

LOCAL LAW 97

Compliance, Resources & Understanding Requirements

presented by

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PRESENTATION DESCRIPTION

This presentation provides an overview of Local Law 97 (LL97) carbon emissions law, including the requirements for covered buildings and their emission limits. An understanding of the compliance and reporting process, as well as rules and regulations will be gained. The presentation discusses the available resources and funding opportunities to assist buildings owners in complying with LL97.

NYC CLIMATE MOBILIZATION ACT - 2019

- **Local Laws 92 & 94 of 2019:** requiring that the roofs of certain buildings be covered in green roofs and/or solar PV systems
- **Local Law 95 of 2019:** assigns a building energy efficiency grade
- **Local Law 96 of 2019:** establishing a sustainable energy loan program (i.e., PACE)
- **Local Law 97 of 2019:** the commitment to achieve certain reductions in greenhouse gas emissions by 2050

DECARBONIZE OUR BUILDING STOCK

Our buildings are NYC's biggest source of CO₂ emissions

see: 2019 NYS CLCPA

To decarbonize our building stock, virtually every one of our city's 1,000,000+ buildings will need to be retrofit.

2015 Roadmap to 80x50

Windows and walls will need to be improved or replaced with new efficient ones.



Large buildings (> 25,000 sf) that fail to cut their CO₂ emissions will face steep fines

2019 NYC Climate Mobilization Act
(Local Law 97)

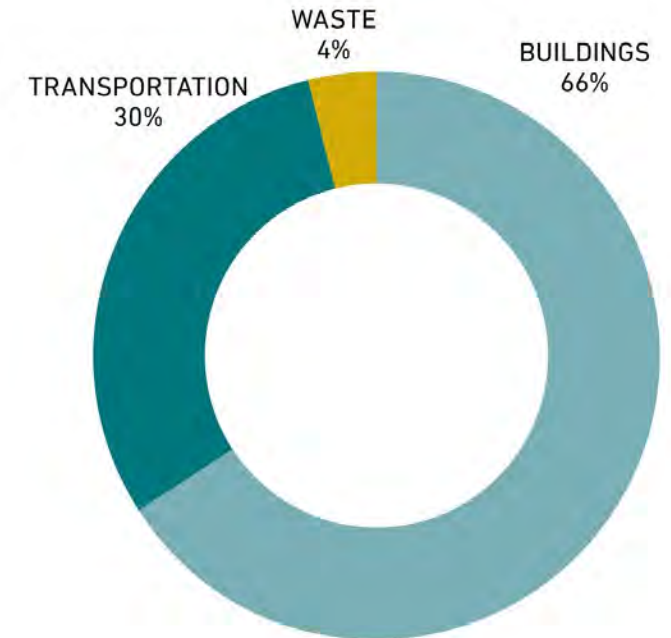
New buildings will be prohibited from installing fossil-fuel equipment
Local Law 154



