## **State of New York Public Service Commission**

# **Proceeding on Motion to Examine Alternating Current Transmission Upgrades**

Case 12-T-0502

# STATEMENT OF INTENT ON BEHALF OF NEXTERA ENERGY TRANSMISSION, LLC



Dated: January 25, 2013

## A. Respondent Information

NextEra Energy Transmission, LLC (NextEra) is a wholly owned indirect subsidiary of NextEra Energy, Inc. NextEra Energy, Inc., a Fortune 200 corporation (NYSE: NEE), is a leading North American clean-energy company with 2011 revenues of more than \$15.3 billion; more than 41,000 MW of generating capacity; more than 8,000 circuit miles of transmission; and approximately 15,000 employees in 24 U.S. states, 4 Canadian provinces and Spain. Further background on NextEra Energy, Inc. can be found in its filings with the U.S. Securities and Exchange Commission, which are available on the internet at http://www.nexteraenergy.com.

#### **Primary Contact:**

Eric S. Gleason, President NextEra Energy Transmission, LLC 700 Universe Blvd Juno Beach, FL 33408

Office: 561-691-7087

561-324-6769

Email: Eric.Gleason@NextEraEnergy.com

# **B. Project Description**

NextEra believes that several of the proposed New York Transco (Transco) AC projects, considered as a group, would substantially address the objectives of Case 12-T-0502. NextEra further believes that opening transmission projects to competition would ultimately benefit ratepayers. Therefore, NextEra proposes to compete for the right to develop, construct, own, operate, and maintain the Marcy – Pleasant Valley AC project as defined below. In addition, NextEra has identified a DC project with multiple options, any one of which could serve as an electrical substitute for the Marcy – Pleasant Valley AC project, and would offer additional benefits.

## AC Project: Marcy – Pleasant Valley 345 kV Line

Transco has identified the Marcy – New Scotland 345 kV line as an actionable project that will increase the Central East interface limits. The plan, as proposed by Transco, includes replacing two existing Porter – Rotterdam 230 kV lines with one Marcy – Princetown 345 kV line, adding a new Princetown 345/230 kV substation, retiring the existing Porter 230 kV substation, rebuilding two 230 kV lines emanating from Rotterdam to Princetown, adding a new 20 mile 345 kV circuit between the Princetown

and the New Scotland substations, and upgrading the New Scotland substation with a 3/2 breaker arrangement.

Transco has also identified the need for a third New Scotland – Leeds 345 kV line and a third Leeds – Pleasant Valley 345 kV line. These lines address congestion resulting from limited flow capability on the UPNY-SENY Interface and reliability issues identified in NYISO's 2012 Reliability Needs Assessment.

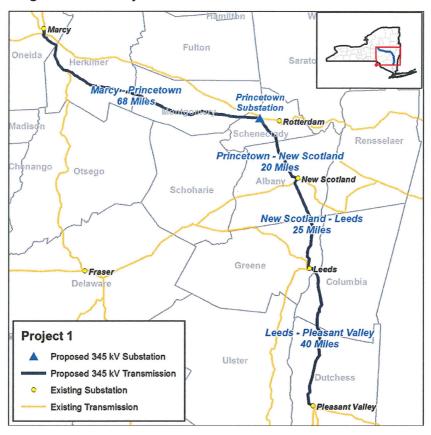


Figure B-1: AC Project

NextEra proposes to build the 68 mile, 345 kV transmission line from Marcy to Princetown, the Princetown 345/230 kV substation, and the 20 mile 345 kV line from Princetown to New Scotland. The new Princetown substation would be located in Schenectady County, approximately 8 miles west of the Rotterdam 230 kV substation. The new lines would be built up to the existing Marcy and New Scotland substations, under the assumption that all substation line terminal work would be the responsibility of the substation owners (NYPA and National Grid). NextEra has assumed it will be responsible for retirement and removal of the existing aging Porter – Rotterdam 230 kV lines. NextEra has assumed

National Grid will be responsible for rebuilding the 8 miles of existing 230 kV lines between the Rotterdam and Princetown stations.

