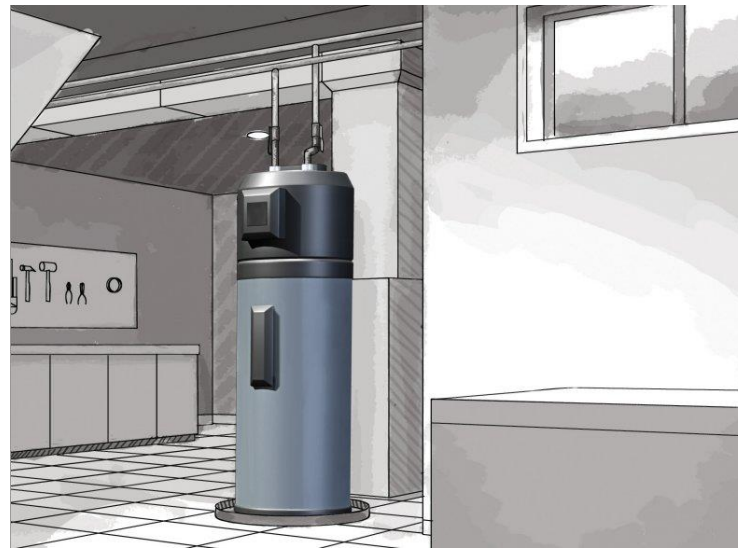


# Jump Starting Heat Pump Water Heater Sales: ENERGY STAR's Latest Efforts to Grow the Water Heater Market

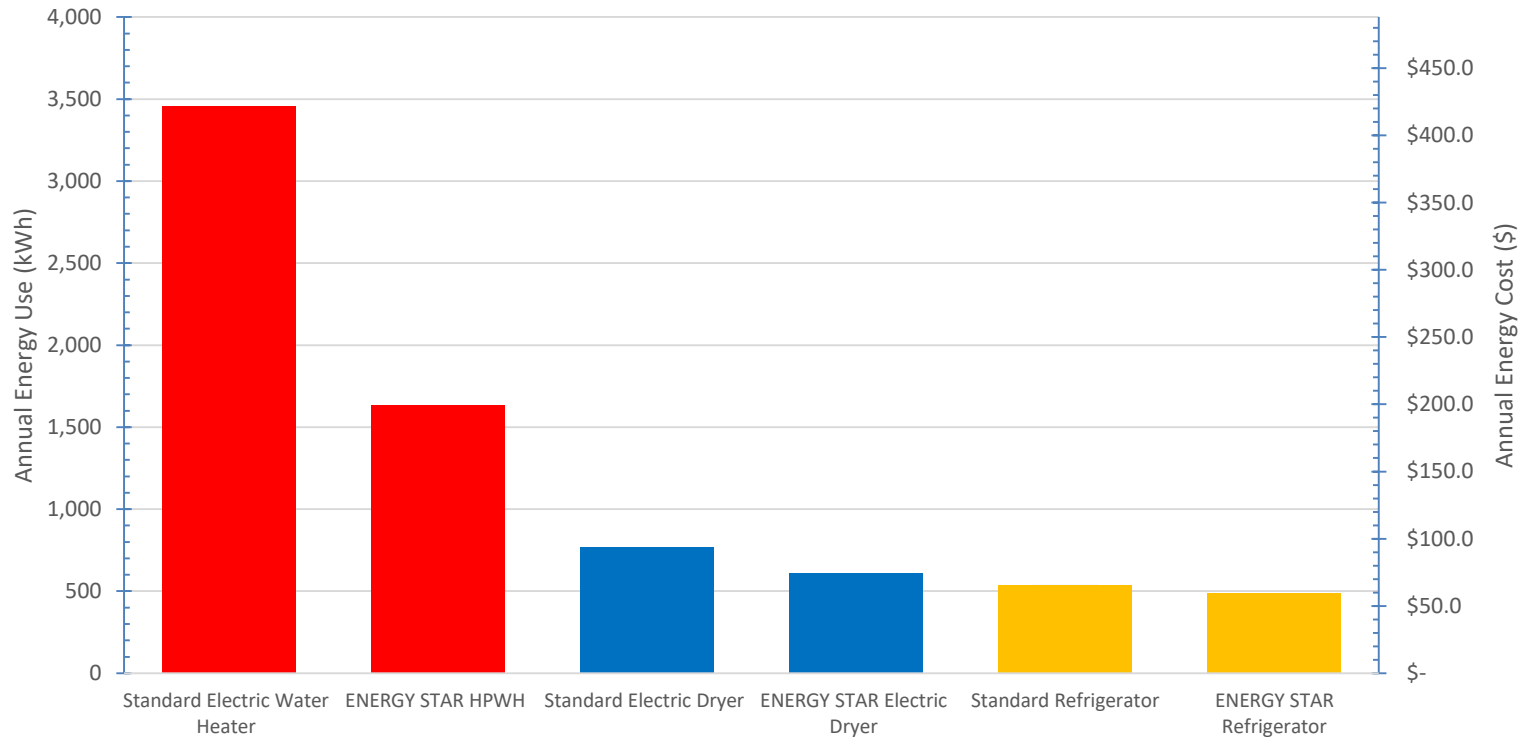


Allison Robinson, The Cadmus Group  
Contractor for Environmental Protection Agency's ENERGY STAR Program  
March 22, 2018



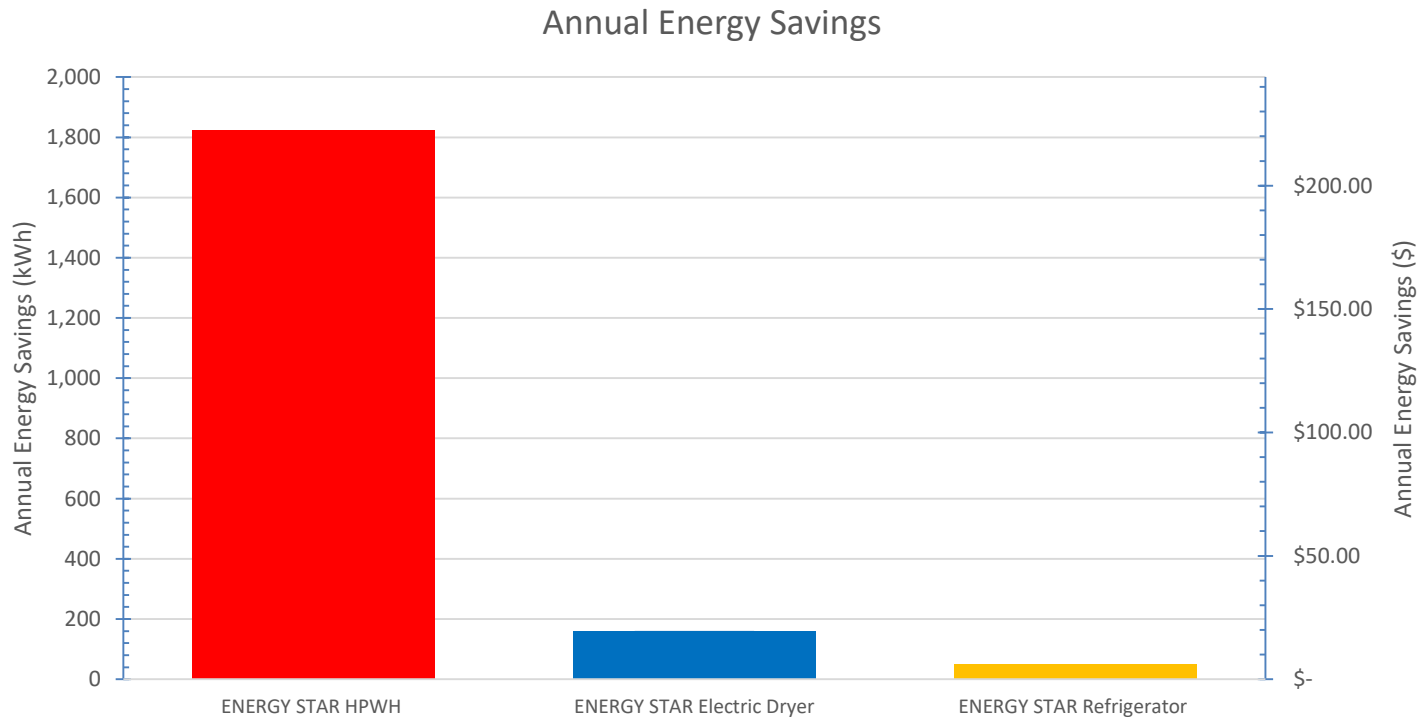
# ENERGY STAR Certified Water Heater Energy and Cost Savings are High

Comparison of ENERGY STAR Products to Standard Versions





## ENERGY STAR Certified Water Heater Savings Opportunity



## ENERGY STAR Specification for Residential Water Heaters

- Eligible for ENERGY STAR certification since 2008.
- Finalized Version 3.2 specification in July 2017, allows water heaters to certify with uniform energy factor (UEF) data. UEF requirements induce some technology breaks:
  - Electric: heat pumps only.
  - Gas instantaneous: condensing only.
  - Gas storage: condensing only for large volume.





