

STATE OF NEW YORK
PUBLIC SERVICE COMMISSION

- CASE 12-T-0502 - Proceeding on Motion of the Commission to Examine Alternating Current Transmission Upgrades.
- CASE 13-E-0488 - In the Matter of Alternating Current Transmission Upgrades - Comparative Proceeding.
- CASE 13-T-0454 - Application of North America Transmission Corporation and North America Transmission, LLC for a Certificate of Environmental Compatibility and Public Need Pursuant to Article VII of the Public Service Law for an Alternating Current Transmission Upgrade Project Consisting of an Edic to Fraser 345 kV Transmission Line and a New Scotland to Leeds to Pleasant Valley 345 kV Transmission Line.
- CASE 13-T-0455 - Part A Application of NextEra Energy Transmission New York, Inc. for a Certificate of Environmental Compatibility and Public Need Pursuant to Article VII of the Public Service Law for the Marcy to Pleasant Valley Project.
- CASE 13-T-0456 - The Part A Application of NextEra Energy Transmission New York, Inc. for a Certificate of Environmental Compatibility and Public Need Pursuant to Article VII for the Oakdale to Fraser Project.
- CASE 13-M-0457 - Application of the New York Transmission Owners Pursuant to Article VII for Authority to Construct and Operate Electric Transmission Facilities in Multiple Counties in New York State.
- CASE 13-T-0461 - Application of Boundless Energy NE, LLC for a Certificate of Environmental Compatibility and Public Need Pursuant to Article VII for Leeds Path West Project.

REPLY COMMENTS OF DEPARTMENT OF PUBLIC SERVICE TRIAL STAFF

November 23, 2015

INTRODUCTION

On September 22, 2015, Trial Staff of the Department of Public Service issued a Final Report and Motion for Commission to Declare a Public Policy Need and Take Further Action Regarding Alternating Current Transmission Proposals (Final Report and Motion). The Final Report and Motion were supplemented on October 2, 2015 with a series of corrections and other errata. The Final Report and Motion recommend that the Commission declare that a Public Policy Need exists for new transmission capacity in the Mohawk and Hudson valleys and further recommends that the Commission invite certain applicants in these proceedings to submit proposals to the New York Independent System Operator (NYISO) for further evaluation under the NYISO's Public Policy Transmission Planning Process (PPTPP) and be granted cost recovery under the NYISO tariff for those development costs deemed appropriate by the Commission and NYISO. Also on September 22, 2015, the Hudson Valley Smart Energy Coalition (HVSEC) filed its own reports stating that no need for additional transmission capacity exists and that as such, the Commission should reject all proposals or select projects with the least potential environmental and/or visual impact.

Following the issuance of these documents, Technical Conferences were held in Albany on October 8-9, 2015. These technical conferences included presentations by HVSEC and its consultants, Dr. Gidon Eshel and London Economics International, as well as DPS Trial Staff and its consultants, the NYISO and The Brattle Group. These technical conferences were designed to clarify Trial Staff's positions and allow for open dialogue of the issues raised in the respective reports.

On November 6, 2015, Initial Comments were filed by each of the applicants in this proceeding, North America Transmission LLC and North America Transmission Corporation (NAT), the New York Transmission Owners (NYTOs),¹ NextEra Energy Transmission New York, Inc. (NextEra), and Boundless Energy NE, LLC (Boundless) (collectively, the Applicants). Initial Comments were also filed by the New York State Department of Environmental Conservation (DEC), New York City, the Long Island Power Authority (LIPA), HVSEC, the Town and Village of Athens, the NYISO and Delaware County. Trial Staff has reviewed these comments and submits the following Reply Comments, which respond to issues raised in these Initial Comments and are intended to further develop the record for the Commission.

Responses to HVSEC

HVSEC argues that the Commission should not approve segments at this stage of the Public Policy Transmission Planning Process (PPTPP) and that Staff has inappropriately recommended a segmented approach, which is not consistent with previous Commission orders in these cases.² HVSEC has mischaracterized both Trial Staff's recommendation and the PPTPP. HVSEC argues that Trial Staff has inappropriately recommended new public policy and that the Commission has not followed proper process for the PPTPP.

