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September 30, 2014

Mr. Henry Chao
Vice President, System & Resource Planning
New York Independent System Operator
10 Krey Boulevard
Rensselaer, NY 12144

RE: NYISO Solicitation of Submissions for the Identification of Transmission
Needs Driven by Public Policy Requirements

Dear Mr. Chao:

This letter serves as a submission on behalf of Iberdrola USA, Inc. ("Iberdrola") in response to the New York State Independent System Operator's ("NYISO") solicitation of submissions from stakeholders and interested parties identifying transmission needs driven by "Public Policy Requirements" for which NYISO should solicit and evaluate solutions.

Below, Iberdrola (1) identifies the Public Policy Requirements (as that term has been defined by FERC and the NYS Public Service Commission) that it believes is driving the need for transmission in New York State, (2) proposes criteria for the evaluation of transmission solutions to that need, and (3) describes how the construction of a transmission solution, particularly Iberdrola's proposed "Connect New York" HVDC transmission project, will fulfill the Public Policy Requirements identified herein.

Public Policy Requirements Driving the Need for Transmission in New York

In its August 15, 2014 Policy Statement in the proceeding it initiated related to transmission planning for public policy purposes, the NYS Public Service Commission ("PSC") stated that a "Public Policy Requirement" has been defined as "a federal or New York State statute or regulation, including [a New York State Public Service Commission (NYPSC)] order adopting a rule or regulation subject to and in accordance with the State Administrative Procedure Act, any successor statute, or any duly enacted law or regulation passed by a local governmental entity in New York State, that may relate to transmission planning on the [Bulk Power Transmission Facilities]."¹

¹ Case No. 14-E-0068, *Policies and Procedures Regarding Transmission Planning for Public Policy Purposes*, Policy Statement on Transmission Planning for Public Policy Purposes (Aug. 15, 2014) (citing Docket Nos, ER13-102-000, et al., New York Independent System Operator, Inc., Order on Rehearing and Compliance ¶¶ 99, 122 (issued July 17, 2014); see also NYISO OATT, Attachment Y § 31.1.1.

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Iberdrola identifies the following Public Policy Requirements as driving the need for transmission solutions in New York:

(1) Orders issued in PSC's Comparative Proceeding on AC Transmission Upgrades

On November 30, 2012, the PSC issued an Order instituting a proceeding to examine alternating current ("AC") transmission upgrades in an electric transmission corridor traversing the Mohawk Valley Region, the Capital Region and the Lower Hudson Valley (the "AC Transmission Proceeding").² In that November 2012 Order, the PSC found that "[c]onstraints on the State's electric transmission system can lead to significant congestion and contribute to higher energy costs and reliability concerns" and that the AC electric transmission corridor traversing the Mohawk Valley Region, the Capital Region and the Lower Hudson Valley, including facilities connected to Mohawk Valley substations, and two major electrical interfaces often referred to as "Central East" and "UPNY/SENY," had been identified as a source of "persistent congestion." In clarifying the public policy requirements driving the need for, and the benefits that would result from, transmission solutions in this particular corridor, the PSC further stated:

Upgrading this section of the transmission system has the potential to bring a number of benefits to New York's ratepayers. These include 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 cost in upstate areas, and mitigation of reliability problems that may arise with expected generator retirements. The recently-released New York Energy Highway Blueprint issued by the Governor's Energy Highway Task Force recommends upgrades to this corridor providing approximately 1,000 MW of additional transmission capacity and representing a total investment of \$1 billion. The Energy Highway Blueprint further suggests that some projects addressing the identified congestion issues should commence construction in 2014.³

In the AC Transmission Proceeding, at least two notices were published in the State Register, pursuant to the State Administrative Procedure Act ("SAPA"), soliciting public comment on rule changes that were adopted by the PSC with respect to the procedures to be followed in evaluating the projects proposed in response to the transmission needs identified in the November 2014 Order in the AC Transmission Proceeding.⁴ In both the February 20, 2013

² Case No. 12-T-0052, *Proceeding on Motion to Examine Alternating Current Transmission Upgrades*, Order Instituting Proceeding at 1-2 (Nov. 30, 2012).

³ *Id.* (footnote citations omitted).

