



# NYBSC

## NY Building Systems Consultant Inc

Engineering for Sustainable Systems



- **MEP Design**
- **Local Law 97, 87**
- **Energy Audits**
- **Commissioning**



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[www.nybscinc.com](http://www.nybscinc.com)



## About Us

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**NY Building Systems Consultant Inc. (NYBSC)** is a comprehensive engineering and energy consulting firm offering full services for buildings and their systems. This includes Mechanical, Electrical, Plumbing, and Fire Protection (MEP/FP) design; Energy Audits; Local Law 97, 87, & 84; Special Inspections, and Commissioning.

**NYBSC** came into business in 2015. We see a clean future of reduced energy usage, minimal CO2 production, effective auditing reports, and a progressive path for NYC in its contribution to Clean Energy. There is a plethora of benefits for New Yorkers in this exciting transitional period into green and clean energy. We are excited to be a part of the movement of real change. We help building to comply with NYC ambitious energy Laws, such as, **Local Law 97 (LL97)**, **Local Law 87 (LL87)**, & **LL84 (Benchmarking)**. We perform the **Energy Audits** to understand where building owners can reduce their energy consumption and **reduce CO2 emissions**. We follow this through with **Building Systems Design (MEP/FP Design, HVAC Design)** that is sure to reduce energy consumption and CO2 emissions, we implement these designs and perform **Commissioning Services** to ensure that everything has been properly implemented.

Working collaboratively with our clients, we have successfully developed and delivered a variety of innovative building engineering services, providing solutions to reduce energy consumption and carbon footprint, as well as financing solutions. Our one-on-one approach with our clients throughout the project allows for transparency and adherence to our quality standards. Client satisfaction is our priority. We are confident that any project when undertaken by **NYBSC** will be carried out with the utmost attention to detail, providing you with a service that is second to none.

**NYBSC** Energy and Engineering team is comprised of individuals with complete industry certifications including Professional Engineers (PE), Existing Building Commissioning Professional (EBCP), Building Commissioning Professional (BCxP), Certified Energy Manager (CEM), and Certified Energy Auditor (CEA). **NYBSC** is a NYS, NYC and **NY NJ Port Authority MBE** and **DBE** certified firm. We are a **New York State Energy Research and Development Authority (NYSERDA) FlexTech Consultant**; **Multifamily Building Solutions Network Partner**; **ConEd** approved consultant for Commercial and Industrial (C&I) program, Multifamily program, and Small & Medium Business (SMB) program. **NYBSC** is an affiliate service provider for **NYC Accelerator**.

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## Our Proud Clients



New York City  
Transit



U.S. Department  
of Veterans Affairs



FirstService  
RESIDENTIAL



TOYOTA



CORNERSTONE  
MANAGEMENT  
SYSTEMS



THE HAKIMIA  
ORGANIZATION

The DOMINICK



JTS

NYC  
HEALTH+  
HOSPITALS



HRF SERVICES CORP.



JLL

ORSID  
— NEW YORK —



NYSERDA



TOTAL REALTY  
ASSOCIATES, INC

ACUMEN  
CAPITAL PARTNERS LLC



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## Our Services

**NY Building Systems Consultant Inc (NYBSC)** Engineers are multi-disciplined experts that offer extensive insight into engineering, energy, and environmental services.

### *MEP/FP Engineering Design Services*

- ✓ HVAC Design
- ✓ Plumbing Design
- ✓ Electrical Design
- ✓ VRF/Heat Pump design
- ✓ Sprinkler Design

### *NYC Energy Law Compliance Services*

- ✓ NYC Local Law 97
- ✓ NYC Local Law 87
- ✓ NYC Local Law 84
- ✓ Greenhouse Gas Emission Reduction

### *Energy and Environmental Services*

- ✓ Energy Audits
- ✓ Commissioning
- ✓ LEED Certification

### *Other Services*

- ✓ NYC Special Inspection
  - ✓ Expediting
- ✓ Project Management Services
- ✓ Rebate / Incentives Processing





## Our Expertise

### NY Building Systems Consultant

Engineers' expertise reaches all key markets. We have a sound understanding of the opportunities and constraints of the current marketplace. This enables our team of inventive engineers to focus on innovative designs, utilizing their extensive knowledge within your sector to devise the best possible solutions for your project in a cost-effective way. We specialize in the following sectors:

