## New York Power Authority

#### And

New York State Electric & Gas Corporation

# Submission of Comparable Information Pursuant to the April 19, 2013 Public Service Commission Order Case 12-E-0503

Marcy South Series Compensation and Fraser to Coopers Corners Reconductoring Project

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Note: Section 8.11.2, Section 8.13, and all Exhibits have been redacted from this version of the submittal due to the confidential nature of the contents.

## Executive Summary of Project (Section 8.2)

As part of a long-term transmission planning study performed by the New York Power Authority ("NYPA") in 2011, the Marcy South Series Compensation and Fraser to Coopers Corners Reconductoring ("MSSC") project was identified as a means to increase power transfer from upstate generators to downstate load in a cost effective manner. The project consists of installing switchable series compensation on the existing Marcy South transmission lines¹ and reconductoring a section of the 345 kV Fraser to Coopers Corners FCC-33 line. MSSC improves power flow over an existing asset by installing a relatively sophisticated technology, switchable series compensation. The switchable series compensation will be controlled by the New York Independent System Operator ("NYISO") and allow the NYISO to vary the power flows across the bulk power transmission system based on system conditions.

After the issuance of the Energy Highway Initiative by Governor Cuomo in his 2012 State of the State address, it became apparent to NYPA and New York State Electric & Gas ("NYSEG") that the MSSC is a project that can reduce the transmission bottleneck in central New York and optimize the use of an existing asset. The Final Report of the System Impact Study ("SIS") for the MSSC project (NYISO-Queue #380) shows a transfer limit increase of 444 MW across the Total East Transmission Interface due to the series compensation. The SIS has been completed, approved by the NYISO's TPAS committee, and is expected to receive final approval by the NYISO Operating Committee ("OC") on May 20, 2013. The series compensation increases power flow from Zone E into Zones F and G.

In addition to the technological advancement, MSSC has environmental and economic benefits. From an environmental perspective, the series capacitors will be installed on existing NYPA and NYSEG property, near existing substations, and will not require any additional Right-of-Way ("ROW"). During operation, the MSSC project will not directly generate any air or water pollution. From the economic viewpoint, the increased power flow of 444 MW at an estimated cost of \$76 million equates to a cost of less than \$200,000 per MW.

The MSSC project improves the power flow from upstate generation to downstate load in a cost effective manner by increasing the utilization of existing AC transmission assets. The in-service date for the MSSC project is June 1, 2016.

It is respectfully submitted that the MSSC project accomplishes all of the goals of this proceeding. The MSSC project can be in service by June 1, 2016, provides significant benefits at a reasonable cost, addresses reliability needs should Indian Point Energy Center ("IPEC") retire, and facilitates increased capability to more efficiently deliver upstate generation to downstate load.

## Description of Project (Section 8.3)

The MSSC project is a transmission improvement project that adds switchable series compensation to increase power transfer by reducing series impedance over the existing 345 kV Marcy South lines. Specifically, the project adds 40% compensation to the Marcy-Coopers Corners 345 kV line, 25% compensation to the Edic-Fraser 345 kV line, and 25% compensation to the Fraser-Coopers Corners 345

<sup>&</sup>lt;sup>1</sup> Marcy South transmission lines are Marcy to Coopers Corners (UCC2-41), Edic to Fraser (EF24-40), and Fraser to Coopers Corners (FCC-33).

KV line through the installation of series capacitors. The project also involves upgrades at Marcy and Fraser 345 KV substations. The project reconductors approximately 21.8 miles of the NYSEG-owned Fraser-Coopers Corners 345 kV line (FCC-33) with a higher thermal-rated conductor installed on existing wooden pole and steel tower structures. The project increases thermal transfer limits across the Total East Interface and the UPNY/SENY Interface and provides a partial solution for system reliability should IPEC retire.

The MSSC project transmission corridor begins at the Marcy substation near Utica, New York and ends at the Coopers Corners substation near Monticello, New York. Both substations are located in Zone E, but the MSSC produces increased power flow into Zones F and G. The MSSC project has minimal environmental and community impacts as the construction will occur in existing ROW, outside of any New York State Department of Environmental Conservation ("NYSDEC")-regulated wetlands, and on NYPA and NYSEG easements.

The Final Report of the SIS of the MSSC project (Queue #380) has been completed, approved by the NYISO's TPAS committee, and is expected to receive final approval by the NYISO OC on May 20, 2013.