Boilers and furnaces will need to be replaced with all-electric heat pumps

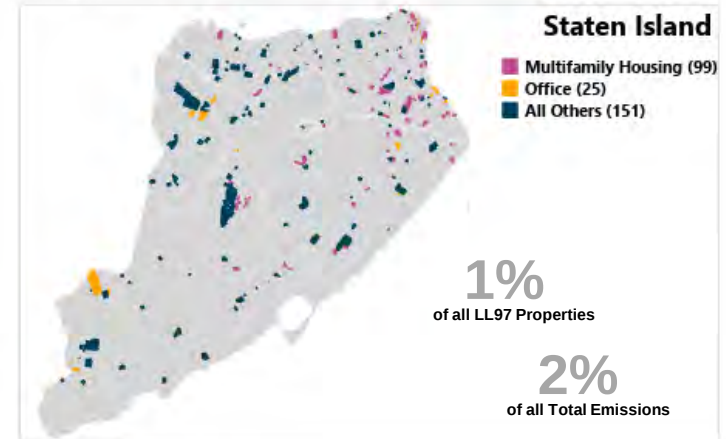
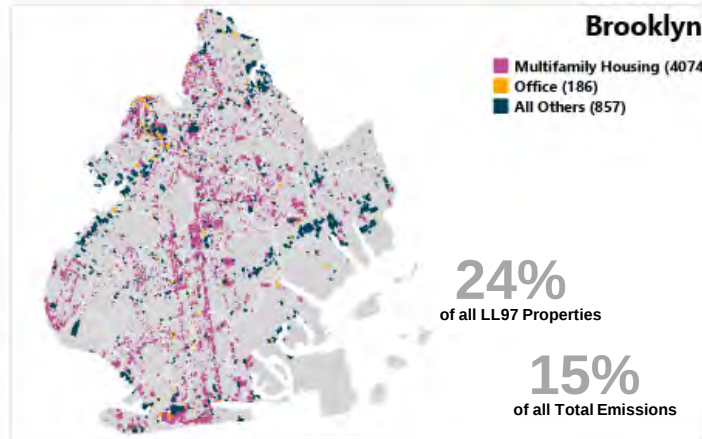
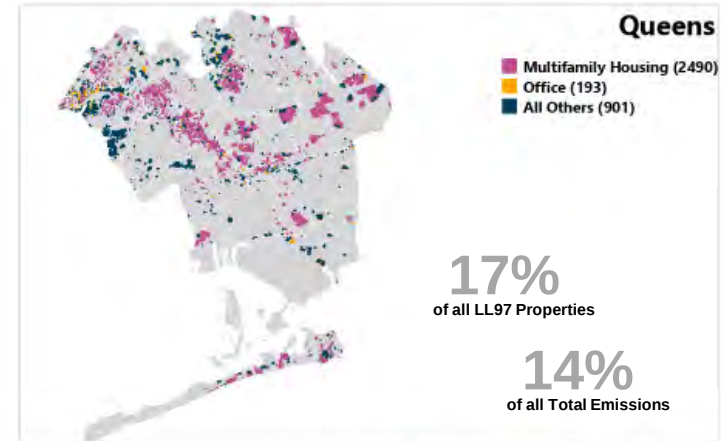
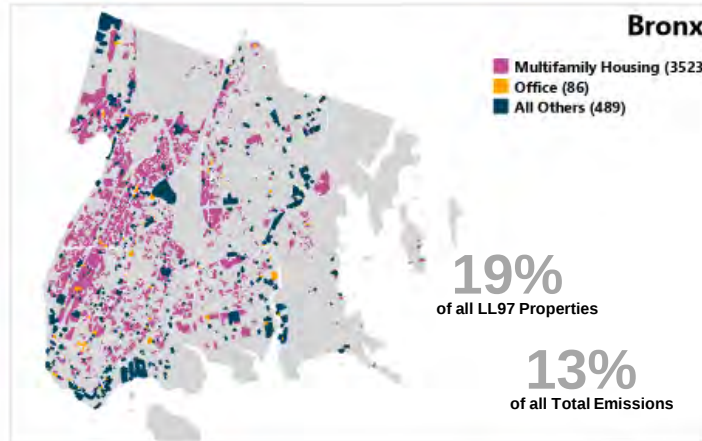
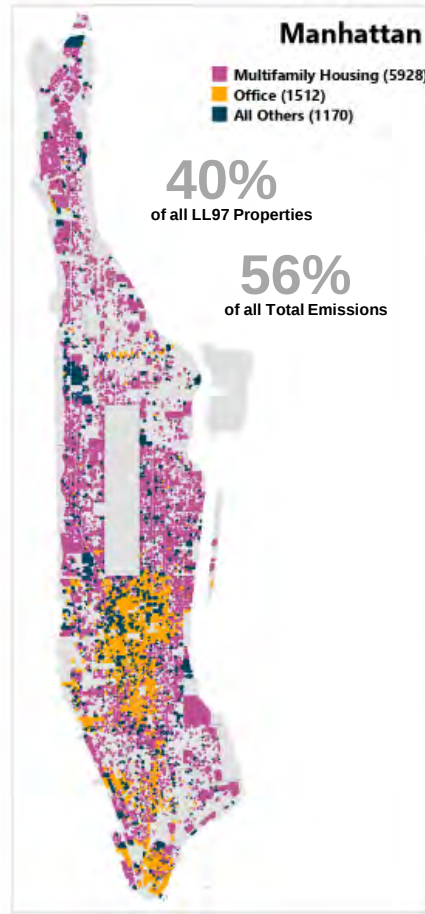
SCOPE & IMPLICATIONS OF LL97

- Buildings account for approximately two-thirds of greenhouse gas emissions in New York City.
- **Local Law 97** aims to reduce our overall emissions by putting 50,000 **largest** of the City's 1.1 million buildings on the path to carbon neutrality by 2050.
- **34,000** buildings must start meeting emissions limits in **2024**. An estimated **5,300** buildings will be out of compliance with the law and may start receiving penalties in **2025**. These numbers grow as emissions limits get more stringent and penalties increase starting in **2030**.
- NYC is leading the fight on climate change with implementation of **Local Law 97**. Cities, states and national governments are watching and following NYC's lead

