The Green Supers Program

Leading a new era of energy-efficient building management
32BJ SEIU and the Green Supers Program

The 32BJ Training Fund: creating an energy-efficient culture

Since 2005, this joint labor-management training fund has been greening New York City’s buildings by training property service professionals who are members of 32BJ SEIU. Every year the Training Fund provides industry, academic, and computer courses to thousands of 32BJ SEIU members, with programs covering subjects ranging from boiler certification to Occupational Safety and Health training. The Training Fund is the entity that directly oversees the Green Supers Program.

The Green Supers Program: fostering a greener New York City through rigorous worker training

In New York City, 70% of greenhouse gas emissions results from building energy usage. While the focus in combating the growth of building energy consumptions has historically been high-efficiency building system improvements, these interventions are only half of the story. Research shows that building operations and maintenance are critical means by which we can impact building energy consumption. A U.S. EPA-funded study states that enhancing the operational efficiency of lighting and HVAC systems can save between 5% and 20% on building energy costs. To capitalize on this opportunity, the 32BJ Training Fund created the Green Supers Program.

32BJ Training is uniquely positioned in the industry to access both property service workers and the management companies that employ them. When 32BJ Training committed to launching an innovative, holistic training program, it set a goal of training property service workers to give them a comprehensive approach to energy management in buildings. The immersive 40-hour course, which prioritizes hands-on training, surpassed its goal in the first year of operation. Rather than stopping at 1,000 members, 32BJ Training has continued to provide property service workers with the training needed to lead a new generation of “green supers.” To date 1,800 property service workers have completed the course and 1,600 have received certification.

“…Enhancing the operational efficiency of lighting and HVAC systems can save between 5% and 20% on building energy costs...”

Leveraging partnerships to build an effective program

The Green Supers Program has thrived in part because of its unique approach to teaching efficient building management, but also because of the support the program has received from partner organizations and programs.

32BJ SEIU: 32BJ is affiliated with the Service Employees International Union (SEIU) and is the largest property service workers union in the country, with more than 120,000 members in eight states and Washington, DC. 70,000 of its members are located in New York City and Long Island. Union members include residential building service workers, security officers, doorpersons, window cleaners, and maintenance workers. 32BJ SEIU is dedicated to helping its property service workers elevate their socioeconomic standing by winning better compensation, job security, and education and resources.

The Realty Advisory Board: The Realty Advisory Board on Labor Relations, Inc. (RAB) is a multi-employer association serving the real estate industry in the Tri-State area that negotiates collective bargaining agreements on behalf of owners and operators of real property. Working with 32BJ SEIU, the RAB has helped to strengthen the Green Supers by promoting the opportunity to send employees to the program to large building owners and managers in the New York City area.

The American Recovery and Reinvestment Act (ARRA): ARRA, commonly known as the Stimulus or Recovery Act, was passed in 2009 to provide economic and financial support to critical American organizations and institutions. 32BJ Training was the recipient of a grant under ARRA, which has been a catalyst for tremendous organizational growth. The funding provided by ARRA has allowed 32BJ Training to provide an expanded range of programs and services to property service workers in the New York City area.
Assessing the impacts of the Green Supers Program

32BJ Training Fund retained Steven Winter Associates (SWA) to complete an assessment of the impacts of the Green Supers Program. SWA conducted an exhaustive study, including:

- Interviews with 38 program graduates
- Analysis of 902 surveys conducted by 32BJ Training
- Visits to 18 buildings operated by program graduates
- Building energy consumption analysis for 43 buildings
- 4 whole-building case studies of energy efficiency improvements implemented by program graduates
- 5 isolated energy conservation measure case studies showcasing implemented sustainability strategies

SWA coordinated with 32BJ Training staff throughout the assessment to capture the diversity of ways in which the Green Supers program has impacted property service workers and the buildings in which they work. SWA's measurement and verification evaluation showed parallel conclusions to the EPA study: **5% to 20% energy savings are achievable by improving operational efficiency.**

Over the course of the assessment, SWA worked with 32BJ Training staff to identify 38 program graduates to participate in phone or in-person interviews to discuss their perception of the program. These property service workers were selected based on 32BJ Training's recommendations for program participants that were most engaged and showed the most sophisticated understanding of the concepts related through the program.
A transformational impact on the property service industry

The Green Supers program is the first training program to teach 32BJ SEIU members a truly comprehensive approach to sustainable and energy efficient building operation. Participants in the program combine in-the-classroom sessions with hands-on field exercises.

