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October 13, 2015

Ms. Brenda Edwards,  
U.S. Department of Energy, Building  
Technologies Office, Mailstop EE-5B,  
1000 Independence Avenue SW.,  
Washington, DC, 20585-0121.

RE: Comments to Docket Number: **EERE-2014-BT-STD-0031**

NODA for Revision of Energy Conservation Standards for Residential Furnaces

United Technologies Climate, Controls & Security through its Carrier business would like to thank the United States Department of Energy (DOE) for the opportunity to comment on the Notice of Data Availability (NODA) regarding Revised Residential Furnace Efficiency Standards on non-weatherized gas furnaces (NWGF) as issued in the September 14, 2015 *Federal Register*.

We appreciate that DOE has given consideration to the NOPR comments and concerns raised by Carrier and others regarding the number of consumers that would be negatively affected or would switch fuels for heating if an amended minimum efficiency standard of 92%, or similar condensing level AFUE, were adopted as a DOE national regulation for non-weatherized gas furnaces.

We commend DOE for analyzing an alternative concept within the NODA of separate standard levels for small and large furnaces as a way to minimize these potential negative aspects of the proposed standard in the March 2015 NOPR. However, as

Carrier pointed out in our NOPR comments on July 10, 2015, there are still several flaws in the information provided in the NODA which still utilizes the errors in modeling process as well as flaws in the assumptions. Again, Carrier emphasizes that there should be no change in the residential gas furnace standard based on corrections needed to the modeling which would greatly change the analytical outcome, and therefore, demonstrate that the market is moving naturally to condensing furnaces.

Carrier also commented on the July 10, 2015 NOPR the following: *“At a minimum, DOE should consider allowing non-condensing furnaces in retrofit multi-family dwellings or and general structures in all markets with heat loads of <90K/BTU/Hr. Carrier recommends that DOE complete further evaluation on a localized market by market level to better understand the installation barriers for condensing furnaces in these applications”*. The separate standard approach of large & small furnaces suggested in the NODA is apparently recognizing this need to minimize negative aspects of the proposed single condensing standard. Carrier’s suggested furnace level split of <90K is based on distributor customer data who install furnaces in northern markets where venting of a condensing furnace is an issue in specific housing markets and low income homeowners. Carrier is open to further conversation with all interested parties.

The NODA shows the potential to use separate standards based on size and this concept could structure an amended minimum efficiency standard for NWGF that may be satisfactory to all stakeholders and satisfy the parameters that guide DOE’s decision-making process. We do have comments on the specific values and assumptions used for the NODA analysis, but at this point our position as of this comment period is that this concept warrants further consideration with a refined analysis (as suggested by AHRI’s NODA comments of 10/14/2015). The NODA also suggests that many of the NOPR

single standard issues could be addressed with the separate standards for small and large gas furnaces concept. Those include:

1. It provides a reasonable solution for most of the installations that cannot accommodate a condensing furnace without extraordinary costs or installation site renovations.
2. It addresses the concern of those areas of the U.S. that have low heating loads where the installation of a condensing furnace is not economically justified.
3. It maintains the enforcement simplicity of the single standard.
4. It focuses the benefit of a “condensing standard level on the input sites where the energy savings is maximized. It focuses the benefit of a “condensing standard level on the input sites where the energy savings is maximized.
5. It benefits economically-challenged or low-income individuals/families with a gas furnace option that minimizes installation or electrical changes.

The September 14, 2015 Federal Register notice indicated that DOE might issue a supplemental notice of proposed rule (SNOPR) following this NODA. Similar to other industry members, Carrier requests that DOE issue a SNOPR but not prior to the end of 2015. We further request that the NOPR analysis be updated as commented on with our July 10, 2015 comments. Taken together, we expect that the two-tier standards approach and correction of DOE’s analysis will show the impacts of standards to be significantly different than DOE originally forecasted in the March 2015 NOPR. Without the corrected information, it would not be possible to estimate the likely effects of the of the proposed amended furnace energy efficiency standards.

In summary, Carrier appreciates the opportunity to comment on this NODA. We feel that our comments on the NOPR still are appropriate to a no change in the furnace standard.

We also think that more analysis by DOE is necessary to properly determine if a two-tier standard approach can work effectively – by expanding the levels of the analysis to include higher capacity non-condensing levels.

Regards,

A handwritten signature in black ink, appearing to read "John Gibbons". The signature is fluid and cursive, with a long horizontal stroke extending to the right.

John J. Gibbons  
Director, Marketing Product Development  
Carrier Corporation

Cc: Mr. John M. Mandyck