



**Jason Thomas**  
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Ms. Abigail Daken  
Manager, Energy Star® HVAC Program  
U.S. EPA  
Washington DC, 20460  
(Sent via email to: [connectedthermostats@energystar.gov](mailto:connectedthermostats@energystar.gov))

**RE: ENERGY STAR® Smart Thermostats Version 2.0 Specification and Test Method Discussion Guide**

Dear Ms. Daken,

Carrier provides fire safety, security, building automation, heating, ventilation, air conditioning and refrigeration systems and services to promote integrated, high performance buildings that are safer, smarter, and more sustainable. Carrier is the founder of the modern HVAC industry and operates across the globe. Our range of products includes unitary residential and commercial equipment, including ducted and ductless HVAC, transport refrigeration units, chillers, and related building services.

Carrier appreciates the opportunity to provide input for consideration in version 2.0 of this specification. An area of importance to Carrier and its customers is the inclusion of communicating controllers in the version 2.0 specification. The lack of inclusion in the current specification continues to cause confusion for homeowners and contractors when selecting the system to purchase. They perceive connected non-communicating 24V thermostats (24V thermostats hereafter) to have better performance than communicating controllers. Additionally, in cases where their utility offers rebates for ENERGY STAR® connected thermostats, they are financially incentivized to purchase a 24V thermostat.

Carrier does not believe this is a desirable market condition because communicating controllers have features that can provide greater energy savings. Communicating controllers perform setback like 24V thermostats. However, when installed with staged or variable speed equipment, they can outperform 24V thermostats in setback operation. In addition, since they communicate with the equipment, they have additional set up features to ensure that the controller and the equipment are set up correctly. Finally, communicating controllers generally provide better system diagnostics to ensure the equipment operates efficiently throughout its



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life. For these reasons, Carrier believes it is important to define a specification to include these controllers.

In closing Carrier recognizes the difficulty in designing a specification based on the existing methodology in the specification. However, because connected thermostat algorithms and HVAC system control are complementary, it is Carrier's opinion this specification can remain simple. A hybrid of field data and design requirements can likely be used. Carrier welcomes working with the agency to provide further information to help develop a specification to be included in version 2. If you would like to have further discussion, please reach out to me. Thank you for your consideration.

Respectfully submitted,

A handwritten signature in blue ink, appearing to read "Jason Thomas".

Jason Thomas

Director, Regulatory Affairs

Carrier