1 RCNY §103-14

CHAPTER 100
Subchapter C Maintenance of Buildings

§103-14 Requirements for Reporting Annual Greenhouse Gas (GHG) Emissions for Covered Buildings.

(a) Definitions. Terms defined in Article 320 of Title 28 of the Administrative Code have the same meanings in this section. For the purposes of this section, the following terms have the following meanings:

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.

Beneficial electrification: "Beneficial electrification" means the installation and use of energy efficient electric-based heating, cooling and domestic hot water systems to displace the use of fossil fuel sources (e.g., fuel oil, natural gas, district steam) and/or less efficient electric-based heating systems. Qualifying equipment shall have a minimum efficiency as determined based on the reference test procedure associated with the equipment as follows:

<table>
<tr><th>Equipment Type</th><th>Minimum Efficiency</th><th>Test Procedure</th></tr>
<tr><td>Service hot water heat pumps
with max current 24A at 250 V</td><td>NA</td><td>10 CFR Part 430, Subpart B, Appendix E; or
other test procedure approved by the Department.</td></tr>
<tr><td>Service hot water heat pumps with
Input capacity > 12kW and ≤ 50kW</td><td>NA</td><td>AHRI 1300-2013; or
ASHRAE 118.1-2012; or
10 CFR Part 431.106, Subpart G, Appendix E; or
other test procedure approved by the Department.</td></tr>
<tr><td>Unitary heat pump equipment – air source only</td><td rowspan="4">> 1.5 COP @ 5°F outdoor dry bulb
(maximum heating capacity)</td><td>AHRI 210/240-2023, or
AHRI 340/360-2022, as applicable</td></tr>
<tr><td>Variable refrigerant flow (VRF) multi-split heat pump – air source only</td><td>AHRI 1230-2021</td></tr>
<tr><td>Packaged terminal heat pumps</td><td>AHRI 310/380-2017</td></tr>
<tr><td>Single package vertical heat pumps</td><td>AHRI 310/380-2017, or
AHRI 390-2021, as applicable</td></tr>
</table>

Note: Equipment and systems not listed in the table that otherwise meet the definition of beneficial electrification shall have a coefficient of performance (COP) for the system equivalent to greater than 1.5 when the outdoor dry bulb temperature is 5°F or lower, where the COP of the system is calculated based on the energy required for all parts of the system to deliver the peak capacity.

Biofuel. Biofuel means biodiesel and renewable diesel.

Campus energy resource. A campus energy resource is any form of energy that is generated by a central plant energy system and distributed to multiple buildings in a campus setting. A campus energy resource may include but is not limited to electricity, chilled water, condenser water, steam, high temperature hot water, medium temperature hot water, and low temperature hot water.

Critical facility. A critical facility means a facility the operation of which is critical to human life or safety, such as a hospital, dialysis clinic, or a facility that manufactures vaccines.

Emissions factor. An emissions factor is the building emissions intensity limit for an occupancy group or property type as determined in accordance with section 28-320.3 of the Administrative Code.

Energy audit. An energy audit is a systematic process of identifying and developing modifications and improvements of the base building systems, including but not limited to alterations of such systems and the installation of new equipment, insulation, or other generally recognized energy efficiency technologies to optimize energy performance of the building and achieve energy savings.

For buildings 50,000 square feet and greater, such process shall not be less stringent than the Level 2 energy audit in accordance with ANSI/ASHRAE/ACCA Standard 211-2018 – Standard for Commercial Building Energy Audits.

For buildings below 50,000 square feet, such process shall not be less stringent than the Level 1 energy audit in accordance with ANSI/ASHRAE/ACCA Standard 211-2018 – Standard for Commercial Building Energy Audits.

Energy service. Energy service is the delivery of energy from the energy supply or energy distribution system to or throughout a building, including any equipment used for such delivery. Two or more buildings may share energy service. Two or more buildings share energy service if such buildings share a meter or other point of connection to the energy supply or energy distribution system.

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

Gross floor area. Gross floor area is the total area in square feet of all floors and spaces in a covered building, as measured between the exterior surfaces of the enclosing fixed walls. Gross floor area includes vent shafts, elevator shafts, flues, pipe shafts, vertical ducts, stairwells, light wells, basement space, cellar space, mechanical/electrical rooms, and interior parking. Gross floor area does not include unroofed courtyards or unroofed light wells. For atria, gross floor area only includes the area of atrium floors. For the purposes of calculating gross floor area in tenant spaces, interior demising walls should be measured to the centerline of the wall.

Location based marginal price. A location based marginal price (LBMP) is the value, expressed in dollars per megawatt hour (MWh), of a particular type of fuel for a particular hour on the day preceding the day of use, as published by the New York Independent System Operator (NYISO) for Zone J.

Marginal fuel. The marginal fuel is natural gas or fuel oil, whichever has the lower marginal fuel spot price on a particular day and time.

Marginal fuel spot price. The marginal fuel spot price on a given day and time is the price of natural gas or fuel oil, expressed in dollars per Million British thermal units (MMBtu), for the day preceding the day of use, as determined as follows utilizing spot prices published by the United States Energy Information Administration:

Marginal Fuel Spot Price for Natural Gas							
Calendar Day	Mon*	Tue*	Wed*	Thu*	Fri*	Sat	Sun
Marginal Fuel Spot Price publication date for calendar day hours *before* 10 AM EST	Fri Spot Price	Fri Spot Price	Mon Spot Price	Tues Spot Price	Wed Spot Price	Thu Spot Price	Fri Spot Price

Marginal Fuel Spot Price publication date for hours beginning at 10 AM EST or after	Fri Spot Price	Mon Spot Price	Tue Spot Price	Wed Spot Price	Thu Spot Price	Fri Spot Price	Fri Spot Price

Marginal Fuel Spot Price for Fuel Oil							
Calendar Day	Mon*	Tue*	Wed*	Thu*	Fri*	Sat	Sun
Marginal Fuel Spot Price publication date.	Fri Spot Price	Mon Spot Price	Tue Spot Price	Wed Spot Price	Thu Spot Price	Fri Spot Price	Fri Spot Price

*For calendar days following a holiday, the marginal fuel spot price shall be determined utilizing the most recently published spot price.

Plant input energy. Plant input energy is energy, such as electricity, fossil fuel, district steam, hot water, and chilled water, that is purchased from a public utility or commercial energy provider and is used to generate energy in a central plant in a campus-style energy system.

Qualified energy auditor. The term qualified energy auditor means a person who holds one of the following credentials in good standing:

(i) Certified Energy Manager (CEM), certified by the Association of Energy Engineers (AEE);
(ii) Certified Energy Auditor (CEA), certified by AEE;
(iii) Certified Measurement and Verification Professional (CMVP), certified by AEE;
(iv) High Performance Building Design Professional (HBDP), certified by ASHRAE;
(v) Building Energy Assessment Professional (BEAP), certified by ASHRAE;
(vi) Multifamily Building Analyst (MFBA), certified by the Building Performance Institute (BPI), for portions of a covered building that are classified by the US EPA's Energy Star Portfolio Manager as a multifamily property type; or
(vii) Registered Design Professional (RDP).

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.

