

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
WASHINGTON, D.C. 20460



OFFICE OF  
AIR AND RADIATION

September 19, 2016

Dear Connected Thermostat Provider or Other Interested Party:

The U.S. Environmental Protection Agency (EPA) is developing a software tool that estimates energy savings from connected thermostat products. EPA requests your assistance in assembling data about connected thermostat (CT) performance as measured by candidate methods implemented in this tool. The objectives of this data assembly are to inform:

- Selection and improvement of a single metric to be used in the ENERGY STAR CT specification
- Specific requirements for field savings in Draft 3 of the CT specification

This effort will help ensure the ENERGY STAR logo helps consumers find connected thermostat products that deliver cost-effective energy savings and emissions reductions. Data submitted by October 3, 2016 will be considered in choosing statistics and setting proposed levels for Draft 3 of the specification.

## Requested Data Submission

EPA encourages all interested CT manufacturers and service providers to participate by submitting *the automatically generated output file* from the statistics module, of the ENERGY STAR CT Field Savings software for each applicable CT product. Please ensure all calculations are run using the latest Beta Version of the CT Metrics Software: Version 0.4.0.

The CT Metrics Software is located at < <https://github.com/openeemeter/thermostat> >, and Software documentation is available at < <http://thermostat.readthedocs.org/en/latest/> >, which provides installation and usage instructions. Assistance with installing, troubleshooting, and running the CT Metrics Software for this data collection effort is available to participants through ICF International. Please contact Dan Baldewicz with questions via [dan.baldewicz@icfi.com](mailto:dan.baldewicz@icfi.com) and 518-335-8398.

EPA preferences for CT input data follow, but stakeholders are encouraged to submit results using alternate reporting periods and/or number of CTs, if necessary. Stakeholders are also encouraged to submit results from multiple CT data sets, CT products and/or reporting periods.

- $\geq 250$  thermostats in each of the five EIA climate zones (Cold/Very Cold, Marine, Mixed-Humid, Hot-Dry/Mixed-Dry, Hot-Humid)
- Interval data reporting period from January 1 – December 31, 2014

The software tool should be run using the EIA Building America Climate Zone to Zipcode Database, May 5, 2016, supplied by EPA at: <https://www.energystar.gov/sites/default/files/EIA%20Building%20America%20Climate%20Zone%20to%20Zipcode%20Database%20Rev%20202016-05-09.csv>, such that the output file includes data breakout by EIA climate zone.

EPA will not release the submitted files publicly, but intends to share an overview of findings with the Stakeholder Metrics Group. This data request will inform selection of savings methodology and minimum performance to earn the ENERGY STAR in the Draft 3 Connected Thermostat Specification.

Thank you for taking the time to review this Data request. If you have any questions regarding it, please feel free to contact me at [daken.abigail@epa.gov](mailto:daken.abigail@epa.gov) and 202-343-9375, or Doug Frazee, ICF International, at [dfrazee@icfi.com](mailto:dfrazee@icfi.com) and 410-279-1093.

Thank you for your continued support of ENERGY STAR.

Sincerely,

Abigail Daken, Product Manager  
ENERGY STAR for HVAC