



Northeast Energy Efficiency Partnerships

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

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# 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

# NORTHEAST ENERGY EFFICIENCY PARTNERSHIPS

*"Accelerating Energy Efficiency"*



## 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

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