



Heat Pump Water Heater

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NORTHWEST ENERGY EFFICIENCY ALLIANCE

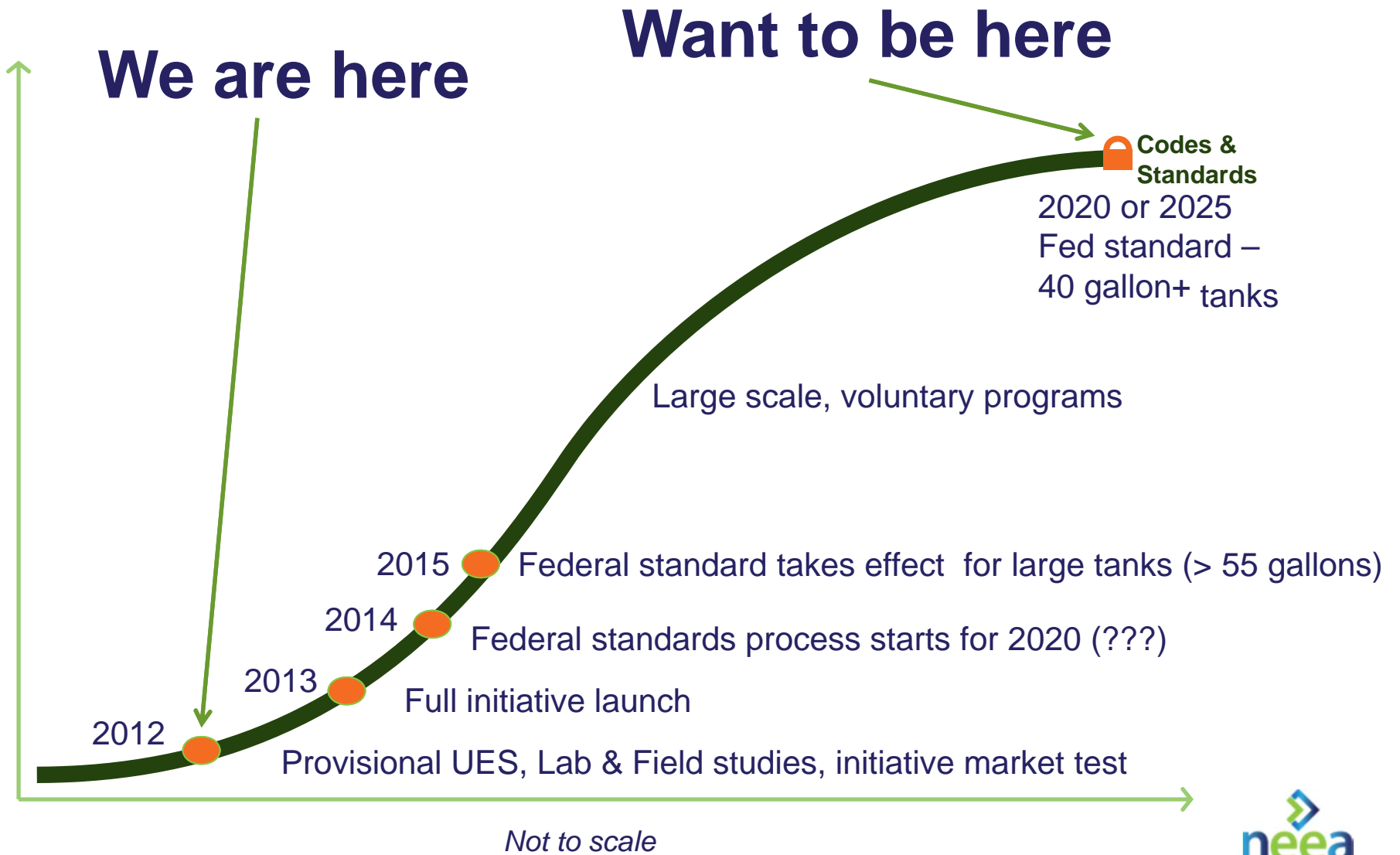
Northwest Energy Efficiency Alliance



Vision:
Energy efficiency is a cornerstone of a vibrant sustainable Northwest.

Mission:
Mobilize the Northwest to become increasingly energy efficient for a sustainable future

Heat Pump Water Heater Roadmap

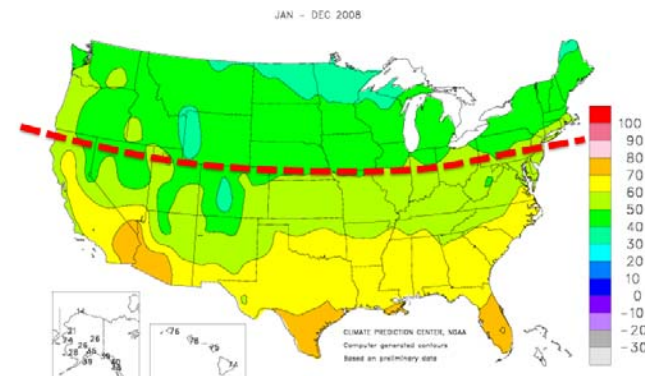


Northern Climate Specification

WHY? Provide guidance to manufacturers; product framework for utility programs

WHAT? Climate-sensitive ratings; features for reliable savings, customer comfort

HOW? Tiered product qualification, test procedures.



