

ENERGY STAR® Products

Partner Meeting 2020

Heat Pump Water

Heater Program

Design and

Implementation





SAVE TODAY. SAVE TOMORROW.
SAVE FOR GOOD.

Heat Pump Water Heater

Program Design and Implementation

Session Overview

Nate Jutras, U.S. Environmental Protection Agency

Ryan Crews, Energy Trust of Oregon

Ryan Kiscaden, Bradford White Corporation

Panama Bartholomy, Building Decarbonization Coalition





SAVE TODAY. SAVE TOMORROW.
SAVE FOR GOOD.

Heat Pump Water Heater Technical Advisory Committee

- Contact us at midstreamdistributor@energystar.gov to set up a call with ENERGY STAR and the Technical Advisory Group. The group includes:





Midstream Water Heater Program

October 2020



Ryan Crews

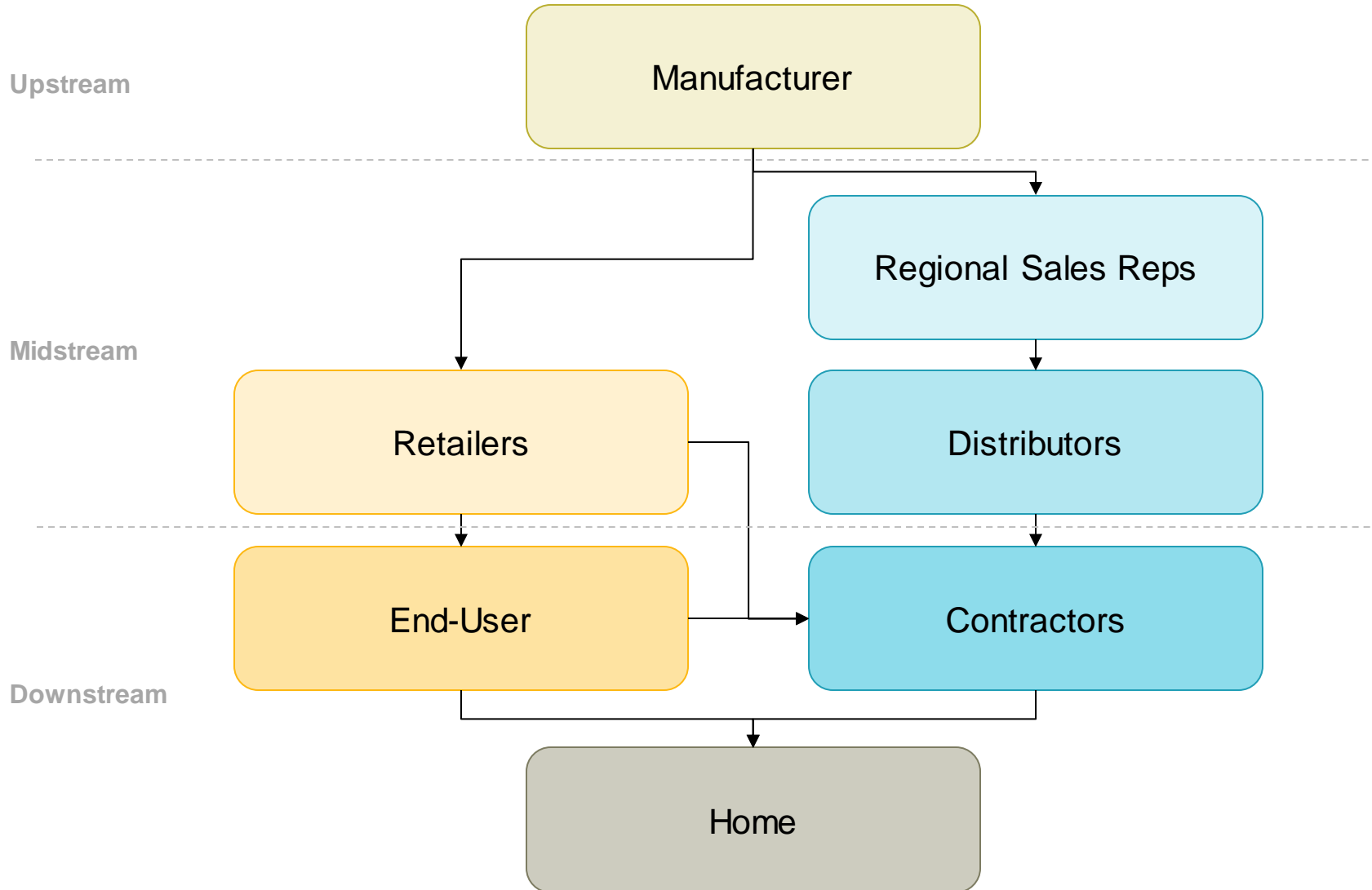
Residential Program Manager
Energy Trust of Oregon

Agenda

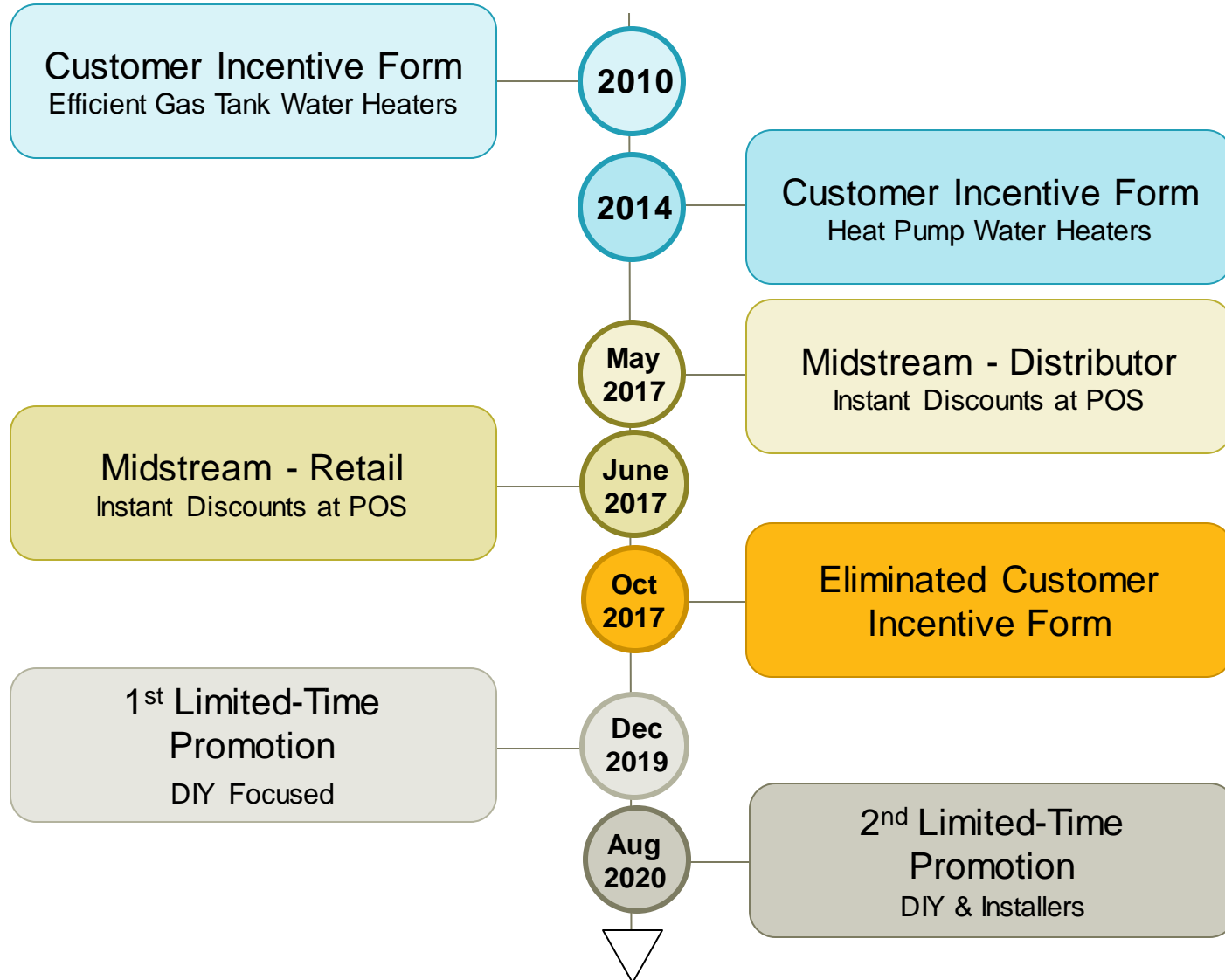
- Background
- Challenges
- Lessons Learned
- Results

Background

Supply Chain



Water Heater Program History



Midstream Program Basics

- Incentives:
 - \$500 per unit
- Incentives provided to distributors and retailers
 - Retailers must:
 - Report # of units, model, SKU, store location, date of sale
 - Pass incentive through to customers
 - Distributors must:
 - Report # of units, make, model, serial #, branch location, purchaser name, sales date, housing type, install zip code
 - Pass incentive through to contractors (mostly)



