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While many building sector stakeholders recognize that they must pursue more substantial decarbonization strategies that go beyond easy-to-implement energy efficiency solutions, they may not know how or where to get started. The primary goal of this playbook is to provide a clear and replicable process for building owners and their project teams to follow to achieve double-digit reductions in energy use and carbon emissions at commercially acceptable returns.

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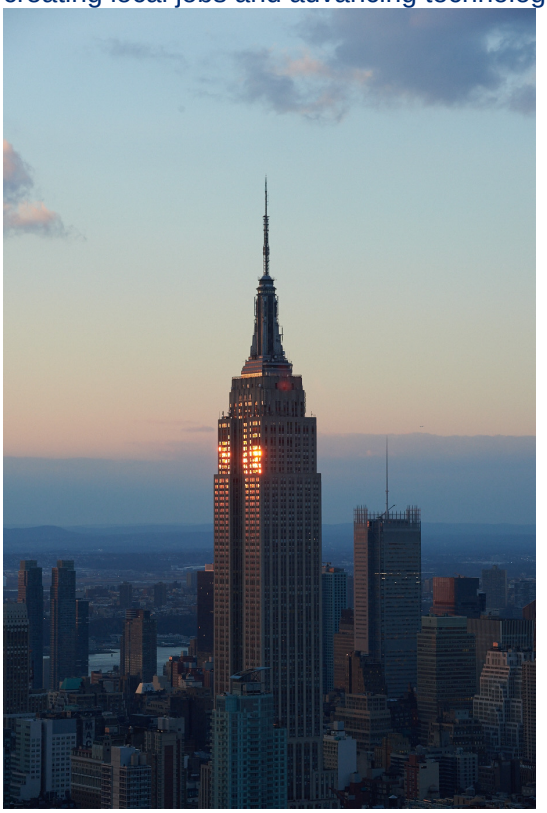
The results achieved with the first round of work at the Empire State Building were groundbreaking. However, more needs to be done to achieve the requirements of Local Law 97, the trailblazing carbon cap law that could lead to fines in excess of $4 billion on the existing building stock. When Mr. Malkin and Dana Robbins Schneider -- Empire State Realty Trust's (ESRT) Senior Vice President, Director of Energy, Sustainability, and ESG -- reached out to NYSERDA to propose a way forward, the idea for this Playbook was created.

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Why Do Building Owners Need a Building Decarbonization Plan?

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Christine Figueres, Head of UN Climate Change Secretariat, 2010-2016 Leader of 2015 Paris Accord Talks says:

"The 2020s are the decisive decade for the world to avert the worst impacts of climate change."

There are three primary reasons that building owners need to plan for long-term building decarbonization across their portfolios:

- Climate science indicates that what we do in the next 10 years will be critical. Global annual CO_2 emissions have more than doubled since 1970 [2] and global average temperatures have already increased by 1°C relative to pre-industrial levels. [3] Decisive action is needed now to avoid the worst outcomes of climate change.
- Climate-related policy mandates at both the city and state level are becoming increasingly stringent and frequent. Building owners should act quickly to prepare for current mandates and stay ahead of future requirements.

- The market is demanding better buildings. There is mounting focus from investors, corporate shareholders, and customers for buildings to account for their emissions and to become more sustainable and resilient over time.

Climate Science Tells Us We Need Decisive Action Now

As governments, businesses, and communities face the impacts of climate change, it has become increasingly clear that immediate action is imperative. The way we choose to address climate change in the next 10 years has the potential to set us on a new, more sustainable, equitable and resilient trajectory. We need to act now, while we can.

The coming decade will be a time for governments, businesses, and communities to work together to create resilient strategies to ensure that we build a future that sees people, our economy and our environment thrive. In addition, these initiatives will generate new pathways for us to follow as we meet the ongoing challenges of climate change.

Climate Policy Mandates Are Pushing the Building Sector Toward Net Zero Emissions

At both the city and state level, climate-related policy mandates are requiring the building sector to improve energy efficiency and eliminate onsite fossil fuel dependence. The New York Climate Lead ership and Community Protection Act and New York City Local Law 97-2019 are two examples of landmark policy mandates pushing the industry toward a net zero carbon future. Others across the United States are watching these efforts in preparation for their climate action plans and targets.