⁴ State Register, Notice of Proposed Rulemaking regarding Filing Requirements for Certain Article VII Electric Facilities, No. PSC-08-13-00012-P (Feb. 20, 2013); *see also* State Register, Notice of Proposed Rulemaking regarding Procedures and Requirements for Certain Energy Highway Transmission Facilities, No. PSC-24-13-00011-P (June 12, 2013).

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Notice and the June 12, 2013 Notices published by the PSC in the State Register, the PSC again identified the public policy objectives driving the need for the transmission upgrades at issue in the proceeding: “facilities that will increase transfer capacity through the transmission corridor that includes the Central East and UPNY/SENY interfaces and meet the objectives of the Energy Highway Task Force Blueprint.”⁵

(2) Orders Issued in PSC’s Generation Retirement Contingency Proceeding

On November 30, 2012, the PSC also issued an Order commencing a proceeding to solicit the development, and review, of reliability contingency plans to address reliability concerns associated with the potential closure of nuclear power plants at the Indian Point Energy Center (the “Generation Retirement Contingency Proceeding”).⁶ In that November 2012 Order, the PSC stated:

There is currently significant uncertainty as to whether Entergy will be able to obtain the necessary permits and approvals to keep the Indian Point Energy Center operational over the long-term....A loss of the Indian Point units, which, when operating supply over 2,000 MW, could result in significantly reduced reliability at the time of retirement and for several years thereafter until replaced.⁷

Quoting from the Governor’s Task Force Energy Highway Blueprint, the PSC further cited the following public policy concerns driving the need for the development of generation retirement contingency plans, which could include transmission solutions:

- 1) The proposed closure of power plants that are required to maintain system reliability can potentially impose additional costs on customers when the closing plant must be kept online at above market prices; and,
- 2) Either by virtue of plant size, location or uncertainties regarding the timing of potential retirements, the electricity market may not be in a position to respond adequately to the shutdown of certain power plants once retirement is announced – as is the potential case with the Indian Point Energy Center, a 2,040 MW nuclear power plant located in the lower Hudson Valley.⁸

⁵ *Id.*

⁶ Case No. 12-E-0503, *Proceeding on Motion of the Commission to Review Generation Retirement Contingency Plans*, Order Instituting Proceeding and Soliciting Indian Point Contingency Plan (Nov. 30, 2012).

⁷ *Id.* at 3.

⁸ *Id.* at fn.1 (quoting Energy Highway Blueprint at 42, available at http://www.nyenergyhighway.com/Content/pdf/Blueprint_FINAL.pdf (hereinafter “Energy Highway Blueprint”).

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In the Generation Retirement Contingency Proceeding, at least one notice was issued pursuant to SAPA, soliciting public comments on the reliability contingency plan proposed by Consolidated Edison and the New York Power Authority.⁹ In that notice published in the State Register on February 20, 2013, the PSC noted the public policy objective driving the need for the reliability contingency plan (largely based on new transmission facilities): “to address the potential retirement of the Indian Point Energy Center.”¹⁰

(3) The “New York Energy Highway Blueprint”

The above-referenced Orders issued by the PSC in the AC Transmission Proceeding and the Generation Retirement Contingency Proceeding both incorporate many of the public policy objectives identified in the New York Energy Highway Blueprint (the “Energy Highway Blueprint”) issued by the New York Energy Highway Task Force appointed by New York’s Governor Andrew Cuomo in October of 2012.¹¹

While the Energy Highway Blueprint itself is not a state law or regulation, nor an Order issued by the PSC subject to SAPA, because it has been quoted so extensively, and thereby incorporated, in the above-referenced PSC Orders, it is worthwhile discussing it in more detail as additional support for the Public Policy Requirements that are driving the need for transmission solutions in New York State. Incidentally, the Energy Highway Blueprint was the result of a “Request for Information” process that included a period for the solicitation and receipt of public responses, much like a PSC Order subject to SAPA is subject to a public comment period.

The Energy Highway Blueprint includes as one of its four main areas of focus an initiative related to the expansion and strengthening of the State’s transmission system (or as it calls it, the “Energy Highway”). It states that such initiative was not intended to replace the NYISO’s existing reliability and economic planning processes, but rather, that “the confluence of aging infrastructure with multiple power plant retirements due to economics and fluctuating fuel prices, along with the anticipated or potential retirement of power plants due to increasing environmental restrictions or regulatory issues, calls for a broader planning effort guided by public policy.”¹²

The public policy objectives that would guide such a broader planning effort for expanding and strengthening the transmission system include:

- Expanding transmission (removing capacity constraints) to carry excess power from upstate to downstate

⁹ State Register, Notice of Proposed Rulemaking regarding Reliability Contingency Plans to Address the Potential Retirement of the Indian Point Energy Center, No. PSC-08-13-00009-P (Feb. 20, 2013).