Current Participation

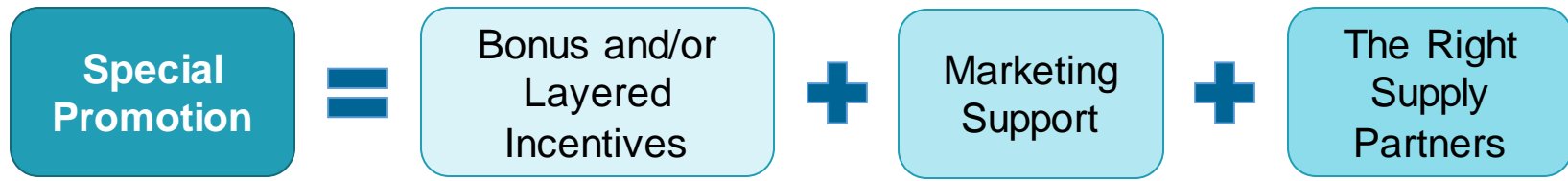
- Retailers:

- Lowe's
- Home Depot
- Grover Electric and Plumbing Supply
- Perry's Electric & Plumbing
- Ace Hardware
- George Morlan Plumbing

- Distributors:

- Ferguson
- Keller Supply Co.
- General Pacific
- Consolidated Supply Co.
- Fast Water Heater
- NW Natural Appliance Center
- Standard Supply
- Plumbing Materials Supply

Special Promotions



- Began with a focus on do-it-yourself customers:
 - \$50 bonus, plus \$200+ of layered incentives (mfg., NEEA, supplier)
 - 35,000 targeted direct mail pieces
 - Online direct-to-customer fulfillment site
- 2nd promotion just launching
 - Adding installer options
 - Increasing marketing efforts

Income Qualified Offers

- \$270 incentive for income qualified customers
 - Very little uptake
- Free units installed through partnership with community-based organization
 - Qualified and co-funded by Community Energy Project
 - Installed by Great NW Installations
 - 30-40 units per year

Challenges & Lessons

Distributor Challenges

- Unfamiliar with utility programs
- Difficult coordinating all branch locations
- Data reporting:
 - Difficulty providing installation zip code & housing type
 - Purchaser doesn't always know this information at the POS
 - Sales staff might forget to ask for it
 - May need to get creative:
 - Contractor credit system
 - Administration payment
 - Administratively burdensome
- Eligibility requirements can be confusing
 - “Only these models, installed in these zip codes, into this type of home, during this period of time, get this discount amount.”

Retail Challenges

- Stocking and pricing can be inconsistent
- Mixed success with marketing efforts

Contractor Challenges

- Don't always know how to sell or install HPWHs
- HVAC contractors vs. plumbing contractors
- Sold as a premium item with premium price
- Consumer demand is low
- Bigger and take longer to install

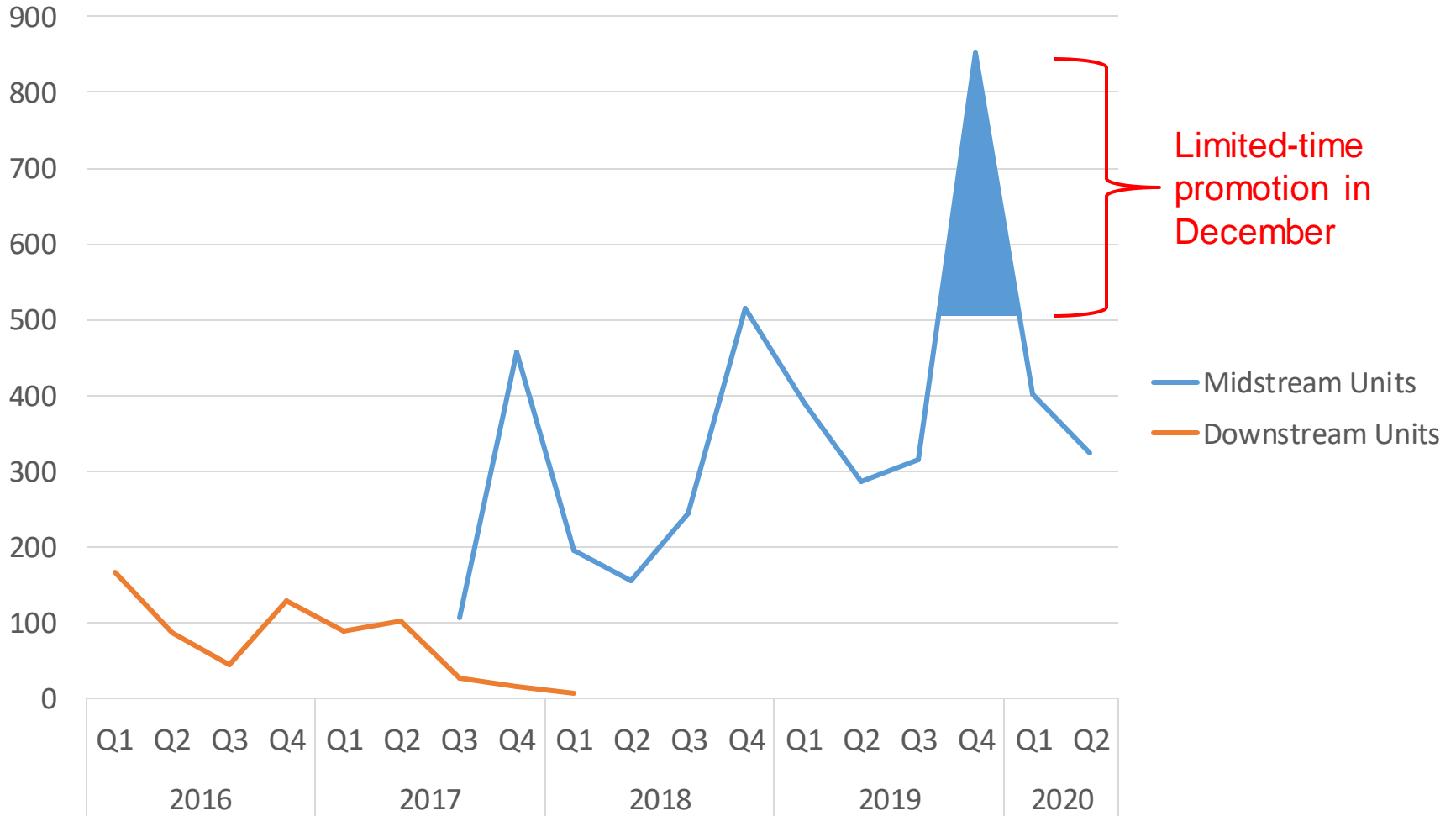
Lessons Learned

- Visit retailers and distributors often
- Keep it simple for distributors
 - Keep eligibility/reporting requirements minimal (i.e. accept some of the risk)
 - Require pass-through of incentives, or don't
- Create special promotions to drive consumer demand
 - Get the price down
 - Ask for commitment from contractor and distributor partners
 - Support with targeted marketing
- Leverage new construction market demand
- Direct mail marketing

