

September 30, 2022

**Submitted Electronically**

Hon. Kimberly D. Bose  
Secretary  
Federal Energy Regulatory Commission  
888 First Street N.E.  
Washington, D.C. 20426

Re: *New York Independent System Operator, Inc.*, Informational Filing; Docket No. ER19-2276-00\_

Dear Secretary Bose:

On June 27, 2019, the NYISO submitted a comprehensive set of tariff revisions establishing a participation model for Aggregations and Distributed Energy Resources (“2019 Filing”).<sup>1</sup> The participation model included modifications to the NYISO’s Energy, Ancillary Services, and Installed Capacity (“ICAP”) market rules to facilitate participation in a manner that accommodates the operating characteristics of Aggregations and Distributed Energy Resources (“DER”). Among the modifications to the ICAP market rules was a proposal to establish a new type of ICAP Supplier<sup>2</sup>—a Resource with an Energy Duration Limitation<sup>3</sup>—that is eligible to supply capacity in two-, four-, six-, or eight-hour increments, rather than a full twenty-four hours each day. In a corresponding modification, the NYISO proposed a payment structure that ties a Resource’s ICAP market payments to its Energy Duration Limitation via Duration Adjustment Factors,<sup>4</sup> which value a Resource’s contribution to meeting the New York Control Area’s (“NYCA”) resource adequacy requirements based upon the number of hours per day that the

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<sup>1</sup> *New York Indep. Sys. Operator, Inc.*, Proposed Tariff Revisions Regarding Establishment of Participation Model for Aggregations of Resources, Including Distributed Energy Resources, and Proposed Effective Dates, Docket No. ER19-2276-000 (Jun. 27, 2019) (“2019 Filing”).

<sup>2</sup> Capitalized terms that are not otherwise defined in this filing shall have the meaning specified in Section 1 of the NYISO’s Open Access Transmission Tariff (“OATT”) and Section 2 of the NYISO’s Market Administration and Control Area Services Tariff (“Services Tariff”).

<sup>3</sup> Energy Duration Limitation is defined as “for a Resource that is not capable of providing Energy for twenty-four hours each day, the number of consecutive hours per day that a Resource elects and is obligated, pursuant to Services Tariff Sections 5.12.1 and 5.12.7, to (i) schedule a Bilateral Transaction; (ii) Bid Energy in the Day-Ahead Market; or (iii) notify the ISO of any outages in the Day-Ahead Market as an Installed Capacity Supplier for the ICAP Equivalent of UCAP sold, as identified in Section 5.12.14 of the ISO Services Tariff.” Services Tariff Section 2.5.

<sup>4</sup> 2019 Filing at 79. Duration Adjustment Factor is defined as “[t]he value of Installed Capacity, expressed as a percentage, for a Resource as specified in Section 5.12.14 of the ISO Services Tariff.” Services Tariff Section 2.4.

Resource is able to supply Energy.<sup>5</sup> Recognizing that New York’s resource adequacy needs change over time, the NYISO proposed to undertake a quadrennial review of the Duration Adjustment Factors beginning in 2022.<sup>6</sup>

The Federal Energy Regulatory Commission (“Commission”) issued an Order accepting the 2019 Filing on January 23, 2020.<sup>7</sup> In its Order the Commission directed the NYISO to submit an informational filing no later than September 30, 2022, that (i) identifies a proposed review schedule for Duration Adjustment Factors, and (ii) includes a preliminary assessment of the payment structure for the 2021-2022 Capability Year.<sup>8</sup>

Earlier this year the NYISO submitted further revisions to its ICAP market rules in Docket No. ER22-772-000, proposing to accredit the capacity of all Resource types (including, but not limited to, Resources with an Energy Duration Limitation) based on their marginal contribution to resource adequacy.<sup>9</sup> The marginal capacity accreditation rules were accepted by the Commission on May 10, 2022, and supersede the rules proposed in the 2019 Filing.<sup>10</sup> Whereas the 2019 Filing proposed quadrennial review of Duration Adjustment Factors, the marginal capacity accreditation rules will reevaluate the capacity value of ICAP Suppliers on an annual basis.<sup>11</sup>

The NYISO hereby submits its informational report as directed by the 2020 Order.