¹⁰ *Id.*

¹¹ See Energy Highway Blueprint, *supra* n.8.

¹² Energy Highway Blueprint, *supra* n.11, at 37.

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The Blueprint states:

“New York State’s electric transmission system faces a longstanding problem of congestion at critical points on the pathways linking upstate and downstate New York. Together, New York City, Long Island, and Westchester County account for more than half of the demand for electricity in the State and this demand is increasing; however, in times of peak demand and high prices, lower-cost and/or cleaner power available from upstate cannot reach these densely populated areas because of the transmission bottlenecks. Congestion can have adverse environmental and economic consequences when older plants in urban areas run more frequently than they otherwise would if power from other sources of energy could reach these areas. The Energy Highway Blueprint addresses the challenges of a congested transmission system by calling for the upgrade of existing lines and the building of new lines following existing rights-of-way.”¹³

It also states:

The reduction of in-state transmission constraints and development of additional transmission capacity is expected to reduce air emissions in the New York City area, support the development of upstate renewable energy projects, and lower wholesale energy prices for downstate energy consumers. Further, upgrades should provide economic development benefits to upstate by enabling excess energy from upstate power plants to reach downstate markets, improving the financial viability of existing upstate power producers, and allowing existing and new wind farms and other renewable sources in that region to access higher-priced energy markets.¹⁴

- Planning for possible power plant retirements

The Energy Highway Blueprint states:

“More than 40 percent of New York’s existing power generating capacity is over 40 years old and more than 20 percent is over 50 years old. Recent and pending environmental regulations ... coupled with low natural gas prices could lead to accelerated retirements of some of these older facilities. The potential retirement of power plants creates uncertainties for the future of the State’s power supply.”¹⁵

¹³ *Id.* at 38.

¹⁴ *Id.* at 39.

¹⁵ *Id.* at 42.

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It also states:

“[P]reparations for replacement solutions years in advance can minimize the need for Reliability Support Services contracts to safeguard the power system and thus reduce costs to customers. This long-term view will also allow for longer-term alternative solutions, such as repowering of existing generators and construction of new power plants, transmission, or other infrastructure projects that require more than the formal six-month notice period to implement.”¹⁶

- Supporting public-private partnerships

The Energy Highway Blueprint states:

“The expansion and strengthening of energy infrastructure can be accomplished through various contracting arrangements, with each approach providing distinct benefits depending on the types of projects under development. The Energy Highway Blueprint includes actions with a focus on public financing, private financing, and a combination of public and private financing through partnerships. Such partnerships make sense because energy infrastructure in the State is owned by both public and private entities. The benefits of public-private partnerships can include lower financing costs to develop large-scale projects.”¹⁷

- Supporting workforce development for the energy industry

The Energy Highway Blueprint states:

“[N]early 50 percent of the skilled utility workforce will be approaching retirement or attrition in the next three years. Despite utility advancements in workforce productivity, additional skilled workers are needed, and fully developing workers with the necessary skills requires several years of training.”¹⁸

In addition to the Energy Highway Blueprint’s discussion of expanding and strengthening the transmission system, the Blueprint also has as one of its four primary areas of focus supporting clean energy development, including “facilitat[ing] further development of upstate renewable energy projects” by initiating “transmission upgrades in Northern New York and other

¹⁶ *Id.* at 44.

¹⁷ *Id.* at 50.

¹⁸ *Id.* at 51.

