

nationalgrid

Customer Spotlight:

Glens Falls Urban Agriculture Pilot Glens Falls, NY

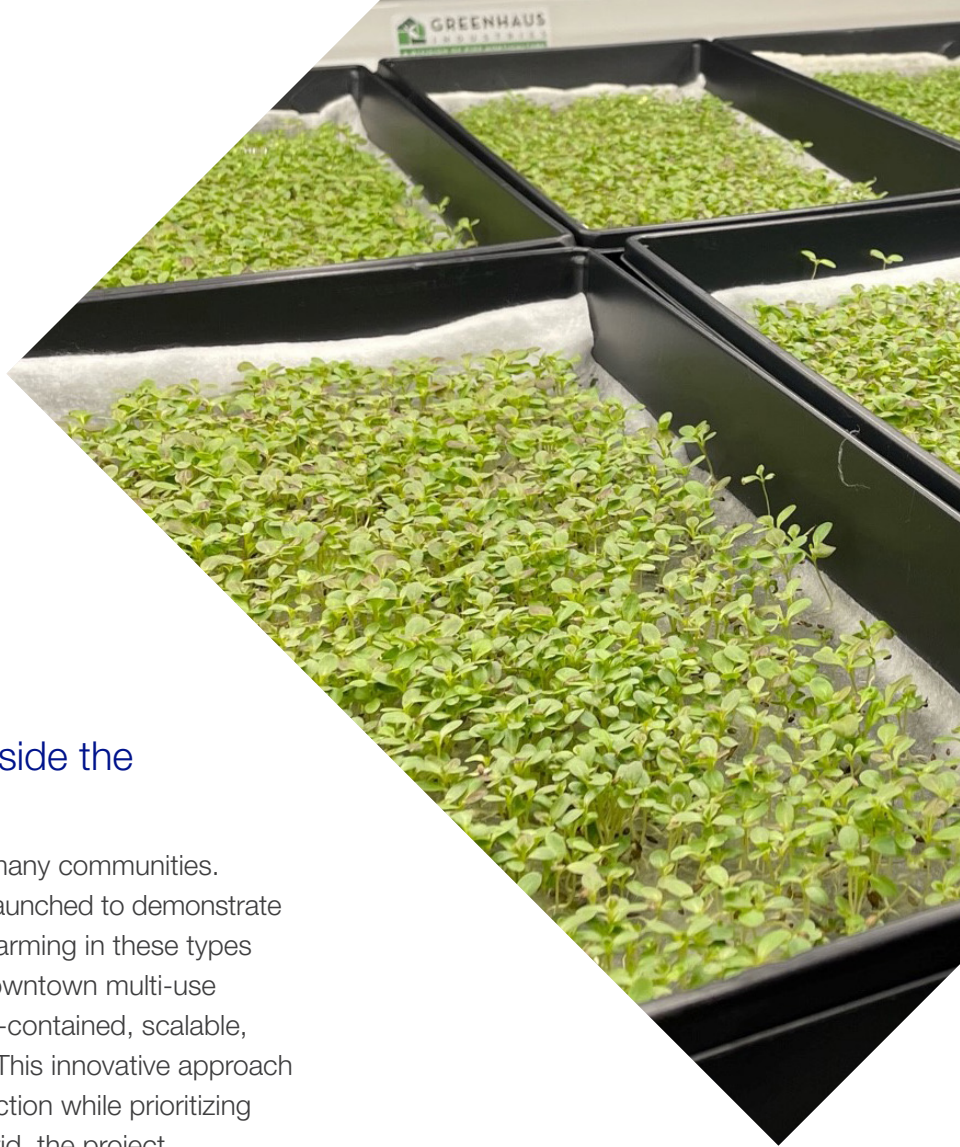
Helping a community think outside the sustainability box.

Urban building utilization is a challenge for many communities. The Glens Falls Urban Agriculture Pilot was launched to demonstrate the potential for small-scale indoor vertical farming in these types of spaces. Located on the third floor of a downtown multi-use building, the project aimed to develop a self-contained, scalable, and energy-efficient modular grow system. This innovative approach addresses the demand for local food production while prioritizing sustainability. With support from National Grid, the project implemented high-efficiency systems that helped reduce energy usage, laying the groundwork for future urban farming initiatives.

The Opportunity

The project site offered both promise and challenges. The downtown location provided access to local markets and proximity to a planned year-round farmers' market. The previously underutilized space was ideal for repurposing with minimal renovation. However, logistics were complicated by the third-floor location's distance to potential heat pump installation, narrow stairwells, and location of electrical grid infrastructure.

The grow module was designed as a modular "box within a box," measuring 24 ft. long by 20 ft. wide by 10 ft. tall. Inside, two three-tier vertical racking systems were installed in a 20 ft. by 13 ft. grow area, with additional space for propagation and packaging. Energy efficiency was essential to the project's financial viability, prompting a collaboration with National Grid to identify energy-saving design and equipment to make this project more than just viable – the goal is to be sustainable.



High-Efficiency Air Source Heat Pump



Inside the Unique Module Grow System

Customer Spotlight:

Glens Falls Urban Agriculture Pilot – Glens Falls, NY

The Solution

With National Grid's guidance, the Glens Falls Urban Agriculture Pilot team implemented a series of strategic upgrades to maximize energy savings. It started with lighting – the initially planned 5HO fluorescent grow lights were replaced with DLC-listed LED grow lights, reducing consumption to 13 watts per sq ft and saving 13,939 kWh annually. Another important aspect of grow sites is humidity control. The planned dehumidification system was upgraded to a high-efficiency model capable of removing 6.1 pints/kWh, surpassing industry standards and saving 2,623 kWh per year. To heat and cool the space, an air source heat pump was selected. Since they don't rely on fossil fuels, high-efficiency heat pumps reduce greenhouse gas emissions. To provide real-time energy monitoring of all these systems, National Grid helped identify an integrated eGauge system. This offered the added benefit of assisting in crop planning based on energy intensity. Together, all of these enhancements translated to lower operational costs and long-term energy savings.

The Results

With an all-electric setup, the facility is also well-positioned for future renewable integration while serving as a model for decarbonization. Beyond energy savings, the pilot demonstrates how underutilized urban space can be transformed into productive agricultural hubs. Lessons from Glens Falls will inform future vertical farming models, offering guidance on site selection, crop planning, and market alignment.

20,415 kWh
annual energy savings

2.5 METRIC TONS
reduction of CO₂ emissions

\$2,950
of projected costs
incentivized by National Grid

**READY TO LEARN HOW WE CAN HELP
YOU IMPROVE YOUR BUSINESS?
VISIT [NGRID.COM/AGRICULTURE](https://ngrid.com/agriculture)**

nationalgrid