

CEE Gas Committee Tankless Water Heater Field and Billing Studies

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Wednesday, January 14th, 3:30 – 5:00pm



Working Together, Advancing Efficiency

Agenda

- Tankless overview
- CEE work to date
- Energy Trust of Oregon billing study
- Role for CEE moving forward
- Discussion and Next Steps

Objective of this Session

- Discuss the field and billing studies that some members have been conducting in their own service territories
- Opportunity for other CEE members to understand the motivation behind and lessons learned from these studies
- Discuss how CEE should be involved in future efforts

Objective of field and billing studies

- Rated efficiency is higher than most storage water heaters currently on the market.
- However, questions remain about whether the Energy Factor is an accurate reflection of in-field performance or whether homeowners will change their hot water usage behavior because of endless hot water claims



CEE Work to Date

- Since 2007, CEE has been monitoring member interest in this technology and has designed field testing materials to support member efforts
 - Homeowner and installer surveys were vetted by the CEE evaluations committee and other evaluators
 - In-field monitoring protocol was developed by the ASHRAE Technical Committee 6.6 and reviewed by Tankless Subcommittee members

CEE Field Testing Materials

- Guideline for members seeking to conduct their own field testing
- Create comparable results across different studies
- Designed to test the performance, in-field efficiencies, and usage behavior of residential customers
- To more accurately understand and compare the overall performance, applicability, and cost-effectiveness of tankless and tank-type water heaters

Tankless Annotated Bibliography

- Highlights publicly available tankless field studies, laboratory studies, and homeowner satisfaction surveys previously conducted by members and non-members
- 9 studies by Bradford White, Davis Energy Group, FSTC, GTI, NRCAN, NAHB, KeySpan (now National Grid), and Okaloosa Gas
- It is hoped that this document will provide CEE Gas Committee members with resources to refer to when and if they may choose to conduct their own tankless water heater testing.

Tankless Billing and Field Studies

- In 2008, a number of CEE members have begun to conduct billing and/or field studies including
 - Vermont Gas,
 - SoCal Gas,
 - CenterPoint Energy through MN CEE,
 - and Energy Trust of Oregon

Discussion Questions

- What are the important outcomes of the recent studies? What implications do these results have for members running water heater programs?
- What questions still need to be addressed?
- What should CEE's role be in supporting these efforts going forward?