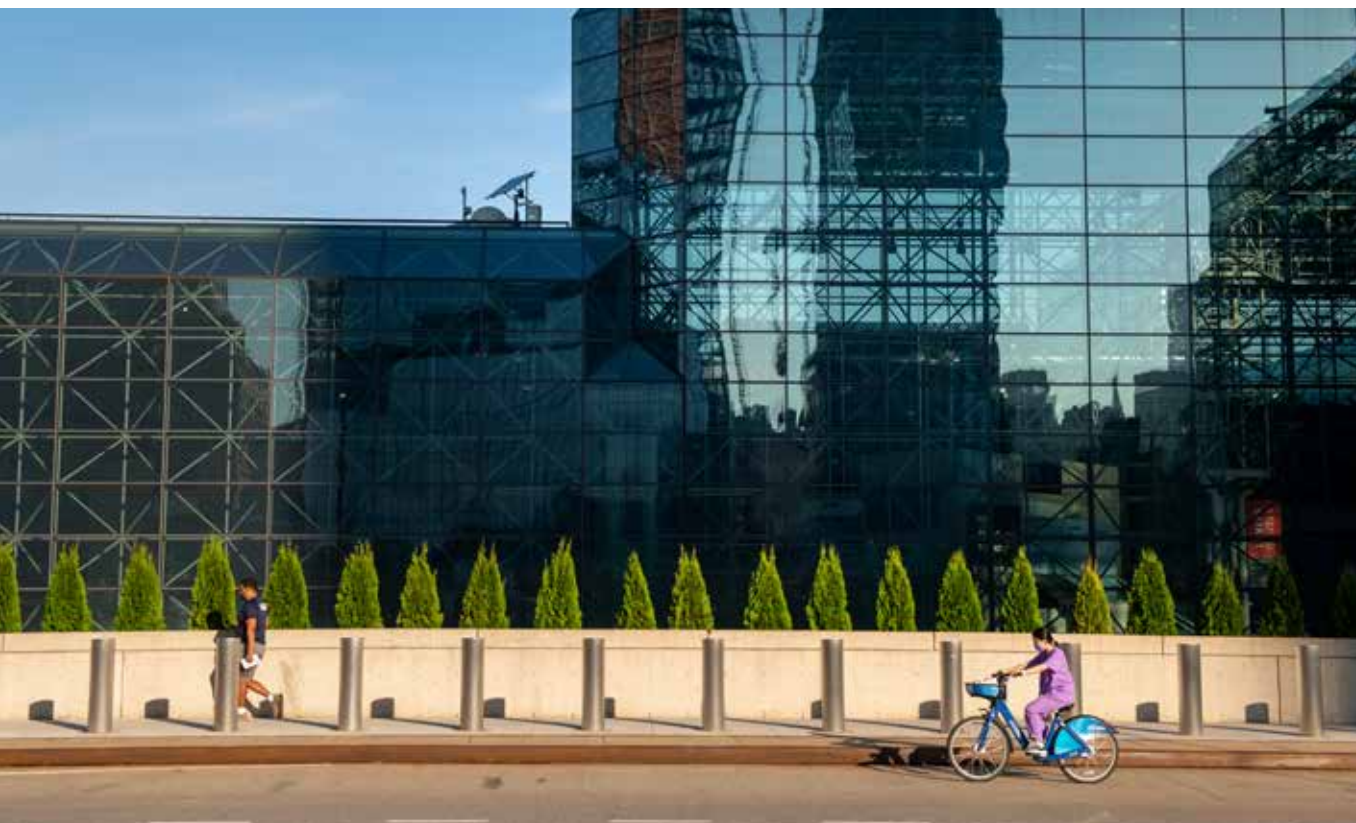


**SIEMENS**

Siemens helps New York's  
Jacob K. Javits Convention Center  
achieve a sustainable future





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# Introduction

At New York's Jacob K. Javits Convention Center, Siemens Energy as a Service (EaaS) approach helps generate an expected annual 1,011 MWh of renewable energy, which is equivalent to the energy consumption of 94, four-member households.