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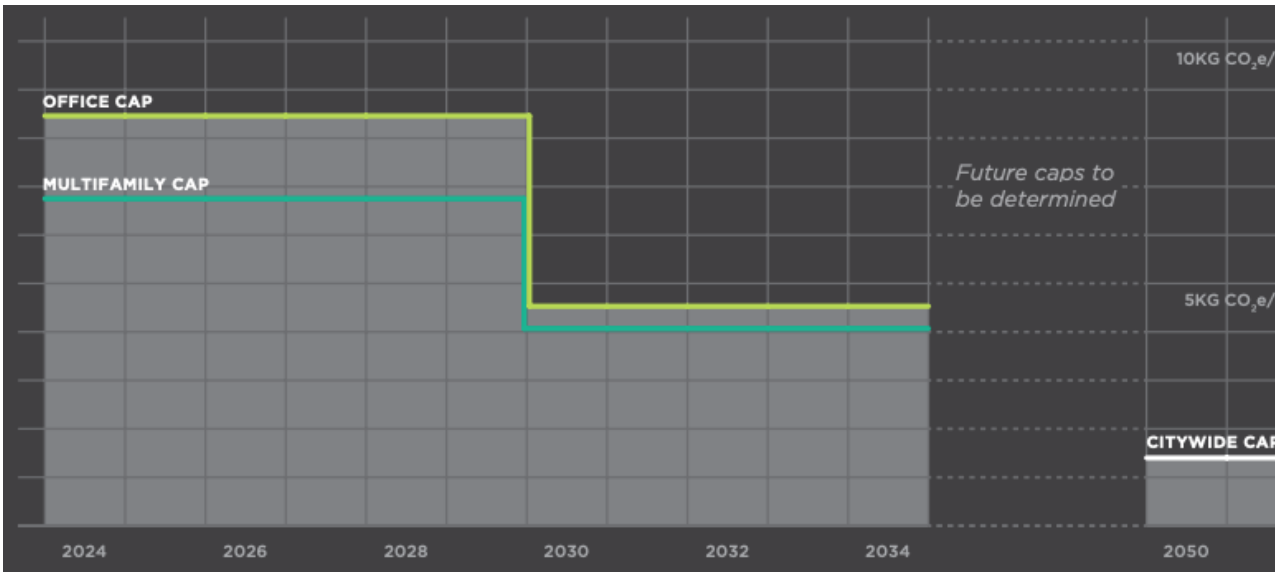
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Local Law 97 provides carbon emission limits for buildings over 25,000 square feet for four periods, 2024-2029, 2030-2034, 2035-2050, and on 2050 and beyond. The emission limits depend on a building’s use and square footage. It is estimated more than 57,000 buildings are subject to LL97. LL97 is the most ambitious and stringent climate legislation in the world to tackle emissions from existing buildings. The law intends to reduce building-based emissions 40% by 2030 from a 2005 baseline. Learn all about LL97.



The Market is Demanding Better Buildings

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Main Principles for Success

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ASPIRATION

- Set aspirational targets and encourage a “blue-sky” thinking approach; know your carbon neutrality date target even it if feels unrealis
- Ensure support from top management and key decision makers. Do you best to cross institutional silos and eliminate internal barriers communication and sharing
- Pursue new opportunities and innovative approaches and adopt methodologies which support continuous incremental progress

ONE TEAM

- Seamlessly integrate across all companies involved. Establish clear roles but allow cross-collaboration
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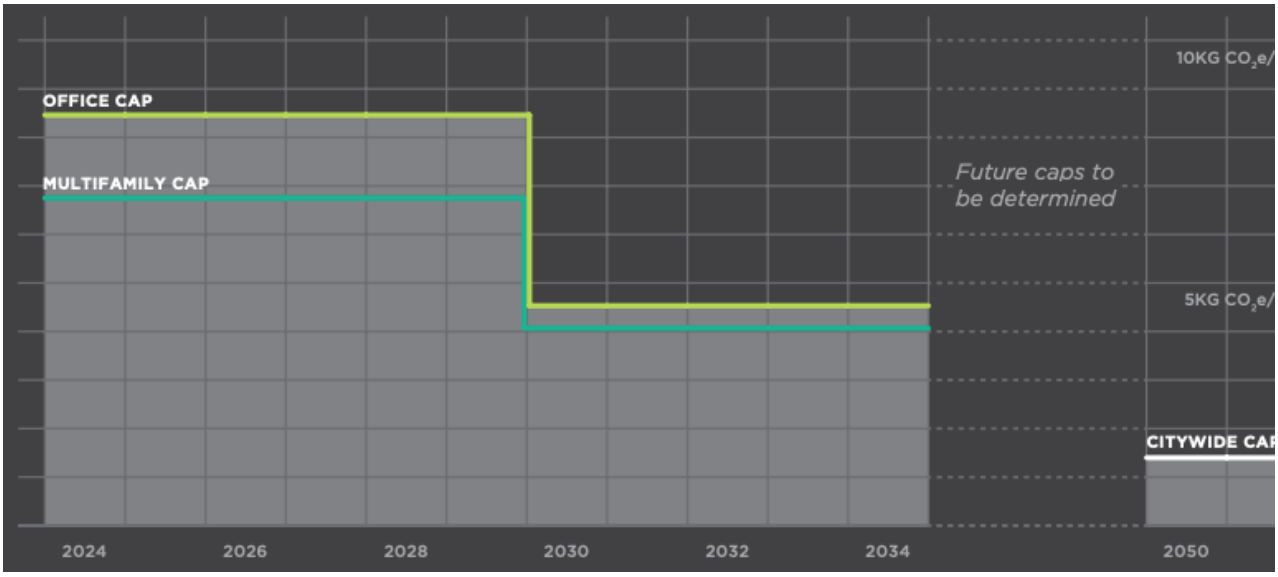
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