

June 8, 2021

By Electronic Delivery

Honorable Kimberly D. Bose, Secretary
Federal Energy Regulatory Commission
888 First Street, NE
Washington, DC 20426

**Re: *New York Independent System Operator, Inc.*, Docket No. ER21-____-000
Periodic Review and Revised Definition of Exempt Renewable Technology**

Dear Secretary Bose:

Pursuant to Section 205 of the Federal Power Act,¹ Part 35 of the regulations of the Federal Energy Regulatory Commission (“Commission”),² and Section 23.4.5.7.13.2.4 of the New York Independent System Operator, Inc. (“NYISO”) Market Administration and Control Area Services Tariff (“Services Tariff”), the NYISO submits (1) the results of its review of Exempt Renewable Technologies mandated by Section 23.4.5.7.13.2 of the Services Tariff, and (2) a revised definition of Exempt Renewable Technologies in Section 23.2.1 of the Services Tariff based on the outcome of that review. Under the revised definition, Exempt Renewable Technologies will consist of any “Intermittent Power Resource powered solely by wind or solar energy, or a Limited Control Run-of-River Hydro Resource.”³ The NYISO is also submitting revisions to its tariff to correct a ministerial cross-referencing error within section 23.2 of Attachment H of the Services Tariff and to complete an instance of a defined term used in Section 23.4.5.7.13.

I. Background

A. Renewable Exemption

The NYISO’s buyer-side market power mitigation rules (“BSM Rules”) provide that, unless exempt from mitigation, new capacity resources into either of the NYISO’s mitigated capacity zones (New York City and the G-J Locality) must bid into the NYISO’s Installed Capacity (“ICAP”) monthly spot auctions at a price at or above an applicable offer floor until the capacity clears 12 monthly auctions.⁴ One such exemption from the BSM Rules is the Renewable Exemption, which was established pursuant to a Commission order in 2015 that held that certain renewable resources should be exempt from the BSM Rules because they “have

¹ 16 U.S.C. § 824d.

² 18 C.F.R. Part 35.

³ Capitalized terms that are not otherwise defined herein shall have the meaning set forth in the Services Tariff.

⁴ See Services Tariff § 23.4.5.7.

limited or no incentive and ability to artificially suppress ICAP market prices.”⁵ The NYISO initially proposed the Renewable Exemption in a filing submitted in 2016, and it was accepted by the Commission in a series of orders issued in 2020.⁶

Under the existing Services Tariff, the Renewable Exemption applies only to resources that meet the definition of Exempt Renewable Technologies, or projects that are powered solely by Intermittent Power Resources or Limited Control Run-of-River Hydro Resources that the NYISO has determined to have high development costs and a low capacity factor such that there would be limited or no incentive and ability to use the resource to depress ICAP Market prices.⁷ The Renewable Exemption is subject to certain limitations, including the Renewable Exemption Limit, which is a dynamic cap on the amount of new capacity that is allowed to qualify for a Renewable Exemption from the BSM Rules. The NYISO also has revocation procedures in place that could be initiated to revoke an exemption should changes to the project disqualify the project from an exemption after the exemption was issued.⁸

B. Periodic Review of Exempt Renewable Technologies

The NYISO is required in “each ICAP Demand Curve Reset Filing Year after 2016,” to “conduct a periodic review . . . to determine the technology types that should be Exempt Renewable Technologies for Class Years with a Class Year Start Date during the Capability Years covered by the ICAP Demand Curve periodic review conducted for the relevant ICAP Demand Curve Reset Filing Year.”⁹ The periodic review is required to identify those technologies that are “technically feasible” and to project, for each candidate technology, (1) the cost of new entry and operation, (2) the revenues from the sale of Capacity, Energy and Ancillary Services (as well as other revenues associated with the sale of these products), and (3) the cost savings to Loads due to a reduction in ICAP Market-Clearing Prices from the new entry of the candidate intermittent renewable technology.¹⁰ The NYISO is to use these projections to determine “which candidate intermittent renewable technologies have (a) high development costs and (b) a low capacity factor, such that considering (a) and (b) there is limited or no incentive

⁵ *New York State Public Service Commission, et al. v. New York Independent System Operator, Inc.*, 153 FERC ¶ 61,022 at P 10 (2015).

