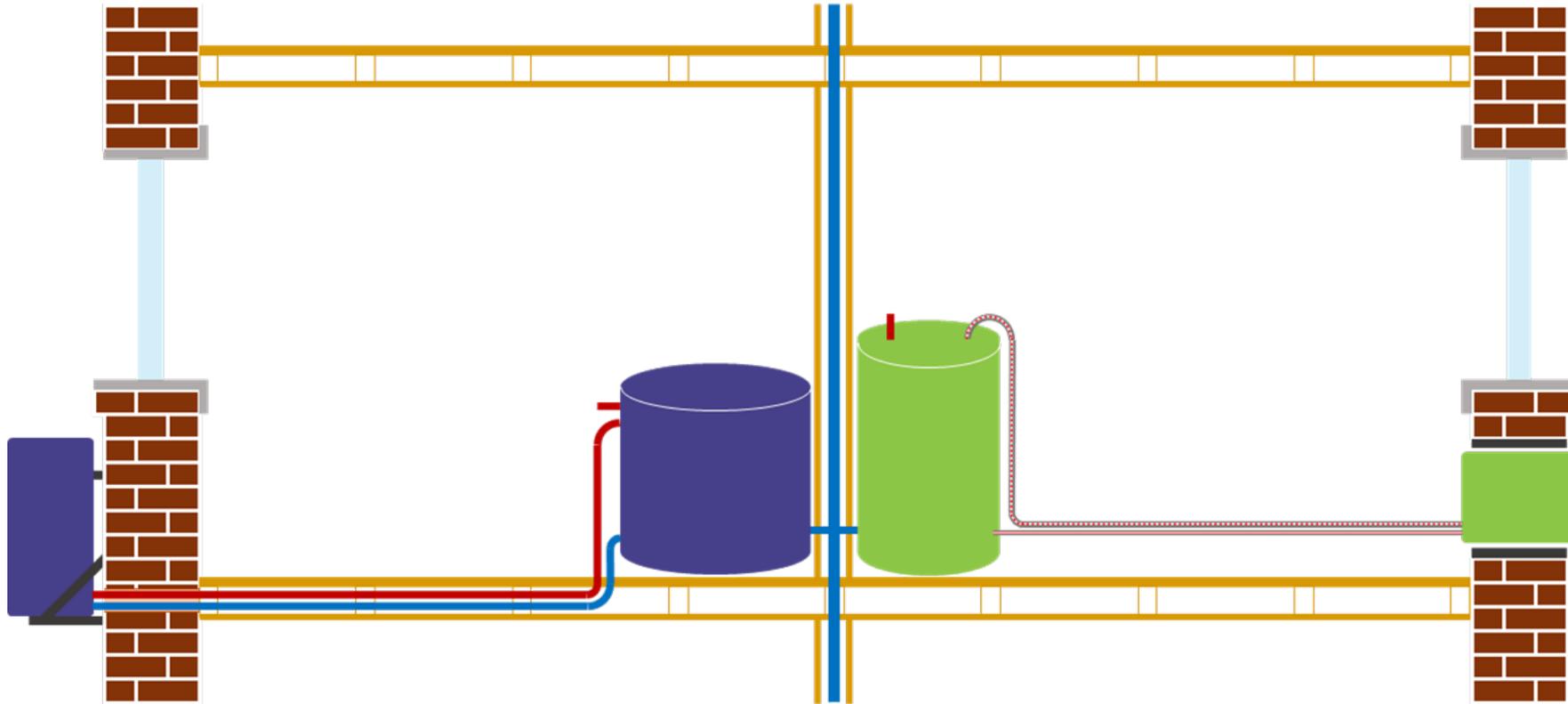
HOT WATER INNOVATION PRIZE

What is the Hot Water Innovation Prize (HWIP)?

What is the HWIP?

- Three-stage contest
- Launched March 2024
- Objective: stimulate the manufacturers to develop and bring to market an innovative split system HPWHs that is turnkey, low cost, and easy.

Small Split System HPWH



Why the HWIP?



