Just Say No to Carbon Emissions – What NYC Building Owners and Developers Need To Know About the Climate Mobilization Act

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The City of New York recently became a pioneer in the global fight against climate change by becoming the first city in the country to compel real estate owners to become stakeholders in the battle against climate change caused by carbon emissions. This White Paper primarily discusses the new Local Law 97 of 2019 and how New York City real estate owners and developers should prepare for this new carbon-conscious landscape.

On May 19, 2019, a series of groundbreaking bills passed by the New York City Council, collectively known as the Climate Mobilization Act (“CMA”), became the first law of its kind by compelling NYC building owners to combat global warming. Local Law 97 of 2019 (“LL 97”) is the centerpiece of the CMA and sets forth annual building emissions limits that effectively require large building owners to affirmatively reduce greenhouse gas (carbon) emissions. The City aims to decrease carbon emissions 40% citywide by 2030 and 80% by 2050 by using LL 97 to target the worst carbon-intensive buildings.

Covered Buildings and Those Not Covered

Privately owned buildings that are 25,000 gross square feet or larger and 2 or more buildings on the same tax lot that together exceed 50,000 gross square feet (including condominiums) are covered buildings subject to LL 97. The City estimates that 50,000 covered buildings will be subject to LL 97.

Buildings exempt from LL 97’s annual building emissions limits are (i) owned by New York City, (ii) owned by the New York City Housing Authority (NYCHA), (iii) houses of worship owned by religious organizations, (iv) properties owned by a housing development fund company organized pursuant to the New York State Business Corporation Law and Article XI of the New York State Private Housing Finance Law, (v) buildings containing at least one rent-regulated dwelling unit, (vi) buildings containing low-income or subsidized housing, (vii) industrial facilities primarily used to generate electric power or steam, and (viii) multi-family buildings that are 3 stories or less with no shared HVAC or hot water heating system. Additionally, affordable housing developments created with government subsidies are exempt from the law until 2035.

Some Non-Covered Buildings Nevertheless Have Their Own Compliance Requirements

Although rent-regulated, low-income and subsidized housing, and houses of worship are exempt from the annual building emissions limit, they will still be required to undertake energy conservation prescriptive measures listed below. Such buildings have until December 31, 2024 to comply.
Prescriptive measures for rent-regulated buildings, low-income/subsidized housing, and houses of worship:

1. Adjusting temperature set points for heat and hot water to reflect appropriate space occupancy and facility requirements;
2. Repairing all heating system leaks
3. Maintaining the heating system, including but not limited to ensuring that system component parts are clean and in good operating condition
4. Installing individual temperature controls or insulated radiator enclosures with temperature controls on all radiators;
5. Insulating all pipes for heating and/or hot water
6. Insulating the steam system condensate tank or water tank
7. Installing indoor and outdoor heating sensors and boiler controls to allow for proper set-points;
8. Replacing or repairing all steam traps such that all are in working order;
9. Installing or upgrading steam system master venting at the ends of mains, large horizontal pipes, and tops of risers, vertical pipes branching off a main;
10. Upgrading lighting to comply with the standards for new systems set forth in new standards
11. Weatherizing and air sealing where appropriate, including windows and ductwork, with focus on whole-building insulation;
12. Installing timers on exhaust fans; and
13. Installing radiant barriers behind all radiators.

Owners Are Given Some Time to Prepare For Compliance

The law provides owners of covered buildings 5-10 years to plan and prepare. Covered buildings must comply with the emissions limit by January 1, 2024. LL 97 establishes two initial compliance periods: 2024-2029 and 2030-2034. The commissioner of the New York City Department of Buildings (“DOB”) will determine the annual building emissions limits from 2035 through 2050, and 2050 and beyond, no later than January 1, 2023.

The first compliance report is due by May 1, 2025 (with subsequent filings being due on May 1 of every year thereafter). The compliance report must be filed online, certified by a “registered design professional,” and state that either: (1) the building was in compliance for the previous calendar year or (2) the building was not in compliance for the previous calendar year and list the amount by which the building exceeds such limit. It is not clear yet whether a “registered design professional” is a registered architect or a professional engineer, or both. We expect the rules to clarify this ambiguity.

Buildings that only have to follow prescriptive measures, such as rent-regulated buildings, will need to submit a certified report through a retro-commissioning agent.
**Carbon Emissions – A Building’s Statutory Limit And How To Calculate It**

The statutory annual building emissions limit for a covered building is based upon such building’s occupancy group (use) or prorated for mixed-use buildings.

To calculate a building’s emissions limit pursuant to LL 97, the emissions limit taken from the chart below is multiplied by the gross square footage of the building (or prorated accordingly if the building is mixed-use). Then, one compares the emissions limit to the building’s actual emissions to check for compliance of LL 97.