⁶ *See New York Independent System Operator, Inc.*, 170 FERC ¶ 61,121, *order addressing arguments raised on reh’g. and compliance*, 172 FERC ¶ 61,058 (2020). *New York Independent System Operator, Inc.*, Letter Order, Docket No. ER16-1404-003, issued October 20, 2020.

⁷ *See Services Tariff* § 23.4.5.7.13.1. The NYISO may evaluate certain projects that are powered by technology that it expects to be included in the definition of Intermittent Power Resources and Limited Control Run-of-River Hydro Resources in the future, but any determination that such a project qualifies for a Renewable Exemption is subject to revocation should the technology not be included within these defined categories of resources upon the projects in service date.

⁸ *See Services Tariff* § 23.4.5.7.13.3.

⁹ *Services Tariff* § 23.4.5.7.13.2.1.

¹⁰ *Id.*

and ability to develop the candidate intermittent renewable technology in order to artificially suppress capacity prices.”¹¹

As part of this analysis, the NYISO is required to solicit stakeholder input. Specifically, it is required to issue a “preliminary identification of candidate intermittent renewable technologies for stakeholder review and comment” and then to issue “a draft list of recommended Exempt Renewable Technologies and the basis for the recommendation, for stakeholder and Market Monitoring Unit review and comment[.]”¹²

The Services Tariff provides further that “[o]n or before the 60th day subsequent to the Commission issuance of an order accepting ICAP Demand Curves based on the ICAP Demand Curve periodic review, the ISO shall file with the Commission the results of its Exempt Renewable Technology periodic review and determination pursuant to Section 23.4.5.7.13.2.2.”¹³ If the NYISO’s “determination of technology types that satisfy the provisions of Section 23.4.5.7.13.2.2 for the Mitigated Capacity Zones is different than the then-current definition of Exempt Renewable Technology, the ISO shall propose in the filing, for Commission review, a revised definition that is in accordance with its periodic determination, to be effective for Class Years with a Class Year Start Date during the Capability Years covered by the ICAP Demand Curve periodic review conducted for the relevant ICAP Demand Curve Reset Filing Year.”¹⁴

The NYISO commenced its periodic review of the current definition of Exempt Renewable Technology in 2019, in parallel with its ICAP Demand Curve reset process. The NYISO filed its Demand Curve Reset (“DCR”) proposal on November 20, 2020. That proposal sets forth the ICAP Demand Curves for the 2021/22 Capability year, as well as the methodologies and inputs for use in conducting annual updates to determine the ICAP Demand Curves for the 2022/2023, 2023/2024, and 2024/2025 Capability Years. The Commission accepted that filing, with minor revisions, in an order issued on April 9, 2021.¹⁵ The NYISO now submits this filing reflecting its “Exempt Renewable Technology periodic review and determination pursuant to Section 23.4.5.7.13.2.2.”¹⁶

¹¹ Services Tariff § 23.4.5.7.13.2.2.

¹² Services Tariff § 23.4.5.7.13.2.3.

¹³ Services Tariff § 23.4.5.7.13.2.4.

¹⁴ *Id.*

¹⁵ *See New York Independent System Operator, Inc.*, 175 FERC ¶ 61,012 (2021).

¹⁶ Services Tariff § 23.4.5.7.13.2.4.

II. Exempt Renewable Technologies Review and Proposed Tariff Amendments

A. Buyer-Side Mitigation Renewables Exemption Study

The Affidavit of Zachary T. Smith, included herein as Attachment III (“Smith Affidavit”), describes the *Buyer-Side Mitigation Renewables Exemption Study Spreadsheet* (May 5, 2021) (“Study”), which is the NYISO’s Exempt Renewables Technology assessment pursuant to Section 23.4.5.7.13.2.2 of the Services Tariff.¹⁷ As the Smith Affidavit explains, the NYISO first identified the candidate technologies that were considered to be technically feasible in the Mitigated Capacity Zones. With its consultant Sargent and Lundy, the NYISO ultimately identified solar photovoltaic, land-based wind, offshore wind, run-of-river hydro, and landfill gas resources as the candidate technologies. The NYISO solicited feedback from stakeholders and the independent Market Monitoring Unit (“MMU”) on this list at an ICAP Working Group meeting on June 2, 2020. The NYISO also developed and presented cost information for each Mitigated Capacity Zone to apply to projects sized to appropriate utility scale for each of these feasible candidate technologies.

