

ACEEE Hot Water Forum – Heat Pump Water Heaters



The utility perspective: where we have been and where we are headed



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PGE historic water heater marketing

Historically strong position in guiding customers toward good water heater solution

1. Water heater installer network
2. 1-800-Number for consumers
3. Contracted plumber to installations & repairs
4. Heavy deployment of service stickers on water heaters
5. Stop of active marketing for water heaters in the 1990s

Energy Trust or Oregon creates and delivers energy efficiency programs targeting PGE customers since 2002.

Establishing a water heater presence 2.0

PGE role shifted from running programs to providing marketing support to Energy Trust of Oregon

1. Started to collaboratively promote Marathon water heaters with Energy Trust of Oregon in 2006
2. Build a new plumber network promoting water heater solutions
3. Annual sweepstakes for product + installation to create consumer interest
4. Annual Q1 discounted fixed priced direct installation offer

Marathon water heater offers ran between 2006-2011. Annual repetitive efforts supported product in the market place and created consumer excitement.

Reemergence of heat pump water heaters

Rumors about water heater companies getting back into designing heat pump water heaters spread in 2007/2008.

1. Early workgroups with PGE, NEEA, BPA, Regional Technical Forum were meeting regularly with Rheem and GE in 2007/2008.
2. First new generation heat pump water by Rheem was introduced to utilities and plumbers in 10/2008
3. PGE field tested 12 Rheem heat pump water heaters with employees
 1. Early detection of noise & vibration issues
 2. Refrigeration leaks
 3. Long recovery periods & issues around water mixing
4. Regional testing facilitated by NEEA/EPRI followed.
5. PGE decided to stay on the sidelines and not engage in the promotion of HPWH due to product issues.

Northern climate spec, Tier 1-3

1. Regional and national stakeholders collaborated with NEEA to develop cold climate spec heat pump water heaters
2. AirGenerate delivered Tier 1 & Tier 2 product
3. Heavy regional training of distribution, retailers, and contractors about product, installation specs and techniques
4. PGE started promoted AirGenerate water heaters 2012-2014.
5. Two issues emerged during PGE promotion periods:
 1. AirGenerate electrical issues during 1st promotion
 2. Lack of product availability during 2nd promotion
6. First and second AirGenerate HPWH started to fail in the field.
7. AirGenerate seized to operate between Q3/2014-Q1/2015.

2015-2016 Water heater promotions

1. Annual/semi-annual residential HPWH promotions
2. Bill inserts with promo to all residential PGE customers, 600-700k
3. Targeted direct mail to select customer group, 50K
4. Fixed price on installation & product

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- 1,000-1,300 leads generated for plumbers
- ~130-150 installations generated during promotion period

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PGE works with plumbers, contractors, and builders to promote the technology

The future of water heaters

1. Non-connected water heaters are on their way out
2. Energy efficiency program built the path towards HPWH adoption
3. Demand response will support the adoption of HPWH
 1. Ongoing payment towards participants
 2. Additional buy-down incentives possible
4. First cost remains a barrier towards adoption:
 1. Third party financing
 2. On bill financing
 3. Codes
 4. Energy Performance Score/HERS Rating
5. PGE is exploring/developing DR programs utilizing HPWH with residential customers.