Results

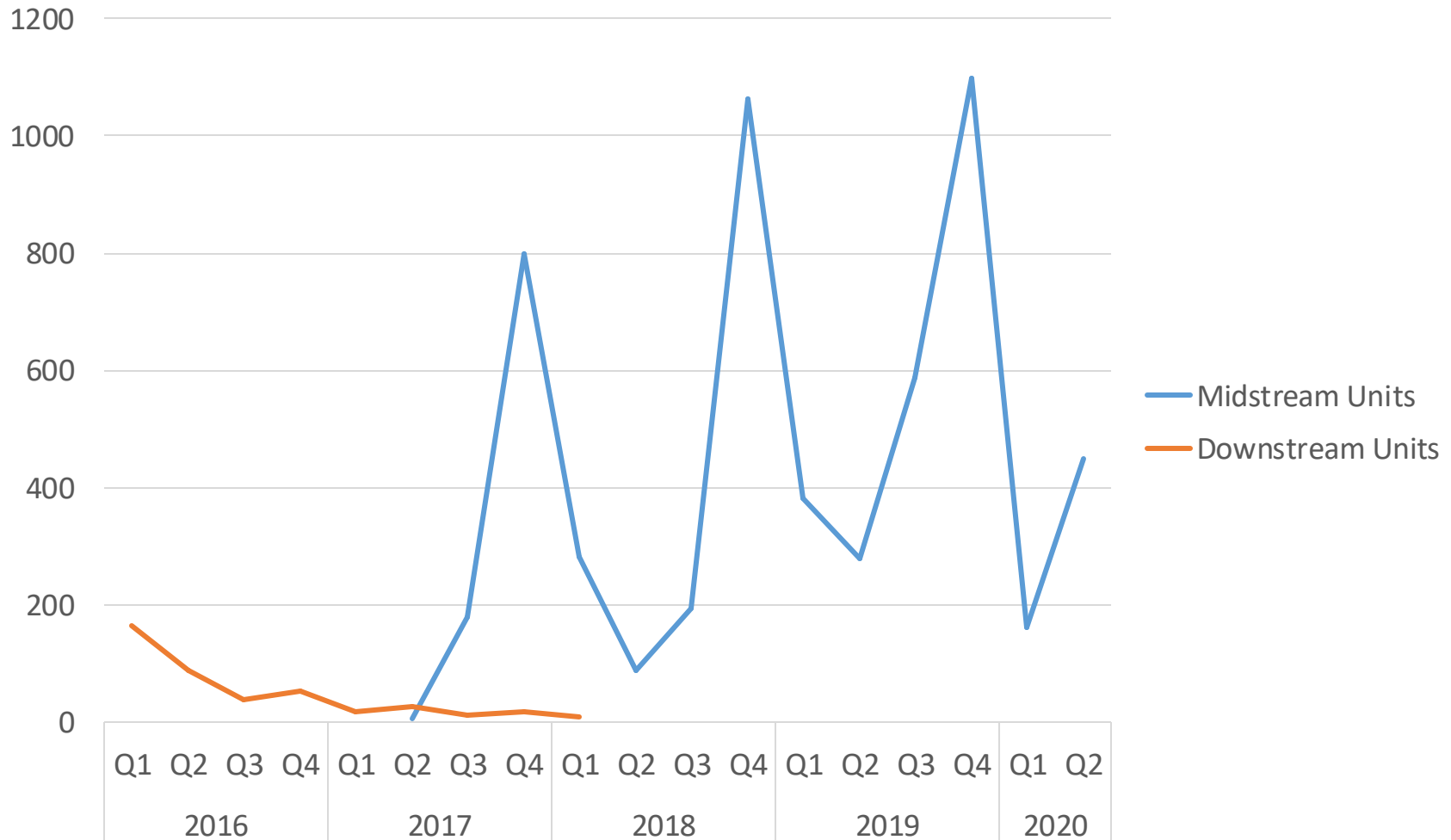
Retail Channel

Retail HPWH Units by Quarter



Distributor Channel

Distributor HPWH Units by Quarter





Thank you

Ryan Crews

Program Manager

ryan.crews@energytrust.org

The Power of Plumbing Professionals Educating Homeowners



ENERGY STAR® PARTNERS MEETING

October 29th, 2020

Ryan Kiscaden, Senior Strategic Marketing Manager



The Power of the Plumbing Professionals Educating Homeowners

- We will:
 - Emphasize how contractors are trusted advisers already in 3-5 homes each day for non-water heating service issues – Proactive sales opportunity for HPWH to replace current low efficiency product
 - Discuss the distinction between offering good, better, best selling for water heater replacement calls
 - Detail personal experiences which creates a more passionate approach to education
 - Show examples of how integrated marketing concepts help grow the heat pump water heater market
 - Demonstrate these principles in action with the Monterey Power and 2021 rebate program

Our Philosophy

We Believe in
the **Professional Specification and Installation**
of Water Heating and Water Storage products
sold through **Wholesale Distribution.**

CONTRACTOR

WHOLESALER

MANUFACTURER



ENERGY STAR®

For You and Your Customers



Bradford White Wins
ENERGY STAR® 2020
Partner of the Year Award

ENERGY STAR® Products

Bradford White's innovative product line features many ENERGY STAR® qualified models.



- Eco-Friendly models save energy and money for homeowners
- Products include atmospheric vent, power vent, power direct vent, tankless gas, heat pump water heaters, boilers, and combination boiler models
- Models eligible for most utility and state rebate programs

 ENERGY STAR® is a joint program of the U.S. Environmental Protection Agency and the U.S. Department of Energy. The goal in developing this program is to assist appliance manufacturers in promoting high efficiency products that save money, use less energy, and deliver the same or better performance as comparable products.

Committed to the Professional.

 **BRADFORD WHITE**
WATER HEATERS
www.bradfordwhite.com

Residential Electric Product Innovation

AeroTherm® Series
Heat Pump Water Heaters
One of the most advanced and efficient
water heaters on the planet.



HERS Rating Story



Ryan,

Thanks again for donating the Aerotherm water heater to C [REDACTED] his lowered their HERS score by 5 points and enabled them to qualify for DOE Zero Energy Ready Home certification (see attached). I promoted your equipment at the North Carolina Habitat State Conference in Black

Home Energy Rating Certificate Final Report

Rating Date: 2019-09-09

Registry ID: 183725222

Ekotrope ID: 123rIDDv

HERS® Index Score:

44

Your home's HERS score is a relative performance score. The lower the number, the more energy efficient the home. To learn more, visit www.hersindex.com

Annual Savings

\$1,031

*Relative to an average U.S. home

Your Home's Estimated Energy Use:

	Use (MBtu)	Annual Cost
Heating	7.5	\$207
Cooling	1.8	\$50
Hot Water	1.8	\$49
Lights/Appliances	13.4	\$368
Service Charges		\$142
Generation (e.g. Solar)	0.0	\$0
Total:	24.6	\$816

This home meets or exceeds the criteria of the following:

Energy Star v3
Energy Star v3.1
2009 International Energy Conservation Code

EDUCATION Examples

How HPWH Works



Heat pump

- Evaporator draws in ambient heat using a fan
- Evaporator absorbs the heat and the compressor increases the temperature and pressure of the 134A refrigerant

External condenser coils

- Heated refrigerant flows through the coils to heat water in the tank
- Coils are external and surround the porcelain lined tank to prevent corrosion and calcium build-up
- Can take tank temp up to 140 degrees

Tank and electric elements

- If tank is depleted, HP cycles off and upper element (4500w) activates to recover top half of tank.
- Then upper element goes off and lower element comes on (4000w) AND the HP comes on (550W) to recover bottom half. Unit then returns to Hybrid mode.

Selling In Home

Learning to tell the heat pump water heater story...





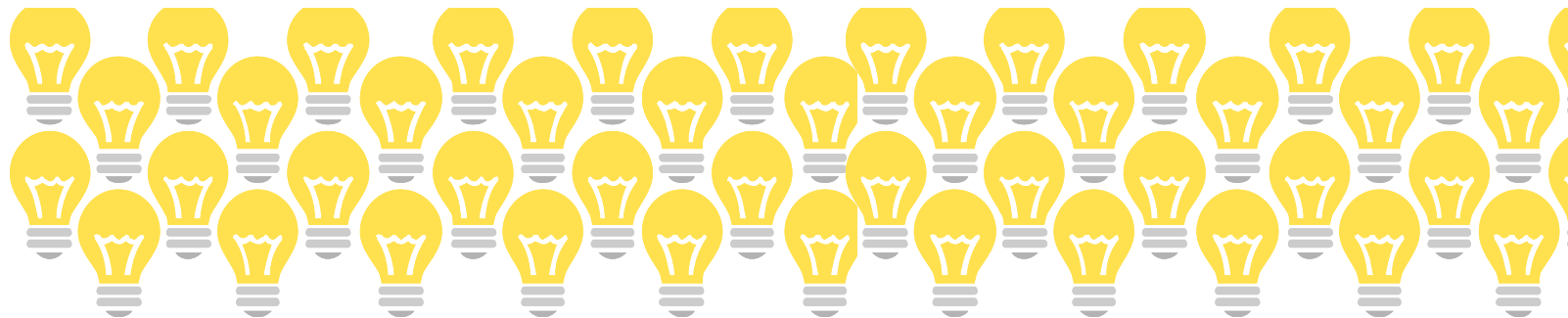
SEE THE LIGHT

about Heat Pump Water Heaters!

- AeroTherm® uses the same energy as 5 ½ incandescent 100 watt light bulbs while in heat pump mode



- Standard electric heating elements use the energy of 45 bulbs!





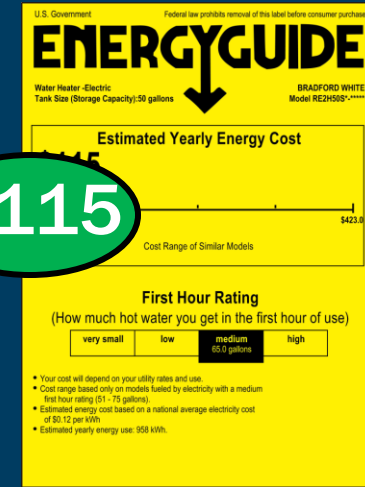
The Uniform Energy Factor (UEF) measures efficiency. The higher the UEF, the greater the efficiency – and the more money you save!

The **AeroTherm®**

Saves \$304 a Year vs. Electric!



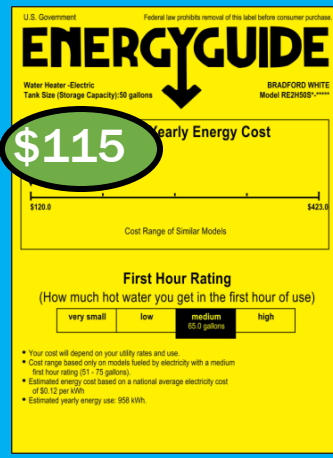
Standard Electric .93 UEF



AeroTherm® 3.39 UEF

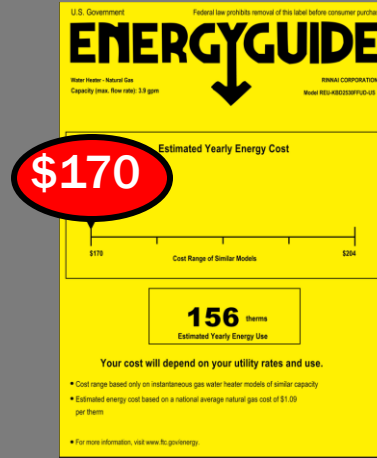


Standard gas tank .63 UEF

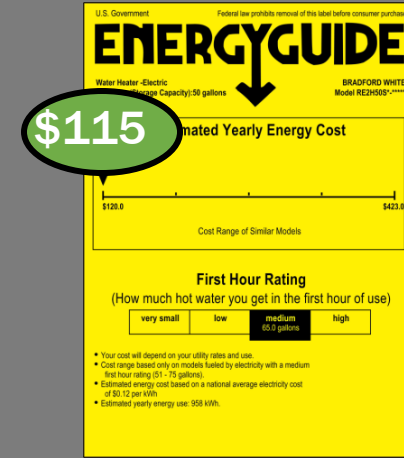


AeroTherm® 3.39 UEF

Saves \$181 Per Year vs. Gas!



