Innovation to Action

Transforming the Gas Water Heating Market

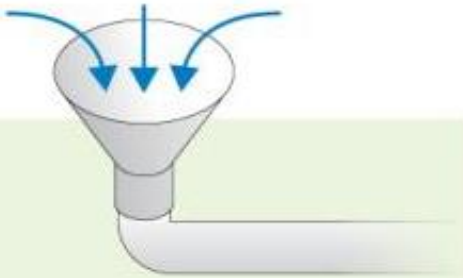
Agenda

- NEEA overview
  - Natural Gas
- Opportunity
- Activities
- EHPWH Lessons Learned
- Roadmap
- Q&A

The Northwest Energy Efficiency Alliance (NEEA) is a nonprofit organization working to effect market transformation through the acceleration and adoption of energy-efficient products, services and practices. NEEA is an alliance of more than 140 Northwest utilities and energy efficiency organizations working on behalf of more than 13 million energy consumers.

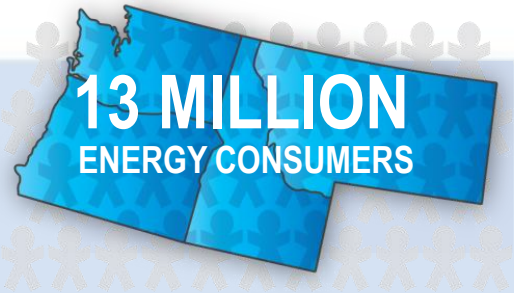
TOGETHER *We Are Transforming the Northwest*

How NEEA Accelerates Energy Efficiency



Fill The Energy Efficiency Pipeline

Accelerate Market Adoption



Leverage the Power of the Region

Natural Gas Funders

Objective: Accelerate development and market adoption of efficient natural gas products, practices and services…

Opportunity

Type	Advertised Efficiency Rating	Estimated Minimum	Estimated Maximum
Tankless	98%	$4,000	$5,000
Tankless Hybrid	90%	$4,500	$5,000
Tankless	82%	$3,500	$4,500
Gas Water Heater	96%	$3,500	$4,500
Natural Vent Water Heater	58% to 67%	$1,000	$1,925

Storage Water Heaters	Dec '15 YTD	Dec '14 YTD	%Chg.
Residential Storage Gas	4,374,199	4,471,903	-2.2
Residential Storage Electric	4,027,067	4,227,329	-5.9

130% EF

~$2500

YES!

Opportunity

- Current high efficiency gas water heaters offer unattractive value propositions
  - Electric water heaters have highly efficient, cost effective options
- Gas heat pump technology offers significant gas savings
- Provides wins for gas utilities, gas consumers and trade allies alike

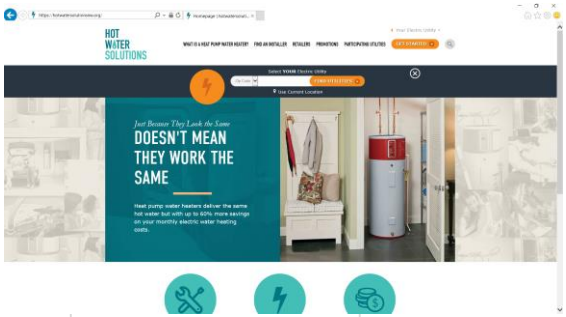
Opportunity

- Product development complete
- Field studies complete – it works
- 1.2-1.3 EF
- Prepared for OEM partners

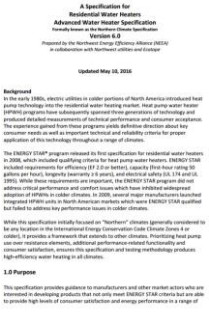
Activities

- Technical, market, and marketing consultative support
- Energy Efficiency community coordination
- Supply chain communication, coordination, and education
- Product development, testing, and launch acceleration