The Exhibits to this submission contain the following:

- 1- A map of the location of the MSSC (Exhibit A).
- 2- Maps of the Marcy and Fraser substations (Exhibits B and C), respectively.
- 3- A picture of a sample series capacitor installation (Exhibit D).
- 4- A picture of a typical FCC-33 wood pole structure (Exhibit E).
- 5- List of NYPA & NYSEG's generating facilities and transmission lines (Exhibit F).
- 6- NYPA RFP, Attachment 3 (Exhibit G).
- 7- NYPA RFP, Attachment 5 (Exhibit H).
- 8- NYPA RFP, Attachment 7 (Exhibit I).

## Proposer Experience (Section 8.4)

Created in 1931, NYPA is a public authority and political subdivision of the State which owns and operates 16 generating facilities and about 1400 circuit miles of high voltage transmission lines. A list of NYPA's generating plants and transmission lines is included in Exhibit F. The electricity NYPA generates and purchases is sold to municipally owned utilities and electric cooperatives, as well as to a variety of business, industrial and public customers throughout the State. NYPA is a fiscally independent public corporation that does not receive State funds, tax revenues, or credits.

NYPA has a long and proud history of constructing energy infrastructure in New York State, beginning with the construction of the St. Lawrence-FDR Project and the Niagara Power Project, completed in 1958 and 1961, respectively. These projects, in conjunction with NYPA's Blenheim-Gilboa Project (completed in 1973), provide over 4500 MW of clean hydropower for New York State customers. In the 1970's, NYPA constructed: 1) 230 kV transmission line from the St. Lawrence-FDR Project to Plattsburgh, 2) 345 kV transmission line from Blenheim-Gilboa Project to Leeds and 3) 765 kV line from Massena to Marcy. In the 1980's, NYPA built the Marcy South lines and the Sound Cable Project.

NYPA's most recent experience involving the development, financing, and construction of electric generating plants and/or transmission facilities includes the 500MW Combined Cycle Power Project located in Astoria, New York which became commercially operational in December 2005, and the current construction of the HTP transmission project with a projected in-service date of May 2013. NYPA in conjunction with National Grid financed, licensed and constructed the Tri-Lakes Reliability Project, which was a 69 kV transmission project in the Adirondack Park that went into service in 2009.

NYSEG is a regulated public utility organized under the laws of the State of New York. NYSEG is engaged in the transmission and distribution of electric power and natural gas. NYSEG provides electric service to 878,000 customers in 42 counties in New York State. NYSEG owns 4,583 miles of electric transmission lines, 32,881 miles of electric distribution lines and 444 substations. A list of NYSEG's generating plants and transmission facilities are contained in Exhibit F. NYSEG is a wholly-owned subsidiary of Iberdrola USA, Inc., which in turn is a subsidiary of Iberdrola, S.A. (an international energy company listed on the Madrid Stock Exchange).

NYSEG's most recent experience with the development, finance and construction of transmission includes:

Ithaca Transmission Project-consisting of a new 345 kV/115 kV Clarks Corners Road Substation, rebuilding of the 115 kV transmission line #945 from Etna to Lapeer, and construction of a new 15 mile, 115 kV line #715 from Etna to the new substation.

Corning Valley Project-consisting of a new 230kV/115kV Stoney Ridge Substation, and construction of a 9.6 mile 115 kV transmission line from West Erie Avenue Substation to the Stoney Ridge Substation.

In addition to this major construction work, NYSEG plans to conduct over \$41,000,000 of capital work on its extensive transmission system in 2013.

NYPA and NYSEG were both member companies of the New York Power Pool, the predecessor to the NYISO. As such, both companies played a fundamental role in the development and establishment of the NYISO, its markets and associated FERC jurisdictional tariffs. As members of the NYISO, NYPA and NYSEG actively participate in its governance, and are owners of extensive transmission facilities under the operational control of the NYISO.

NYPA and NYSEG have extensive experience obtaining regulatory approvals for the construction and operation of transmission and generating facilities. Major approvals which have been obtained in the past include, but are not limited to, Certificates of Environmental Compatibility and Public Need (Article VII Certificates), Article X Permits, Army Corps of Engineers (ACOE) permits, and 401 Water Quality Certificates.