The NYISO then proceeded to analyze whether the projects that could be developed using such technology had high development costs and low capacity factors such that there would be limited or no incentive and ability to develop a resource using that technology to depress ICAP Market prices. To make this determination, the NYISO calculated the net present value (“NPV”) of the revenues and costs associated with each candidate technology to determine whether the projected cost of new entry (“CONE”) of the relevant technology is greater than the sum of the estimated revenues to the resource and the expected cost savings to a Load Serving Entity (“LSE”) financing the project. The NYISO identified a candidate technology as an Exempt Renewable Technology if (1) the projected CONE of a candidate technology, as calculated by the NYISO, was higher than (2) the sum of (a) the estimated value of revenues associated with the production and sale of renewable energy and capacity, and (b) the expected cost savings to Load due to the reduction in ICAP prices expected to occur as a result of the entry of the technology in the ICAP Market.

For purposes of calculating revenues, the NYISO used up-to-date ICAP inputs, including Demand Curve values from the November 20, 2020 DCR filing, and ICAP Market prices from 2018 through 2021. The capacity factors for each candidate technology were determined based on a combination of ICAP manual values, publicly-available documentation, and aggregated actual NYISO data. Energy market production values were based primarily on the most recent Congestion Assessment and Resource Integration Study load shapes and actual production data, and energy market revenues were estimated using this data and the hourly average of the energy market Real-Time integrated Locational Based Marginal Pricing, weighted by time, from September 1, 2017 to August 31, 2020. Revenues for each candidate technology consisted of payments for both capacity and energy, tax credits, and Renewable Energy Credits.

¹⁷ NYISO. *BSM Renewables Exemption Study Spreadsheet*. (presented at the May 5, 2021 Installed Capacity Working Group and Market Issues Working Group meeting), available at: https://www.nyiso.com/documents/20142/21189817/Posting_BSM_RE_Study_5.4.2021.xlsx/7a7e6524-94a3-bfb2-d970-29b7f46ea9dc

The costs for each technology type consisted of the cost to construct a generating resource using that technology, fixed operating and maintenance costs, and taxes. The cost calculations incorporated Modified Accelerated Cost Recovery System depreciation. The cost calculations also used the same inflation and tax rate inputs that were used in the November 9, 2020 DCR filing. Return on equity and debt costs, as well as capital structure, were determined using utility annual reports. Site leasing costs, except in the case of offshore wind as noted in the attached affidavit, and upgrade costs were excluded from the cost calculations, in order to make them more conservative.

The calculation of these revenues and costs, discounted back to NPV, showed that solar, land-based and offshore wind, and run-of-river hydro resources should qualify as an Exempt Renewable Technology. However, landfill gas technology did not satisfy this test in the calculations performed by the NYISO in both regions and it therefore does not qualify as an Exempt Renewable Technology. However, as an Intermittent Power Resource an individual landfill gas project may still qualify for a Renewable Exemption should the NYISO determine, in accordance with Section 23.4.5.7.13.1.1 of the Services Tariff that the project specific development costs and capacity factor provide it limited to no incentive and ability to depress capacity prices.

B. Tariff Amendments

As a result of the Study, the NYISO has determined that run-of-river hydro generating resources should be added to the list of resources that qualify as an Exempt Renewable Technology. Thus, the NYISO proposes to amend the definition of Exempt Renewable Technologies in Section 23.2.1 of the Services Tariff to state that Exempt Renewable Technologies will consist of any “Intermittent Power Resource powered solely by wind or solar energy, or a Limited Control Run-of-River Hydro Resource.”

