



The Indoor Environment &  
Energy Efficiency Association

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June 8, 2016

The Honorable Ernest Moniz  
Secretary of Energy  
1000 Independence Ave., SW  
Washington, DC 20585

Dear Mr. Secretary:

Thank you for your leadership at the Department of Energy (DOE). As President and CEO of ACCA – the Indoor Environment & Energy Efficiency Association, I appreciate your interest in heating, ventilation, air conditioning (HVAC) equipment efficiencies.

The *Washington Post* published “What More Air Conditioning Means for the Climate” on June 1, 2016, which included several quotes from you.<sup>1</sup> I agree that “a 25 to 30 percent improvement in efficiency, which we certainly think is technologically possible, can have an enormous difference in terms of, especially, peak demand for electricity going forward.” However, you may be interested to learn that we do not have to wait for new technologies to come to fruition.

Increased efficiencies in the HVAC industry can begin to be achieved overnight by focusing on the installation of the equipment and maintenance of the systems. The National Institute of Standards and Technology (NIST) released a study in 2014 that examined energy penalties, due to poor installations, in residential HVAC units<sup>2</sup>. NIST found that duct leakage is the most significant fault, which by itself can account for a 30 percent energy penalty. Additionally, equipment oversizing and refrigerant undercharging can each decrease efficiencies by 20 percent. If there are multiple installation faults in a residential HVAC system (say, 30 percent duct leakage and 20 percent refrigerant undercharge), then the annual increased energy consumption can be more than 40 percent.

ACCA has been interacting with the Building Technologies Office (BTO) to help DOE appreciate the impact of poor installation and maintenance practices on HVAC equipment efficiencies. We have shared with the BTO that ACCA’s installation standards and training programs can help ensure that the equipment meets its stated efficiency. If DOE places the same emphasis on installation as it does on equipment efficiencies, America could realize a 25-30 percent improvement in efficiency.

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<sup>1</sup> Mooney, Chris and Dennis, Brady (2016, June 1). What more air conditioning means for the climate. *The Washington Post*. Retrieved from <http://www.washingtonpost.com>

<sup>2</sup> [http://www.nist.gov/el/building\\_environment/hvac-110714.cfm](http://www.nist.gov/el/building_environment/hvac-110714.cfm)

ACCA looks forward to continuing to work with your Department, but I would appreciate the opportunity to meet with you and discuss how to coordinate and promote quality installation and maintenance programs. With your leadership, we can achieve the results that you want, and help train a new generation of energy efficiency technicians. HVAC contractors are looking for a partner in our government, and I am hopeful that we can build a good relationship together.

Thank you for taking the time to review this letter. I look forward to hearing from your staff to schedule a meeting. They can call my office at (703)824-8862, or e-mail me at [Paul.Stalknecht@acca.org](mailto:Paul.Stalknecht@acca.org) to discuss dates for us to meet.

I look forward to your response.

Sincerely,



Paul T. Stalknecht  
President & CEO  
Air Conditioning Contractors of America  
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