



October 2, 2020

Via Electronic Mail:  
[PublicPolicyPlanningMailbox@nyiso.com](mailto:PublicPolicyPlanningMailbox@nyiso.com)

New York Independent System Operator  
10 Krey Boulevard  
Rensselaer, NY 12144

Re: Public Policy Transmission Planning Process

EDF Renewables North America (“EDFR”) respectfully submits the following comments in response to the New York Independent System Operator’s request for parties to submit proposed transmission needs pursuant to Section 31.4.2 of the NYISO Open Access Transmission Tariff (“OATT”).

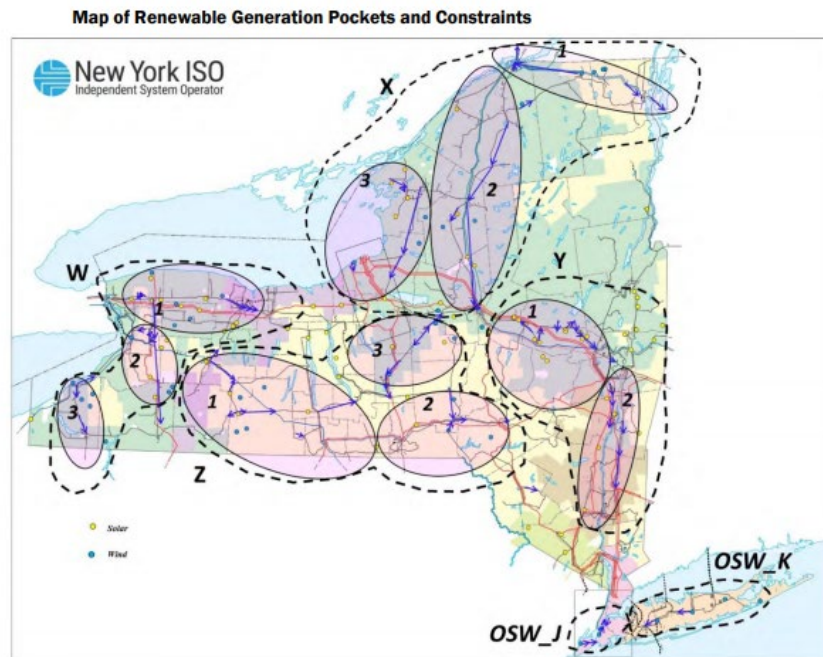
Founded in 1985, EDFR is an independent power producer and service provider exclusively focused on the development, ownership, and operation of renewable energy projects. EDFR delivers grid-scale power throughout the country and has several projects in various stages of development and operation in New York. With a mission of delivering renewable solutions to lead the transition to a sustainable energy future, EDFR is encouraged by New York’s commitment and investment in a renewable energy program as it establishes itself as a world leader in clean energy standards.

**Public Policy Requirements**

Through the Climate Leadership and Community Protection Act (“CLCPA”) signed into law in 2019, the State established the most ambitious and comprehensive climate and clean energy standards in the country – a minimum of 70% renewable electricity by 2030. The 2020-2021 Transmission Planning Process is therefore the first that follows the enactment of such ambitious clean energy targets that can only be met via significant transmission investments. The need to prioritize a comprehensive transmission investment plan has been recognized and signaled also via the Accelerated Renewable Energy Growth & Community Benefit Act (“the Accelerated Renewables Act”), which accelerates the process for building renewable energy projects across the state and facilitates the transmission of clean power through infrastructure investments.

### **Transmission Needs**

Since 2010, studies have shown that congestion in certain 'pockets' of the state transmission system will result in the curtailed delivery of renewable energy to consumers. In 2010, the New York Independent Systems Operator (NYISO) conducted a Wind Integration Study<sup>1</sup> to identify potential transmission bottlenecks that would limit large-scale development of renewable energy resources. Most recently, in the 2019 Congestion Assessment and Resource Integration Study (CARIS) 70x30 sensitivity<sup>2</sup>, NYISO identified a significant amount of potential transmission constraints with renewable generation additions consistent with the CLCPA targets. Several pockets were identified where bottlenecks on the system caused significant curtailment of clean energy generation, and congestion on the grid.



