



City of Oswego Water Department Energy Performance Contract Phase I

Client

City of Oswego Water Department

Capital Cost

\$2,423,918

Type of Contract

Guaranteed Savings

Reference

City of Oswego Water Department
Plant Manager
30 Sheldon Avenue
Oswego, New York 13126

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Project Team

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Brian M. Sibiga, PE
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Frank A. Nerone, PE
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Lou Rosati

Subcontractors

Design Services
Wendel Duchscherer
Architects & Engineers, PC

Construction Management
Wendel Construction, Inc.

Water Treatment Plant
Energy Efficiency Improvements
KJ Electric

Pump Station
Energy Efficiency Improvements
J&A Mechanical Contractors, Inc.

SCADA System and Lighting
Rombough Electric, Inc.

Raw Water & Finished Water Pumps
Industrial Precision Products, Inc.

Project Scope of Service and Status

The City of Oswego desired to increase the energy efficiency at their raw water pump station, finished water pump station, two booster pump stations, and their coagulation process while also upgrading their plant SCADA system. Wendel was retained as the City's Energy Performance Contractor to provide energy evaluations, energy grant services, design, bidding and construction services for the rehabilitation of raw and finished water pump stations at the Water Treatment Plant and two booster pump stations.

The improvements included:

- rebuilding two 450 Hp finished water vertical turbine pumps
- rebuilding one 350 Hp finished water vertical turbine pump
- providing new motors and variable speed drives at the finished water and raw water pump stations (7 motors from 125 to 450 Hp)
- an automated control system was also provided that modulates pump speed to maximize energy efficiency
- PLC based SCADA system with remote telemetry system
- upgrade of filter valve actuators
- upgrade of coagulant chemical feed system
- lighting system replacement

Wendel assisted the City to obtain approximately \$270,000 in energy incentives through the following NYSERDA Programs:

- Flexible Technical Assistance \$21,000
- Commercial Industrial Performance Program \$144,000
- NY Energy Smart Loan Fund \$105,000

Annual Energy Use and Costs Prior to Implementation

Electric: 5,800,000 kWh, \$694,378 annually

Guaranteed Annual Savings

Electric: 1,306,646 kWh, 1,332 kW, \$88,505
Operation & Maintenance: \$61,800

Actual Annual Savings

Electric: 1,474,664 kWh, 1,463 kW, \$95,892
Operation & Maintenance: \$58,528

