

## RESOLUTION TO ACCELERATE THE DECARBONIZATION OF INDUSTRIAL BOILERS AND POLLUTING EQUIPMENT TO IMPROVE AIR QUALITY AND PUBLIC HEALTH IN CULVER CITY, CA

### Overview:

Southern California faces the worst air quality in the nation, and industrial boilers are a significant yet often overlooked contributor. Nearly 1,900 aging boilers across approximately 800 facilities burn methane gas to manufacture everyday products, emitting dangerous nitrogen oxides (NOx) and particulate matter (PM2.5) that are linked to higher rates of asthma, heart disease, and premature death. The burden falls hardest on disadvantaged communities: 62% of regulated units are located in or within one mile of areas identified as disadvantaged by CalEnviroScreen, and 1,376 schools sit within one mile of these facilities—meaning over 80% of units are near where children learn and play. Sixty percent of these schools are elementary schools, and 81% are located in environmental justice communities. SCAQMD has already shown leadership with Rule 1153.1 which will phase out NOx emissions from commercial food ovens and Rule 1146.2 which was adopted in June 2024 as the nation's first zero-emission rule for small industrial boilers, which will cut emissions from more than 1 million boilers and water heaters, eliminating 5.6 tons of NOx pollution per day by 2033, equivalent to removing half of the region's cars from the road. Now SCAQMD is in the process of updating Rules 1146 and 1146.1 for medium and large boilers. The 2022 Air Quality Management Plan is clear: the only way to achieve required NOx reductions is through extensive use of zero-NOx technologies. Clean technology exists today; industrial heat pumps can achieve average efficiencies of 250-500% compared to 80% for gas boilers, and electric boilers can handle applications up to 500°C and beyond. California manufacturers are already leading: Hilmar Cheese is installing an industrial heat pump with an \$8 million state grant that will cut over 2 tons of NOx annually and save up to 7 million gallons of water, while UC Irvine is opening the nation's first zero-emissions hospital powered by electric boilers and heat pumps. State support includes the California Energy Commission's INDIGO (Industrial Decarbonization & Improvement of Grid Operations) program and AB 1280, which was just passed in 2025, which updates the INDIGO program and also authorizes the state's green bank to provide low-cost loans to manufacturers to install clean industrial heat technologies. By passing a resolution calling for strong zero-emission standards for Rules 1146 and 1146.1, Culver City can provide the necessary leadership to support public health, advance environmental justice, and help deliver the clean air our communities desperately need.

## RESOLUTION TO ACCELERATE THE DECARBONIZATION OF INDUSTRIAL BOILERS AND POLLUTING EQUIPMENT TO IMPROVE AIR QUALITY AND PUBLIC HEALTH IN CULVER CITY, CA

WHEREAS, Air pollution is a serious threat to public health across the South Coast Air Quality Management District (SCAQMD) region, and the region is in severe nonattainment of federal health-based standards for Ozone and fine particulate matter (PM 2.5), which are linked to respiratory illness, cardiovascular disease, and premature death.

WHEREAS, Industrial sources, including boilers, process heaters, furnaces, and other equipment, emit significant quantities of nitrogen oxides (NO<sub>x</sub>), sulfur oxides (SO<sub>x</sub>), volatile organic compounds (VOCs), carbon monoxide (CO), and particulate matter (PM), all of which contribute to smog and other pollution that harms public health.

WHEREAS, California has the largest manufacturing sector in the United States, producing a wide range of essential goods, from food and beverages to medical supplies, and employs 1.2 million workers; nevertheless, this sector is also a significant source of air pollution due to its reliance on outdated, emitting technologies.

WHEREAS, Southern California is home to approximately 800 manufacturing facilities and large buildings operating nearly 1,900 boilers and furnaces, which pollute our air with NO<sub>x</sub>, PM<sub>2.5</sub>, and other air contaminants that degrade public health and air quality.

WHEREAS, the decarbonization of industrial boilers and other combustion systems eliminates on-site emissions of NO<sub>x</sub>, PM<sub>2.5</sub>, CO, and toxic air contaminants, thereby removing indoor air pollution hazards, mitigating health risks, and safeguarding workers from chronic exposure to harmful emissions.

WHEREAS, the SCAQMD has established a precedent for bold action by adopting the first-in-the-nation zero-emissions standards for small industrial boilers with a heat rating under 2 MMBtu/hr (Rule 1146.2), which are projected to reduce pollution from over 1 million boilers and water heaters over the next decade, eliminating 5.6 tons of NO<sub>x</sub> pollution per day by 2033—pollution reduction that is equivalent to removing half of the region's cars from the road.

WHEREAS, replacing polluting boilers in California with zero-emissions technologies could save \$47.5 billion in public health costs.<sup>1</sup>

WHEREAS, the 2022 Air Quality Management Plan from SCAQMD clearly states that the “only way to achieve the required nitrogen oxide (NO<sub>x</sub>) reductions is through extensive use of zero-NO<sub>x</sub> technologies across all stationary and mobile sources.”<sup>2</sup>

WHEREAS, strengthening Rules 1146 and 1146.1 with zero-emission limits represents the next critical step to save more lives and prevent additional asthma cases from commercial and industrial pollution sources.

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<sup>1</sup>*Clean Heat, Clean Air: Health Benefits of Modern Industrial Technologies*. American Lung Association, 2025, <https://www.lung.org/getmedia/97c8c798-d246-4f1d-9bd1-dbb77447a816/ALA-Clean-Heat-Clean-Air-Report.pdf>

<sup>2</sup>South Coast Air Quality Management District (SCAQMD), 2022 Air Quality Management Plan, Executive Summary (December 2, 2022).

WHEREAS, adopting similarly strong zero-emission standards for medium and large industrial boilers, steam generators, and process heating equipment with a heat rating above 2 MMBtu/hr would extend those health benefits to the 17 million residents in the South Coast Air Quality Management District, particularly those living closest to industrial activity.

WHEREAS, local government leadership is essential to accelerate the transition to a modernized, clean, and equitable manufacturing sector that protects health, reduces pollution, and supports new family-sustaining jobs in clean energy and clean tech.

NOW, THEREFORE, BE IT RESOLVED that the City Council of [CITY], California:

1. Calls on all industrial operators within city limits to replace polluting industrial boilers and other heating equipment with zero-emissions alternatives without delay, as soon as technically and economically feasible;
2. Urges the South Coast Air Quality Management District, including through amending rules 1146 and 1146.1, the California Energy Commission, California Air Resources Board, and the California Public Utilities Commission to provide strong regulatory, financial, and technical support to advance adoption of zero-emissions technologies and accelerate the decarbonization of industrial systems, with priority for facilities located in communities most impacted by poor air quality;
3. Commits to integrating air quality, health equity, and environmental justice into all industrial permitting, planning, and economic development decisions, in order to protect public health and ensure safe, breathable air for all residents.