Since 1972, Steven Winter Associates, Inc. has been providing research, consulting, and advisory services to improve the built environment for private and public sector clients.

Our services include:

- Energy Conservation and Management
- Sustainability Consulting
- Green Building Certification
- Accessibility Consulting

We have over 125 staff across four office locations: New York, NY | Washington, DC | Norwalk, CT | Boston, MA

For more information, visit www.swinter.com
Benchmarking Goals

The benchmarking program enables properties to:

- Understand and **quantify** their energy usage
- Confirm **high energy usage properties**
- Connect to resources and funding to for system upgrades
Measure: Start with the data

- Monthly utility bills → calculate greenhouse gas emissions

- Identify high energy usage and high greenhouse gas emitting properties → higher costs

- Savings potential!
Greenhouse Gas Emissions
New York to Approve One of the World’s Most Ambitious Climate Plans
Why greenhouse gases? Climate alarm.
Emissions are not equal

- Oil
- Gas
- Electricity
Why are we doing this?
Why?

• **Affordable**
  • Efficient equipment to save New Yorkers energy and money

• **Comfortable**
  • Improved building systems and operations with better controls

• **Healthy**
  • Improved indoor air quality; reduce or eliminate burning of fossil fuel on site
2022 Program Findings
Why we measure: monitor progress

• Most improved properties
  • 20040553-01424 Park Avenue Apartments
  • H043 Inwood Tower
  • 1495 535 West 23rd. Street (The Tate)
Why we measure:
give feedback

• Understand how your building is performing compared to peers
Energy Performance Report

For all properties that submitted data on time.
There are many energy metrics. The simplest place to start is the ENERGY STAR Score. ENERGY STAR Scores range from 1-100. Higher scores indicate better performance. Buildings with ENERGY STAR Scores of 75 or above are considered top performers.

The ENERGY STAR Score considers multiple factors such as climate, occupant density, and how the building is operated. It’s a way to compare the energy performance a building to others of a similar type.

Only buildings that submit whole building data -- including resident usage -- are eligible to receive an ENERGY STAR Score.
Energy Performance Report

Annual Greenhouse Gas Emissions intensities were included in the report.

Year over year GHG intensities are compared to the national median established by ENERGY STAR.

If building was flagged for low usage, the median GHG emissions for the building were included.
What should I do next?

Benchmarking should be used as a tool to help you understand how your building performs compared to an average building and your own building over time. It can also help you plan for future capital improvements to your building, which will likely require additional investigation into specific circumstances -- like age of equipment and eligibility for incentive programs -- to understand where to focus resources and planning efforts.

Confirm data quality

It is essential to ensure data submitted during annual benchmarking reporting is correct in order to accurately assess building performance and energy use.

The data you submitted for 2021 DID NOT PASS the data quality checks. Please work with your benchmarking provider to obtain accurate whole building data including residential units for filing year 2023.

Capital Planning

The most cost-effective approach to deep energy reductions is to coordinate upgrades with the end-of-life replacements of major building systems and natural capital investment triggers in a building’s life cycle, like refinancing.

Address Data Quality

If energy metrics are very low or very high, we recommend reaching out to service provider or utility to confirm data is accurate.
Navigating Incentive Programs

- Some low-cost or free programs are available specifically for affordable properties.
- State and utility programs are updated constantly – it’s important to check their websites regularly for new information.
- Properties can take advantage of NYSERDA FlexTech funding, which can cover up to 75% of costs for an energy study at your property.
HCR Benchmarking 2022
What is NYC Accelerator?

+ A New York City program to help control costs, meet compliance requirements for local laws, boost building performance, increase energy savings, and reduce carbon emissions across New York City buildings. NYC Accelerator:

• Provides free technical guidance to help the market transform how our buildings operate and are built
• Identifies building upgrade projects to help meet emissions limits established under the Climate Mobilization Act and other local building energy laws
• Offers no-cost building operator trainings and supports green workforce development
• Connects building decisionmakers directly with service providers to implement decarbonization projects
• Helps buildings identify applicable financial incentives and financing, such as NYC Accelerator PACE
How Can NYC Accelerator Help?

+ Identify applicable financial incentive programs and financing, such as NYC Accelerator PACE
+ Provide technical assistance for building upgrades
+ Deliver expert advice to determine requirements and help meet local energy laws
+ Connect buildings with service providers for energy and carbon reduction projects
+ Offer no-cost online trainings for building operators and stakeholders
How Does NYC Accelerator Work?

+ Who is eligible?
  - Any privately owned New York City building ≥5,000 square feet (new or existing)
  - Smaller buildings referred to partner organizations

+ How does it work?
  - Call us and get connected with a dedicated Account Manager
  - Receive objective advice customized to your needs

+ How much does it cost, and what’s the catch?
  - No catch, no cost, no sign-up or commitment
How Can NYC Accelerator Help You?

Typical Customer Experience

- Learn About Program
- Building Needs Assessment
- Decide on Energy Conservation Measures
- Implement Measures
- Stay in Touch
Your Property & Climate Mobilization Act
Climate Mobilization Act (CMA)

The CMA is the largest climate solution put forth by any city in the world. It consists of a slate of climate laws designed to dramatically cut carbon in New York City. Central to the CMA is Local Law 97 (LL97), a first-of-its-kind legislation placing emissions limits on New York City’s large buildings.