Variable operating and maintenance cost. The variable operating and maintenance cost (VOM) is the total cost incurred by operating a generator, excluding fuel costs. For reporting purposes, VOM shall be $3.00 per megawatt hour (MWh).

(b) Reporting. By May 1, 2025, a building emissions report for calendar year 2024, and by May 1 of every year thereafter, except as provided in paragraph 8 of this subdivision, a building emissions report for the previous calendar year is required to be submitted to the Department by the owner of a covered building and must be submitted in accordance with the requirements of this section.

(1) Reporting tool. Energy use and emissions information for a covered building must be submitted in a form and manner as determined by the Department. Owners must maintain all documentation and information

used in preparing the building emissions report for a minimum of six (6) years. Such documentation and information shall be submitted to the Department upon request.

(2) *Condominium buildings*. Building emissions for a covered building held in the condominium form of ownership must be submitted in a single report that includes the emissions for all condominium units in such building. Such report shall be submitted to the Department by the board of managers of such covered building.

(3) *Multiple buildings that do not share energy service*. Where two or more covered buildings (i) are on the same tax lot, and (ii) do not share energy service, the owner must submit individual and separate building emissions calculations for each covered building on the tax lot.

(4) *Multiple buildings that share energy service*. For building emissions reports for calendar years 2024 - 2029, emissions for two or more covered buildings, regardless of whether such buildings are on the same tax lot, may be included in an aggregated building emissions calculation in a single building emissions report, provided all such covered buildings share energy service.

(5) *New buildings*. An owner of a new covered building for which a Certificate of Occupancy or a Temporary Certificate of Occupancy is issued on or after January 1, 2023, must begin reporting for such building for the first full calendar year following the year that such Certificate of Occupancy or Temporary Certificate of Occupancy is issued.

(6) *Buildings with change in ownership*. Notwithstanding any other provision of this section, for any covered building for which title is transferred to a new owner during a calendar year, such new owner is not required to submit a building emissions report for such building for such calendar year, provided the new owner is a subsequent *bona fide* purchaser of the covered building pursuant to Department rules.

(7) *Full demolition of a covered building*. An owner of a covered building for which a full demolition permit has been issued is not required to submit a building emissions report for the calendar year during which demolition work has commenced, provided that, no later than May 1 of the following year, the owner submits a written certification by a registered design professional that one or more energy-related systems within such building have been compromised and legal occupancy is not possible prior to January 1 of such following year.

(8) *Extension for certain income-restricted housing and other covered buildings*. The reporting requirement described in the opening paragraph of subdivision b of this section is modified for certain covered buildings as follows:

(i) For a covered building that has at least 1 but fewer than 35% of dwelling units required by law or by an agreement with a governmental entity to be regulated in accordance with the emergency tenant protection act of 1974, the rent stabilization law of 1969, or the local emergency housing rent control act of 1962, as set forth in section 28-320.3.10.1 of the Administrative Code, the initial report must be submitted by May 1, 2027;

(ii) For a covered building that is owned by a limited-profit housing company organized under article 2 of the private housing finance law, as set forth in section 28-320.3.9 of the Administrative Code, the initial report must be submitted by May 1, 2036;

(iii) For a covered building that has at least 1 dwelling unit for which occupancy or initial occupancy is restricted based upon the income of the occupant or prospective occupant thereof as a condition of a loan, grant, tax exemption, tax abatement, or conveyance of property from any state or local governmental agency or instrumentality pursuant to the private housing finance law, the general municipal law, or section 420-c of the real property tax law, as set forth in section 28-320.3.9 of the Administrative Code, the initial report must be submitted by May 1, 2036.

(c) Occupancy groups and emissions factors. For purposes of reporting annual greenhouse gas emissions pursuant to subdivision (b) of this section, occupancy groups and emissions factors are to be identified in accordance with the provisions of this subdivision.

(1) For each covered building, the owner must submit the following information:

(i) Each occupancy group or property type within the building during the calendar year for which building emissions are reported; and

(ii) The total floor area of each such occupancy group or property type in such building.

(2) The occupancy group for each space in a covered building must be determined according to the Energy Star Portfolio Manager (ESPM) property type as set out in this rule, or any successor ESPM name for such property type, that most accurately describes the use of such space during the year for which building emissions are reported, provided that the ESPM property types "Other" and "Mixed Use" may not be assigned to any portion of a covered building. Such determination must be made by the registered design professional preparing the building emissions report.

(3) Annual emission factors. For purposes of reporting annual greenhouse gas emissions pursuant to this section, emissions factors shall be determined in accordance with this paragraph.

(i) Except as provided in subparagraph (ii) of this paragraph, for the purposes of reporting for calendar years 2024 – 2029, the following emissions factors apply to the following Energy Star Portfolio Manager (ESPM) property types:

ESPM Property Type	2024 – 2029 Emissions Factor in tCO_2e per sf
Adult Education	0.00758
Ambulatory Surgical Center	0.01181
Automobile Dealership	0.00675
Bank Branch	0.00987
Bowling Alley	0.00574
College/University	0.00987
Convenience Store without Gas Station	0.00675
Courthouse	0.00426
Data Center	0.02381
Distribution Center	0.00574
Enclosed Mall	0.01074
Financial Office	0.00846
Fitness Center/Health Club/Gym	0.00987
Food Sales	0.01181
Food Service	0.01181
Hospital (General Medical & Surgical)	0.02381
Hotel	0.00987
K-12 School	0.00675
Laboratory	0.02381
Library	0.00675
Lifestyle Center	0.00846
Mailing Center/Post Office	0.00426
Manufacturing/Industrial Plant	0.00758
Medical Office	0.01074
Movie Theater	0.01181
Multifamily Housing	0.00675
Museum	0.01181

Non-Refrigerated Warehouse	0.00426
Office	0.00758
Other - Education	0.00846
Other - Entertainment/Public Assembly	0.00987
Other - Lodging/Residential	0.00758
Other - Mall	0.01074
Other - Public Services	0.00758
Other - Recreation	0.00987
Other - Restaurant/Bar	0.02381
Other - Services	0.01074
Other - Specialty Hospital	0.02381
Other - Technology/Science	0.02381
Outpatient Rehabilitation/Physical Therapy	0.01181
Parking	0.00426
Performing Arts	0.00846
Personal Services (Health/Beauty, Dry Cleaning, etc.)	0.00574
Pre-school/Daycare	0.00675
Refrigerated Warehouse	0.00987
Repair Services (Vehicle, Shoe, Locksmith, etc.)	0.00426
Residence Hall/Dormitory	0.00758
Residential Care Facility	0.01138
Restaurant	0.01181
Retail Store	0.00758
Self-Storage Facility	0.00426
Senior Care Community	0.01138
Social/Meeting Hall	0.00987
Strip Mall	0.01181
Supermarket/Grocery Store	0.02381
Transportation Terminal/Station	0.00426
Urgent Care/Clinic/Other Outpatient	0.01181
Vocational School	0.00574
Wholesale Club/Supercenter	0.01138
Worship Facility	0.00574

(ii) For purposes of reporting for calendar years 2024 and 2025, an owner may utilize a building emissions intensity limit for an occupancy group set forth in section 28-320.3.1 of the Administrative Code, provided such building emissions intensity limit is greater than the emissions factor assigned pursuant to subparagraph (i) for the ESPM property type that most accurately describes the use of the building or space, as determined in accordance with paragraph (2) of this subdivision. Building emissions must be calculated in accordance with either this subparagraph or subparagraph (i) of this paragraph, and may not be calculated by using a combination of such provisions.