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areas as needed to help facilitate renewable energy development.”¹⁹ The Energy Highway Blueprint states in this regard:

“The Task Force supports additional cost-effective targeted investments in the transmission infrastructure in Northern New York to reduce bottlenecks affecting energy from renewable resources. The NYISO’s Growing Wind report²⁸ modeled all the existing and proposed wind projects at the time, totaling approximately 6,000 mw from land-based wind farms. The report concluded that with no upgrades to the existing transmission system, approximately 9 percent of the energy from wind resources would be constrained across the State.”²⁰

(4) Summary of Public Policy Requirements

Taking together the PSC’s Orders in the AC Transmission Proceeding and the Generation Retirement Contingency Proceeding (and the Energy Highway Blueprint, on which the Orders in both those proceedings were based), Iberdrola proposes that the following public policy objectives can be discerned from the above-referenced Public Policy Requirements, which drive the need for transmission solutions in New York:

Increasing capacity of the system and relieving congestion– increasing the transfer capacity between upstate and downstate New York, by at least 1000 MW, and thus, reducing the congestion bottlenecks in the transmission system.

Improving System Reliability, Flexibility and Efficiency – making the transmission system more dependable, flexible, efficient and resilient, particularly in the face of extreme storm impacts and the potential retirement of existing generating plants

Lowering costs to ratepayers - lowering prices for customers in congested areas downstate by moving lower cost power in the upstate areas to the downstate area, while maintaining regional equity, and using other means, like public-private partnerships and other contractual arrangements, with lower financing costs, to lower costs to ratepayers

Promoting renewable energy and diversity in supply – increasing opportunities for development and construction of new renewable and clean energy generation, which often are located in upstate areas of the state

Reduced environmental and health impacts – in addition to supporting the development of more renewable and clean-energy generators, allowing generators that use non-renewable fuels to operate less frequently, with less emissions of pollutants and greenhouse gases; utilizing

¹⁹ *Id.* at 61.

²⁰ *Id.* at 67-68.

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existing rights-of-way for new or expanded transmission in order to reduce environmental and community impacts

Job growth and economic development – creation of new jobs and economic activity in areas where new transmission or generation projects are built, along with benefit of taxes paid to those corresponding taxing jurisdictions; providing existing upstate generators with access to higher-priced energy markets; opportunity for training new workforce in the energy industry

Proposed Criteria for Evaluation of Transmission Solutions

Iberdrola proposes that the principal criterion for evaluating whether a transmission solution fulfills the identified transmission needs in New York should be the proposed solution's net benefit to the State, including costs savings for ratepayers.

In its most simple form, this criterion should measure the cost of the proposed transmission solution against the savings to ratepayers and other benefits. Where the total benefits, including load costs savings, exceed the capital cost of the solution, that solution should then be qualified for further evaluation with respect to other potentially applicable public policy considerations as envisioned in Section 31.4.6.4 of Attachment Y to NYISO's OATT and ultimately, using the metrics outlined in Sections 31.4.8.1 of Attachment Y to NYISO's OATT,²¹ so as to determine whether it is the most cost effective and efficient solution to meet the identified transmission needs.

How Transmission (the Connect New York Project) Will Fulfill these Public Policy Requirements

Irrespective of what generation solutions may also be proposed, adequate bulk *transmission* in New York State is a necessary prerequisite to bringing modern age power to the market and to realizing the Public Policy Requirements outlined above. This view is supported from almost every authoritative vantage point.

From the NYISO Wind Generation Study (2010):

“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.”²²

²¹ NYISO OATT, Attachment Y § 31.4.6.4, §§ 31.4.8.1.3-31.4.1.9.

²² *Growing Wind: Final Report of the NYISO 2010 Wind Generation Study* at 91 (Sept. 2010), available at http://www.uwig.org/growing_wind_-_final_report_of_the_nyiso_2010_wind_generation_study.pdf.

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From the Energy Highway Blueprint (2012):

“The Blueprint’s actions and recommendations will unify the State’s efforts to create an energy infrastructure that will serve the State’s residents and businesses in the decades to come. Construction of the new *transmission* capacity called for under the Blueprint would solve a decades-old problem: the limitations of the State’s electric grid to transmit available, cheaper upstate power to downstate when demand is high. The Blueprint achieves this public policy goal with a first-of-its-kind solicitation of new *transmission* projects. . . . [b]uild \$1 billion worth of electric *transmission* projects totaling over 1,000 mw of capacity, providing an alternative to locally constructed generation of equal capacity, and allowing energy produced at upstate power plants, including wind farms, to reach downstate consumers.”²³

* * *

“Costs of new renewable energy development are minimized if developers are able to proceed with the confidence that *transmission* constraints will not prevent them from selling the power generated by their projects. Therefore, the Task Force recommends that *transmission* investments be undertaken to eliminate potential constraints where needed to achieve the State’s renewable energy goals cost-effectively.”²⁴

From the 2014 Draft State Energy Plan:

“Reliable, resilient energy and *transportation* systems accommodate emerging technologies, and withstand and recover quickly from extreme weather events and cyber-attacks. . . . Electric and natural gas *delivery infrastructure* is the secure backbone of the energy system, allowing consumers to easily connect to efficient, affordable, reliable, and increasingly clean energy sources.”²⁵

Not only is building transmission a crucial part of solving the State’s energy problems, but building high-voltage “direct current” (“DC”) transmission projects is also an important part of the solution.

