

# Overview of Heat Pump Water Heater Programs in the United States and Canada



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# Executive Summary

The CEE *Overview of Heat Pump Water Heater Programs in the United States and Canada* summarizes programs active in 2016 that were designed to promote the purchase and installation of efficient heat pump water heaters (HPWHs). The 56 CEE members included in this year's Program Overview span 33 US states, the District of Columbia, and one Canadian province. They collectively serve more than 60 million residents.

Heat pump water heaters are becoming an increasingly prevalent offering in residential sector portfolios; 10 programs listed in this document launched in 2014, another 2 began in 2015, and 4 more are new as of 2016. Members with data from the past three years show an increase in program participation over time, with an average of 18 percent more units rebated in 2015 than in 2014.

The number of products incentivized relative to the total number of electric residential **customers in a member's** given service territory, however, varies greatly across programs and regions. Most administrators are seeing penetration rates between 0.00% and 0.15% (annual number of units rebated per number of residential electric customers) from 2014 and 2015 data. A few programs were outliers, with penetration rates around 0.20% and 0.40%. Key barriers to program adoption to date include: limited stocking of products upstream; lack of consumer demand; unavailability of models in particular service territories; difficulty addressing the emergency replacement market; small percentage of customer base with electric fuel for water heating; and unawareness or misinformation from contractors, installers, or plumbers.

Almost all of the programs included in this document provide financial incentives downstream to consumers, most commonly through mail-in rebates, online submissions, or checks. A few programs promote through midstream or upstream models, with incentives going to retailers, contractors, or distributors. The incentives for all of the programs range between \$50 and \$1,000. Many programs are also seeking to address installation considerations, either through formal minimum requirements, or reference to installation guidance resources (aimed at customers, plumbers, or contractors). Some organizations also provide financing of some sort, often through loans or other options affiliated with their broader whole house programs. A few members are actively promoting connectivity, with several more researching the potential to address demand response or smart products in the future.

## About This Document:

Information on the 56 CEE member programs represented in this document was compiled in the summer of 2016. Due to the fact that each CEE member uses different program development processes and schedules, this document aims to provide the best available snapshot of these programs as of the date of its publication, and does not attempt to describe how they have evolved to date or how they are likely to change in the future.

While this resource is focused exclusively on heat pump water heaters, additional relevant information about active member programs may be found in other [CEE Program Summaries](#), including the *CEE Residential Gas Water Heating Program Summary*, *CEE Appliance Program Summary*, *CEE Residential HVAC Program Summary*, and *CEE Existing Homes Program Summary*.

## For More Information:

You may direct questions about individual programs to the contact person(s) indicated in the Program Overview. We encourage comments on this document, particularly suggestions for information that would be useful to include in future versions. To offer such input or ask any questions, please contact Alice Rosenberg at [arosenberg@cee1.org](mailto:arosenberg@cee1.org).

# Overview of Heat Pump Water Heater Programs

## Organizational Information and Background

Figure 1. Member Sponsorship Types

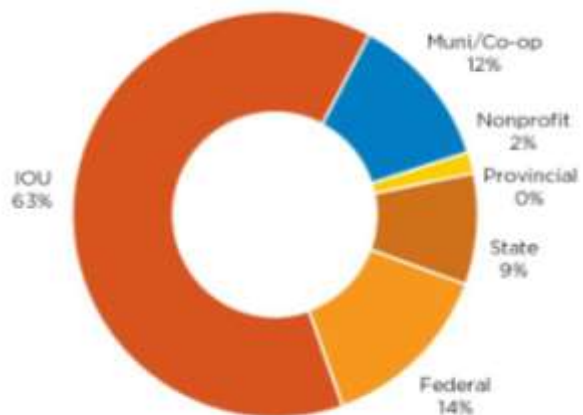
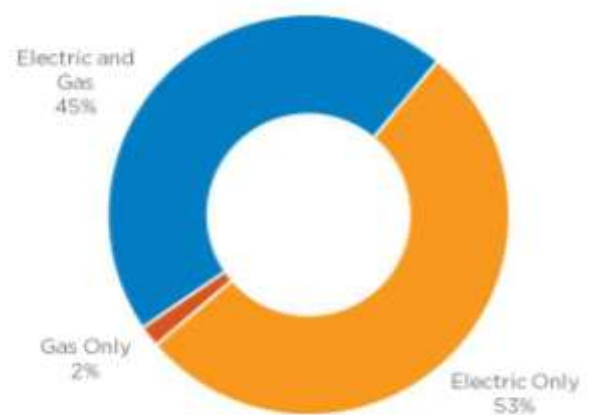