(iii) For the purposes of reporting for calendar years 2030 – 2034, the following emissions factors apply to the following Energy Star Portfolio Manager property types:

ESPM Property Type	2030 – 2034 Emissions Factor in tCO_2e per sf
Adult Education	0.003565528
Ambulatory Surgical Center	0.008980612
Automobile Dealership	0.002824097
Bank Branch	0.004036172
Bowling Alley	0.003103815

College/University	0.002099748
Convenience Store without Gas Station	0.003540032
Courthouse	0.001480533
Data Center	0.014791131
Distribution Center	0.000991600
Enclosed Mall	0.003983803
Financial Office	0.003697004
Fitness Center/Health Club/Gym	0.003946728
Food Sales	0.005208880
Food Service	0.007749414
Hospital (General Medical & Surgical)	0.007335204
Hotel	0.003850668
K-12 School	0.002230588
Laboratory	0.026029868
Library	0.002218412
Lifestyle Center	0.004705850
Mailing Center/Post Office	0.001980440
Manufacturing/Industrial Plant	0.001417030
Medical Office	0.002912778
Movie Theater	0.005395268
Multifamily Housing	0.003346640
Museum	0.005395800
Non-Refrigerated Warehouse	0.000883187
Office	0.002690852
Other - Education	0.002934006
Other - Entertainment/Public Assembly	0.002956738
Other - Lodging/Residential	0.001901982
Other - Mall	0.001928226
Other - Public Services	0.003808033
Other - Recreation	0.004479570
Other - Restaurant/Bar	0.008505075
Other - Services	0.001823381
Other - Specialty Hospital	0.006321819
Other - Technology/Science	0.010446456
Outpatient Rehabilitation/Physical Therapy	0.006018323
Parking	0.000214421
Performing Arts	0.002472539
Personal Services (Health/Beauty, Dry Cleaning, etc.)	0.004843037
Pre-school/Daycare	0.002362874
Refrigerated Warehouse	0.002852131
Repair Services (Vehicle, Shoe, Locksmith, etc.)	0.002210699
Residence Hall/Dormitory	0.002464089
Residential Care Facility	0.004893124
Restaurant	0.004038374
Retail Store	0.002104490
Self-Storage Facility	0.000611830
Senior Care Community	0.004410123
Social/Meeting Hall	0.003833108
Strip Mall	0.001361842
Supermarket/Grocery Store	0.006755190
Transportation Terminal/Station	0.000571669

Urgent Care/Clinic/Other Outpatient	0.005772375
Vocational School	0.004613122
Wholesale Club/Supercenter	0.004264962
Worship Facility	0.001230602

(iv) For the purposes of reporting for calendar years 2035 – 2039, the following emissions factors apply to the following Energy Star Portfolio Manager property types:

ESPM Property Type	2035 – 2039 Emissions Factor in tCO_2e per sf
Adult Education	0.002674146
Ambulatory Surgical Center	0.006735459
Automobile Dealership	0.002118072
Bank Branch	0.003027129
Bowling Alley	0.002327861
College/University	0.001236322
Convenience Store without Gas Station	0.002655024
Courthouse	0.001110400
Data Center	0.011093348
Distribution Center	0.000549637
Enclosed Mall	0.002987852
Financial Office	0.002772753
Fitness Center/Health Club/Gym	0.002960046
Food Sales	0.003906660
Food Service	0.005812060
Hospital (General Medical & Surgical)	0.004654044
Hotel	0.002640017
K-12 School	0.001488109
Laboratory	0.019522401
Library	0.001663809
Lifestyle Center	0.003529387
Mailing Center/Post Office	0.001485330
Manufacturing/Industrial Plant	0.000975993
Medical Office	0.001683565
Movie Theater	0.004046451
Multifamily Housing	0.002692183
Museum	0.004046850
Non-Refrigerated Warehouse	0.000568051
Office	0.001652340
Other - Education	0.001867699
Other - Entertainment/Public Assembly	0.002250122
Other - Lodging/Residential	0.001329089
Other - Mall	0.001006426
Other - Public Services	0.002856025
Other - Recreation	0.003359678
Other - Restaurant/Bar	0.006378806
Other - Services	0.001367536
Other - Specialty Hospital	0.004741365
Other - Technology/Science	0.007834842
Outpatient Rehabilitation/Physical Therapy	0.004513742
Parking	0.000104943
Performing Arts	0.001399345

Personal Services (Health/Beauty, Dry Cleaning, etc.)	0.003632278
Pre-school/Daycare	0.001772155
Refrigerated Warehouse	0.002139098
Repair Services (Vehicle, Shoe, Locksmith, etc.)	0.001658024
Residence Hall/Dormitory	0.001332459
Residential Care Facility	0.004027812
Restaurant	0.003028780
Retail Store	0.001216050
Self-Storage Facility	0.000404901
Senior Care Community	0.003336443
Social/Meeting Hall	0.002874831
Strip Mall	0.000600493
Supermarket/Grocery Store	0.004256103
Transportation Terminal/Station	0.000428752
Urgent Care/Clinic/Other Outpatient	0.004329281
Vocational School	0.003459842
Wholesale Club/Supercenter	0.003198721
Worship Facility	0.000866921

(v) For the purposes of reporting for calendar years 2040 – 2049, the following emissions factors apply to the following Energy Star Portfolio Manager property types:

ESPM Property Type	2040 – 2049 Emissions Factor in tCO_2e per sf
Adult Education	0.001782764
Ambulatory Surgical Center	0.004490306
Automobile Dealership	0.001412048
Bank Branch	0.002018086
Bowling Alley	0.001551907
College/University	0.000180818
Convenience Store without Gas Station	0.001770016
Courthouse	0.000740266
Data Center	0.007395565
Distribution Center	0.000123568
Enclosed Mall	0.001991901
Financial Office	0.001848502
Fitness Center/Health Club/Gym	0.001973364
Food Sales	0.002604440
Food Service	0.003874707
Hospital (General Medical & Surgical)	0.002997851
Hotel	0.001465772
K-12 School	0.000809607
Laboratory	0.013014934
Library	0.001109206
Lifestyle Center	0.002352925
Mailing Center/Post Office	0.000990220
Manufacturing/Industrial Plant	0.000508346
Medical Office	0.000407851
Movie Theater	0.002697634
Multifamily Housing	0.002052731
Museum	0.002697900

Non-Refrigerated Warehouse	0.000163152
Office	0.000581893
Other - Education	0.000839571
Other - Entertainment/Public Assembly	0.001355610
Other - Lodging/Residential	0.000762093
Other - Mall	0.000067983
Other - Public Services	0.001904017
Other - Recreation	0.002239785
Other - Restaurant/Bar	0.004252537
Other - Services	0.000911691
Other - Specialty Hospital	0.003160910
Other - Technology/Science	0.005223228
Outpatient Rehabilitation/Physical Therapy	0.003009161
Parking	0
Performing Arts	0
Personal Services (Health/Beauty, Dry Cleaning, etc.)	0.002421519
Pre-school/Daycare	0.001181437
Refrigerated Warehouse	0.001426066
Repair Services (Vehicle, Shoe, Locksmith, etc.)	0.001105349
Residence Hall/Dormitory	0.000528616
Residential Care Facility	0.002272629
Restaurant	0.002019187
Retail Store	0.000176040
Self-Storage Facility	0.000132282
Senior Care Community	0.002277912
Social/Meeting Hall	0.001916554
Strip Mall	0.000038512
Supermarket/Grocery Store	0.002030027
Transportation Terminal/Station	0.000285834
Urgent Care/Clinic/Other Outpatient	0.002886187
Vocational School	0.002306561
Wholesale Club/Supercenter	0.002132481
Worship Facility	0.000549306

(vi) For purposes of reporting for calendar years 2050 or later, an emissions factor of 0.00 applies to all Energy Star Portfolio Manager property types.