Gas tankless .90 UEF



AeroTherm® 3.39 UEF

Saves \$55 Per Year vs. Tankless!

Facebook – Did You Know series

DID YOU KNOW that water heating is the 2nd highest energy user in your home?



DID YOU KNOW that water heating is the 2nd highest energy user in your home?

DID YOU KNOW that a typical electric water heater has an annual operating cost of **\$419** a year?

The image shows a yellow EnergyGuide label for a water heater. A red circle with the number '419' is overlaid on the 'Estimated Yearly Energy Cost' field. The label also includes a 'First Hour Rating' section with a scale from 'very small' to 'high'.

DID YOU KNOW that water heating is the 2nd highest energy user in your home?
DID YOU KNOW that a typical electric water heater has an annual operating cost of \$419 a year?

DID YOU KNOW that an AeroTherm® heat pump water heater has an annual operating cost of only **\$115**?

Two EnergyGuide labels are shown side-by-side. The left label is for a typical electric water heater with a red circle indicating a cost of \$419. The right label is for an AeroTherm heat pump water heater with a green circle indicating a cost of \$115.

DID YOU KNOW that water heating is the 2nd highest energy user in your home?
DID YOU KNOW that a typical electric water heater has an annual operating cost of \$419 a year?
DID YOU KNOW that an AeroTherm® heat pump water heater has an annual operating cost of only \$115?
DID YOU KNOW that saving \$300 per year, with a 10 year warranty equals \$3,000?

DID YOU KNOW that means AeroTherm® can pay for itself?

DID YOU KNOW that water heating is the 2nd highest energy user in your home?
DID YOU KNOW that a typical electric water heater has an annual operating cost of \$419 a year?
DID YOU KNOW that an AeroTherm® heat pump water heater has an annual operating cost of only \$115?

DID YOU KNOW that saving \$300 per year, with a 10 year warranty equals \$3,000?

The image shows a pink piggy bank with several hundred dollar bills coming out of its top. To the right of the piggy bank is a large, messy pile of hundred dollar bills. An equals sign is placed between the piggy bank and the pile of cash.



Trademarking Initiatives



How You Heat Your Water Matters™



Integrated Heat Pump Water Heater Marketing

BIG REBATES ARE CURRENTLY AVAILABLE on Bradford White Water Heaters, Boilers and Heat Pumps in Connecticut. Use them to increase your sales now.

Dear Contractor,

Did you know that big rebates are currently available on Bradford White Water Heaters, boilers and heat pumps in Connecticut?

Bradford White delivers the performance, reliability and efficiency your customers want. This includes amazing products like the Smart 777 Boiler and Combi Boiler-Water Heater, and the AeroTherm® Heat Pump Water Heater. Both are ENERGY STAR® rated for exceptional efficiency.

With the rebates currently available, you can encourage your customers to replace their water heaters and boilers - and boost your sales - right now.

[VIEW REBATES](#)

Learn more about Bradford White boilers and water heaters at bradfordwhite.com.

Bradford White Water Heaters are available at Connecticut at FW Webbs, SE Michel and Darbury Plumbing.

3 GREAT REBATES

The Bradford White AeroTherm® Series Heat Pump Water Heater is Energy Star® certified and highly efficient with up to a 3.48 UEF. It can save homeowners hundreds of dollars every year on their heating bills. And now there are 3 great limited time incentives for both you and for homeowners in your area.

Install an AeroTherm® Series Heat Pump Water Heater and get:

- \$700 Customer Rebate** from Energy Optimization for Customers using participating regional energy providers. [CLICK](#) to see details on this rebate.
- \$100 Contractor Incentive** from Energy Optimization when you install an AeroTherm® [CLICK](#) for rebate application. Not available for South Coast or New York customer rebates.
- \$500 Heat Pump Rebate** for Great Lakes Energy Respective Members. [CLICK](#) for rebate details and instructions.

It all means your Customers could get up to \$1,200 in rebates when you install a Bradford White AeroTherm® Heat Pump Water Heater and you can get an extra \$100, too. That's a Win-Win.

[Discover the AeroTherm® Series](#)

[See all Product Rebates in your local area.](#)

Get Heat Pumped Up™ with the AeroTherm® Series and take advantage of big rebates while they last.

GET HEAT PUMPED UP™

With the AeroTherm® Heat Pump Water Heater from Bradford White

Your customers will get excited about the Bradford White AeroTherm® Heat Pump Water Heater, because it gives them everything they want.

- EFFICIENCY.** ENERGY STAR® qualified for year-round savings.
- FLEXIBILITY.** With 4 operating modes (Heat Pump, Hybrid, Electric, Vacation), customers have more control than ever.
- BRADFORD WHITE QUALITY** including superior Viega® corrosion protection and a 6- or 10-year warranty.
- PLUS CASH BACK!** The AeroTherm® qualifies for many state and local utility rebates and tax credits.

BECAUSE BRADFORD WHITE IS HERE FOR THE PRO... we designed the AeroTherm® with top connections for easy installation.

[LEARN MORE](#)

BRADFORD WHITE

BIG SMUD REBATES up to \$3,000 on Heat Pump Water Heaters.

Here's good news for you and your customers:

Big rebates are now available through SMUD (Clatsop County Municipal Utility District) on qualifying heat pump water heaters installed in the Clatsop County area.

Like the Bradford White AeroTherm® Heat Pump Water Heater. It's ENERGY STAR® certified for year-round savings and is compliant with Title 24.*

With AeroTherm® you can get:

- \$1,000** rebate on an electric to electric upgrade
- \$3,000** rebate on gas to electric upgrade

[VIEW REBATES](#)

DISCOVER more about the AeroTherm® Heat Pump Water Heater at bradfordwhite.com.

BUY the AeroTherm® at a **Preferred Location** near you.

LEARN more about local heat pump water heater rebates at smud.org/2019/07/01/heat-pump-rebate/.

Want to offer instant rebates in your customers? Call the SMUD Rebate Center at 503-722-7188.

BRADFORD WHITE WATER HEATERS

July 10, 2019

Dear Owen Sweeney,

Thank you for being a registered in the Bradford White Water Heaters contractor directory. We'd like to make you aware of an additional REBATE opportunity to promote your business.

Recently, Bradford White identified an opportunity with the EPA's ENERGY STAR® Division for contractors who sell and install heat pump water heaters. This opportunity would require Bradford White to provide ENERGY STAR® with your Business Name, City, State, Zip Code, and your Bradford White Contractor Folder Website Link. By doing so, your information would display as a qualified installer on the ENERGY STAR® website.

The webpage assesses qualified and willing participants to install heat pump water heaters for interested customers. This has the potential to provide you with an opportunity to make less generation for heat pump water heaters at no cost to you. Please note that this is not a requirement for your current Bradford White contractor directory listing. This is to provide your business with even broader exposure with a web link back to your Bradford White Contractor Folder Website.

For an example of how businesses are listed, see the ENERGY STAR® Contractor Locator [LINK](#) located on the [ENERGY STAR®](#) website.

If you are interested in providing your business information, please reply to this email with the following information:

I agree to allow Bradford White Water Heaters to provide my Business Name, City, State, Zip Code, and my Bradford White Contractor Folder business page link to the EPA's ENERGY STAR® website for the purpose of promoting my company as an installer for heat pump water heaters.

If you agree to the above, you must type "YES!" here >

Below is the information that will appear on your ENERGY STAR® listing - make any edits to your name and address in excess of 480 characters, leave in U.S. The link to your Bradford White Contractor Folder page is also provided below.

Business Name: Sweeney's Mechanical
 City: Warren Roster
 State: PA
 Zip: 15274

[Your Bradford White Contractor Folder Link](#)

Once submitted, I will see approximately 2 weeks for my information to appear on the ENERGY STAR® site. We hope you'll take advantage of this no-cost opportunity.

Sincerely,
 Carl A. Kintz, Jr.
 Sales Director, Marketing Communications
 Bradford White Corporation

GET HEAT PUMPED UP™

The AeroTherm® Heat Pump Water Heater.

The AeroTherm® from Bradford White is a smarter water heater. It uses advanced technology to heat your home's water much more efficiently than a standard electric water heater.

