Buffalo Zoo

Buffalo Zoo

Buffalo – Erie County

Background

The Buffalo Zoo is implementing an ambitious master plan which includes renovating some existing exhibits. The Otter Creek and Sea Lion Cove displays were two of the first to be addressed. The new exhibits include over 7,000 square feet of new building and two outdoor pools. The sea lion exhibit holds over 160,000 gallons of sea water and the sea otter exhibit holds 10,000 gallons of fresh water.

The Buffalo Zoo was seeking a new design for the two exhibits that focused on water conservation, energy conservation, water clarity, and animal health. As a result, zoo personnel contacted the New York State Energy Research and Development Authority (NYSERDA) and applied for design and implementation assistance through the **New York Energy $mart**SM New Construction Program. Wendel Duchscherer, a NYSERDA technical assistance consultant, worked with the project team from Biscayne Aquaculture to complete an energy feasibility study.

Recommendations

The energy feasibility study identified economically feasible improvements and associated savings. The energy efficiency improvements included:

- A high efficiency water filtration system, and
- Premium efficiency electric motors

Incentive and Results

NYSERDA provided a $64,958 incentive to the Buffalo Zoo through the **New York Energy $mart**SM New Construction Program for the recommended energy efficiency improvements. Once fully implemented, the energy efficiency improvements will result in:

- An annual electric energy savings of approximately $21,662
- A reduction of 282,011 kWh in annual energy use
- A 33 kW avoided peak summer demand
- A 33 kW avoided peak winter demand, and
- An annual reduction of carbon dioxide emissions totaling 124 tons

New York Energy $martSM

All **New York Energy $mart**SM 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 established by law in 1975, administers SBC funds and programs under an agreement with the Public Service Commission.

New York Energy $martSM programs are designed to lower electricity costs by encouraging energy efficiency as the State's electric utilities move to competition. The programs are available to electric distribution customers (residential, commercial, institutional, and industrial) who pay into the SBC.

NYSERDA

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

New York Energy $martSM
Public Service Commission — NYSERDA