



Abigail Daken,
ENERGY STAR
United States Environmental Protection Agency
Office of Air and Radiation
Washington DC, 20460

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Ms. Daken,

Northeast Energy Efficiency Partnerships (NEEP) appreciates the opportunity to provide comments to ENERGY STAR's Connected Thermostats V1.0 Specification draft 1. After a careful review of the draft specification and accompanying documents, as well as participation in the EPA led webinar, this letter is submitted on behalf of NEEP and United Illuminating, henceforth referred to as "NEEP."

Comments on Changes from Draft 1:

- NEEP is supportive of EPA's approach to electronic labeling and supports the proposed change. An additional consideration could be to include the ENERGY STAR label on packaging, but not on the product itself.
- NEEP supports the changes made for temperature requirements, specifically allowing a 1 degree change from static temperature accuracy requirements.
- Standby power is an important consideration for any connected device because a large enough standby power may offset much of the energy savings from the smartness of the device. We recommend the EPA include the standby power levels on the qualified products list to help partners differentiate between products. With regards to the appropriate level set, it would be helpful to understand where the current products are in terms of standby power. Typically, standby power is not something that manufacturers work to reduce unless a motivator, such as earning ENERGY STAR certification, is put in place. The 2W limit proposed may be somewhat high; Computers have a 1.7W limit for their "sleep" mode, and Lamps have a .5W standby limit. Perhaps there is an opportunity to better align with comparable products standby power limits from ENERGY STAR.
- NEEP supports the change in occupancy sensing requirement.
- NEEP is supportive of the flexibility EPA now offers regarding demand response capabilities.
- NEEP supports EPA's twice-per-year system for reporting data. Since this is a new program and new process for EPA, perhaps within the first year, all participants could have a smaller version of an audit or the data submittal could be coupled with a meeting with EPA and support contractors to ensure all the data is in a workable condition and help secure quality data sharing moving forward. After the first year of the program, NEEP supports the 10% of products randomly selected for verification testing, and would ask that that 10% applies to both the heating and the cooling season data (i.e. if there are 20 Connected Thermostats in the program, two would be selected for a cooling season data audit and 2 would be selected for heating season data audit). These may or may not be the same manufacturers for the heating and cooling season, but helps ensure accountability in all use cases.



- NEEP supports EPA's proposed approach towards allowing an alternative path for proof of savings given the complexity of this product category. We encourage EPA to ensure any alternative methods to prove savings are thorough and do not result in a decrease in savings from the device. As the savings level established by EPA will likely be used as a "deemed" savings value for efficiency programs as they support these products into the future, it is imperative that these values are reliable.

Regarding field savings, NEEP would encourage EPA to set a range of values which could allow for a limit on the low metric score. A sample level would be:

- Average annual % run time reduction, heating (HS): $\geq 10\%$, with 80% of households getting savings of at least 8%.

As mentioned in our Draft 1 comments, regarding software updates and testing, NEEP suggests requiring re-submission of information when major software updates take place (moving from version 4.0 to version 5.0, but not from version 4.0 to 4.1, for example) or if no major update occurs, every 6 months.

Regarding the climate zones and expected savings, NEEP would encourage EPA to consider setting areas based on the EIA's established regions¹, realizing the census driven map may be most realistic to implement with states as the dividing lines which better support reported service territories.

Finally, as defining a baseline is critical for efficiency programs to promote an efficient product, NEEP would encourage that the EPA develop systems to share data about Connected Thermostat products to ensure efficiency programs are able to establish cost-effective savings for these products.

Thank you again for offering this opportunity for NEEP and United Illuminating to provide comments on this second draft of the Connected Thermostat Specification. Please don't hesitate to contact me with any follow up questions or clarifications.

Sincerely,

A handwritten signature in black ink, appearing to read 'Claire Miziolek', with a horizontal line extending to the right.

Claire Miziolek
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¹ <https://www.eia.gov/consumption/commercial/maps.cfm>