¹ The NYTOs include Central Hudson Gas & Electric Corporation, Consolidated Edison Company of New York, Inc., New York Power Authority, New York State Electric & Gas Corporation, Niagara Mohawk Power Corporation, Orange and Rockland Utilities, Inc., and Rochester Gas and Electric Corporation respectively.

² Case 12-T-0502 et al., HVSEC Initial Comments (filed November 6, 2015), p. 22.

In the first instance, Trial Staff has recommended that the Commission declare a need for transmission in the corridors identified. Trial Staff has not recommended that the Commission choose a certain developer or certain combination of developers. This is fully in keeping with the PPTPP, which now requires, should the Commission adopt Trial Staff's recommendation, that the NYISO determine what project best meets the declared need. Trial Staff recommends, however, that the Commission should direct the NYISO to take into account the likelihood of obtaining siting approval from Commission, and the NYISO should take into account DPS support for the proposed segments as providing reasonable likelihood for siting approval.

HVSEC appears to believe that the refurbishment credit given to certain projects is the result of delaying transmission system upgrades. However, HVSEC fundamentally misunderstands the refurbishment credit counted among the benefits by Trial Staff and The Brattle Group. The refurbishment credits assigned to certain projects, including those in the corridors recommended for further action by Trial Staff, are the result not of delaying needed upgrades, but in fact completing those upgrades. The projects are credited for the upgrade costs that will not have to be incurred in the future as a result of the projects. For example, the STARS Report identifies lines in each of the Marcy/Edic-New Scotland and Knickerbocker-Pleasant Valley corridors that will require upgrades or complete rebuilds in the next 5-15 years. The projects proposed would take the place of these upgrades in the more near term, avoiding future costs.

The comments filed by HVSEC include a number of statements about the benefit/cost ratio of Project 11. The Brattle Group report states that there is a 1.2 benefit/cost ratio for this project. HVSEC states that this ratio is much

too low for the Commission to consider approving a project. This statement, however, misconstrues the PPTPP and its purpose. The PPTPP is designed to ensure that projects that have public benefits beyond reducing congestion can be built when needed; there is no requirement that the economic benefit/cost ratio be greater than 1.0.³ Trial Staff's Final Report presents numerous benefits associated with the proposed projects. Each of these is in keeping with Commission policy, whether formally stated in law, regulation, or in various Commission orders. The various benefits mentioned by Trial Staff are exactly the significant positive benefits FERC intended (increased access to renewables, enhanced operational flexibility, increased storm and extreme event resiliency, etc.).

HVSEC points to its London Economics report as proof that new transmission capacity is not needed because congestion costs are decreasing and will be eliminated in the coming years due to an increase in gas supply capacity. They also point to Dr. Eshel's report as support for the fact that the system is currently able to meet peak loads, and that peak loads are decreasing. They also further state that Project 11 would increase emissions and that this alone should cause the Commission to reject Trial Staff's recommendations. Trial Staff's response to these points is as follows.

First, there has historically been significant congestion across the Central East interface (between western New York and the Hudson Valley), and Brattle and the NYISO forecast this congestion to continue. The contrary forecast by

³ In Order 1000 (Para. 586), FERC stated that if a Benefit/Cost threshold is used in selecting a regional transmission plan for the purpose of cost allocation, that threshold must not be so high that transmission facilities with significant positive net benefits are excluded from cost allocation, and it cannot exceed 1.25.

London Economics is based on its assumption of new gas pipeline construction in the Hudson Valley, which is just as controversial as electric transmission upgrades. Moreover, London Economics fails to explain who would pay for all the new gas pipelines it assumes.