Electric Heat Pump Water Heaters



SPECIFICATION DEVELOPMENT AND EVOLUTION



PRODUCT DEVELOPMENT ACCELERATION

REGIONAL TECHNICAL TRAINING

QUALITY ASSURANCE

RETAIL PLACEMENT & PROMOTION

CONSUMER AWARENESS

SUPPLY CHAIN COLLABORATION

UTILITY PROGRAM DEVELOPMENT & SUPPORT

LAB & FIELD TESTING

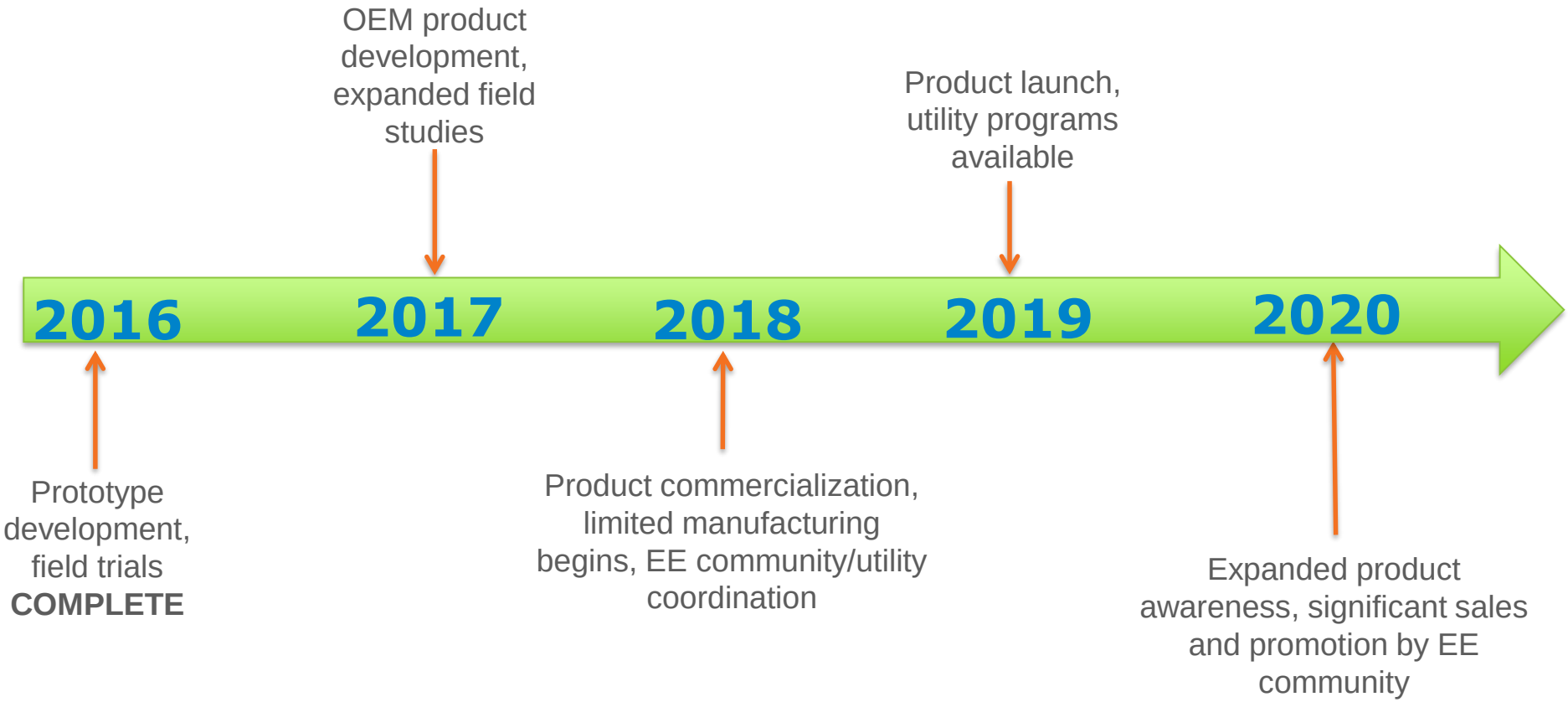
2009 2010 2011 2012 2013 2014 2015 2016

neea

Electric Heat Pump Water Heaters Lessons Learned

- Manufacturer guidance should be flexible and inclusive
- Demonstrating long term value proposition is crucial to achieving supply chain commitment
- National alignment and support provides market stability
- Small = nimble *but* risky
- Widespread buy-in, constant reinforcement required
- Upstream/midstream incentives move the most units

Roadmap


OEM product development, expanded field studies
Product launch, utility programs available
2016
2017
2018
2019
2020
Prototype development, field trials **COMPLETE**
Product commercialization, limited manufacturing begins, EE community/utility coordination
Expanded product awareness, significant sales and promotion by EE community

Ready to accelerate?

EE organizations are the drivers!

Questions?

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