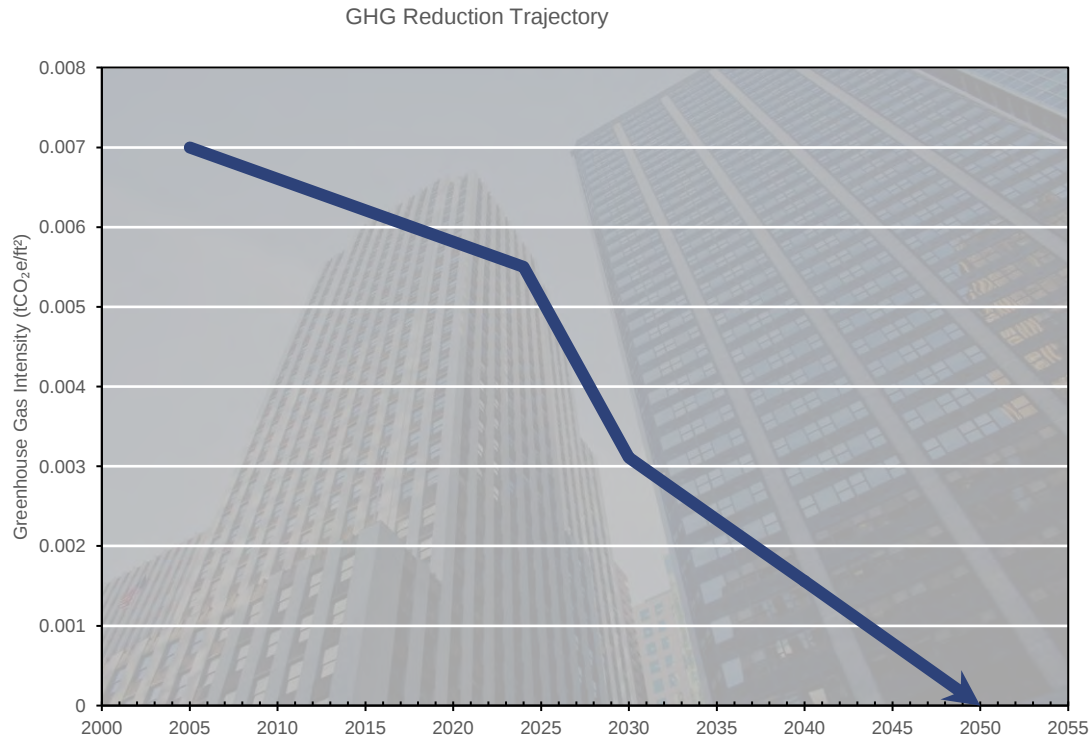


Reference: OneNYC 2050 – Building a Strong and Fair City, Volume 7

SUMMARY OF PROPERTIES



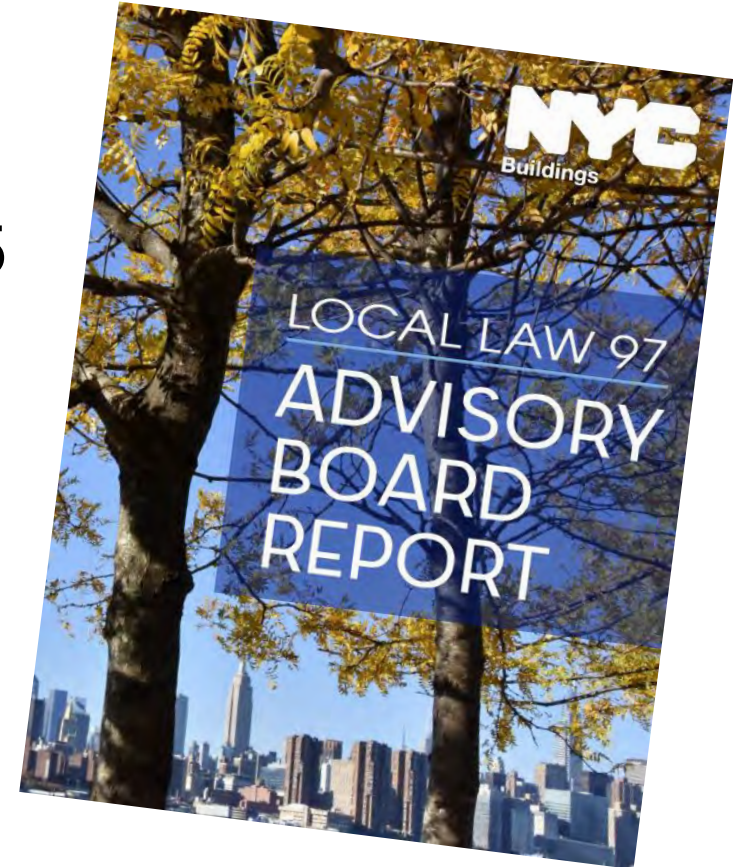
LOCAL LAW 97 CONTEXT & GOAL



- **By 2030, LL97 is expected to achieve:**
 - **6 million** tons of CO₂e reduced
 - Over **26,700** jobs created
 - **150** hospitalizations avoided per year
 - **50 to 130** deaths prevented per year
- **LL97 works with the State Climate Leadership and Community Protection Act (CLCPA):**
 - **70%** of electricity will be from renewable energy source by **2030**
 - State aims to achieve **zero emission** electricity by **2040**

