



Green Innovation Grant Program (GIGP) No. 32

CWSRF Project No. C6-6063-05-70

City of Ogdensburg

Project Name: City of Ogdensburg WWTP Energy Efficiency & Green Energy Upgrades

DEC Region: 6 County: St. Lawrence

Type of Financing: American Recovery and Reinvestment Act (ARRA) Green Innovation Grant Program

Estimated Total Project Cost: \$1,179,725.00

Recommended GIGP Award Amount: \$1,061,752.00

Local Share: \$117,973.00

Other Funding Sources: \$0.00

Project Category: Clean Water SRF. Energy Efficiency.

Project Description:

The proposed project at the City of Ogdensburg's wastewater treatment facility includes two components: 1) upgrades to the existing aeration system with new, more efficient blowers, variable frequency drives (VFDs), diffusers, controls, etc. and 2) upgrades to the existing anaerobic digester/methane gas capture system and boilers for the digester, allowing the biogas to be used in the facility's boilers in place of natural gas.

The scope of this project is defined by the Engineering Report titled "Wastewater Treatment Plant Energy Efficiency Improvements - City of Ogdensburg, St Lawrence County, New York" dated May 22, 2009 by Tisdell Associates and approved by NYSEFC on December 3, 2009. This project is further defined by plans and specifications titled "City of Ogdensburg Wastewater Treatment Plant Energy Efficiency Improvements" by Tisdell Associates dated October 20, 2009 Contracts 1-General, 2-Mechanical, and 3-Electrical and approved by NYSEFC on December 3, 2009.

Project Summary:

This project combines energy efficiency and environmental innovation components as it upgrades equipment to higher energy efficient alternatives and creates renewable energy from sewage sludge, as a bio-mass fuel. Upgrades to aeration system are estimated to reduce electrical usage by 50%. The biogas capture and reuse is estimated to offset/replace up to 50% of the natural gas needed for the facility boilers. Combined, the upgrades are estimated to reduce natural gas demands by 40,000 therms and electrical usage by 405,000 kW annually.

This project is categorically eligible for GIGP financing per the United States Environmental Protection Agency's (EPA's) "Guidance for Award of Recovery Act Funding to State Revolving Funds" dated March 2, 2009:

1. Energy Efficiency. Categorically eligible projects include the use of "improved technologies and practices to reduce the energy consumption of water quality projects... produce clean energy used by a treatment works" (page 43 of the EPA Guidance) including the example in IV. c. "producing clean power...on site [via]... biogas powered combined heat and power" (page 44). The upgrades to the anaerobic digester will provide for the replacement of 50% of the natural gas used at the facility.
2. Energy efficiency. Installation of new aeration equipment is categorically eligible per EPA's Guidance (page 43) to "reduce the energy consumption of water quality projects" and the 20% energy efficiency threshold per the "Green Project Reserve Business Case Principles and Questions and Answers" (pp. 4-6, question B.1, 5 and 6) . The upgrades to the anaerobic digester will provide for the replacement of 50% of the natural gas used at the facility.

3. Environmental Innovation. Categorically eligible projects "manage water resources in a more sustainable way, including projects that achieve pollution prevention...and projects that foster adaptation of water protection programs and practices to climate change," Example III. g. of the EPA Guidance includes "projects that facilitate adaptation of clean water programs and practices to climate change" (pp. 45-46). The use of biogas and combined heat and power reduces reliance of a Section 212 facility on fossil fuels and mitigates climate change impacts of that facility.

This project is located in St. Lawrence County which is designated as an economically distressed area.

Funding Summary:

The City of Ogdensburg will provide at least 10% local match via capital funding.

SEQR Findings:

The Corporation has determined that the proposed action will finance a project which constitutes "...maintenance or repair involving no substantial change to an existing structure..." and the "...replacement, rehabilitation or reconstruction of a structure or facility in kind..." which is a "Type II" action under SEQR, pursuant to 6 NYCRR 617.5(c)(1) and 6 NYCRR 617.5(c)(2).

Construction Schedule:

<u>Description</u>	<u>Construction Start</u>	<u>Construction Completion</u>
City of Ogdensburg City of Ogdensburg WWTP Energy Efficiency & Green Energy Upgrades	March 10, 2010	July 31, 2010