III. Stakeholder Process

The NYISO began stakeholder discussions for the BSM Renewables Exemption Study by presenting the list of candidate technologies for stakeholder review and comment, as required by MST 23.4.5.7.13.2.3(a) at a June 2, 2020 meeting.¹⁸ The list of candidate technologies was developed for the stakeholder presentation based on discussions between Sargent and Lundy and NYISO staff, and included those technologies that were technologically feasible in each Locality. Sargent and Lundy produced a report on candidate technology costs.¹⁹ This report was

¹⁸ NYISO *BSM Renewable Exemption Study Technologies* (presented at the June 2, 2020 Installed Capacity Working Group and Market Issues Working Group meeting), available at: <https://www.nyiso.com/documents/20142/12891716/6%20BSM%20Renewable%20Exemption%20Study%20Candidate%20Technologies.pdf/411569af-ddc0-4bdd-ddb7-0b260f2a12fe>

¹⁹ Sargent & Lundy, *Renewable Technology Costs* (June 2020), available at: https://www.nyiso.com/documents/20142/17450815/NYISO_Renewable%20Technology%20Costs_26June2020public.pdf/25661725-15bd-33e2-1fdb-d883f9f82963

discussed with stakeholders at a December 7, 2020 meeting.²⁰ The NYISO reviewed the study methodology with stakeholders at a January 28, 2021 meeting to gather feedback on the proposed study approach.²¹ Finally, draft study results were presented for stakeholder review and comment, as required by MST 23.4.5.7.13.2.3(b), at a stakeholder meeting on May 5, 2021.²² The NYISO met with the MMU several times throughout this process, and the MMU provided feedback that the NYISO incorporated into the study, or addressed with a sensitivity analysis, as detailed in the attached affidavit.

IV. Ministerial Revisions In Attachment H

The NYISO is also proposing two ministerial revisions to the Services Tariff. The first corrects a reference within the definition of “NCZ Examined Project” in Section 23.2. Part (ii) of the definition, which currently reads “meets the criteria specified in 23.4.5.7.3(II)” is revised to read “meets the criteria found in (II) of the definition of Examined Facility above.” The second ministerial revision completes the term “Limited Control Run-of-River Hydro Resource” where the current instance of the term omits the word “Hydro.”

V. List of Documents Submitted

The NYISO submits the following documents with this transmittal letter:

1. A blacklined version of the revisions to the Services Tariff proposed by this filing (“Attachment I”);
2. A clean version of the revisions to the Services Tariff proposed by this filing (“Attachment II”);
3. Affidavit of Zachary T. Smith (“Attachment III”)

²⁰ NYISO. *BSM Renewable Exemption Study* (presented at the December 7, 2020 Installed Capacity Working Group and Market Issues Working Group meeting), available at: [https://www.nyiso.com/documents/20142/17450815/December_7_2020_BSM_Renewable_Study_ICAPWG_FINAL%20\(002\).pdf/5c9d4577-9133-0a36-1f57-0d5b1a57bac0](https://www.nyiso.com/documents/20142/17450815/December_7_2020_BSM_Renewable_Study_ICAPWG_FINAL%20(002).pdf/5c9d4577-9133-0a36-1f57-0d5b1a57bac0)

²¹ NYISO. *BSM Renewables Exemption Study: Methodology* (presented at the January 28, 2021 Installed Capacity Working Group and Market Issues Working Group meeting), available at: https://www.nyiso.com/documents/20142/18803752/BSM_Renewables_Exemption_Study_Methodology_1.28.2021_FINAL.pdf/519285e1-35ef-93c9-5fb5-7390c52f0a02

²² NYISO. *BSM Renewables Exemption Study: Draft Study Results* (presented at the May 5, 2021 Installed Capacity Working Group and Market Issues Working Group meeting), available at: https://www.nyiso.com/documents/20142/21189817/BSM_Renewables_Exemption_Study_5.4.2021_FINAL.pdf/40754327-934b-38a7-f270-3399af3bbeec

VI. Effective Date

The NYISO respectfully requests that the tariff revisions proposed in this filing be made effective August 9, 2021, the day immediately following the end of the 60 day standard notice period prescribed by Section 205 of the Federal Power Act.

VII. Communications

Communications regarding this proceeding should be sent to:

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VIII. Service

The NYISO will send an electronic link to this filing to the official representative of each of its customers, each participant on its stakeholder committees, the New York State Public Service Commission, and the New Jersey Board of Public Utilities. The NYISO will also post the complete filing on its website at www.nyiso.com.

IX. Conclusion

Wherefore, for the foregoing reasons, the New York Independent System Operator, Inc. respectfully requests that the Commission accept the Study and the tariff revisions proposed in this filing and make them effective as of August 9, 2021.

/s/ Ted J. Murphy

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