Source: CARIS 70x30, Map of Renewable Generation Pockets and Constraints

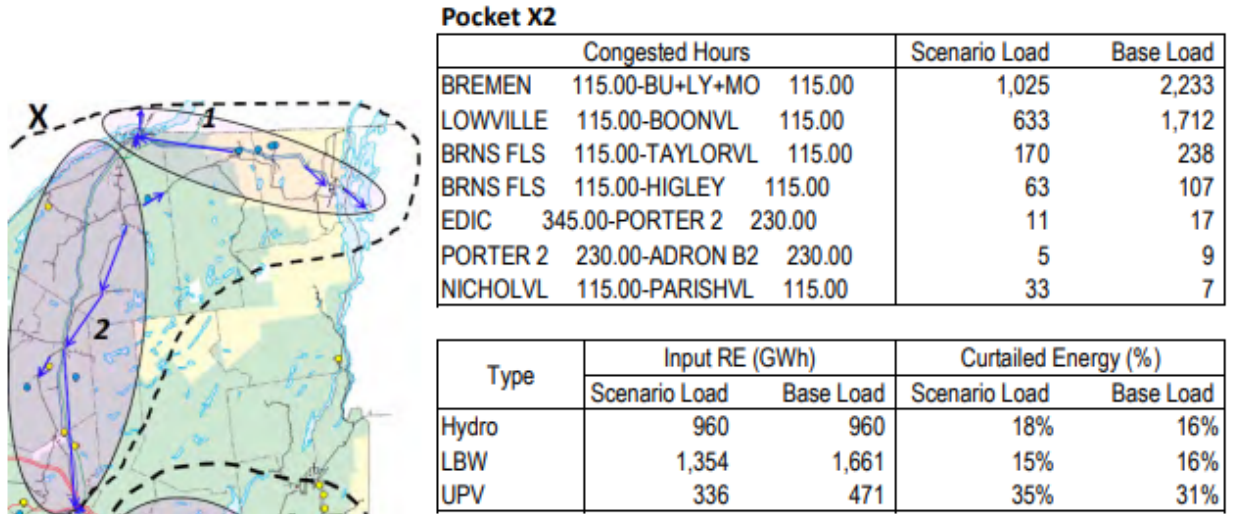
EDFR respectfully submits the following transmission needs based on the CARIS 70x30 study and a study EDFR commissioned with an independent consultant:

- Lewis, Jefferson and Oswego area represented as pockets X2 and X3 in the CARIS 70x30 study; and
- Steuben and Allegany area represented as pocket Z1 in the CARIS 70x30 study.

<sup>1</sup> [https://offshorewindhub.org/sites/default/files/resources/nyiso\\_9-30-2010\\_growingwind\\_0.pdf](https://offshorewindhub.org/sites/default/files/resources/nyiso_9-30-2010_growingwind_0.pdf)