Second, Dr. Eshel's statements about the current capacity of the electric system are similarly without merit. NAT correctly states in its Initial Comments that Dr. Eshel assumes a generation project completion rate that drastically exceeds historical averages.⁴ Further the NYISO's 2015 Gold Book states that while peak demand increases have levelized, Summer Peak Demand, especially in Zones G-J, is expected to rise between 2015 and 2025 by close to 1000 MW.⁵ Moreover, as the Final Trial Staff Report notes (p. 105), aging generation may retire and require replacement regardless of load growth. The proposed transmission upgrades will permit more new and replacement generation to be located in upstate New York, providing substantial capacity market savings.

Third, while Brattle's report did indicate that some categories of emissions may marginally rise as a result of the transmission projects, that result was based on its MAPS analysis which assumed no difference in the generation mix. However, Brattle's analysis of the transmission projects showed significant benefits in helping to meet the State's RPS goals; increases in renewable resources would clearly reduce emissions.

⁴ Case 12-T-0502 et al., NAT Initial Comments (filed November 6, 2015), p. 4

⁵ New York Independent System Operator, 2015 Load & Capacity Data - "Gold Book" (issued April, 2015), p. 14, available at, http://www.nyiso.com/public/webdocs/markets_operations/services/planning/Documents_and_Resources/Planning_Data_and_Reference_Docs/Data_and_Reference_Docs/2015%20Load%20and%20Capacity%20Data%20Report.pdf

Further, HVSEC argues that the recommendations made by Trial Staff cut against the Commission's goals of increased renewable energy deployment.⁶ This statement, however, ignores The Brattle Group's report. On page 124 of the Brattle report it is estimated that Project 11 would produce RPS savings of \$97 million and further states that "[n]either of the alternative solutions [REV and additional generation] are expected to provide benefits to future renewable capacity development." While REV may include the deployment of distributed generation and microgrids, it has not been claimed to provide for more utility scale renewable energy development sufficient to meet New York State RPS goals. New transmission is the best means to accomplish this goal by creating a greater opportunity to move energy created upstate by large scale resources downstate.

Comments filed by HVSEC imply that the projects recommended by Trial Staff violate the Governor's directive that new transmission facilities be no taller than existing facilities.⁷ Suggesting that a potential increase in existing structure height of ten feet would ruin vast areas of scenic resources, including some significant properties located five or more miles away from the existing line location, HVSEC attempts to paint a bleak picture of devastation throughout the Hudson Valley due to removal and upgrading of an existing major transmission facility.

HVSEC's argument is misplaced and its history misconstrued. The Commission addressed the question of right-of-way expansion and applicability of Governor Cuomo's State-of-the State recommendation in the February 2014 Order:

⁶ HVSEC Initial Comments, p. 45.

⁷ Id., pp. 4-5.

"The 2014 State of the State address included a proposal for a new process to expedite consideration of electric transmission projects that can be wholly contained within existing transmission rights-of-way or buried along existing State-owned rights-of-way such as waterways and highways. ... The new process, when implemented, would apply only to projects that do not require permanent expansion of the right-of-way 'envelope' with wider corridors or taller towers.

*The expedited process proposed in the State of the State address is not directly applicable to this proceeding and will not be employed here. Nevertheless, we deem it to be essential that the record developed in the proceeding clearly demonstrate that a thorough effort has been made to elicit and examine potentially feasible alternatives for achieving the targeted congestion relief by means that would require no, or minimal, expansion of existing rights-of-way, so that, to the maximum extent possible, projects can be contained within the bounds of existing rights-of-way."*⁸

That Order further concluded that:

"The presiding Administrative Law Judges are directed to establish a process that will allow the developers who have filed Part A applications to elect to submit alternative proposals that would require no, or minimal, expansion of existing rights-of-way, so that, to the maximum extent possible, projects can be contained within the bounds of existing rights-of-way."⁹

Notably absent from the February Order was a requirement to preclude increasing the height of any transmission facilities. Staff notes, however, that as compared to the initial project proposals for structure heights ranging up to 150 feet tall or more, significant reductions in structure height were proposed in the revised Part A submittals in January through March, 2015,

⁸ Case 12-T-0502 et al., Order Authorization Modification of the Process to Allow for Consideration of Alternative Proposals (Issued and Effective February 21, 2014) (emphasis added).

