Heat Pump Water Heater Market Strategies; Northeast/Mid-Atlantic Perspective

PRESENTED BY
DAVID LIS,
Emerging Technologies Initiative
NORTHEAST ENERGY EFFICIENCY PARTNERSHIPS

WEDNESDAY OCTOBER 24, 2012
OVERVIEW

• NEEP and it’s Emerging Technologies Initiative
• Regional Interest in Heat Pump Water Heaters (HPWH)
• History lessons
• Large opportunity is in long term market transformation
  – Hurry up, Slowly
• Key Market Barriers
• Cold Climate Challenge
• Existing Efforts to address these Barriers
• Going forward; NEW HPWH MARKET STRATEGIES REPORT!
  – Recommended Strategies to drive uptake of HPWH in the region and beyond
MISSION
Accelerate the efficient use of energy in the Northeast and Mid-Atlantic Regions

EMERGING TECHNOLOGIES INITIATIVE
Developing Market Strategies to facilitate the transformation of Emerging Technologies from niche product to mainstream
HPWH - STEP CHANGE IN ELECTRIC WATER HEATING

• 100 percent jump in efficiency compared to incumbent technology - Electric Resistance Water Heaters
MARKET OPPORTUNITY

• 180,000 Electric Storage Water Heaters (50 gal and larger) sold in the region every year.

• Annual energy savings estimates from regional sources are relatively consistent, falling in the 1600-2000 kWh/year range.

• Approximately 340 Million KWh in annual savings at stake
  – Equivalent of over 41,000 household’s annual electricity use
HPWH MARKET- JUST OUT OF THE BLOCKS

- Market penetration still very low
- Stakeholders excited to promote aggressively
HISTORY LESSONS

• Failed emerging technology market introductions; CFL example
HURRY UP, SLOWLY

• Not wanting to repeat the same mistakes again...Need for Coordinated market introduction strategies
MARKET BARRIERS; WHAT’S HOLDING HPWHs BACK IN THE NORTHEAST/MID-ATLANTIC

• Lack of Consumer Awareness/Education
• Lack of Midstream Market Actors Awareness/Expertise
• High Incremental Cost in relation to Electric Resistance Water Heaters (ERWH)
• Inconsistent Product performance
  – When operated in conditions typical of colder climates
COLD CLIMATE CHALLENGE

- HPWH efficiency heavily impacted by ambient air conditions (temperature, humidity)
- Unconditioned Basements- Common water heater install location in Northeast
- KEY- Promoting HPWH that operate efficiently at lower temperatures
EXISTING STRATEGIES

• Manufacturer Promotional Efforts
• Retailer Promotional Efforts
• Installer Promotional Efforts
• Energy Efficiency Programs Promotional Efforts
GOING FORWARD

• NORTHEAST/MID-ATLANTIC HPWH STRATEGIES REPORT
  – FINALIZED TODAY!...hard copies available.
  – To be posted on Website within the next few weeks
  – Seven Main Strategy Areas
Recommended Strategies to transform electric water heating market

1. Ramp up Consumer Awareness of, and demand for, HPWHs
2. Develop capable and motivated supply chain to deliver excellent HPWH consumer experience
3. Focus on product quality to achieve high level of customer satisfaction
4. Offset initial higher product cost to consumers
5. Conduct research to provide data needed to develop realistic consumer expectations and more accurate evaluation
6. Build market momentum through inter/intra-Regional Communication and Coordination
7. Support Federal Standards Rulemaking Processes with coordinated regional data and comments regarding residential HPWH
QUESTIONS/COMMENTS???
THANK YOU

David Lis
djlis@neep.org

October 24, 2012

91 Hartwell Avenue   Lexington, MA 02421
P: 781.860.9177
www.neep.org
INDICATORS OF SUCCESS