<table>
<thead>
<tr>
<th>Occupancy Group(s)</th>
<th>Space Use</th>
<th>Carbon Limit (KgCO2e/sf)*</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>2024-2029</td>
</tr>
<tr>
<td>B- Ambulatory Health</td>
<td>Medical Office, Labs</td>
<td>23.81</td>
</tr>
<tr>
<td>M - Mercantile</td>
<td>Retail</td>
<td>11.81</td>
</tr>
<tr>
<td>I-1 - Facilities</td>
<td>Care &amp; Rehab facilities</td>
<td>11.38</td>
</tr>
<tr>
<td>A - Assembly</td>
<td>Assembly</td>
<td>10.74</td>
</tr>
<tr>
<td>R-1 - Hotel</td>
<td>Hotel</td>
<td>9.87</td>
</tr>
<tr>
<td>B - Business</td>
<td>Office</td>
<td>8.46</td>
</tr>
<tr>
<td>E - Educational &amp; I4 - Custodial Care</td>
<td>School, Daycare</td>
<td>7.58</td>
</tr>
<tr>
<td>R-2 - Residential</td>
<td>Multi family housing</td>
<td>6.75</td>
</tr>
<tr>
<td>F - Factory</td>
<td>Factory</td>
<td>5.74</td>
</tr>
<tr>
<td>S - Storage &amp; U - Utility</td>
<td>Storage/Warehouse</td>
<td>4.26</td>
</tr>
</tbody>
</table>

*converted from metric tons to kilograms for easier reading

The law provides that DOB may set different limits by department rules, which have yet to be issued, but cautions that any change to the limits can only be more restrictive than current statutory limits.

Carbon emissions are generally measured by calculating the total carbon dioxide emitted during the production of the energy that is consumed by a building to heat, cool, light and power the building. As one can expect, the size of the building, the source of the energy, and the time the energy is produced all play important factors into how much carbon a building emits.
The following energy sources are listed in order from most carbon efficient to least carbon efficient as determined by LL 97:

1. Utility electricity (most efficient)
2. District steam
3. Natural gas
4. #2 fuel oil
5. #4 fuel oil (least efficient)

A good starting point to determine a building’s carbon emissions is reviewing the building’s most recent Benchmarking data. All buildings 25,000 gross square feet or larger were required to submit their Energy Star Benchmarking data to the City by May 1, 2019 for Local Law 84 compliance and thus the information should be readily available to the owner. However, note that Energy Star typically displays emissions in kilograms of carbon dioxide equivalent (KgCO2e) and LL 97 lists emissions limits in metric tons of carbon dioxide equivalent (mtCO2e). Therefore, the Energy Star Benchmarking data must be converted to metric tons by dividing by 1,000.1

**Tools For Compliance: Deductions, Adjustments, & PACE (and carbon trading too)**

The law provides a variety of mechanisms (tools) for a covered building to achieve compliance. One tool, *deductions*, provides alternate compliance methods to a certain degree by allowing an owner to purchase renewable energy credits and/or greenhouse gas offsets. Another tool, *adjustments*, amends the emissions limit on a temporary short term basis. Adjustments acknowledge and attempt to mitigate the new realities owners confront when faced now with high-energy-consuming tenants, building conditions inhospitable to retrofits, and the negative effect statutory capital improvements have on the owner’s bottom line. The introduction of PACE financing, which will be further discussed below, provides an alternative (and often more attractive) financing vehicle to pay for required retrofits.

**Deductions**

In addition to traditional retrofits, an owner may reduce its emissions by (1) purchasing greenhouse gas offsets; (2) purchasing renewable energy credits (“RECs”); or (3) using clean distributed energy resources (i.e., generating or storing clean energy) located at, on, in or directly connected to the building. Implementation of the deductions is still to be determined; the law leaves it up to DOB to set forth rules for how each deduction will be implemented.

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1 Note the chart on page 3 has already been converted to kilograms of carbon dioxide
Due to the cost effectiveness of offsets, we expect most owners to first turn to purchasing offsets in calculating the cost of compliance. The law does not limit the project location producing the offset. Thus, for example, a wind farm in the Midwest that is producing offsets for sale will be relatively affordable to purchase compared to offsets created closer to the NYC metropolitan area. Due to the cost effective nature of purchasing offsets, the City Council purposely limited this deduction to only 10% of a NYC building’s emissions limit. Offset deductions are also only authorized for calendar years 2024 through 2029, so an owner cannot rely upon this mechanism of compliance for very long.