Meets the Needs of all Residential Consumers



Single Family



Manufactured

2029 Mandatory Federal Standards
Typically Require HPWH



Low-rise Multifamily

Water Heaters
Remain Electric
Resistance in 2029

Integrated HPWH Challenges in Multifamily Buildings

Tight Space - The water heater is in a mechanical closet under an air-handler, in a crawlspace, or under the stairs (“low boy”)

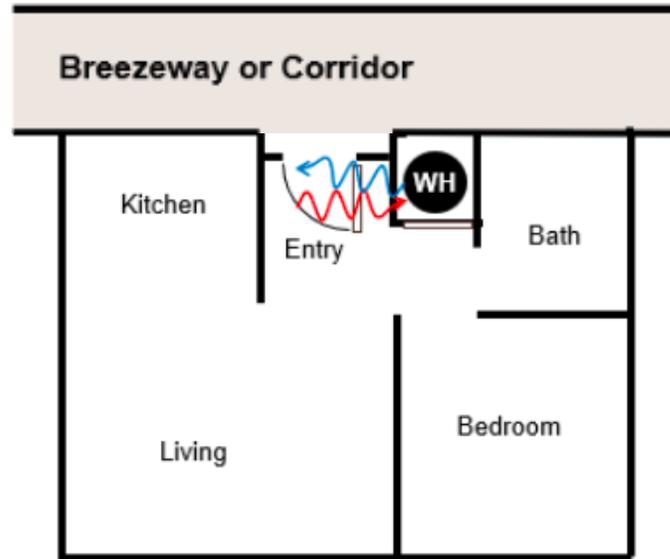
Noise and Cool Air - The water heater is close to the living space, making sound and cool air from HPWH undesirable



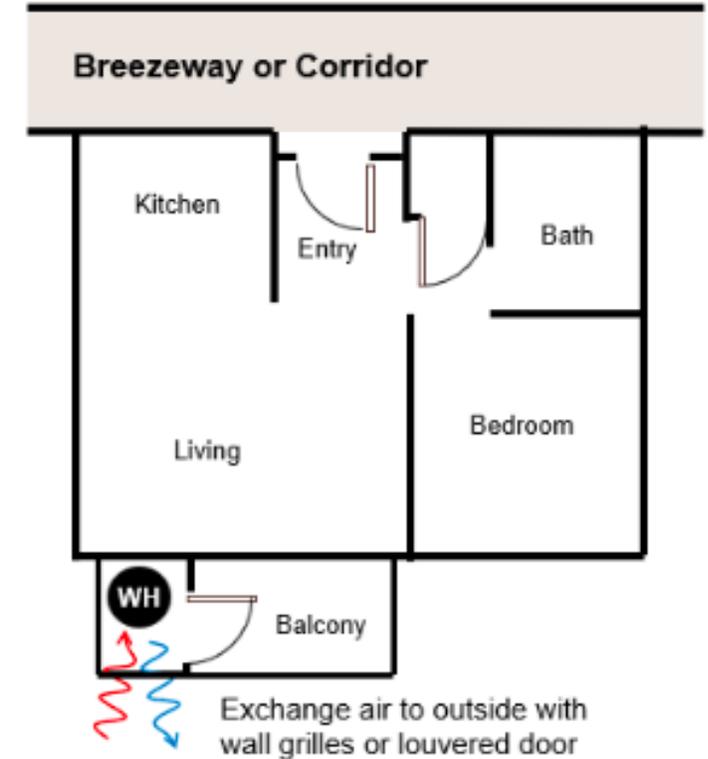
NEEA Convened a Design Charette



Interior Closet



Exterior Closet



Participants

12 industry professionals including architects, mechanical designers, and installation contractors

Timeline and Funding



Contest Timeline, Funding, and Participation Limits



 **Timeline**

 **NEEA funding**

 **Product limit**

Planning Phase

Q1 2024–Q3 2024

Developed contest structure

Rule and Guidebook

Two rounds of manufacture feedback

Manufacture Q&A webinars

Phase A: Participant Qualification

60 Days: Q3–Q4 2024

\$0

No Limit

Phase B: Project Plan Submission

70 days: Q4 2024–Q1 2025

\$30k

Up to 5 products

Phase C: Prototype Submission

10 months: Q1 2025–Q1 2026

\$175k

Up to 2 products

Winners Announced

Q3 2026–Q1 2027

National Participation



Nationally-focused Winner Prize Package



Media promotion



Demonstration projects



Showcased in utility incentive pilots



Co-Sponsors



Support for NEEA's QPL



Up to \$205k co-funding each



Co-sponsor Recruitment



Hot Water Innovation Prize Team



Emily Rosenbloom
Sr. Program Manager,
NEEA



Dana Bradshaw
Sr. Product Manager,
NEEA



Suzanne Foster Porter
Principal,
Kannah Consulting



Ben Larson
Principal Consultant,
Larson Energy Research



Thank you!

HOT WATER INNOVATION PRIZE

Thank you
Emily Rosenbloom
erosenbloom@neea.org



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Q2 Regional Priority Topic Check In



- Heat Pump Water Heater

- *Review new HPWH products and manufacturers that have been added to the Advanced Water Heater Specification (AWHS)*



- Any other relevant topics?

