September 30, 2014

Henry Chao
New York Independent System Operator, Inc.
Vice President, System and Resource Planning
10 Krey Boulevard
Rensselaer, New York 12144

Re: NextEra Energy Transmission New York, Inc. Proposed Public Policy Transmission Needs

Dear Dr. Chao:

In response to your letter of August 1, 2014, and pursuant to Section 31.4.2 of Attachment Y to the New York Independent System Operator, Inc.'s ("NYISO") Open Access Transmission Tariff ("OATT"), NextEra Energy Transmission New York, Inc. ("NEETNY") submits the following proposed transmission needs driven by Public Policy Requirements ("PPR"). NEETNY respectfully requests that NYISO solicit and evaluate the following solutions to transmission needs driven by the following PPRs: (1) relief of system congestion on the Upstate New York-Southeast New York ("UPNY-SENY") and Central East interfaces; and (2) facilitation of renewable generation.

## 1. Relief of System Congestion on the UPNY-SENY and Central East Interfaces

### a. PPR Requirement Driving Transmission Need

NEETNY recommends that the New York State Public Service Commission ("PSC") identify the relief of congestion on the UPNY-SENY and Central East interfaces as a PPR for which transmission solutions should be solicited. Numerous studies—including NYISO's 2011 and 2013 Congestion Assessment and Resource Integration Study ("CARIS"), the 2012 New York State Transmission Assessment and Reliability Study ("NY STARS"), and the U.S. Department of Energy's 2006, 2009, and 2012 nationwide congestion studies—have identified the alternating current electric transmission corridor that traverses the Mohawk Valley Region, the Capital Region, and the Lower Hudson Valley, commonly known as the UPNY-SENY and Central East electrical interfaces, as a source of persistent congestion. The congestion on these two interfaces has resulted in a less efficient dispatch of generation, which causes higher electricity prices for ratepayers than would otherwise be the case. In particular, NYISO's 2013 CARIS report cited

these interfaces as the top two congested interfaces, which have cost the NYISO market over $5.3 billion of demand congestion over the course of five years, and are forecast to cost another $3.9 billion of demand congestion over the next 10 years.[1]

Studies analyzing the congestion on UPNY-SENY and Central East interfaces have been cited or summarized many times in New York State Public Service Commission ("Commission") orders and also by Department of Public Service Staff ("DPS Staff") in Case 12-T-0502, *Proceeding on Motion of the Commission to Examine Alternating Current Transmission Upgrades*, and its companion matter, Case 13-E-0488, *In the Matter of Alternating Current Transmission Upgrades – Comparative Proceeding*.[2] As a result of these analyses and the directives included in Governor Cuomo's 2012 New York Energy Highway Blueprint ("Energy Highway Blueprint"), Commission orders have concluded that alternating current transmission upgrades in the congested corridor could result in "a number of benefits to New York's ratepayers," including "enhanced system reliability, flexibility, and efficiency, reduced environmental and health impacts, increased diversity in supply, and long-term benefits in terms of job growth, development of efficient new generating resources at lower costs in upstate areas, and mitigation of reliability problems that may arise with expected generator retirements."[3] In advocating for upgrades to the alternating current transmission system in the congested corridor, DPS Staff has further concluded that:

> This congestion has other consequences for New York customers. In particular, the constrained system is less resilient than a more robust system would be, raising the risk that a transmission issue will impact service to load under severe conditions such as the State experienced in Super Storm Sandy. A more flexible system would also facilitate a wider variety of generation dispatches, thereby allowing the lowest-cost energy to flow under varied contingency situations. The lack of adequate redundancy in the system also makes the rebuilding of aging infrastructure more difficult and costly.[4]

Based on the foregoing analysis, DPS Staff has found that the Public Service Law ("PSL") requires action to relieve this system congestion and that this obligation qualifies as a PPR.[5] Specifically, the NYPSC identified a need for an additional 1,000 MW of transmission capacity

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1 NYISO's 2013 CARIS-Phase I Report, Section 5.2, Table 5-6 at page 51 (Nov. 19, 2013).

2 *E.g.*, Case 12-T-0502, Order Instituting Proceeding, at 1 (November 30, 2012); Case 12-T-0502, DPS Staff Straw Proposal, at 2-3 (July 10, 2013).