NYPA and NYSEG have extensive personnel resources to contribute to this project. The primary Project Management team will consist of the following individuals:

#### **NYPA TEAM:**

Project Sponsor: John Suloway Vice President, Project Development & Licensing Project Leader: Mark Malone Director, Project Development & Licensing

Principal Engineer: Ben Shperling Principal Electrical Engineer

Project Management: Ricardo DaSilva Electrical Engineer II

EH&S: Jeff Gerlach Manager, Environmental Studies & Remediation

Finance: Tom Davis VP, Financial Planning & Budgets

Compliance: Wayne Sipperly NERC Reliability Compliance Program Manager

Accounting: Austin Davis Manager, Plant & Cost Accounting

Law: Andrew Neuman Special Counsel
Law: Glenn D. Haake Principal Attorney II

Real Estate: John Wingfield Geographic Information System Manager

#### **NYSEG Team:**

Project Sponsor: Javier Bonilla Vice President, Engineering & Capital Delivery

Project Leader: Ellen Miller Director, Electric Capital Delivery
Principle Engineer: Brian Conroy Director, Electric System Engineering
Project Management: Joseph Simone Manager, Electric Capital Delivery

Environmental &

Licensing: Carol Howland Lead Analyst, EH&S Compliance

Law: Noelle Kinsch Deputy General Counsel

Real Estate: Deborah Drake Supervisor, Property Management

To supplement in-house resources, NYPA and NYSEG have the contractual arrangements and the financial resources to obtain outside expertise that will contribute to the MSSC project in a professional and responsive manner. NYPA and NYSEG are committed to completing this project by the June 1, 2016 operational date. It is anticipated that the MSSC will be ultimately transferred to the NY Transco<sup>2</sup>.

## Project Information (Section 8.5)

Created in 1931, NYPA is a public authority and political subdivision of the State. NYPA's Dun & Bradstreet number is 07-525-2098

New York Power Authority

123 Main Street

White Plains, New York 10601 Contact Person: Mark Malone Contact phone: (914) 390-8026

Contact email: <a href="mark.malone@nypa.gov">mark.malone@nypa.gov</a>

<sup>2</sup> The NY Transco is a New York limited liability company proposed to be formed in or about July 2013 and coowned by the following entities or their newly formed special purpose affiliates: Consolidated Edison/O & R; Niagara Mohawk Power Corporation, a New York corporation d/b/a National Grid; NYSEG, a New York Corporation, and Rochester Gas & Electric Corporation, a New York Corporation; NYPA, a corporate municipal instrumentality and political subdivision of the State of New York; and the Long Island Power Authority. Created in 1852, NYSEG is an electric and gas corporation regulated by the New York State Public Service Commission. NYSEG's Dun & Bradstreet number for its Link Drive office is 04-186-6497.

**NYSEG** 

18 Link Drive

Binghamton, New York 13902 Contact Person: Ellen Miller Contact Phone: (207) 621-3936

Contact email: ellen.miller@cmpco.com

#### Disclosure Statements (Section 8.6)

Upon information and belief, NYPA has no disclosures to make pursuant to the requirements of Section 8.6. Iberdrola USA and its subsidiaries, including NYSEG, are defendants in numerous civil litigation matters in the ordinary course of business. In some of these matters, the allegation or cause of action may be for conversion or fraud. However, none of these litigation matters where the allegation is for fraud or conversion are material.

## Financial Capacity to Complete and Operate the Proposed Project (Section 8.7) Financing Plan

NYPA will secure its own portion of financing requirements through its access to the capital markets with a portion of the MSSC project costs expected to be financed through equity (see further discussions below).

NYPA is a New York State Authority and does not have a parent. NYPA has favorable debt / total capitalization (34%) and debt / equity (51%) ratios; days cash on hand (200+); unrestricted cash and investments (\$1.4 billion); and credit ratings of AA-/Aa2/AA (S&P, Moody's, Fitch). As such, NYPA has readily available access to the capital markets as well as sufficient equity to finance the MSSC project. It is anticipated that the MSSC project will be transferred to the NY Transco and subsequently developed and financed by the NY Transco.

For the MSSC project, NYPA proposes a capital structure of fifty percent debt, fifty percent equity. The debt would be structured to match the expected useful life of the MSSC project. As noted above, because of NYPA's strong credit rating, it is able to obtain very favorable financing rates.

NYPA currently owns and operates in New York five major generating facilities, four small hydroelectric facilities, and eleven small electric generating units, with a total installed capacity of approximately 6,051 megawatts ("MW"), and a number of transmission lines, including major 765-kV and 345-kV transmission facilities.