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HOUSEKEEPING

Housekeeping

- NEEA Reports Audit/Feedback Survey
- Looking Ahead
 - Upcoming Meetings & Events



Feedback Requested on NEEA Reports

- Assessing value/content of various NEEA reports
- **REQUEST:** Take survey by Fri Apr 4
- May lead to streamlining materials and/or communication channels

Efficiency Exchange 2025

Early Bird Registration

February 18 – April 25

neea.org/EFX

EFX25 Hybrid Conference

May 20-21 in Portland

In-person + Virtual



2025 RCC Meetings

Q1

- Tuesday, March 18
- Wednesday, March 19

HYBRID @
NEEA

Q2

- Thursday, June 26

Q4

- Monday, December 1
- Tuesday, December 2



***Other regional /
industry events or
announcements?***



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Let's wrap it up!

Action Items | Any Final Qs?

- Action Items



Utility Program Strategies, what is your 2025 plan and goals

- How are you spending dollars in your region for Heat Pump Water Heater adoption?
 - Incentives in specific market channels?
 - Trade ally network support?
 - Consumer marketing?
- Are tariff and price increases changing program design plans?
- Do you have a low income offering?
- Are you working with state funding?
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Advanced Heat Pumps: Cold Climates and Minimize Supplement Heat

Suzi Asmus & Christopher Dymond

Program Manager & Product Manager, NEEA



Regional Priority Topic:

*Heat pumps
in cold climates
minimizing
supplemental
heat*



Desired Outcome:

- Continue building regional alignment on a heat pump specification that addresses these challenges



This is what happens when the utility writes the wrong spec.

2+ Million Northwest Electric Heated Residences

Zonal ER	616,873
MSHP	35,000
DHP + ER Zonal	35,000
ER Furnace	331,034
Heat Pump	782,580
Electric Boiler	23,285
Wood & Zonal ER	272,656
Oil or Propane	158,883

RBSA2 data



The Problem

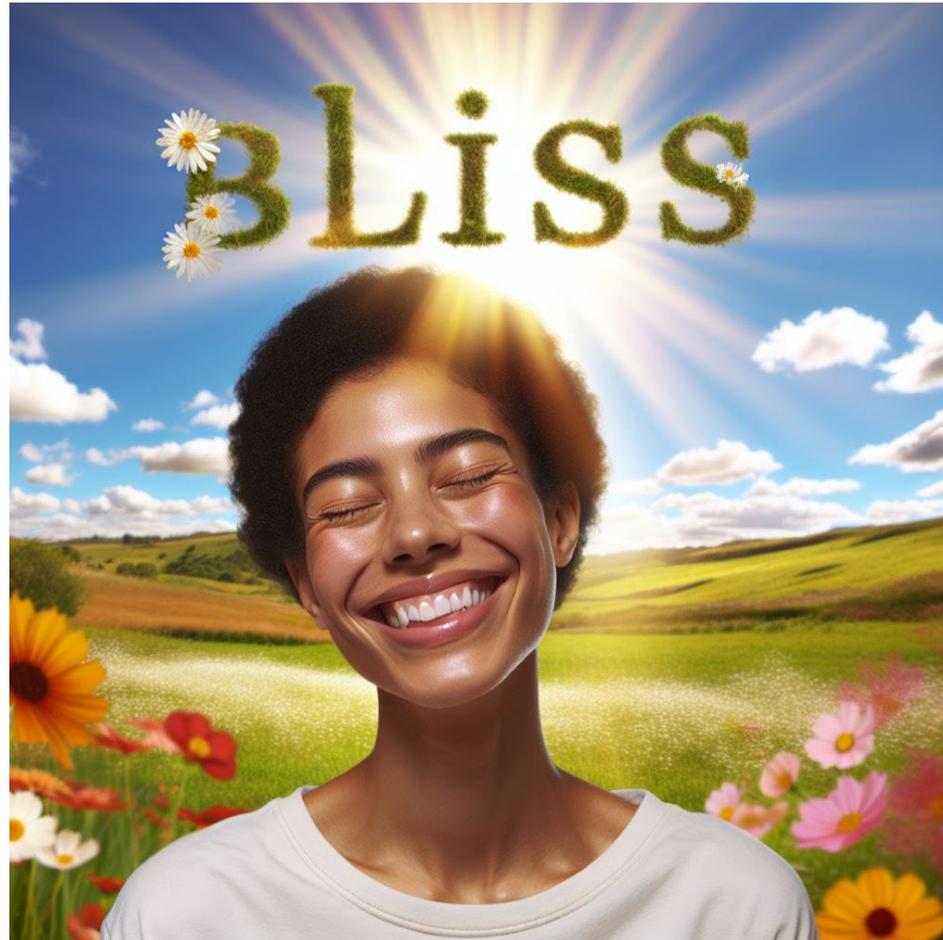
- Heat pump capacity diminishes as it get cold
- Too much electric resistance heating is being used
 - Make up any heating shortfall
 - Speed up defrost cycle
 - Recover from night setback
 - Reduce risk to contractor that system does not satisfy customer



Minimize
Supplemental Heat



Cold Climate
Heat Pump



Public Comment?
Action Items?
Closing Remarks?



