

The Honorable Muriel Bowser Mayor of Washington, D.C. 1350 Pennsylvania Avenue, NW Washington, D.C. 20004

Dear Mayor:

Thank you for taking a leadership role on energy efficiency issues in Washington, D.C. Of particular interest to the Air Conditioning Contractors of America (ACCA), is your proposal for a "green bank" to fund "major renovations with high-efficiency systems" in the District's buildings¹.

ACCA is the national trade association representing heating, ventilation, air conditioning, and refrigeration (HVACR) contractors. ACCA represents an estimated 60,000 HVACR professionals from every state and territory and the District of Columbia, and one of its primary interests is to ensure that HVACR systems are installed safely and operating efficiently.

Like you, ACCA has taken a leadership role on energy efficiency issues and developed the nationally-recognized quality installation standard for residential and commercial HVACR systems. ACCA developed the ANSI / ACCA 5 QI Standard (HVAC Quality Installation Specification) – the minimum design and installation requirements for residential and commercial HVAC applications – to address the efficiency degradations caused by the improper design, installation, and commissioning of HVAC systems.

With Washington, D.C. planning to promote and invest in highly efficient HVAC equipment, then the taxpayers deserve to receive a guarantee that these systems are installed properly, which requires proper equipment sizing and duct design, and the precise airflow and refrigerant charges – all the elements needed to ensure a quality installation. Otherwise, a significant amount of energy will still be wasted by HVAC systems due to poor installation practices.

The National Institute of Standards and Technology (NIST) released a study in 2014 that examined the energy penalties in unitary HVAC units². NIST found that an HVAC system could use up to 40 percent more energy than it should due to duct leakage, equipment oversizing, or inadequate refrigerant charges.

Increased energy efficiency is not as simple as exchanging older HVAC equipment for something with an ENERGY STAR label because these systems are not "plug-and-play" systems like a refrigerator.

This issue has been recognized by the U.S. Environmental Protection Agency and the National Association of State Energy Officials (NASEO). The EPA has and ENERGY STAR quality assurance program and NASEO's Board of Directors passed a February 2017 resolution highlighting the importance of quality installation practices. The resolution states that "cutting-edge heating, ventilation, and air-

¹ Davis, Aaron. "D.C. mayor proposes 'green bank' to fund emissions-cutting in nation's capital." The Washington Post, March 16, 2017

² http://www.nist.gov/el/building environment/hvac-110714.cfm

conditioning technologies, if improperly installed, may fail to realize important benefits for homeowners."3

The NASEO resolution encourages State Energy Offices, including the District's Energy and Environment Department, to consider "linking HVAC industry-recognized quality installation practices with state programs and policies in the following ways:

- Encouraging homeowners that use State, taxpayer-funded grant, incentive, and financing programs to utilize qualified, trained, and accredited professionals available in the state;
- Informing homeowners, efficiency program operators, and others of the benefits of utilizing qualified, trained, and accredited professionals.
- Engaging the HVAC industry to help educate contractors on quality installation practices such as proper equipment sizing and selection, duct design and sealing, proper refrigerant charges, and airflows; and
- Implementing quality assurance programs that ensure manufacturers' recommended minimum installation procedures are followed."4

As a leader on energy efficiency issues, you recognize that it is important to ensure that HVAC systems, which use significant amounts of energy, are installed properly and operate to their stated efficiencies. We all agree that taxpayers should have assurances from the city that public funds used to upgrade HVAC systems are not wasted. Energy efficiency programs too often focus on the purchase of highly efficient equipment; but, they often miss the most important part – ensuring that the equipment applications follow quality installation practices.

It would be unfortunate for Washington, D.C. to provide millions of dollars supporting HVAC equipment upgrades and miss the opportunity to ensure that said equipment are installed properly and operating efficiently. D.C. can capitalize on its investment by following the quality installation practices that the industry has developed.

ACCA would welcome the opportunity to work with you and your government to help improve the District's energy efficiency programs.

I may be reached by phone at 703-824-8862 or through my assistant, Rosemary Graeme, at rosemary.graeme@acca.org.

Thank you for your consideration

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Sincerely,

Paul T. Stalknecht President and CEO

Air Conditioning Contractors of America

³ https://higherlogicdownload.s3.amazonaws.com/ACCA/8e4cf5b4-e984-4971-bb79-7889082c7cf2/UploadedImages/Government%20Relations%20Item/QI%20Resolution FINAL%202-17.pdf

⁴ https://higherlogicdownload.s3.amazonaws.com/ACCA/8e4cf5b4-e984-4971-bb79-7889082c7cf2/UploadedImages/Government%20Relations%20Item/QI%20Resolution FINAL%202-17.pdf