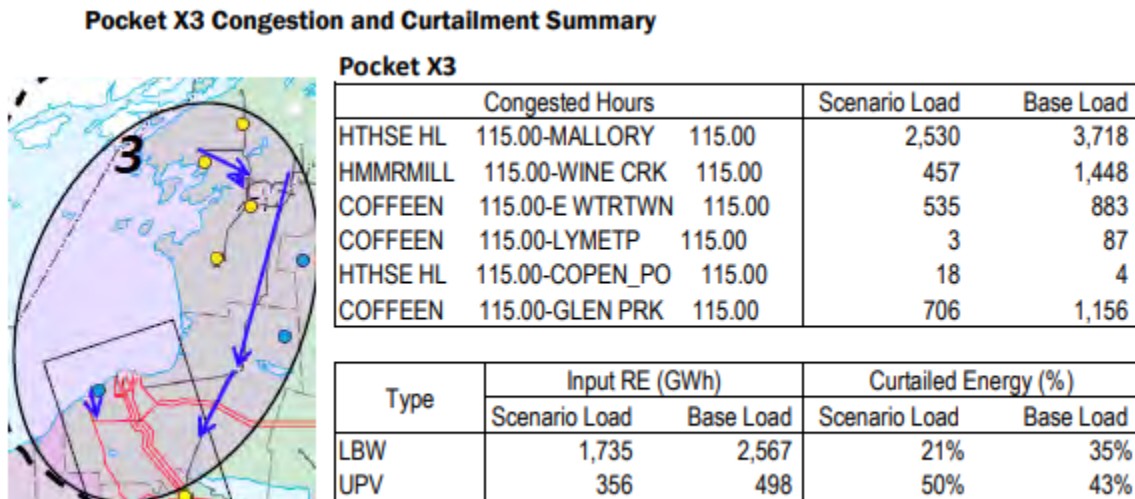
<sup>2</sup> <https://www.nyiso.com/documents/20142/2226108/2019-CARIS-Phase1-Report-Final.pdf>

Indeed, as per the CARIS 70x30 study report, it was found that solar generation located in pocket X2, in Lewis County of the Mohawk area, was curtailed up to 35% due to 115kv transmission constraints including Brown Falls-Taylorville-Boonville, while local hydro generation was found to be curtailed up to 18% due to their proximity to congested paths.



Source: CARIS

Pocket X3, located in Jefferson & Oswego Counties, was also found constrained by 115kv constraints in the area, causing solar generation to be curtailed up to 50% and wind generation by up to 35%.



Source: CARIS

Pocket Z2 located in Southern Tier Region was found to be constrained by the 115kv transmission corridor including Benet-Palmito, Meyer- South Perry, and Benet-Howard. Solar generation was found to be curtailed up to 30% of the output while wind was curtailed up to 37%.

**Pocket Z1 Congestion and Curtailment Summary**



Congested Hours			Scenario Load	Base Load
HICK 115	115.00-WERIE115	115.00	1,966	3,115
BATH 115	115.00-HOWARD11	115.00	1,438	2,694
BENET115	115.00-PALMT115	115.00	1,456	1,738
MEYER115	115.00-S.PER115	115.00	1,371	2,307
S.PER115	115.00-S PERRY	230.00	-	20
S.PER115	115.00-STA 162	115.00	-	1
STA 162	115.00-STA 158S	115.00	304	466
MEYER115	115.00-MORAI115	115.00	611	847
BENET115	115.00-HOWARD11	115.00	346	893
CODNT115	115.00-MONTR115	115.00	2	12

Type	Input RE (GWh)		Curtailed Energy (%)	
	Scenario Load	Base Load	Scenario Load	Base Load
LBW	3,064	4,479	21%	37%
UPV	1,073	1,503	19%	30%

Source: CARIS

Those same lines were identified as transmission constraints in a powerflow study commissioned by EDFR in September 2020 to SNC consulting firm. Major overloads at the 115 kV level were found in pocket X1 and X3 when the generation in the queue in those areas was added and dispatched at 70%. Those constraints include the Black River – Coffee Street – Lyme Tap 115 kV corridor in Jefferson County; the two 115 kV double-circuits connecting Black River to Lighthouse Hill and Adirondack to Boonville. Pocket Z1 was also found constrained by several 115kv constraints including Bennett-Howard, Meyer-Moraine, and Bath-Howard.

Based on publicly available information, EDFR found that close to 1,500MW of renewable energy projects located in pockets Z1, X1 and X3 have NYSERDA awards. With over 7,000MW of clean energy projects in the queue, those areas would benefit from reinforcement of the transmission infrastructure. Depending on the transmission solutions identified to reinforce those pockets, there is potential for additional clean energy generation to be developed in those areas to further support the CLCPA goals. Details of the SNC study can be provided upon request.