## **I. Background**

### **a. Establishment and Periodic Review of Energy Duration Limitations and Duration Adjustment Factors**

The 2019 Filing established Resources with an Energy Duration Limitation as a type of ICAP Supplier eligible to participate in the NYISO markets. Whereas historically most ICAP Suppliers were expected to be available twenty-four hours a day, every day, Resources with Energy Duration Limitations may qualify to provide capacity for two, four, six, or eight hours per day, each day.<sup>12</sup>

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<sup>5</sup> *Id.* at 78-79.

<sup>6</sup> *Id.* at 82-83.

<sup>7</sup> *New York Indep. Sys. Operator, Inc.*, 170 FERC ¶ 61,033 (2020) (“2020 Order”).

<sup>8</sup> *Id.* at P 120.

<sup>9</sup> *New York Indep. Sys. Operator, Inc.*, Proposed Tariff Revisions Excluding Certain Resources from the “Buyer-Side” Capacity Market Power Mitigation Measures, Adopting a Marginal Capacity Accreditation Market Design, and Enhancing Capacity Reference Point Price Translation, Docket No. ER22-772-000 (Jan. 5, 2022) (“January 2022 Filing”).

<sup>10</sup> *New York Indep. Sys. Operator, Inc.*, 179 FERC ¶ 61,102 (May 10, 2022).

<sup>11</sup> January 2022 Filing at 34.

<sup>12</sup> Services Tariff Sec. 5.12.14.

The NYISO proposed corresponding changes to the ICAP market payment structure to compensate Resources with Energy Duration Limitations based on their expected contribution to meeting the NYCA's resource adequacy requirements. In 2018 the NYISO initiated a study with GE Energy to evaluate the reliability value of megawatts of Installed Capacity with daily energy duration limitations in comparison to Installed Capacity with no energy duration limitation (the "2018 Capacity Value Study").<sup>13</sup> The 2018 Capacity Value Study built upon work performed in 2012 for the Special Case Resource program and expanded the scope to include Distributed Energy Resources and other Resources that have daily energy duration limitations more broadly. The 2018 Capacity Value Study was designed to assess the impacts of a large set of resource parameters that included energy duration limitations, penetration of megawatts, persistence of use throughout the year, diversity of resources, seasonal performance variation and limitations, and how these parameters would impact the resource adequacy criterion used by the New York State Reliability Council ("NYSRC") in establishing the Installed Reserve Margin and other reliability metrics.<sup>14</sup>

The NYISO and its stakeholders used the 2018 Capacity Value Study to identify two sets of Duration Adjustment Factors: one set that applies when the incremental penetration of Resources with a two-, four-, or six-hour Energy Duration Limitation has not reached 1,000 MW, and a second that applies when incremental penetration of these Resources reaches 1,000 MW.<sup>15</sup> The 2019 Filing also provided for reevaluation of the Duration Adjustment Factors quadrennially, beginning in 2022.

b. Marginal Capacity Accreditation

On January 5, 2022, the NYISO proposed to replace the NYISO's Duration Adjustment Factor-based capacity values with a market design that values the capacity of all Resources based on a marginal accreditation framework. As described in the January 2022 Filing, the market design will more accurately represent the value of ICAP Suppliers' contributions to resource adequacy in the NYISO's prompt ICAP market as more duration-limited and intermittent capacity resources are added to the system. The marginal accreditation market design will first impact capacity auctions held for the Capability Year that begins on May 1, 2024.

Whereas Duration Adjustment Factors would have been reevaluated quadrennially under the rules proposed in the 2019 Filing, the marginal capacity accreditation market design will instead include an annual review of Capacity Accreditation Factors for each Capacity Resource

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<sup>13</sup> See 2019 Filing Sec. IX(A).

<sup>14</sup> *Id.* In addition to the study performed by GE on behalf of the NYISO, additional studies were performed by the NYISO's Independent Market Monitor (Potomac Economics) and Astrapé Consulting (on behalf of New York Battery & Energy Storage Technology Consortium). The NYISO considered these studies in its development of the final market design and corresponding tariff changes.