⁹ Id., p. 5.

particularly in the Hudson Valley portions of the proposed projects. Likewise, the Commission later adopted revised procedures for the Comparative Analysis proceeding that emphasized criteria including consideration of "(4) the extent of any additional rights-of-way (ROW) that the applicant(s) will need to acquire in order to build and operate the proposed facility(ies)"; (5) the application of innovative technologies to enhance transfer capability or reduce the physical footprint of the project; and, (6) an initial assessment of environmental compatibility, including visual impacts."¹⁰ The Commission did indicate its desire that "to the degree possible consistent with other policy objectives, to minimize the acquisition of additional lands for right-of-ways and the construction of major electric transmission facilities that are out of scale or character with existing facilities already in the landscape."¹¹

Trial Staff recognizes that its recommended proposals may result in taller tower heights, however, these increases are limited, which should result in height increases with relatively small incremental impacts. Trial Staff also points out that the Final Report does not strictly adopt the proposed height increases as a foregone conclusion to the outcome of any future Part B proceeding, where additional engineering detail and environmental assessment would be undertaken to identify mitigation measures appropriate for minimizing adverse impacts, including visual impacts on important resources, including at affected locations in not only the Hudson Valley but also the Mohawk Valley and the Capital District.

¹⁰ Case 12-T-0502, et.al., Order Establishing Modified Procedures for Comparative Evaluation (issued December 16, 2014) p. 8.

¹¹ Id. p. 39.

Responses to Boundless

Boundless' comments contained a number of statements that are contrary to or misunderstand Trial Staff's Final Report. These comments respond to those issues that Trial Staff believes warrant further discussion. First, Boundless states that Trial Staff's statement that the NYTO's Project 11 would not require new ROW is false because a cost estimate for the NYTOs included land acquisition costs. Trial Staff's statements were only intended to apply to transmission ROW and it is Trial Staff's understanding that the NYTOs land acquisition estimates relate only to the proposed Knickerbocker, Churchtown and Pleasant Valley Substations.

Boundless claims that Staff made inappropriate changes in its evaluation of the proposed projects between the Interim and Final Report. Instead of focusing on projects with low environmental rankings, Trial Staff selected project 11 - which is ranked as a medium - and Boundless claims that this is a significant change from the importance given to environmental ranking in Trial Staff's Interim Report. Noting that its projects would not result in increased horizontal and vertical encroachment on adjacent communities' space, Boundless complains that this consideration is given reduced importance in the Final Report. They opine that the projects selected will have significantly taller towers than those that exist. Construction of a completely new Knickerbocker substation is clearly outside of the existing ROW envelope.

In fact, Trial Staff's Interim Report primarily focused on environmental factors because the benefit-cost and system analyses information was not yet available. Boundless notes that Project 11 has an environmental ranking of medium. A medium ranking in no way signifies that aspects of the project

contain significant impacts or that medium rankings are not constructible.

As long as impacts of a project are minimized and a demonstrated benefit is expected, a medium ranking project is an acceptable consideration for project selection. Again, height increases of the selected projects are not expected to be significant, and additional refinement of project impact minimization is expected to occur during later stages (Part B) for projects selected to advance. Regarding the new substation being outside of the ROW envelope, Boundless' projects would include significant upgrades to several substations. Boundless' proposed addition of equipment, line connections, and other related facilities would have required substations to be expanded. Further, the Commission's December Order, Page 39 states that the "Staff will be given latitude in the first instance to look at the completeness, quality and verifiability of the information that is received and thereafter shall consider the feasibility of assigning weights to the criteria as a part of the Report and Motion." Staff made repeated attempts to have Boundless bolster its' filings, with mixed results. Some information submitted was undeveloped and some proposals, as detailed below, were inconsistent from one filing to the next. Boundless also states that:

"While Trial Staff attempts to sidestep its statement in the Final Report that Boundless' underground cable route (apart from the portion crossing under the Hudson River) 'will be installed via the traditional open cut trenching (method)' by claiming that such references in the Final Report are merely a 'general term' that hardly explains the definitive statement in the Final Report on Page 71 purporting to describe Boundless' proposed method of trenching. In any event, Trial Staff has not established a reason for discarding Boundless' explanation of its

projects in favor of Trial Staff's generic statement."¹²

Trial Staff has not refuted and is not refuting Boundless' installation methods; however, Staff's experience with licensing and construction of underground major transmission facilities has yet to encounter installation of 345 kV underground cable at such shallow depths as Boundless proposes. The proposed installation depth and width does not factor in necessary items for system operation and protection such as warning tape, fiber optic cables or installation of conduits, fluidized thermal backfill, and/or concrete protection. Also, Boundless claims that Trial Staff misunderstood its underground construction method.¹³ However, the descriptions of the proposed underground installation contained in Boundless' documents are confusing, as these descriptions changed from one filing to the next. A short description of underground installation was provided in the January 20, 2015 Part A filing and noted the following:

"The sections under the Hudson River and on the eastside of the River would use nominally 5000 kcmil XLPE cables installed underground. Applicant would use horizontal directional drilling (HDD) to install two sets of cables under the Hudson River. The cables would continue the underground installation from the east bank of the Hudson River to the East Fishkill Substation. The right-of-way (ROW) the applicant proposes to use is already cleared as a part of NYPA's existing ROW. There will be no need to clear the entire right of way. Applicant proposes to dig a single trench to 36 to 48 inches depth and approximately six feet in width. Appropriate measures will be used to prevent

¹² Case 12-T-0502, et al., Boundless Initial Comments on Final Report (filed November 6, 2015), p. 42.

¹³ Id. p. 41.

erosion as defined during the Environmental Management & Construction Plan phase. Topsoil removed during construction will be stored off site and replaced as cover once construction is complete. Excess soil will be disposed of at appropriate offsite locations.”¹⁴

Aside from this description, Boundless provided a cross section diagram with its’ May 13, 2015 document titled “Boundless Response to DPS Staff April 10, 2015 Deficiency List,” shown below as Figure 1.

Figure 1

**Boundless Energy
Cross Section of Underground Cables**



This figure only shows horizontal separation of underground cables and does not contain any details of cover, cable diameter, conduit diameter, or other relevant aspects of underground cable installation. Also in the May 13, 2015 document, Boundless indicated (although, not clearly) that the underground cables would be installed utilizing multiple horizontal directional drills. This

¹⁴ Case 13-T-0461, Boundless Part A Comparative Evaluation FINAL (filed January 20, 2015), p. 21.

installation method may be difficult, due to potentially rocky or sandy soil conditions in the area. Finally, Boundless now proposes installation of a forced cooling system for the underground cables and suggests that forced cooling was included in Boundless' (original) cost estimate. Trial Staff therefore based its evaluation on the information available at the time it prepared the Reports. Boundless did not previously indicate any pipe-type, oil-filled, cable with a forced cooling system. If this had been indicated, Staff would have requested additional information regarding the cooling system design, nature of coolant material and environmental assessment of impacts related to leakage, spills, or catastrophic system failure; and likely would have recommended consideration of solid dielectric cables as an alternative.

Finally and belatedly introduced in its November 6, "Initial Comments on Trial Staff's Final Report" Boundless only now argues, as noted above, that it can implement cooling technologies that can make its projects more beneficial. No such technology was proposed previously and as such was not evaluated by Trial Staff. Additionally, Boundless has requested that Staff analyze a new reconductoring option, which was originally submitted in the October 1, 2013 filing and then was subsequently withdrawn in the 2015 filings. Any such new proposals at this stage should be rejected by the Commission.

Responses to NYTOs

The NYTOs request that the Commission approve their Project 11 only. While the NYTOs are correct that Trial Staff found their project to provide the best balance, ultimately Trial Staff recommended that the Commission refer a Public Policy Transmission Need to the NYISO and under FERC Order 1000,

the NYISO and not the Commission is required to select projects. Therefore, the Commission should not grant the NYTOs the relief they seek as it would cut against the PPTPP.