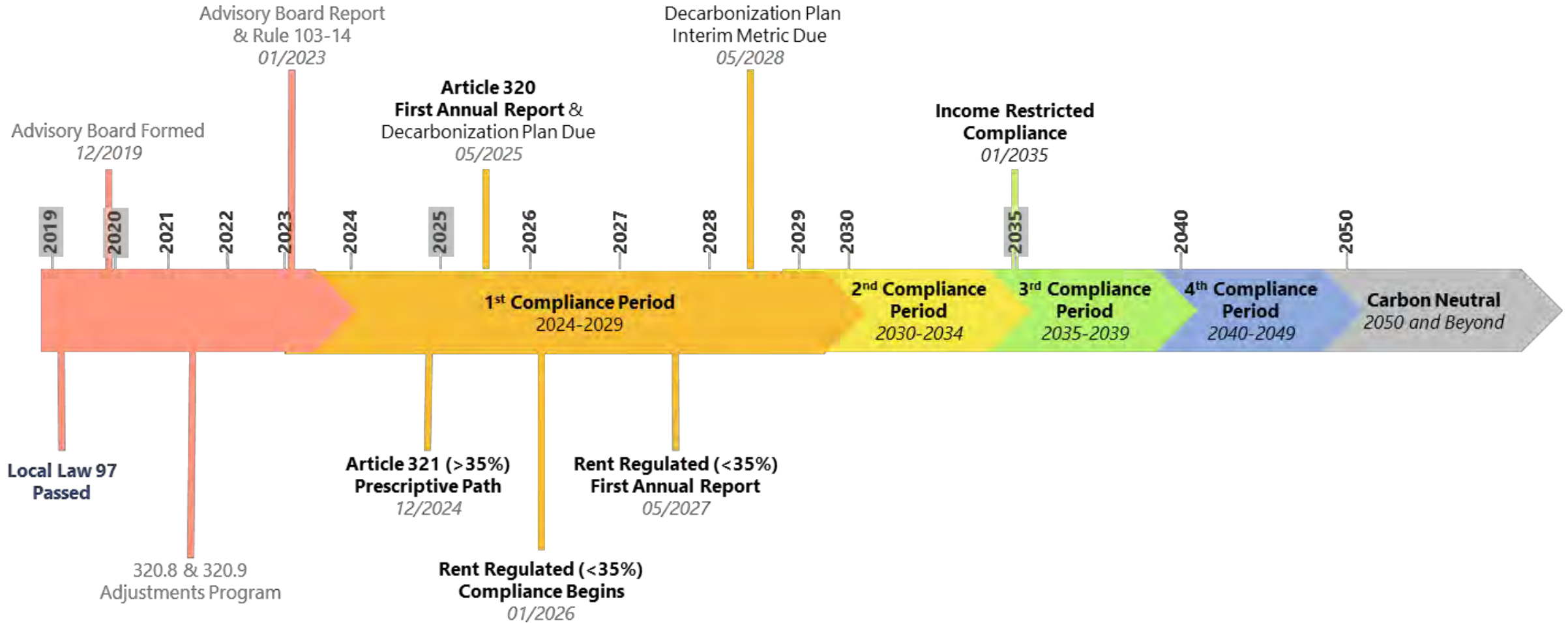
LOCAL LAW 97 REPORTING

- Emissions are reported **May 1** every year for the prior calendar year
 - Calendar year 2024 is reported by May 1, 2025
- City buildings reduce GHG emissions 40% by 2025 and 50% by City 2030



https://www.nyc.gov/assets/sustainablebuildings/downloads/pdfs/ll97_ab_report.pdf

