



2023 ENERGY STAR Products Partner Meeting

Heat Pump Water Heater Workforce Development Is Hard, But Help is On the Way!

Presenters:

Paul Campbell – ICF

Ellen Steiner - Opinion Dynamics

Gregg Holladay – Bradford White

Tom McConahay – Rheem

September 27, 2023



ENERGY STAR®

Heat Pump Water Heaters



2023 ENERGY STAR Partner Meeting
Workforce Development Resources
9-27-23

Paul Campbell
ICF



ENERGY STAR HPWH Product Sales & Marketing Team

- Access to **tools** that increase education/awareness of HPWH
 - ✓ Product/Installer/Retailer Finder
 - ✓ Data 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 and their third-party implementers
 - ✓ Retailers (national/regional)
 - ✓ Home Builders

Build Show Video with Matt Risinger

ENERGY STAR teamed up with Matt Risinger at **The Build Show** to compare different water heater types and explain how ENERGY STAR certified HPWHs can save households hundreds of dollars on energy costs each year.

<https://youtu.be/wt95SE2ogNI>



2M+ subscribers



ENERGY STAR Heat Pump Water Heater Manufacturer Action Council



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



Opinion **Dynamics**



Training the Clean Energy Workforce - Heat Pump Water Heaters



Ellen Steiner, Ph.D.
Vice President
September 27, 2023



Technology and Equipment for Clean Heating (TECH)

- \$265 million pilot program designed to help advance California's mission to achieve carbon neutrality
- Implemented by Energy Solutions and designed to use a combination of market incentives, supply chain engagement, **workforce development**, consumer education, regional pilots, and Quick Start Grants to install low-emissions space- and water-heating technologies in existing California homes.
- Evaluation utilizes Four Pillars of Whole Independent Systems Evaluation™ (WISE), which is especially salient for Workforce, Education, and Training Programs

Learn and Earn Program

- TECH is sponsoring 1,000 HPWHs for TECH-enrolled contractors who complete ESMAC and manufacturer training offerings
- Units must be installed in homes of technicians or sales team members
- Goal to build familiarity and confidence with HPWHs; can speak from direct experience using the technology

Electrification Training - Electrify My Home

- Three-day electrification introductory training
- Followed by cohort training
 - Create peer groups to share best practices and lessons learned
 - Reinforce and advance training from 3-day course
 - Provide opportunities for additional hands-on field training

