# IN THE MATTER OF THE PUBLIC SERVICE COMMISSION PROCEEDING (CASE 12-T-0502) TO EXAMINE ALTERNATING CURRENT TRANSMISSION UPGRADES - FILING OF INITIAL SUBMISSION MATERIALS BY NIAGARA MOHAWK POWER CORPORATION D/B/A NATIONAL GRID, NEW YORK STATE ELECTRIC & GAS CORPORATION, THE NEW YORK POWER AUTHORITY, CONSOLIDATED EDISON COMPANY OF NEW YORK, INC., ORANGE & ROCKLAND UTILITIES, INC., AND CENTRAL HUDSON GAS AND ELECTRIC CORPORATION FOR THE PROPOSED CONSTRUCTION AND RECONSTRUCTION OF TRANSMISSION FACILITIES

TO WHOM IT MAY CONCERN: PLEASE TAKE NOTICE THAT Niagara Mohawk Power Corporation d/b/a National Grid ("National Grid"), New York State Electric & Gas Corporation ("NYSEC"), the New York Power Authority ("NYPA"), Consolidated Edison Company of New York, Inc. ("Con Edison"), Orange & Rockland Utilities, Inc. ("O&R"), and Central Hudson Gas and Electric Corporation ("Central Hudson") (collectively, the "New York Transmission Owners" or "NYTOs"), will file initial submission materials ("Initial Submission Materials") in the above entitled matter with the New York State Public Service Commission ("Commission") pursuant to Article VII of the Public Service Law of the State of New York and the Commission's April 22, 2013 order issued in Case 12-T-0502, Proceeding on Motion to Examine Alternating Current Transmission Upgrades, Order Establishing Procedures for Joint Review under Article VII of the Public Service Law and Approving Rule Changes and the proposed rules issued by the Commission on May 29, 2013.

A copy of the Initial Submission Materials filed with the Commission will be served upon the chief executive officers of Broome, Chenango, Delaware, Oneida, Herkimer, Montgomery, Schenectady, Albany, Rensselaer, Columbia, Sullivan, Ulster, Dutchess, Orange, and Rockland Counties; the Towns of Afton, Bainbridge, Barker, Chenango, Coventry, Delhi, Franklin, Greene, Hamden, Maine, Masonville, Sidney, Union, Walton, Marcy, Deerfield, Schuyler, Frankfort, German Flatts, Stark, Danube, Minden, Colchester, Rockland, Canajoharie, Root, Glen, Charleston, Florida, Duanesburg, Princetown, Guilderland, New Scotland, Bethlehem, Coeymans, Schodack, Stuyvesant, Stockport, Chent, Claverack, Livingston, Gallatin, Clermont, Milan, Clinton, Pleasant Valley, Ramapo, Chester, Blooming Grove, New Windsor, and Hamptonburgh; the City of Little Falls; and the Village of Voorheesville(the municipalities traversed by the proposed route).

### **GENERAL INFORMATION**

The project that is being proposed by the NYTOs (the "Project") will address persistent congestion on portions of the New York State electric transmission system. Two components of the Project have either already received Article VII siting approval or do not need Article VII siting approval. The Project is comprised of the following components: (i) construct an approximately 156-mile 345kV overhead electric transmission line from Edic Substation to Pleasant Valley Substation ("Proposed Edic-Pleasant Valley Line"); (ii) construct an approximately 57-mile 345kV overhead electric transmission line from Oakdale Substation to Fraser Substation ("Proposed Oakdale-Fraser Line"); (iii) add two new switchable series capacitor banks, one adjacent to the Marcy Substation and one adjacent to the Fraser Substation (NYPA's portion of the "Marcy South Series Compensation" or "MSSC"), which does not need an Article VII certificate; (iv) add another new switchable series capacitor bank adjacent to the Fraser Substation and reconductor 21.8 miles of an existing overhead electric transmission line NYSEC's 345 kV Line #33 (FCC-33) running from Fraser Substation to Coopers Corners Substation (NYSEC's portion of the "MSSC"); and (v)construct an 11.8 mile segment of the approximately 27.4-mile 345kV overhead electric transmission line between the Ramapo Substation and the Rock Tavern Substation ("Proposed Second Ramapo-Rock Tavern Line"), which has already received its Article VII siting certificate.