Thank You!

See you tomorrow!

@9:30 am





Residential Coordinating Committee

Q1 2025 Meeting – Day 2

Wednesday, March 19th, 2025

9:30 am, Pacific Time



AGENDA

All Times Pacific

9:30 – 9:40	Welcome, Agenda & Packet Review
9:40 – 10:40	Regional Priority Topic <ul style="list-style-type: none">• Advanced Heat Pumps Roundtable on Cold climate / peak management and addressing backup heating management<ul style="list-style-type: none">• NEEA present proposed approach• Topic-focused roundtable for members to share how/if their programs are addressing these challenges
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11:50 – 12:00	Recap, Next Steps, Adjourn

Advanced Heat Pumps: Cold Climates and Minimize Supplement Heat

Suzi Asmus & Christopher Dymond

Program Manager & Product Manager, NEEA

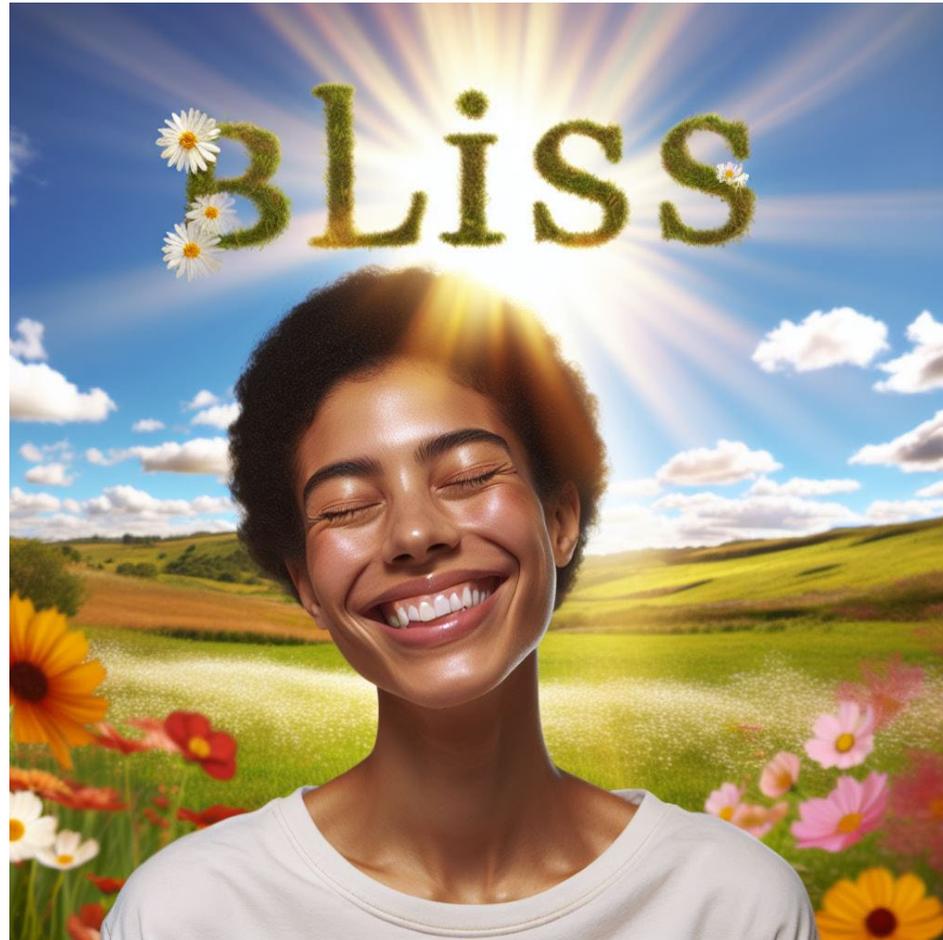




Minimize
Supplemental Heat



Cold Climate
Heat Pump



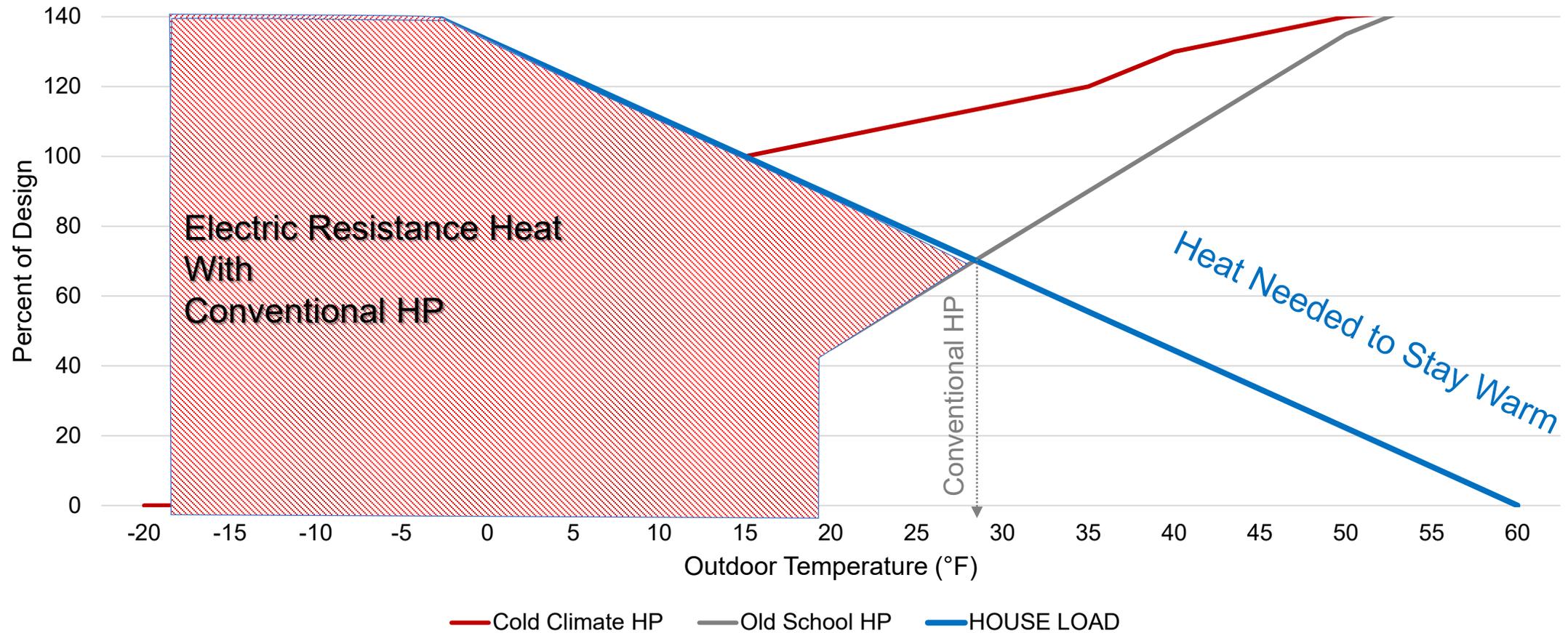


Cold Climate Heat Pumps

- Maintain Capacity when it is cold
 - AHRI Definition = 70% Capacity Ratio at 5F
- Qualify for ENERGYSTAR and \$2000 Tax Credit
- Low-cost versions exist
 - 2-stage heat pumps
 - Variable speed heat pumps
- People are going to buy these, when then they do utilities can help them get the comfort and savings they paid for



