



## **2023 ENERGY STAR Products Partner Meeting**

# **Increasing Demand at Every Touch Point: How to Design a Highly Effective HPWH Program**

### **Presenters:**

Nate Jutras– US EPA

Geoff Wickes - NEEA

Jesus Pernia - Eversource

Francois Lebrasseur – A.O. Smith

**September 26, 2023**





## Why we may be near an inflection point for residential HPWH adoption:

### Today's ENERGY STAR certified HPWHs deliver:

- Huge energy savings compared to other styles of water heaters
- An affordable solution for reducing GHGs;
- A high impact tool for addressing inequity with average saving of \$550/yr for family of four;
- Significant load-shifting capabilities

### Full implementation of the Inflation Reduction Act in 2024

- 2023-2032: Federal tax credits of 30% of unit and installation cost (credit capped at \$2,000/yr)
- 2024-2032: state rebate programs

### Manufacturers are Investing – new brands, models, and increased manufacturing capacity in 2024

Utilities are Investing – lots of interest and funding of HPHW program, **HOWEVER**, effective program design/implementation is essential for success...





## ENERGY STAR HPHW Market Acceleration Guide

Programs work when they:

**Address Higher First-Cost Barrier** – Incentives \$600 - \$1000/unit. Midstream and instant-discount at retail rebates (Note: Don't leave out DIY installations). Low-interest financing for HVAC and HPWHs. LMI income programs. Support fixed pricing installations initiatives.

**Drive Consumer Demand** – Consumers can and do spur change (see growth model of market for tankless water heaters). Sell the savings "Lots of savings. Lots of hot water." Provide funding

**Engage the Supply Chain** – Train plumbers to sell/install HPWHs. Work closely with distributors/retailers to ensure optimal stocking and rapid repayment of incentives. Encourage/support procurement of specialty equipment - drain pumps, stair hand trucks, lift systems. Engage new construction industry.





## Other ENERGY STAR HPWH Resources

- Access to **tools** that increase education/awareness of HPWH
  - ✓ Product/Installer/Retailer Finder
  - ✓ Fact sheets/Selling and Purchasing Guides
  - ✓ “Ask The Expert” Articles and Newsletters
  - ✓ National Outreach and Media Options
- Access to **Industry Partnership Network**
  - ✓ Department of Energy (DOE)
  - ✓ Manufacturers Action Council
  - ✓ Utilities, REEOs, third-party implementers
  - ✓ Retailers (national/regional)
  - ✓ Home Builders



## Water Heater Promotion & Materials

### Objectives

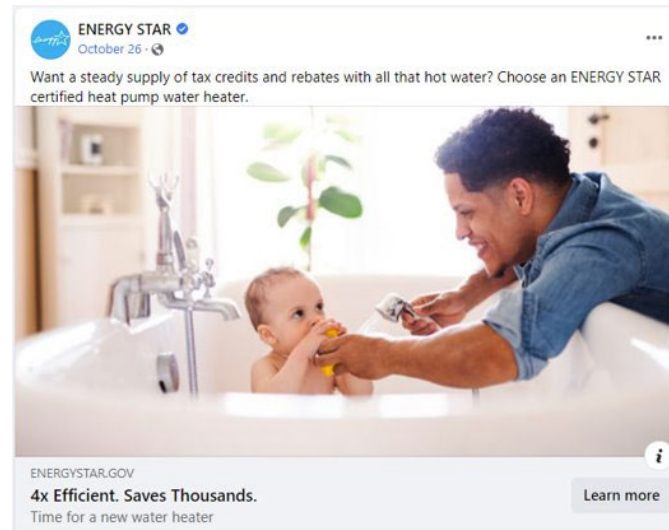
- **Educate consumers** about ENERGY STAR certified water heaters and associated tax credits and rebates
- Encourage consumers to **proactively replace** their old water heaters

### Audience

Markets with **active rebate programs**

### Tactics/Assets:

- GDN Display Banners
- Organic social for boost
- Partner toolkit including a broad array of marketing materials
- **Build Show video** featuring Matt Risinger
- HPWH Day



**\$5,600** + UP TO **\$2,000**  
LIFETIME ENERGY SAVINGS TAX CREDITS  
FAMILY OF FOUR

**+ BIG REBATES**  
IN MANY AREAS

**HOTTEST SAVINGS EVER**  
ON ENERGY STAR® CERTIFIED HEAT PUMP WATER HEATERS



**SAVE NOW >**





# Tools & Resources: HPWH Installer Finder

- Overcomes difficulty finding installers who carry and will install HPWHs
- The ENERGY STAR HPWH Installer Finder provides customers with nearby contractors who have completed manufacturer sales and product training
- The installer finder is supported by:



Home » Certified Products » Product Finder » ENERGY STAR Find a qualified Installation Professional for your ENERGY STAR product

## Upgrade Your Water Heater Today!

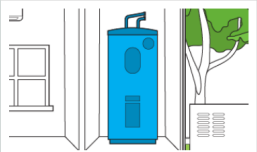
ENERGY STAR Heat Pump Water Heaters are independently certified to deliver energy savings

91204 **FIND LOCAL INSTALLERS & RETAILERS**

(19) LOCAL INSTALLERS (120) LOCAL RETAILERS

Disclaimer

<p><b>The Happy Plunger Plumbing Service</b> La Crescenta, CA 91214 (818) 633-4051</p>	<a href="#">Visit website</a>
<p><b>Angelo Plumbing Inc.</b> Los Angeles, CA 90022 (323) 723-8709</p>	<a href="#">Visit website</a>
<p><b>Mitch Clemmons Plumbing</b> La Habra, CA 90631 (562) 246-9409</p>	<a href="#">Visit website</a>
<p><b>"Pipeline Plumbing Heating &amp; Air"</b></p>	<a href="#">Visit website</a>



[energystar.gov/productfinder/water-heater-installers/](https://energystar.gov/productfinder/water-heater-installers/)



## ENERGY STAR Heat Pump Water Heater Manufacturer Action Council



YOU



GE APPLIANCES



What can ESMAC do for you?