(d) Calculations. An annual building emissions report submitted pursuant to subdivision (b) of this section must be prepared using the calculation methodologies set forth in this subdivision.

(1) Gross floor area. The owner must calculate and report the gross floor area of a covered building, and the floor area of each occupancy group or property type in a covered building. The floor area of each occupancy group or property type reported must add up to the covered building's gross floor area.

(2) Building emissions limits.

(*i*) *Buildings with a single occupancy group.* The building emissions limit for a covered building with a single occupancy group or property type must be calculated as the gross floor area multiplied by the emissions factor for the building's occupancy group or property type.

(*ii*) *Buildings with multiple occupancy groups*. The building emissions limit for a covered building with multiple occupancy groups or property types must be calculated as the sum of the emissions factor for each occupancy group or property type multiplied by the floor area of each occupancy group or property type in the covered building:

$$B = \sum l_k \cdot s_k \qquad \text{(Equation 103-14.1)}$$

Where:

B = the total building emissions limit for a covered building with multiple occupancy groups.
l_k = the emissions factor of each given occupancy group or property type, *k*, as specified in Article 320 or in this rule, in tCO_2e per square foot.
s_k = the total floor area in square feet of each property type or occupancy group, *k*, in a covered building.

(3) Greenhouse gas coefficients of energy consumption. Greenhouse gas coefficients for energy consumption shall be determined in accordance with this paragraph (3):

(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.

a. For the following fuel types combusted or consumed on premises, greenhouse gas emissions must be calculated as generating the following amounts of tCO_2e per kBtu:

Fuel	**Emissions Coefficient (tCO_2e 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
Biofuel	0.00007389

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 tCO_2e per kBtu.

2. Number four (No. 4) fuel oil combusted on the premises of a covered building shall be calculated as 0.00007529 tCO_2e 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 tCO_2e 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.

(ii) Greenhouse gas coefficients for utility energy consumption for calendar years 2030 through 2034. For building emissions reports for calendar years 2030 - 2034, the GHG coefficients for consumption of energy generated by a utility shall be determined in accordance with this subparagraph (ii).

a. Utility electricity consumed on the premises of a covered building that is delivered to the building via the electric grid shall be calculated as generating 0.000145 tCO_2e per kWh, provided, however that, at the owner's option, utility electricity may be calculated based on time of use, in accordance with subparagraph (iii) of this paragraph.

b. Natural gas delivered by a utility combusted or consumed on the premises of a covered building shall be calculated as generating 0.00005311 tCO_2e per kBtu.

c. District steam delivered by a utility and consumed on the premises of a covered building shall be calculated as 0.0000432 tCO_2e per kBtu.

(iii) Greenhouse gas coefficient for utility electricity based on time of use (TOU). Notwithstanding any other provision of this paragraph, an owner may elect to calculate emissions generated by utility electricity based on time of use (TOU) in accordance with this subparagraph (iii).

a. Such an owner shall submit to the Department documentation of hourly consumption of all utility electricity consumed on the premises of the covered building during the calendar year for which emissions are being reported. Utility records must be made available to the Department upon request.

b. A TOU coefficient may be utilized to calculate emissions generated by utility electricity where:

1. Hourly utility electricity consumption for the covered building is separately metered by the utility; or,
2. Hourly utility electricity consumption for the covered building is separately metered or sub-metered by the owner in a manner that produces data on such hourly consumption for the year being reported.

c. Calculations.

1. Until such time that hourly TOU electric emissions coefficients for New York City are published by a source approved by the Department, TOU coefficient values must be calculated for each hour of each day in the calendar year being reported, as follows:

$$TOUn = (HM_n - RAM_n) + g_{ue}$$ (Equation 103-14.2)

Where:

TOU_n = the hourly time of use electricity coefficient in tCO_2e per kWh, for n, a given hour on a given day in the calendar year being reported.

HM_n = the hourly marginal emissions coefficient in tCO_2e per kWh (see Equation 103-14.3).

RAM_n = the hourly rolling average marginal emissions coefficient in tCO_2e per kWh (see Equation 103-14.6).

g_{ue} = the GHG coefficient for utility electricity for the calendar year being reported, in tCO_2e per kWh, as provided pursuant to Article 320 of Chapter 3 of Title 28 of the Administrative Code or this paragraph.

If $TOU_n < 0$, then $TOU_n = 0$.

2. The hourly marginal emissions coefficient must be calculated as follows:

$$HM_n = IHR_n \times \frac{1kBtu/kWh}{MMbtu/MWh} \times MF_n$$ (Equation 103-14.3)

Where:

IHR_n = the implied heat rate in MMBtu per MWh, for *n* every hour of the calendar year, see Equation 103-14.4.

MF_n = the marginal fuel emissions coefficient, in tCO_2e per kBtu, for the fuel that is the marginal fuel for *n* during the calendar year being reported, provided pursuant to Article 320 of Chapter 3 of Title 28 of the Administrative Code or this paragraph.

3. The hourly implied heat rate must be calculated as follows:

$$IHR_n = \frac{LBMP_n - VOM}{RE_n + MSP_n}$$ (Equation 103-14.4)

Where:

$LBMP_n$ = hourly location based marginal price, in dollars per MWh, as defined in subdivision (a) of this section.

VOM = $3 per MWh (the variable operating and maintenance cost, as defined in subdivision (a) of this section.

RE_n = Regional greenhouse gas initiative (RGGI) emissions cost, in dollars per MMBtu (see Equation 103-14.5).

MSP_n = Hourly marginal fuel spot price, in dollars per MMBtu.

If $IHR_n < 5$ MMBtu/MWh for a given hour *n*, then $IHR_n = 0$ Btu per MWh for that hour *n*.

If $IHR_n > 17$ MMBtu/MWh for a given hour *n*, then $IHR_n = 17$ MMBtu per MWh for that hour *n*.

4. The RGGI emissions cost$_n$ must be calculated as follows:

$$RE_n = RA_n \times \frac{1.10231\ USton}{metric\ ton} \times g_n \times \frac{1000\ kBtu}{MMBtu} \quad \text{(Equation 103-14.5)}$$

Where:

RA_n = RGGI allowance cost, in dollar per US ton, of CO_2e, as published by RGGI.

g_n = Greenhouse gas coefficient for the marginal fuel at a given hour, in tCO_2e per kBtu.