Northern Climate Product Tiers



Lab Testing



Air Generate in a Thermal Chamber

Extensive lab & field testing to date

Lab testing of

- AirGenerate 66 gallon
- AirGenerate 50 gallon
- AO Smith 80 gallon
- AO Smith 60 gallon
- Bosch 3000
- Daikin (European inverter-driven)
- GE GeoSpring (BPA)
- Rheem (BPA)
- Steibel-Eltron
- SkySea

Field testing

- BPA/EPRI study (40 sites in NW, 160 nation-wide)
- NEEA 30-unit tier 2 study (2013 completion)
- Savings validation study

Unique testing

- Low temperature
- Ducting
- # of Showers
- Freeze
- Compressor cut-off
- Reliability/Failure

N. Climate Qualified Product List

Northern Climate Product Tier	Product Brand	Model	Volume (gallons)	Northern Climate Energy Factor	Northern Climate Delivery Rating	Qualified Date
Tier 2						
	AirGenerate	ATI66	66	2	3	11/10/2011*
Tier 1						
	American	HPE10280H045DV	80	1.8	4	2/1/2012
	American	HPE10260H045DV	60	2	3	2/1/2012
	A.O. Smith	PHPT-80	80	1.8	4	11/10/2011
	A.O. Smith	PHPT-60	60	2	3	2/1/2012
	GE	GEH50DNSR	50	1.9	2	11/10/2011
	GE	GEH50DEEDSR	50	1.9	2.5	5/10/2012
	GE	GEH50DEEDSC	50	1.9	2.5	5/10/2012
	Kenmore	153.32118	80	1.8	4	2/1/2012
	Kenmore	153.32116	60	2	3	2/1/2012
	Reliance	10 80 DHPT	80	1.8	4	2/1/2012
	Reliance	10 60 DHPT	60	2	3	2/1/2012
	State	EPX 80 DHPT	80	1.8	4	2/1/2012
	State	EPX 60 DHPT	60	2	3	2/1/2012
	Stiebel Eltron	Accelera 300	80	1.9	5	2/27/2012
	U.S. Craftmaster	HPE2K80HD045V	80	1.8	4	2/1/2012
	U.S. Craftmaster	HPE2K60HD045V	60	2	3	2/1/2012
	Whirlpool	HPE2K80HD045V	80	1.8	4	2/1/2012
	Whirlpool	HPE2K60HD045V	60	2	3	2/1/2012