- Manufacturer product/sales **training** with facilitation support from ENERGY STAR
- Collaborative **marketing** – develop co-brand, multi-channel marketing collateral
- Sales **channel engagement** - Access and support from retail and distribution partners
- **Innovative strategies** – market priming





**Thank You**

**Nathaniel Jutras**

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ENERGY STAR HPWH Sales and Marketing  
[Jutras.Nathaniel@epa.gov](mailto:Jutras.Nathaniel@epa.gov)







# HPWH Market Transformation

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***Geoff Wickes***

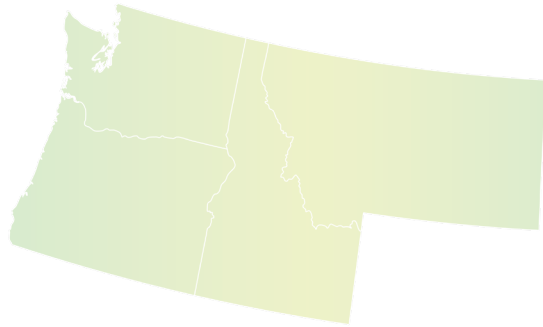
*Senior Product Manager, Emerging Technologies, NEEA  
ENERGY STAR Partner Meeting*

*September 2023*





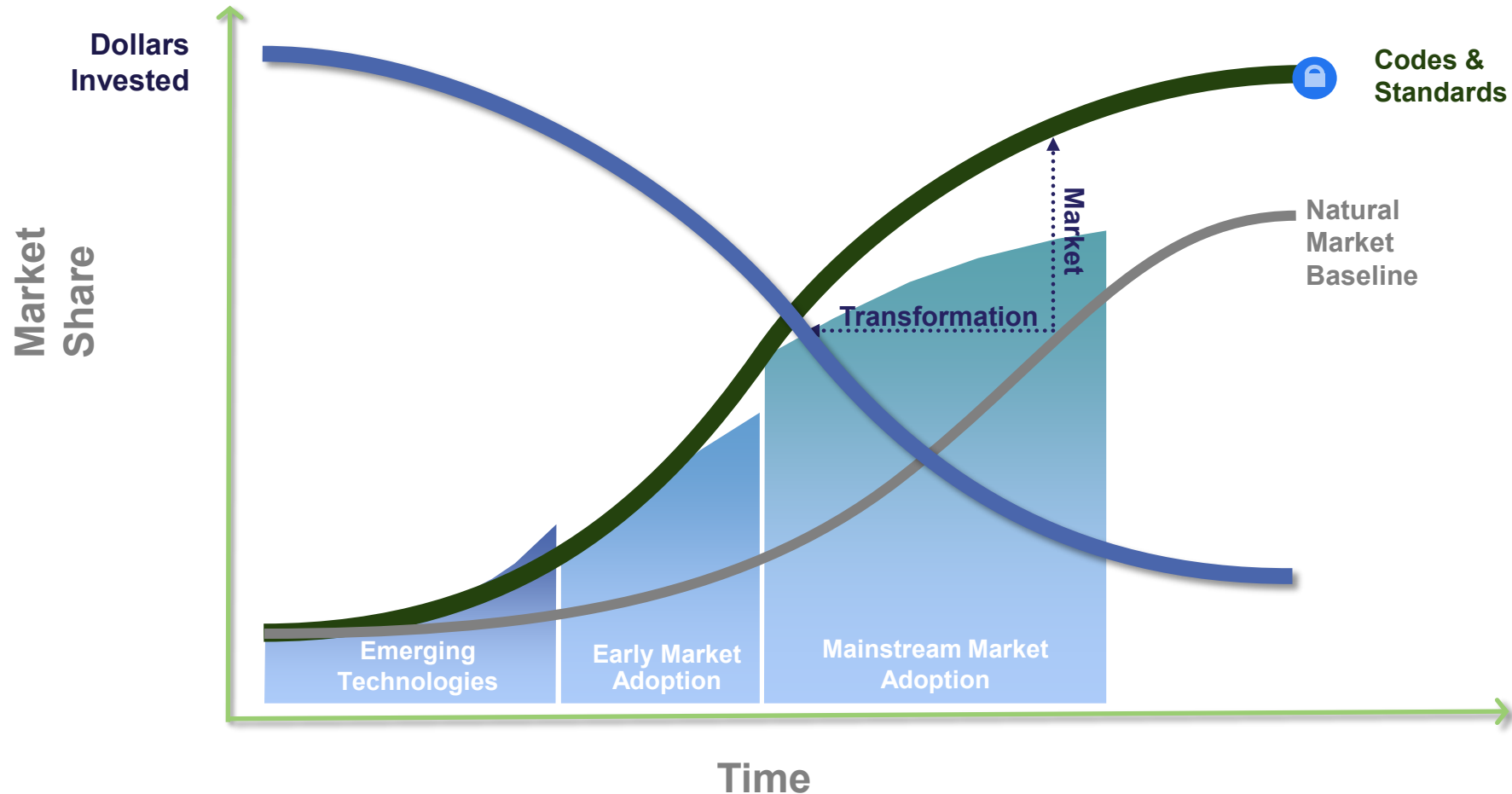
# The Alliance





# What is Market Transformation?

*The strategic process of intervening in a market to create lasting change*

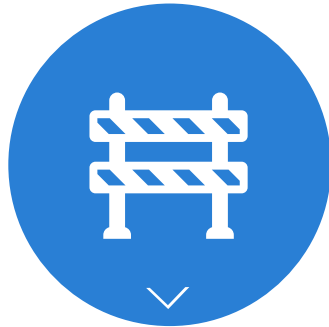




# Steps of Market Transformation: Implementation



**Step Zero: Develop Market Characterization & Baseline**



**Step One: Identify Barriers and Opportunities**



**Step Two: Develop Interventions & Metrics**



**Step Three: Intervene and Manage Adaptively**



# *Applying Market Transformation to Electric Water Heating*

- *Logic Model*
- *Advanced Water Heating Specification (AWHS)*
- *Qualified Product List (QPL)*
- *Market Actor Engagement*
- *Marketing and Consumer Awareness*
- *Continuous Improvement*





## *Home Appliance Efficiency Video*

- [https://drive.google.com/file/d/1dYDcJvms5N398J2mSEwckYaONkMrGhBa/view?usp=drive link](https://drive.google.com/file/d/1dYDcJvms5N398J2mSEwckYaONkMrGhBa/view?usp=drive_link)



# Heat Pump Water Heater Program Timeline

- Supports manufacturers to invest in HPWH products.
- First ENERGY STAR labeling, Northern Climate Specification (NCS) and Qualified Product List (QPL).
- NEEA provides data and comments to DOE standards resulting in new requirements for large tanks.

