# The Empire Building Playbook



# Empire Building Playbook:
## An Owner's Guide to Low Carbon Retrofits

**Are you a building owner, asset or project manager, or real estate sustainability manager in charge of ESG goals for your company? Is your company taking proactive steps to make your building assets more climate friendly and resilient, and comply with local carbon reduction mandates?**

**If so, this Playbook is for you. It is a resource that will help you frame your building efficiency and decarbonization goals within the context of real life case studies, harness lessons learned from real estate owners who have already gone through the process, and capture the economic benefits of high performance buildings.**

**The easy-to-read modules of this Playbook will walk you through the process of generating a decarbonization roadmap for your building. If you need more in depth information, check out the case studies or dive into more technical content at your leisure. And if there is information you were looking for but didn't find, contact us!**

## Introduction

**This work began with The Empire State Building - a New York City icon - leading the way on building decarbonization, and an understanding of two key points:**

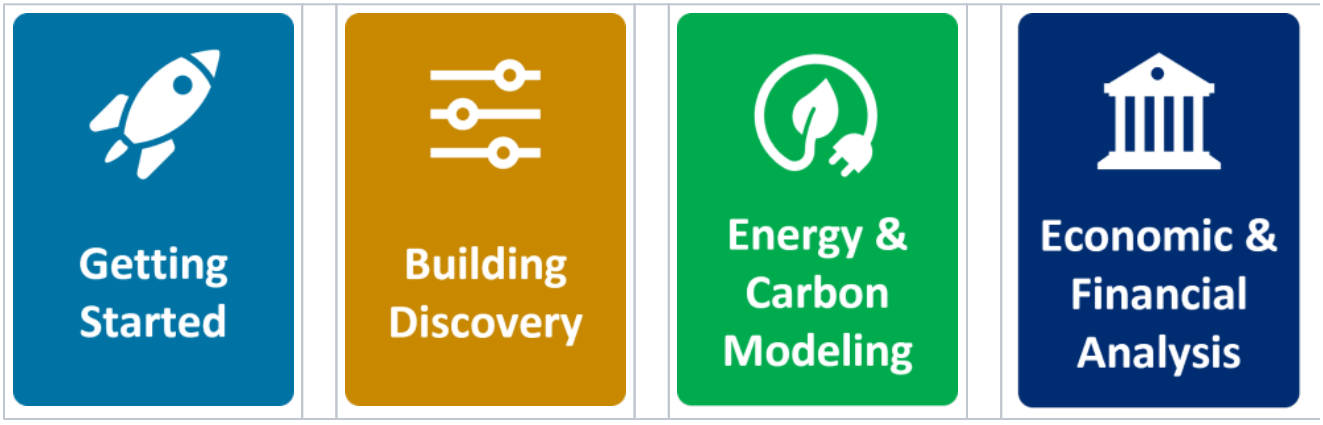
- Building-sector decarbonization is a massive challenge and a key opportunity in the quest to achieve economy-wide carbon neutrality.
- This effort requires support from multiple building sector stakeholders, significant mobilization of private sector investment, and leadership through demonstration.

**Learn more about the Playbook:** How and why it was created, the policy context, what climate science tells us, and what the market is demanding of the real estate sector.

## The Playbook

The Playbook illustrates how to develop a long-term, cost-effective building decarbonization plan. It is comprised of a set of replicable approaches defined by leading New York real estate companies, including Empire State Realty Trust, Vornado Realty Trust, the Durst Organization and Hudson Square Properties, who are proving that building decarbonization is technically and financially achievable. The Playbook is a living resource that will be periodically updated with new case studies.

**How To Use The Playbook:** This Playbook documents a process that building owners can follow to achieve significant reductions in energy use and carbon emissions at commercially acceptable returns. The process described is not meant to be prescriptive; it is based on insights and successes gained through real life case studies of large, complex buildings. To understand and analyze energy usage and decarbonization opportunities, each showcased real estate partner and their engineering consultants followed the process described in the flowchart below. Click on each module for details on key activities undertaken by project teams as they created and evaluated their decarbonization plans.




**Why a Playbook For Low Carbon Retrofits?**

- As one of the largest contributors of global annual GHG emissions, buildings must drastically reduce their carbon emissions as soon as possible.
- In the past, energy and carbon reduction efforts were largely focused on easy-to-implement energy efficiency measures. This won't be enough to achieve the deep decarbonization that is needed across the real estate sector.
- Many real estate stakeholders recognize that new strategies are needed but may not know how to develop a building decarbonization plan.

**Call to Action**

If your company is also working on decarbonizing tall commercial and residential buildings in New York, NYSERDA would like to hear from you and may include your case studies and learnings in this Playbook.

# Case Studies

Leading real estate owners and their engineering experts are uncovering exciting approaches to cold climate decarbonization that are being applied and tested in the New York market. With the potential to replicate these solutions across millions of square feet of real estate, the impact of these solutions can be truly transformative. Sharing lessons learned, solution sets, and key considerations with the broader market is also a part of the solution.

ESRT
Vornado
Hudson Square Properties
Durst

# Resources

# The Empire Building Challenge Knowledge Base

## A Made in New York Approach to Cold Climate Tall Building Decarbonization

# LL97 Carbon Emissions Calculator

# Tenant Engagement

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