## ENERGY STAR Specification for Residential Water Heaters

Subtype	Size	Draw Pattern	UEF
Electric	≤ 55 gal	All	2.00
	> 55 gal	All	2.20
Gas Instantaneous	All	All	0.87
Gas Storage	≤ 55 gal	Medium	0.64
		High	0.68
	> 55 gal	Medium	0.78
		High	0.80
Res duty comm.	All	All	0.80

Solar water heaters are also included; requirements in terms of Solar Energy Factor (SEF): 1.8 SEF for models with electric backup, 1.2 SEF for models with gas backup.

## Background – Utility Partners


- ENERGY STAR has over 600 utility and regional efficiency group partners.
- ENERGY STAR developed guidance on midstream distributor-focused water heater programs by:
  - Interviewing program actors that have implemented programs.
  - Reviewing key program policy papers and presentations.
  - Interviewing program managers interested in midstream water heater programs to understand their concerns.





## New! Distributor-Focused Midstream Website

ABOUT ENERGY STAR PARTNER RESOURCES



The simple choice for energy efficiency.

ENERGY EFFICIENT products    ENERGY SAVINGS at home    ENERGY EFFICIENT new homes    ENERGY STRATEGIES FOR buildings & plants

Home » Certified Products » Retailers » Distributor-Focused Midstream Programs

**Certified Products** Your source for energy efficient product information

All Certified Products | Appliances | Lighting | Office Equipment | Electronics | Product Specifications Search

- Distributor-Focused Midstream Programs** ▾
- How It Works
- Astonishing Results
- Why it Works
- Best Practices
- Midstream Resources

### Distributor-Focused Midstream Programs: The Key to Unlocking Residential Water Heater and HVAC Savings

Recently, energy efficiency program administrators have provided incentives up the supply channel to a “midstream” market actor – the wholesale distributor – resulting in sales doubling, and in some cases, increasing ten-fold for ENERGY STAR certified water heaters and HVAC. Click on “How It Works” below to be introduced to the basic concepts behind distributor-focused midstream programs. The following pages will give insight to the remarkable increases in program participation, and a helpful understanding of why the programs are so successful. You’ll also be able to review best practices and key resources gathered from program implementers.

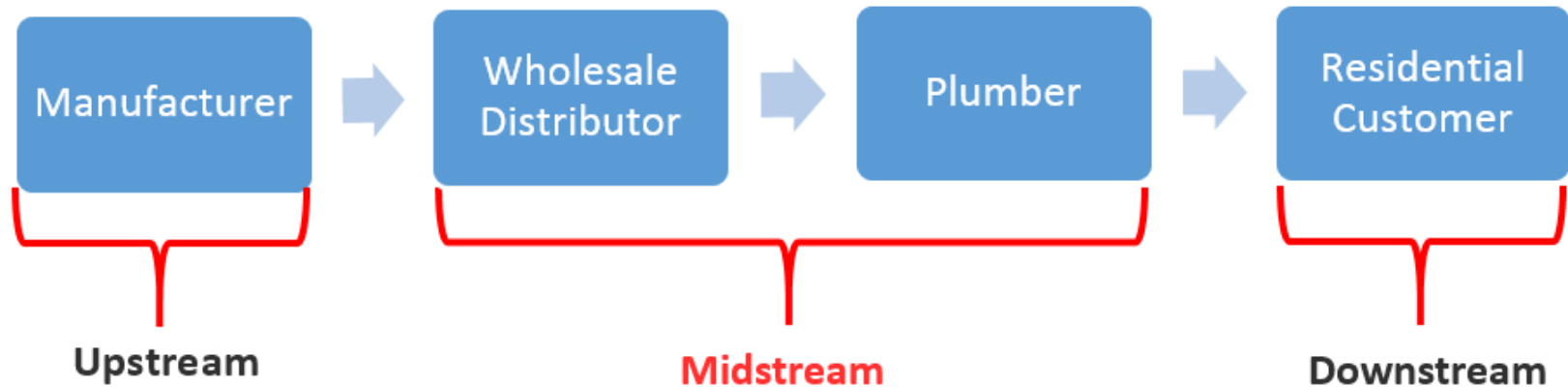
Next: [How it Works](#)>

**EXPERT ADVICE**

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

- AO Smith
- CLEARresult
- Energize CT
- Energy Solutions
- Energy Trust of Oregon
- NEEA
- SDG&E
- VEIC

## Understanding the Fundamentals



- End downstream (mail-in) rebates.
  - **Ineffective:** high overhead and marketing costs; contractors/customer do not like forms and waiting for reimbursement.
  - **Low participation:** ETO found only 50% of HPWHs sold received downstream rebates.
- Shift rebate to distributor.
  - Cooperative agreement with distributor to pass along “instant” discount to contractor.