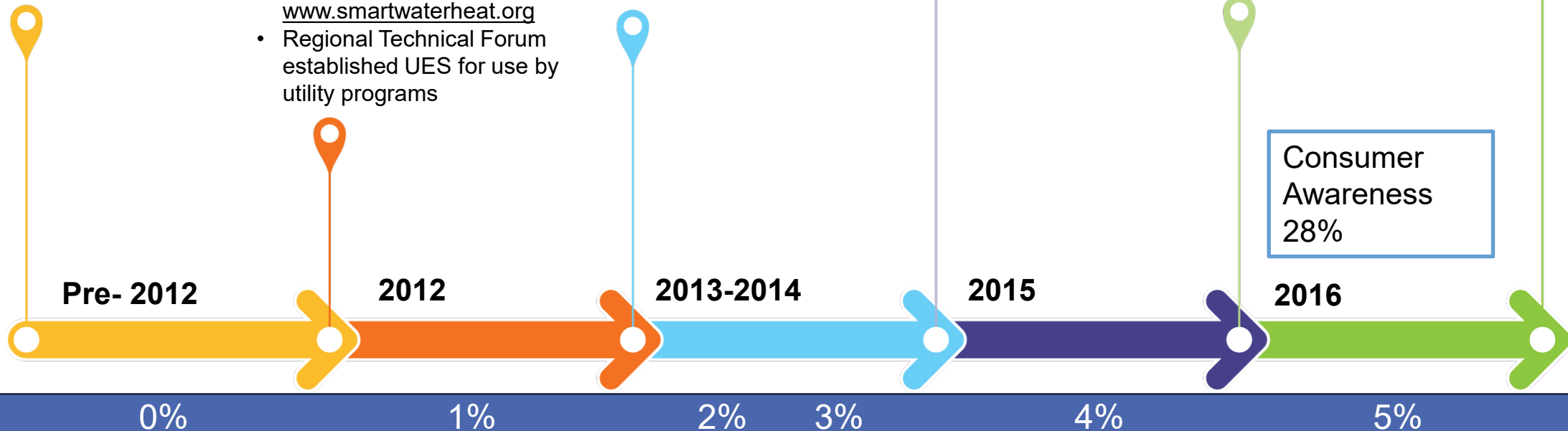
- Retailer pilot - 1200% increase in HPWH sales.
- Tier 2 product introduced in market, +29% energy savings
- Launch of consumer information resource [www.smartwaterheat.org](http://www.smartwaterheat.org)
- Regional Technical Forum established UES for use by utility programs

**NEEA launches Program in market October 2013**

- Tier 3 products introduced
- Enhanced customer performance specifications for noise and exhaust air management
- Federal standards requiring HPWH for large tanks takes effect.

- NEEA Expands national collaboration
- NCS evolves into Advanced Water Heater Specification (AWHS) 6.0

- NEEA helps additional manufacturer enter the market securing HPWH products in top national water heater manufacturers





# Heat Pump Water Heater Program Timeline

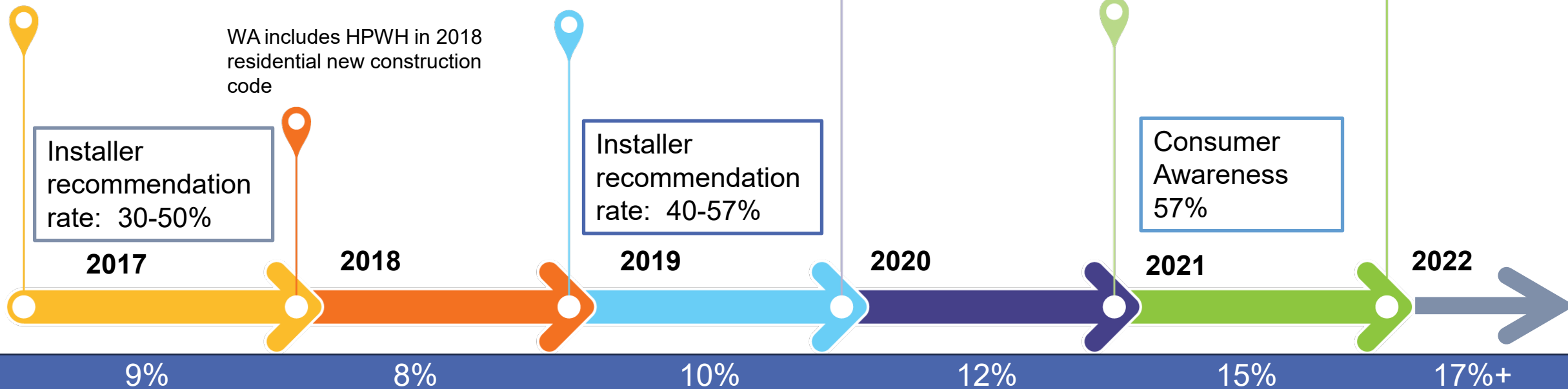
- Program strategy expanded to include both consumer and installer education
- Added distributor interventions

- Program focus shift to distributors and installers education
- AWHs 7.0 includes optional grid connectivity
- NEEA Comments on ENERGY STAR v5