After an owner has exhausted offsets, they can next look at the potential purchase of RECs. In contrast to offsets, the RECs must be generated in NYC or feed directly into the NYC grid. There is no limitation on how many RECs can be purchased so an owner theoretically can deduct up to 100% of their annual emissions limit with RECs. There is also no time limit on this deduction method so an owner can be assured that RECs will be available for deduction beyond 2029.

Offsets and RECs must be generated in the same reporting year for which they are being used as a deduction. Thus, we anticipate 2024 to be a boon year for sellers of offsets and RECs due to the influx of an additional 50,000 potential new purchasers into the market. It would be prudent for NYC building owners to consider contacting and forming relationships now with those 2024 potential sellers. That said, since the rules have not been published yet, many details relating to deductions remain an open question (i.e. qualified standards, calculation method, implementation).

Finally, an owner may also want to explore the final deduction option for clean distributed energy resources, i.e. rooftop solar panels, although the law currently limits this deduction method to calendar years 2024 through 2029. The amount of credit generated is based on the calculated output of the clean distributed energy resource. The law instructs DOB to determine how the deduction will be calculated.

**Adjustments**

Under certain specified circumstances, an owner may be eligible to apply for a temporary adjustment (increase) to the annual building emissions limits. As a threshold, a covered building must either be in existence on the effective date of the law (November 15, 2019) or a building permit for a building under construction was issued prior to the effective date of the law. The application for an adjustment must be submitted to the DOB by July 1, 2021. Thus, owners are advised to move swiftly in understanding how LL 97 will affect them by first engaging professionals to determine if they are able to comply, the cost of such compliance and, if not, consider seeking an adjustment based on such analysis while being mindful of the limited duration of a granted adjustment.
LL 97 specifies the following three circumstances that may warrant an adjustment:

(A) If the owner is physically or legally constrained from complying.

Examples of legal constraints include a building’s designation as a landmark, landmark site, interior landmark, or within a historic district. Physical constraints could be space constraints or lack of access due to infrastructure or an existing lease preventing access. In these types of cases of legal or physical constraints, an owner must first make good faith efforts to purchase offsets. The owner must also avail itself of all available local, state, and federal incentive programs and show that the request for an adjustment is one of last resort. An adjustment due to a physical or legal constraint may be effective for up to three years.

(B) If the cost of compliance would be too costly for the owner.

In addition to the requirements stated above (good faith effort to purchase offsets and avail itself to available government incentive programs), an owner seeking an adjustment due to financial reasons must also show that the cost of financing the capital improvements necessary for strict compliance would either (a) prevent the owner from earning a *reasonable financial return* on the use of the building or (b) that the building is in *financial hardship*. ‘Financial hardship’ is specifically defined in the law, where for a combined 2 years prior to the adjustment application, the building (i) has unpaid property taxes, water, or sewer charges that resulted in being on the tax lien sale list; (ii) has a not-for-profit real estate tax exemption and has certified negative revenue; or (iii) has an unpaid balance under the HPD emergency repair program that resulted in being on the tax lien sale list. The law is silent on what constitutes a “reasonable financial return” but does instruct DOB to consider future expected savings from such capital improvements.

An owner making any such application must also provide proof that it has availed itself of all programs funded by New York City or enabled by a local law that provide financing for the purpose of energy reduction or sustainability measures, such as a Property Assessed Clean Energy ("PACE") loan, discussed below. An adjustment granted for purposes of alleviating the owner’s financial burden is only effective for one year.

(C) There is a special circumstance for the building in question.

LL 97 is not blind to the fact that not all buildings are equal in terms of occupancy density or usage. LL 97 does take into consideration special circumstances that may cause excess building emissions, such as 24-hour buildings, high density occupation, or high-energy tenant
operations such as technology. Under these special circumstances, buildings may qualify for an adjustment if the owner can demonstrate (1) the building’s emissions in 2018 exceed the emissions limit prescribed by LL 97 by more than 40 percent, (2) that the energy performance of the covered building is equivalent to a building in compliance with the New York City energy conservation code in effect on January 1, 2015, and (3) a plan is submitted to get the building in compliance with the annual building emissions limits for calendar years 2030 through 2034.

This adjustment will result in a required building emissions limit from 2024-2029 that is 70 percent of the calendar year 2018 building emissions for the covered building. There is also the possibility that this may be extended until 2035, provided that the owner submits a schedule of alterations to the covered building to sufficiently show that by 2035 the covered building will comply with a required building emissions limit that is 50 percent of the reported 2018 building emissions for the covered building.

**Carbon Trading**

The law tasks the mayor’s office to study and develop an implementation plan for carbon trading by January 1, 2021. Carbon trading rests on the premise that the effects of one building’s carbon-reducing success may be applied towards another building elsewhere, or “traded.” The law recognizes that owners need an incentive to continue reducing carbon after their building has successfully reduced carbon emissions below the statutory emissions limit. Providing the owner the ability to trade and therefore monetize the carbon savings incentivizes an owner to continue reducing carbon emissions.