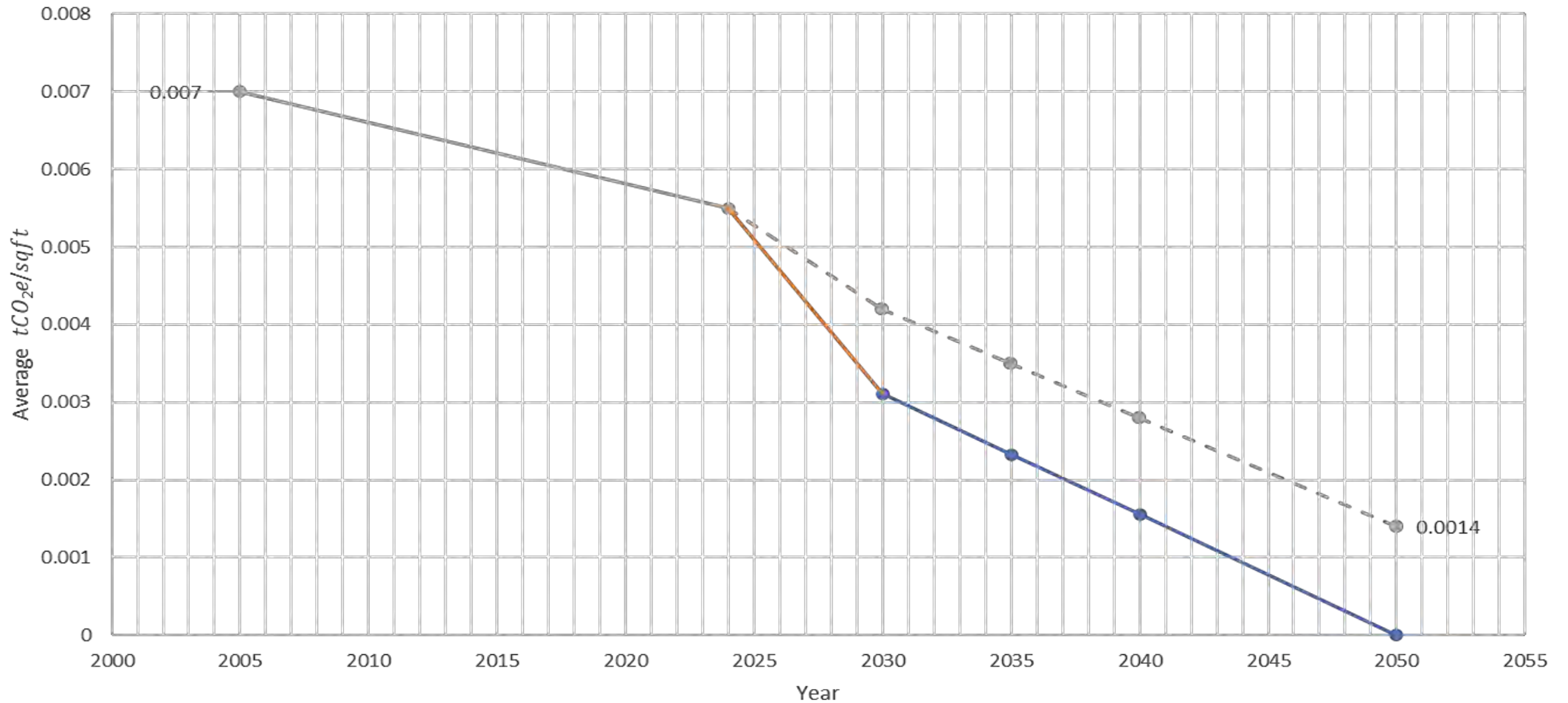
LOCAL LAW 97 TIMELINE



NOTE: Timeline courtesy of Mayor's Office of Climate & Environmental Justice

TRAJECTORY TO 2050

Comparison of GHG Reduction Trajectories



LOCAL LAW 97 COMPLIANCE BUCKETS

Annual Emissions Limits (§ 320) 34,000 buildings	Lower Cost One-Time Compliance (§ 321) 8,500 buildings	Portfolio-Wide Reduction 5,500 buildings
Private sector, non-rent regulated buildings*	<ul style="list-style-type: none"> • Rent-regulated buildings • Houses of worship 	<ul style="list-style-type: none"> • City buildings • NYCHA
Buildings must reduce emissions by retrofitting to promote energy efficiency. Reduce energy waste and demand, electrify equipment, and improve building operations and maintenance practices.	Meet all applicable measures from a list of Prescriptive Energy Conservation Measures or comply with the 2030 annual emissions limit.	DCAS buildings must reduce emissions by 40% by 2025 and 50% by 2030. NYCHA buildings must reduce emissions by 40% by 2030 and 80% by 2050.
Compliance begins in 2024 . Penalties begin in 2025 . Cap becomes more stringent in 2030 , and so on.	Implement prescriptive measures by 2024 and submit one-time report by 2025 .	DCAS to meet portfolio-wide caps starting in 2025 , NYCHA starting in 2030 .

*Adjustments available for hospitals, nonprofits, landmarks and buildings with financial hardship.

ARTICLE 320 COMPLIANCE

RCNY 103-14

ESPM Property Type	2024 – 2029 Emissions Factor in tCO ₂ e 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

§§§ 28-320.3.1.1 Greenhouse gas coefficient of energy consumption for calendar years 2024 through 2029. The annual building emissions of a covered building in accordance with this section, greenhouse gas emissions shall be calculated as follows for calendar years 2024 through 2029:

1. **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 **0.000288962 tCO₂e per kilowatt hour** or, at the owner's option, shall be calculated based on time of use in accordance with referenced emissions factors promulgated by rules of the department. The department, in consultation with the office of long-term planning and sustainability, shall promulgate rules governing the calculation of greenhouse gas emissions for campus-style electric systems that share on-site generation but make use of the utility distribution system and for buildings that are not connected to the utility distribution system.
2. **Natural gas combusted** on the premises of a covered building shall be calculated as generating **0.00005311 tCO₂e per kbtu**.

- Each property has a **GHG limit** based on the property types of the spaces within the property.
 - *GHG Limit = Gross Floor Area X Emissions Factor*
- RDP will need to calculate the building's GHG limit and report annual GHG emissions total for the property.
 - *GHG Emissions = annual fuel use & fuel coefficient*
- Penalty is \$268 per metric ton of CO₂e over the GHG limit

320 ADJUSTMENTS

- **Available Adjustments**

- 28-320.7 Adjustment to Applicable Annual Building Emissions Limit

- Applications: requirements for the application are still in development

- **28-320.8 Adjustment to Applicable Annual Building Emissions Limit for Calendar Years 2024 - 2029**

- Application due by January 1, 2025, by an RDP

- **28-320.9 Adjustment to Applicable Annual Building Emissions Limit for Not-for-Profit Hospitals and Healthcare Facilities**

- Application due by January 1, 2025, by an RDP

28-320.8 ADJUSTMENT FOR CY 2024-29

- **Adjusted Limit** - 70% of CY 2018 emissions
- **2018 Emissions are 40% above 2024-2029 emissions limit**
- ALL excess emissions attributable to a **Special Circumstance**
- Energy performance equivalent to **2014 NYCECC compliant building**
- Plan to Reduce GHG to **Meet 2030 Limit**
- **C of O Unchanged after December 31, 2018**

“... special circumstances related to the use of the building, including but not limited to

- 24 hour operations,
- operations critical to human health and safety,
- high density occupancy,
- energy intensive communications technologies or operations, and
- energy-intensive industrial processes ...”