Covid challenges

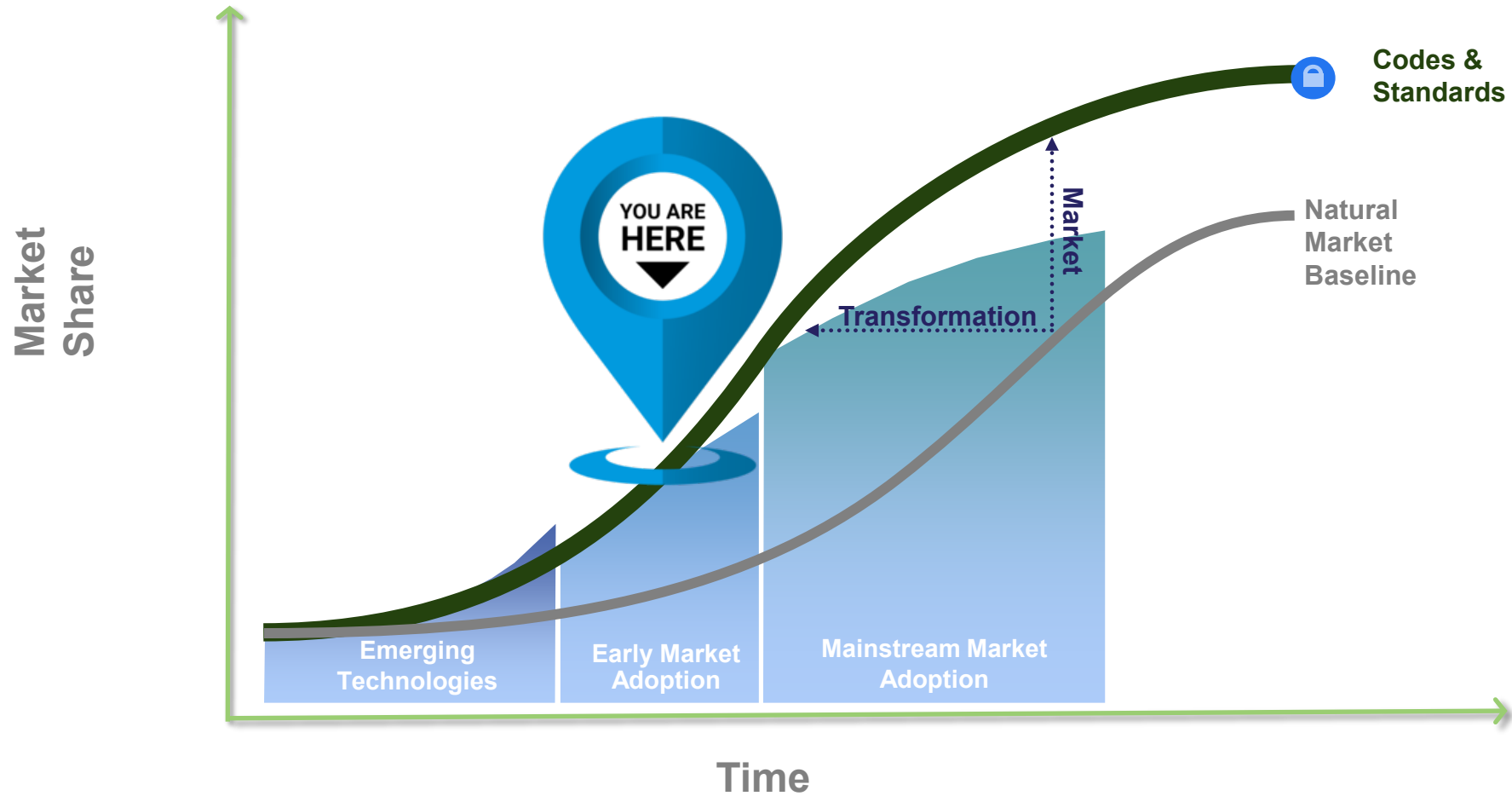
- National Advanced Water Heater Initiative (AWHI) launched. NEEA active participant
- NEEA run "Boring But Efficient" consumer awareness campaign

- NEEA provides northwest specific data to DOE
- DOE releases Technical Support Document showing HPWHs cost-effective for national market.
- NEEA runs consumer awareness campaign focused on rural regions





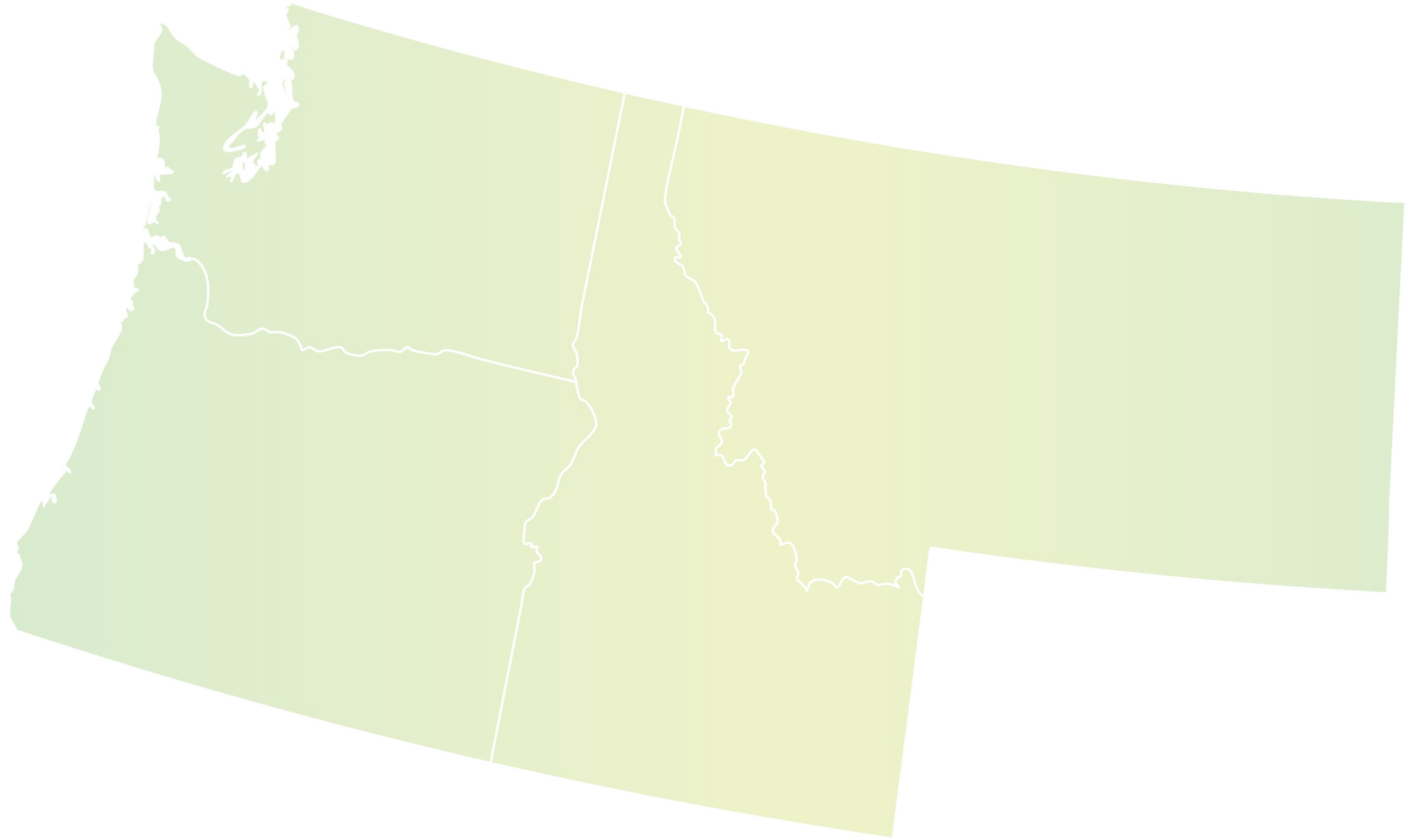
# So...Where Are We?