3 Case 12-T-0502, Order Instituting Proceeding, at 2 (November 30, 2012).

4 Case 12-T-0502, DPS Staff Straw Proposal, at 3 (July 10, 2013).

5 Case 12-T-0502, DPS Staff Straw Proposal, at 4 (July 10, 2013).

at the UPNY-SENY interface along with an increase in transfer capability across the Central East interface.[6]

NEETNY agrees with DPS Staff that the PSL requires action to relieve this system congestion and that this obligation qualifies as a PPR. Section 5(2) of the PSL establishes the Commission's authority to enforce a state-wide policy that public utility services, including transmission and delivery of electricity, be performed "with economy, efficiency, and care for the public safety, the preservation of environmental values and the conservation of natural resources." The PSL also mandates that every electric corporation in New York State provide "service, instrumentalities and facilities" that are "safe and adequate," and the Commission is empowered to ensure that electric corporations provide "safe, adequate, and reliable service." PSL § 65(1, 14). As repeatedly explained by the Commission, DPS Staff, and in the Energy Highway Blueprint, an increase in the transmission capacity in the congested corridor through implementation of alternating current transmission upgrades is necessary to ensure satisfaction of the PSL's statutory mandate that electricity be delivered in an economic, efficient, safe, adequate, and reliable manner.

### b. Criteria for Evaluation of Transmission Solutions

NEETNY proposes that NYISO evaluate transmission solutions proposed to response to the PPR on the basis of (1) the amount of increased transfer capability that each solution offers on the UPNY-SENY and Central East interfaces, and (2) the amount of congestion caused during construction due to extended outages as measured in change in production costs and Locational-Based Marginal Pricing ("LBMP").

### c. How Construction of Transmission Will Fulfill This PPR

A new transmission line will increase the transfer capabilities of the UPNY-SENY and Central East interfaces, which will allow for the NYISO market to dispatch the most efficient generators to serve load in New York and reduce costs to ratepayers.[7] On February 14, 2014, NYISO presented the results of a study performed at the request of the NYSPSC that evaluated various transmission solutions and their impact on the UPNY-SENY and Central East interfaces. NYISO's analysis showed that proposed transmission solutions would offer substantial

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6 Case 12-T-0502, Order Instituting Proceeding, at 1-2 (issued November 30, 2012).

7 Additionally, the 2014 Reliability Needs Assessment ("RNA") identifies UPNY-SENY as the most constrained interface over the coming decade with needs emerging in 2019 in the base case evaluation. The RNA also identified a transmission security violation in 2022 on the Leeds-Pleasant Valley 345 kV circuit which is the primary constraint of the UPNY-SENY interface.

incremental transfer capability for the UPNY-SENY and Central East interfaces.[8] Moreover, NYISO's 2011 and 2013 CARIS studies show that a transmission solution providing incremental transfer capabilities on those interfaces would result in significant savings due to a more efficient dispatch. In particular, NYISO's Edic–New Scotland–Pleasant Valley 345 kV generic transmission solution identified in the CARIS Phase I report demonstrates significant benefits to the New York Control Area ("NYCA"). This generic project would relieve the congestion across Central East and UPNY-SENY interfaces, netting a ten-year total NYCA-wide production cost savings of $210 million (present value) as the result of better utilization of economic generation in the state and economic imports from neighboring regions made available by the large scale transmission upgrades represented by this generic transmission solution.[9]

## 2. Facilitation of Renewable Generation

NEETNY recommends that the PSC identify New York's Renewable Portfolio Standard ("RPS") enacted by the Commission through its authority to preserve environmental values and conserve natural resources pursuant to PSL § 5(2) as a Public Policy Requirement driving transmission needs.[10] The RPS, established by the Commission through orders in Case 03-E-0188, has been New York's primary policy initiative to promote the development of new renewable energy resources since the RPS was first established in 2004 by a Commission order.[11] When first enacted by the Commission, the goal of the program was increasing the amount of renewable electricity used by New York State consumers to 25% by 2013.[12] In an order issued in January 2010, following a comprehensive mid-course review, the Commission expanded the RPS target from 25% to 30% and extended the terminal year of the program from 2013 to 2015.[13] According to the New York State Energy Research and Development Authority's ("NYSERDA") March 2014 Annual Performance Report on the RPS (which was

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8 Case 13-E-0488, *In the Matter of Alternating Current Transmission Upgrades - Comparative Proceeding*, NYSPSC AC Transmission Upgrades Screening-Level Analysis Summary (Feb. 14, 2014).

9 See NYISO's 2013 CARIS-Phase I Report, at 56 (Nov. 19, 2013).

10 PSL § 5(2) provides that "The Commission shall encourage all persons and corporations subject to its jurisdiction to formulate and carry out long-range programs, individually or cooperatively, for the performance of their public service responsibilities with economy, efficiency, and care for the public safety, the preservation of environmental values and the conservation of natural resources."

