

Date: July 30, 2015

To: THE TRUSTEES

From: THE PRESIDENT and CHIEF EXECUTIVE OFFICER

Subject: **Moses-Adirondack and Moses-Plattsburgh
Structure Replacements Phase II –
Capital Expenditure Authorization Request**

SUMMARY

The Trustees are requested to authorize a Capital Expenditure Authorization Request (“CEAR”) in the amount of \$17.747 million for the replacement of approximately two hundred 230 kV H-frame wood pole structures on the Moses-Adirondack (“M-A”) 1&2 transmission lines and the Moses-Plattsburgh (“M-P”) 1&2 transmission lines over the next five years.

This project is Phase II of the current wood structure replacement program which goal is to safely, effectively, and reliably operate and maintain the existing M-A and M-P transmission lines. It is not part of the larger, overall transmission upgrade/replacement project of the M-A lines and structures. This is an interim measure to increase transmission reliability and availability during normal operations, and more so, to reinforce the lines to withstand major weather events such as the 1998 Ice Storm.

BACKGROUND

In accordance with the Authority’s Expenditure Authorization Procedures (“EAPs”), capital expenditures in excess of \$3 million require the Trustees’ approval.

The wood pole structures on the M-A 1&2 transmission lines and the M-P 1&2 transmission lines are approaching the end of their useful life.

The M-A transmission lines consist of two 230 kV lines originating at the Moses Switchyard at the St. Lawrence-FDR Power Project and terminate at the Authority’s Adirondack Substation, a distance of approximately 85 miles or 170 circuit miles. The original wood pole section of the line was constructed in 1942 and operated at 115 kV. NYPA later took ownership and completed construction of the new lines in three segments: North Extension, Rehabilitated Massena-Taylorville Lines, and South End Relocation to Adirondack. The new lines were energized in 1958 and operated at 230 kV.

The M-P transmission lines are two 230 kV transmission lines operating between the Moses Switchyard at the St. Lawrence-FDR Power Project and Authority-owned substations at Willis, Ryan, Patnode, Duley, and Plattsburgh. This line represents a total distance of approximately 75 miles or 150 circuit miles. The first circuit was placed in service in 1958 and the second circuit was placed in service in 1979, concurrent with the Willis Substation.

This CEAR was developed based on field inspections and is for the replacement of approximately two hundred deteriorated wood poles during the period of 2016 to 2020.

DISCUSSION

The M-A transmission lines are an integral component of the New York Independent System Operator’s System Restoration Plan, and both the M-A and M-P transmission lines are critical outlets for renewable energy. The conductors that comprise these transmission lines are secured using wood pole structures, many of which are approaching the end of their useful life.

Inspections and risk assessments of the Authority’s transmission assets are performed on a routine basis in order to protect the integrity and reliability of the system. Given the age and criticality of the M-A and M-P transmission lines, these inspections are more frequent and reveal degradation of the H-frame wood pole structures. Based on the inspections performed, the Authority anticipates replacing approximately forty structures annually for a five-year period from 2016 to 2020.

The total project cost over the five-year period is estimated at \$17.747 million, as follows:

Engineering	\$ 125,500
Procurement	\$ 7,222,500
Construction/Installation	\$ 9,451,200
Authority Direct Expenses	\$ 102,700
Authority Indirect Expenses	<u>\$ 845,100</u>
TOTAL	<u>\$17,747,000</u>

FISCAL INFORMATION

Payment associated with this Project will be made from the Authority’s Capital Fund.

RECOMMENDATION

The Senior Vice President – Operations Support Services and Chief Engineer, the Vice President – Transmission and the Vice President – Engineering recommend that the Trustees authorize capital expenditures in the amount of \$17.747 million for the replacement of the 230 kV wood pole structures on the Moses-Adirondack 1&2 and the Moses-Plattsburgh 1&2 Transmission Lines.

For the reasons stated, I recommend the approval of the above-requested action by adoption of the resolution below.

Gil C. Quiniones
President and Chief Executive Officer

RESOLUTION

RESOLVED, That in accordance with the Authority's Expenditure Authorization Procedures, capital expenditures are hereby approved in the amount of \$17.747 million for the replacement of approximately two hundred 230 kV H-Frame wood pole structures on the Moses-Adirondack ("M-A") 1&2 and the Moses-Plattsburgh ("M-P") 1&2 Transmission Lines:

Capital

**Moses-Adirondack and
Moses-Plattsburgh
Structure Replacements
Phase II**

**Expenditure
Authorization**

\$17.747 million

AND BE IT FURTHER RESOLVED, That the 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.