


NEW YORK CITY DEPARTMENT OF BUILDINGS
NOTICE OF ADOPTION OF RULE

NOTICE IS HEREBY GIVEN, Pursuant to the authority vested in the Commissioner of Buildings by section 643 of the New York City Charter, and in accordance with the requirements of Section 1043 of the New York City Charter, DOB is amending section 103-14 of Subchapter C of Chapter 100 of Title 1 of the Rules of the City of New York.

This rule was published on October 4, 2024, and a public hearing was held on November 7, 2024. DOB received and considered written and oral comments from the public.

Dated: 12-16-2024
New York, New York



James S. Oddo
Commissioner

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Statement of Basis and Purpose of Rule

The Department of Buildings (“DOB” or “Department”) is amending section 103-14 of subchapter C of chapter 100 of Title 1 of the Rules of the City of New York to further specify how to comply with article 320 of chapter 3 of Title 28 of the New York City Administrative Code, which requires the establishment of annual greenhouse gas (GHG) emissions limits for buildings. These amendments:

- Establish a coefficient for calculating the emissions resulting from the use of certain biofuels,
- Amend the equations for calculating the coefficient for campus-style electricity,
- Establish a coefficient for certain co-generation systems,
- Amend the equation for calculating deemed electric use for qualifying beneficial electrification, and
- Set forth the type and amount of GHG offsets that may be used as a deduction from annual building emissions to achieve Local Law 97 (LL97) compliance.

The offsets that may be used for LL97 compliance are offsets generated by the New York City Affordable Housing Reinvestment Fund (AHRF). The AHRF is a fund established by the Department and the Department of Housing Preservation and Development (HPD), and administered by a third-party pursuant to a contract with the City. AHRF offsets are generated in connection with qualifying building electrification projects at affordable housing buildings in New York City pursuant to a methodology developed by HPD, which uses a deemed savings approach and assumptions vetted by an independent, qualified third-party to estimate the emissions reductions for such projects. AHRF offsets are the only offsets eligible for LL97 compliance because they are high-integrity offsets that reduce emissions from the built environment and result in environmental, health, and economic benefits in New York City, and are therefore the only offsets DOB recognizes as furthering the goals of LL97. AHRF offsets exemplify principles of environmental integrity, as identified by the federal government in the [“Voluntary Carbon Markets Joint Policy Statement and Principles”](#) published May 2024: they are real and quantifiable, permanent, additional, verifiable, unique, and based on robust baselines for estimating emissions reductions. AHRF offsets operate in a controlled, local environment to provide verifiable emissions reductions and contribute to building decarbonization in New York City.

The Department received and considered comments during the public comment period, including testimony submitted at the public hearing, and subsequently made changes to the rule, as follows:

- Clarify that the minimum annual average efficiency for qualified generation facilities is based on the previous year’s NYC GHG inventory coefficient for electric emissions;

- Clarify that the alternative GHG coefficients for qualified generation facilities will be available until such systems are no longer cleaner than the grid based on the annual operating efficiency of the system; and
- Clarify that deductions for offsets are available in each compliance period.

No changes were made relating to the coefficient for biofuels. The rule reflects the life-cycle emissions for biofuel blends based on published U.S. Environmental Protection Agency data, which demonstrates that biofuels have a lower net life cycle emissions compared to other fossil fuels. DOB will provide additional calculations for particular biofuel blends in Department guidance.

The Department's authority for these rules is found in sections 643 and 1043(a) of the New York City Charter and article 320 of chapter 3 of Title 28 of the New York City Administrative Code.

New material is underlined.

[Deleted material is in brackets.]

“Shall” and “must” denote mandatory requirements and may be used interchangeably in the rules of the Department, unless otherwise specified or unless the context clearly indicates otherwise.

Section 1. Subdivision (a) of section 103-14 of subchapter C of chapter 100 of Title 1 of the Rules of the City of New York is amended by adding the following new definitions, to be inserted in alphabetical order:

Affordable Housing Reinvestment Fund (AHRF). The AHRF is a third-party fund established by the Department in collaboration with the New York City Department of Housing Preservation and Development (HPD) to receive, encumber, and distribute funds for qualifying building electrification projects and generate offsets for such activities.

