City of Oswego Water Department
Energy Performance Contract Phase I

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