- Commercial
- Retail
- Health Care
- Educational
- Residential, Multifamily and Private Development
- Religious Facility
- Industrial



**NYBSC** has worked on buildings totaling over **30 Million Gross Square Feet** with green and energy design studies. In 2023 & 2024, we identified over **\$10,507,120** in annual savings and **85,600 metric Tons CO2 reductions** which is equivalent to **19,967 passenger vehicles.**

• **MEP Design**

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## NYC Local Energy Laws

| Local Law  | Applicable Buildings   | Key Requirement   | Penalties  |
|--|--|---|--|
| <b>LL97</b><br>[Greenhouse Gas Emission (GHGe) Limits] | Buildings > 25,000 SF, Multiple buildings, either on the same tax lot or governed by the same board of managers which are in aggregate > 50,000 SF | <ul style="list-style-type: none"> <li>• <b>Annual LL97 Reporting deadline: May 1<sup>st</sup></b></li> <li>• Meet GHGe Limits starting in <b>CY2024-2029</b>, More strict reduction in <b>2025-2030</b> and again in <b>2030-2050</b></li> </ul> | <p>-&gt; Non-filing penalty: \$0.50/SF/month</p> <p>-&gt; Significant fines for exceeding carbon caps (\$268 per metric ton of CO2 over the limit)</p> |
| <b>LL87</b><br>[Energy Audit and Retro-Commissioning]  | Buildings > 50,000 sq ft or two or more buildings on a tax lot > 100,000 sq. ft.   | <ul style="list-style-type: none"> <li>• Conduct an ASHRAE Level II Energy Audit and Retro-commissioning every 10 years (based on Tax Block) and submit an Energy Efficiency Report (EER)</li> <li>• Submission Deadline: December 31</li> </ul>  | \$3,000 fine for the first year of non-compliance, \$5,000 for each subsequent year.   |
| <b>LL84/LL133</b><br>[Benchmarking]                    | Buildings ≥ 25,000 sq. ft.   | Annual energy & water usage reporting via <b>ESPM</b> to <b>DOB</b> by <b>May 1</b> .   | Fines of \$500 per quarter for late filing (max \$2,000 annually).   |
| <b>LL33/LL95</b><br>[ Energy Efficiency Grade]         | Buildings ≥ 25,000 sq. ft.   | Annually obtain and display a Building Energy Efficiency Rating Label (A-F) near each public entrance by October 31st. Grades are based on LL84 benchmarking scores   | \$1,250 fine for failure to post the grade by October 31st   |

**NYBSC** is a **NYSERDA FlexTech Consultant\***, meaning that we are under contract with New York State to offer clean energy services such as Energy Auditing, Energy Modeling, Feasibility Studies, Carbon Mitigation Strategies, Retro-Commissioning & Continuous Commissioning services, NYC Local Laws 97 & 87, and NYC special inspections.

