# Covering the Waterfront: Direct Measurement of Heat Pump Water Heaters

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August 21, 2019



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## Background

## Impact evaluation of 3 programs

CT downstream rebates, ME consumer products, ME low income direct install

## Direct metering of 136 HPWH's

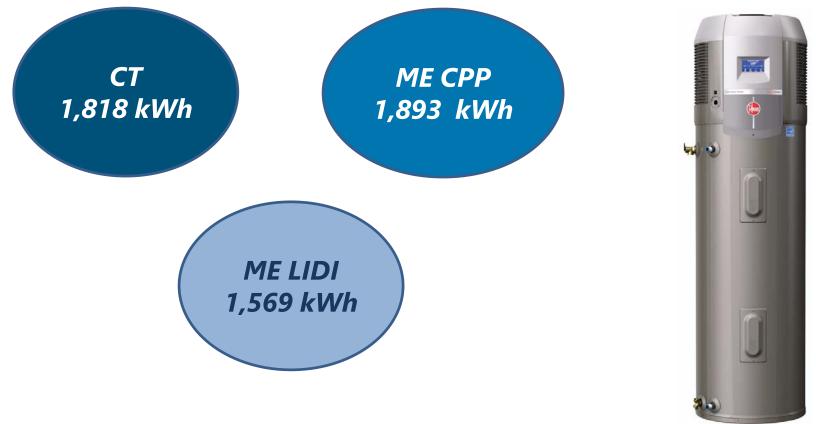
2 weeks in electric resistance, 4 weeks in efficient mode

Homes randomly selected for metering





#### HPWH's Save Energy

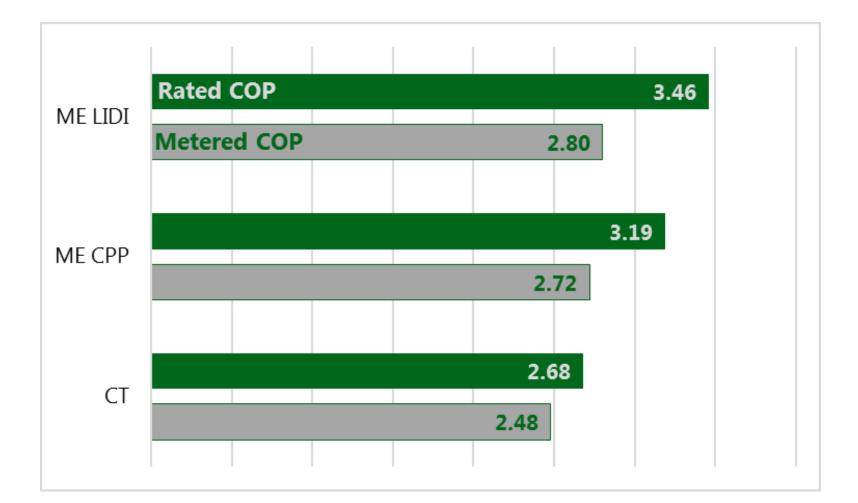


## Savings are reliable.





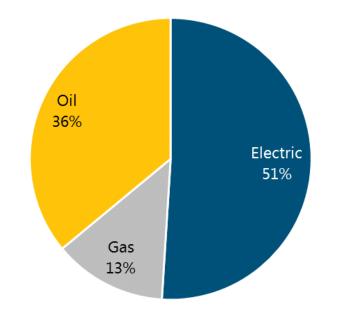
### Rated v Metered COP





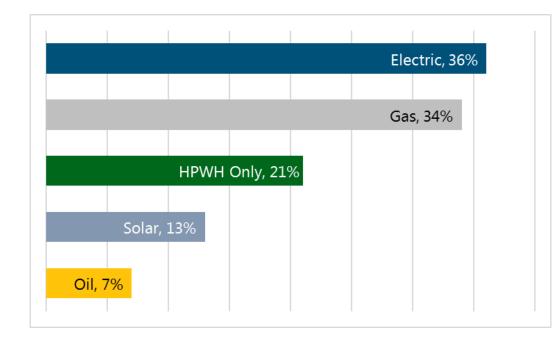
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#### Baseline?



Prior Water Heating Fuel

#### What fuel(s) did you consider?

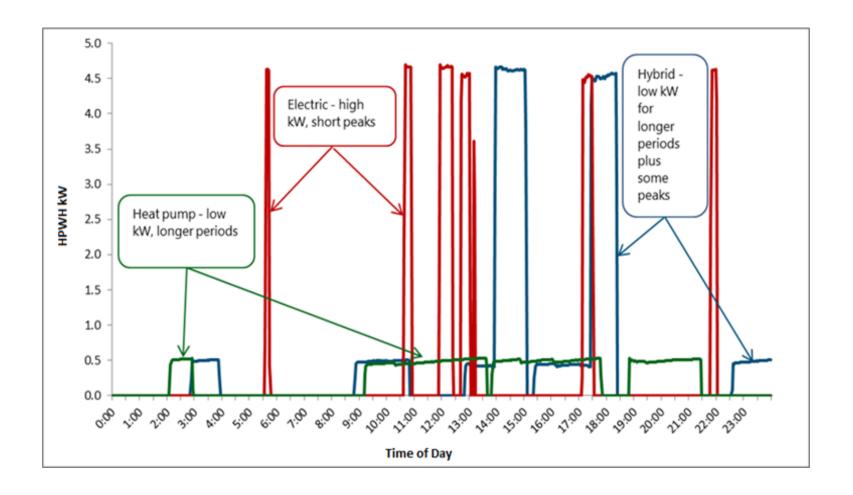


Multiple choices were allowed.





## Load Shifting





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#### People like them

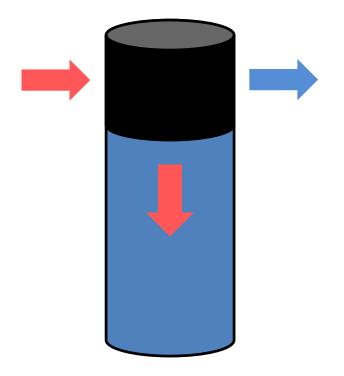


#### Lowest satisfaction rating was for noise level (81%).





## Questions?



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