Heat Pump Capacity Comparison



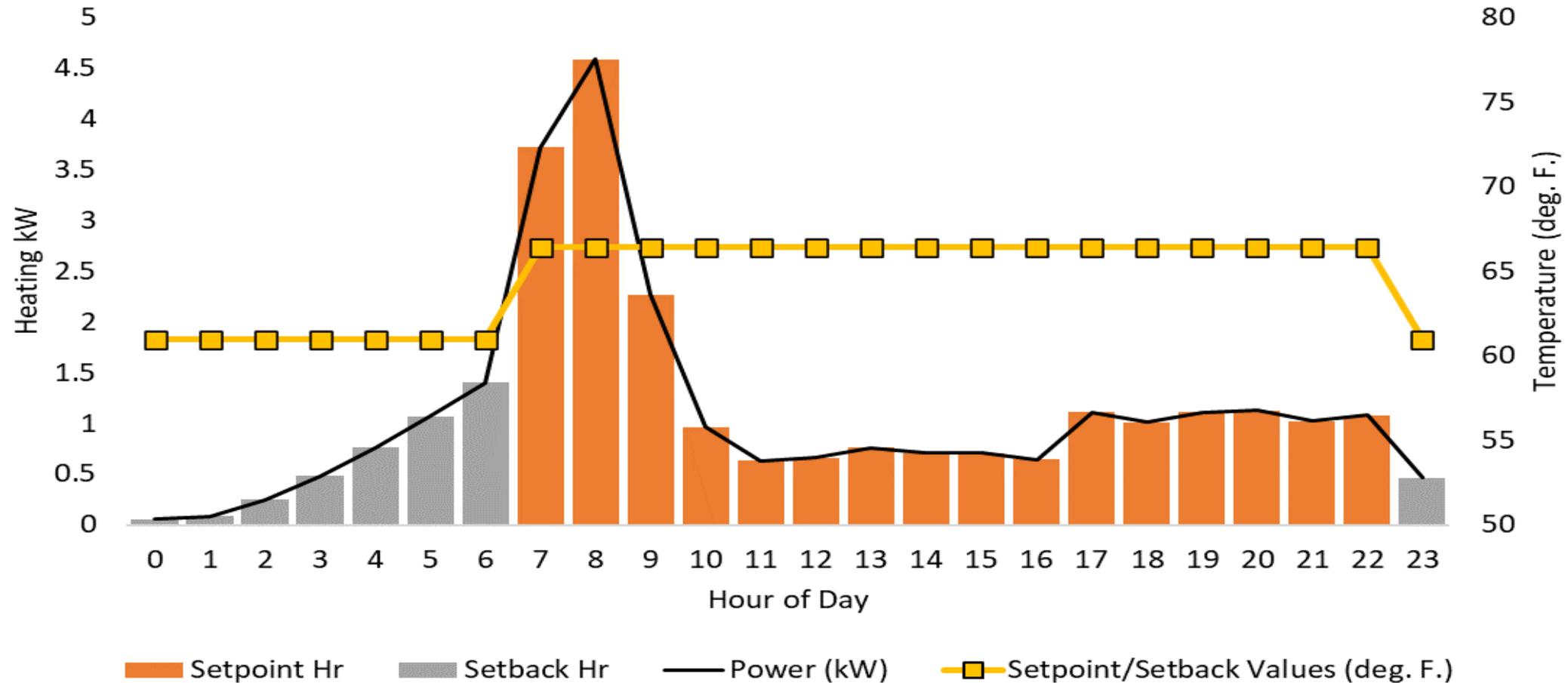


Minimizing Supplemental Heat (MSH)

- Don't Use ER heat, when the heat pump can provide heat
- MSH Strategies
 - Proper sizing of heat pump
 - Choose a climate appropriate heat pump
 - Crossover temperature set as low as possible
 - Heat pump is used for setback recovery