5. The hourly rolling average marginal emissions must be calculated as follows:

$$RAM_n = \frac{\sum_{i=n-8759}^{n}(HM_i \times HLF_i)}{\sum_{i=n-8759}^{n} HLF_i} \quad \text{(Equation 103-14.6)}$$

Where:

HM_i = hourly marginal emissions coefficient, in tCO_2e per kWh (see Equation 103-14.3).

HLF_i = the hourly load forecast, which is the day-ahead load projection, published by the New York State Independent System Operator (NYISO) as the day-ahead zonal forecast for New York City, in MW.

(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, 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:

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

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, 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 tCO2e 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:

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

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 hourly 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 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, 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.

(v) Greenhouse gas coefficients for certain campus-style energy systems. Notwithstanding any other provision of this section, the GHG coefficient for energy generated by a campus-style energy system must be calculated in accordance with this subparagraph (v). Such energy may include district heating and cooling or other district energy.

a. The GHG coefficient for each type of campus energy resource that is generated by a system or equipment in a campus central plant and consumed by a covered building shall account for the plant input energy utilized by such plant to generate and deliver such campus energy resource. Such systems or equipment in a campus central plant may include, but need not be limited to, prime generators, such as boilers, chillers, and cooling towers; ancillary equipment, such as pumps and fans; and associated controls. Any energy generated by any such system or equipment that serves a single building shall not be included in the input energy for the campus-style energy system and shall be considered part of the energy use of the covered building it is serving. Any plant input energy recovered by the campus-style energy system from any other plant energy source on campus and included in the calculation of the emissions coefficient for such other central plant energy source may be assigned an emissions coefficient of zero for purposes of calculating the GHG coefficient for a campus energy resource generated by the campus-style energy system.

b. Calculations.

1. For each type of campus energy resource generated by the campus-style energy system, the GHG coefficient shall be calculated as follows:

$$g_{cx} = \frac{\sum_n (m_n \cdot g_n)}{m_{cx}} \qquad \text{(Equation 103-14.10)}$$

Where:

g_{cx} = the campus-style energy system GHG coefficient, in tCO_2e per kBtu, for the campus energy resource, cx.
m_n = the plant input energy consumed by each campus-style energy system used to generate the campus energy resource, n, in kBtu.
g_n = the GHG coefficient for each plant input energy source, n, in tCO_2e per kBtu.
m_{cx} = the total amount, in kBtu, of the campus energy resources, cx, consumed by all covered buildings served by the campus-style energy system.

2. Where, for each type of campus energy resource, a group of covered buildings consumes energy generated by the campus-style energy system and consumes energy generated by a utility, a combined GHG coefficient for such campus energy resource shall be calculated as follows:

$$g_x = \frac{(m_{ux} \cdot g_{ux}) + (m_{cx} \cdot g_{cx})}{m_{ux} + m_{cx}} \qquad \text{(Equation 103-14.11)}$$

Where:

g_x = the combined GHG coefficient, in tCO_2e per kBtu, for a campus energy resource, x.
m_{ux} = the amount of the campus energy resource, ux, from the utility consumed by the covered building or campus, in kBtu.

g_{ux} = the applicable GHG coefficient for the campus energy resource, ux, as supplied by a utility, 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_{cx} = the total amount, in kBtu, of the campus energy resource, cx, consumed by all covered buildings served by the campus-style energy system.

g_{cx} = the campus-style energy system GHG coefficient, in tCO_2e per kBtu, for the campus energy resource, cx.

(vi) GHG coefficients for distributed energy resources. For the purposes of this subparagraph, all distributed energy resources must be separately metered or sub-metered in a manner that produces data for the year being reported. Notwithstanding any other provision of this section, the GHG coefficient for the distributed energy resources described in this subparagraph may be determined as follows:

a. GHG coefficient for certain distributed energy resources. Except as provided in clause b, c, 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.

b. Greenhouse gas coefficient for subscription to off-site solar energy generation.

1. The GHG coefficient for electricity generated by an off-site solar energy system purchased by the owner of a covered building is 0.0 tCO_2e per kWh, provided such energy sinks directly into the zone J load zone and the other requirements of this clause b are satisfied.

2. Such coefficient may be applied to the utility electricity consumption, in kWh, for the covered building in an amount that is no more than the amount of electricity from the off-site solar energy system, provided that the exports of such electricity are not also registered or retired as renewable energy credits claimed by any covered building for purposes of compliance with section 28-320.3 of the Administrative Code. Owners must submit documentation of the amount of solar electricity purchased by the owner to the Department with the building emissions report, or such information may be submitted by a utility on behalf of the owner. Where an owner opts to use a coefficient for electricity based on TOU, electricity generated by an off-site solar energy system must also be reported pursuant to subparagraph (iii).

c. GHG coefficient for energy storage. In reporting annual building emissions, an owner of a covered building that utilizes an energy storage system may account for on-site or off-site storage of energy, in accordance with this subparagraph. A GHG coefficient for electricity consumption based on TOU may be applied to the electricity consumed during hours that such energy storage system is charging and discharging, provided that such a TOU coefficient may only be utilized to calculate electricity consumption for an off-site energy storage system where the discharged electricity of such system sinks directly into Zone J.

1. An owner of a covered building with behind the meter energy storage that is using the utility electricity GHG coefficient as provided pursuant to Article 320 of Chapter 3 of the Administrative Code or subparagraphs (i) or (ii) of this paragraph for utility electricity consumption in lieu of TOU may account for such storage as provided by this subparagraph, provided that such storage must be separately metered or sub-metered and must be reported using the TOU coefficient methodology pursuant to subparagraph (iii).

2. An owner of a covered building that contracts with an off-site energy storage provider via subscription may report an equal portion of their electricity consumption, in kWh, as if it were supplied from an energy storage system on premises. Such owner shall calculate the carbon savings for that owner's share of the stored energy using the TOU coefficient methodology pursuant to subparagraph (iii) and submit such data to the Department in the building emissions report for the calendar year being reported.

d. *GHG emissions differential for certain natural gas-powered fuel cells.* In reporting annual building emissions, an owner of a covered building that utilizes natural gas-powered fuel cells that commenced operation prior to January 19, 2023 may account for the differential emissions to be added to their annual building emissions, in accordance with this clause. An owner of a covered building must submit to the Department documentation of the natural gas consumed annually by the fuel cell, and the electricity generated by the natural gas-powered fuel cell annually during the calendar year for which emissions are being reported. Records for natural gas consumed and electricity generated by the fuel cell must be made available to the Department upon request.

The differential emissions shall be calculated as follows for the calendar year being reported:

$$FCEM = (FCNG \times NGC) - (FCEL \times MGC) \qquad \text{(Equation 103-14.12)}$$

Where:

FCEM = the annual natural gas-powered fuel cell differential emissions in tCO_2e.

FCNG = the annual natural gas consumed by the natural gas-powered fuel cell, in kBtu.

NGC = the natural gas coefficient per this paragraph in units of tCO_2e per kBtu.

