

Date: August 12, 2019

Re: Comments regarding ENERGY STAR SHEMS Final Draft Version 1.0 Specification

Thank you for the opportunity to comment on the ENERGY STAR SHEMS Final Draft Version 1.0 Specification.

As stated, the intent of the SHEMS specification is to recognize smart home system packages designed to actively recognize and act on opportunities to save energy and help end users manage their energy in a way that saves them money and makes their lives easier.

Given this intent, ecobee feels there are certain ways in which the SHEMS specification can more successfully achieve these objectives by making the requirements less prescriptive and more geared towards savings objectives in the connected home.

The current requirements include:

- a) At least one ENERGY STAR certified smart thermostat;
- b) At least two lighting load control devices, consisting of:
 - Two ENERGY STAR certified smart lights; or
 - One ENERGY STAR certified smart light and one smart light switch capable of measuring lighting load.
- c) At least one of the following plug load control or monitoring offerings;
 - One smart power strip;
 - One or more smart plugs; or
 - Home energy sub metering system.
- d) any additional devices

Given the intent of the specification, ecobee feels the requirements should be geared more towards energy savings goals through connected home products and less on arbitrary product restrictions. For example, if a home with a smart thermostat and three smart light switches saves as much energy as a home with a smart thermostat, one smart power switch and two smart lights, why wouldn't both homes receive SHEMS designation? One way to make the specification more adaptable while also providing guidelines would be to require compatibility with either one recommended category or another (ex. smart lighting OR smart plugs) as long as energy savings goals are measurable and reached.

ecobee also believes that the energy savings benefit of smart lighting control has merit on its own, regardless of whether the smart light switch is controlling an ENERGY STAR rated lighting load. This is because the energy savings benefit of occupancy optimization for a non-ENERGY STAR lighting load would be greater than if the lighting load were

already highly energy efficient. Therefore, smart light switches that can control any lighting load should qualify as an acceptable device in the SHERMS standard.

The SHERMS standard currently limits the idle (standby) power draw from smart lighting control to be 0.5W; this requirement seems somewhat restrictive and arbitrary. For example, ecobee makes a line of voice-enabled smart light switches – integrating Amazon Alexa’s voice assistant directly into a light switch requires higher level of computational power which raises the idle power draw. However, this voice assistant functionality makes our switches unique and desirable by customers and therefore helping to increase the rate adoption of SHERMS technology. We would recommend raising the idle power draw requirements of smart lighting control to be the same as a smart thermostat at 3W.

We would also like to request that further clarity be added to the standard relating to the type of integration that is required with a water heater system. We would recommend that a SHERMS must be able to connect to and control such a device based on the occupancy detection, but that it would not require the level of integration to be “compatible” as per Section 2C (ie. data reporting and automatic detection/connection would not apply).

ecobee understands the value in providing concrete guidance. However, with the rapid pace of innovation and market adoption in the smart home category, making concrete guidelines around energy savings requirements in the connected home in addition to a list of eligible products to achieve the savings would make the specification more adaptable in a landscape that will undoubtedly be changing significantly in the coming years.

Thank you for taking our comments into consideration.

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