One of Midtown Manhattan’s Newest Skyscrapers Is One Of Its Greenest

Background
Four Times Square is one of the first projects of its size to adopt standards for energy efficiency, indoor ecology, sustainable materials, and responsible construction, operations, and maintenance procedures. Developed by the Durst Organization and designed by Fox and Fowle Architects, the building used a whole-building approach to consider how the building’s systems can work together most efficiently. Four Times Square participated in NYSERDA’s Technical Assistance Services and New Construction Programs.

Recommendations
As a result of the studies, several energy efficiency and environmental improvement measures were included in the building:

**Energy Efficiency Measures**
- Fuel cells, two 200-kW
- Waste heat recovered from fuel cells
- Gas powered absorption chillers/heaters
- Occupancy sensors
- High performance window glazing
- Commissioning
- Building-integrated photovoltaic panels
- Energy-efficient lighting
- Central lighting controls for public spaces
- LED exit signs
- Variable speed drives for pumps, motors, fans

**Environmental Improvement Measures**
- High-elevation outside air intake
- 100% outside air purge system
- Floor-by-floor air-handling system
- Dedicated exhaust shafts (smoking rooms)
- Non-toxic and biodegradable materials
- Sustainably harvested wood
- Low water-use equipment
- Existing footings were reused
- Recycled 65% of construction debris
- Green-tenant guidelines

Incentives and Results
Four Times Square received $18,500 from the New York Energy Smart Technical Assistance Services Program and $250,000 from the New York Energy Smart New Construction Program. The building uses 40% less energy than the same building built to the New York State Energy Code. Annual energy cost savings is $1,760,000 and annual energy use savings is 20,841,269 kWh/year. In addition, CO₂ emissions reduction is 9,191 tons per year.

New York Energy Smart programs are funded by a System Benefits Charge (SBC) paid by electric distribution customers of Central Hudson, Con Edison, NYSEG, Niagara Mohawk, Orange and Rockland, and Rochester Gas and Electric. NYSERDA, a public benefit corporation, administers SBC funds and programs under an agreement with the Public Service Commission.

For more information about these services, contact NYSERDA toll free 1-866-NYSERDA, locally (518) 862-1090, or e-mail: info@nyserda.org
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