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September 16, 2019

Energy Master Plan Committee New Jersey Board of Public Utilities 44 South Clinton Avenue, 3rd Floor, Suite 314 Post Office Box 350 Trenton, NJ 08625-0350 Emp.comments@bpu.nj.gov

Re: AHRI Comments on the New Jersey 2019 Draft Energy Master Plan

Dear Committee Members:

On behalf of the heating, ventilation, air-conditioning, and refrigeration (HVACR) industry, thank you for the opportunity to participate in the stakeholder engagement process around the New Jersey 2019 Draft Energy Master Plan (EMP). The Air-Conditioning, Heating, and Refrigeration Institute (AHRI) would like to provide the following comments on behalf of our members in response to the recommended strategies contained in Section 4, which focuses on reducing energy consumption and emissions from the building sector.

The Air-Conditioning, Heating, and Refrigeration Institute (AHRI) is the trade association representing manufacturers of heating, cooling, water heating, and commercial refrigeration equipment within the global industry. More than 300 members strong, AHRI is an advocate for the industry and develops standards for and certifies the performance of many of the products manufactured by our members. In North America, the annual output of the HVACR and water heating industry supports 1.3 million jobs and \$256 billion in economic activity annually.

AHRI, and our members, are very interested in the EMP and its efforts to help the state transition towards cleaner energy. Our manufacturers support legislative and regulatory efforts that promote a healthy environment and robust economic growth, while saving energy and ensuring a high quality of life for consumers. As a collective industry, we are continuously working to review and design new higher efficiency equipment that improves consumer comfort, without compromising consumer choice, product quality, or safety.

While many of AHRI's members manufacture products, such as electric equipment used for space and water heating, that will help New Jersey achieve its goal of reducing carbon emissions from the state's building stock, as an industry we believe there are critical considerations that must be made by policy makers when assessing electrification policies, and we would welcome the opportunity to provide our technical and market expertise as New Jersey continues to explore the strategies included in Section 4 of the EMP. In particular, we would like to work with New Jersey on the following strategies: (1) Section 4.1.3, as it relates to developing demand response ready building codes; (2) 4.2.1, incentivizing the transition towards electrified heat pumps, water heaters, and other appliances; and, (3) 4.2.2, developing a transition plan to a fully electrified building sector.

While we hope to provide additional input as this process moves forward, AHRI would like to share the following general comments related to electrification policies.

When discussing building electrification measures, we make the distinction between two policy approaches:

- *Electrification Policies* are designed to accelerate market transformation of the space and water heating sectors from combustion appliances to electric alternatives. Generally, this includes financial incentives for "fuel switching" and building policies that encourage the use of electric appliances, while preserving the flexibility to use fossil fuelpowered equipment when it is more practical and economically beneficial to do so.
- *Electric-only Policies* prevent the use of fossil fuels for space- and/or water-heating building end uses. This can include a prohibition on the construction or expansion of fossil fuel distribution infrastructure, or a ban on the sale of combustion appliances.

As an association that includes members that manufacture residential and commercial equipment that use electricity, as well as natural gas, propane, and oil, AHRI encourages market-based approaches to electrification, where such initiatives are under consideration, but does not support electric-only policies.

Accordingly, AHRI members share the following guiding principles:

1. Consumer Choice

Consumers should be free to select heating, cooling, and water heating equipment based upon several criteria, including desired comfort, household needs and budgets, as well as fuel type. Consider the following: approximately 87 million of the 118 million U.S. households in 2018 used natural gas, propane, or fuel oil for at least one appliance in their home.¹

In addition, more than 4.5 million residential gas storage water heaters and 3.5 million gas and oil warm air furnaces were shipped in the U.S. in 2018, a 4% and 12% increase, respectively, from 2017. This compares to 4.2 million residential electric storage water heaters and 2.9 million electric heat pumps shipped in 2018, a 2.5% and 12% increase, respectively, from 2017. ²

These numbers illustrate two things: One, restricting the use of combustion equipment in homes would impact a significant percentage of American consumers; and two, when it makes sense for them, consumers choose the electric alternatives.

2. Consumer Costs

While AHRI members offer a wide range of highly efficient electric HVAC and water heating products with measurable energy savings, several variables determine whether these products are viable for a particular homeowner. For instance, at current retail electric and gas rates, switching to electric sources of energy could lead to increased operating costs for home heating and water heating equipment. Higher rates ultimately put a strain on lower and middle-income families for operation of equipment that is essential for comfort, as well as health and safety. What's more, in

¹ EIA Residential Energy Consumption Survey, 2015.

² http://www.ahrinet.org/App_Content/ahri/files/Statistics/Monthly%20Shipments/2018/December_2018.pdf

some areas of the country, consumers are not able to replace existing combustion equipment with electric versions without costly home retrofits.

3. Consumer Comfort & Safety

Consumers' comfort level can vary by season and geographic region. Nationwide, winter requires significantly more energy for heating than summer does for cooling. Today, many consumers with delivered fuel service can rely on a backup heating source, if electricity service from the utility is lost. That's why it's imperative that policymakers consider the impact of electrification strategies on the grid, including larger electric loads and changes in peak demand, while also ensuring contingency options so that electric-only homes and buildings would be protected if electricity were to become unavailable.

We hope that as New Jersey moves forward with the 2019 Draft Energy Master Plan, these principles are considered. AHRI and our members stand ready to provide any additional information and technical expertise that may be helpful as the final Energy Master Plan is developed and implementation efforts begin.

Again, thank you for the opportunity to provide these comments. AHRI looks forward to working with the members of the committee to address the strategies included in the Energy Master Plan that rely on the HVACR industry.

Sincerely,

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