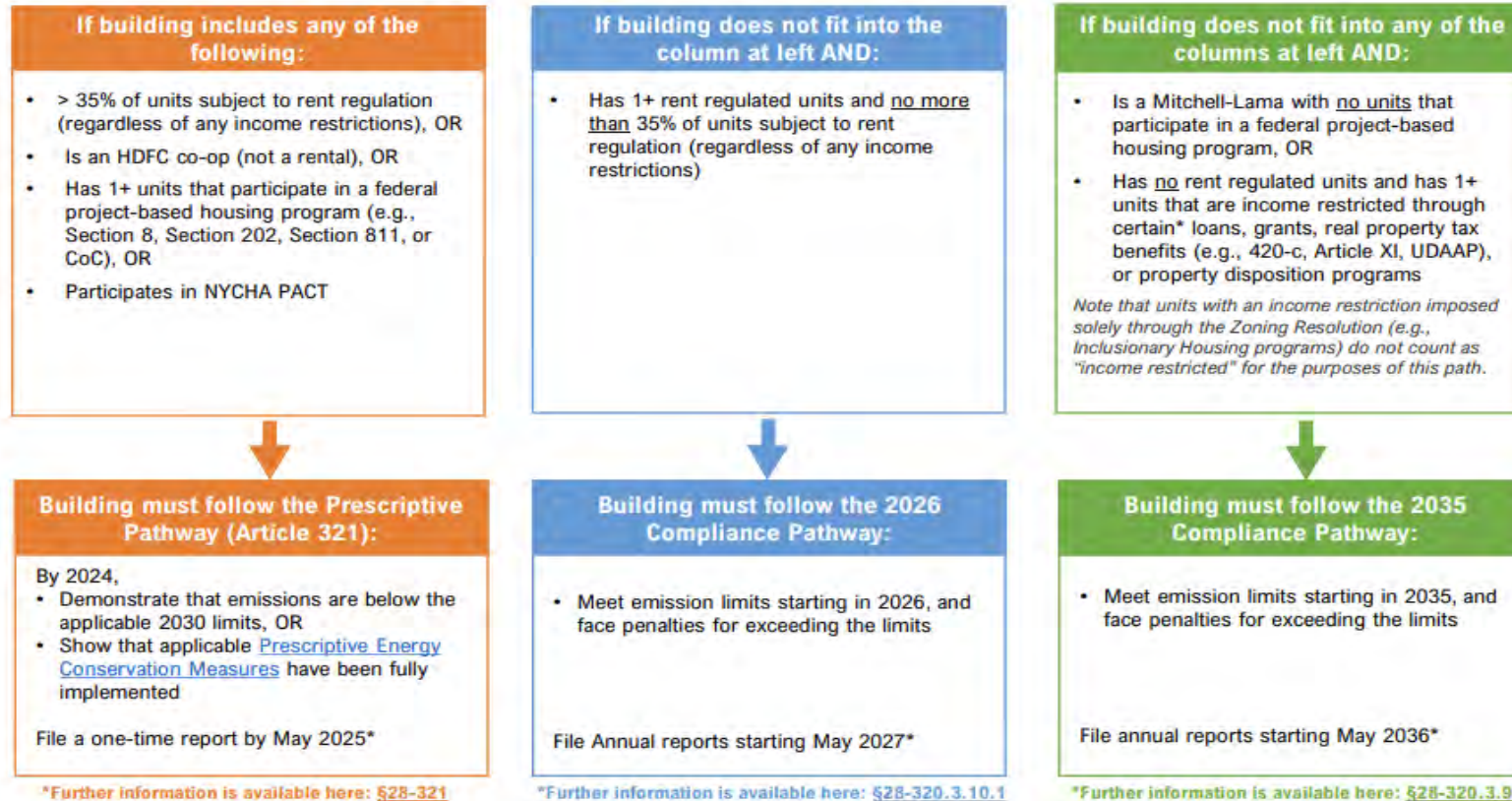
28-320.9 ADJUSTMENT FOR NOT-FOR-PROFIT HOSPITALS

- **Building Classified on November 15, 2019 as**
 - Not-for-profit hospital,
 - Not-for-profit health center, *or*
 - Not-for-profit HIP center
- **Adjusted Limit**
 - 2024-2029: 85% of CY 2018 emissions
 - 2030-2034: 70% of CY 2018 emissions
- **Not-for-profit status**
- **For Healthcare owners and healthcare facilities *ONLY***
 - other not-for-profit organizations do not qualify for this adjustment

ARTICLE 321 COMPLIANCE

Local Law 97 Compliance Guidelines for Rent Regulated and Affordable Housing

[LL97 covered buildings](#)[†] with rent regulated and/or affordable units should follow one of the pathways below:



- Applies only to certain Affordable Housing and Houses of Worship

[†]LL97 generally covers, with some exceptions: buildings that exceeds 25,000 gross square feet; two or more buildings on the same tax lot that together exceed 50,000 square feet; two or more condominium buildings governed by the same board of managers and that together exceed 50,000 square feet.

ARTICLE 321 – PRESCRIPTIVE MEASURES

- Adjusting temperature set points for heat and hot water
- Repairing all heating system leaks
- Maintaining heating systems
- Installing individual temperature controls or insulated radiator enclosures with temperature controls
- Insulating all pipes for heating and/or hot water
- Insulating steam system condensate tank or water tank
- Installing indoor and outdoor heating system sensors and boiler controls
- Replacing or repairing all steam traps
- Installing or upgrading steam system master venting
- Upgrading lighting
- Weatherizing and air sealing
- Installing timers on exhaust fans
- Installing radiant barriers behind all radiators.