**\*Contact us to learn more about NYSERDA funding.**

• **MEP Design**

• **Local Law 97, 87**

• **Energy Audits**

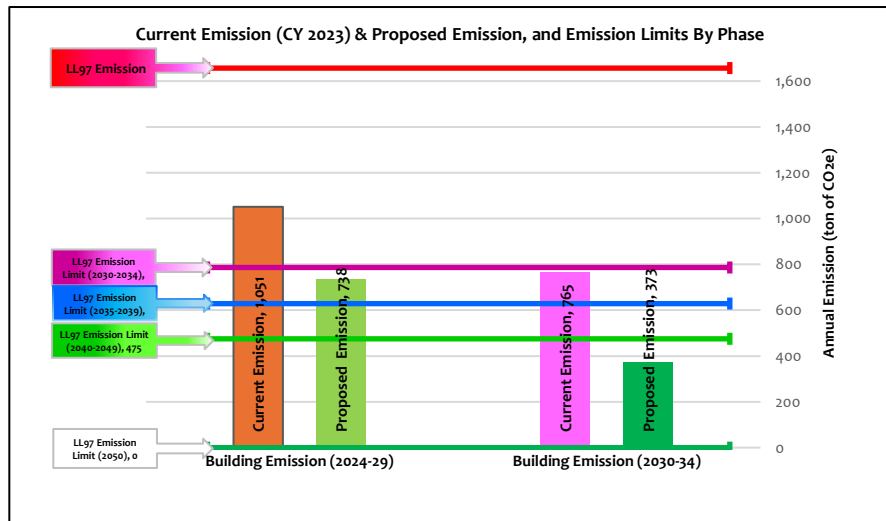
• **Commissioning**



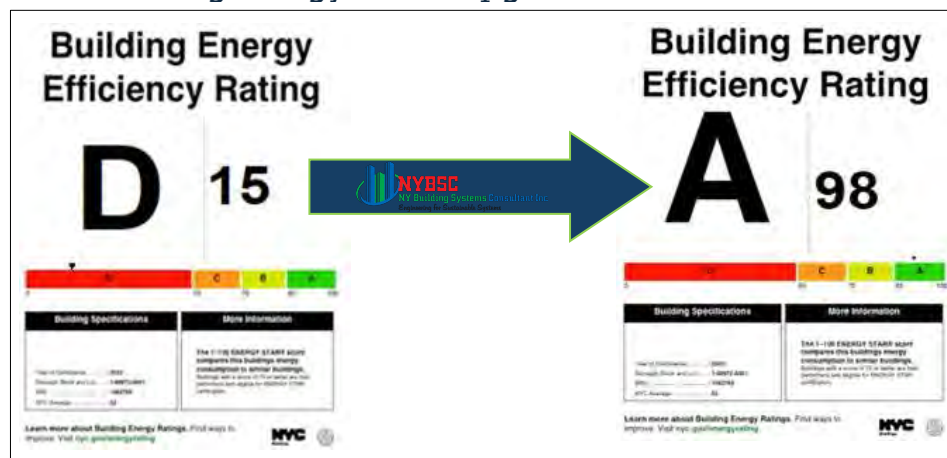
## NYC Local Energy Laws

| Local Law 97 (GHGe) Summary          |                                     |        |  |                                  |
|--------------------------------------|-------------------------------------|--------|--|----------------------------------|
| LL97 Evaluation: Carbon Emission Law |                                     |        |  |                                  |
| Building Address: _____              |                                     |        |  |                                  |
| Greenhouse Gas Emissions             |                                     |        | 3,113.3 tCO <sub>2</sub>                         |                                  |
| Total Potential Penalties by 2035    |                                     |        | \$1,599,494                                      |                                  |
| Emission Reduction Phase             | Emission Limit (tCO <sub>2</sub> e) | Result | Emission Reduction Required (tCO <sub>2</sub> e) | % of Emission Reduction Required |
| 2024-2029                            | 3,916.8                             | Pass   | -  | -                                |
| 2030-2034                            | 2,067.0                             | Fail   | 1,046.2  | 33.6%                            |
| 2050                                 | 0.0                                 | Fail   | 3,113.3  | 100%                             |

| Summary of Energy Conservation Measures (ECMs)                                  |                                |                            |                              |                         |                      |
|---|--------------------------------|----------------------------|------------------------------|-------------------------|----------------------|
| Energy Conservation Measures  | kWh Annual Electricity Savings | Therms Annual Fuel Savings | \$ Total Annual Cost Savings | \$ Implementation Costs | Years Payback Period |
| Replace the Old AC Unit and Radiator with the Package Terminal Heat Pump (PTHP) | 8,054                          | 31,659                     | \$145,347                    | \$723,200               | 4.98                 |
| Building Management Systems (BMS) Installation with AI System                   | 94,076                         | -                          | \$21,697                     | \$223,650               | 10.31                |
| Installation of Low Flow Shower Head  | 0                              | 1,028                      | \$6,530                      | \$43,400                | 6.65                 |
| Low Flow Faucet Aerator Installation  | 0                              | 1,461                      | \$8,364                      | \$70,560                | 8.44                 |
| Lighting Upgrades   | 5,787                          | 0                          | \$1,709                      | \$2,652                 | 1.55                 |
| <b>Totals</b>   | <b>107,917</b>                 | <b>34,148</b>              | <b>\$183,647</b>             | <b>\$1,063,462</b>      | <b>5.79</b>          |