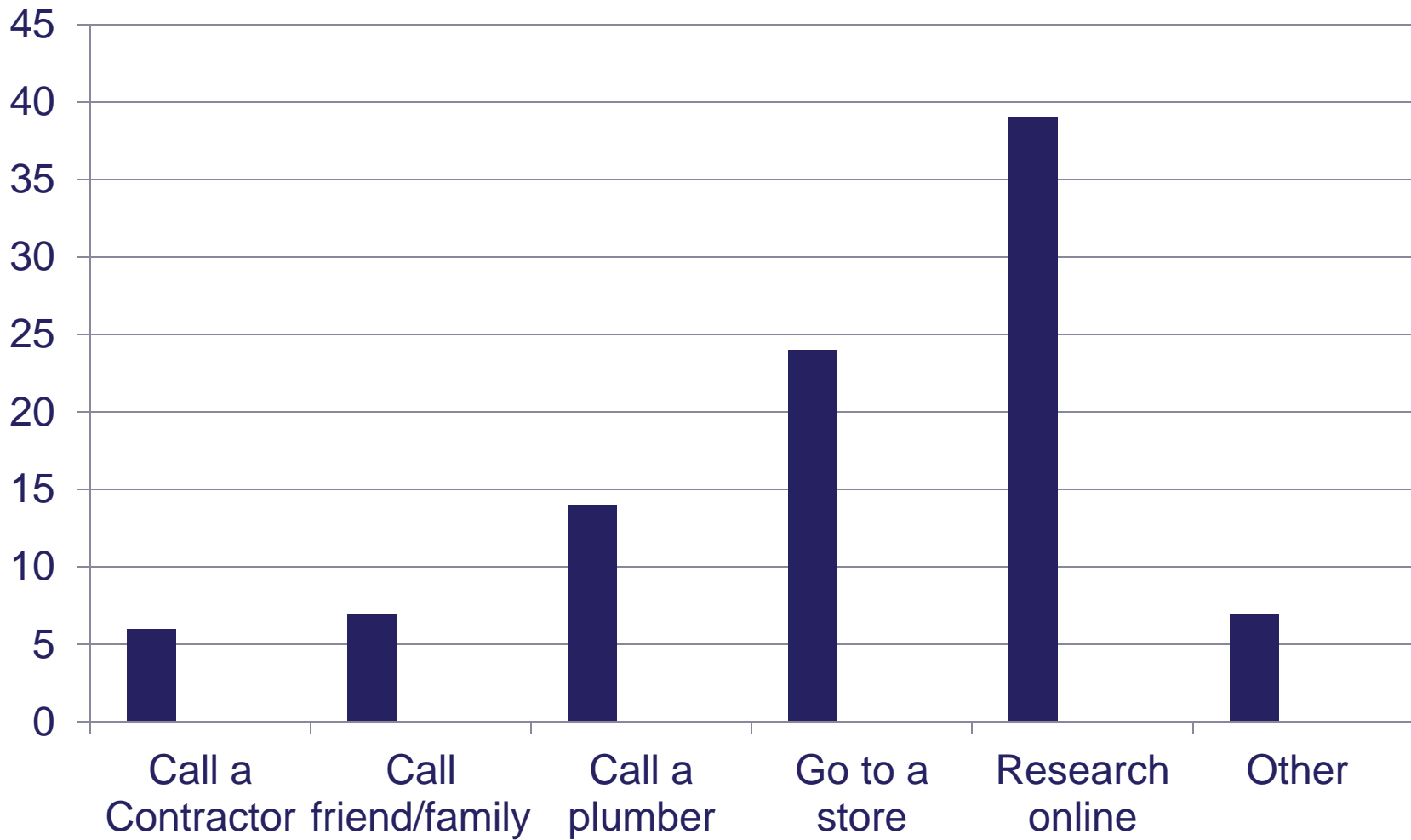
* The current version of the Air Generate ATI66 is shipping without condensate management features found in section 5.5.2 of the Northern Climate Specification. This product is provisionally approved for Tier II based on manufacturer plans to incorporate this functionality by June 1, 2012.

NEEA 2011 Water Heater Market Update

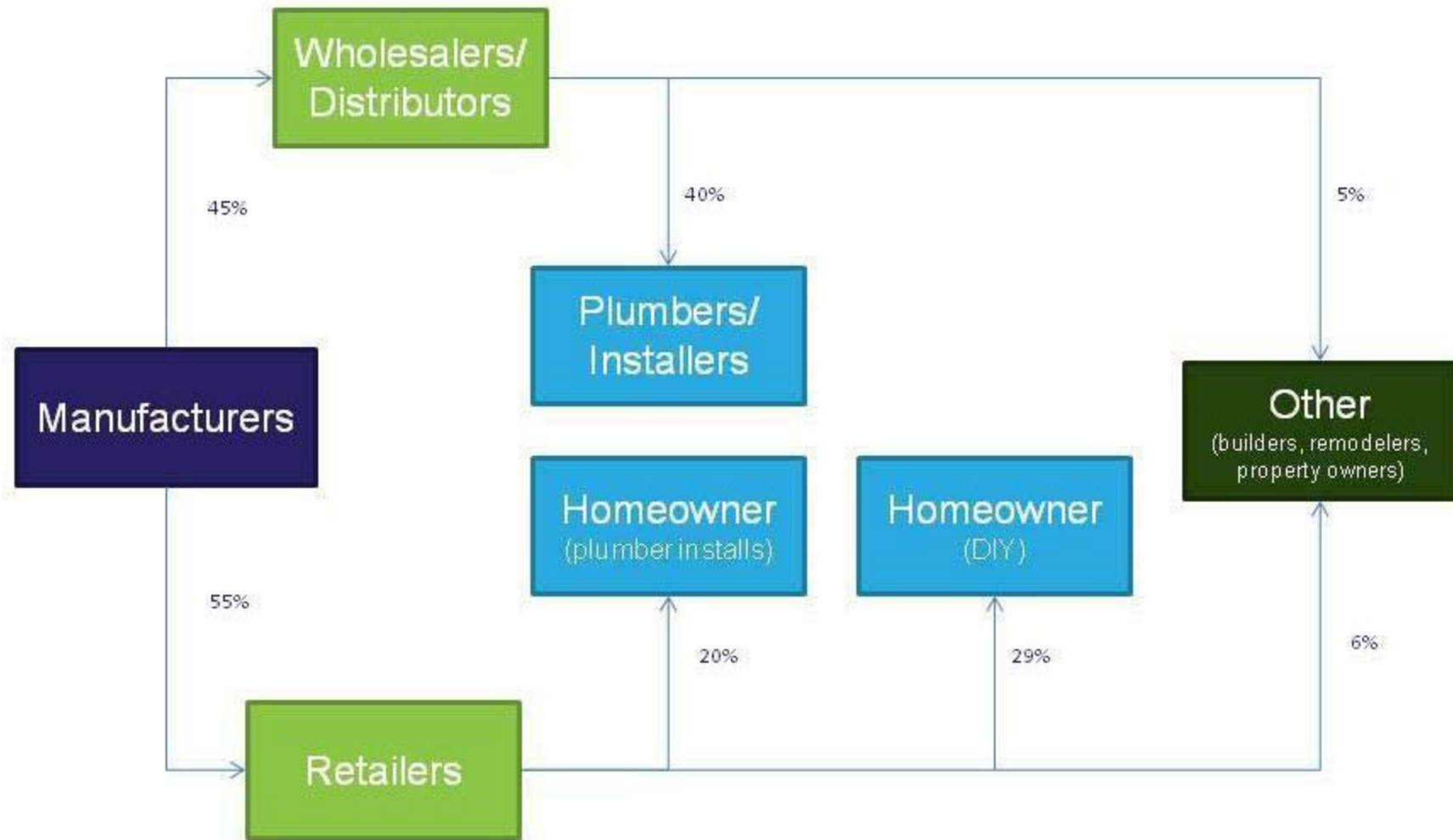
Summary of Key Findings:

- Recession has deflated the water heater market
- Consumers are interested but skeptical about efficient models
- Education gaps hinder adoption
- Consumers focus on price
- How consumers research and purchase is changing

Consumer Preference for Starting Buying Process



Water Heater Distribution Channels



Research Conclusions/Recommendations

- Focus on cost first
- Education consumers and installers – Buyers trust installers
- Marketing and advertising in down economy can increase future planned purchases
- Heat pump water heaters need better design to meet Northwest needs
- In purchase process, opportunities lie in early education and ENERGY STAR brands

Smart Water Heat 2012 Activities

Objective:

Test market intervention strategies to remove market barriers

Activities include:

- Utility partner support and collaboration
- Trade ally support and engagement
- Supply chain engagement
- Quality assurance
- Northern climate product incentives
- Consumer education and marketing resources

Supply Chain Engagement

Market actor collaboration

Support technical and installation trainings

Deliver orientations

Maintain oriented contractors listing

Educational retail POP

The screenshot displays the 'Smart Water Heat' website, which is described as 'Your Heat Pump Water Heater Resource'. The page features a navigation menu with 'Product Information', 'How to Purchase', and 'About Us'. A search bar is located in the top right corner. The main content area is titled 'REBATES' and 'How do I purchase a Heat Pump Water Heater?'. Below this, a search tool allows users to find qualified installers or retailers by entering a Zip Code, Distance (mi), OR City, and State. There are checkboxes for 'Contractors' and 'Retailers', and a 'Find' button. The search results list three retailers: A-Boy Electric & Plumbing (7344 SE Foster Rd, Portland, OR 97206), A-Boy Electric & Plumbing (2671 NW Vaughn St, Portland, OR 97210), and Ace Freeland Home Center (1609 E Main St, Freeland, WA 98249). A map on the right side of the page shows the search area in the Pacific Northwest region.

Retail Engagement

- POP Placement
- Education resources
- Sales team engagement & training



**Hot Showers,
Lower Bills**

It's all possible with a heat pump water heater. You can save up to 50%* on your water heating costs.

To learn more and find available utility rebates, visit:

SmartWaterHeat.org

* Based on findings from the NW Regional Technical Forum and the U.S. Department of Energy.

Smart Water Heat

Your Heat Pump Water Heater Resource

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Search...



Go



Save up to 50% on water heating costs

Heat pump water heaters are revolutionizing the way we heat water. Compared to traditional electric water heaters, heat pump water heaters can save up to 50% on energy costs from heating water.

[Learn More >>](#)



Need help selecting a heat pump water heater?

Let us help you find the right model.

[Learn more >>](#)



Cut your water heating cost in half!

Heat pump water heaters reduce home water heating costs.

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Resources

Northern Climate Specification

<http://neea.org/docs/northern-climate-heat-pump-water-heater-specification/northern-climate-specification.pdf>

Northern Climate Product List

<http://neea.org/docs/northern-climate-heat-pump-water-heater-specification/qualified-products-list.pdf>

Smart Water Heat website

www.smartwaterheat.org

2011 Water Heater Market Update

<http://neea.org/docs/reports/2011WaterHeaterMarketUpdateA273DBB87CA3.pdf?sfvrsn=6>

Regional Water Heater Study

<http://neea.org/docs/studies/energystudy>

Questions & Contact Information

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