#### **DESCRIPTION OF THE PROJECT**

**Proposed Edic-Pleasant Valley Line.** The Proposed Edic-Pleasant Valley Line will run from National Grid's Edic Substation in Oneida County, New York to Con Edison's Pleasant Valley Substation in Dutchess County, New York, a total distance of approximately 156 miles. This new transmission line will be designed to operate at a nominal system voltage of 345 kV alternating current ("AC"), and the voltage at initial operation will also be 345 kV. Preliminarily, the proposed conductor type for the line is twin bundled 1590 MCM 54/19 ACSR "Falcon."

The Proposed Edic-Pleasant Valley Line will share existing electric transmission corridors that are occupied by other National Grid lines and in some locations lines owned and operated by NYPA; however, some new right-of-way ("ROW") acquisition will be required. The existing transmission rights-of-way range from approximately 100 feet to 600 feet wide. The existing National Grid electric transmission corridors that comprise the primary route for the Proposed Edic-Pleasant Valley Line traverse (from west to east) the counties of Oneida, Herkimer, Montgomery, Schenectady, Albany, Rensselaer, Columbia and Dutchess.

The Proposed Edic-Pleasant Valley Line component of the Project also includes construction of three new substations: (i) Princetown Substation in the Town of Princetown; (ii) Knickerbocker Substation in the Town of Schodack; and (iii) Churchtown Substation in the Town of Claverack.

As part of the Project, approximately 5 miles of the existing #30 Porter-Rotterdam 230kV line and 5 miles of the #31 Porter-Rotterdam 230 kV line will be rebuilt between the proposed Princetown Substation and the Rotterdam Substation within existing ROW. These lines will be designed to operate at a nominal system voltage of 230 kV AC, and their voltage of initial operation will also be 230 kV. Preliminarily, the proposed conductor type for the rebuilt portions of the #30 line and #31 line will be single 1590 MCM 54/19 ACSR "Falcon." The remaining portions of the #30 line and #31 line not rebuilt, from Porter Substation to proposed Princetown Substation, will be retired.

**Proposed Oakdale-Fraser Line.** The Proposed Oakdale-Fraser Line is a second 345kV electric line that would run parallel to NYSEC's existing Line 32. The Proposed Oakdale-Fraser Line runs between the Oakdale Substation in the Town of Union, Broome County, and the Fraser Substation in the Town of Delhi, Delaware County, a distance of approximately 57 miles.

The Proposed Oakdale-Fraser Line will be constructed along the existing NYSEG Line 32 ROW; however, additional rights may be acquired for construction, vegetation clearing, and/or danger tree removal as

Proposed Marcy South Series Compensation. The MSSC would increase the transfer limit across the Total-East interface by 444 MW. NYPA's portion of MSSC consists of constructing one series capacitor bank adjacent to the Marcy Substation and another adjacent to the Fraser Substation, and connecting those series capacitor banks to the two Marcy South transmission lines owned by NYPA known as Marcy to Coopers Corner (UCC2-41) and Edic to Fraser (EF24-40). NYSEG's portion of MSSC consists of constructing a series capacitor bank adjacent to the Fraser Substation and connecting it to the Fraser to Coopers Corners (FCC-33) line owned by NYSEG. A series capacitor bank is a structure approximately 28 feet tall consisting of capacitors which, when connected to an AC transmission circuit, increases power flow. The switchable series capacitor banks will increase power transfer by reducing series impedance over the existing 345 kV Marcy South lines owned by NYSEG and NYPA. The MSSC will improve power flow over these existing assets by installing this technology with minimal construction and disruption. Controlled by the New York Independent System Operator ("NYISO"), the switchable series capacitors will allow the NYISO to vary the power flows across the bulk power transmission system to better respond to changing system conditions.

NYSEG's portion of MSSC also consists of reconductoring 21.8 miles of NYSEG's FCC-33 line in the Towns of Delhi, Hamden, Colchester and Rockland, located in Delaware and Sullivan Counties. Some structures along the existing ROW will be replaced with substantially similar structures.