Figure 2. Organization Fuel Types



## Specific Program Information

Figure 3. Program Year Established

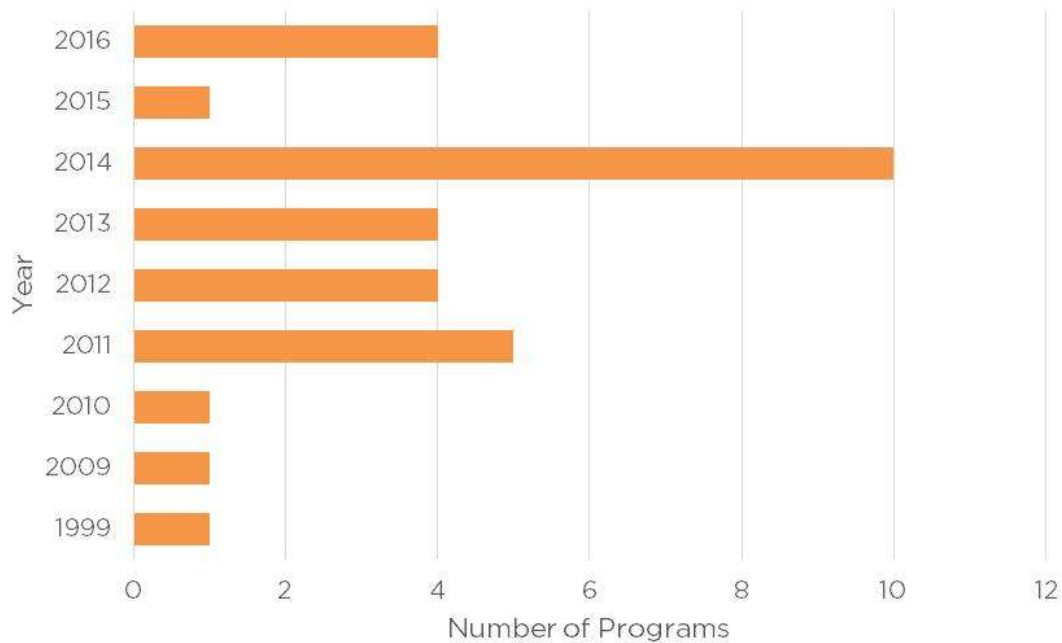


Figure 4. Specifications Used

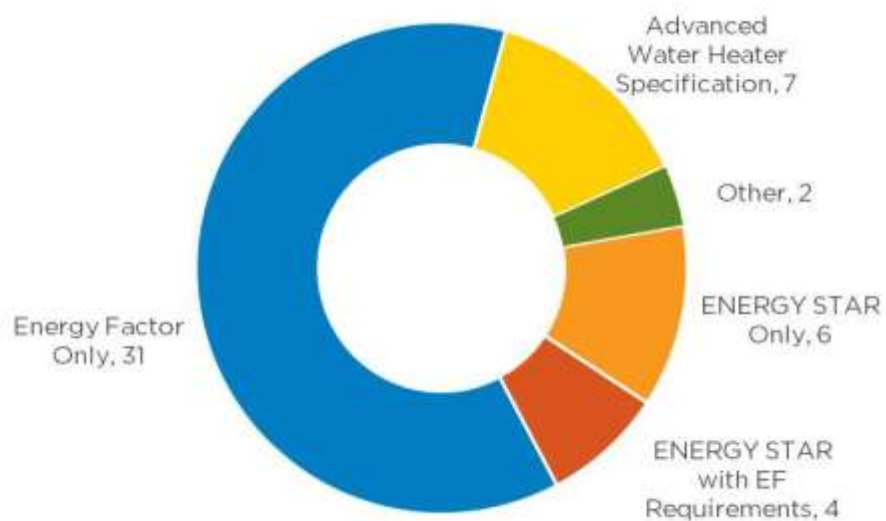


Figure 5. Incentive Recipients

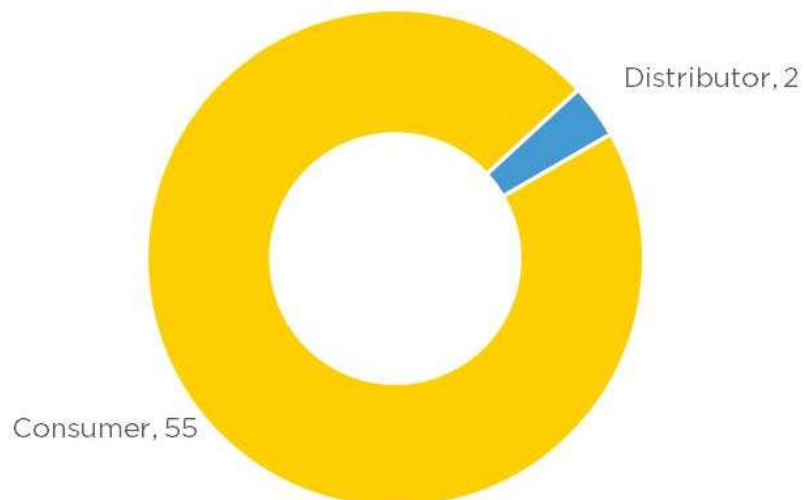


Figure 6. Incentive Amounts

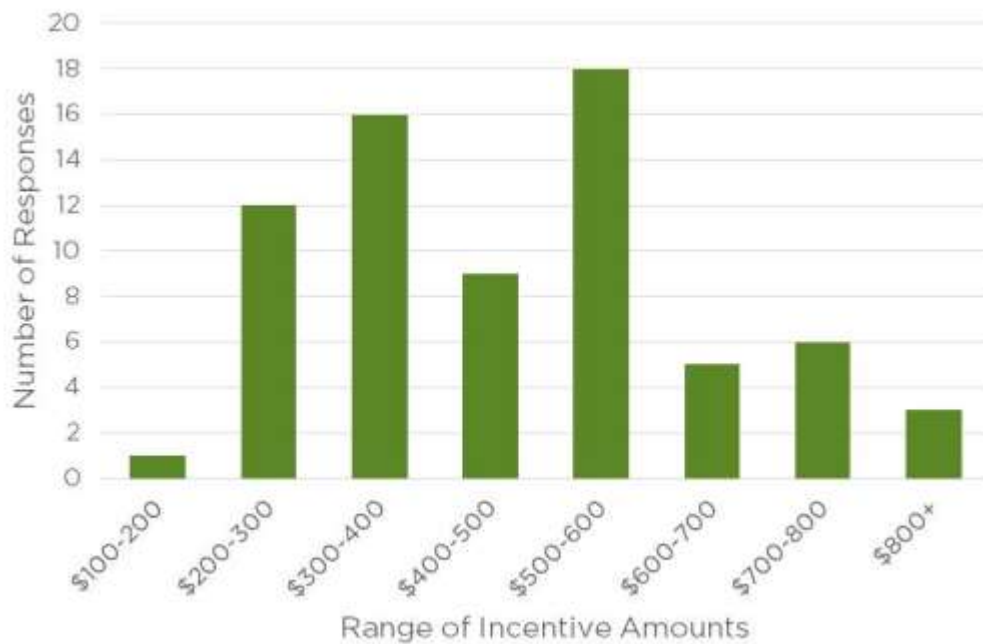
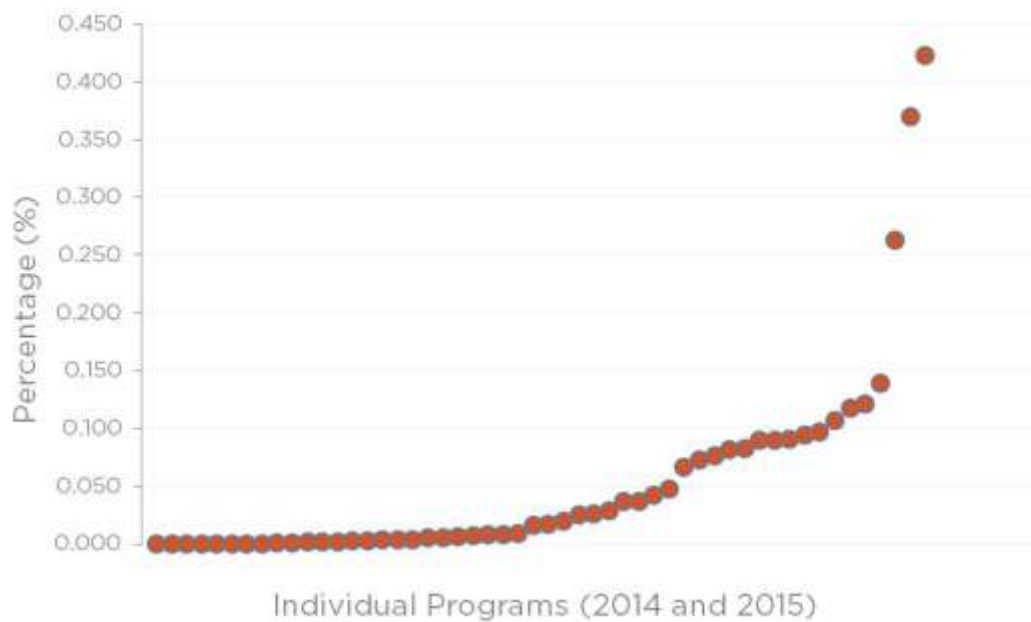


Figure 7. Percent of Rebates Per Customers  
(Annual Number of Units Rebated Per Number of Residential Electric Customers)



\* Data based only on information available from select member programs

# Summary of Heat Pump Water Heater Programs

	BACKGROUND			PROGRAM INFORMATION				
Organization and Website	State/Prov	Fuel Type	Year Est.	Efficiency Criteria	Incentive Amount	Incentive Recipient	Requirements	Marketing/Messaging
<a href="#">Alliant Energy—Iowa</a>	IA	Electric & Gas	2014	2.0	\$300	Consumer		Tips for saving energy, success stories
