

August 2, 2023

Mr. Peter Campbell  
Ms. Emily Yen  
South Coast Air Quality Management District  
21865 Copley Drive  
Diamond Bar, CA 91765

(submitted electronically to [pcampbell@aqmd.gov](mailto:pcampbell@aqmd.gov) and [eyen@aqmd.gov](mailto:eyen@aqmd.gov))

Re: AHRI Comments – Proposed Amended Rule 1111 – Reduction of NOx Emissions from Natural Gas-Fired, Fan-Type Central Furnaces – July 19, 2023 Public Consultation Meeting

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Dear Mr. Campbell and Ms. Yen:

The Air-Conditioning, Heating, and Refrigeration Institute (AHRI) respectfully submits this letter in response to information presented at the July 19, 2023 Public Consultation Meeting by the South Coast Air Quality Management District (SCAQMD) regarding Proposed Amended Rule 1111 – Reduction of NOx Emissions from Natural-Gas-Fired, Fan-Type Central Furnaces (PAR 1111).

AHRI is the trade association representing manufacturers of heating, cooling, water heating, commercial refrigeration equipment, and refrigerant producers. More than 300 members strong, AHRI is an internationally recognized 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 economic activity resulting from the HVACR industry is approximately \$256 billion. In the United States alone, our member companies, along with distributors, contractors, and technicians employ more than 1.3 million people. AHRI represents almost all North American manufacturers of residential furnaces.

During the July 19, 2023 public meeting, SCAQMD staff presented two topics: (1) the proposed extension of mitigation fees for mobile home furnaces from September 30, 2023, to September 30, 2025; and (2) next steps for the zero-emission amendment to Rule 1111.

**SCAQMD’s Proposed Extension of the Mobile Home Mitigation Fee is Appropriate**

Regarding the mobile home furnace proposal, AHRI fully supports SCAQMD staff’s analysis and the proposal to extend the mitigation fee option for mobile home furnaces from September 30, 2023, to September 30, 2025, in Rule 1111. Requiring mobile home furnaces to meet the 14 ng/J NOx emission limit by October 1, 2023, would be impossible as there are no

compliant products. As acknowledged by staff in the July 2023 PAR 1111 Preliminary Draft Staff Report, the mobile home market is quite small.

### **Considerations for the Zero-Emission Amendment Proposal**

As outlined in the July 2023 PAR 1111 Preliminary Draft Staff Report, staff plans “to evaluate the feasibility of requiring zero-emission NO<sub>x</sub> technologies for residential and commercial buildings, including for mobile home heating units, and propose appropriate compliance dates to meet potentially lower emission standards.”<sup>1</sup> Herein, AHRI has early feedback to share regarding resources for identifying accurate product costs and concerns regarding emergency replacements. Lastly, the scope of the plan as outlined in the staff report may conflict with charging control measures adopted in the 2022 Air Quality Management Plan (AQMP).

Regarding the cost data for space and water heating heat pumps, the TECH Clean California webpage is an excellent resource which includes real cost data for over 10,000 installations.<sup>2</sup> The average project cost in California to replace bath space and water heating with heat pumps to be \$17,400 based on a total of 10,342 projects.<sup>3</sup> The data set can be filtered to find minimum and maximum project cost for space and water heating heat pump installations within the boundary of the SCAQMD. AHRI encourages SCAQMD to use accurate cost data in developing the zero-emissions staff report.

SCAQMD should also consider providing a pathway for emergency replacements. In most cases, space and water heating equipment is replaced upon failure of the appliance. If this occurs and the house needs a panel upgrade or other alterations to accommodate a zero-NO<sub>x</sub> solution, that house could be without space- or water heating for several days if not weeks while the retrofits occur. If such an event were to happen during a cold snap, there could be significant concern for the health and safety of the occupant(s). SCAQMD needs to consider solutions to the emergency replacement issue, including proactive replacement programs, such that the impact of any zero-emission proposed rule does not compromise safe and reliable access to services.

Lastly, SCAQMD staff cites implementation of Control Measure R-CMB-02 for “the policy direction for Rule 1111 to align with California’s zero-emission pathway for residential and commercial buildings.” However, SCAQMD also states that the control measure R-CMB-02, “proposed the development of zero-emission NO<sub>x</sub> limits for residential space heating when *feasible*.”<sup>4</sup> [emphasis added] AHRI urges SCAQMD staff to clarify the directive to develop of zero-emission NO<sub>x</sub> limits for commercial space heating and for both residential and commercial water heating. AHRI also notes that feasibility of proposed limitations should be clearly addressed in the draft staff report expected to accompany the proposed zero-emission amendment. Feasibility should explicitly address first cost of zero-emission equipment installations (i.e. costs associated with fuel switching such as electric panels, rewiring, ductwork, etc..) and the complexities created by emergency replacements.

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<sup>1</sup> July 2023 PAR 1111 Preliminary Draft Staff Report (Page Exe-1)

<sup>2</sup> <https://techcleanca.com/public-data/maps-and-graphs/>

<sup>3</sup> *Id.*

<sup>4</sup> July 2023 PAR 1111 Preliminary Draft Staff Report (Page Exe-1)

AHRI appreciates the opportunity to provide these comments. If you have any questions regarding this submission, please do not hesitate to contact me.

Sincerely,

A handwritten signature in black ink, appearing to read 'LPG', with a long horizontal flourish extending to the right.

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