Image Source: Grist
Local Laws 33 and 95

Building Energy Grades

+ Local Law 33 (amended by Local Law 95) requires owners of buildings >25,000 square feet to publicly display the Building Energy Efficiency Rating

+ Label includes the 1-100 ENERGY STAR score and corresponding letter grade to give New Yorkers a snapshot of the building’s energy performance

+ Annual deadlines
  - May 1: Deadline to submit annual energy and water usage data to the City
  - October 1: Building grades are made available by New York City Department of Buildings (DOB)
  - October 31: Deadline to publicly display new building grade
Local Laws 92 and 94

Local Laws 92 and 94 require solar photovoltaic (PV) or green roofs on all new replacements of an entire existing roof deck or roof assembly.

Image Source: Green Roofs
LL97 and Affordable Housing
LL97 and Affordable Housing

**Local Law 97** requires most buildings ≥25,000 gross square feet to meet ambitious carbon reduction targets. There are two main sections of the law:

- **Article 320** outlines emissions limits for different occupancy types starting in 2024, with increasingly stringent carbon caps every 5 years until 2050. Some affordable housing is subject to delayed compliance requirements.

- **Article 321** establishes an alternate pathway for certain types of affordable housing, providing the choice of a prescriptive pathway or meeting 2030 emission limits to reach compliance by 2024.
LL97 PECMs (Article 321)

Prescriptive Pathway

+ **Heating and hot water system repairs and upgrades:**
  - 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
  - Installing radiant barriers behind all radiators
  - Insulating all pipes for heating and/or hot water
  - Installing indoor and outdoor heating system sensors and boiler controls

+ **Steam system repairs and upgrades (for buildings with steam):**
  - Insulating steam system condensate tank and water tank
  - Replacing or repairing all steam traps
  - Installing or upgrading steam system master venting

+ **Upgrading common area lighting**

+ **Weatherizing and air sealing walls, windows, doors, and ductwork**

+ **Installing timers or sensors on local exhaust fans**
LL97: Pathways for Compliance

2030 Pathway

+ Using LL84 benchmarking data, consider whether project already meets 2030 carbon limits or is close enough to meet that compliance path
+ If close, a standalone project such as solar or converting hot water heaters to electric heat pumps could get a building to the finish line
+ These buildings will still need to comply with LL134
# How Buildings Could Meet 2030 Limits

<table>
<thead>
<tr>
<th>RANGE OF BUILDINGS</th>
<th>SAMPLE SCOPES TO MEET 2030 LIMITS</th>
<th>GHG REDUCTIONS</th>
</tr>
</thead>
</table>
| Buildings already performing close to 2030 targets | • Invest in maintenance  
• Install low-flow fixtures  
• Air seal building  
• Heating system upgrades  
• Lighting improvements | 22%-29% |
| Buildings that are significantly underperforming | All the above, PLUS:  
• Roof insulation and air-sealing  
• Replace heating system with more efficient system  
• Heating system controls and sensors  
• Separate DHW from heating system | 29%-48% |
| The worst-performing buildings (lowest 20th percentile) | All the above, PLUS:  
• Install heat pump hot water heaters  
• Upgrade old windows | 44%-63% |
Available Resources and Programs

+ Utilities
  • Con Edison
    • Multifamily Energy Efficiency Program
  • National Grid
    • Multifamily Program

+ State
  • New York State Energy Research Development Authority (NYSERDA)
    • Affordable Multifamily Energy Efficiency Program
    • Flexible Technical Assistance (FlexTech) Program
    • Low Carbon Clean Carbon Planning and Retrofit Program
Contact
Our Team of Experts
We need you!
Role of building owner/manager

- Verify compliance
  - **Get ready for next year: May 1, 2023**
- Review benchmarking memo
  - Are any of your properties noted as high energy users?
  - **Connect with Accelerator**
- Capital planning
  - Are any properties planning for refinancing or capital work?
  - Review new [HCR sustainability guidelines for existing buildings](#)
  - Ensure energy/GHG reduction measures are part of the plan
  - **Connect with Accelerator**
There is a lot going on in the NYC energy world
Prepare for NYC Local Laws

• **Local Law 84/133** = benchmarking
  • The HCR program is modeled after this law; the requirements are the same
  • Make sure your properties are submitting reports by May 1 each year to both HCR and the City of New York

• **Local Law 87** = energy audit and retro-commissioning
  • This can be used as an opportunity to create a targeted capital plan for energy efficiency projects.

• **Local Law 33** = posting of energy letter grades
  • More info in next slide; applies to all buildings required to benchmark

• **Local Law 97** = part of the Climate Mobilization Act and institutes a cap on carbon emissions from buildings
  • There are alternative timelines and alternative pathways for affordable housing, Mitchel-Lama’s etc
Local Law 33: Energy Letter Grades

- NYC buildings that already benchmark are required to post a letter grade based on the ENERGY STAR Score. Like restaurant health grades, the energy letter grades must be posted in a publicly visible location near the entrance.

Source: https://www1.nyc.gov/assets/buildings/pdf/ll33_compliance_steps.pdf
What steps can you take to help lower your building’s GHG emissions?