**Proposed Second Ramapo-Rock Tavern Line.** The Proposed Second Ramapo-Rock Tavern Line will extend from Con Edison's Ramapo 345kV Substation to Central Hudson's Rock Tavern 345kV Substation. The Line will be installed on the existing towers of the first 345 kV circuit extending from the Ramapo Substation to the Rock Tavern Substation that was completed in 1974.

The Commission has previously issued a certificate for construction and operation, pursuant to Article VII of the Public Service Law, of two 345 kV circuits from the Ramapo Substation to the Rock Tavern Substation. The Commission has also previously approved Environmental Management & Construction Plans ("EM&CP") for the first circuit from Ramapo to Rock Tavern and for a portion of the second circuit extending from the Ramapo Substation to the Sugarloaf Substation (a distance of 15.6 miles). Construction has begun on that segment. Con Edison now intends to seek Commission approval of its EM&CP for the balance of the second circuit from Sugarloaf to the Rock Tavern Substation (a distance of 11.8 miles).

The Proposed Second Ramapo-Rock Tavern Line will contain the following three elements:

- Installation of the balance of a previously approved second 345 kV circuit, i.e., approximately 11.8 miles extending from Sugarloaf to the Rock Tavern Substation on the existing structures that support the first 345 kV circuit;
- Modification of the Ramapo and Rock Tavern Substations to connect the second 345 kV circuit to these substations; and
- 3. Installation of a new 345/138 kV step-down transformer and associated equipment in the vicinity of the existing 138 kV Sugarloaf Substation that will provide for connection of the O&R system to the Proposed Second Ramapo-Rock Tavern Line.

## LOCATION OF THE PROJECT

**Proposed Edic-Pleasant Valley Line.** The Proposed Edic-Pleasant Valley Line will run from National Grid's Edic Substation in Oneida County to Con Edison's Pleasant Valley Substation in Dutchess County. The line will be built primarily along an existing ROW owned by the Co-Applicants.

The Proposed Edic-Pleasant Valley Line starts at the Edic Substation in the Town of Marcy, Oneida County. It would traverse the short distance (less than 2,000 feet) to the Porter Substation to join the Porter-Rotterdam #30 and #31 230 kV ROW, which also includes the NYPA Marcy-Coopers Corners and the Edic-Fraser 345 kV lines. These facilities are located on adjacent double-circuit structures within this shared 200- to 350-footwide ROW for a total distance of approximately 12 miles. Heading southeast past Porter Substation, the line crosses State Route 8/12 into the Town of Deerfield and continues past and to the north of the Utica Reservoir. After crossing into Herkimer County, the line turns south and crosses the New York State Thruway (I-90), the Erie Canal and the Mohawk River within a distance of approximately 3,000 feet.

The Proposed Edic-Pleasant Valley Line continues in a south-southeasterly direction for approximately 8 miles in Herkimer County at which point the #31 230 kV line separates from the other three circuits and

continues to the east along a separate ROW. The line follows the alignment of the #30 230 kV line which continues to share the ROW with the two NYPA 345 kV lines for approximately 1.7 miles. The two NYPA 345 kV lines diverge south from the #30 230 kV line and the #30 line continues within its own ROW in a southeasterly and then easterly direction for approximately 2.9 miles, at which point it rejoins the #31 230 kV line. The line continues in a southeasterly-easterly direction along the 200-foot-wide ROW of the #30 and #31 lines through Herkimer County. The line travels through the Towns of Schuyler, Frankfort, German Flatts, Little Falls, Stark, and Danube in Herkimer County.

The Proposed Edic-Pleasant Valley Line continues to follow the alignment of the #30 and #31 230 kV lines in a southeasterly direction through Montgomery County, crossing Canajoharie Creek in the Town of Canajoharie. In the Town of Charleston, just west of State Route 30A, the #30 and #31 lines separate with the #31 line heading northeast before turning to the southeast and rejoining the #30 line just west of Schoharie Creek. The line continues to follow the alignment of the #30 line due east through this area, across Schoharie Creek, before continuing into Schenectady County. The line travels through the Towns of Minden, Canajoharie, Root, Glen, Charleston, and Florida in Montgomery County.

The Proposed Edic-Pleasant Valley Line continues due east along the ROW of the #30 and #31 lines in Schenectady County bypassing the proposed Princetown Substation, which will be located near the intersection of the ROW for the #30 and #31 lines and the ROW for the Marcy-New Scotland #18 345 kV line and the Edic-New Scotland #14 345 kV line.

