



NYC BUILDING EMISSIONS LAW

FAQs

May 9, 2019

1. How do I determine if my property is subject to the new law?

In general, if a property is subject to the [NYC Benchmarking Law](#) (requiring annual energy and water use reporting), it is subject to the building emissions law. The city issues an annual Covered Buildings List [here](#).

2. Where do I find my building’s carbon emissions?

To see a building’s annual emissions intensity based on the most recent benchmarking submissions, search by [borough-block-lot](#) (BBL) number or type in your street address at [Metered.nyc](#). Scroll down to “GHG Emissions / sq.ft.” which is highlighted in green. Multiply that emissions intensity by a building’s total area (in square feet) to determine annual carbon emissions for the applicable year.

Calculating total building emissions depends on an “emissions factor” applied to each source of energy (e.g. natural gas, electricity or district steam) based on its associated carbon pollution (see #4 below for more). The benchmarking platform and Metered.nyc use emissions factors from the EPA’s [Portfolio Manager tool](#).

3. Where do I find the carbon limits for my building?

The building emissions law sets emissions intensity limits (metric tons of CO2e per square foot) for 10 building categories based on [Building Code occupancy groups](#). But the answer for each individual building is complex.

Many, such as those with rent-regulated units, are not subject to emissions limits at all (see more below). And mixed-use buildings, such as a residential apartment building with a ground floor supermarket or retail store, will have limits that reflect their unique blend of occupancy groups.

Below are the 2024 and 2030 carbon emissions limits for multifamily apartments, offices and hotels. The law provides limits in *metric tons* of carbon dioxide equivalent; the following table and Metered.nyc express these numbers in *kilograms* of carbon dioxide equivalent (one metric ton equals 1000 kg).

	2024-29 limit	2030-34 limit
	(kg of CO2e per SF)	(kg of CO2e per SF)
Occupancy Group R-2 (includes apartments)	6.75	4.07
Occupancy Group B (includes offices)	8.46	4.53
Occupancy Group R-1 (includes hotels)	9.87	5.26

Limits for other building types are listed in the [law](#).

4. What’s the difference between “carbon emissions” and “energy use”?

Buildings use many forms of energy, including electricity, natural gas, various types of fuel oil and district steam. Carbon emissions come primarily from burning fossil fuels.¹

These different forms of energy use release different amounts of carbon. To calculate building carbon emissions, each type of energy use must be multiplied by an “emissions factor” (also called a “greenhouse gas coefficient”) to convert from energy use to carbon emitted. The building emissions law sets specific emissions factors for the 2024-2029 limits. It also requires that emissions factors applicable for the 2030 limits be set by rule no later than January 1, 2023.

One of the key reasons this matters is that changes to the source of electricity flowing into the NYC electrical grid will change the emissions coefficient for electricity. Right now, carbon-free nuclear power from Indian Point provides about 25 percent of NYC’s electricity. When this facility shuts down in the near future, more [carbon-intensive sources will fill the gap](#) until clean energy like offshore wind can be brought online.

5. How do I reduce my building’s carbon emissions?

Saving energy will be the most effective way to reduce a building’s carbon emissions. Different fuel sources have different carbon intensities, so targeting the most carbon-intensive fuels will yield the biggest carbon savings. For the 2024-2029 limits, the law sets electricity as the most carbon-intensive energy source per unit of on-site energy. Most of these coefficients, except for district steam, are relatively close to the latest [EPA eGRID 2016 coefficients](#) shown at the far right of the table below:

Energy Source	2024 Carbon Intensity Factors (kg of CO ₂ e per kbtu)	EPA Carbon Intensity Factors (kg of CO ₂ e per kbtu)	Percent Difference From EPA
Electricity (NYC specific)	0.08469	0.0847	0.0%
No. 4 Fuel Oil	0.07529	0.0732	2.9% higher
No. 2 Fuel Oil	0.07421	0.0732	1.4% higher
Natural Gas	0.05311	0.0531	equivalent
District Steam (NYC specific)	0.04493	0.0664	32.3% lower

A low-cost first step is training building operations staff on energy efficiency best practices. Changes to equipment schedules, temperature setpoints and other characteristics can reduce energy use without added cost. Urban Green’s [GPRO Operations & Maintenance Essentials](#) will help enable building staff to make these adjustments and save energy immediately.

Operational changes can yield at least 5 percent overall energy savings, but if bigger cuts are required then a building audit should be conducted.² A licensed consultant will perform the audit to identify equipment for replacement, and potential upgrades that can save more energy from the building’s heating, cooling and lighting systems. For example, many steam heat systems throughout NYC offer significant fuel-saving opportunities. Our 2019 report, [Demystifying Steam](#), outlines changes and upgrades that can cut building energy use by 20 percent or more.

Once a list of capital improvements is known, then planning and implementation can begin. The city’s [Retrofit Accelerator](#) is a free program for building owners who need assistance with their project. Their efficiency advisors can help plan the sequence of work and explain financing options.

¹ In this context, carbon emissions are synonymous with greenhouse gas emissions. A greenhouse gas is any gas with potential to trap warmth in the atmosphere. Carbon dioxide is a greenhouse gas and its serves as the basis for measuring the impact of all greenhouse gases. Read more from the EPA: <https://www.epa.gov/ghgemissions/overview-greenhouse-gases>

² Operations and Maintenance Best Practices: A Guide to Achieving Operational Efficiency. Prepared by Pacific Northwest National Laboratory for the Federal Energy Management Program U.S. Department of Energy. Read more from the DOE: https://www.energy.gov/sites/prod/files/2013/10/f3/omguide_complete.pdf

6. What if I can't comply by reducing energy use alone?

In addition to energy efficiency, the law provides some flexibility for buildings to comply with any of the following:

- Achieving some or all of the required reductions by purchasing credits for renewable energy generated in NYC or feeding directly into the NYC grid;
- Deducting up to 10 percent of the annual emissions limit for 2024-2029 by purchasing greenhouse gas offsets (details to be determined by rule, but typically includes measures like credits for planting trees); and
- Building carbon trading, where buildings that surpass the goal can sell to buildings that cannot. The city is required to study and recommend a program by 2021.

A new department within the NYC Department of Buildings will also have the authority to grant exceptions, for reasons such as financial hardship and practical constraints (like lack of access to building systems due to existing leases).

Ultimately, failure to comply will result in fines.

7. How large are the fines?

The law creates fines for two types of violations, with a third type also considered a misdemeanor:

Violation Type	Maximum Fine
Failure to file a report	\$0.50 per building square foot, per month
Exceeding emissions limit	\$268 for each metric ton over the building's limit
False statement (misdemeanor)	\$500,000

For example, a 50,000 square-foot multifamily residential building emitting 350 metric tons of carbon would be 12.5 metric tons over its 2024-2029 limit and pay a fine of \$3,350.

8. What about affordable housing?

The law includes different requirements for many types of affordable or income-limited housing. For example, buildings with rent-regulated units and certain types of low-income and subsidized housing are not subject to emissions limits. Instead, these buildings are required to implement a prescriptive package of energy savings measures listed in section 28-321.2.2 of the law.