Biofuel. Biofuel means biodiesel and renewable diesel.

Fund Administrator. The fund administrator is a third party retained to administer the Affordable Housing Reinvestment Fund pursuant to a contract with the City.

Qualified generation facility. A qualified generation facility is any combined heat and power system, permitted prior to September 1, 2024, that (i) operates at a minimum annual average efficiency as established by this rule, (ii) emits levels of Nitrogen Oxide (NOx) below the limits established by this rule, (iii) is not owned by a utility, and (iv) meets the requirements of the New York City Air Pollution Control Code.

§ 2. Subparagraph (i) of paragraph (3) of subdivision (d) of section 103-14 of subchapter C of chapter 100 of Title 1 of the Rules of the City of New York is amended to read as follows:

(i) Greenhouse gas coefficients for certain fuels combusted or consumed on premises for calendar years 2024 - 2034. For building emissions reports for calendar years 2024 - 2034, the GHG coefficients for fuel types combusted or consumed on premises provided in section 28-320.3.1.1 of the Administrative Code apply, except as provided in this subparagraph (i) or in subparagraph (ii) of this paragraph[, provided that for any fuel type with a biogenic blend, the owner may propose an alternate coefficient pursuant to clause c of this subparagraph].

a. For the following fuel types combusted or consumed on premises, greenhouse gas emissions must be calculated as generating the following amounts of tCO₂e per kBtu:

Fuel	Emissions Coefficient (tCO₂e per kBtu)
Butane	0.00006502
Butylene	0.00006897
Diesel	0.00007421
Distillate Fuel Oil No. 1	0.00007350
Ethane	0.00005985
Ethylene	0.00006621
Gasoline	0.00007047
Isobutane	0.00006519
Isobutylene	0.00006911
Kerosene	0.00007769
Naphtha (< 401 deg F)	0.00006827
Other Oil (> 401 deg F)	0.00007647
Pentanes Plus	0.00007027
Propane	0.00006425
Propylene	0.00006802
Special Naphtha	0.00007259
Coke Oven Gas	0.00004689
Fuel Gas	0.00005925
<u>Biofuel</u>	<u>0.00007389</u>

b. *Exceptions.* Notwithstanding any other provision of this subparagraph, for building emissions reports for calendar years 2030 – 2034:

1. Number two (No. 2) fuel oil combusted on the premises of a covered building shall be calculated as 0.00007421 tCO₂e per kBtu.
2. Number four (No. 4) fuel oil combusted on the premises of a covered building shall be calculated as 0.00007529 tCO₂e per kBtu.

c. For any fuel type that is combusted or consumed on site, not listed in this subparagraph or section 28-320.3.1.1 of the Administrative Code and not prohibited by applicable rule or law, the owner must propose a carbon coefficient, in tCO₂e per kBtu, that serves the public interest of reducing GHG emissions, to be used for calculating greenhouse gas emissions for such fuel type. Such proposed coefficient and documentation supporting such proposed coefficient shall be provided to the Department, in a form and manner determined by the Department. Such proposed carbon coefficient is subject to approval by the Department, which may alternatively assign a different coefficient for such fuel type.

§ 3. Subparagraph (iv) of paragraph (3) of subdivision (d) of section 103-14 of subchapter C of chapter 100 of Title 1 of the Rules of the City of New York is amended to read as follows:

(iv) *Greenhouse gas coefficient for campus-style electric systems.* The greenhouse gas coefficient for electricity generated by a campus-style electric system, where electricity consumed by any covered building served by such system is generated in whole or in part on the premises of the campus, must be calculated in accordance with this subparagraph (iv).

a. The GHG coefficient for electricity generated by the campus-style electric system, must be calculated as follows:

$$g_{ce} = \frac{\sum_n (m_n \cdot g_n)}{m_{ce}} \quad \text{(Equation 103-14.7)}$$

Where:

g_{ce} = the on-site campus generated electricity GHG coefficient in tCO_{2e} per kWh.

m_n = the plant input energy for each energy source consumed, n , in kBtu.