<a href="#">Ameren Missouri</a>	MO	Electric & Gas	2013	ENERGY STAR	\$500	Consumer	No specific requirements	On -bill, online banners, direct mail, partner co-branding, pre-roll video
<a href="#">Austin Energy</a>	TX	Electric Only	2011	2.0	\$800	Consumer	Installation must meet all codes and building permits	
<a href="#">Baltimore Gas and Electric Company</a>	MD	Electric & Gas	-	2.0 for ≤55 gal, 2.2 for >55 gal	\$500	Consumer	Must be installed by a participating contractor	Energy saving tips
<a href="#">Bonneville Power Administration</a>	NW	Electric Only	-	Advanced Water Heater Spec	\$300-\$500	Consumer Distributor	Installers must receive manufacturer training before installation	
<a href="#">Cape Light Compact</a>	MA	Electric Only	-	2.3	\$750	Consumer	Installed by MA licensed plumber, be UL listed, comply w NEC, all codes, and mfr's specs (full reqs online)	Mass Save educational materials for distributors/contractors; customer facing materials at retail stores.
<a href="#">Commonwealth Edison</a>	IL	Electric Only	2015	ENERGY STAR	\$500	Consumer	None	Energy management, Energy Doctor
<a href="#">DC Sustainable Energy Utility</a>	DC	Electric & Gas	2014	2.0	\$500	Consumer	Participating contractor	Customer handout, online tips and info
<a href="#">Duke Energy Progress—Carolinas</a>	NC, SC	Electric Only	2012	ENERGY STAR, EF 2.0	\$350	Consumer	Participating contractor	Website, email, retail signs, paid search, print, community outreach.
<a href="#">Duke Energy—Carolinas</a>	NC, SC	Electric Only	2014	ENERGY STAR, EF 2.0	\$350	Consumer	Installed by a Smart \$aver contractor, and operable before submitting rebate	Website, email, retail signs, paid search, print, grassroots, community outreach.
<a href="#">Duke Energy—Indiana</a>	IN	Electric Only	2016	2.0	\$350	Consumer	Installed by a Smart \$aver contractor, and operable before submitting rebate	Website, email, retail signs, paid search, print, grassroots, community outreach.



