



Lower Carbon Emissions from Heating Fuels

Background

The Energy Marketers of America (EMA), formerly known as the Petroleum Marketers Association of America (PMAA), is a federation of 47 state and regional trade associations representing energy marketers throughout the U.S. who supply 80 percent of all finished motor and heating fuel products sold nationwide including renewable hydrocarbon biofuels, gasoline, diesel fuel, biofuels, heating fuel, jet fuel, kerosene, racing fuel and lubricating oils. EMA member companies are mostly independent, family-owned, and operated businesses representing approximately 60,000 retail motor fuel stations nationwide and **supply heating fuel to more than 5 million homes and businesses**. EMA members have invested billions to comply with complex regulatory requirements and provide a safe and efficient infrastructure for liquid fuels. As Congress sets forth proposals to address societal and environmental changes, policymakers need to consider long-term economic impacts when providing a path forward for cleaner liquid fuels.

Biodiesel

The heating “oil” industry has led the way on converting to a low carbon alternative fuel. For nearly two decades, the industry through the National Oilheat Research Alliance (NORA) in partnership with the National Biodiesel Board has worked to develop low carbon clean burning liquid fuels. Improving the efficiency of heating oil has been one of NORA’s highest priorities and has resulted in clean, environmentally friendly, and American-grown Bioheat® fuel. Biodiesel is produced from a variety of renewable resources, such as plant oils, animal fats, recycled grease, and even algae, making it one of the most sustainable fuels on the planet. NORA is also conducting research to achieve low-carbon liquid fuel (LCLF) made from cellulose on a commercial scale and advance heating technologies, including LCLF heat pumps focusing on efficiency and zero net carbon. Through these efforts, the industry has been using five percent biodiesel for over a decade and is moving to higher blends. Currently, most equipment sold is qualified to use 20 percent biodiesel and manufacturers are working to raise the threshold to 100 percent, and state associations representing heating oil dealers are working to increase the amount of biodiesel sold in every gallon of heating oil. Dealers from Seattle to Boston are successfully selling and experimenting with 100 percent biodiesel.

Biofine Development

In addition to biodiesel, the industry has been working closely with Biofine Development to introduce into the market a liquid fuel that is derived from cellulose (waste wood products, municipal solid waste, etc.) This fuel has been scored as reducing emissions by 100 percent as it also generates specialty chemicals that would otherwise be produced by petrochemicals. This product has been tested successfully in both residential and commercial applications. It does require minor work on the burners and pumps (around \$500 per site).

An All-Electric Heat Pump Future Unlikely to Work

Unfortunately, many policymakers have fully endorsed an all-electric policy. This policy would mean widespread adoption of heat pumps in the coldest areas of the country, where heat pump efficiency is at its lowest. Additionally, heat pumps have never been shown to fully heat homes in the coldest areas of the country, or to

provide sufficient domestic hot water for a home. In addition, the cost to convert an entire house to be fully electric is expensive which requires radiators as well as the boiler and/or furnace to be removed and electric panels to be upgraded. Furthermore, to convert to a heat pump may require ducts to be installed throughout the home. Alternatively, people are advocating whole house conversions with the use of “cold-climate” heat pumps. Installing these in each room in the house will entail significant costs and be disruptive.

Power Supply Concerns

To reduce greenhouse gases will require huge investments in renewable power. While this is a worthwhile goal, matching demand with supply will be almost impossible. Photovoltaics are very inefficient in the winter and produce no power when covered with snow. Cold days can also have no wind, which means very little electricity from wind. Or on an extremely windy day, such as during a Nor’easter, the power supply may need to be shut down. Currently, only 20 percent of the electricity in the U.S. comes from renewables, 20 percent from nuclear, with fossil fuels powering the rest of the nation. Therefore, additional demand to the grid will increase the amount of power coming from fossil fuels.

The heating oil industry has proven solutions. What can Congress do to help?

EMA encourages lawmakers to permanently reauthorize the National Oilheat Research Alliance (NORA), which allows the oilheat industry to provide more efficient and reliable heat and hot water to American consumers. Permanently reauthorizing NORA will also help with research into renewable hydrocarbon biofuels, also called “green” or drop-in biofuels, and speed up the replacement of older heating oil tank systems to new, efficient systems. The program is conducted without any funds from the federal government.

EMA also encourages Congress to closely examine the issues of electrification identified in this issue paper.

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