Rating of Marcy – Princetown – New Scotland (Summer normal @ 345kV):
 1,986 MVA

• Central East Interface Incremental Capacity (based on STARS report): 620 MW

NextEra also proposes to build the New Scotland – Leeds 345 kV line and the Leeds – Pleasant Valley 345 kV line, totaling approximately 65 miles in length. NextEra proposes to build these new lines up to the existing New Scotland, Leeds and Pleasant Valley substations, under the assumption that all substation line terminal work would be the responsibility of the substation owners (National Grid and Con Edison).

Rating of New Scotland – Leeds (Summer normal @ 345kV):
 1,986 MVA

Rating of Leeds – Pleasant Valley (Summer normal @ 345kV):
 1,986 MVA

UPNY-SENY Interface Incremental Capacity (based on STARS report): 1,500 MW

#### **DC Project**

The proposed DC project is a ±320 kV HVDC transmission line capable of transmitting 1,000 MW of electric power within the NYISO system. NextEra proposes to build a converter station at the Marcy 345 kV substation and a second converter station at either the Roseton or Buchanan 345 kV substation.

Hamilton Warren vego Fulton Saratoga Madison lontgo Rotterdam Sche Otsego Albai New Scotland rtland Schoharie Chenango Greene Leeds Delaware Broome Ulster Dutchess Pleasant Valley Sullivan Roseton **Project 2** Proposed AC/DC Converter Station tnam Drange Proposed HVDC Transmission **Buchanan HVDC Option** :klandWe **Existing Substation Existing Transmission** 191 Sulfulk

Figure B-2: DC Project

The Roseton and Buchanan sites were chosen due to the potential retirements of the adjacent Roseton and Indian Point power plants. A DC project would be capable of replacing either plant's output while retaining generator-like performance at the DC terminals. With regards to the route, NextEra is currently exploring underground, overhead, or a hybrid of both underground and overhead options for the DC line along existing electric utilities' rights-of-way, as well as other routing options. Figure B-2 shows that the proposed DC route for either a Roseton or Buchanan injection would be identical with the exception of where the route would need to continue on towards the Buchanan 345 kV substation.

Rating of DC Line: 1,000 MWUPNY-SENY Interface Incremental Capacity: 1,000 MW

UPNY-CONED Interface Incremental Capacity: 1,000 MW

## C. Compatibility With Identified Goals and Benefits

The Commission identified a need to relieve constraints in the State's electric transmission system in the Central East and UPNY/SENY corridors, in order to deliver the following benefits to New York's ratepayers:

- Enhanced system reliability, flexibility and efficiency;
- Reduced environmental and health impacts;
- Increased diversity in supply;
- Job growth;
- Development of efficient new generating resources at lower cost in upstate areas; and
- Mitigation of reliability problems that may arise with expected generator retirements.

The AC projects proposed by NextEra and Transco address all these challenges; however, NextEra believes its proposals offer significant additional benefits, notably:

- Innovative technologies;
- Earlier projected in-service dates; and
- Lower expected costs.

Projected in-service dates and estimated costs are addressed in Sections D and H, respectively. With respect to innovative technologies, NextEra is widely recognized as an industry leader in many areas relevant to this proceeding, and to the future of New York's electricity sector, such as:

- Smart grid applications;
- Infrastructure hardening;
- Storm preparation and recovery; and
- Advanced materials and construction techniques.

To cite just one example, NextEra is an industry pioneer in the design, installation and use of spun concrete monopoles as an alternative to steel lattice transmission towers. Nearly half a century of experience has demonstrated that, as compared with the conventional alternatives, in many situations concrete monopoles can be installed more quickly and less expensively, require less maintenance, have greater structural integrity, use less right-of-way, and have greater aesthetic appeal. As such, NextEra is exploring their potential application in New York.