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<a href="#">Duke Energy—Kentucky</a>	KY	Electric & Gas	2014	2.0	\$350	Consumer	Installed by a Smart \$aver contractor, and operable before submitting rebate	Website, email, retail signs, paid search, print, grassroots, community outreach.
<a href="#">Duke Energy—Ohio</a>	OH	Electric & Gas	2014	2.0	\$350	Consumer	Installed by a Smart \$aver contractor, and operable before submitting rebate	Website, email, retail signs, paid search, print, grassroots, community outreach.
<a href="#">Efficiency Maine</a>	ME	Electric & Gas	2012	ENERGY STAR	\$250	Consumer	Can use a registered installer, but not required	<a href="#">website</a>
<a href="#">Efficiency Vermont</a>	VT	Electric Only	2013	2.0	\$400	Consumer Distributor	Downstream: must replace existing elec water heater Upstream: must provide install location. Full reqs and other considerations listed online	Downstream: brochure, <a href="#">website</a>  Upstream: formal sales and training plan Details online.
<a href="#">Energy Trust of Oregon—Oregon</a>	OR	Electric & Gas	2012	Advanced Water Heater Spec Tiers 1-3	\$150; \$300	Consumer	Program eligible contractor; can also qualify for self-installation if pre-approved by Energy Trust of Oregon	Align and cross promote w mfr and upstream discounts; fact sheets; present at events, work with mfr; large mail campaigns
<a href="#">Eugene Water &amp; Electric Board</a>	OR	Electric Only	2014	Advanced Water Heater Spec	\$200; \$300	Consumer	Installers must receive mfr. training before installation; must submit HPWH installation form	Marketing opportunities through Smart Water Heat at <a href="https://smartwaterheat.org/">https://smartwaterheat.org/</a> .
<a href="#">Eversource—Connecticut</a>	CT	Electric & Gas	2013	ENERGY STAR, EF 2.0	\$400	Consumer	Purchase from participating retailer or distributor in CT Optional installation steps	Seasonal tips, EE blog, and e-smart kids
<a href="#">Eversource—Massachusetts</a>	MA	Electric & Gas	1999	2.3	\$750	Consumer	Installed by MA licensed plumber, be UL listed, comply w NEC, all codes, and mfr's specs (full reqs online)	Mass Save educational materials for distributors/contractors; customer facing materials at retail stores.