Carbon trading is anticipated to be an entirely new source of capital for low to moderate income neighborhoods. It is expected that energy services companies will emerge in these neighborhoods to upgrade old building systems in order to create carbon credits and then trade them in the open market.

**PACE Financing Is A Welcome Addition To The Owner’s Toolbox For Compliance**

PACE financing, which was enabled in New York City for the first time in the CMA as Local Law 96 will likely become extremely important in New York City as owners grapple with LL 97 compliance. In brief, PACE financing is a way for owners to obtain fixed rate, competitive rates to finance up to 100% of the cost of the improvements that will be needed to meet the requisite carbon reduction targets. The financing is paid back through real estate tax assessments on the property which fully amortize over the expected useful life of the improvements that were financed (typically 20–30 years). Because PACE payments prime mortgage debt, PACE has been generally resisted by the lending community. However,
lenders have grown increasingly comfortable with PACE. Indeed, PACE financing may be an owner’s best method of achieving compliance with their emissions limit.

**Penalties For Noncompliance**

Noncompliance will be penalized by the imposition of civil penalties. The maximum fine for noncompliance is the difference between the actual annual building emissions and the annual building emissions limit (as measured in metric tons), multiplied by $268. This formula is designed to be an extremely steep fine to compel an owner to comply rather than pay the civil penalty. However, the civil penalty ultimately imposed will take into account good faith efforts to comply with LL 97, the owner’s history of compliance, and the owner’s access to financial resources.

There are also fines for not submitting a report and for submitting a false report. The maximum penalty for failing to file a report will be $0.50 per gross square foot per month that the report is not filed, which effectively is a minimum $12,500 penalty per month. The law does permit a 60 day grace period. Submitting a false report is considered a misdemeanor, subject to a $500,000 fine and up to 30 days in jail. Noncompliance penalties for buildings subject to prescriptive measures have yet to be established and will be done so by DOB rules which have not been published.

**What Owners & Developers Should Be Doing Now**

Owners of buildings larger than 25,000 gross square feet are urged to begin taking steps now to ensure compliance with LL 97. Even though compliance is not mandated until 2024, owners will need time to plan out and complete potential capital improvements that might need to be undertaken in order to retrofit existing buildings.

Owners should start with analyzing their building’s current emissions against the statutory building emissions limit. This analysis will determine whether an owner needs to do anything at all in preparation for building emissions compliance by 2024 and/or 2030. An owner should also take into account the potential fine for noncompliance, as that will affect the owner’s return on investment.

Saving energy and switching to a lesser carbon-intensive fuel will yield the highest carbon savings. Some suggestions are:

- Improvements to HVAC and lighting systems
- Add exterior insulation, better windows, and air sealing
- Conversion to heat pumps for heat and hot water
- Investments in carbon-free power
Training building operations staff on energy efficiency best practices
- Tenant engagement and coordination (green leases)
- Hiring a consultant to audit and identify equipment for replacement and potential upgrades to save energy on building’s heating, cooling, and lighting systems.

Developers should also heed their project’s projected statutory annual building emissions limit and design their projects accordingly with 2024 and 2030 emission limits in mind, at a minimum. Additionally, new construction buildings or an existing building undergoing replacement of an entire roof deck will be required under the CMA to install a solar photovoltaic electricity generating system, a green roof system, or a combination thereof for 100% of the roof. (Local Laws 92 and 94 of 2019). Market rate development projects that utilize an incentive program requiring rent stabilization (e.g., 421-a, inclusionary housing) should ensure the statutory prescriptive measures listed earlier on page 2 are undertaken.

LL 97 will also affect borrowers seeking to obtain financing or re-financing their current debt, as lenders will likely add LL 97 compliance to their diligence of the property, possibly even demanding reserves in order to account for possible penalties in the future.

Finally, moving forward, those looking to purchase a property in New York City should be mindful of whether LL 97 is applicable to the property and if so, whether such property will be or can be in compliance by 2024. Accordingly, those looking to sell a building that would most likely not be in compliance with LL 97 by 2024 should expect a more difficult time selling their building at a premium.

**But wait – the rules have not been released yet.**

While LL 97 provides a strong framework for owners and developers to work with to start preparing for compliance in 2024, there still remains many aspects to implementation of the law that the City Council decided to leave up to the DOB to establish with a new set of rules. At this time it is unclear when the rules will be released. Once the draft rules are released for public comment, we will have an even better sense on what owners must do to prepare for compliance.
If you have any questions regarding how your properties will be affected, please contact the members of the D&S Climate Mobilization Task Force:

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