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The Association of Electrical and Medical
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Comments to Energy Star on Proposed Climate Controls Specification

Thank you for the opportunity to provide the following comments on the first draft, released March 31, of a proposed Energy Star program for “Climate Controls”. We welcome the proposal as a point of discussion as to the future of residential control of HVAC systems and their energy consumption. As you may be aware, NEMA’s Residential and Commercial Controls Section represents, in part, manufacturers of residential and commercial thermostatic controls.

It is clear that, although Energy Star cites that it has found “products that meet these proposed requirements are available in the market now”, the number of available products is not high. We view the proposed specification as really an aspirational specification for a product has a high price point and very limited market penetration at this time or the near future.

The following comments track the items as laid out in the draft specification. We commend them to your consideration and look forward to communicating with you further on your proposals.

Definitions

We appreciate that Energy Star has harmonized its definitions for Recovery with the NEMA DC 3 2008 standard.

Open Standard

Energy Star cites that its proposed definition is “largely derived from the European Union definition.” Has Energy Star reviewed and considered the American National Standards Institute definition, and, if so, why is the EU definition preferable? Further background and explanation is necessary for stakeholders on this point.

Qualifying Products

How is Energy Star “assessing the potential energy savings associated with Non-Residential Climate Controls”? How has Energy Star concretely assessed the energy savings from Residential Climate Controls?

We welcome the inclusion of line-voltage climate controls, as we suggested in our comments on the Draft for a Version 2.0 Programmable Thermostat Specification.

Energy Efficiency Criteria

Usability Testing Requirements

We look forward to reviewing and commenting on the draft usability metric to be released in July.

Indicator of Current Price Tier

Energy Star intends these indicators to be available and used if a utility Time of Use program is in place. While this goal is laudable, it is clear that there are local and regional infrastructure requirements that would apply beyond the Climate Control itself. It is unclear how Energy Star can require such a specific indicator feature that may not be usable or compatible in different parts of the U.S.

Maintaining Room Temperature

We welcome the proposal to require a unit to be capable of maintaining room temperature within ± 1 degree Fahrenheit (F) of the setpoint temperature in accordance with NEMA DC-3-2008. However, if Energy Star is going to require units to also operate in Celsius (C), this requirement should be conformed.

Humidity

While requiring humidity sensing and control is a laudable goal, only a small percentage of homes in the U.S. require a humidifier or dehumidification. These applications are regional. Therefore customers who do not need these options are paying additional price with no value at all. Humidification and dehumidification adds significant cost to the thermostat, assuming the customer has the wiring to support such features. This item should be optional and not a requirement in the specification.

RoHS Requirements

It is unclear which specific Restriction on Hazardous Substances (RoHS) requirements are being incorporated by reference here. Is Energy Star referring to those maintained by the European Union?

Although we support including some type of lead and mercury content requirement in the specification, the requirement has nothing to do with energy efficiency and is thus misplaced in this “Energy Efficiency Criteria” section. If it intends to move forward with this requirement, it should be set aside in a separate section.

Setpoints

We welcome Energy Star’s recognition that the nighttime setpoint of 82 degrees F is too uncomfortable for residents and its proposal to relax it to 78 degrees F.

If Energy Star will require that units operate in degrees C, perhaps Energy Star should consider listing the setpoints in degrees C as well.

Communication Requirements

The proposed requirements are an improvement over the Energy Star proposals from November 2009 in that they do not specify a particular technology or standard. As Energy Star is aware, the U.S.-level and international standards for the Smart Grid are still to be defined.

NEMA was designated by Congress in 2007 to work with the National Institute of Standards and Technology (NIST) on developing standards for the Smart Grid. We look forward to Energy Star interest in and recognition of those standards as they are developed and promulgated.

Ease of Installation Requirements

We welcome Energy Star's recognition that its previous proposal for a "no new wires" installation requirement should be removed.

Test Criteria

We look forward to working with Energy Star on this very important aspect of an Energy Star program.

Conclusion

As noted above, NEMA looks forward to being a stakeholder and a resource for Energy Star as it pursues development of voluntary certification requirements for Climate Controls.

If you have any questions on these comments, please contact Craig Updyke of NEMA at cra_updyke@nema.org or 703 841 3294.