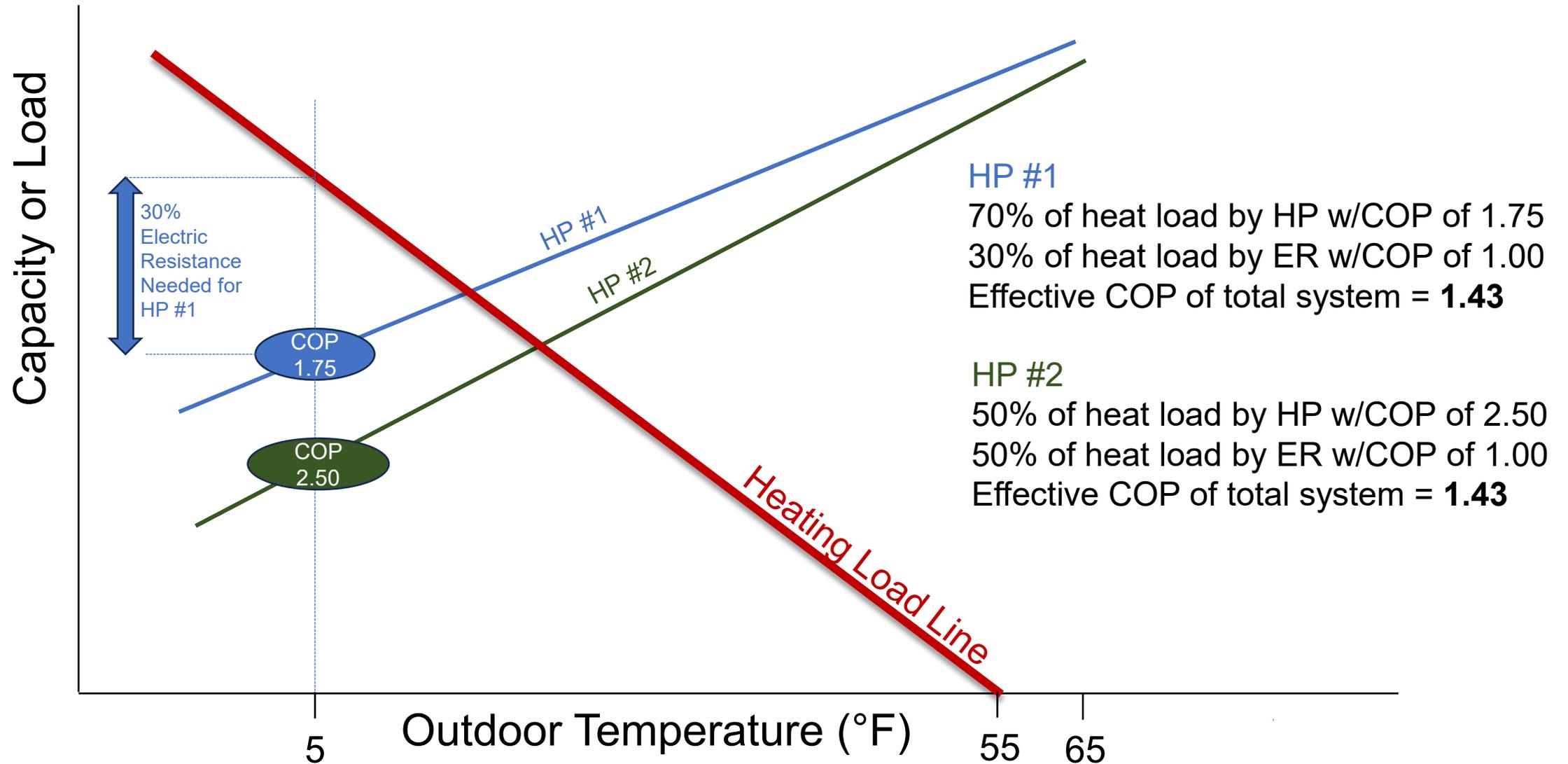


Minimizing Supplemental Heat (MSH)





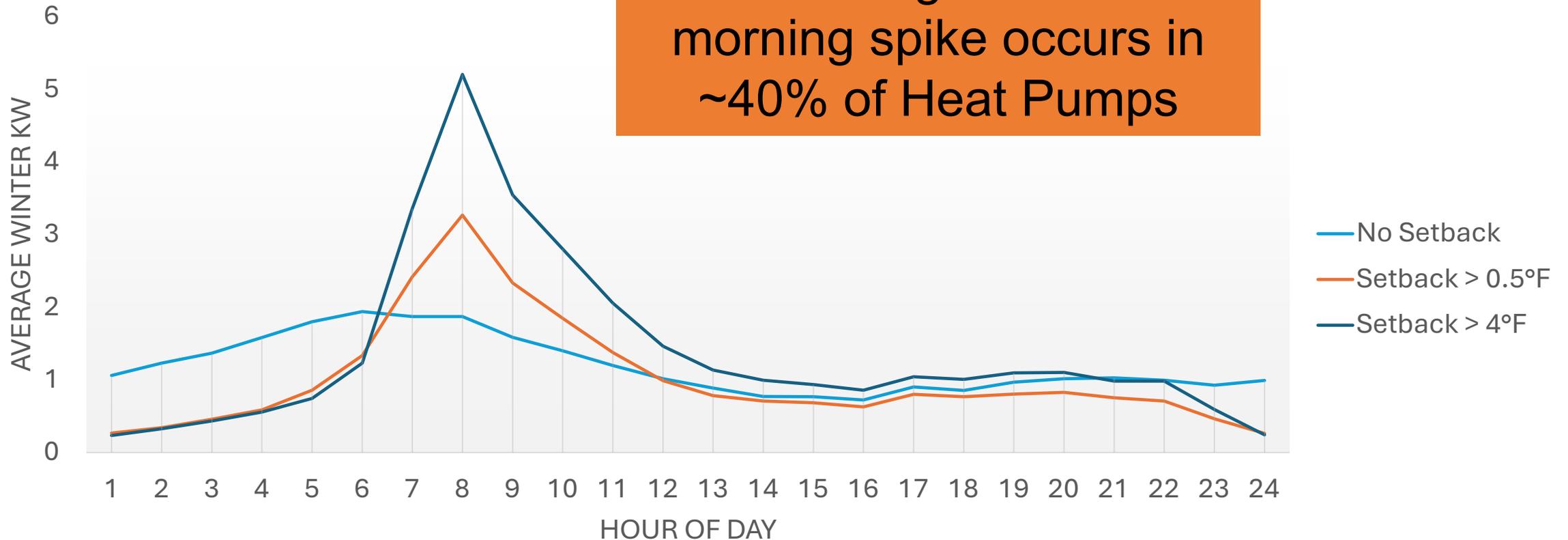
Two systems - same amount of power at 5°F