MGC = the annual average marginal grid coefficient per Table 103-14.1.

FCEL = the annual electricity generated by the natural gas-powered fuel cell, in kWh.

Table 103-14.1

Year	**MGC** (tCO_2e/kWh)
2024	0.000247038
2025	0.000237178
2026	0.000191739
2027	0.000167898

2028	0.000129971
2029	0.000113712

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.

(vii) *GHG Coefficient for beneficial electrification*. For each building emissions report required pursuant to section 28-320.3.7 of the Administrative Code, the beneficial electrification coefficient for qualifying electrical equipment and systems meeting the definition of beneficial electrification shall be as established herein. Such coefficient may be modified by the department as necessary.

a. Equipment installed and operating between January 1, 2027, and December 31, 2029, shall be -0.00065 tCO_2e/kWh.

b. Equipment installed and operating prior to January 1, 2027, shall be -0.0013 tCO_2e/kWh.

(4) *Annual building emissions*. Annual building emissions for a covered building must be calculated in accordance with this paragraph (4).

(i) *Calculation*. Annual building emissions must be calculated as follows:

$$X = \sum_n m_n \cdot g_n \qquad \text{(Equation 103-14.13)}$$

Where:

X = the total building emissions for a covered building, for the calendar year reported, in tCO_2e.

m_n = the energy consumed for each energy source or fuel type, n, in kBtu for the year reported.

g_n = the GHG carbon coefficient for the year reported for each energy source or fuel type, n, in tCO_2e per kBtu.

(ii) Energy consumption to be included. All energy consumed by a covered building, including fuels used for normal testing of emergency or stand-by power generators, must be included in the calculation of the annual building emissions for such covered building, provided, however:

a. Energy used for unidirectional charging of electric vehicles may be deducted where separately metered or sub-metered pursuant to guidance issued by the Department.

b. Energy consumed during a local state of emergency declared pursuant to section 24 of the NYS Executive Law or a state of emergency declared pursuant to sections 28 of the New York State Executive Law, where such state of emergency has an impact on building emissions, such as a state of emergency resulting from severe thunderstorms or flooding.

(iii) GHG emissions generated under beneficial electrification. An owner may utilize the beneficial electrification coefficient in calculating GHG emissions resulting from the use of qualifying electric equipment as set forth in subparagraph (vii) of paragraph 3 of this subdivision. The annual electric energy use for beneficial electrification shall be determined based on either (a) Metered Electric Use or (b) Deemed Electric Use approach as described in this subparagraph. GHG emission savings accrued from beneficial electrification may be banked for future use for the covered building in which the qualifying equipment was installed as described herein.

a. Metered electric use. An owner may calculate electricity emissions based on the measured annual electricity use of the qualifying installed electric equipment using the coefficients for beneficial electrification as established in paragraph (3) of this subdivision. Such owner must be able to document hourly records, monthly energy consumption, and total annual electricity consumption for such equipment. Such documentation may be requested by the Department. Records should be retained for a minimum of six years. The installation must meet at least one of the following to qualify for use of a beneficial electrification coefficient for metered electric use:

i. must be separately metered by the utility; or
ii. must be separately metered or sub-metered by the owner in a manner that produces auditable data aligned with the reporting year; or
iii. must be capable of and configured to produce data that records the electricity supplied to the equipment over the course of the reporting year by means of hardware and software integrated with the equipment.

b. Deemed Electric Use: For installed electric equipment, qualifying as beneficial electrification, with a rated heating capacity of less than 1,200,000 btu/h, an owner may calculate electricity emissions based on the installed capacity of the equipment and using the coefficients for beneficial electrification as established in paragraph (3) of this subdivision. Only equipment that meets the requirements of the test procedures listed in the definition of beneficial electrification are eligible to calculate using deemed electric use; other equipment or systems whose test procedures are not listed in the definition of beneficial electrification shall determine beneficial electric use based on

the requirements for Metered Electric Use. The deemed electric use shall be calculated based on the following:

$$AS_{de} = \left(\frac{HC}{3.412}\right) \times \left(\frac{1}{1.51} \times EFLH\right) \qquad \text{(Equation 103-14.14)}$$

Where:

AS_{de} = Annual electric energy use associated with beneficial electrification for an air source heat pump (ASHP) used for space heating in units of kWh.

HC = Heating capacity of ASHP equipment rated at an outside air temperature of 5°F, in units of kBtu per hour.

$EFLH$ = Equivalent full loaded hours for the occupancy type served by the ASHP pursuant to guidance issued by the Department.

$$WH_{de} = (GPD) \times (14.2 \times CF) \qquad \text{(Equation 103-14.15)}$$

Where:

WH_{de} = Annual electric energy use associated with beneficial electrification for a heat pump water heater (HPWH) used for water heating in units of kWh.

GPD = Daily hot water usage in gallons per day (GPD) based on heat pump water heater usage rates pursuant to guidance issued by the Department.

CF = Heating capacity of HPWH as per Equation 103-14.16.

$$CF = (C/PL) \qquad \text{(Equation 103-14.16)}$$

Where:

CF = HPWH Capacity Factor. The ratio of installed HPWH capacity to peak service hot water load, limited to a maximum value of 1.0.

C = The aggregate capacity of HPWH equipment in units of kBtu/h.

PL = Peak load factor multiplied by the associated occupancy metric (i.e., 1,000 square feet, number of people, number of dwelling units, number of students, etc.) from Peak Service Hot Water Load Table

Peak Service Hot Water Load

Occupancy	Peak Load factor	Occupancy Metric
Assembly	0.310	per 1,000 square feet
Community College	0.084	per person
Dormitory	0.759	per resident
Elementary School	0.022	per student
Fast Food Restaurant	22.07	per restaurant
Full-Service Restaurant	110.4	per restaurant
Grocery	0.151	per 1,000 square feet

High School & Middle School	0.084	per person
Hospital	2.403	per 1,000 square feet
Hotel/Motel	2.010	per 1,000 square feet
Office	0.049	per person
Multifamily	2.031	per dwelling unit
Religious	0.310	per 1,000 square feet
Retail	0.151	per 1,000 square feet
University	0.022	per student
Warehouse	0.041	per 1,000 square feet
Other	0.216	per 1,000 square feet

c. Applying and reserving beneficial electrification GHG savings. Owners who have qualifying equipment that is installed and remains in operation in the covered building, may apply GHG emissions savings or accrue savings for future use in reporting emissions for such building, provided that in any reporting year between 2024 and 2036 in which such covered building's emissions are not below the emissions limit set forth in section 28-320.3 of the Administrative Code, any such savings must be applied. Beneficial electrification savings from a calendar year may be applied in whole to reporting for that calendar year or in whole to another future calendar year but may not be combined with accrued savings from other years. Such savings may be accrued as follows:

Year equipment was operated	**Years eligible for application of the GHG savings**
2024 and prior	Any 6 calendar years between 2024 and 2036
2025	Any 5 years between 2025 - 2035
2026	Any 4 years between 2026 - 2034
2027	Any 3 years between 2027 - 2034
2028	Any 2 years between 2028 - 2034
2029	Any 1 year between 2029 - 2034

d. When submitting a building emissions report in which an owner applies the beneficial electrification coefficient to a portion of their annual energy consumption, such owner must document installation of the equipment with the letter of completion for such equipment along with the DOB job number.

