INTERNATIONAL ASSOCIATION OF
Heat & Frost Insulators & Allied Workers
Local 24
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Maryland House of Delegates
Environment and Transportation Committee
Chair: Kumar P Barve
Vice Chair: Dana Stein

FAVORABLE

HB 1490 - Environment – Building Energy Performance Standards and Greenhouse Gas Emissions Reduction Targets (Clean Buildings Jobs Act of 2020)

Heat and Frost Insulators & Allied Workers Local 24
Brian S Cavey, Business Manager
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Chairman Barve, Vice Chair Stein, members of the committee, I respectfully submit this document on behalf of the officers and members of Heat and Frost Insulators and Allied Workers Local 24.

Greenhouse gases trap heat and make the planet warmer. Human activities are responsible for almost all of the increase in greenhouse gases in the atmosphere over the last 150 years. The largest source of greenhouse gas emissions from human activities in the United States is from burning fossil fuels for electricity, heat, and transportation.

According to the Department of Energy's buildings energy data book, U.S. buildings account for 39% of primary energy consumption and 72% of all electricity consumed domestically. Buildings accounted for more energy use than the entire U.S. transportation sector in 2006 and produced more greenhouse gases than any other country in the world except China.

Building emissions, as typically measured, are a combination of two things. First is day-to-day energy use—known as the "operational carbon emissions" that comes from powering lighting, heating, and cooling. Second is the amount of carbon generated through manufacturing building materials, transporting materials to construction sites, and the actual construction process—what's known as the "embodied carbon of a building".

An energy efficient building could be a brand-new structure or an existing one retrofitted with new mechanical systems, new or upgraded mechanical insulation, new lighting, and etcetera. In the United States about 95 percent of all buildings are more than a decade old and 82 percent of all commercial buildings were built before 2000. Meanwhile, about half of the floor space of all buildings in the U.S. is heated by burning fossil fuels onsite. Retrofits and renovations will be a crucial part of decarbonization.

Approximately two-thirds of the building area that exists today will still exist in 2050. Currently, building renovations affect only 0.5-1% of the building stock annually. A significant increase in the rate of existing building energy efficiency renovations and the generation and procurement of renewable energy is required to meet emissions reduction targets.

I would like to tell you about two examples of how mechanical insulation can help with making buildings more efficient:

A new hospital (not in Maryland) elected to eliminate the mechanical insulation from the domestic hot water piping system within the walls, through what we call in the construction industry, value engineering (reducing costs by eliminating certain items in the project). The facility received a credit of around $75,000 from the plumbing contractor. The energy savings should they have insulated the pipe with 1" thick fiberglass was around $37,000 per year, a return on investment of just under two years. With over 15,000 LF of pipe un-insulated the energy costs to the owner over twenty years would be over $980,000.

At the Maritime Institute in Linthicum, we were asked to assist in solving a high heat problem around the kitchen and cafeteria area. A Labor Management team consisting of a management representative from a signatory contractor and myself visited the site and performed a heat loss analysis. The temperature in the small equipment room was around 140 deg. F. After the installation of mechanical insulation on bare steam pipe, valves, and flanges along with various heat exchangers and hot water systems the temperature in the room was reduced to below 98 deg. F producing a savings of approximately $1500.00 per year and reducing carbon emissions by 3.712 MT.

Reducing a building's carbon footprint reduces its running costs, improves employee morale, raises property values and improves LEED scores. Buildings become environmentally responsible, profitable and healthier places to live and work. I ask for your favorable vote for HB 1490.

Sincerely,

Brian S Cavey, Business Manager