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<a href="#">Eversource—New Hampshire</a>	NH	Electric Only	-	2.3	\$500 ≤50 gal; \$600 ≤80 gal	Consumer		Energy saving tips, ways to save energy
<a href="#">Eversource—Western Massachusetts</a>	MA	Electric & Gas	-	2.3	\$750	Consumer	Installed by MA licensed plumber, be UL listed, comply w NEC, all codes, and mfr's specs (full reqs online)	Mass Save educational materials for distributors/contractors; customer facing materials at retail stores.
<a href="#">FortisBC</a>	BC	Electric & Gas	2014	Advanced Water Heater Spec	\$500	Consumer	Must be sized correctly by AWHs, replace an existing elec. water heater, and be primary hot water source	Outreach through contractors and manufacturers; website presence.
<a href="#">Georgia Power</a>	GA	Electric Only	-	2.0	\$550	Consumer		Energy tips, seasonal tips, expert Q&A, testimonials
<a href="#">Hawaii Energy Efficiency Program</a>	HI	Electric Only	2016	ENERGY STAR	\$300	Consumer	Must be less than or equal to 55 gallons	Tips to save energy
<a href="#">Liberty Utilities—Massachusetts</a>	MA	Gas Only	-	2.3	\$750	Consumer	Installed by MA licensed plumber, be UL listed, comply w NEC, all codes, and mfr's specs (full reqs online)	Mass Save educational materials for distributors/contractors; customer facing materials at retail stores.
<a href="#">MidAmerican Energy—Illinois</a>	IL	Electric & Gas	-	2.0-2.29; 2.3	\$300; \$400	Consumer	No	Energy efficiency tips
<a href="#">MidAmerican Energy—Iowa</a>	IA	Electric & Gas	2016	2.0-2.29; 2.3	\$300; \$400	Consumer	No	Energy efficiency tips
<a href="#">Mississippi Power</a>	MS	Electric Only	-	2.0	\$300	Consumer		Energy FAQs, Top Ten Energy Tips, Find an Energy Expert
<a href="#">National Grid—Massachusetts</a>	MA	Electric & Gas	2011	2.3	\$750	Consumer	Installed by MA licensed plumber, be UL listed, comply w NEC, all codes, and mfr's specs (full reqs online)	Mass Save educational materials for distributors/contractors; customer facing materials at retail stores.
<a href="#">National Grid—Upstate New York</a>	NY	Electric & Gas	-	2.0	\$400	Consumer		Energy saving tips, why save energy

	BACKGROUND			PROGRAM INFORMATION				
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<a href="#">National Grid—Rhode Island</a>	RI	Electric & Gas	2011	2.3	\$750	Consumer	Installed by RI licensed plumber, be UL listed, comply w NEC, all codes, and mfr's specs (full reqs online)	Educational materials for distributors/contractors; customer facing materials at retail stores.
<a href="#">Nebraska Public Power District</a>	NE	Electric Only	-	1.9	\$200	Consumer		EnergyWise Tip, EE videos, brochures, energy savers shopping list
<a href="#">New Hampshire Electric Co-op</a>	NH	Electric Only	-	2.3	\$500 ≤50 gal; \$600 ≤80 gal	Consumer		Energy saving tips, ways to save energy
<a href="#">New Jersey's Clean Energy Program</a>	NJ	Electric & Gas	-	2.0	\$500	Consumer		Success stories, 10 Ways to Save
<a href="#">Pacific Gas and Electric Company</a>	CA	Electric & Gas	2014	2.0	\$500	Consumer	No	EE tips, buyer's guide
<a href="#">PECO</a>	PA	Electric & Gas	2010	2.3	\$400	Consumer	No	Promoting benefits of HPHW in first bill insert May 2015
<a href="#">Potomac Electric Power Company (Pepco)—Maryland</a>	MD	Electric Only	-	ENERGY STAR	\$500	Consumer	No	Energy saving tips and tools, kids corner, customer experience
<a href="#">Public Service Electric &amp; Gas</a>	NJ	Electric & Gas	-	2.0	\$500	Consumer		Energy saving tips and tools, ENERGY STAR video podcast, customer guide
<a href="#">Puget Sound Energy</a>	WA	Electric & Gas	2009	Advanced Water Heater Spec Tiers 1-3	\$500; \$800	Consumer	New HPWH equipment must be installed outside of conditioned living space.	About efficiency, energy saving tips
<a href="#">Rocky Mountain Power—Utah</a>	UT	Electric Only	2012	Advanced Water Heater Spec	\$600	Consumer	Installed by program-eligible contractor or by homeowner. Gas conversions do not apply.	Energy efficiency tips, dollar savings per year
<a href="#">Rocky Mountain Power—Wyoming</a>	WY	Electric Only	2011	Advanced Water Heater Spec	\$300	Consumer	Installed by program-eligible contractor or by homeowner. Gas conversions do not apply.	Energy efficiency tips, dollar savings per year