### **Criteria For Selection Of Transmission Solutions**

While EDFR does not develop transmission assets, EDFR recognizes the need for effectiveness and transparency when selecting transmission solutions. EDFR urges that transmission solutions be looked at in a comprehensive manner, that includes both qualitative and quantitative criteria, and measures benefits on both short and long term. For example, a low- cost solution may score well from a cost standpoint; however, such solution may not be the most cost-effective solution long-term, if it represents a simple patch of the grid (versus a more robust solution that might have a higher cost but would also allow for significantly more clean energy development in the future).

EDFR generally supports criteria that have been laid out recently in the July 2, 2020 joint petition by the New York State Department of Public Service ("DPS") and the New York Power Authority ("NYPA"), such as:

- 1) *The transmission investment's ("TI") potential for unbottling existing renewable generation for delivery to load centers in the State;*
- 2) *The TI's potential for avoiding future congestion that could impede delivery of expected renewable energy to load centers in the State;*
- 3) *The TI's potential for increasing the deliverability of existing and anticipated baseload renewable or low carbon generation in the State, thereby reducing the amount of new generation that must be constructed to meet demand and/or CLCPA targets;*
- 4) *Whether an earlier in-service date for the TI would: (a) increase the likelihood that the State will meet the CLCPA targets; and/or (b) enhance the value of recent, ongoing or anticipated distribution, local transmission, and/or bulk transmission investments, and/or help the state realize benefits from such investments;*
- 5) *The ability of the TI to progress expeditiously based on such factors as the planning and design status of the TI, and the TI's eligibility for expedited review under Article VII and its implementing regulations.*

Similarly, EDFR sees the value in using criteria adopted for approval and selection of past Public Policy Transmission Projects such as: (1) economic benefits, including reduction in system-wide production costs; (2) aging transmission infrastructure that needed to be upgraded and replaced; (3) making the system more resilient and able to withstand extreme weather events; (4) increasing operational flexibility, system reliability and efficiency; and (5) inclusion of innovative solution that optimize existing infrastructure (e.g. Smart Wires, dynamic line rating, PARs) or allow additional expandability for further transmission development.

### **Conclusion**

With the CLCPA goals now in law, there is a significant public policy directive that supports what the numerous grid studies have demonstrated -- that there are significant and real transmission



needs in New York. Those needs include pockets Z1, X1 and X3 as identified in NYISO's CARIS 70x30 study. Numerous criteria can be applied to prioritize and select transmission solutions that address those specific needs and expand the grid of the future. It is important that investment decisions be made based on the ultimate need of meeting the CLCPA targets -meaning avoiding piece-meal, low cost and ineffective solutions that could make sense on the short term but are not cost-effective on the long term. Furthermore, New York cannot afford uncertainty over transmission expansion. Doubts such as "whether or not", "where and what kind", "how much delay" put renewable energy developers at risk and therefore jeopardize New York's ability to achieve its goals.

Moreover, the NYISO and the NY Public Service Commission should continue to work together to streamline this critically important planning process. The goal should be that project selection and approval by the NYISO is completed within twelve months from the initial NYISO submission to the Commission of the results of its initial solicitation to the public.

The development of renewable energy resources is at risk of being slowed down without an immediate commitment to expand transmission capacity in specific locations. If developers and investors cannot be certain that transmission capacity will be expanded along an approximate timeline, they will have reason to:

- hesitate to propose new renewable energy resources;
- slow down the development process that brings new resources into service; and
- cancel some renewable energy projects, even if awarded contracts.

It is generally agreed that transmission expansion will be needed before 2030 to enable the New York grid to host many thousands of MW of new renewable energy resources by 2030. It is therefore critical that renewable resources be developed at the same time as new transmission projects, so that both will be made available at approximately the same time. Transmission needs such as those outlined in this submission should be declared without further delay.

Thank you for the opportunity to comment.

Sincerely,

Rodica Donaldson

Sr Director, Transmission Strategy

A handwritten signature in black ink that reads "Rodica Donaldson".