Setting decarbonization goals can be easy — but the follow-through often presents unforeseeable roadblocks in a sustainability journey. Organizations that take on the challenge of reinventing their businesses to enable more sustainable operations no longer must do it alone. A perfect example is New York City's Jacob K. Javits Convention Center, an organization that has leveraged strong partnerships to drive rapid sustainability improvements. Perched alongside the Hudson River on the west side of Manhattan, the Javits Center is one of the busiest convention centers in the country, hosting more than 175 events with 40,000 exhibitors and 2 million visitors annually.

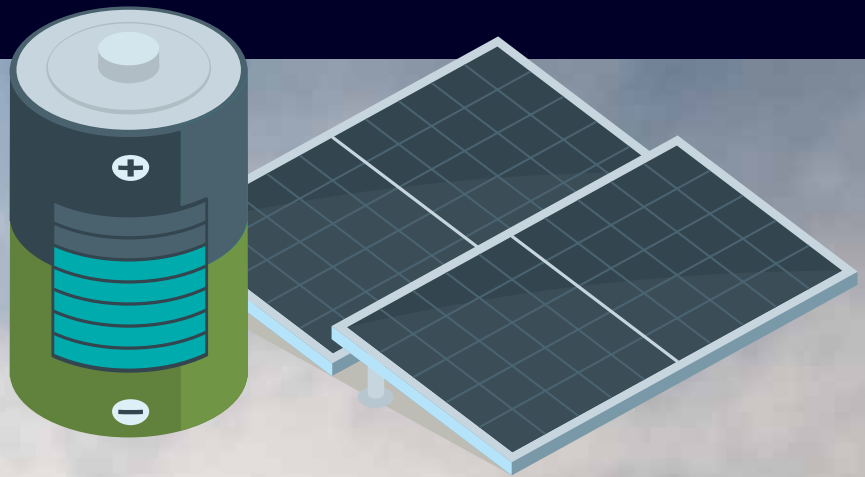
With nearly 19 acres of exhibit space, the Javits Center is a major power consumer. That is why Javits Center sought ways to offset the facility's considerable electricity needs and partnered with the New York Power Authority (NYPA) to advance the clean energy goals of the state and city. New York State is on track to reach 1,500 megawatts of electricity storage by 2025, and to double that capacity by 2030. New York City is planning to have 70 percent of its electricity come from renewable energy by 2030, and 100 percent by 2040.



# Collaboration leads to reduced energy consumption

The Javits Center had worked with Siemens since the construction of its convention center in 1986. At that time, Siemens provided electrical, fire, security system, and building controls software. It was only natural that the Javits Center leadership turn to Siemens to help better manage energy consumption and CO2 emissions.

For a fully integrated and managed Energy as a Service (EaaS) solution from design to delivery Javits Center leveraged a Siemens Financial Services and Macquarie Capital joint venture named Calibrant to meet its clean energy requirements. Calibrant helps the Javits Center deploy smart building energy infrastructure (such as solar panels, microgrids, and energy storage) with no upfront capital allocation required. The infrastructure is owned and operated by Calibrant, in an Energy as a Service (EaaS) arrangement. Since energy savings will be significant, the Javits Center pays Calibrant a service fee that is sourced from the pool of energy savings. Part of the service offering includes the generation of energy reports for the purpose of consumption measurement and evaluation of performance benchmarks.



**3.5 MW**  
energy storage battery units

**906.3kW**  
solar renewable energy

# Clean solar power and energy storage meet the energy needs

Siemens also helped the convention center and NYPA build Manhattan's largest rooftop solar array as part of a \$1.5 billion expansion project, adding 1 million square feet to the convention center. When finished, the Center will have more than 2,014 solar panels on 34 canopy-style solar arrays on its 6.75 acre green roof.

The solar array will provide 906.3 kilowatts of solar energy per year, equal to the power needs of 94, four-member households and charging capacity equivalent to 866K iPhone batteries.

The Javits Center system will include up to 3.5 megawatts of battery storage inside the building so that the solar energy gathered during the day can be stored and used at night. The system also includes remote monitoring to help improve building system performance and balance energy supply and demand. Facility management uses a cloud-based platform that provides real-time reports on system performance, as well as early warnings of system malfunctions and interruptions.

As the Siemens Javits Center solar project breaks new ground in the field of smart building energy conservation, it serves as a useful reference model for other applications large enough to support solar arrays. The Javits Center microgrid system, for example, offers a glimpse to municipalities for how they can apply energy management benefits to their own existing energy generation and management structures. The technology components are now commercially proven and can be tailored to meet specific objectives, maximizing economic benefits and providing reliable, resilient, and sustainable power while mitigating stress on the grid.



