

New York Transmission Owners

**Submission of New York Transmission Owners
For Authority to Construct and Operate Electric
Transmission Facilities in Multiple Counties in
New York**

Case 13-M-_____

Part A Filing

Marcy South Series Compensation

**Exhibit E-4
Engineering Justification**

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EXHIBIT E-4: ENGINEERING JUSTIFICATION

a) The applicant shall:

- (1) Provide the engineering justification for the proposed transmission line, showing its relation to the existing facilities of the applicant and the interconnected network;

The MSSC¹⁶ is not a new transmission line, but rather the addition of series capacitor (“SC”) banks in series with the existing lines. The SC banks will be installed adjacent to the existing Marcy and Fraser Substations. The switchable series compensation will be controlled by the New York Independent System Operator (“NYISO”), allowing the NYISO to vary the power flows on the transmission system based on the system conditions.

- (2) Indicate specific benefits with respect to reliability and economy to the applicant and the interconnected network;

The Project, of which MSSC is a key component, provides significant benefits to the reliability and economy of New York State. A thorough discussion of these benefits is provided in Exhibit E-4 of the Article VII application for Edic to Pleasant Valley and Second Oakdale to Fraser 345 kV transmission lines.

The MSSC proposal has also been entered in the *Proceeding on Motion of the Commission to Review Generation Retirement Contingency Plans* in Case 12-E-0503. MSSC provides additional benefits important in that proceeding which is the increase of the import capability into Southeastern New York (“SENY”), including New York City, during normal and emergency conditions and will provide a partial solution for the energy and capacity needs that would arise should the Indian Point Energy Center (“IPEC”) retire.

The MSSC project is a “no regrets” solution to the retirement of the IPEC, i.e., MSSC makes sense from a public policy point of view even if the IPEC were to continue to operate. Accordingly, the MSSC proposal meets the objectives of the

¹⁶ The MSSC also involves a third SC Bank and reconductoring of a 21.8 mile section of transmission line by NYSEG as a non-Article VII project.

Blueprint, will provide significant public policy benefits throughout New York State.

- (3) State the proposed date for completion of the line and indicate the impact on the systems of the applicant and others of failure to complete the proposed transmission line on such date; and

The MSSC is not a new transmission line, but rather the addition of the SC banks in series with the existing lines. The MSSC project is proposed to be completed by June 30, 2016. The failure to complete the MSSC component of the Project by said date will result in the interfaces to remain constrained and the energy consumers of New York incurring significant congestion costs.

- (4) Provide appropriate system studies, showing expected flows on the line under normal, peak and emergency conditions, including the system reliability impact study forwarded by the TPAS for approval by the operating committee of the NYISO which shows effects on stability of the interconnected system.

The Final Report of the System Impact Study (“SIS”) for the MSSC project (NYISO- Queue #380) has been approved by the NYISO’s TPAS committee, and received final approval by the NYISO Operating Committee (“OC”) on May 20, 2013.

- (5) A demonstration of how and to what extent the proposed transmission project meets the congestion relief objectives identified by the Commission in Case 12-T-0502.

A thorough discussion of how and to what extent the Project, including the MSSC component, meets the congestion relief objectives is provided in Exhibit E-4 of the Article VII application for Edic to Pleasant Valley and Second Oakdale to Fraser 345 kV transmission lines.