Aside from financing Life Extension and Modernization programs at two of its large hydroelectric facilities, NYPA financed and constructed a 500 MW combined cycle generating plant in Astoria, New York which went into commercial operation December 31, 2005. NYPA initially used short-term

financing to fund preliminary engineering and start-up construction costs. The short-term financing was subsequently refunded with fixed rate financing which was also utilized to finance the majority of the remaining costs to construct the plant. A balance of costs remaining to complete the plant once the proceeds of the fixed rate financing were depleted was funded with the issuance of commercial paper notes.

NYPA has, on two occasions, refunded portions of the fixed rate bonds by issuing refunding bonds with lower overall yields. NYPA has also retired, on an accelerated basis, a portion of the commercial paper notes issued at the back-end of the project. While the 500 MW plant was funded 100% with debt, NYPA believes, from a business stand-point, financing future projects with a combination of debt and equity is more appropriate (please see discussion above).

- 1. Audited financial statements for its most recent fiscal years; or Available at www.nypa.gov
- 2. Audited financial statements from Proposer's parent, if proposer does not have such financial statements; or

Not applicable

3. Explanation if the statements above cannot be provided and alternate information to demonstrate Proposer's financial capacity to complete and operate the proposed Project Not applicable

NYPA self-finances its transmission and generation projects by issuing Revenue Bonds and Notes of NYPA, as well as using equity. With the exception of banks providing liquidity facilities (which have never been drawn down on) no third party financing is utilized.

See NYPA RFP Attachment 5 (Exhibit H)

**NYSEG:** NYSEG is a gas and electric corporation organized under the laws of the State of New York in 1852. NYSEG is an indirect, wholly-owned subsidiary of Iberdrola USA and serves approximately 880,000 electric and 195,000 natural gas customers in New York State.

Financing Plan – The MSSC project would represent a relatively insignificant increase (<5%) in NYSEG's overall capital budget during the construction phase. NYSEG would finance the MSSC project along with all of its other capital and operating needs with a mix of debt and equity consistent with its financing strategy. NYSEG's financing strategy is to maintain a capital structure that is consistent with the capital structure assumed in the establishment of rates. Currently that target is a 48% equity ratio and NYSEG's actual equity ratio was 50% at March 31, 2013. NYSEG limits the payout of dividends to maintain it target equity ratio and also has the support of its parent Iberdrola S.A., should additional equity capital be required. NYSEG has credit ratings of BBB+ / Baa1 / A- from S&P, Moody's and Fitch, respectively and has access to the debt capital markets for long-term debt funding. NYSEG also has short-term financing available through a \$200 million commercial paper program and additional credit of up to \$250 million available to it through Iberdrola USA.

1. Audited financial statements for its most recent fiscal years; or

See www.nyseg.com

2. Audited financial statements from Proposer's parent, if proposer does not have such financial statements; or

Not applicable

3. Explanation if the statements above cannot be provided and alternate information to demonstrate Proposer's financial capacity to complete and operate the proposed Project Not applicable

#### Environmental Benefits of the Project (Section 8.8)

The MSSC project has tremendous environmental benefits. It does not contribute to water pollution or generate any hazardous waste. The project increases the power flow across the existing transmission system. Because the MSSC project transmits power from existing, in-state resources, it can be considered an environmental pollution avoidance project. Instead of having to construct a new power plant which would generate pollution, the MSSC project transmits existing electricity more efficiently.

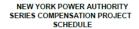
The MSSC project increases our capability to bring more power, including that from clean renewable sources, from upstate New York. This project does not require the acquisition of additional real estate for the series capacitors, and the transmission line reconductoring utilizes existing ROW.

There are no direct additional air emissions created as a result of this project, as opposed to those from new generation units. The MSSC project will have the necessary environmental permits in hand for the project to ensure construction is performed in an environmentally acceptable manner.

As identified in the New York Energy Highway Blueprint, this project is a significant component of the transmission upgrades in Northern New York that help facilitate renewable energy development.