g_n = the GHG coefficient for each plant input energy source, n , in tCO_{2e} per kBtu as provided pursuant to Article 320 of Chapter 3 of Title 28 of the Administrative Code or this paragraph.

m_{ce} = the total electricity consumed by buildings and other campus loads from the campus-style electric system, in kWh, during the year being reported, [excluding] including any electricity delivered into the utility grid, provided that such electricity delivered into the utility grid results in lower GHG emissions than grid purchased electricity.

b. Where a covered building consumes electricity generated by the campus-style electric system and also consumes utility electricity, the combined GHG coefficient for campus electricity must be calculated as follows:

$$g_e = \frac{(m_{ue} \cdot g_{ue}) + (m_{ce} \cdot g_{ce})}{m_{ue} + m_{ce}} \quad \text{(Equation 103-14.8)}$$

Where:

g_e = the GHG coefficient for electricity generated by a campus-style electric system on-site, in tCO_{2e} per kWh.

m_{ue} = the total electricity consumed by buildings and other campus loads from the utility grid, in kWh.

g_{ue} = the GHG coefficient for utility electricity, in tCO_{2e} per kWh, provided pursuant to Article 320 of Chapter 3 of Title 28 of the Administrative Code or this paragraph.

m_{ce} = the electricity consumed by buildings and other campus loads from the campus-style electric system, in kWh, [excluding] including any electricity delivered into the utility grid, provided that such electricity delivered into the utility grid results in lower GHG emissions than grid purchased electricity.

g_{ce} = the on-site campus generated electricity GHG coefficient in tCO_{2e} per kWh (see Equation 103-14.7).

c. Where electricity consumed by any covered building on the campus is generated on the site of the campus, and the owner elects to calculate emissions from such electricity based on time of use (TOU), the GHG coefficient shall be calculated as follows:

$$g_e = \frac{(\sum(m_{ueh} \cdot g_{TOU})_h) + (m_{ce} \cdot g_{ce})}{m_{ue} + m_{ce}} \quad \text{(Equation 103-14.9)}$$

Where:

g_e = the GHG coefficient for electricity generated by a campus-style electric system on-site, in tCO_{2e} per kWh.

m_{ueh} = the total electricity consumed by buildings and other campus loads from the utility grid, in kWh.

G_{TOU} = the hourly TOU GHG coefficient, as calculated in accordance with subparagraph (iii) of this paragraph for the calendar year being [reporting] reported, in tCO_{2e} per kWh.

m_{ce} = the electricity consumed by buildings and other campus loads from the campus-style electric system, in kWh, [excluding] including any electricity delivered into the utility grid, provided that such electricity delivered into the utility grid results in lower GHG emissions than grid purchased electricity, see Equation 103-14.7.

g_{ce} = the on-site campus generated electricity GHG coefficient in tCO_{2e} per kWh, see Equation 103-14.7.

m_{ue} = the total electricity consumed by buildings and other campus loads from the utility grid, in kWh, see Equation 103-14.8.

§ 4. Clause a of subparagraph (vi) of paragraph (3) of subdivision (d) of section 103-14 of subchapter C of chapter 100 of Title 1 of the Rules of the City of New York is amended to read as follows:

a. *GHG coefficient for certain distributed energy resources.* Except as provided in clause b, c, [or] d or e of this subparagraph, the GHG coefficient for energy generated by distributed energy resources, such as microturbines, combined heat and power generation, and fuel cells, including natural gas powered fuel cells that commenced operation on or after January 19, 2023, shall be determined in accordance with subparagraph (i) or (ii) of this paragraph, for the energy source used to generate the energy for such distributed energy resource and the calendar year being reported.

Where an owner chooses to utilize a utility electricity GHG coefficient based on TOU to account for operation of distributed energy resources, such owner must use a TOU coefficient for all utility electricity consumption for their reporting.