## Additional benefits provided by the DC Project

The DC project proposed by NextEra addresses the same constraints and reliability issues as the AC project, with the following additional potential benefits:

- Enhanced reliability (e.g., voltage support, black start, short circuit);
- Reduced congestion costs (greater transfer limits, new supply corridors);
- Reduced environmental and community impacts (smaller overhead ROW, or buried); and
- Hardened infrastructure (if buried).

However, NextEra believes that these potential benefits should be considered in the context of the incremental cost relative to the AC project, as outlined in Section H.

# D. Project Schedule

Transco has proposed in-service dates ranging from 2019-2022 for its AC projects, explaining that a generic project takes about 7 years from engineering through to commissioning. Assuming Article VII applications are filed by early 2014 and the permitting process concludes in mid-2015, NextEra currently plans to enter its equivalent AC project into public service in 2017. NextEra believes a DC project would require an additional 8 months to construct, but could still be in service in 2017. This timetable may seem aggressive compared to that proposed by Transco, but it is consistent with NextEra's experience on many transmission projects in multiple jurisdictions. For example, a NextEra affiliate recently designed, licensed, permitted, built and energized a 229 mile, 345/138 kV line in only 16 months.

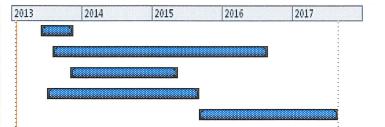
Figure D-1: AC Project General Schedule

Task Name	Duration
Project Development	6 mo.
Engineering and Procurement	23 mo.
Land/ROW Acquisition	17 mo.
Permitting (Includes Article VII)	28 mo.
Construction and Commissioning	18 mo.



Figure D-2: DC Project General Schedule

Task Name	Duration
Project Development	6 mo.
Engineering and Procurement	40 mo.
Land/ROW Acquisition	20 mo.
Permitting (Includes Article VII)	28 mo.
Construction and Commissioning	26 mo.



## E. Financial Structure and Funding Options

If successful in this proceeding, NextEra subsequently would seek to establish a new transmission-only utility in New York. Accordingly, our proposed financial structure and funding options are appropriate to a utility. Broadly speaking, we envision a two step process:

#### **Step 1:** Development and construction financing

From now until sometime after commercial operation, NextEra stands ready to employ its substantial financial resources to finance the project on balance sheet, subject to the inclusion of appropriate carrying charges in rates ultimately charged. This is NextEra's typical approach to construction financing. In our experience, this strategy reduces the time required to develop and construct a project, and ultimately reduces financing costs. At the same time, NextEra has vast experience with project and asset financings, and would monitor the capital markets during the construction period for potential attractive opportunities to employ third party debt prior to commercial operation. An example of this flexible, opportunistic approach comes from NextEra's \$800 million Lone Star transmission project in Texas, where we commenced construction on balance sheet, but capitalized on an opportunity to put in place a construction financing loan on attractive terms, after construction was well underway. In this case, the combination of NextEra's balance sheet and financial market access was leveraged to deliver additional value for our customers.

## Step 2: Permanent financing

After the completion of construction, NextEra would put in place a permanent financing comparable to the debt portfolios of other utilities in New York and elsewhere. As such, we envision the new utility would secure a strong, investment grade credit rating and utilize low cost, long-term funding from the public or private debt capital markets.

In terms of capital structure, whether during construction or operations, we envision a model consistent with electric utilities in New York and elsewhere, and commensurate with investment grade credit ratings. Typically this would imply a debt-to-capital ratio in the range of 40-60%.

Regarding cost recovery, NextEra is not wedded to a particular rate jurisdiction. If an appropriate rate mechanism can be developed, perhaps in line with that envisioned for public policy projects under the NYISO's Order 1000 compliance plan, then NextEra would be receptive to FERC rate jurisdiction. Alternatively, should the Commission prefer to retain rate jurisdiction, or should FERC ratemaking be otherwise unavailable, NextEra would welcome the opportunity to have rates regulated by the Commission. In the event of New York rate jurisdiction, NextEra would seek to work collaboratively with Commission Staff to develop an appropriate procedural path and any ratemaking constructs which may be required for a new-entrant, transmission-only utility.