Morning Electric Resistance Power Spike

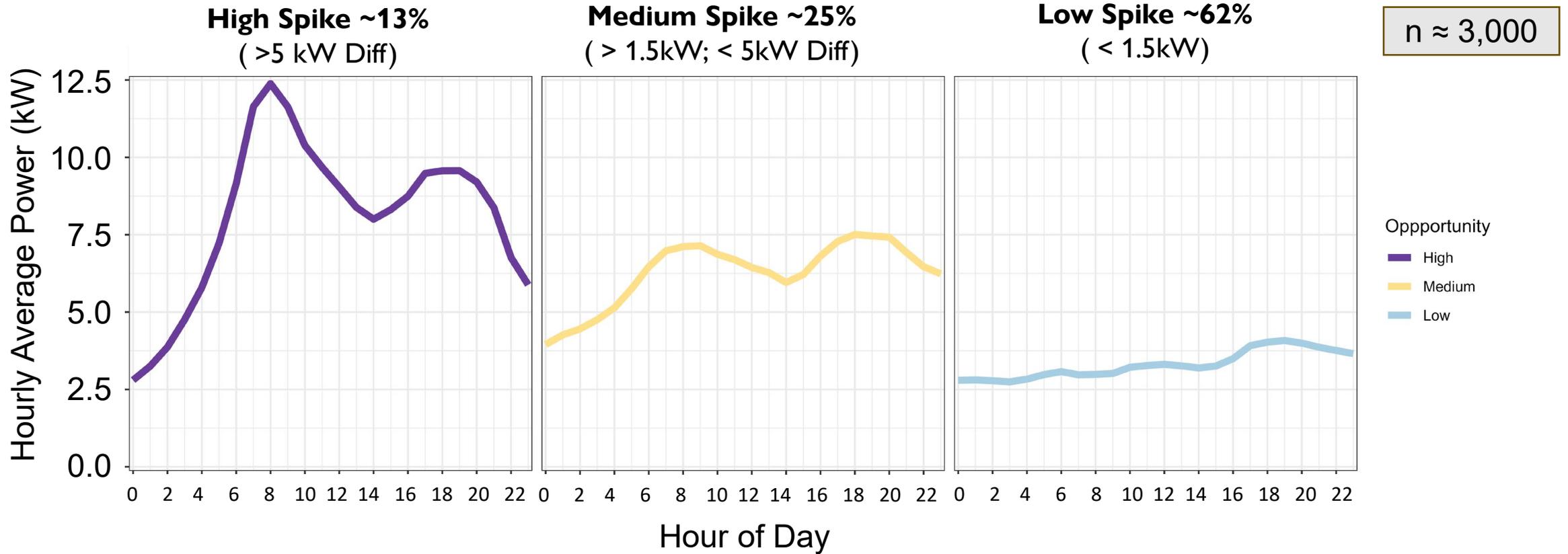
On average a 2.5kW morning spike occurs in ~40% of Heat Pumps



Data from [Northwest End Use Load Research Project](#).
Graph courtesy Christian Douglas. *Getting Heat Pumps Under Control*.
Presented at 2024 ACEEE Summer Study.



Tacoma Power AMI Data Heat Pump Houses



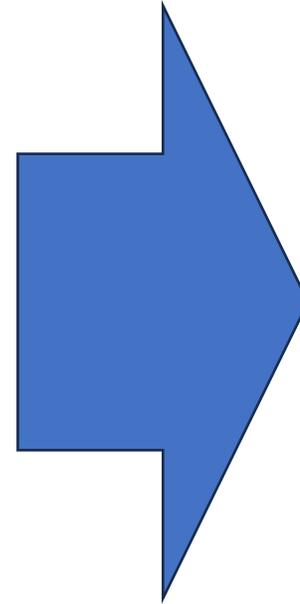
**1 million homes x 40% x 2.5kW average
= 1 GW of peak on grid**

Graph courtesy Rich Arneson, Tacoma Power.



Here is what is going on

- Bonneville Power Administration (BPA)
- Regional Tech Forum (RTF)
- NEEA
- Consortium for Energy Efficiency
- ENERGYSTAR
- Air-Conditioning, Heating, and Refrigeration Institute (AHRI)



Minimize Supplemental Heat

Cold Climate Heat Pump

Discussion Questions

- 1. Are you currently - or would you in the future - make minimizing supplement heat part of your heat pump program?*
- 2. What would you need to do this?*

Thank You!

Suzi Asmus & Christopher Dymond

Program Manager & Product Manager, NEEA

sasmus@neea.org & cdymond@neea.org



Tea/Coffee Break



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Heat Pump Water Heater Roundtable Discussion

Emily Rosenbloom

Sr. Program Manager, Heat Pump Water Heater



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Emily Rosenbloom

erosenbloom@neea.org



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- Action Items



Public Comment?
Action Items?
Closing Remarks?

Thank You!

See you all in June!

Next meeting – June 26th