## Why Midstream for Water Heaters Makes Sense Now

- Energy Independence & Security Act (EISA):
  - 45 lumens per watt (LPW) mandate by January 1, 2020.
- Largest impact for residential programs:
  - **Potential savings per bulb goes from 32 Watts to 3.2 Watts.**
  - 65% reduction of gigawatt hours (GWH) savings.
  - Claimable savings goes down!





## Amazing Increases in Water Heater Program Participation

Efficiency Program	Measure	Incentive Amount	Increase in Program Participation
	ENERGY STAR Certified Heat Pump Water Heater (HPWH) <sup>3</sup>	\$600*	423% <sup>4</sup> (PY1) <sup>5</sup>
	ENERGY STAR Certified HPWH <sup>6</sup>	\$300/\$500**	750% <sup>7</sup>
	ENERGY STAR Certified HPWH <sup>8</sup> and Natural Gas Water Heaters <sup>9</sup>	\$300 for gas; \$600 for HPWH	1000% <sup>10</sup> (PY2)
	ENERGY STAR Certified Natural Gas Boiler and Furnaces <sup>11</sup>	\$450 to \$800	234% (PY2)
	ENERGY STAR Certified HPWH <sup>12</sup> and Natural Gas Water Heaters <sup>13</sup>	\$100 for gas; \$300 for HPWH <sup>14</sup>	Just began program in 2017



## Why Midstream Works

- **Program administrator:**
  - Eliminates rebate breakage and increases participation by order of magnitude.
- **Manufacturer:**
  - Sells more higher profit energy efficient water heaters.
- **Plumber:**
  - Receives incentive instantly without burdensome paperwork.
- **Homeowner:**
  - Obtains efficient water heater during emergency replacement.

## Distributors Can Be Persuaded

- Hardest to convince because asking distributor to administer incentive program and:
  - Increase paperwork/ recordkeeping burden and transaction time.
  - Learn about efficient water heater options.
  - Risk overstock of unsellable efficient water heaters if funding goes away (inventories set months in advance).
  - Pass along 100% of incentive to contractor usually.
- But, distributors are often convinced by....
  - **Larger profit** per efficient water heater sold.
  - An “**administrative fee**” to ease incentive application burden.



Skeptical Distributor



## Best Practices

- Take advantage of peer learning/exchange:
  - ENERGY STAR Technical Assistance Group. Email [midstreamdistributor@energystar.gov](mailto:midstreamdistributor@energystar.gov) to set-up a call.
- Continue outreach to contractors and consumers.
- Familiarize yourself with plumbing supply distributors.
- Work with EM&V teams during program planning.
- Fine tune the midstream incentive.
- Manage how incentives are passed along.





## Best Practices: Accommodating Distributors

- Appeal to the distributor's bottom line.
- Involve few select large distributors early in the program development process.
- Provide a method for verifying eligible models.
- Provide an administrative fee to distributors.