(e) Deductions from reported annual building emissions. Deductions from the total annual emissions for a covered building are authorized in accordance with this subdivision (e).

(1) Deductions from reported annual building emissions for Renewable Energy Credits (RECs). Deductions from reported annual building emissions for renewable energy credits may be made to annual building emission calculations as follows:

(i) Applicability of renewable energy credits (RECs). Renewable energy credits may only be deducted from the emissions attributed to consumption of utility supplied electricity in a covered building.

(ii) RECs generated by clean distributed energy resources on the premises of the covered building. Notwithstanding any other provision of this section, where an owner elects to register RECs generated by a clean distributed energy resource located on the premises of the covered building, the owner may not take an additional deduction for the energy generated by the clean distributed energy resource pursuant to paragraph (2) of this subdivision.

(2) Deductions from reported annual building emissions for clean distributed energy resources. A deduction for energy generated by a clean distributed energy resource located on the premises of a covered building is authorized in accordance with this paragraph.

(i) Deduction for solar electric generation. For calendar years 2024 to 2029, a deduction from emissions resulting from annual electricity consumption is allowed where electricity is generated by a solar energy system on the premises of the covered building, in accordance with this subparagraph.

a. Where electricity is generated by the solar energy systems, in front of the meter or behind the meter, and exported to the grid, an owner may deduct from the total utility electricity consumed by the covered building in the year being reported, an amount equal to the electricity exported, in kWh.

b. Where the greenhouse gas coefficient used to calculate emissions from electricity is calculated based on the TOU methodology pursuant to subparagraph (iii) of paragraph (3) of subdivision (d) of this section, such owner shall submit a record of hourly generation of on-site solar energy during the calendar year being reported.

(ii) Deduction for on-site energy storage system. For calendar years 2024 to 2029, a deduction from annual building emissions is allowed where energy is stored on the premises of the covered building as electricity, in accordance with this subparagraph. Such deduction may be calculated as follows:

$$ESS = CAP \cdot TES \cdot Eff \qquad \text{(Equation 103-14.17)}$$

Where:

ESS	=	The amount of GHG emissions that may be deducted from the annual emissions resulting from electricity consumption in tCO_2e.
CAP	=	The rated capacity of the energy storage system in kWh.
TES	=	The total emissions spread, as determined by the Department, for the year preceding the reporting year.
Eff	=	Roundtrip efficiency, defined as 85% for calendar years 2024-2029.

(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.

(f) Adjustments. An adjustment to the annual building emissions limits for a covered building may be requested by an owner in accordance with Article 320 of Chapter 3 of the Administrative Code and this subdivision.

(*1*) Where an owner has been granted an adjustment to their building emissions limit pursuant to Section 28-320.8 of the Administrative Code for any calendar year between 2024 – 2029, or has been granted an extension of such an adjustment, the adjustment expires where the special circumstance justifying the adjustment no longer exists. The owner must certify that the special circumstance justifying an adjustment continues, as part of any annual emissions report in which the adjustment is sought after it is initially granted.

(*2*) Where an owner has been granted an adjustment to their building emissions limit pursuant to section 28-320.9 of the Administrative Code for any calendar year between 2024 – 2034, the adjustment expires on January 1 of the calendar year following the date on which the building ceases being classified as a not-for-profit hospital, not-for-profit health center, or a not-for-profit HIP center.

(3) Where an owner has been granted an adjustment to their building emissions limit pursuant to § 28-320.7(1) of the Administrative Code, the adjustment expires no later than January 1 of the calendar year three years following the first year covered by the building's adjustment.

(4) Where an owner has been granted an adjustment to their building emissions limit pursuant to § 28-320.7(2) of the Administrative Code, the adjustment expires no later than January 1 of the calendar year following the year covered by the building's adjustment.

(g) Penalty for failing to file a building emissions report. An owner of a covered building shall be liable for a civil penalty for failing to file a building emissions report within 60 days of the reporting deadline or by the date of any extension deadline granted by the Department pursuant to this rule.

(1) Calculation. Such penalty shall be an amount equal to the gross floor area of such building, multiplied by $0.50, for each month such report is not submitted within the 12 months following May 1 of each year, including the 60 days following the deadline.

(2) Extension of time to file. An owner who is unable to file the building emissions report by the reporting deadline despite such owner's good faith efforts may apply for an extension in accordance with section 28-320.3.7.1 of the Administrative Code and this paragraph. An application for an extension must be filed with accompanying documentation no earlier than 30 days before and no later than 60 days after May 1 of each year. For purposes of this subdivision, an owner demonstrates good faith efforts for consideration of an extension where:

(i) The registered design professional hired for purposes of completing the building emissions report could not complete such report by the reporting deadline. For purposes of this paragraph, acceptable documentation in support of such extension request includes a contract between the owner and the registered design professional executed no later than February 1 of the year such report is required to be filed and an affidavit signed by the owner and the registered design professional stating that such professional was unable to complete the report on time and that the report will be completed and filed within 120 days of the reporting deadline; or

(ii) The owner has challenged a determination by the Department of Finance regarding whether the square footage of the building qualifies such building as a covered building, provided that such owner must file the building emissions report within 120 days of the first determination by the Department of Finance that such building qualifies as a covered building following the commencement of such challenge. For purposes of this paragraph, acceptable documentation in support of such extension request includes an attestation signed by the owner indicating why the square footage of the building does not qualify such building as a covered building and all correspondence between the Department of Finance and such building owner related to such dispute.

(h) Penalty for exceeding building emissions limits. An owner of a covered building shall be liable for a civil penalty for exceeding the building emissions limits established for a calendar year pursuant to Article 320 of Chapter 3 of Title 28 of the Administrative Code and rules promulgated thereunder. Such penalty shall be an amount equal to the difference between the building emissions limit established for a calendar year and the actual emissions reported for such calendar year in the building emissions report, multiplied by $268.

(i) Mitigating factors during the 2024-2029 compliance period. Notwithstanding any other provision of the Department's rules, an owner not in compliance with such emissions limits may be eligible for a mitigated penalty based on mitigating factors as specified in this subdivision. Any such mitigating factors must be filed with the building emissions report and must be documented in a form and manner established by the Department.

(1) Unexpected or unforeseeable event. An owner may demonstrate that an unexpected or unforeseeable event or condition outside of their control precluded compliance during a calendar year where a building was damaged as a result of a disaster, including but not limited to a hurricane, severe flooding, or fire. Such owner must provide photographs demonstrating the nature and extent of any such damage, and a

description of how such damage precluded compliance in such calendar year. Demonstration of such an unexpected or unforeseeable event or condition may result in a penalty of zero dollars for such calendar year for which such demonstration is claimed.

