

May 21, 2013

MEMORANDUM TO THE TRUSTEES

FROM THE PRESIDENT and CHIEF EXECUTIVE OFFICER

**SUBJECT: Central Region Small Hydro Control System
and Governor Upgrade – Capital Expenditure
Authorization and Contract Award**

SUMMARY

The Trustees are requested to authorize capital expenditures in the amount of \$5.2 million for the Central Region Small Hydro Control System and Governor Upgrade (the “Project”). The work will occur at the Authority’s Ashokan (\$1.4 million), Crescent (\$2.1 million) and Vischer Ferry (\$1.7 million) Small Hydro Facilities (total 10 generating units) and will include Engineering, Procurement, Construction, and Project Management.

The President and Chief Executive Officer has approved the amount of \$100,000 for preliminary engineering.

The Trustees are also requested to approve the award of a multi-year value contract to L&S Electric Inc. of Rothschild, WI, in the amount of \$3.7 million for the Project. The contract work is scheduled to commence in 2013 and be completed in 2016.

BACKGROUND

In accordance with the Authority’s Expenditure Authorization Procedures, capital expenditure authorizations in excess of \$3 million require the Trustees’ approval.

Section 2879 of the Public Authorities Law and the Authority’s Guidelines for Procurement Contracts require the Trustees’ approval for procurement contracts involving services to be rendered for a period in excess of one year. Also, in accordance with the Authority’s Expenditure Authorization Procedures, the award of non-personal services or equipment purchase contract exceeding \$3 million require the Trustees’ approval.

The generating units that comprise the small hydro facilities were either installed or refurbished by the Authority during the 1980s and utilize a combination of electromechanical and programmable logic controller (“PLC”) controls for unit operations.

Basic operator control is currently provided via control switches and indicators. The obsolete GE Series 6 PLC controls the operation of interlocks and unit auxiliaries. The PLC also supports terminal type unit interfaces that are used for troubleshooting PLC inputs, outputs, and logic. However, the existing unit interfaces are out of service due to lack of support and available parts that has resulted in reduced unit reliability.

The Ashokan units utilize hydraulic governor controls for both wicket gates and variable blade controls that were assembled from various parts not originally designed for hydroelectric use. The parts include a belt driven speed increaser and cam operated blade position control. With obsolete governor components that frequently fail, the Ashokan units are difficult to keep running.

The inability to maintain and repair the equipment has resulted in increased maintenance cost and loss of revenues.

DISCUSSION

The small hydro control system and governor upgrade project includes the followings:

1. Replacement of the obsolete PLC with modern PLC of common architecture/platform that will standardize operations and control of the small hydro units.
2. Replacement of obsolete unit interfaces with modern HMI systems for units and central plant monitoring/operation as well as troubleshooting the controls.
3. Replacement of obsolete switches, meters, and indicators for unit controls.
4. Replacement of the hydraulic governor/blade position equipment at Ashokan with equipment specifically designed for hydroelectric facilities.
5. Replacement of MOOG gate/blade positioner controls at Unit 3 & Unit 4 of Crescent and Vischer Ferry with modern digital governors.
6. Replacement of Woodward flyball governors at Unit 1 & Unit 2 of Crescent and Vischer Ferry with modern digital governors.

The Authority placed a notice to procure bids in the New York State *Contract Reporter* on July 13, 2012 for the Central Region Small Hydro Control System and Governor Upgrade Project. Five proposals were originally received on January 22, 2013. After several post bid inquiries, the following revised bid was received and evaluated:

Bidder	Location	Lump Sum
L&S Electric, Inc.	Rothschild, WI	\$3,713,930

The proposals were reviewed by an evaluation committee comprised of the Authority’s staff from Blenheim-Gilboa, Engineering, Procurement, and Project Management.

L&S Electric’s bid was technically acceptable and L&S Electric has extensive experience in projects of this type and magnitude and demonstrated knowledge of the scope-of-work, is capable of completing this project in a timely manner. The Authority’s prior experience with L&S Electric has been satisfactory.

The project work will be performed from 2013 to 2016.

The total project cost is estimated to be \$5.2 million as follows:

Task	Total
Preliminary Engineering	\$ 100,000
Engineering	\$ 157,400
Procurement	\$2,415,000
Construction	\$2,070,000
Authority Direct & Indirect	\$ 457,600
Total:	\$5,200,000

FISCAL INFORMATION

Payments associated with this project will be made from the Authority’s Capital Fund.

RECOMMENDATION

The Senior Vice President and Chief Engineer – Operations Support Services, the Vice President – Project Management, the Vice President – Engineering, the Vice President – Procurement, the Project Manager, and the Regional Manager – Central New York recommend that the Trustees approve capital expenditures in the amount of \$5.2 million for the Central Region Small Hydro Control System and Governor Upgrade Project and a contract award to L&S Electric, Inc. in the amount of \$3.7 million for the engineering, procurement and construction of this project.

For the reasons stated, I recommend the approval of the above-requested action by adoption of a resolution in the form of the attached draft resolution.

Gil C. Quiniones
President and Chief Executive Officer

Att.
Central Region Control System - CEAR

RESOLUTION

RESOLVED that pursuant to the Authority's Expenditure Authorization Procedures, capital expenditures in the amount of \$5.2 million are hereby authorized in accordance with and as recommended in the attached memorandum of the President and Chief Executive Officer; and be it further

RESOLVED, that pursuant to the Guidelines for Procurement Contracts adopted by the Authority, approval is hereby granted to award a multi-year contract to L&S Electric Inc. of Rothschild, WI, in the amount of \$3.7 million for engineering, procurement, and construction of this project, as recommended in the attached memorandum of the President and Chief Executive Officer:

Contractor

L&S Electric Inc.
Rothschild, WI

Contract Approval

\$3.7 million

AND BE IT FURTHER RESOLVED, That the Chairman, the Vice Chairman, the President and Chief Executive Officer, the Chief Operating Officer and all other officers of the Authority are, and each of them hereby is, authorized on behalf of the Authority to do any and all things and take any and all actions and execute and deliver any and all agreements, certificates and other documents to effectuate the foregoing resolution, subject to the approval of the form thereof by the Executive Vice President and General Counsel.