RULE 103-14

EFFECTIVE: January 19, 2023

- Guidance on Calculations
 - Annual GHG emissions
 - Annual electric/natural gas/fuel oil use
 - Annual GHG emissions limit
 - Gross floor area
- Building Emission Limits
 - Transition to ESPM Property Types
 - Establish limits beyond 2029
- Guidance on Reporting
 - Reporting GHG emissions for multiple buildings and campuses

RULE 103-14

EFFECTIVE: January 19, 2023

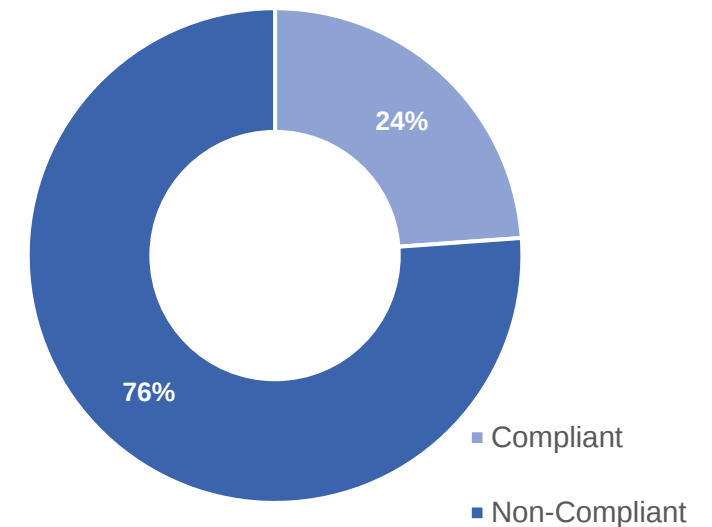
(continued)

- Deductions for Renewable Energy Certificates (RECs)
 - Clarifying that RECs apply only to emissions from electricity consumption
- Deductions for certain *clean* distributed energy resources
 - On-site Solar
 - On-site Energy Storage (electric)
 - Deduction for these sources is taken against electricity emissions, rewards owners for installing critical infrastructure

2030-2034 EMISSIONS LIMITS

- Trajectory of carbon neutral by 2050
- Moving forward with limits based on ENERGY STAR Portfolio Manager (ESPM) Property Types (PTs)
- Updated coefficients for electricity and steam
- 2030 limits updated to maintain...
 - Consistent compliance across PTs
 - Get on the path to carbon neutral
- ~75% of properties need to achieve compliance

2030 Limits
Compliance Breakdown



A low-angle photograph of several skyscrapers under construction against a blue sky with light clouds. The buildings are covered in scaffolding and yellow safety netting. Several tower cranes are visible, extending high into the air. The overall scene is one of active urban development.

WHAT'S NEXT?

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NYC Buildings

EMISSION LIMITS

- DOB is still planning to study how the limits and reduction targets might be affected by:
 - Introduction of an additional and overlaid **efficiency** metric
 - Researching normalization, such as methods to take density into account
 - Potential impact of RECs
 - City is working with NYSERDA to explore whether additional limits are necessary

CHALLENGES: NYC

- **Outliers**

As with any policy, **one-size fits all** won't work

- **Universal Hurdles to LL97 Implementation**

Workforce deficiencies and ensuring access to funding

- **Increased Operational Costs of Electrification**

NYC and NYS working with the Public Service Commission (PSC) to consider reduced rates for electrified buildings

CHALLENGES: NYC

■ Better Data

- Data yielded by our audits/retro-commissioning law is filled with junk, no requirement to implement measures (Local Law 87)
- ENERGY STAR Portfolio Manager (ESPM) was set up for benchmarking not for LL97 compliance, there are gaps/hurdles

■ Real-time Carbon Data for the Grid

- Owners want real-time data to make informed decisions day-to-day
- New York Independent System Operator (NY ISO) is working on a solution (data availability in 15 mins increments)

TECHNICAL ASSISTANCE: NYC

HOW WE CAN HELP | Access free resources to decarbonize buildings in NYC and create a more sustainable city for all.

<p>Free Technical Assistance</p> <p>Building owners, property managers, and developers can access free one-on-one expert help with building upgrades, local law compliance, incentives, and financing.</p> <p>GET ASSISTANCE</p>	<p>Financing Opportunities</p> <p>Explore ways to make paying for building upgrades convenient and affordable.</p> <p>FIND FINANCING</p>	<p>Service Provider Program</p> <p>Building and energy contractors can grow their businesses through our Service Provider Program. Get connected with building management to implement energy upgrades and access free trainings and marketing materials.</p> <p>APPLY TODAY</p>
<p>Support for New Construction</p> <p>Developers, architects, and engineers can access personalized assistance and training to incorporate long-term energy planning into new construction and major renovations.</p> <p>LEARN MORE</p>	<p>Local Law 97</p> <p>Understand how NYC's building emissions law impacts your building(s) and work with a compliance expert to plan effectively and avoid fines.</p> <p>LEARN MORE</p>	<p>Air Sealing & Insulation</p> <p>Learn how improving your building's foundation, walls, roof, windows, and doors can help you lower costs, improve comfort, and comply with local energy laws.</p> <p>LEARN MORE</p>