The average U.S. family saves about \$300 a year on their utility bill**. So the AeroTherm® quickly pays

THE BUILDERS' GUIDE TO California's 2019 Title 24 Code

BRADFORD WHITE WATER HEATERS + GREEN BUILDER

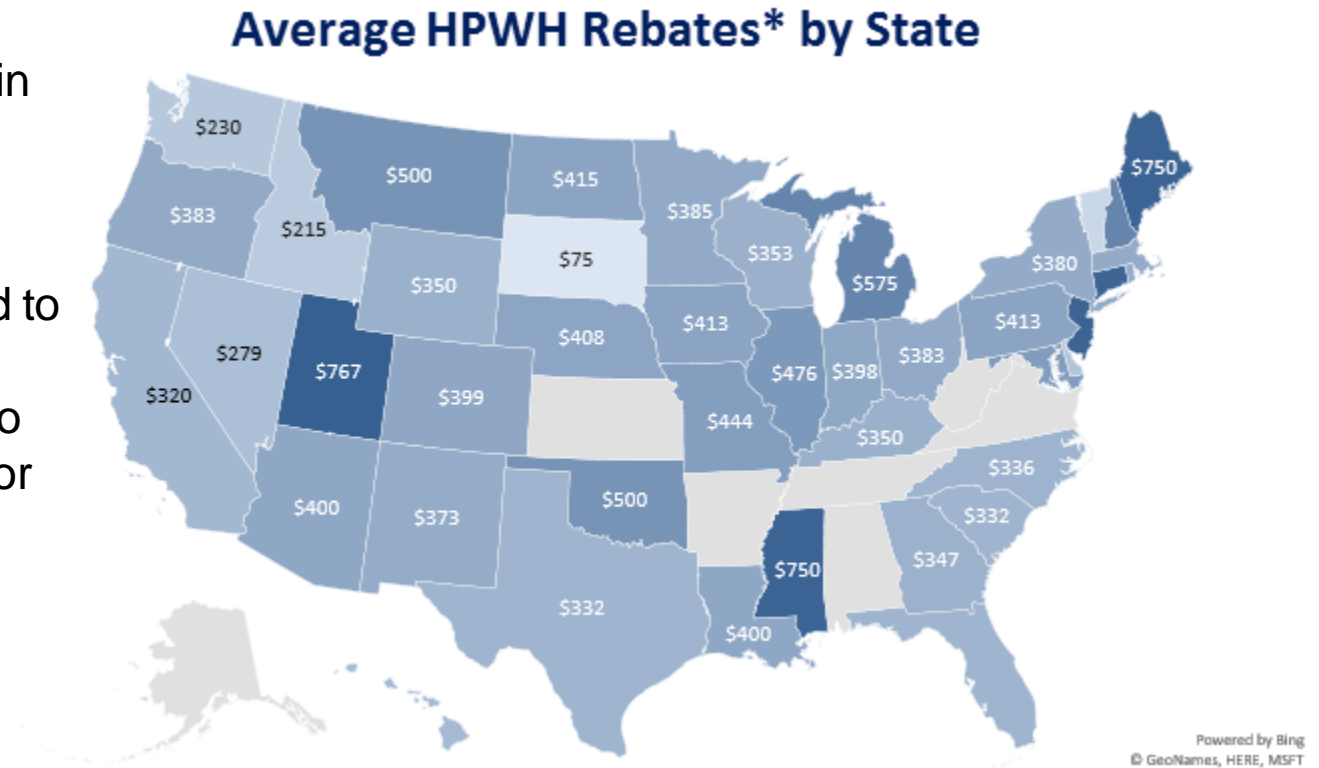
SPRING NEW FOR 2019

Heat pump technology is here and it's making a big splash. Bradford White's new heat pump technology and design is here from how a single unit works for one instead of several - anything above 35 degrees F - and you can use that to heat your water up to the maximum of 140 degrees.

—Gregg Holsby, Bradford White Water Heaters

Which “Stream” Rebate Models Work?

- Downstream – Utility rebate offered directly to Consumer (traditionally mail-in rebates).
- **Midstream – Instant utility rebate offered to Distributor or Contractor.**
- Upstream – Instant utility rebate offered to manufacturer.
- Markdown – Price reduction available to ALL consumers shopping at that store or online.
- Validated Instant – Utility instant rebate offered to consumer after electronic validation that consumer is an account holder of the utility.



*Unrelated to connectivity/DRM

Utility Engagement:

California Community Choice Agencies (CCA)

- CCA (Community Choice Aggregation)
 - Birthed from 2001 Energy Crisis (AB. 117)
 - Community Choice Aggregation (CCA) is a model that allows communities to purchase power to meet their electricity needs, offering an alternative in the market. CCAs can provide the communities they serve with competitively priced, clean energy choices while reinvesting revenues into projects and programs, supporting the local economy.
- CCAs are offering rebates/incentives for existing retrofit and new construction residential HPWH installations.
- Currently available CCA Incentive programs:
 - Sonoma Clean Power – Grid Savvy Program
 - Load shifting incentive program
 - Marin Clean Energy – Heat Pump Water Heater Contractor Rebate
 - \$1000 in cash to participating contractors to install HPWH
 - Peninsula Clean Energy – Design Technical Assistance Program
 - All-electric building technical assistance program
 - Central Coast Community Energy – Residential Electrification Program (coming 2021)
 - Midstream installer incentives for HPWH installations in existing homes
- California CCA's are and continue to pursue climate action and GHG reductions through clean energy development and novel decarbonization & electrification programs.

On behalf of Bradford White Water Heaters,
thank you for your time.



Ryan Kiscaden

(P) 215-941-2124

(E) rkiscaden@bradfordwhite.com



Making Heat Pump Water Heaters the Right Fit for California



**BUILDING
DECARBONIZATION
COALITION**



Panama Bartholomy
Director

California's Climate Goals

By 2030

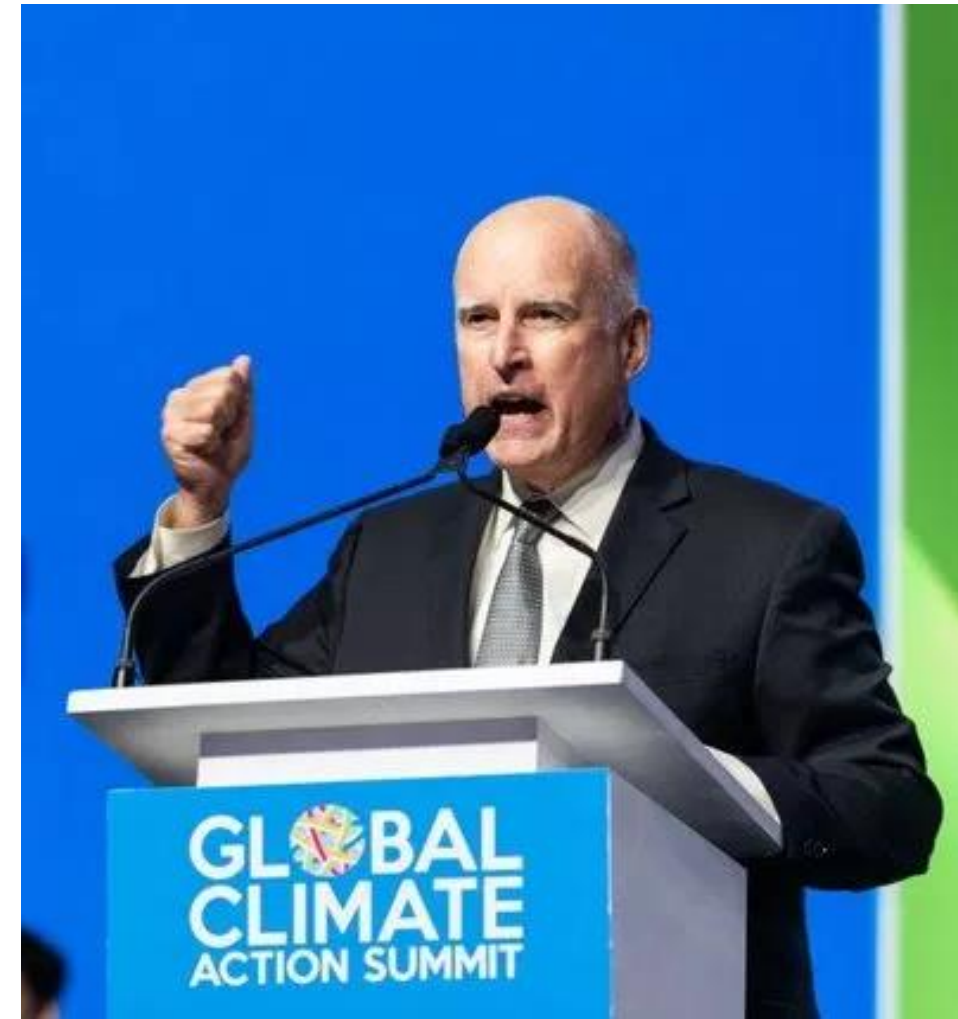
40% below 1990 levels (*SB 32, 2015*)