The Proposed Edic-Pleasant Valley Line continues to the southeast along the 370-foot-wide ROW for the Marcy-New Scotland #18 345 kV line and the Edic-New Scotland #14 345 kV line. The line crosses Interstate 88 (I-88) about 5 miles south of the proposed Princetown Substation, just west of where I-88 ends at the New York State Thruway (I-90). About 1 mile south of the I-88 crossing, the #13 115 kV line joins the 590-foot-wide ROW and the line turns due south and continues into Albany County. The line travels through the Towns of Duanesburg and Princetown in Schenectady County.

In Albany County, the Proposed Edic-Pleasant Valley Line crosses U.S. Route 20 in the Town of Guilderland, continues due south just to the east of the Orchard Creek Golf Club, then turns southeast and continues along the existing 345 kV corridor, which is reduced to a 450-foot-wide ROW for a distance of approximately 2 miles in the Town of Guilderland. The line follows this corridor to the New Scotland Substation in the Town of New Scotland. The line by-passes the New Scotland Substation and heads east for a distance of approximately 3.4 miles along the corridor that includes several 115 kV lines and the New Scotland-Alps #2 345 kV line. This section of ROW ranges between 400 feet and 620 feet wide. The line turns south continuing along the existing 250-foot-wide 345 kV ROW, crosses a major railroad corridor and CSX siding complex, then crosses U.S. Route 9W and the New York State Thruway (I-87) just west of the Hudson River. The line travels through the Towns of Guilderland, New Scotland (which includes 4.9 miles in the Village of Voorheesville), Bethlehem, and Coeymans in Albany County.

The Proposed Edic-Pleasant Valley Line follows the New Scotland-Alps #2 345 kV alignment across the Hudson River into Rensselaer County, parallel and to the south of an existing CSX railroad bridge and the New York Thruway-Berkshire Connector bridge. At the crossing location the Hudson River is approximately 1,800 feet wide. On the east side of the Hudson River these three facilities continue an aerial crossing of the Schodack Island State Park for a distance of approximately 1,200 feet. From the Hudson River the line continues east for approximately 1.6 miles to the proposed Knickerbocker Substation, which will be located at the intersection of the New Scotland-Alps #2 345 kV line and the Schodack-Churchtown #14 and the Greenbush-Hudson #15 115 kV lines in the Town of Schodack.

The Proposed Edic-Pleasant Valley Line departs from the proposed Knickerbocker Substation and proceeds to the south along the 100-foot-wide ROW of the double-circuit Schodack-Churchtown #14 and Greenbush-Hudson #15 115 kV lines. Approximately 2.2 miles south of the proposed Knickerbocker Substation, the line passes into Columbia County and continues in a nearly straight line due south through the Town of Stuyvesant for a distance of approximately 8 miles. After crossing into the Town of Stockport, the line turns to the southeast, crosses U.S. Route 9 and Kinderhook Creek, and again turns due south. The line continues in a southerly direction generally parallel to and approximately 1 mile to the east of U.S. Route 9. The line crosses a small portion of the Town of Ghent less than 1 mile west of the Columbia County Airport. The line continues to follow the 115 kV ROW through the Town of Claverack, passing about 2 miles to the east of the City of Hudson. After crossing Route 9H the double-circuit #8 and #T7 115 kV lines join the ROW just north of the Churchtown Substation. The 150-foot-wide ROW the line is in remains with this configuration of parallel double-circuit 115 kV lines for the next 12 miles through the Towns of Livingston (8.3 miles), Gallatin (1.2 miles), and Clermont (0.7 mile). The total distance in Columbia County is approximately 30.8 miles.

The Proposed Edic-Pleasant Valley Line continues south into the Town of Milan in Dutchess County, and approximately 1 mile south of the county line the ROW is joined from the west by the Leeds-Pleasant Valley #91 and #92 345 kV lines in a parallel, single-circuit configuration. The line continues along this 400-footwide ROW for approximately 6 miles, at which point the two 345 kV lines leave this joint ROW to the west; the line continues due south along the 115 kV ROW, running east of Silver Lake in the Town of Clinton. The line continues south in the Town of Clinton and continues along this 150-foot-wide 115 kV ROW in the Town of Pleasant Valley to the Pleasant Valley Substation. The line travels through the Towns of Milan, Clinton, and Pleasant Valley in Dutchess County.