## Proposed Resources Development Plan and Schedule (Section 8.9)

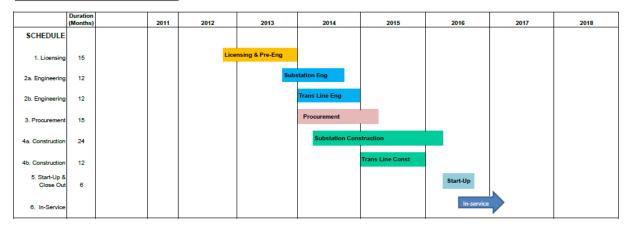
In July 2012, NYPA contracted with an engineering firm to perform preliminary engineering services for the MSSC project. These services included identifying the size and locations for the series capacitor installations, identifying a proposed conductor type for the FCC-33 line, contacting equipment manufacturers for preliminary cost and schedule information, and determining a proposed construction and outage schedule to ensure commercial operation by June 1, 2016. The preliminary schedule of the MSSC project is shown below:





Prepared By: ER/RV Date: 5/10/2013

#### SERIES COMPENSATION PROJECT SCHEDULE



#### **Series Capacitor Installations**

The series capacitor banks must be installed along the three Marcy South lines: UCC2-41, EF24-40, and FCC-33. The criteria for locating the series capacitor banks includes operational performance, minimal community and environmental impacts, and effective operations and maintenance over the long term. Locations near the existing Marcy, Edic, Fraser, and Coopers Corners substations were evaluated. This evaluation included review of electrical drawings, existing substation equipment, site visits, and constructability. The primary locations were identified as 1 series capacitor installation, 900 MVAR, at the Marcy substation, and 2 series capacitor installations, 300 MVAR and 230 MVAR, at the Fraser Substation. These primary locations are on existing NYPA and NYSEG easements, under NYPA and NYSEG site control, outside of existing wetlands, and enable operations and maintenance of the installations to be performed by NYPA and NSYEG personnel going forward.

#### Reconductoring of the 21.8 mile FCC-33 line

The preliminary engineering services for the reconductoring of the FCC-33 line involved identifying a new conductor that is strong, lightweight, and has a higher thermal rating than the existing, single bundle 2156 ACSR. The required thermal ratings for the new conductor are based on the SIS that was performed by NYPA as part of the NYISO Interconnection process.

The preliminary engineering studies identified two High-temperature, Low-sag conductors that will meet the new thermal rating requirements: 3M ACCR 1962-T11 and CTC ACCC Chukar II. These conductors were modeled using PLS-CADD based on the NESC C2-2012 loading conditions.

The existing structures were then modeled with the new conductors to identify structures that may require modifications. Each of the two proposed conductors would require different structural modifications, and

the final modifications will be determined based on the actual conductor chosen for installation during final design.

#### Detailed Design

As mentioned above, the preliminary engineering for the MSSC project has been completed with the identification of the preferred locations for the capacitor banks and the identification of two potential conductor types. The detailed engineering and design is currently underway. This will finalize the capacitor bank footprint size and location, the conductor type, and the required structure modifications, if any.

The SIS was completed and approved by TPAS on May 6. It is expected to receive final approval by the NYISO Operating Committee ("OC") on May 20, 2013. Approval by the OC completes the NYISO Interconnection process. In addition to the NYISO SIS, a subsynchronous resonance study is currently underway to ensure nearby generators will not experience any damage from the series capacitors.

#### Proposed Date(s) for any PSC or FERC Orders

The current schedule for the MSSC project which enables an in-service date of June 1, 2016 is based on three events: 1) the PSC selection of the MSSC in Case 12-E-0503 during September 2013, 2) the issuance of the Amendment to the existing Article VII Certificate for the Marcy South during first quarter 2014, and 3) the issuance of all applicable permits for the FCC-33 line reconductoring during second quarter 2014.

As the MSSC project is expected to be transferred to the NY Transco, the following dates are also anticipated:

- PSC Approval of Section 70 asset transfer filing during the first quarter of 2014
- FERC approval of NY Transco formula rate during the middle of 2014
- FERC approval of NY Transco incentives during the middle of 2014
- FERC approval of cost allocation during the middle of 2014

#### Timeline for Award of EPC Contract and Equipment Fabrication

The MSSC project will involve an EPC contract for the series capacitors. The bid package is anticipated to be completed and issued during the Fall of 2013. Proposers will have eight weeks to respond to the EPC bid. Anticipated bidders include General Electric, ABB, and Siemens. All three companies have experience with series capacitor design and installation, and will warranty the equipment and installation. The capacitors are anticipated to be designed and installed within 18 months of contract award.