## Building Energy Grade Upgrades Local Law 33/95



• **MEP Design**

• **Local Law 97, 87**

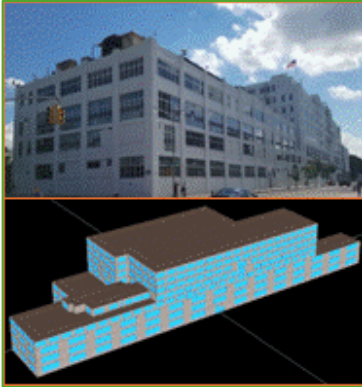
• **Energy Audits**

• **Commissioning**





## Local Law 97 - Greenhouse Gas Emissions (GHGe) Projects (Sample)



### 630 Flushing Ave, Brooklyn, NY

LL97, LL87, RCx, Energy Audits  
 75% NYSEDA Funding  
 Annual Savings: \$965,453  
 GHG Reduction: 2,698 tCO<sub>2</sub>e/Year  
 Project Area: 599,291 Square Feet



### 3080 Broadway, New York, NY

75% NYSEDA Funding for LL97  
 Study, LL88, GFA  
 Annual Savings: \$191,455.41  
 GHG Reduction: 291.76  
 tCO<sub>2</sub>e/Year  
 Project Area: 248,926 Square Feet



### 450 E 83<sup>rd</sup> Street, New York, NY

50% NYSEDA Funding for LL97  
 Study, Electrical Study, LL88  
 Annual Savings: \$143,537  
 GHG Reductions: 393 tCO<sub>2</sub>e/Year  
 Project Area: 248,057 Square Feet



### 508-516 & 518-534 West 26<sup>th</sup> Street, New York, NY

NYSEDA Funding for LL97 Study  
 Annual Savings: \$428,944  
 GHG Reductions: 770.8 Tons of  
 Co<sub>2</sub>  
 Project Area: 146,416 Square Feet



### 45 Park Avenue, New York, NY

100% NYSEDA Funding for LL97  
 & LL87 Study  
 Annual Savings: \$126,568  
 GHG Reduction: 143.30 tCO<sub>2</sub>/Year  
 Project Area: 118,614 Square Feet



### The Silk Building Condo, New York, NY

100% NYSEDA Funding for LL97  
 & LL87 Study  
 Annual Savings: \$40,404  
 Project Area: 156,849 Square Feet



### The Carlton Regency, New York, NY

100% NYSEDA Funding for LL87,  
 LL97, Master Plan, MEP Design,  
 LL88, GFA  
 Annual Savings: \$199,564  
 GHG Reduction: 500 Ton CO<sub>2</sub>  
 Project Area: 242,383 Square Feet



### Park Towers, 201 E 17<sup>th</sup> St, NY

50% NYSEDA Funding for LL97 Study  
 Annual Savings: \$127,329  
 GHG Reduction: 467.38 Ton CO<sub>2</sub>  
 Project Area: 250,220 Square Feet

• **MEP Design**

• **Local Law 97, 87**

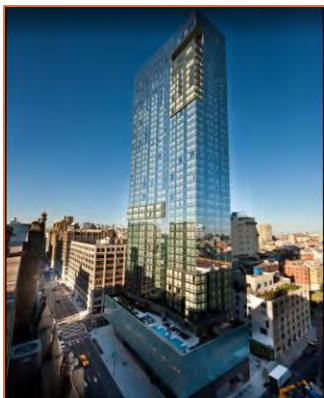
• **Energy Audits**

• **Commissioning**



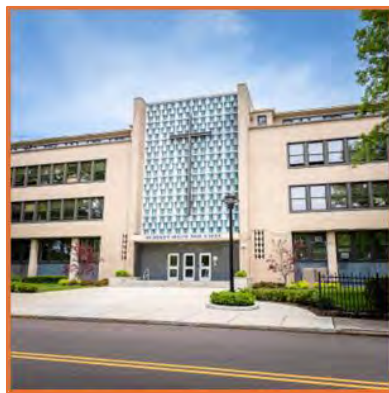


## Local Law 87 - Energy Audit & Retro-Commissioning Projects (Sample)



**The Dominick Hotel**

LL87, Energy Audit, Retro-commissioning, NYSERDA Funding  
 Annual Savings: \$451,185  
 Project Area: 386,078 Square Feet



**Archbishop Molloy HS - 83-53 Manton Street, Briarwood, NY**

LL87, Energy Audits, LL97 Study, LL88 with NYSERDA Funding  
 Annual Savings: \$197,975.24  
 Project Area: 179,024 Square Feet