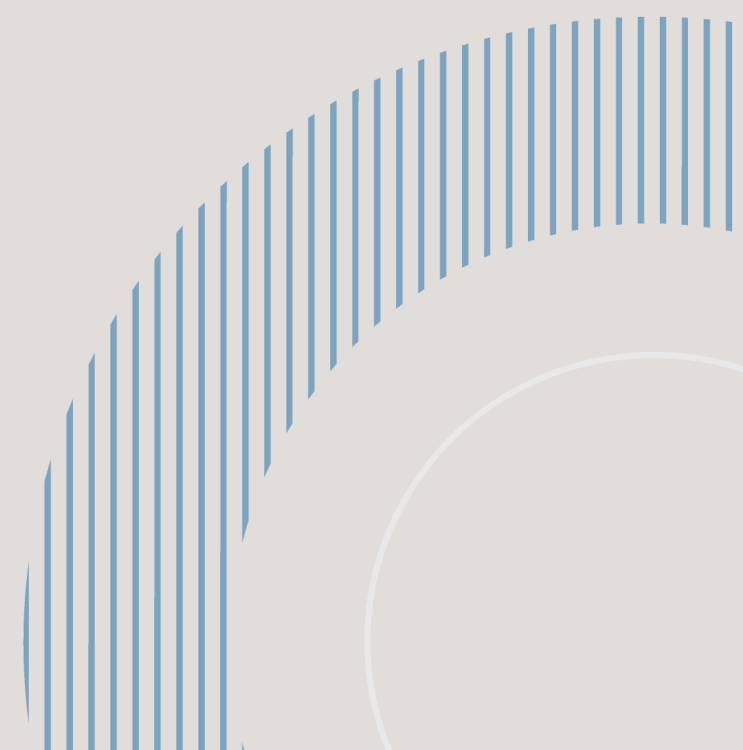
HPWH WE&T Best Practices

- Develop HPWH Workforce Strategy
 - Technical knowledge is not the only requirement for a good trainer. Do your trainers integrate adult learning principles into their instruction design?
 - Hands-on training is key. Does your strategy include laboratory spaces with current HPWH equipment?
 - Are your trainers skilled on HPWH equipment? Are they credentialed?
- Understand who is installing water heaters in your market
- Develop clear learning paths for key audiences
 - Upskilling incumbent plumbing installers
 - Upskilling incumbent HVAC installers (if allowed in your region)
 - Training entering workforce
- Partner with manufacturers and distributors
- Create peer networking opportunities
- Include assessment and evaluation expertise at the beginning
- Focus metrics on outcomes vs. outputs – Kirkpatrick’s Model

As organizations
continue to develop plans for
workforce, education, and training
we welcome the opportunity to
serve as a resource.



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AeroTherm Series® Heat Pump Water Heater

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— BRADFORD WHITE IS —


**AMERICAN
STRONG™**

*Based on DOE test procedure and comparison of a standard electric tank water heater using 3493 kWh per year vs. the AeroTherm® heat pump water heater using 1003 kWh per year and national average electricity rate of 12 cents per kWh.

Learning to focus on the big picture will help you keep things in a proper perspective.

Roy T. Bennett

- The market is changing
- We either move forward or get left behind
- Heat pump water heaters make sense in *every* market
- They pay for themselves, being Green is a bonus!

 QuotesLyfe



**GET
HEAT
PUMPED UP!**[™]

Benefit - No direct carbon emissions and Pays For Itself!

*Payback = Return on **total** investment of product including installation

Above UEF

4.0 UEF

4.07



- Provides \$3 - \$4 of hot water for every dollar spent
- Saves about **\$300 - \$400 a year** over standard electric water heater
- 10-year limited warranty

Payback above the line



3.0 UEF

2.0 UEF

1.0 UEF

Below

.82-.97

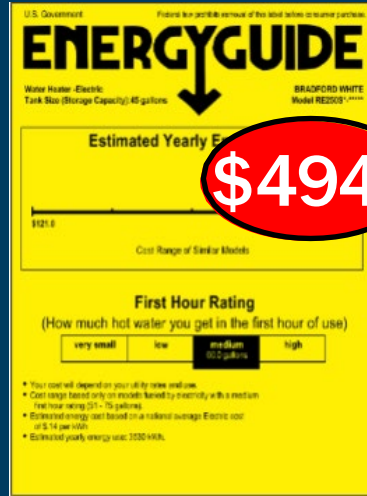


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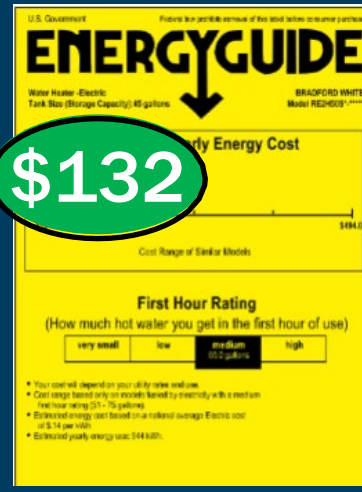


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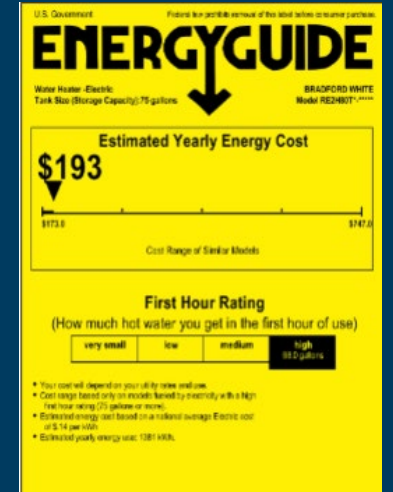
Standard Electric .93 UEF
50 Gallon



AeroTherm® 3.43 UEF
50 Gallon



AeroTherm® 3.64 UEF
65 Gallon



AeroTherm® 3.59 UEF
80 Gallon

Saves \$362 every year!