The reconductoring of the FCC-33 line will be performed as a design, bid, build. NYSEG is currently designing the new conductor and structure modifications and will be procuring the new conductor. It is anticipated that there is a 6 month lead time on the conductor. NYSEG will be procuring installation services and will be coordinating outages with the NYISO. The final design is anticipated to be completed by December 31, 2013.

#### Permitting and Licensing

In parallel with the detailed design effort, the appropriate permits and licenses will be obtained for the MSSC project. At a meeting with the Department of Public Service on May 3, 2013, NYPA and NYSEG obtained input from staff as to the licensing and permitting requirements for the MSSC project. These efforts are currently underway. A joint meeting with the NYSDEC and other potentially interested agencies is scheduled for May 21, 2013 to determine permitting requirements specific to these agencies.

#### Community Outreach Plan

NYPA and NYSEG will design an appropriate Community Outreach Plan for the MSSC project. It will include the following stages:

#### Stage 1: Project Announcement – Framing the Issues

During the first stage of the public outreach program, NYPA and NYSEG will:

- Refine the overall public outreach plan, including the objectives and key messages
- Confirm key audiences or stakeholder groups identified previously
- Establish timeframes for the outreach program, including a long range and more detailed short range schedule
- Assign responsibilities
- Begin the preparation of collateral materials, including a press release to announce the project
- Implement a pre-announcement contact program
- Announce the project

#### Stage 2: Route Selection – Reaching Out and Establishing a Dialogue

The MSSC project route is established and NYPA and NYSEG will be reaching out to stakeholders to establish a two-way dialogue. The information to be shared at this stage will consist primarily of the following:

- A clear articulation of the need for the project
- A description of the route and impact at the existing substation sites
- Transmission line design characteristics, estimating structure modifications
- Information on issues that may be easily anticipated, such as EMF

An effective public outreach program involves two-way communication. Thus, the purpose of the outreach is to initiate a dialogue, so NYPA and NYSEG can better understand the community's perceptions, concerns and issues, and address them through the design of the project, in the information that is shared, and in other creative ways that demonstrate responsiveness.

Activities proposed in this stage of the program will include:

- Development of a mailing list
- Conduct open house meetings

- Communication with the media
- Website development and maintenance
- Establish project telephone line and e-mail address
- Prepare collateral materials (i.e., fact sheets, newsletters, brochures)

#### Stage 3: Application Review – Managing Issues

Once NYPA's Article VII Amendment application is filed relative to the series capacitors and NYSEG's State Agency permit applications are filed relative to NYSEG's reconductoring, the public outreach program will focus on keeping stakeholders informed of the process and announcing the achievement of major milestones. In addition, the public outreach team will be available to support NYPA and NYSEG in issue management, which includes being aware of issues as they arise in the application review process, understanding the implications of them from a public relations standpoint, and devising an appropriate communications strategy. It is in this stage that having a team structure, close coordination, and good internal communication really pays off. For, although this stage of the process may proceed very smoothly with few issues surfacing at the community level, being able to anticipate significant community issues and respond quickly is important. The Public Affairs team will establish protocols for prompt and coordinated response to public inquiries and issues raised by opposition groups.

#### Activities during this stage will include:

- Convening small-scale meetings and individual briefings with key stakeholders about specific issues
- Issuing press releases as major milestones are achieved
- Updating the web page including timely responses to manage content and respond to inquiries, comments, and issues
- Mailing project updates or newsletters to stakeholders on the mailing list
- Maintaining awareness of opposition group positions through internet monitoring

The benefits of active use of the internet cannot be over-emphasized. A project-specific website or project link from NYPA's and NYSEG's website is expected to be available for dissemination of public information and permit application documents. This site will also provide a mechanism for public comments and requests for additional information, and will require regular monitoring to ensure responsiveness All internet postings by NYPA and NYSEG will be transparent, factually correct, and updated as often as necessary.

#### Stage 4: Design and Construction - Consolidating Community Support and Following Through

During construction, NYPA and NYSEG will keep the neighbors and customers informed of progress. To the extent that the team has been successful in communicating the benefits of the project, the community will be informed of how the project is going. Progress reporting will be accomplished through the media and/or periodic mailings (letters, newsletters, bill stuffers). There will also be a procedure in place for responding promptly and effectively to questions and complaints. Through the efforts invested up to this

point, the framework will be established to enable NYPA and NYSEG to continue the public outreach efforts and ensure good community relations.