**305 East 51<sup>st</sup> Street, New York**

LL97, LL87 & Energy Audit, GFA, NYSERDA Funding  
 Annual Savings: \$79,258  
 Project Area: 274,924 Square Feet



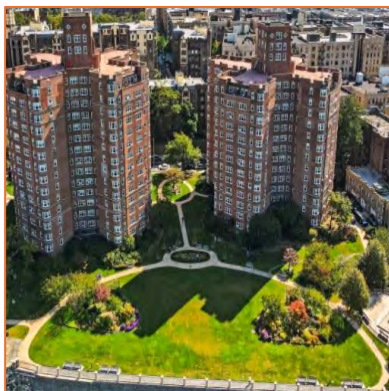
**The Beaumont, New York, NY**

LL87, Energy Audit, RCx  
 Annual Savings: \$114,485  
 Project Area: 199,635 Square Feet



**100 United Nations Plaza, New York, NY**

Energy Audit & LL87  
 Annual Savings: \$316,165  
 Project Area: 357,793 Square Feet



**Castle Village, New York, NY**

Energy Audit & LL87 (5 Bldgs)  
 Total Annual Savings: \$342,289  
 Project Area: 890,134 Square Feet



**15 Broad Street, New York, NY**

Annual Savings: \$519,058  
 Project Area: 810,798 Square Feet



**Plaza West Associates, New York, NY**

NYSERDA Funding for LL97 & LL87 Study  
 Annual Savings: \$280,550  
 GHG Reduction: 458.2 Tons of CO2  
 Project Area: 539,130 Square Feet

• **MEP Design**

• **Local Law 97, 87**

• **Energy Audits**

• **Commissioning**

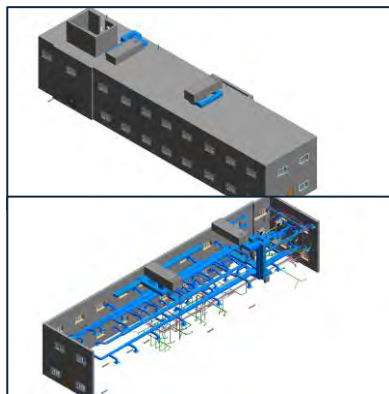


## HVAC, Electrical, Plumbing, Sprinkler and Cogeneration Design Projects (Sample)



**NYPD SRG4 Heating Upgrade**

Scope:  
 Engineering Design for high efficiency condensing boilers and hot water heaters, HV units and controls.



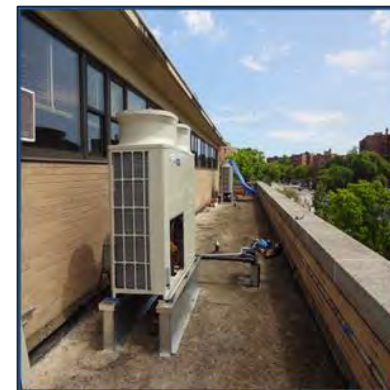
**NYC DEP MEP Design, EV Charging Station Design**

Scope:  
 MEP Design, Electrical Engineering Design for EV chargers and future building upgrades.



**Pfizer Building, Brooklyn, NY**

Scope:  
 HVAC Design, VRFs Design, Sprinkler Design with Hydraulic Calculation, AHU Design, Violation Removal, Special Inspection