# Geoff Wickes

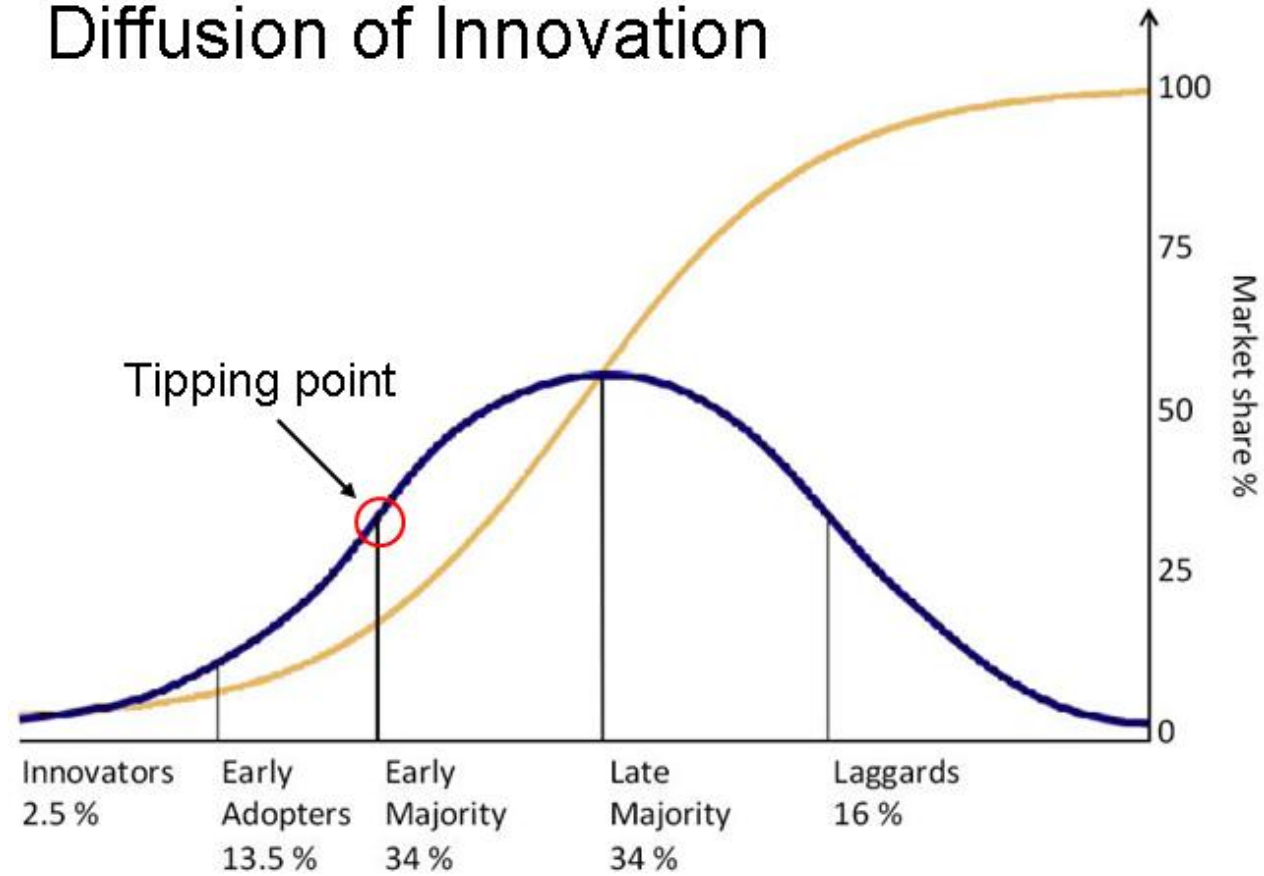
[gwickes@neea.org](mailto:gwickes@neea.org)



# BONEYARD



# Diffusion of Innovation



ENERGY STAR 2023  
Products Partner Meeting

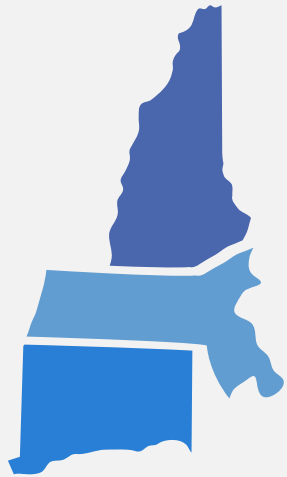
September 26, 2023



# Increasing Demand at Every Touch Point

How to Design a Highly Effective Heat Pump Water Heater Program

# Eversource at a Glance



**3 STATES**

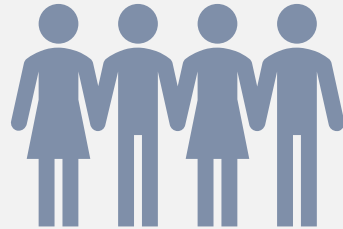
Largest energy company in New England

**4M CUSTOMERS**

Servicing electric, natural gas, & water

**9,500 EMPLOYEES**

Across all three states



**STEWARD TO  
RATEPAYER ENERGY  
EFFICIENCY FUNDS**

Eversource works collaboratively with other energy efficiency providers under the umbrella of these brand names

**#1 ENERGY  
EFFICIENCY  
PROVIDER IN THE  
NATION**

**\$700m+** annual energy efficiency investment



MANUFACTURERS

DISTRIBUTORS

Channel  
ecosystem

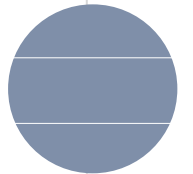
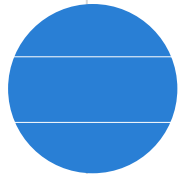
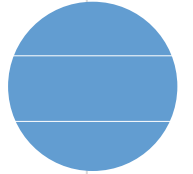
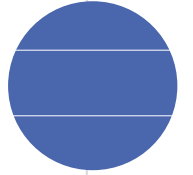
END USERS

CONTRACTORS

**Channel Engagement & Support**

# HPWH Energy Efficiency Program

- KEY BARRIERS TO ENERGY EFFICIENCY
- INSTANT REBATE PROGRAM BENEFITS
- HPWH INSTANT REBATES DISTRIBUTOR / RETAIL
  - MARKETING AND EDUCATION EFFORTS
  - HPWH REBATE PROGRAM RESULTS