By 2050

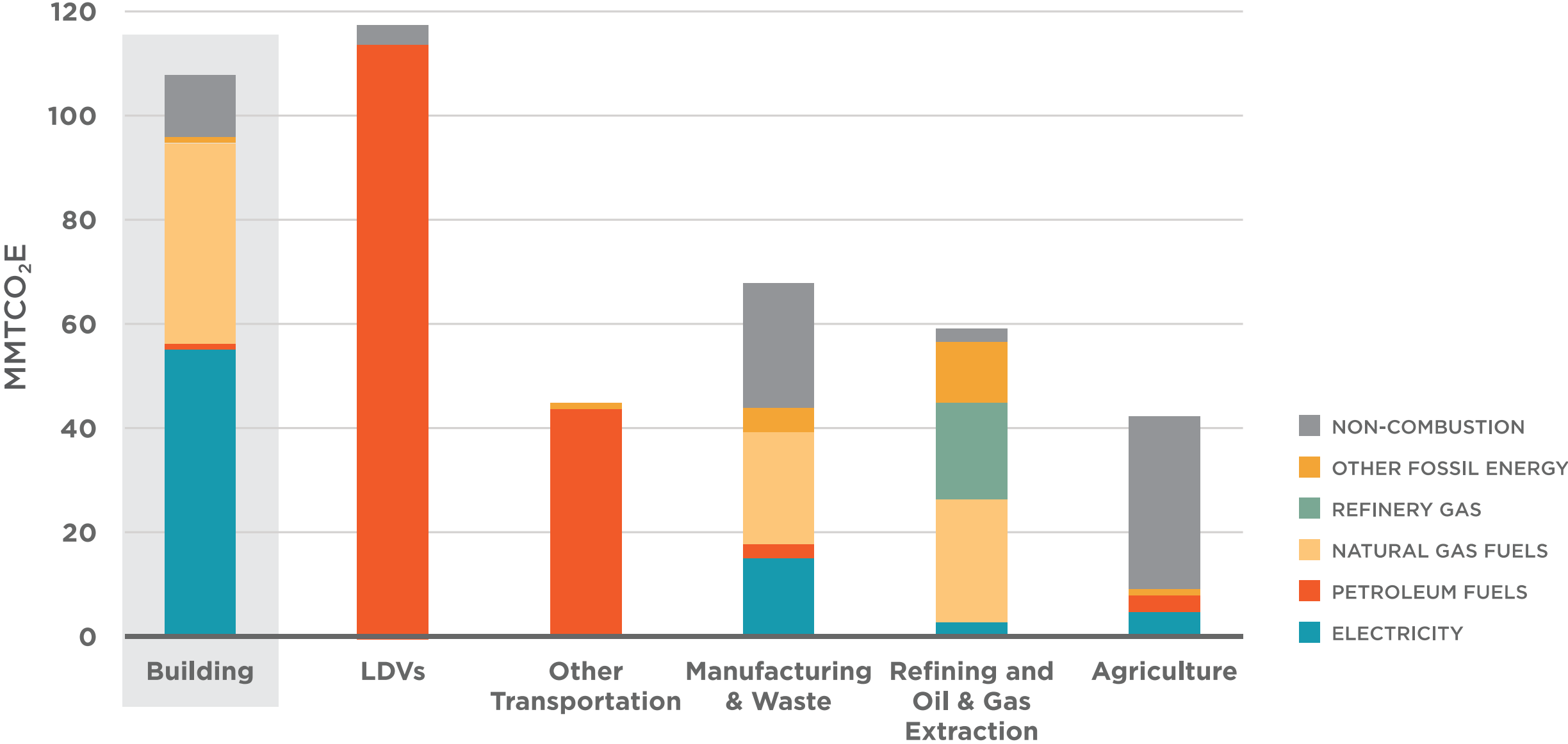
80% below 1990 levels (*EO's B-30-15 & S-3-05*)

By 2045

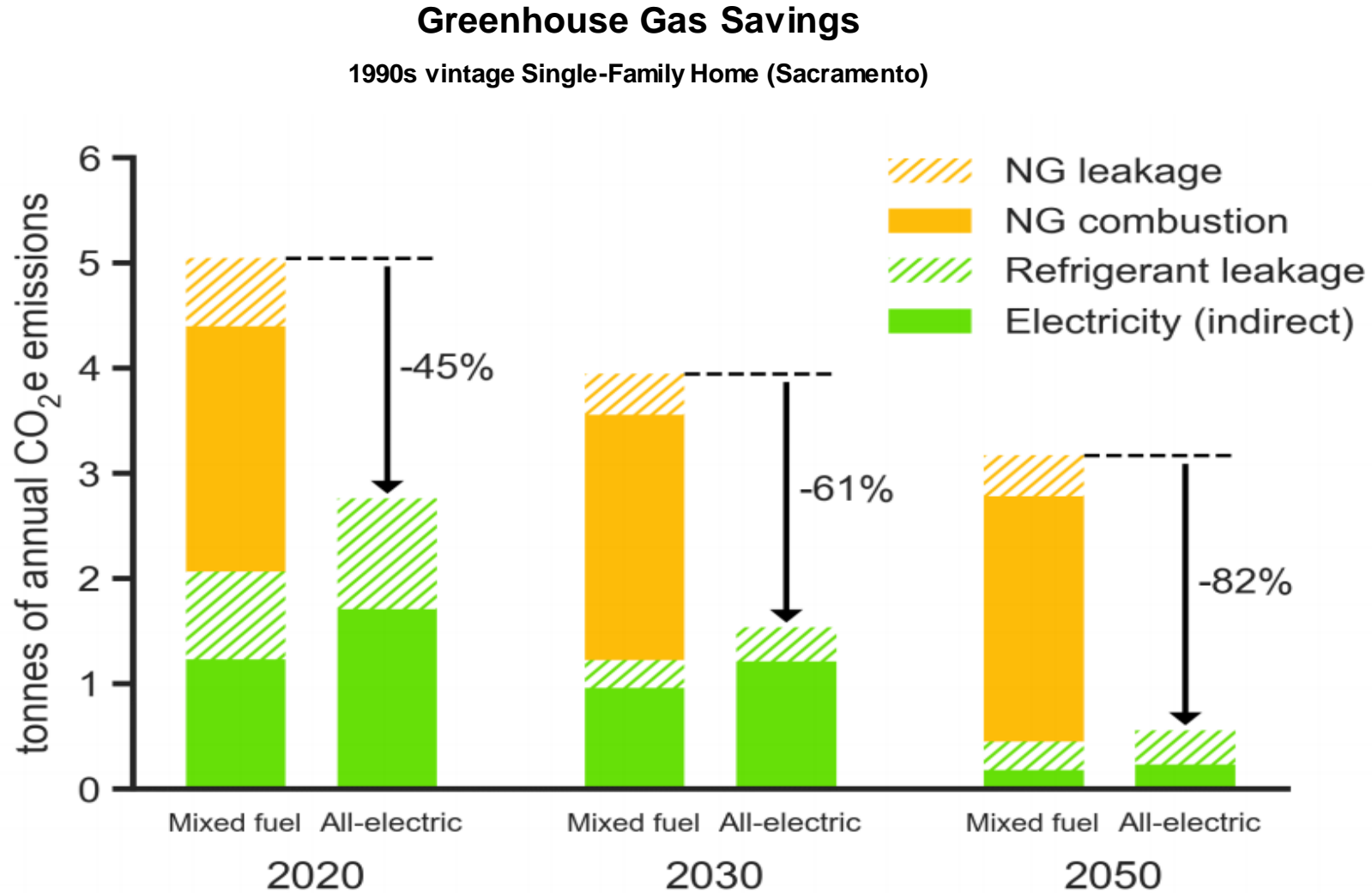
100% zero-carbon electricity (*SB 100*) & carbon neutral economy-wide (*EO B-55-18*)



California's GHG emissions today – Buildings 24%



Up to 60% GHG emission reductions can be achieved in the near term by electrifying a whole home in California




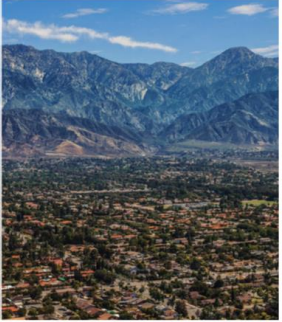


Source: E3 report on "Residential Building Electrification in California" April 2019.

California prepares to shift away from natural gas, while keeping power reliable and affordable