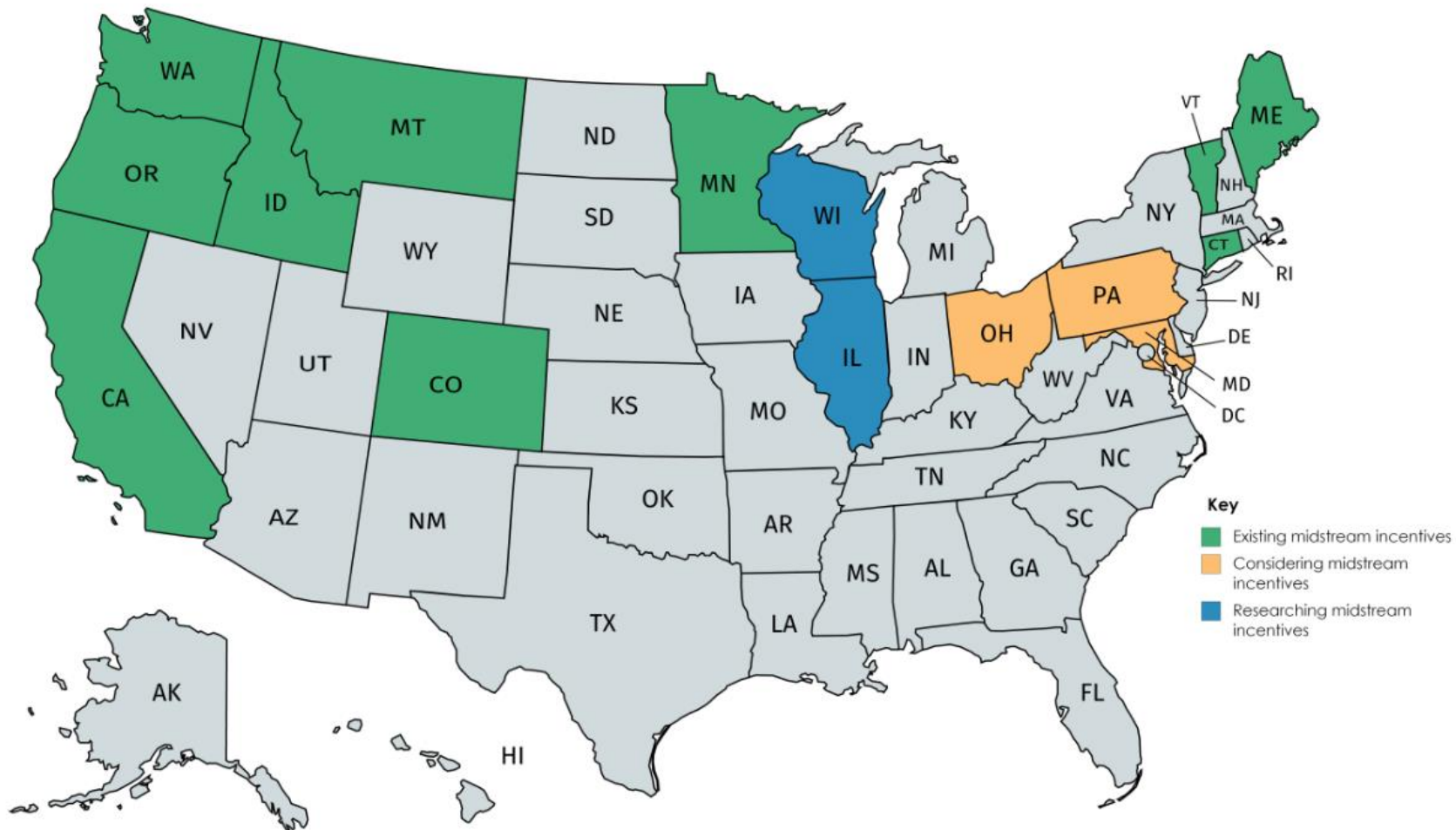
## Best Practices: Accommodating Distributors

- Pay the distributor within 30 days (enormous outlays by distributor).
  - Provide online portal to input incentive information.
  - Minimize data input requirements.
  - Automate incentive processing by integrating incented WHs into distributor inventory and sales tracking.
  - Use direct deposit and electronic fund transfers to expedite payment.
- Plan for increases in program participation to avoid budget overruns.





## Midstream HPWH Incentives from ENERGY STAR Partners





## NEW! ENERGY STAR Tool – Water Heater Replacement Guide



Heat pump water heaters use advanced technology to do the job with significantly less energy. In most homes they can be installed right where your current water heater sits. Take a moment to go through **4** simple installation considerations to figure out if a heat pump water heater is right for your home.

[GET STARTED](#)

### Why Choose an ENERGY STAR certified heat pump water heater?

- Save more than 50% on water heating energy costs – up to \$3,500 lifetime savings for a family of four.
- Take advantage of utility rebates that may be available in your area.
- Products with the ENERGY STAR label are independently certified to deliver energy savings and help protect the environment.



# Upcoming! ENERGY STAR Tool – Water Heater Contractor Finder

Find and Compare Products
Languages: English | Français
Access to ENERGY STAR API, Data Set or Excel File

Find product models that have earned the ENERGY STAR and compare features, savings and more to optimize your purchase.

- 1 Select a product category of interest to you.
- 2 Get details on specific qualifying models.
- 3 Make informed purchasing decisions.