The Green Supers program is the first program to offer 32BJ SEIU members the opportunity to learn a truly comprehensive approach to sustainable and energy efficient building operation. Participants in the program combine in-the-classroom sessions with hands-on field exercises. The 40-hour course’s ten modules include:

- Building science and envelope
- Lighting
- Heating, ventilation, & AC
- Indoor environmental quality
- Water conservation
- Energy benchmarking

Case Study
The Green Supers “trickle down” effect

Sean Wade, The Future, 200 E 32nd St., New York, NY

Sean Wade, resident manager for the 35-story condo building, The Future, completed the Green Supers program in 2010. In addition to training his building staff to install high-efficiency heat pumps, Wade also organized a seminar for building tenants on how to operate the new heat pumps. Wade’s new expertise allowed him to further reduce energy consumption by training his tenants to operate their equipment more efficiently.

Of 38 graduates interviewed...

75%

had positive feedback on the program. Property service workers that completed the program highlighted a range of benefits, from an improved understanding of building systems to increased confidence in advocating green investments to key decision makers.

30%

have persuaded other building staff to enroll in the program. The success of the program is evident in the rate at which graduates are referring their peers to the program, and the rate at which these peers are actually enrolling to complete the training. This effect will be exponential as the program continues to grow.

The program organized 180 classes, providing 7,200 hours worth of training including certification. Overall, 2,061 union members enrolled in the program and 87% of these members completed the training. Of the members who completed the training, 87% attained BPI certification and/or the Urban Green Council Green Professional (GPRO) certificate.
Empowering property service professionals to create change

Program graduates stated that they benefited not only from an expanded skill set, but also from increased capacity to communicate energy efficiency issues to building decision makers, leading to the successful implementation of a range of efficiency measures.

Of 38 graduates interviewed…

- **95%** installed energy efficiency upgrades within a year of graduating the program. While the majority of measures were related to lighting, program graduates also pursued measures that are typically more capital-intensive such as HVAC and building envelope improvements. These latter installations are indicative of both increased ability to communicate with capital decision makers and the potential for more energy efficient capital investment in the future.

- **80%** made green operations & maintenance (O&M) changes within a year of graduation. O&M changes, such as changing lighting operation schemes or adjusting HVAC controls, result in saving money and energy immediately.
Training that leads to measurable outcomes in buildings

Of 38 graduates interviewed...

25% switched to using green cleaning methods and products. The holistic approach to green building management looks beyond installation of energy-saving measures that require a large capital investment, encouraging property service workers to implement changes that they can do quickly and at little cost.

40% reported that tenants are now more willing to embrace greener building operations practices. The skills that program graduates learned have allowed them to not only tailor their practices to be greener, but to encourage additional changes through influencing tenant behavior.

“Training helped me understand there is a legacy. I’m now teaching my other brothers and sisters what I learned.”
- Victor Nazario, Resident Manager

Case Study
Applying the lessons of the Green Supers Program

In the 2 years since completing the Green Supers program, resident manager Charles Hynes has implemented a range of energy conservation measures and sustainable O&M practices at The Bromley, a 23-story condo building.

Upon completing his training, Hynes first completed a lighting audit of the building. Following the audit’s recommendations, he upgraded lighting through the building and installed LEDs in common areas. Further, Hynes and his team implemented a comprehensive building envelope retrofit to reduce HVAC costs.

To fulfill a more energy efficient building operations regimen, Hynes adopted a smart phone-based technology that allows him and his team to maintain a shared log book that they can access online and update in real time.

These and other improvements cost $110,000 to implement and will save The Bromley approximately $40,000 each year, translating to a simple payback period of less than three years.
Equipping property service professionals to be industry leaders

The Green Supers program will benefit graduates and the buildings they serve for years to come.

Case Study
Empowering property service workers to make real change

John Sarich, superintendent of the 47-story William Beaver House, was inspired by what he learned during his training at the Green Supers program to test an aggressive lighting retrofit in his building’s parking facility. When the savings from the retrofit paid back the cost in one month, Sarich knew that this was an opportunity to achieve major cost and energy savings for his whole building.