(2) Good faith efforts. An owner may demonstrate they made good faith efforts to comply with Article 320 of Chapter 3 of Title 28 of the Administrative Code and rules promulgated thereunder. Demonstration of good faith efforts may result in a mitigated penalty for the calendar year for which such demonstration is claimed. An owner may demonstrate good faith efforts by meeting all of the following criteria:

i. Such owner submits the annual building emissions report for the previous calendar year pursuant to Article 320 of Chapter 3 of Title 28 of the Administrative Code and rules promulgated thereunder, and is in compliance with any adjustment granted in accordance with section 28-320.7, 28-320.8, or 28-320.9 of the Administrative Code and rules promulgated thereunder; and

ii. Such owner uploads benchmarking information for the previous calendar year to the benchmarking tool in accordance with section 28-309.4 of Article 309 of Chapter 3 of Title 28 of the Administrative Code and rules promulgated thereunder as applicable, or the data required by section 28-309.4 of the Administrative Code for the prior calendar year; and

iii. Such owner submits an attestation in a form and manner determined by the Department that upgrades have been made to lighting systems as required by Article 310 of Chapter 3 of Title 28 of the Administrative Code and rules promulgated thereunder, and electrical sub-meters in tenant spaces have been installed as required by Article 311 of Chapter 3 of Title 28 of the Administrative Code and rules promulgated thereunder; and

iv. In addition to the information required by subparagraphs (i) through (iii) of this paragraph, a demonstration of good faith efforts includes one or more of the following:

(a) No later than May 1, 2025, an owner submits a copy of a decarbonization plan certified by a registered design professional to the Department that is being implemented at such covered building. Such plan must include:

(1) An energy audit prepared by a qualified energy auditor no earlier than four years prior to the date of submission to the Department; and

(2) An inventory of all HVAC equipment, domestic hot water equipment, electrical equipment, lighting, and conveyance equipment serving the building, including the date of installation of such equipment and, where applicable, whether such equipment serves multiple buildings; and

(3) A description of any work that received a certificate of completion or temporary certification of occupancy on January 1, 2013 or later, that resulted in no less than a 10% emissions reduction for the building as compared to the emissions measured the year prior to the completion of such work; and

(4) A list of alterations and changes to operations and maintenance that will result in the building achieving emissions reductions required by Article 320 of Chapter 3 of Title 28 of the Administrative Code and rules promulgated thereunder and resulting in net zero carbon emissions in 2050, including energy conservation measures to be undertaken during the current and future compliance periods, and the complete schedule for retrofit strategies necessary to reach net zero carbon emissions. Compliance strategies may not include the removal of a tenant. Each item on the list of alterations and changes must include:

i. A timeline for each alteration or change to operations that demonstrates when the work will be completed in order to achieve the necessary emissions reductions required for timely compliance with each compliance period;

ii. A capital plan for such work, including financing and incentives; and

iii. The corresponding emissions reductions estimated to result from each alteration or change to operations; and

(5) An owner who files a decarbonization plan in accordance with this clause must additionally demonstrate all of the following:

i. Within 24 months of the submission of such plan, demonstrate that the work necessary to bring the building into compliance with such building's emissions limit for calendar year 2024 is completed; and

ii. By May 1, 2028, provide evidence that a complete application has been approved by the Department for the work necessary to comply with such building's 2030 emissions limit;

(6) An owner who files a decarbonization plan in accordance with this clause may not claim emissions deductions associated with the purchase of renewable energy credits (RECs) for the 2024-2029 compliance period.

(b) An owner provides evidence that a complete application has been approved by the Department for the work necessary to comply with the 2024-2029 emissions limit, a timeline for completion of the project, and the corresponding emissions reductions estimated to result from the alteration, provided that where such work does not require an application to the Department, the owner may submit a copy of a signed contract with a service provider to perform such work and proof of payment in lieu of evidence that a complete application has been approved by the Department; or

(c) An owner provides evidence that the covered building is undergoing work to achieve electric readiness by submitting:

(1) An approved electrical alteration application to make upgrades to the building's electric service for the purposes of future replacement of fossil fuel-based equipment with electric equipment; and

(2) Certification that the electric utility has received the contractor work request and/or has approved a load letter for service increase; and

(3) An anticipated timeline for completion of the work; or

(d) An owner previously submitted an annual building emissions report during the 2024-2029 compliance period that demonstrated such building was under the established emissions limits for the calendar year that such report was submitted; or

(e) An owner of a critical facility provides a description with documentation, in a form and manner determined by the Department, of how payment of a penalty would impact the operations of such facility; or

(f) An owner attests in a form and manner determined by the Department that such owner has applied for or been granted an adjustment by the Department in accordance with section 28-320.7 of the Administrative Code and rules promulgated thereunder.

(j) Enforcement. Notwithstanding any other provision of the Department's rules, an owner not in compliance with the requirements of Article 320 of Chapter 3 of Title 28 of the Administrative Code and rules promulgated thereunder will be liable for a penalty calculated as described herein that may be recovered in a proceeding before the Office of Administrative Trials and Hearings (OATH) governed by OATH's rules of practice and procedure pursuant to Title 48 of the Rules of the City of New York.

(1) Notice. The Department shall issue administrative summonses pursuant to this subdivision which shall contain at minimum the following information:

i. A description of the nature of the violation sufficient to inform the respondent of the prohibited conduct, including a citation to the rule or section of the Administrative Code alleged to have been violated; and

ii. The maximum penalty amount calculated by the Department; and

iii. Instructions to the Respondent for how to pay such penalty; and

iv. The date, time, and location of the scheduled adjudication on such penalty, or instructions to the Respondent for how to schedule an adjudication.

(2) Resolving the administrative summons prior to adjudication. A Respondent may resolve the summons prior to adjudication by:

i. Paying the penalty amount calculated by the Department; or

ii. Submitting proof to the Department that the condition has been corrected prior to the scheduled adjudication.

(3) Mediated resolution.

i. The Department may offer a mediated resolution to an owner not in compliance with the annual building emissions limits, provided that the Department shall offer such resolution only where (i) such owner has filed a report pursuant to section 28-320.3.7 of the Administrative Code; (ii) such owner has demonstrated good faith efforts to meet such emissions limits, including but not limited to the criteria set forth in paragraph 2 of subdivision i of this section or other demonstrated effort to meet such limits; and (iii) such resolution would facilitate the building meeting such building's annual emissions limit.

ii. A mediated resolution is an agreement between the owner and the Department not to bring an enforcement proceeding and may provide for terms and conditions determined by the Department, including but not limited to a plan to achieve compliance with the building emissions limit set forth in section 28-320.3.1 of the Administrative Code. The terms of such agreement may contain such provisions as may be agreed upon by the Department and the owner. The Department shall provide guidance with respect to such plan, including examples of appropriate compliance plans.

iii. Such agreement shall provide that an enforcement proceeding will be commenced and civil penalties may be imposed for the violation of Article 320 of Title 28 of the Administrative Code where the owner fails to comply with the terms of such mediated resolution. Where such agreement covers more than one year, the owner may be subject to an enforcement proceeding and civil penalty pursuant to

subdivision (h) of this section for each calendar year that such owner is not in compliance with the annual building emissions limit during that time period.

iv. A mediated resolution entered into between the department and the owner of a building may be transferred to a subsequent owner of such building who consents to such transfer. Failure to comply with the terms of such mediated resolution by a subsequent owner who consents to such transfer will result in an enforcement proceeding as set forth in subparagraph (iii) of this paragraph.