<sup>15</sup> Pursuant to the Duration Adjustment Factor market rules, an Installed Capacity Supplier's Adjusted Installed Capacity decreases as the number of hours it can operate per day (*i.e.*, its Energy Duration Limitation) decreases. For example, a one hundred percent Duration Adjustment Factor is applied to Installed Capacity Suppliers that can operate for at least six hours per day, while a forty-five percent Duration Adjustment Factor is applied to Installed Capacity Suppliers that can only operate for two hours per day.

Accreditation Class in advance of each new Capability Year. This will allow the NYISO to determine how NYCA system reliability, as modeled and approved by the New York State Reliability Council, would change through an addition of incremental capacity representing the characteristics of the Capacity Resource Accreditation Class.<sup>16</sup>

## II. Informational Filing

The January 2020 Order found that while the language of Services Tariff Section 5.12.14.3 required the NYISO to propose a schedule for the periodic review of Duration Adjustment Factors no later than September 1, 2022, it did not establish a deadline by which the NYISO would be required to propose any adjustment to those Factors.<sup>17</sup> Therefore, the Commission directed the NYISO to submit this informational filing and “(1) provide[] the proposed review schedule for the Duration Adjustment Factors, and (2) include[] NYISO’s preliminary assessment of the Duration Adjustment Factors applied to duration-limited resources for the 2021-2022 Capability Year.”<sup>18</sup>

### a. Proposed Review Schedule for Duration Adjustment Factors

The NYISO’s marginal accreditation factor market design became effective on May 11, 2022 and will first be implemented in the Market for the Capability Year beginning May 1, 2024. One of the tariff changes implemented on May 11 was the elimination of Services Tariff Section 5.12.13, which directed the NYISO’s quadrennial Duration Adjustment Factor review. The Services Tariff, therefore, no longer requires evaluation of Duration Adjustment Factors. The NYISO will instead calculate Capacity Accreditation Factors for each Capacity Resource Accreditation Class every year for each Locality and for the NYCA. This evaluation will begin in the August prior to the start of a Capability Year, and is anticipated to conclude in February or March of the following year.

### b. Preliminary Assessment of the Duration Adjustment Factors for the 2021-2022 Capability Year

As described above, the 2019 Filing established two sets of Duration Adjustment Factors, one applicable when incremental penetration of Resources with an Energy Duration Limitation is less than 1,000 MW, and a second set when incremental penetration of Resources with an Energy Duration Limitation is at least 1,000 MW. As of July 1, 2022, the MW count of incremental penetration of Resources with Energy Duration Limitations was zero MW.<sup>19</sup> The

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<sup>16</sup> January 2022 Filing at 32.

<sup>17</sup> January 2020 Order at P 120.

<sup>18</sup> *Id.*

<sup>19</sup> See Services Tariff Sec. 5.12.14.1 (requiring the NYISO to conduct a count of incremental penetration of Resources with Energy Duration Limitations as of July 1 each year, and to post the count to the NYISO’s public website). The count of incremental penetration of Resources with Energy Duration Limitations is available at: <https://www.nyiso.com/documents/20142/1401192/Incremental-Penetration-of-Resources-with-EDL-effective-for-2023-2024-Capability-Year.pdf/>.

two existing sets of Duration Adjustment Factors will remain effective until Capacity Accreditation Factors are initially established for the 2024 Capability Year.

### **III. Service**

The NYISO will send an electronic copy of this filing to the official representative of each party to this proceeding, to the New York Public Service Commission, and to the New Jersey Board of Public Utilities. In addition, a complete copy of this filing will be posted on the NYISO's website at [www.nyiso.com](http://www.nyiso.com), and the NYISO will send an electronic link to this filing to the official representative of each of its customers and to each participant on its stakeholder committees.

### **IV. Conclusion**

The NYISO respectfully requests that the Commission accept this informational filing in compliance with the January 2020 Order.

Respectfully submitted,

/s/ Gregory J. Campbell  
Gregory J. Campbell, Senior Attorney  
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## **CERTIFICATE OF SERVICE**

I hereby certify that I have this day served the foregoing document upon each person designated on the official service list compiled by the Secretary in this proceeding in accordance with the requirements of Rule 2010 of the Rules of Practice and Procedure, 18 C.F.R. §385.2010.

Dated at Rensselaer, NY this 30<sup>th</sup> day of September 2022.

*/s/ Mitchell W. Lucas*

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