# Key Barriers to Energy Efficiency



Greater up-front  
cost to purchasing  
the efficient option



Lack of awareness  
of the energy  
efficient option



Limited stocking of  
efficient equipment



Emergency  
replacements

# Instant Rebate Program Benefits

Stakeholder	Benefits
<b>Consumers</b>	<ul style="list-style-type: none"><li>• Lower first cost</li><li>• No rebate processing (time and money)</li><li>• Energy cost savings</li></ul>
<b>Contractor</b>	<ul style="list-style-type: none"><li>• Lower first cost and equipment upsell</li></ul>
<b>Distributor/Retailer</b>	<ul style="list-style-type: none"><li>• Increase profits and market share</li><li>• Increase stocking of high efficiency equipment</li></ul>
<b>Manufacturer</b>	<ul style="list-style-type: none"><li>• Push latest technology to market</li></ul>

**Keep It Simple!**

# HPWH Instant Midstream Rebates (Distributors)

HVAC and Plumbing Distributors can enroll by signing a Memorandum of Understanding (MOU) and following these requirements

**Provide the full \$750 rebate** on eligible equipment to customers

Include **a line item on the customer invoice** indicating the \$750 instant rebate

**Collect and report** customer and contractor information

Distributors **receive a small “stipend”** for reporting accurate data

**355 Locations across the three states:**

- 110 CT Locations
- 199 MA Locations
- 46 NH locations



# HPWH Instant Retail Rebates

**\$750 instant rebate** offered through two participating retailers:

- Home Depot
- Lowe's

Customers can access the **instant rebate portal online** or using the QR code in stores.

## **150 Retail locations**

- 46 Retail Locations in CT
- 71 Retail Locations in MA
- 33 Retail Locations in NH



# HPWH Retail Instant Rebate Portal

## 1. Enter Account #

The Sponsors of Energize CT are making the purchase and installation of energy efficient equipment affordable to Connecticut customers.

United Illuminating, Southern Connecticut Gas, and Connecticut Natural Gas customers – when entering your account number, please remove the following: leading zero, last digit, and dashes

Account Number \*

re12345

Search >

Customer site to include in this application.

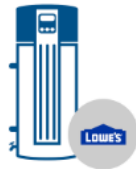
Choose an address

× 101 test city, test city, CT, 01234, Eversource

Continue >

## 2. Select Store

Instant Coupons with qualifying rebates



**Lowe's**  
Heat Pump Water Heater  
(In-Store/Online)




**The Home Depot**  
Heat Pump Water Heater  
(Online Only)



**The Home Depot**  
Heat Pump Water Heater  
(In-Store Only)

## 3. Select Utility & Provide Coupon Delivery Info

 Coupons are sent via text and email. By providing a phone number you are agreeing to receive a one-time coupon via text message. Standard messaging rates may apply.

Phone Number \*  
(860) 555 - 5331

Email \*  
jesus.pernia@eversource.com

By checking this box you agree to receive informational and  promotional email notifications. You may opt out of emails at any time by selecting the "unsubscribe" link in any email footer.

Select your Utility Company \*  
Eversource

Water Heater fuel type being replaced \*  
Electric

## 4. Receive Coupon

Instant Coupons

🏠 01234, Eversource

Application Number 00000978401

Sent on Aug 24, 2023, 10:21:23 AM PST

YOUR COUPON



Discount:\$750

Expires: 1/1/24



475045261715737

The coupon below should be given to the cashier at your retailer at the time you purchase this product OR entered online at checkout, depending on whether this is an in-store or online coupon.

This coupon may be used one (1) time. It cannot be combined with other program incentives for the same equipment.

The coupon has also been sent to you by email and text message.

# Marketing & Educational Efforts



- Program website



- Point of purchase (pop)