Our green roof has become a model of sustainability for buildings throughout the Empire State, and we are proud to work with the New York Power Authority to further expand our environmental impact. For more than 30 years, the Javits Center has served as an economic engine for New York, but with this project, we can continue to reinforce our reputation as an environmental beacon, serving as an inspiration to other venues nationwide."

— Alan Steel, New York Convention Center Operating Corporation President and CEO

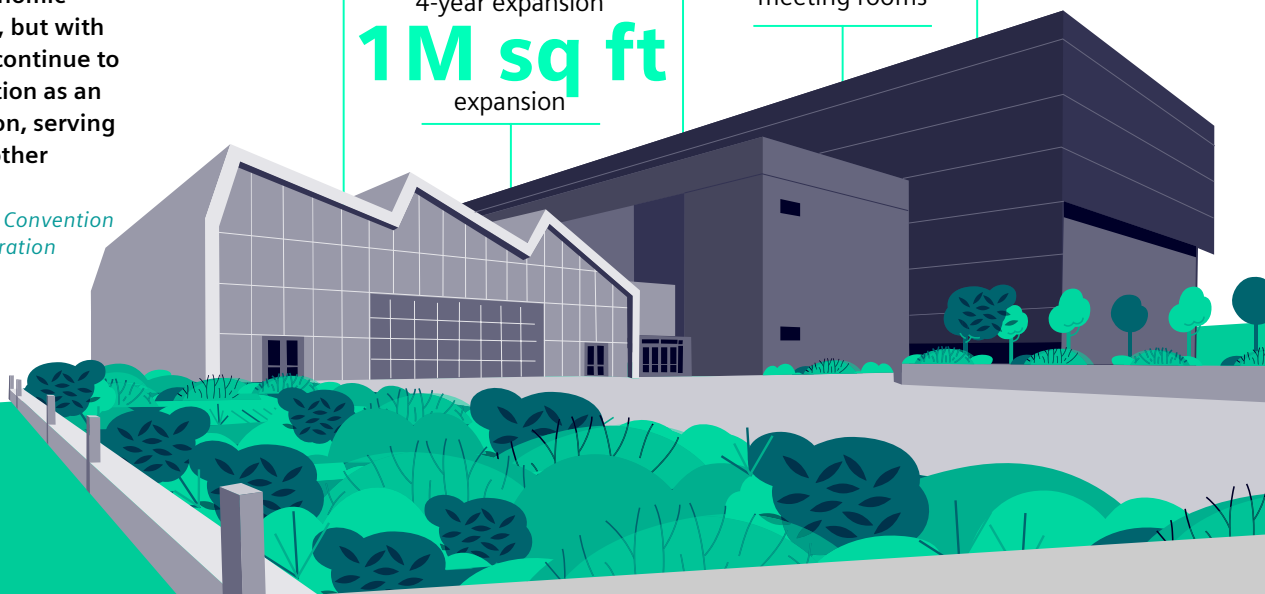
**850,000**  
sq. feet of space

**\$2.0B**  
economic activity

**18,000**  
jobs

4-year expansion  
**1 M sq ft**  
expansion

**122**  
meeting rooms





# Conclusion

EaaS solutions, such as those deployed to support the Jacob K. Javits Convention Center, help consumers meet increasingly strict regulatory obligations surrounding renewable energy and emissions. Digital monitoring of energy consumption and intelligent controls drive higher energy efficiency, less waste, smaller CO2 footprint, and lower energy costs. By facilitating the task of energy management through EaaS, consumers can focus on their core competencies, such as business operations, commercial development, sales initiatives, and new product development.

Siemens offers expertise in advanced EaaS solutions, with a broad technology portfolio and extensive knowledge of energy markets and distributed energy storage (DES) solutions. Siemens highly-qualified project teams provide vital financial, technical, and management skills that help minimize project risk while maximizing economic and operational benefits.

At Siemens, it's our job to make sure those unexpected decarbonization roadblocks can be overcome quickly enough to keep organizations on track toward their sustainability goals. By collaborating with other organizations, Siemens can harness the power of collective expertise and resources to create capital-efficient and scalable solutions. Together, we can make sure there is a better tomorrow on the journey to a sustainable future.

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