**Archbishop Molloy High School, Queens, NY**

Scope:  
 VRFs Design, Boilers Design, 10 Years Energy Master Plan



**Gansevoort Meatpacking, New York, NY**

Scope:  
 Chiller Design for LL97, Expediting, Inspection, Commissioning



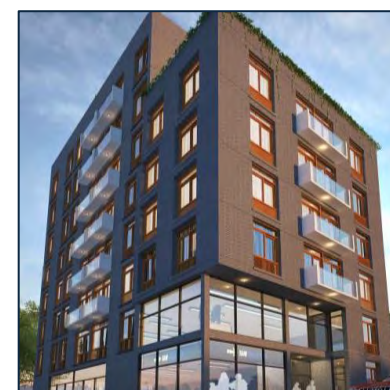
**7 West 96th Street, New York, NY**

Scope:  
 Design and installation of High Efficiency Boilers



**The Carlton Regency, New York, NY**

Scope:  
 Ventilation System Design, HVAC Master Plan



**172-10 Jamaica Avenue, Queens, NY**

Scope:  
 Mechanical, Electrical & Plumbing (MEP) and Sprinkler Design

• **MEP Design**

• **Local Law 97, 87**

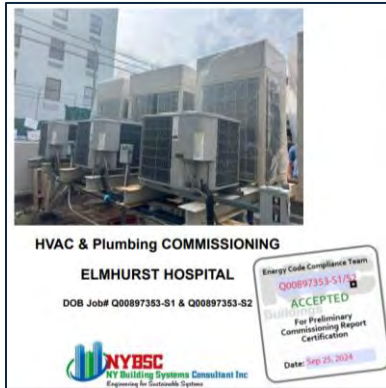
• **Energy Audits**

• **Commissioning**





## New Commissioning, Special Inspection, Expediting and Incentives (Sample)



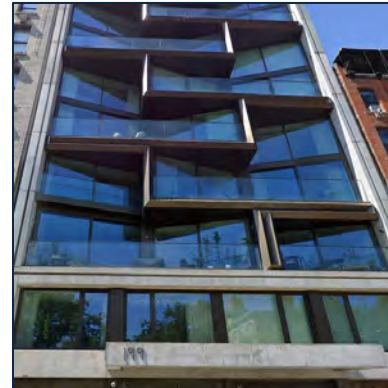
**NYC Health + Hospitals  
 Elmhurst Hospital Office  
 Building**

**Scope:**  
 NYC Energy Code Commissioning  
 for VRFs, RTUs, AHU, electric  
 heater, EFs, domestic hot water  
 heaters, Lighting controls, & BMS.



**JFK (RUGTC) – JFK  
 International Airport Roadways,  
 Utilities, and Ground  
 Transportation Center**

**Scope:** MEP Commissioning



**199-201 Chrystie Street, New York**

**Scope:**  
 NYC Energy Code Commissioning  
 for VRFs, RTUs, EFs, domestic hot  
 water heaters, & Lighting controls.



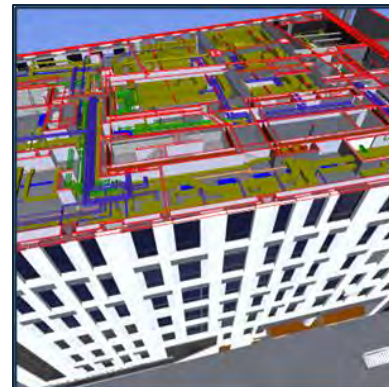
**James J. Peters VA Medical  
 Center, Bronx, NY**

**Scope:**  
 AHUs, BMS, HVs Commissioning



**Archbishop Molloy High School,  
 Queens, NY**

**Scope:**  
 Special Inspection and Expediting



**PS 464M Trinity Place School  
 New York, NY**

**Scope:**  
 3D MEP services using REVIT,  
 AutoCAD 3D, Navisworks



**244 E 198th St, Bronx, NY 10458**

**Scope:**  
 NYC Energy Code Commissioning  
 for HVAC, domestic hot water, heat  
 pump.



**Manhattan VA Medical Center,  
 New York, NY**

**Scope:**  
 Commissioning, AHU, CAV, EFs

• **MEP Design**

• **Local Law 97, 87**

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• **Commissioning**

### Accreditations:

"I have found that NYBSC team to be knowledgeable in the energy and engineering field as well as very customer service focused, and they have been willing to go the extra mile for us. I would recommend them for any energy analysis and MEP design."

**Jeff Rosenblum, Partner,**  
*Acumen Capital Partner LLC*

"NYBSC designed our new efficient boilers and domestic hot water heaters which will save energy during the part load hours. We found them to be very knowledgeable in practical solutions and economic feasibility. We also hired them for project management."

**Richard Johnson, Treasurer,**  
*7 West 96<sup>th</sup> Street Condominium*

"I highly recommend the NYBSC team for engineering & energy for your buildings. NYBSC has provided our building with in-depth engineering knowledge and workable solutions for reviving our HVAC system and building's energy systems."

**Sharon Langlais, Account Executive,**  
*Douglas Elliman Property Management*



"We see a clean future of reduced energy usage, minimal CO2 production, effective auditing reports, and a progressive path for NYC in its contribution to Clean Energy. There is a plethora of benefits for New Yorkers in this exciting transitional period into green and clean energy. If you are ready to join the revolution, call us and we will get your building up to code as we propel into the new wave of sustainable energy".

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