Sarich went on to do lighting retrofits in the building’s stairwells and in other common spaces, such as the gym and the recycling room. He also adjusted indoor temperature setpoints in the whole building.

The lighting measures cost $8,500 to implement and are saving the building approximately $22,000 a year, translating to a simple payback period of less than six months.

“The entire experience convinced me of how important going green is – it opened my eyes.”
- George Dushaj, Resident Manager

The success of the Green Supers program has been predicated on the belief that the shortest and most effective path to creating real change in building management practices is to focus on training incumbent workers. These workers, who already have years of experience in the field, are able to quickly apply the concepts they learn to the management of the properties for which they work. Facilitating a swifter transformation of industry practices is not only beneficial to the buildings, but also to the workers, who are equipped to earn better benefits and retain their positions in a competitive job market.

Of the 902 program graduates surveyed...

54%
Reported that building tenants now view them as a resource for energy efficient building practices.

36%
Reported having received positive recognition on energy efficient improvements from building tenants or other decision makers.

“Facilitating a swifter transformation of industry practices is not only beneficial to buildings, but also to workers...”
The Green Supers program has the potential to be scaled in New York and replicated nationwide.

As the program matures, 32BJ Training has set its sights on opportunities to bring the benefits of the program to a wider audience and to continue to develop the capacity of the program to respond more directly to the needs of its members. There are a range of potential expansions to the program that could help to elevate the program to the next level in terms of its offerings. Green Supers graduates and program evaluators identified the following opportunities for project scaling:

- Training modules to satisfy different levels of experience, allowing the pace of the course to match the varied skill level of the participants;
- Courses that focus several training sessions exclusively on one building system, providing an enhanced level of detail;
- A greater number and increased intensity of field trips to apply concepts covered in the training sessions;
- Supporting resources to encourage energy analysis and implementation, such as development of a simple checklist for easy-to-install measures.

“The whole program was great! I wanted to thank them for changing the whole way that we resident managers look at the world – especially the micro world that we inhabit.”

- Judd Cady, Resident Manager
The rationale for continued program growth

Building tenants, property service professionals, investors, and policymakers invested in sustainability and economic growth should care about energy efficiency.

The Green Supers Program equips property service workers to improve the financial viability of their buildings, spur positive economic investment, and help achieve greenhouse gas reductions targets.

Energy retrofits unlock a range of benefits for building residents.

Retrofits bring direct energy savings to residents and building managers, help avert future rent increases, and improve conditions for building occupants. These savings generate additional economic activity by providing an opportunity for increased spending by residents due to reduced energy expenditures.

Retrofits also help improve the health, safety and comfort of building tenants, including improved indoor environmental quality and better tenant mental and physical health outcomes.

Energy retrofits create jobs and have broad economic impacts.

A number of studies document the broad, industry-wide economic impacts of energy efficiency, including the additional spending, savings, and job creation. Two studies, employing rigorous methodology, estimated approximately 10 jobs created per million dollars of comprehensive energy efficiency retrofits in multifamily buildings.²

Energy retrofits reduce greenhouse gas emissions.

Buildings are responsible for 70% of New York City’s greenhouse gas emissions. A comprehensive strategy to reduce our city’s carbon footprint begins with improving the efficiency of our building stock. Effective building operations are a critical means to ensure building efficiency, as studies have shown that an energy reduction of 5% to 20% is achievable through improving operational efficiency.¹ Through initiatives such as the Green Supers Program, cities can reduce greenhouse gas emissions, improve the environment locally and globally, and ensure a better future for generations to come.

The Green Supers Program is not only a proven model here in New York, but is also scalable nationwide. The expansion of the curriculum to other markets provides the opportunity to educate property service workers everywhere, significantly improving the energy performance of our nation’s building stock.

The Green Supers program was partially funded by a grant awarded by the U.S. Department of Labor’s Employment and Training Administration. This program was created by the grantee and does not necessarily reflect the official position of the U.S. Department of Labor. The Department of Labor makes no guarantees, warranties, or assurances of any kind, express or implied, with respect to such information, including any information on linked sites and including, but not limited to, accuracy of the information or its completeness, timeliness, usefulness, adequacy, continued availability, or ownership. The Green Supers program is copyrighted by the institution that created it. Internal use by an organization and/or personal use by an individual for non-commercial purposes is permissible. All other uses require the prior authorization of the copyright owner.