- Digital media



- Bill inserts



- Customer postcard



- Educational brochures



- Contractor training

# Contractor Training



The Granite Group/State HPWH training - Charlton MA



Eversource/AO Smith HPWH training - Eversource, Westwood MA

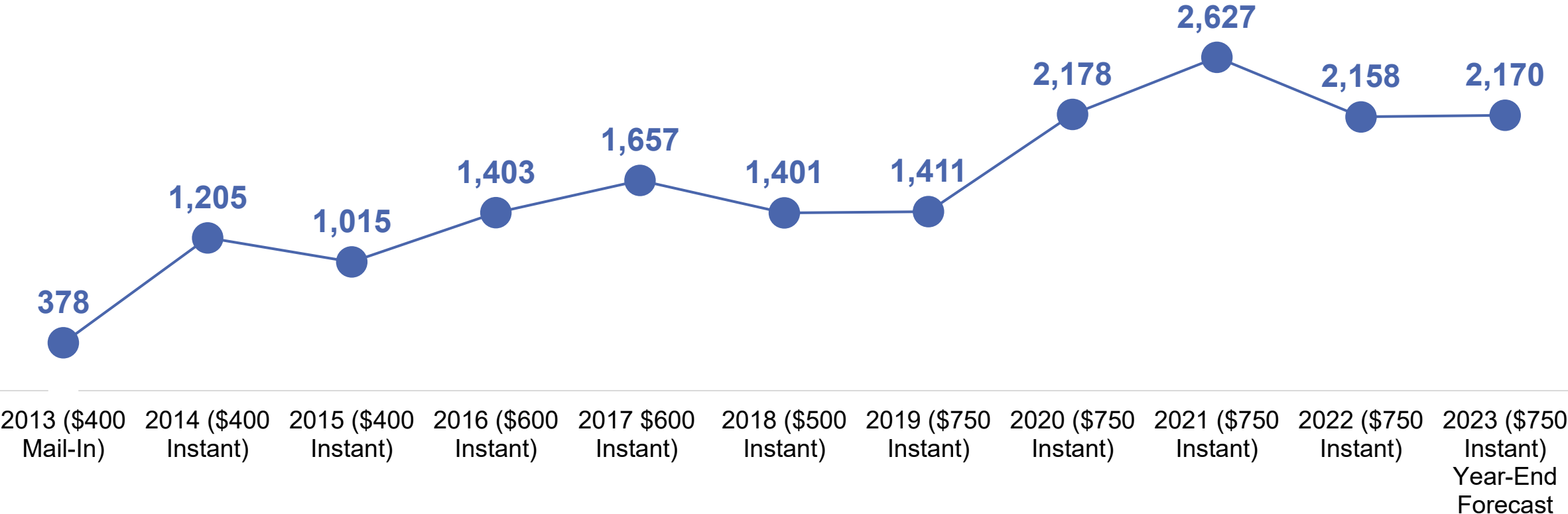


Eversource/Rheem HPWH training - Energize CT Center, North Have CT

# Eversource CT HPWH Rebates 2013-2023

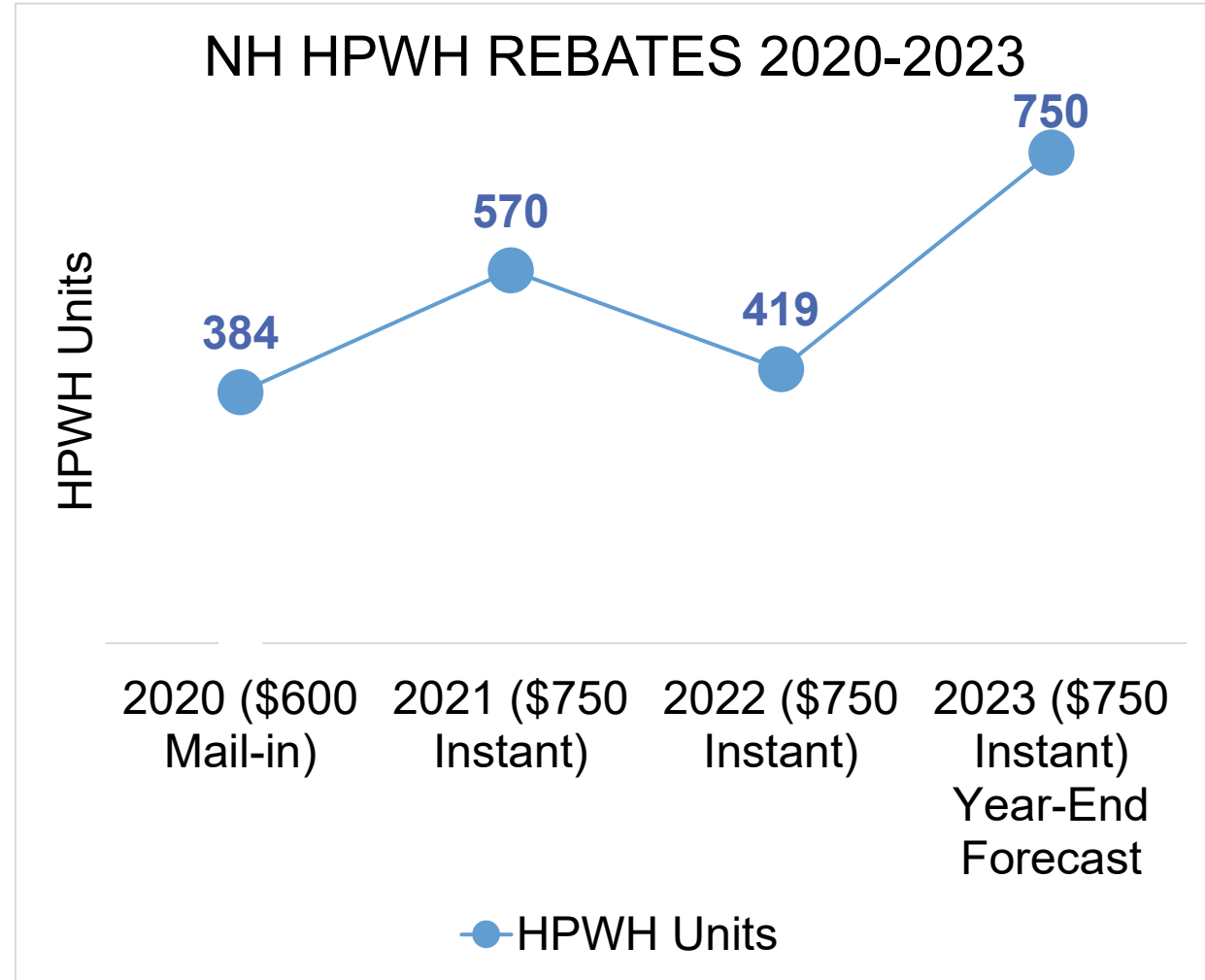
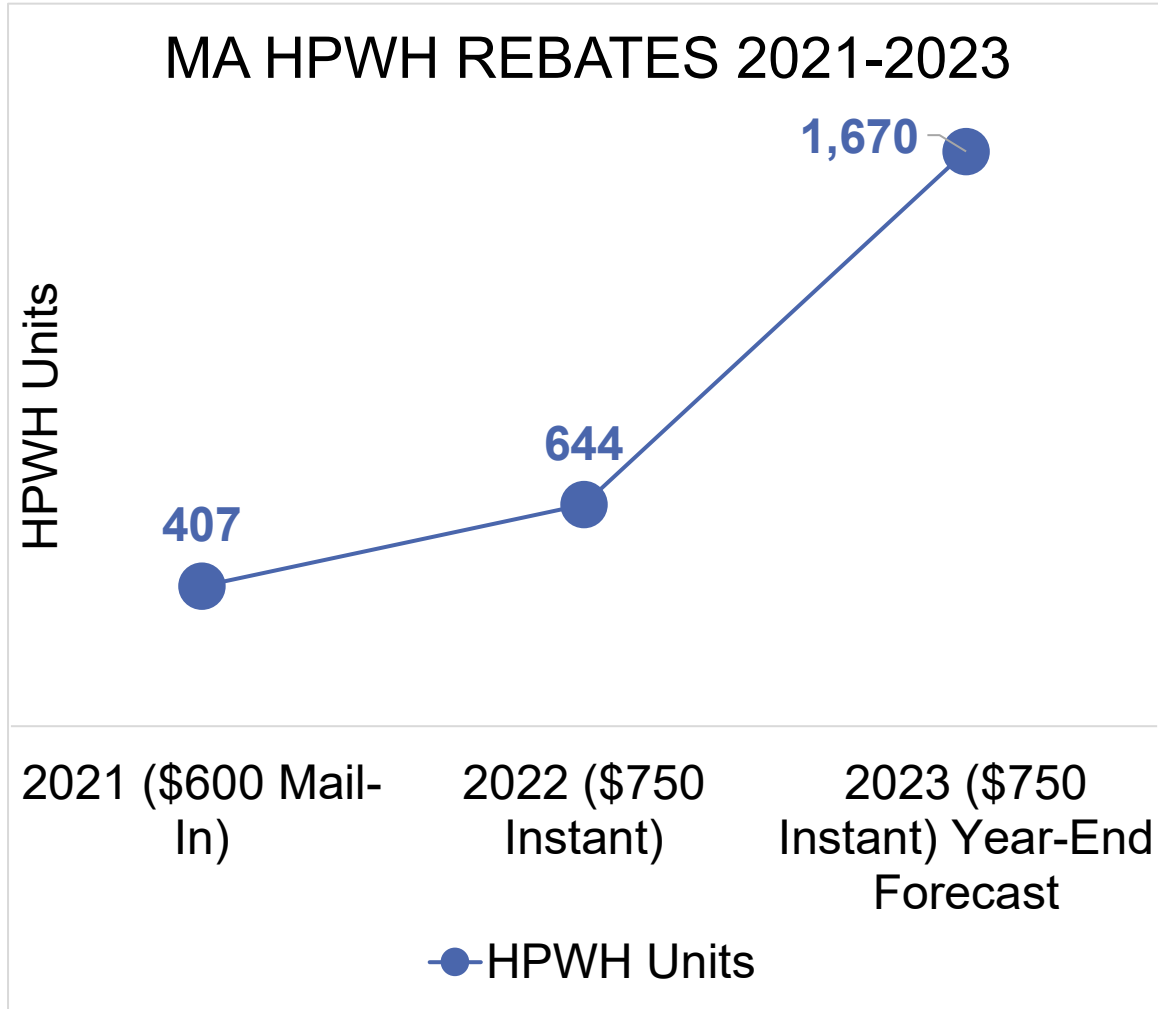
## CT HPWH REBATES 2013-2023