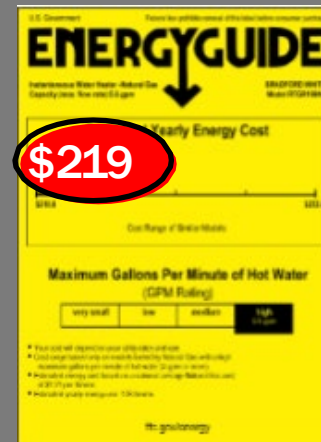


Standard gas tank .63 UEF

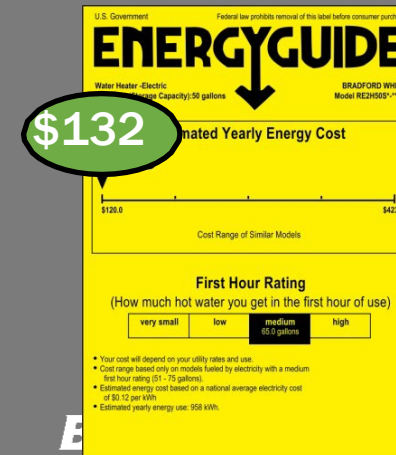


AeroTherm® 3.43 UEF

**Saves \$193
Per Year
vs. Gas!**



Gas tankless .95 UEF



AeroTherm® 3.43 UEF

**Saves \$87
Per Year
vs. Tankless!**

Prioritize Your Work

Electric to Electric – 1st choice

- Simple switch out
- Verify space
- Condensate drain only addition – can be tied to HVAC if close by

Gas to Electric with non-used 30-amp dryer plug – 2nd choice

- Move dryer plug for water heater – no panel box work needed
- Condensate drain – can be tied to HVAC if close by

Gas to Electric with 200 amp panel, add 30 amp breaker – 3rd choice

- Add a new 30 amp circuit and line
- Condensate drain – can be tied to HVAC if close by

Gas to Electric with panel upgrade – 4th choice - Consider 120v plug in option

Learn To Tell The Story...

- Your Introduction to Heat Pump Water Heaters – How We Got Here
- Why Heat Pump Water Heaters
- What Each Manufacturer Offers
- Proper Sizing/Space required
- Proper use of recirculation pumps, mixing valves, and expansion tanks
- Q&A Time



**GET
HEAT
PUMPED UP!**



GET
HEAT
PUMPED UP!™



WORKFORCE DEVELOPMENT CHALLENGES FOR HPWH



Tom McConahay
Sr Manager, National Plumber Support
Rheem Water Heating



Plumber Support Team Mission

Mission

1. To help plumbers grow their business through education on Rheem products & programs
2. Professional classroom experience with Hands-on product training
3. Field Trainings
4. Virtual instructor led training
5. We transfer technical & business knowledge
6. Build Strong, trusting relationships



Challenges

OVERALL CHALLENGES

1. Average age of a licensed plumber is 59 years old
2. Recruitment to the trade
3. Understaffed and time constraints

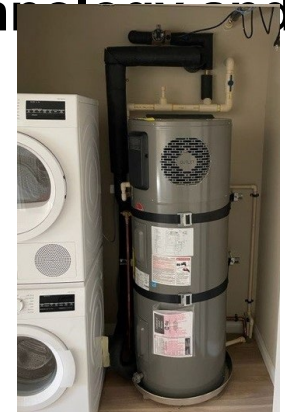


HPWH CHALLENGES

1. Awareness of the Product Category
2. New Product and Install considerations
3. Upfront Cost



4. Confidence in the technology used



Opportunities

- **CTE (Career Technical Education)**
- **Workforce Development Organizations**
 - Explore the Trades
 - BTF (Building Talent Foundation)
 - Utility Programs
 - NYSERDA, EnergizeCT, etc.
- **PHCC**
 - Education Foundation (apprenticeship programs)
- **Manufacturer Training**
 - In house
 - Field
 - Virtual



WORKFORCE DEVELOPMENT CHALLENGES FOR HPWH



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