South of Churchtown Substation, the Proposed Edic-Pleasant Valley Line roughly parallels the Taconic State Parkway which is located approximately 2 to 3 miles to the east. A portion of this ROW in which the line is located in Columbia and Dutchess counties is also occupied by the Iroquois Pipeline.

**Proposed Oakdale-Fraser Line.** The Proposed Oakdale-Fraser Line begins at the Oakdale 345 kV substation in the Town of Union in Broome County. It leaves the substation, heading in a northern direction for approximately 1.6 miles. The line then crosses into the Town of Maine and continues in a northeast direction for approximately 3 miles. The line then crosses into the Town of Chenango, continuing for approximately 6 miles before crossing into the Town of Barker. Continuing northeast the line crosses State Highway 79, followed by Conklin Hill Road and enters into Chenango County, Town of Greene.

Within the Town of Greene, the Proposed Oakdale-Fraser Line continues in an easterly direction for approximately 7.5 miles and then crosses into the Town of Coventry. In the Town of Coventry, the line travels in a northeast direction for 7.5 miles after which it crosses into the Town of Afton. The Line crosses State Highway 41 and State Highway 7 followed by the Delaware and Hudson Railroad. After crossing into the Town of Bainbridge, the line continues for approximately 3.4 miles before crossing into Delaware County, Town of Masonville.

The Proposed Oakdale-Fraser Line continues in an easterly direction through the Town of Masonville for approximately 9 miles before crossing into the Town of Sidney. Continuing in an easterly direction for 2.3 miles, the line crosses into the Town of Franklin and then continues for approximately 2 miles before crossing into the Town of Walton. After crossing into the Town of Walton, the line continues in an easterly direction for 2.8 miles before crossing into the Town of Hamden. The line continues through Hamden for approximately 3.8 miles and then crosses into the Town of Delhi, ending at the Fraser Substation.

**Proposed Marcy South Series Compensation.** Three parcels, approximately 2 acres each and adjacent to existing substations on land already owned by either NYPA or NYSEG, would be used as sites for the proposed series capacitor banks. One series capacitor bank would be constructed adjacent to the Marcy Substation in the Town of Marcy on NYPA-owned property. The second and third series capacitor banks would be constructed adjacent to the Fraser Substation in the Town of Delhi on NYSEG-owned property.

The 21.8-mile reconductoring of NYSEG's FCC-33 line commences at a point along NYSEG's existing ROW in the south-central portion of the Town of Delhi, approximately 4.5 miles east-southeast of the Fraser Substation. The reconductoring route passes through the Town of Hamden in a southerly direction for approximately 5 miles and continues in a southerly direction through the Town of Colchester for approximately 12 miles. While in the Town of Colchester, the reconductoring route passes above approximately 0.64 miles of surface water comprising the Pepacton Reservoir and, immediately thereafter, passes into the Catskill Park. The reconductoring route passes through approximately 12 miles of Catskill Park and terminates at the Hazel Substation, located approximately 4 miles south of Colchester, in the Town of Rockland, Sullivan County.

The existing ROW for the FCC-33 line is approximately 150 feet wide. Construction as well as access will occur exclusively in this existing ROW and along existing access roads; acquisition of additional ROW will not be required.

**Proposed Second Ramapo-Rock Tavern Line.** The Proposed Second Ramapo-Rock Tavern Line will be constructed utilizing the existing transmission towers along the ROW between Sugarloaf and Rock Tavern.

The proposed work will be done between Sugarloaf and the Rock Tavern Substation within the towns of New Windsor, Hamptonburg, Blooming Grove, and Chester and at the three affected substations (Ramapo, Sugarloaf and Rock Tavern).

## DATE OF FILING

The NYTOs expect to file the Initial Submission Materials with the Commission on or before October 1, 2013. Copies of the Initial Submission Materials will be available for public inspection on the Project website (www.nytransco.com). In addition, copies of the Initial Submission Materials will be available for public inspection at the Department of Public Service Offices in Albany (Office of Central Files, 14th Floor, Three Empire State Plaza, Albany, NY 12223).