#### **Equity and Debt Financing Plans**

Please see Section 8.7.

#### **Community Benefits**

Please see Section 8.14

#### Taxes and/or Pilot Agreements

NYPA does not pay real estate taxes. NYSEG's portion of the project would be subject to real estate taxes.

#### Site Control Status

The series capacitors are being installed adjacent to the existing Marcy and Fraser substations. These will be under NYPA and NYSEG control, respectively. The FCC-33 line is existing and under the control of NYSEG.

#### Operations Plan

While the application of a series capacitor is new to the electric system at NYPA and NYSEG, the system is comprised of conventional power system devices currently installed at existing facilities operated and maintained by the utilities. The preventive maintenance practices for the system can be developed by reviewing the manufacturer's recommended procedures, in addition to, industry, NERC/NPCC, NYPA and NYSEG standard policies and procedures. A thorough review of the manufacturer's recommended procedures and maintenance intervals will be conducted to develop an optimal maintenance program and spare parts inventory.

As with any preventive maintenance program, it is recognized that historical operations and maintenance data provide valuable insight into the effectiveness of the preventive maintenance practices. As operations and maintenance experience is gained on the particular components, it is expected that the historical testing and trend data will enable the preventive maintenance program to be fine-tuned, with testing intervals for various components being increased or decreased, as required.

Maintenance outages will be scheduled based on the manufacturer's recommended practices, in addition to, industry, NERC/NPCC, NYPA and NYSEG standard policies and procedures. When safe and practical, maintenance will be performed on equipment while the series capacitor remains in service.

The utilities employ a staff of trained and qualified engineers and maintenance personnel familiar with operations and maintenance of power systems equipment. The proximity of the capacitor banks to the Marcy and Fraser substations allows for NYPA and NYSEG personnel to perform the inspections and maintenance in a cost effective manner. Additional training on manufacturer's specific equipment and procedures will be arranged, as necessary.

The existing ROW maintenance and line inspection practices for the FCC-33 line will continue with the use of NYSEG personnel. These practices are in accordance with NERC/NPCC, NYSEG and industry standard policies and procedures. The reconductoring of a portion of the line should not impact the current operation and maintenance practices.

#### **Electric Interconnection Points**

The MSSC project transmission corridor begins at the Marcy substation near Utica, New York and ends at the Coopers Corners substation near Monticello, New York. Both substations are located in Zone E, but the MSSC produces increased power flow into Zones F and G.

#### Status in NYISO Interconnection Process

The Final Report of the SIS for the MSSC project (NYISO- Queue #380) shows a transfer limit increase of 444 MW across the Total East Transmission Interface due to the series compensation. The Final Report of the SIS for the MSSC project was completed, approved by the NYISO's TPAS committee, and is expected to receive final approval by the NYISO OC on May 20, 2013. The OC's approval of the SIS completes the NYISO Interconnection Process. The series compensation increases power flow from Zone E into Zones F and G.

#### **Environmental Justice**

NYPA and NYSEG compared the location for the series capacitors and the 21.8 mile section of the FCC-33 line to the NYSDEC's data file of the Potential Environmental Justice Areas (PEJAs). This data file is comprised of sites that have met one or more of the NYS DEC criteria in the 2000 U.S. Census. According to this dataset, the closest PEJA to the Marcy substation is approximately 3 miles away. The closes PEJA to the Fraser Substation is approximately 13 miles away.

#### **Cancellation Provisions**

NYPA and NYSEG intend to include in any contract into which they enter in relation to the development and construction of the MSSC a right to terminate the contract at NYPA and NYSEG's election for any reason. Upon such termination, NYPA and NYSEG intend to require the contractor to stop performing all work and to cancel as quickly as possible all orders placed by it with subcontractors and suppliers, and to use all reasonable efforts to minimize cancellation charges and other costs and expenses associated with termination of work. NYPA and NYSEG will also seek to enter into fixed price contracts, with payment contingent upon the achievement of certain milestones, to the greatest extent possible. While NYPA and NYSEG intend to seek such terms, there can be no assurance that NYPA and NYSEG will be successful in achieving them. In this regard, NYPA and NYSEG note that much of the equipment the MSSC requires will be highly customized; as a consequence, NYPA and NYSEG do not expect to be able to cancel such orders (or that its contractor will be able to cancel such orders) once they are placed. NYPA and NYSEG would expect that any proposer seeking to develop and construct transmission projects would be subject to similar constraints.

