

Industrial Boiler Pollution in New York

Evergreen Collaborative has published a [first-of-its-kind map](#) identifying nearly 14,000 industrial boilers across all 50 states and quantifying the air pollution they emit. Our analysis finds that industrial boilers are a massive pollution source in the U.S., generating 6% of all industrial nitrogen oxide (NO_x) emissions and 5-10% of all industrial carbon dioxide (CO₂) emissions. These boilers depend heavily on fossil fuels, especially fossil gas, to heat water for a wide range of industrial processes, including pulp and paper manufacturing, food processing, chemicals production, and more.

The national map highlights key opportunities—and urgent needs—in New York. **New York is home to 61 industrial boilers, which collectively produce around 2,400 tons of NO_x annually.** [Evergreen's National boiler map](#)¹ indicates that boiler pollution is an acute issue in the Empire State:

- About 22% of New York's industrial boilers are located in **federally recognized disadvantaged communities** (DACs).
 - Those DACs suffer dramatically higher volumes of industrial air pollution—on average, reported boiler units in New York DACs emit 3x more volatile organic compounds (VOCs), 5x more particulate matter (PM_{2.5}), 8x more NO_x, and nearly 13x more hydrochloric acid than reported units located in non-DACs.
- Though New York's population of industrial boilers is relatively small, it is also unusually high-polluting—on average, **reported boiler units in New York emit 2.5x more NO_x, PM_{2.5}, and VOCs than reported units nationally.**
- About 15% of New York's industrial boilers are located in nonattainment areas, where ozone pollution already exceeds legal limits under the Clean Air Act.
- **Finch Paper, Kerry, Momeni Performance Materials, and Wyeth** own the largest number of boilers, with a combined 12 boilers across New York.
- The **chemical manufacturing** industry operates the largest number of boilers in New York with 15 units, followed by the **paper manufacturing** industry and **food manufacturing** industry with 11 and 6 units, respectively.
- The top 5% of highest-emitting reported units in New York each emitted more than 423 tons of NO_x on average annually, cumulatively generating 1,694 total tons of NO_x every year.
- The **highest emitting reported boiler unit in New York is owned by Finch Paper, a paper manufacturing company.** The unit is located in Glens Falls and produces 898 tons of NO_x annually. This means the unit is the **13th-highest emitting unit and higher emitting than 99.9% of boilers in the U.S.**

¹ Filtered for New York

In burning fossil fuels to heat water, **industrial boilers produce a dizzying array of air pollutants**. These include not only CO₂, the primary driver of climate change, but also multiple contaminants that directly endanger human health, including NO_x (the main constituent of ozone), particulate matter, mercury, and hydrochloric acid. These pollutants can penetrate deep in the lungs and, depending on the pollutant, cause respiratory illnesses, heart disease, cancer, and premature death. Industrial boiler pollution is a public health crisis, but it doesn't have to be this way: Evergreen and Sierra Club's new report accompanying the national boiler map, [*Embracing Clean Heat: Opportunities for Zero-Emission Industrial Boilers*](#), lays out a pathway to electrifying America's industrial boilers.

The solution: Replace the current boiler fleet, to the greatest extent possible, with electric alternatives. These alternatives are commercially available and technologically viable replacements for high-polluting legacy boilers. Particularly for industrial processes below 200°C, electric equipment can provide cost-effective pollution reductions compared to fossil fueled units. The time is ripe for state leaders to advance ambitious measures to electrify America's industrial boilers.

New York is especially well-positioned to act on this issue. The state's cap-and-invest program will set emissions caps on industrial pollution, directly incentivizing efficiency and electrification efforts at industrial facilities—including those operating heavily polluting boilers. Additional policy initiatives to advance industrial boiler electrification would complement cap-and-invest's industrial emissions caps and help covered facilities meet emissions reductions targets.

[*Embracing Clean Heat*](#) recommends an ambitious policy approach to electrify America's industrial boilers. The policy tools detailed in the report include:

- **New State-Level Clean Air Rules** — States can put firm limits on criteria pollution from their industrial boilers, going above and beyond the Trump administration's standards.
- **Investments in Electrification** — State governments can make targeted investments to close the cost gap between fossil and electric boilers, clean up fenceline communities' air, and create jobs.
- **Utility Rate Reforms** — States' public utilities commissions can institute rates that reward industrial customers for electrifying equipment and deploying energy storage to enhance demand flexibility and grid stability.

See Evergreen Collaborative and Sierra Club's new report [*Embracing Clean Heat: Opportunities for Zero-Emission Industrial Boilers*](#) for more, including a detailed exploration of states' authorities to act on boiler pollution under the Clean Air Act.

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