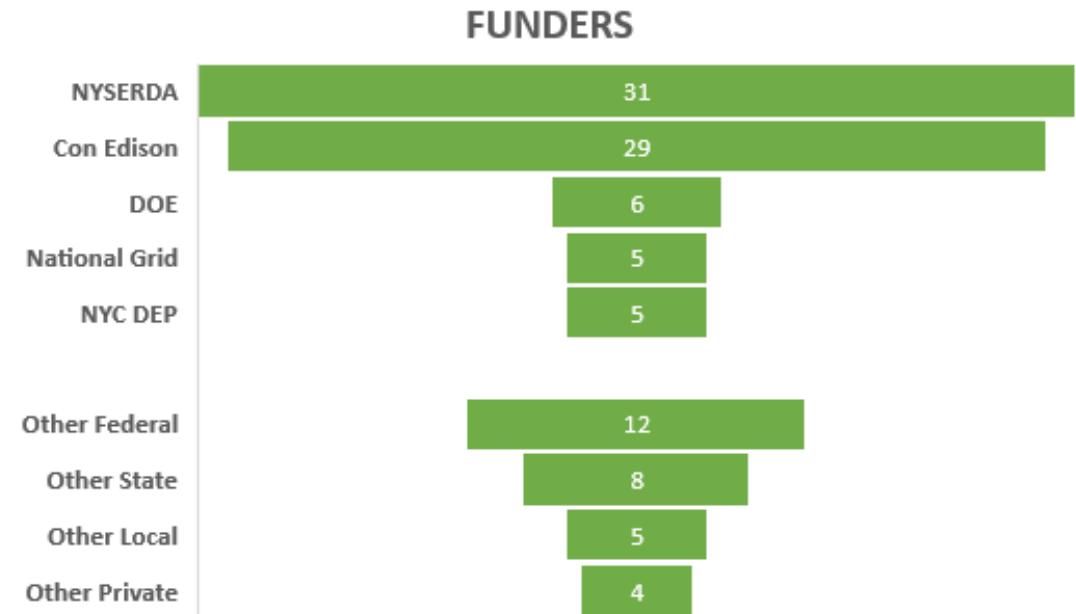
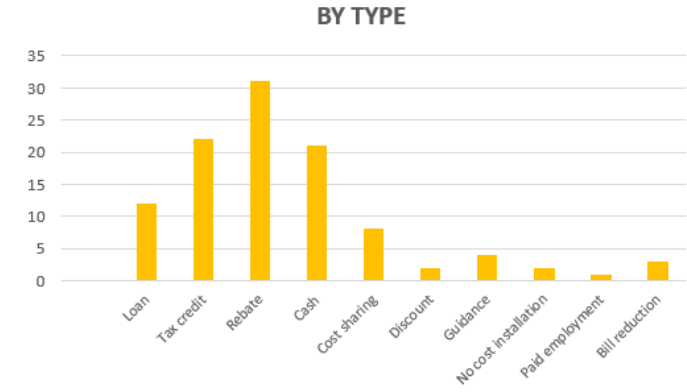
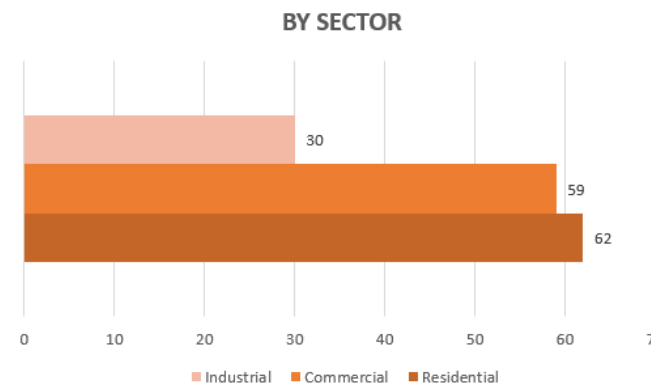
<https://accelerator.nyc/>

- **NYC Accelerator**
 - Takes the data we have on a building already and provides free technical assistance
 - Connects owners to service providers, incentive programs, financing programs
 - Has assisted owners with 12,000 buildings to date

EXISTING BUILDING OWNER SUPPORT PROGRAMS

NYC Accelerator

- Free technical assistance to building owners and connections to financing, contractors, training, incentive programs.
- 106 existing incentive programs** (and counting)



LL97: MORE TO COME

- Determination of Penalties, including good faith effort and other mitigating factors
- Article 321 implementation

CONTACT US...

- **Questions**

GHGEmissions@buildings.nyc.gov

- **Rule 103-14**

https://www.nyc.gov/assets/buildings/rules/1_RCNY_103-14.pdf

- **LL97 Website**

<https://www.nyc.gov/site/dobghgemissionsbuildings>

- **NYC Accelerator**

<https://accelerator.nyc/>

A low-angle photograph of several skyscrapers under construction against a blue sky with light clouds. The buildings are covered in orange and yellow safety netting and scaffolding. Several white tower cranes are positioned around the buildings. The text 'nyc.gov/buildings' is overlaid in the center in a blue, outlined font.

nyc.gov/buildings

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