11 Case 03-E-0188, *Proceeding on Motion of the Commission Regarding a Retail Renewable Portfolio Standard*, Order Establishing New RPS Goal and Resolving Main Tier Issues, at 1 (issued and effective January 8, 2010).

12 Case 03-E-0188, Order Regarding Retail Renewable Portfolio Standard, at 26 (issued and effective September 24, 2004).

13 Case 03-E-0188, Order Establishing New RPS Goal and Resolving Main Tier Issues, at 7 (issued and effective January 8, 2010).

filed with the Commission in Case 03-E-0188 on April 2, 2014), New York is less than half way towards achieving the Commission's RPS goal of 30% renewable statewide electricity use by 2015.

Since being established by the aforementioned Commission orders, the RPS has been referenced and incorporated into numerous rules, regulations, and executive orders. *See, e.g.*, 6 NYCRR § 242-1.2(b)(79); 6 NYCRR § 242-10.2(af); 9 NYCRR § 7.24.

### b. Criteria for Evaluation of Transmission Solutions

NEETNY proposes that NYISO evaluate transmission solutions proposed in response to the PPR on the basis of the projects' ability to increase transfer capability from the Central, Mohawk Valley, and Northern areas of New York to downstate New York. These three regions have been identified in the NYISO 2010 *Growing Wind* report as having transmission constraints limiting wind delivery.

### c. How Construction of Transmission Will Fulfill This PPR

One of the primary impediments to accomplishing the policy objectives articulated in the Commission's RPS orders is inadequate transmission facilities. Upgrades to the state's transmission system are necessary to ensure that all New Yorkers receive the reductions in wholesale costs from renewable resources, such as by efficiently and reliably providing renewable energy from upstate projects (*e.g.*, wind power) to downstate zones with greater demand. NYISO recognized as much in the NYISO 2010 *Growing Wind* report: "Although the addition of wind to the resource mix resulted in significant reduction in production costs, the reduction would have been even greater if transmission constraints between upstate and downstate were eliminated. These transmission constraints prevent lower cost generation in upstate New York from displacing higher costs generation in southeast New York."[14] Furthermore, citing findings of the NYISO's 2010 *Growing Wind* report, the Energy Highway Blueprint recommended upgrades to transmission facilities serving northern New York to transport wind power produced in that region. Such transmission upgrades can help to address fuel diversity concerns by facilitating the delivery of power produced by an array of upstate renewable power resources to the downstate New York region, where local generation runs predominantly on natural gas and fuel oil.

Transmission projects will accommodate the integration and delivery of renewable generation in upstate New York that would likely otherwise be subject to substantial curtailments, but for the new transmission projects. According to the 2014 New York State Reliability Council Installed

[14] New York Independent System Operator, *Growing Wind: Final Report of the NYISO 2010 Wind Generation Study*, at vii (September 2010).

Capacity Requirement ("NYSRC ICR") report,[15] it is projected that by the end of the 2014 summer period, there will be a total of 1,367 MW of wind capacity participating in NYISO capacity markets. All of this capacity is located in the western, central, northern, and Mohawk Valley areas of New York State. Additionally, the NYISO Queue shows nearly 2,000 MWs of new wind projects proposed to be constructed in the western, central, and Mohawk Valley areas.[16] NYISO has previously identified the central, northern, and Mohawk Valley areas where transmission facilities could limit wind delivery.[17] Without new transmission facilities to deliver the energy from these proposed new wind projects to the downstate region, the renewable energy generation may be subject to curtailments that could inhibit the economic viability of those projects. New transmission projects enhancing deliverability capability from western New York to the southeast downstate region would ensure that these renewable energy facilities are integrated into the transmission system and that their output is delivered to markets where it is most needed, consistent with the Commission's goal of achieving 30% renewable statewide electricity use by 2015.

Thank you for your consideration of NEETNY's proposal to solicit for and evaluate the following solutions to transmission needs driven by the following PPRs: (1) relief of system congestion on the UPNY-SENY and Central East interfaces; and (2) facilitation of renewable generation. Please feel free to contact me at 561-694-3897 should you have any questions. We look forward to working with the NYISO on this important effort.

Very truly yours,

Monique Brechter
Executive Director Development, NextEra Energy Transmission New York, Inc.

Cc: Z. Smith

Sent via e-mail to: PublicPolicyPlanningMailbox@nyiso.com

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15 NYSRC ICR report at 11.

16 NYISO Interconnection Queue as of 9/23/14.

17 New York Independent System Operator, *Growing Wind: Final Report of the NYISO 2010 Wind Generation Study*, at vii, Figure 5.34 (September 2010).