Responses to LIPA

Comments filed by LIPA raise cost allocation concerns, LIPA claims limited benefits from AC projects due to transmission constraints onto Long Island. However, The Brattle Group indicates that Project 11 will reduce Long Island LCRs, providing capacity benefits to LIPA; also Project 11 will tend to reduce LBMPs in SENY as well as neighboring Connecticut and New Jersey, reducing LIPA's energy costs (including imports); also LIPA's bilaterals with on-island generation can be reduced; so LIPA can and likely will benefit from upstate transmission projects just as can other SENY loads. Therefore, they should be required to pay for these benefits. Moreover, LIPA is expected to meet statewide RPS goals (LIPA has a self imposed goal of 24% of generation from renewable sources). LIPA currently relies on upstate renewables, regardless of transmission limitations onto Long Island, to meet its RPS goals. If LIPA is allocated lower cost responsibility for projects needed to deliver upstate renewable resources, then LIPA should reduce its reliance on upstate renewable resources, and instead rely on on-island resources (e.g. solar and off-shore wind) to meet its RPS goals.

Response to NextEra

NextEra asked for corrections with respect to Trial Staff's Final Report.¹⁵ Specifically, NextEra requested three clarifications with respect to Trial Staff's cost estimates. First, with respect to the addition of "Station Costs" and system upgrade costs to NextEra's Project 6, that were not added to the NYTOs' Project 6, Trial Staff added additional costs to NextEra's proposals because the scope of the work proposed was different. NextEra's Project 19 proposed work at the Greenbush substation, which was not proposed by the NYTOs. The differences are the result of this change in scope. Were Trial Staff to reevaluate NextEra's scope of work to match that of the NYTOs, it is likely that there would be a reduction in NextEra's costs, which would more closely align with those of the NYTOs.

NextEra also requested clarification with respect to the avoided transmission cost credits (or replacement benefit) for Project 6 versus Project 19. The avoided transmission cost credits for these projects differ for both the avoided refurbishment costs and the avoided O&M costs.

Avoided future refurbishment cost credits refer to the savings from refurbishing aging facilities that would otherwise have to be refurbished in the future, and thus not having to pay for refurbishments in the future. Both projects replace aging 115 kV facilities that would need to be refurbished by 2030 based on the STARS report. The Brattle report thus credits both Project 6 and Project 19 at the same per-mile rate. The avoided refurbishment cost for Project 19 is greater due to the additional length of transmission line

¹⁵ Case 12-T-0502, et al., NEETNY's Initial Comments on DPS Staff's Final Report and Motion (filed November 6, 2015), p. 19.

assumed to be replaced (62 miles x 2 lines = 124 line-miles) compared to Project 6 (54 miles x 2 lines = 108 line-miles).

NextEra's comment specifically refers to the calculation of the avoided O&M cost credits for existing lines, noting that Project 19 receives lower credits per-mile than Project 6. These credits represent the ongoing O&M costs of lines currently in service that will be avoided when the Projects replace them (with O&M costs instead being paid on the new facilities, which are counted on the cost side of the benefit-cost analysis). The credit is only calculated for the years before the lines would be refurbished anyway, absent the Projects. Avoided O&M costs were estimated at 2.9% of the replacement costs of the existing lines, consistent with the calculation of revenue requirement for the proposed transmission facilities. However, the estimated replacement costs of the existing lines replaced by each project differ, which results in the difference in credits.

Trial Staff again notes that these figures may change based on the scope of work NextEra or other applicants file with the NYISO and that the benefits presented in the Brattle Report were for comparative purposes and are not meant to be conclusory with respect to any particular project's benefits.

CONCLUSION

The foregoing comments are intended to enhance the Commission's record with respect to the issues discussed herein. Trial Staff continues to support the recommendations made in its Final Report and urges the Commission to adopt them.

Respectfully submitted,

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