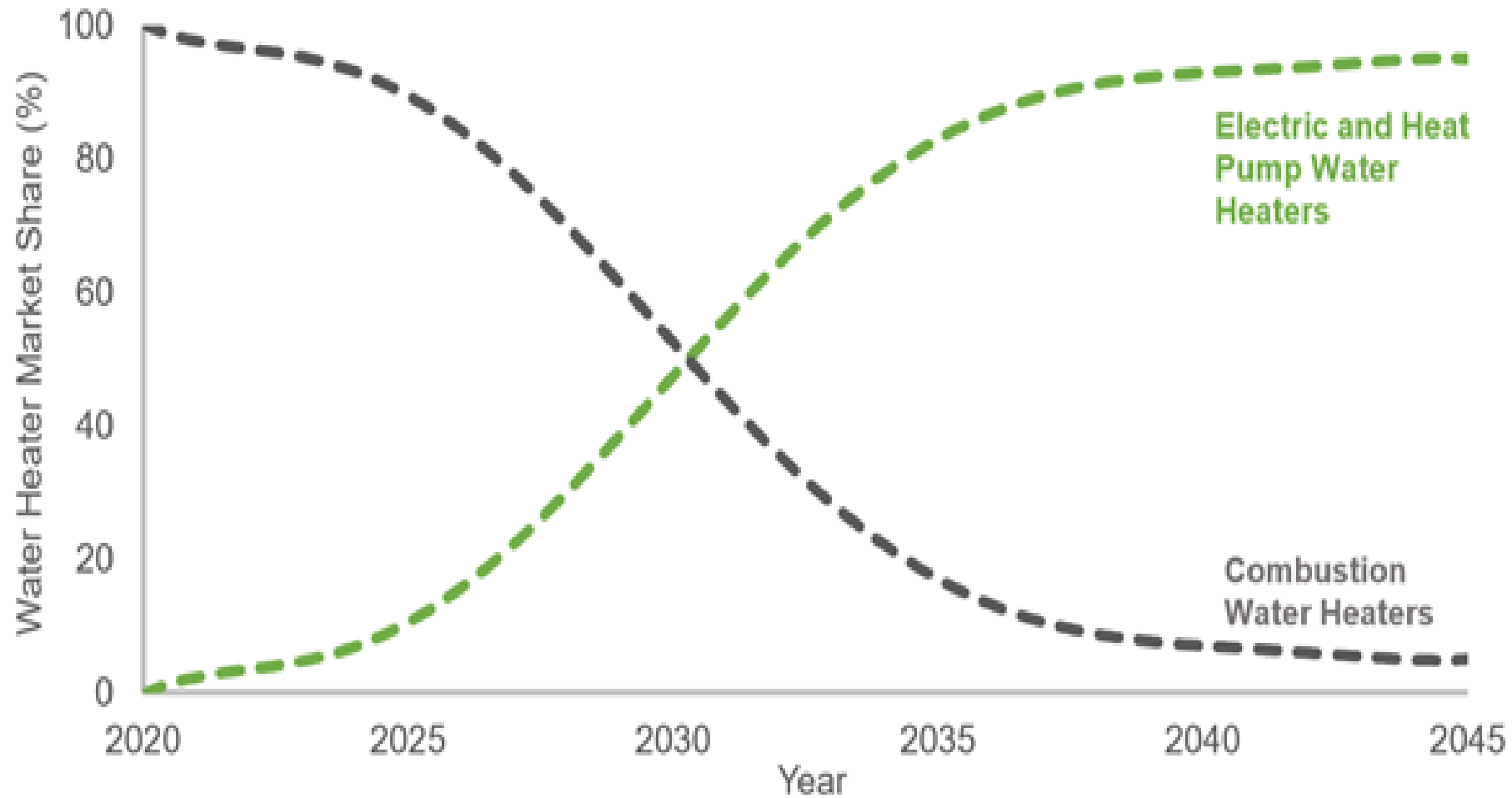


By Liane Randolph, Special to CalMatters

Figure 1: Decarbonization Targets Within the Building Sector

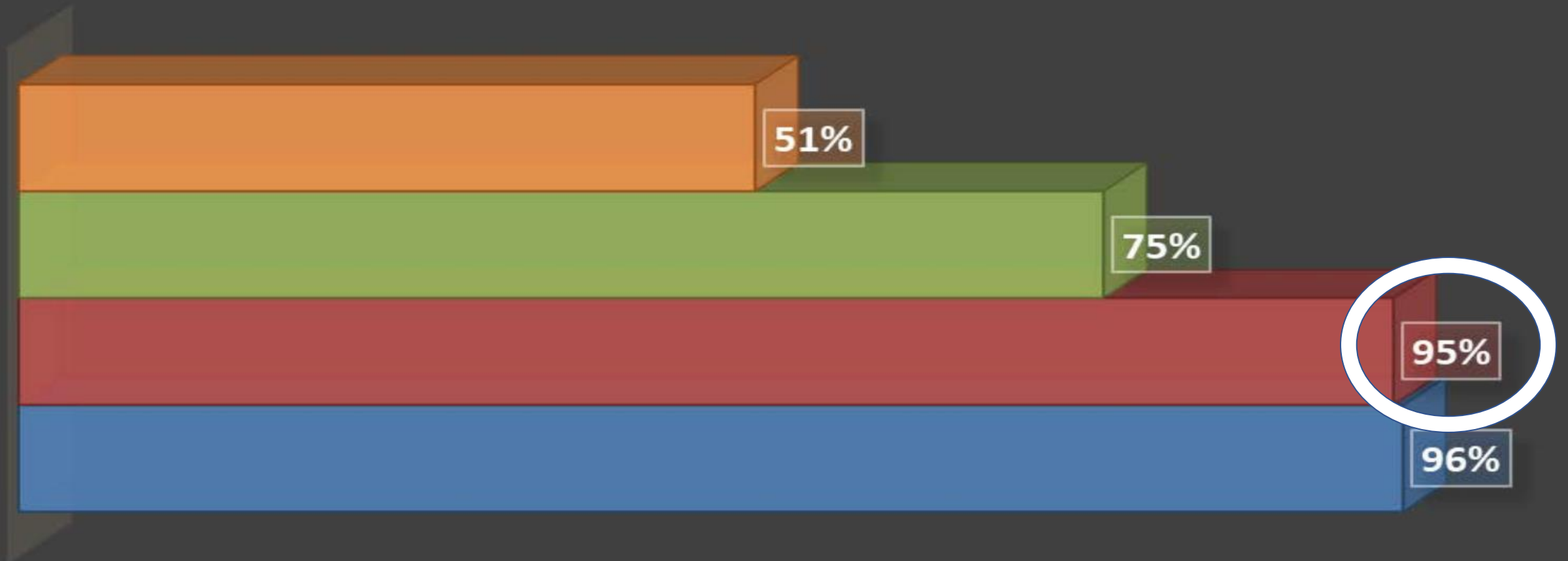
	Residential		Commercial
New Buildings	2025 Building Code	 <p>A ROADMAP TO DECARBONIZE CALIFORNIA BUILDINGS BUILDING DECARBONIZATION COALITION JANUARY 7, 2019</p>	Zero Emissions Building Code
Retrofits	% of sales		 
			<ul style="list-style-type: none"> • Increase the share of zero-emissions buildings from 5% of sales in 2025 to 100% in 2030. • Increase the share of zero-emissions buildings from 1% of sales in 2025 to 100% in 2030.

Conceptual Market Transformation Pathway from Gas and Propane to Electric and Heat Pump Water Heaters

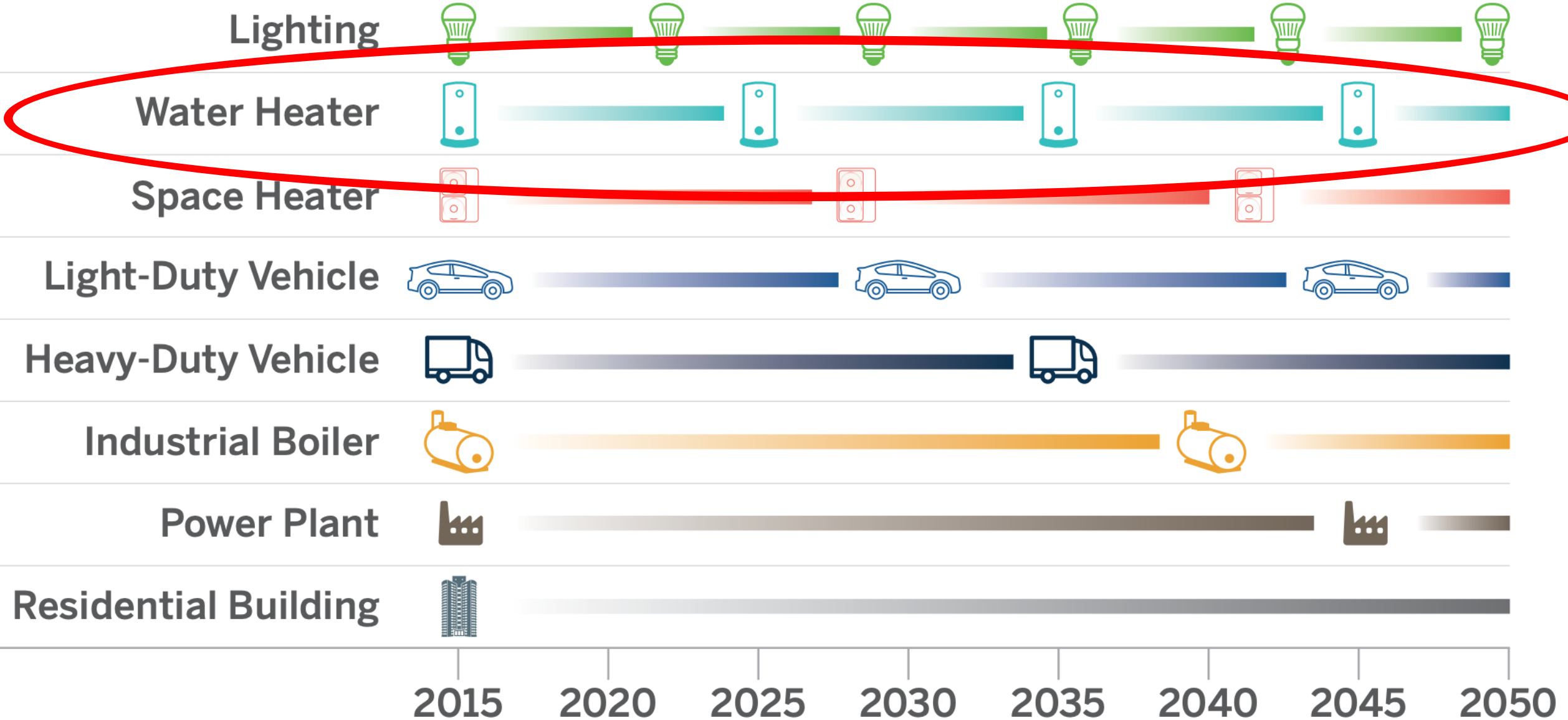


NATURAL GAS USE IN HOMES (% SITE ENERGY)

■ Clothes Drying ■ Cooking ■ Water Heating ■ Heating



Stock Turnover



Emergency



Average Installed Cost of Gas WH and HPWH

Gas Home



**Gas Storage
(existing buildings)**

**\$
\$1,000-\$1,600**

0.63 UEF



**Gas Tankless
(new construction)**

**\$\$-\$\$\$
\$3,700-\$5,700**

0.81 UEF

Electric Home



Heat Pump

**\$\$-\$\$\$
\$2,100 to \$7,900**

3.0 UEF

Contractor Value Proposition

- Cost at distributor or retail
- Ease of program use



“So why would [a plumber] want to learn something like that when he can put in his normal water heater he's always put in, and get several done in a day if he wanted to?”



BUILD

Final Report
April 22, 2020



EMI CONSULTING

Panel Upgrades and Wiring

Panels: \$3,000-\$4,000

220V Wiring: \$300-\$1,000



Customer Awareness and Value Proposition

Fuel-switching is a leap of faith.