HVDC transmission lines have various significant benefits over AC transmission solutions, particularly when used over long distances, including: (1) better stability; (2) fewer line losses; (3) black start capability; (4) fast power reversal capability; (3) reduced construction costs due to fewer materials and a smaller footprint; and (4) fewer adverse environmental

²³ Energy Highway Blueprint, *supra* n.8, at 13, 16.

²⁴ *Id.* at 68.

²⁵ See New York State Energy Planning Board, 2014 Draft State Energy Plan, Vol. 1, *Shaping the Future of Energy* at 22 (Jan. 7, 2014), available at <http://energyplan.ny.gov/Plans/2014.aspx>.

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impacts. HVDC technology is all about making existing power grids efficient, by moving more power, more efficiently, with the lowest losses possible.

Iberdrola's proposed "Connect New York" is a HVDC transmission solution that meets all of the Public Policy Requirements above. The Connect New York project proposes the construction of a buried 1,000 MW HVDC bulk transmission line from the Utica area to New York City (Zone E - Mohawk Valley to Zone J - New York City). This underground transmission initiative would utilize existing public and private rights-of-way for 244 miles of HVDC cable, two AC/DC converter stations and a small amount of high voltage AC cable, with an option to add a second 1,000 MW HVDC line. The HVDC cables proposed for this project are a technology that has already been utilized here in the United States (mainly for submarine transmission projects) as well as overseas for both submarine and subterranean projects.

The Connect New York project will significantly mitigate New York's major transmission bottlenecks, which cost downstate over a billion dollars per year. In addition, the project will bring much needed new capacity to some of New York's most active wind development sites and existing cleaner gas fired plants in upstate areas of the State.

Because the project will utilize public rights-of-way, it will provide a new source of revenue to the State. Also, because the transmission lines will be buried and essentially "invisible" to the public, as well as utilizing existing rights-of-way, the Connect New York project will also mitigate environmental, visual and local community concerns that derail most bulk transmission projects.

Also, by burying an efficient, underground DC bulk transmission line, line losses will be reduced and aesthetic and health based concerns eliminated. Additionally, this project will be a life-line to older upstate generating facilities that may currently be less environmentally friendly by allowing them to repower with new technologies and to continue to support their local economies.

The energy most likely to be transmitted on the Connect New York transmission lines (natural gas and renewable power) will displace more expensive energy produced by the older vintage fossil fuel plants in the metropolitan New York/Long Island regions, thereby reducing greenhouse emissions as well as energy costs.

Finally, the Connect New York project will create jobs throughout the State of New York, not only during the construction period, but subsequently by enhancing prospects for older upstate coal plants to invest in repowering as a new downstate energy market is opened up. The same holds true for renewable development east of Lake Ontario, assuming that long-term power purchase contracts can be put in place.

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In sum, there are many compelling public policy benefits associated with the Connect New York project, but perhaps the most important one is that it is achievable. Many of the mine fields threatening the approval of customary transmission proposals are avoided with the Connect New York's approach. Environmental and local community-based challenges are largely circumvented by utilizing the existing right-of-way and burying the transmission line underground.

Equally important Connect New York is all about New York. It will foster New York's desire for energy independence by building an energy highway that will change the financial dynamics of repowering upstate plants while encouraging new investment in on-shore wind development east of Lake Ontario. It will reduce the State's annual energy bill by reducing congestion and allowing lower cost, cleaner energy upstate to flow into New York City and Long Island.

Conclusion

Iberdrola respectfully requests that the NYISO forward this submission to the NYS PSC as an identification of the transmission needs in New York driven by Public Policy Requirements for which transmission solutions should be requested and evaluated.

Sincerely,

GILBERTI STINZIANO HEINTZ & SMITH, P.C.



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