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Press Release

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IMMEDIATE

MTA and NYPA Unveil Solar-Powered Hot Water Heating System

Solar Thermal Array Will Save MTA Money and Help Environment

The Metropolitan Transportation Authority (MTA) and New York Power Authority (NYPA) today unveiled an advanced rooftop-mounted solar thermal array that heats hot water used to wash subway cars at New York City Transit's Coney Island Overhaul Shop and Maintenance Facility. By lessening New York City Transit's need for electricity, the array will lower the agency's power bill by \$94,000 and avoid 86 tons of carbon dioxide (CO₂) emissions per year.

"The MTA and its agencies are working hard to make sure that every dollar we receive is used wisely, and that applies to our energy bill as well," said Thomas F. Prendergast, President of MTA New York City Transit. "I want to thank the New York Power Authority and NYSERDA, for helping MTA New York City Transit save money and go even greener."

"It seems fitting that we're pioneering this advanced solar-thermal technology in a community whose iconic attractions include the beach and sun," said Richard M. Kessel, President and CEO of the New York Power Authority. "Initiatives like this contribute to reducing fossil fuel use, which is an imperative we can all agree on, with the disaster in the Gulf now giving us constant reminders every day. We need to take advantage of renewable energy and energy efficiency technologies, not only for reducing environmental risks like oil spills and global warming, but for capitalizing on the economic development benefits of these clean energy technologies."

The solar thermal system consists of 48 panels that are mounted on the building's roof. They capture the radiant heat from the sun and transfer it to water in interconnected pipes. The system functions as a water heater for domestic and other hot water use at the facility. The water is used for cleaning and washing trains during their scheduled maintenance and for domestic-use needs by staff.

Installation of the solar thermal array cost \$550,000, which was financed by NYPA with the help of a \$150,000 grant from the New York State Energy Research and Development Authority (NYSERDA). "NYSERDA is pleased to partner with NYPA and the MTA on a system that is notable both for reducing energy use, protecting the environment and reducing costs. We commend the leadership of these two authorities for developing an innovative solar thermal project that we hope will serve as a model for other significant energy users," said Francis J. Murray, Jr., NYSERDA president and CEO.

The solar thermal project, which began in November, is part of a more than \$1.1 million NYPA- and NYSERDA-funded energy efficiency upgrade for the Coney Island Facility, which also includes the installation of high-output fluorescent fixtures that are more efficient, last longer and provide better illumination than the light sources they replaced, saving the MTA \$76,000 per year.

All together, the MTA and NYPA have partnered on 85 energy projects for a savings of nearly \$5.7 million a year and annual reduction of greenhouse gas emissions of more than 34,000 tons. Among these initiatives have been:

- New subway signal lighting using light-emitting diode (LED) fixtures that are more efficient and brighter than the bulbs they replaced.
- A 200-kilowatt fuel cell at NYC Transit's New Corona Car Maintenance Facility in Queens, providing a continuous source of non-polluting, on-site power and residual heat for the shop's domestic hot water system.
- A 300-kilowatt roof-mounted solar photovoltaic (PV) array at the Gun Hill Bus Depot in the Bronx
- LED necklace lighting at the Verrazano-Narrows Bridge, replacing less efficient conventional lights.
- Wireless equipment for the remote control of electric resistance heaters on the third-rail systems that provide power to the subways. The remote-control feature contributes to minimizing electricity use when the weather conditions don't warrant heater use.