HPWH Units





# Eversource MA & NH HPWH Rebates



**EVERSOURCE**

**Thanks**  
**for listening.**



# 2023 ENERGY STAR Products Partner Meeting

9/26/2023

# HPWH Landscape

Residential Water Heater Installed Base – Source EIA

A. O. Smith **HPWH** Unit Sales Past 12 Months



■ NE/Mid Atlantic ■ Midwest ■ South ■ West

**HPWH not at its relative potential in the South where 65% of the residential water heater installed base is electric**

# Introducing the Voltex<sup>®</sup> 120V Plug-In Heat Pump

## Electrification Made Easy

- **Easy Installation**

- Plugs into standard 120 volt wall outlet (certified for installation on a shared circuit)
- Zero clearance design (sides/back)
- 450 ft<sup>3</sup> space requirement

- **Top Water Connections**

- **Whisper-Quiet Operation (45 dBA)**

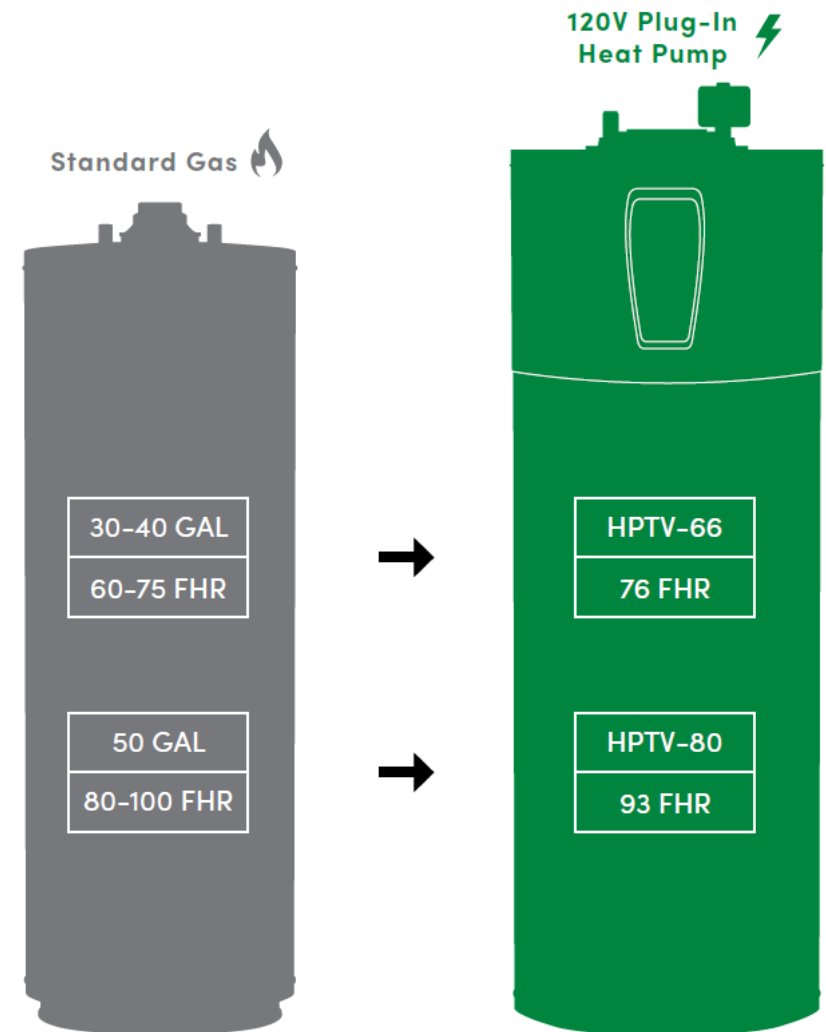
- **3 to 4X more efficient than a gas water heater**

- **iCOMM™ Wi-Fi Smart Connectivity & Other Advanced Features**



# 120V HPWH – When & Which is the right choice

- **For emergency replacement of natural gas and propane gas water heaters**
  - No electric work required
- **Not for new construction or for replacement of electric water heaters**
  - Voltex AL 240V is recommended for new construction
  - Voltex AL 240V is recommended when replacing a standard electric water heater.
- **First Hour Rating (FHR) is key metric for best consumer experience (See Image)**
  - 30-40 Gal Gas normally has 60-75 FHR
    - Perfect for HPTV-66 with a 76 FHR
  - 50 Gal. gas normally has 80-100 FHR
    - Perfect for HPTV-80 with a 93 FHR



# Commercial HPWH – Model CHP-120



- Features:
  - Industry leading 4.2 COP
  - Integrated design for ease of installation, space savings
  - ENERGY STAR certified
  - For light-duty commercial applications, 100-600 gal./day
  - First hour delivery of 150 GPH
  - Large 119-gallon storage capacity provides 50% more storage than any other commercial heat pump

# Recommendations to Utilities and their Supply Chain Partners

- ❑ Full product assortment from the industry. Improvements in efficiency, connectivity, ease of installation, noise. Federal incentives. **Push for TRM updates to reflect the improvements in efficiency.**
- ❑ 5-year opportunity for Utilities to claim energy savings benefits from HPWH before DOE NAECA 4 regulation.

**-Offer instant rebates**

**-Advertise a ton to consumers.**

**-Train the contractors and store associates.**

-Offer bonus prescriptive rebates to builders.

-Run a low income retrofit program similar to Efficiency Maine; Offer on-bill financing.

-Deploy grid enabled water heaters at scale.