- Need broad-based and specific education
 - ENERGY STAR Helps here!
- Need the finances to be clearly better than a gas model, a no-brainer





RECOMMENDATIONS

Support rebates and incentives for fuel switching and for upgrading to efficient electric equipment.

Bringing down upfront costs motivates end-users to pursue those options and will help contractors sell this equipment more frequently.

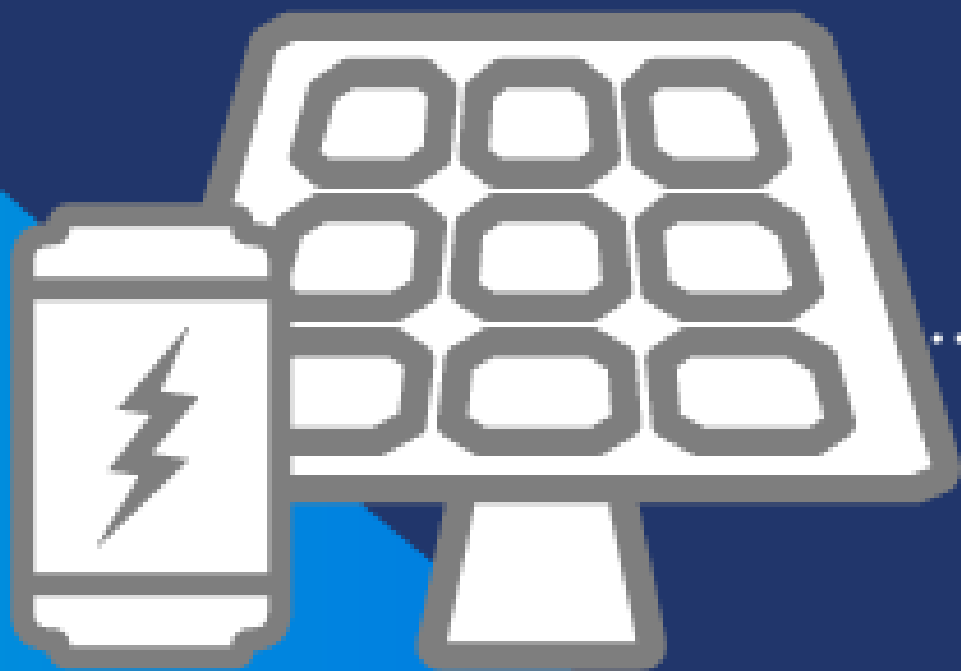
GOAL 1: Customers, contractors and policymakers are aware of and demand building decarbonization measures.

GOAL 2: Customers receive a good value from adopting building decarbonization measures.

GOAL 3: Building decarbonization provides a better value to contractors than fossil-fuels.

GOAL 4: Supply-chains and delivery agents are able to meet rising demand for carbon-free building technologies with a quality product.

GOAL 5: Policies are aligned to maximize customer awareness of and interest in building decarbonization, the customer, builder and contractor value proposition, and the industry's ability to meet rising demand.



SGIP



Developed with input from broad industry and climate advocates coalition



Program Design Proposal

- Long-term (10 Year) State vision for water heating transition and investment plan
- Programs that can lower HPWH unit and installed cost below that of gas alternatives
 - Instant rebates to give customers the carrot they need to switch fuels
 - Avoid incentive to undersize, encourage right-sizing to maximize efficiency and flexibility benefit
- Programs that are easy for installers and customers to use
 - Pre-approved product list
 - ENERGY STAR!
 - Mid-stream, instant rebates
 - Simple and fast application and eligibility verification
 - Load shifting controls adder built into the retail price with incentive for load shifting
- Downstream panel upgrade and wiring assistance

Cost Case Studies

Total cost for each install will vary greatly based on:

- Product Cost (size and equipment type)
- Load Shifting Product Cost (hardware/software)
- Installation Cost (basic install/wiring/ducting)
- Energy Source Conversion Cost (panel upgrade)

Classifications of HPWH Systems

HPWH TYPE	APPLICATION PROCESS	DEFINITION	ELIGIBILITY
Unitary Residential	Midstream Instant Rebate + Mail-In for Additional Costs	Heat pump water heater with a total nominal compressor output power of 6 kW or less , including integrated heat pumps with storage as shipped from the point of manufacture and split-system heat pumps that consist of a separate heat pump and storage tank that are designed and marketed to operate together.	NEEA Tier 3-compliant + JA13-compliant for load shifting adder
Unitary Commercial	Midstream Instant Rebate + Mail-In for Additional Costs	Heat pump water heater with a total nominal compressor output power greater than 6 kW with integrated storage as shipped from the point of manufacture, including skid systems that are pre-plumbed and wired.	ENERGY STAR-certified + Appendix A-compliant for load shifting adder
Central Residential	2-Step Reservation Process	Heat pump water heater(s) without integrated storage as shipped from the manufacturer, and designed for residential, single and multi-family applications.	Approval in CEC Title 24 CBECC software + Appendix A-compliant for load shifting adder
Central Commercial	2-Step Reservation Process	Heat pump water heater(s), without integrated storage as shipped from the manufacturer, and designed for commercial applications.	Approval in CEC Title 24 CBECC software + Appendix A-compliant for load shifting adder

Unitary Residential – Cost Samples

50 gallons	Description	Cost No load shifting	Cost with load shifting
Unit		\$1,100	\$1,500
Wiring	From unit to panel	\$300-\$1,000	\$300-\$1,000
Other installation labor (plumbing)		\$700-\$1,000	\$700-\$1,000
Panel upgrade		\$3,000-\$4,000	\$3,000-\$4,000
Total pre-incentive	Unit price	\$1,100	\$1,500
	Installed cost (w/o panel)	\$2,100-\$3,100	\$2,500-\$3,500
	Installed cost (w/ panel)	\$5,100-\$7,100	\$5,500-\$7,500
Incentive	Base incentive	\$800	\$800
	Load shifting adder		\$400
	Installation	up to \$800	up to \$800
	Panel upgrade	\$2,500	\$2,500
	Max	\$1,600-\$4,100	\$2,000-\$4,500
Total Cost to Customer	Retail price	\$300	\$300
	Installed cost (w/o panel)	\$500-\$1,500	\$500-\$1,500
	Installed cost (w/ panel)	\$1,000-3,000	\$1,000-3,000



Plumbing / Water Heaters / Electric Water Heaters



\$199.00
~~\$4,199.00~~ Save 83% Ends Dec 30

★★★★☆ 217
[View Q&A](#)

PLUS, up to \$300 in Rebates >

A.O. Smith Signature Premier 50-Gallon Tall 10-year Limited 4500-Watt Double Element Electric Water Heater with Hybrid Heat Pump

Item #818193 Model #HP10-50H45DV

- ENERGY STAR® certified, reduces water heating costs up to 72%, annual operating costs as low as 114 dollars
- Saves an average 3,000 dollars in standard projected operating expenses over 10 years versus a comparable standard electric Wat...
- Two back-up 4,500-watt copper heating elements deliver when fast recovery is needed

− 1 +
Qty

Add to Cart

Free Store Pickup
Ready for pickup: Estimated by Jul 27
[La Habra Lowe's](#) ▾

Delivery
Ready for Delivery: Estimated on Jul 26



Need this water heater installed? Lowe's can help, simply call 1-877-GO-LOWES prior to purchase; In use/lifestyle images - accessories not included

Incentive programs



~\$450 Million

Retrofit-Ready Heat Pump Hot Water Heater Summit

October 22-23, 2018

San Francisco, CA

Demand-side

- Policy Makers
- Program administrators
- Permitting agencies
- Installers

Supply-side

- OEMs

- Technical Spec Group
- Program Framework Group

Thanks

- Size
- Amperage
- Voltage
- Grid-interactivity



Electrical Constraints	Unit shall be able to operate on a shared 120 Volt / 15 Amp circuit.
Electrical Connections	Unit shall have a cord allowing plug in to standard 120V receptacle.
Space Constraints	<p>To qualify as a “space constrained” product, the unit shall</p> <ul style="list-style-type: none"> •fit within a space of 24” x 26” x 72” inclusive of drain pan and all plumbing connections and •be able to fit through an opening of minimum size as specified by the manufacturer and listed on the Qualified Products List. <p>If larger than these dimensions, the product will be listed without the space constrained mark.</p>
Energy Performance	<p>If First Hour Rating \geq 51 gallons: Cool Climate Efficiency CCE \geq 2.6</p> <p>If First Hour Rating $<$ 51 gallons: Cool Climate Efficiency CCE \geq 2.4</p>
Sound Level	dB(A) $<$ 55
Warranty	10 year parts. 1 year labor.
Demand Response Connectivity	Optional – CTA-2045, or equivalent, and complying with the proposed California 2019 Title 24 requirements, JA-13, for electric water heater demand management. To be revisited on next specification revision.
Documentation	<p>Installation manual shall contain necessary references to NEC, UPC, and describe a list of approved installation locations and electrical connection scenarios.</p> <p>It is strongly recommended that manufacturers create technical bulletins, or similar, to assist with installations in various installation locations and housing stock.</p>

We know. You didn't expect a water heater to make headlines.

New electric heaters. 75% less energy. No unhealthy emissions.



THE SWITCH IS ON



LEARN MORE ►

Switchison.org

Put your gas water heater out of our misery.



THE SWITCH IS ON

New electric water heaters. Half the annual cost. Zero nasty emissions.



Thank you!

panama@buildingdecarb.org



buildingdecarb.org