**ENERGY STAR Certified Water Heaters** Visit the [Water Heaters](#) page for usage tips and buying guidelines.

Efficiency and performance for ENERGY STAR certified water heaters may be evaluated using two different methods. The results of testing from these methods are not directly comparable. Solar water heater products have requirements for Solar Energy Factor (SEF), not Uniform Energy Factor (UEF).

(69) heat pump water heater installers in your area
98101
SHOW INSTALLERS →

**Filter Your Results** 1432 Records Found

Filter by keyword

**Fuel**

- Electric (189)
- Natural Gas (657)
- Propane (980)
- Do not filter

**Type**

- Gas Storage (753)
- Gas Tankless (256)
- Heat Pump (182)
- High Capacity Storage (46)
- Solar with Electric Backup (210)
- Solar with Gas Backup (7)
- Do not filter

**Brand Name**

- A. O. Smith (52)
- A. O. Smith (56)
- American (81)
- American Solar (87)
- American Standard (3)
- Bosch (11)
- Bradford White (4)
- [Show more](#)

**Storage Volume (gallons)**

- Less than 50 (393)
- 50-75 (524)
- 80 or more (73)

**Rebates in your zip code:** 98101 CHANGE ZIP →

**Heat Pump Water Heaters \$500** Valid: 01/01/2011 - 12/30/2017

Mail-in Rebate [Visit website to learn more](#)

Seattle City Light | 206-684-3800

ENERGY STAR Certified **Water Heaters** Visit the [Water Heaters](#) page for usage tips and buying guidelines.

**CHANGE** product category

Efficiency and performance for ENERGY STAR certified water heaters may be evaluated using two different methods. The results of testing from these methods are not directly comparable. Solar water heater products have requirements for Solar Energy Factor (SEF), not Uniform Energy Factor (UEF).

**(69) heat pump water heater installers in your area** 98101 SHOW INSTALLERS →

*The installers listed below meet the vetting process of utility-sponsored energy-efficient heat pump water heater programs in their area or that of the product brand owner they are affiliated with. The ENERGY STAR Program is not responsible for the quality of services provided and encourages consumers to ensure their installer is properly certified and licensed.*

These links will take you to web sites external to the energystar.gov domain. EXIT ↗

**Installation professionals list provided by Hot Water Solutions, a Heat Pump Water Heater initiative of the Northwest Energy Efficiency Alliance**

**5 Corners Plumbing** A

Address: PO Box 14372  
Seattle, WA 98114

Phone: (206) 508-7972

[Visit website](#)

**7 Hills Plumbing** B

Address: PO Box 14758  
Mill Creek, WA 98082

Phone: (425) 754-0240

[Visit website](#)

**AP Plumbing LLC** C

Address: 11422 Pinyon Ave  
NE Bainbridge Island, WA

Phone: (206) 842-7857

[Visit website](#)

▲ HIDE INSTALLERS ▼



## Looking to the Future

- Greater expansion of midstream programs for water heaters.
- Instant Rebates at Retail:
  - Pilots at retail currently underway.
  - In-store smartphone app:
    - Scans the product barcode (next to POP promoting program to address attribution).
    - Asks for address, confirmation of service territory (to address leakage).
    - Issues an online coupon to reduce price at checkout.
  - Utility branded gift card could be issued instead of a reduced price (to improve attribution).

### ComEd instant rebate at retail for smart thermostats

APPLY REBATES STEP 1/3

You must agree to the following Terms and Conditions in order to redeem instant rebates.

I certify that I have residential electric service with ComEd or that I am installing this device(s) into the home served by this account.

This ComEd rebate brought to you by the ComEd Energy Efficiency Program which is funded by ComEd customers in compliance with Illinois law.

I agree and adhere to the ComEd Smart Thermostat [Eligibility Requirements and Terms & Conditions](#).

Continue



## Interested in Learning More or Meeting with the TAG?

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





## Any Questions?

- Key Staff:
  - Rosemarie Stephens-Booker, EPA ENERGY STAR, 202-343-9529, [stephens-booker.rosemarie@epa.gov](mailto:stephens-booker.rosemarie@epa.gov)
  - Allison Robinson, Cadmus, (503) 467-7102, [Allison.Robinson@cadmusgroup.com](mailto:Allison.Robinson@cadmusgroup.com)
  - Robert Huang Cadmus, (617) 673-7117, [Robert.Huang@cadmusgroup.com](mailto:Robert.Huang@cadmusgroup.com)
- Midstream Website:  
[www.energystar.gov/products/retailers/midstream\\_programs](http://www.energystar.gov/products/retailers/midstream_programs)