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December 2, 2022

U.S. Environmental Protection Agency
Washington, D.C. 20004

RE: RFI: Greenhouse Gas Reduction Fund: Docket ID No. EPA-HQ-OA-2022-0859

To Whom It May Concern:

The undersigned national trade associations representing varying segments of the U.S. insulation industry submit these comments in response to the U.S. Environmental Protection Agency's ("EPA") request for information regarding program design and implementation of the GHG Reduction Fund. Our trade associations represent U.S. manufacturers of thermal insulation materials that deliver improved energy efficiency, reduced pollution from building operations that rely on fossil fuel use and enable the deployment of other clean technologies like renewable energy generation. This letter explains why building energy efficiency upgrades such as insulation retrofit projects should be prioritized when implementing the GHG Reduction Fund.

Section 60103 of the Inflation Reduction Act provides EPA with discretion in the disbursement of \$27 billion in funding for projects that reduce GHG emissions. Congress gives priority to actions that support disadvantaged communities. Priority is also given to those projects that can be rapidly deployed and achieve significant emission reductions. These outcomes are all supported through building energy efficiency. California neatly frames the relative importance of energy efficiency in its "Loading Order" on utility procurement by mandating that energy efficiency and demand response be pursued first, followed by renewables and lastly clean-fossil generation.

EPA should adhere to a similar philosophy in the prioritization of project funding under the GHG Reduction Fund. Doing so meets the policy imperatives set by both Congress and desired by EPA for this program. Energy efficiency benefits lower income communities in the form of reduced energy bills and healthier living spaces. Energy efficiency is cost-effective, commercially available, and quickly deployed. Energy efficiency supports electrification and renewable generation through passive storage that helps reduce utility peak loads. Most importantly, energy efficiency drives significant reductions in energy use and associated emissions that last the life of the building – often 75 years or more.

Earlier this year, the insulation industry released a report prepared by ICF that analyzed the greenhouse gas emission reductions that can be achieved across the existing U.S. building stock (residential, commercial, and industrial) by making conventional, cost-effective, and achievable insulation and air sealing improvements. The Insulation Opportunity Study¹ estimates that the emission reduction potential resulting from buildings considered in this analysis would drive annual CO₂ emission reductions of nearly 282 million tons and lifetime CO₂ emission reductions of more than 11.5 billion tons. The modeled insulation improvements can be implemented immediately while

¹ Available at: <https://www.insulationadvocacy.org/insulationopportunitystudy>.

other longer-term investments and electrification technologies are planned. Emission reductions by building sector identified in the study are as follows:

Residential Sector. Energy savings ranging from 10 to 45 percent are possible in existing homes that are air sealed and have insulation added in the ceiling and floors (and walls in very limited circumstances) to levels prescribed by the 2021 International Energy Conservation Code. Nationally, this retrofit activity could yield roughly 10 billion tons of carbon emission reductions over a 50-year period – the minimum useful life of building insulation.

Commercial Sector. The Insulation Opportunity Study analyzed a range of commercial buildings representing approximately 25 percent of existing floor space in the U.S., including schools, small to midsize office buildings, midrise apartments, and stand-alone retail. The modeled insulation improvements included customary ASHRAE 90.1-2019-compliant roof insulation upgrades and pipe insulation improvements.² While savings vary by building type, aggregate national energy savings were estimated to exceed 5 percent, with nearly 70 percent of those savings resulting from decreased natural gas usage. The study found significant energy savings opportunities in the education sector. Nationally, primary schools would save an average of nearly 9 percent by incorporating these insulation improvements, while secondary schools would average energy savings of 7 percent.

Industrial Sector. ICF found that making pipe and mechanical insulation improvements to industrial facilities in eight major industrial sectors (*e.g.*, chemical, food, paper, plastic) would save the industrial sector more than \$126 billion in energy costs based on an average capital cost of \$3.77 billion. The average payback on this investment is approximately one year. For many industrial sectors, the payback is as little as six months. Energy savings from insulation upgrades can reduce natural gas use by 118 billion therms across the U.S. industrial sector according to ICF and help reduce demand on the electric grid as electrification technologies roll out.

The insulation industry stands ready to work with the EPA and other federal agencies to fully lean into the incentives of the IRA and IIJA to see that our country's building infrastructure undergoes the transformation needed to realize the Administration's climate goals.

Sincerely,

North American Insulation Manufacturers Association
Polyisocyanurate Insulation Manufacturers Association
Insulation Contractors Association of America
National Insulation Association
American Chemistry Council
EPS Industry Alliance
Structural Insulated Panel Association
Spray Polyurethane Foam Association
Cellulose Insulation Manufacturers Association

² The study did not analyze all available mechanical insulation system opportunities in the commercial market segments. Adding these would further increase energy and emission reduction through decreases in fossil fuel usage.