§ 5. Subparagraph (vi) of paragraph (3) of subdivision (d) of section 103-14 of subchapter C of chapter 100 of Title 1 of the Rules of the City of New York is amended by adding a new clause e, to read as follows:

e. GHG coefficients for qualified generation facilities. For the purposes of reporting emissions, an owner of a qualified generation facility may utilize the coefficients listed in section 28-320.3.1.1 of the Administrative Code for electricity and district steam where such owner is able to demonstrate in a form and manner established by the Department that such co-generation plant operates as a qualified generation facility. For annual electric output of the plant, the coefficient for utility electricity may be utilized, and for annual heat output of the plant, the coefficient for district steam may be utilized, provide that:

1. Average annual efficiency. The average annual efficiency of the plant, as calculated pursuant to Department guidance based on all generation units, must be no less than the efficiency of the utility grid identified by the Department in guidance based on the published Inventory of New York City Greenhouse Gas Emissions.

Exceptions. A co-generation plant may be eligible as a qualified generation facility without meeting the minimum efficiency requirement if:

(1) The co-generation plant operates year-round and is essential to prevent voltage drops serving a critical facility; or

(2) The co-generation plant serves a building in an area designated by the Department as having limited spare electrical capacity as verified by the utility.

2. Nitrogen oxide (NOx) emissions limit. For each power generation unit that is part of the co-generation plant, the owner must confirm that the NOx emissions

are below 1.6 lbs-Nox/MWh, or 4.4 lbs-Nox/MWh if the interconnection application and/or air permit application were accepted on or before January 1, 2017.

§ 6. Equation 103-14.14 in clause b of subparagraph (iii) of paragraph (4) of subdivision (d) of section 103-14 of subchapter C of chapter 100 of Title 1 of the Rules of the City of New York is amended to read as follows:

$$[ASde = (\frac{HC}{3.412}) \times (\frac{1}{1.51} \times EFLH \times SF)]$$
$$\underline{ASde = (\frac{HC}{3.412}) \times (\frac{1}{1.51} \times EFLH)} \quad \text{(Equation 103-14.14)}$$

§ 7. Subdivision (e) of section 103-14 of subchapter C of chapter 100 of Title 1 of the Rules of the City of New York is amended by adding a new paragraph (3), to read as follows:

(3) Deductions from reported annual building emissions for offsets. Deductions from reported annual building emissions for offsets may be made to annual building emission calculations for each compliance period as follows:

(i) Offsets generated by the New York City Affordable Housing Reinvestment Fund (AHRF) are eligible for compliance with this section.

(ii) The AHRF will be administered by the fund administrator.

(iii) The fund administrator will receive, encumber, and distribute funds for qualifying building electrification projects and generate offsets for such activities pursuant to a methodology developed by HPD, which uses a deemed savings approach and assumptions vetted by an independent, qualified third-party to estimate the emissions reductions for such projects.

(iv) The AHRF will be used to finance qualifying building electrification projects at buildings subject to affordable housing regulatory agreements in New York City. In order to qualify, such projects must demonstrate the following principles of environmental integrity:

a. Additionality: The projects are not otherwise required to be completed in order to reduce emissions by international, federal or local law;

b. Unique: The projects allow for tracking of each offset to ensure that such offset corresponds to one tCO₂e reduced;

c. Real and quantifiable: Emissions reductions accomplished through the project represent genuine impact that is replicable in accordance with a credible, transparent methodology determined by HPD and vetted by an independent, qualified third party in consultation with HPD;

d. Validation and verification: The project designs are validated and verified by an independent, qualified third party in consultation with HPD;

e. Permanence of greenhouse gas benefits: The projects replace fossil fuel equipment, thereby resulting in permanent emissions reductions; and

f. Robust baselines: The baselines for such projects are verified by an independent, qualified third party to ensure that only incremental emissions reductions are counted in order to avoid over-crediting.

(v) A building owner may purchase offsets from the fund administrator as described by the Department in guidance. The fund administrator shall provide confirmation of a building owner's offset purchase.

(vi) The price for an offset representing one tCO₂e will be set by the fund administrator, in consultation with the Department and HPD, taking into consideration the cost of compliance with this rule and the cost of the work associated with the offset projects.

(vii) AHRF offsets may be applied to reduce a building's annual emissions up to a maximum of 10 percent of a building's annual building emissions limit.

(viii) The fund administrator will maintain a registry to track each offset purchase, the assignment of each offset to a specific project, the retirement of each offset, and the emissions reductions corresponding to each offset.