Organization and Website	BACKGROUND			PROGRAM INFORMATION				
	State/Prov	Fuel Type	Year Est.	Efficiency Criteria	Incentive Amount	Incentive Recipient	Requirements	Marketing/Messaging
<a href="#">Sacramento Municipal Utility District</a>	CA	Electric Only	2014	ENERGY STAR, EF 2.0	\$1,000	Consumer	Must pass building department inspection through permit process	Electric only customer target mailing effort three times per year, targeted billboards in all electric areas
<a href="#">San Diego Gas &amp; Electric Company</a>	CA	Electric & Gas	-	2.0	\$250	Consumer	No	Energy saving tips
<a href="#">Seattle City Light</a>	WA	Electric Only	2011	Advanced Water Heater Spec	\$500	Consumer	Installer must have received manufacturer training	Brochures, FAQs, blog, newsletter, efficiency tips
<a href="#">Southern California Edison</a>	CA	Electric Only	2016	2.0	\$200	Consumer	Must replace existing electric water heater; additional reqs listed online	Print ads, web banners, events, sponsorships, brochures, bill inserts, mail, articles, online, retail POP, social media
<a href="#">Tennessee Valley Authority—Alabama</a>	AL	Electric Only	-	Not listed	\$200	Consumer	Installed by Quality Contractor Network	Seasonal energy saving tips
<a href="#">Tennessee Valley Authority—Georgia</a>	GA	Electric Only	-	Not listed	\$200	Consumer	Installed by Quality Contractor Network	Seasonal energy saving tips
<a href="#">Tennessee Valley Authority—Kentucky</a>	KY	Electric Only	-	Not listed	\$200	Consumer	Installed by Quality Contractor Network	Seasonal energy saving tips
<a href="#">Tennessee Valley Authority—Mississippi</a>	MS	Electric Only	-	Not listed	\$200	Consumer	Installed by Quality Contractor Network	Seasonal energy saving tips
<a href="#">Tennessee Valley Authority—North Carolina</a>	NC	Electric Only	-	Not listed	\$200	Consumer	Installed by Quality Contractor Network	Seasonal energy saving tips
<a href="#">Tennessee Valley Authority—Tennessee</a>	TN	Electric Only	-	Not listed	\$200	Consumer	Installed by Quality Contractor Network	Seasonal energy saving tips
<a href="#">Tennessee Valley Authority—Virginia</a>	VA	Electric Only	-	Not listed	\$200	Consumer	Installed by Quality Contractor Network	Seasonal energy saving tips

	BACKGROUND			PROGRAM INFORMATION				
Organization and Website	State/Prov	Fuel Type	Year Est.	Efficiency Criteria	Incentive Amount	Incentive Recipient	Requirements	Marketing/Messaging
<a href="#">United Illuminating Company</a>	CT	Electric Only	2013	ENERGY STAR	\$300 or 400			Energy savings tips and tools, 101 ways to save energy, Home Energy Assessment informational leave-behind, and HPWH educational brochure
<a href="#">Unitil—New Hampshire</a>	NH	Electric & Gas	-	2.3	\$500 ≤50 gal; \$600 ≤80 gal	Consumer		Energy saving tips, ways to save
<a href="#">Vectren Corporation—Indiana</a>	IN	Electric & Gas	-	2.0	\$300	Consumer		Energy efficiency tips
<a href="#">Xcel Energy—Colorado</a>	CO	Electric & Gas	2014	ENERGY STAR or AHRI	\$450	Consumer	No	website, cross-collateral brochure, trade partner training