#### F. NYISO Interconnection Status

NextEra has not yet submitted either of the potential projects into the NYISO interconnection process, although this step is envisioned in the overall project timetable. We recognize that under Commission rules, an Article VII application must include the results of a system impact study that has been forwarded to the NYISO Operating Committee. NextEra notes that Transco has already initiated this process for the New Scotland – Leeds 345 kV line. In the interest of creating additional timing flexibility, NextEra submits that there may be efficiencies to be gained by Transco and NextEra coordinating on the various segments of the applicable Transco projects, if possible, and would be prepared to explore this concept with Transco and Commission Staff.

## G. Utilization of Existing Rights-of-Way

NextEra intends to use existing rights-of-way (ROW) to the maximum extent allowed by the physical realities of the projects, current public use, and state law. Under state law, NextEra understands that electric utilities generally can exercise the power of eminent domain on the ROW of other utilities,

provided the new public use does not infringe upon the pre-existing public use. In addition, our experience is that NextEra can acquire new ROW as efficiently as incumbent utilities. Therefore, NextEra expects to be able to compete on substantially equal footing with Transco, both with respect to the utilization of existing, or the acquisition of new ROW.

#### **AC Project ROW**

NextEra proposes to utilize as much of the existing electric utility ROW as possible for the Marcy – Pleasant Valley 345 kV line. New or additional ROW would be required for certain portions of the line, as identified by Transco and confirmed by NextEra analysis. Initial siting analyses indicate suitable adjacent ROW is available. We note that concrete monopoles would require less ROW than traditional tower structures. The new Princetown 345 kV substation would require land acquisition.

#### **DC Project ROW**

NextEra proposes to utilize as much of the existing electric utility ROW as possible for the proposed DC project. Similar to overhead AC lines, concrete monopoles could reduce the ROW requirement of an overhead DC line. An underground DC line would be less intrusive still. NextEra has also investigated a hybrid approach that could utilize either overhead or underground construction of the DC project, depending on location. The converter stations would require land acquisition.

# **H. Preliminary Cost Estimates**

Our experience has been that it is often possible to build high quality transmission assets in new jurisdictions at lower cost than the incumbents. We believe New York has the potential to be a case in point. Our preliminary costing of the proposed projects is summarized in the table below. Note that the listed DC estimates represent a route that is purely underground or overhead, and therefore provides preliminary cost bookends for any hybrid approach utilizing both underground and overhead sections. These preliminary cost estimates are expressed in nominal dollars and include development, land acquisition, permitting, construction and contingency, but exclude AFUDC.

Figure H-1: Project Cost Estimates (\$ millions)

Project	Length (miles)	NextEra Estimate	Transco Estimate
AC Project (1)	153	\$300	\$689
DC Project (2)			
Marcy - Roseton	168	\$750-1,400	N/A
Marcy - Buchanan	214	\$900-1,700	N/A

<sup>(1)</sup> NextEra estimate excludes 8 mile 230 kV rebuild and cost of line terminations at existing substations, which are assumed to be born by incumbent utilities

In summary, based on the facts available to us at this time, NextEra believes we can meet the requirements of Case 12-T-0502 with an AC project; and that relative to the Transco incumbent consortium, we can meet those requirements with innovative technologies, on an expedited timetable, at an attractive cost. Moreover, for additional cost, there is also the prospect to deliver further customer benefits via a DC project.

NextEra would welcome the opportunity to compete to build new transmission in the State of New York, and ultimately to deliver superior value for its ratepayers.

Should there be any questions regarding this Statement of Intent, please contact us.

Respectfully submitted,

NEXTERA ENERGY TRANSMISSION, LLC 700 Universe Blvd Juno Beach, FL 33408



Eric S. Gleason, President

<sup>(2)</sup> NextEra estimate range corresponds to cost of overhead (low) and underground (high)