## Environmental Review (Section 8.10)

The installation of the series capacitors will require an Amendment to the existing Article VII Certificate for the Marcy South, Case 70126. The reconductoring of the FCC-33 line will require the completion of various studies and investigations as well as procurement of certain permits and approvals which will be coordinated with the NYSDEC.

The following Federal, State and local environmental laws and regulations have been assessed for applicability to this project. Initial coordination with these agencies has commenced and required permits and/or approvals will be acquired as outlined in the proposed schedule.

Federal Agency	Regulations (Permit)	Applicability/Status
U.S. Army Corps of Engineers (USACE) New York District	Clean Water Act - Section 404 Permit Nationwide Permit No. 12 33 USC 1344	A permit with the USACE is not expected. A Preconstruction notification will be required if certain thresholds are exceeded.
U.S. Fish & Wildlife Service	Federal Endangered Species Act 16 USC 1531  Migratory Bird Treaty Act 16 USC 703  Bald and Golden Eagle Protection Act 16 USC 668	Process initiated. NY Natural Heritage program data request used to identify potential species concerns.
State Agency	Applicability	
New York State Department of Public Service, Public Service Commission (PSC)	Public Service Law - Article VII U.S. Clean Water Act - Section 401 Water Quality Certification 16 USC 1451	Initial coordination with DPS staff to determine applicability of Public Service Law
		Existing structure heights not expected to increase.

New York State Department of Environmental Conservation (NYSDEC)	State Pollutant Discharge Elimination System (SPDES) Construction Stormwater Permit 6 NYCRR §750-1.21  Threatened and Endangered Species 6 NYCRR Part 182	Construction activities disturbing more than 1 acre will require a SPDES permit and SWPPP NY Natural Heritage program data request
	Freshwater Wetlands Permit 6 NYCRR, Part 608; ECL Article 24	Initial assessment of SC bank location impacts, access road crossings and pulling stations to
	Protection of Waters Permit 6 NYCRR, Parts 663-665 Article 15	determine applicability of these permits.
	Catskill Park Preserve	Existing easement
State Historic Preservation Office (SHPO)	Section 106 Consultation under the National Historic Preservation Act (NHPA) – if federal permits/approval required	Visual assessment may be performed only if structure heights increase significantly.
	Section 14.09 of the New York State Historic Preservation Act 16 USC 470	Phase 1 archeological assessment to be performed for those areas not previously disturbed.
Local		
Town of Marcy Oneida County	Local Ordinances	
Town of Delhi Delaware County	Local Ordinances	
Town of Hamden Delaware County	Local Ordinances	
Town of Colchester Delaware County	Local Ordinances	
Town of Rockland Sullivan County	Local Ordinances	
Town of Thompson Sullivan County	Local Ordinances	
NYC Department of Environmental Protection	Approval of construction activities on NYC water supply lands	SWPPP used to eliminate potential stormwater runoff concerns in the Pepacton Reservoir

In addition to the permits identified above, an electromagnetic field (EMF) calculation will be performed in accordance with the DPS guidance. Geotechnical studies are also required at the locations of the series capacitors.

A MSSC website will be established and contain a repository of all relevant permits, environmental studies, and agency correspondence.

Pricing for Transmission Projects (Section 8.11.2)

#### CONFIDENTIAL AND REDACTED

Halting Costs (Section 8.13)

#### CONFIDENTIAL AND REDACTED

## Other Requirements (Section 8.14)

The MSSC project will be constructed on existing ROWs and existing easements. No new ROW is required. Based on the capital cost of \$76 million, 150 man years will be required to complete the project.

## Compliance Statement (Section 8.15)

All products or services provided by NYPA and NYSEG for the MSSC project will be in compliance with all applicable legal and regulatory requirements.

## **Exhibit A**

Location of Marcy South Lines

## Exhibit B

Proposed Series Compensation Installation at Marcy

## **Exhibit C**

Proposed Series Compensation Installation at Fraser

## **Exhibit D**

Example of a series capacitor installation

## **Exhibit E**

Example of H-frame wood pole structure

## **Exhibit F**

NYPA owned Generating and Transmission Facilities

## Exhibit G

## NYPA RFP, Attachment 3

## Exhibit H

## NYPA RFP Attachment 5

## **Exhibit I**

## NYPA RFP Attachment 7