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February 11, 2019

Via Electronic Mail

Hon. Kathleen H. Burgess
Secretary to the Commission
New York State Public Service Commission
Three Empire State Plaza
Albany, New York 12223-1350

RE: Case No. 18-E-0130 – In the Matter of
Energy Storage Deployment Program.

Dear Secretary Burgess:

Attached for filing is the “Implementation Plan of Consolidated Edison Company of New York, Inc. and Orange and Rockland Utilities, Inc. for a Competitive Direct Procurement of Scheduling and Dispatch Rights from Qualified Energy Storage Systems.”

This filing is made pursuant to Ordering Clauses 4 and 6 of the Public Service Commission’s *Order Establishing Energy Storage Goal and Deployment Policy* issued December 13, 2018 in the above referenced proceeding.

Thank you for your assistance.

Sincerely,

Att:
cc: Marco Padula, DPS Staff

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**IMPLEMENTATION PLAN OF
CONSOLIDATED EDISON COMPANY OF NEW YORK, INC. AND
ORANGE AND ROCKLAND UTILITIES, INC. FOR A
COMPETITIVE DIRECT PROCUREMENT OF SCHEDULING AND DISPATCH
RIGHTS FROM QUALIFIED ENERGY STORAGE SYSTEMS**

I. Introduction and Summary

The New York State Public Service Commission issued the *Order Establishing Energy Storage Goal and Deployment Policy* (the “Storage Order”)¹ on December 13, 2018. Among various requirements, the Storage Order directed Consolidated Edison of New York, Inc. (“Con Edison”) and Orange and Rockland Utilities, Inc. (“O&R”) (collectively the “Utilities”) to file implementation plans no later than February 11, 2019 for a competitive direct procurement process to secure full dispatch rights from new qualified energy storage systems. The Storage Order required Con Edison to procure at least 300 MW and O&R to procure at least 10 MW of scheduling and dispatch rights from qualified energy storage systems (each, a “Contract”) to be operational by December 31, 2022.

This implementation plan is the first step in an intensive, year-long process to establish policies and practices, issue RFPs throughout the State, and work towards meeting the requirements of the Storage Order. Next steps, including a March 29 stakeholder meeting and the comment period on the Joint Utilities’ RFPs, will provide valuable input from the energy storage business community, Department of Public Service Staff, New York State Energy Research and Development Authority (“NYSERDA”), and other stakeholders. Con Edison and O&R are

¹ Case 18-E-0130, *In the Matter of Energy Storage Deployment Program*, Order Establishing Energy Storage Goal and Deployment Policy (issued December 13, 2018).

committed to a successful outcome. This document presents Con Edison's and O&R's implementation plan for the procurement.

This implementation plan is structured into discrete sections:

- Section II presents an overview of the solicitation and describes the steps and timeline for the initial 2019 storage procurement process. Subsequent RFPs will follow a different schedule to be determined after the results of the initial procurement are known.
- Section III addresses the eligibility requirements that will be evaluated to assess parties' ability to participate in the competitive procurement.
- Section IV describes bid requirements.
- Section V includes non-exhaustive lists of quantitative and qualitative bid evaluation criteria for assessing proposals.
- Section VI describes the responsibilities of winning bidders.
- Section VII describes the expected use and operations of the storage during the Contract term.
- Section VIII presents key terms and conditions ("Terms and Conditions") of the Contract between the Utilities and the winning bidders.
- Section IX presents the proposed ratemaking and accounting treatment for the transaction.

While this implementation plan includes preliminary details regarding the procurement process, Con Edison and O&R will give interested parties a greater level of detail and the opportunity to provide feedback as part of upcoming stakeholder engagement processes,

including a March 29, 2019 conference, as well as an opportunity to review and comment on a draft Request for Proposal (“RFP”) and draft Terms and Conditions of the Contract.

II. Overview, Steps, and Timeline of Solicitation

Con Edison and O&R will issue a common, initial RFP to competitively secure scheduling and dispatch rights from qualifying energy storage resources for a term of up to seven years with Con Edison targeting between 100 MW and 300 MW and O&R targeting at least 10 MW. This joint procurement will permit an expedited and efficient procurement process for the Utilities. The Utilities will evaluate any MW shortfalls from the initial RFP and will issue subsequent RFPs to reach the Storage Order minimum MW targets.

Both Con Edison and O&R will accept bids exclusively for storage projects sized over 5 MW and connected to the transmission or distribution system that can directly participate in the New York Independent System Operator (“NYISO”) market and provide distribution benefits, if applicable. The Utilities will identify higher value locations in the RFP and give preference to resources located in those areas during the bid evaluation and selection process, as described in Section V. Con Edison anticipates that its higher value locations will include the Greenwood and Astoria Transmission Load Areas (“TLAs”). O&R anticipates that its higher value locations will be in load pockets in the northern part of O&R’s territory with high levels of solar photovoltaic (“PV”) penetration. More geographic specificity and detail will be provided during stakeholder conference and in the RFP documents. The procurement is expected to follow Table 1.

Table 1: Procurement Schedule

	Action	Con Edison Dates	O&R Dates
1	Conduct stakeholder / pre-release bidder conference	March 29	March 29
2	Release draft RFP and Terms and Conditions for comments by developers	May 31	May 31
3	Comments due on draft RFP and Terms and Conditions	June 14	June 14
4	Issue final RFP and Contract documents	July 15	July 15
5	Interested bidders submit prerequisite qualifications	August 1	August 1
6	Utility responds to qualifications and notifies bidders on status	August 15	August 15
7	Approved bidders submit proposals	November 1	November 1
8	Bid review complete	December 16	January 15, 2020
9	Winning bidders notified and announced	December 31	January 31, 2020
10	Contracts executed (expected 3 to 6 months from selection)	Q1 and Q2 2020	Q2 2020

The Utilities and Central Hudson Gas & Electric Corporation, New York State Electric & Gas Corporation, Niagara Mohawk Power Corporation d/b/a National Grid, and Rochester Gas and Electric Corporation (collectively the “Joint Utilities”) and NYSERDA will jointly schedule and conduct a stakeholder/pre-release bidder conference on March 29, 2019 in Albany (“Stakeholder Conference”), with simulcasting. The Stakeholder Conference will be informed by the Joint Utilities’ implementation plans filed this February 11, 2019, and the NYSERDA Energy Storage Market Acceleration Bridge Incentive (“MABI”) implementation plan which is

scheduled to be filed on March 11, 2019. Additional conferences will be scheduled if required. The conference will provide stakeholders the opportunity to discuss elements of the Joint Utilities and NYSERDA implementation plans, Contractual requirements, revenue sharing, and other matters of concern to stakeholders. The drafting of the RFP and Contract process is anticipated to begin in February. The Joint Utilities will continue to work with NYSERDA to develop the details of its MABI implementation plan so that it is coordinated with the Joint Utilities' solicitations. Each Utility will establish a specific mechanism with NYSERDA to reimburse the Utility for the portion of the bid award funded through NYSERDA's MABI mechanism, the details of which shall remain confidential prior to bid submissions.

Based on the information and input obtained from the Stakeholder Conference, the Utilities will develop the draft RFP and Terms and Conditions to be released on May 31, 2019. Interested bidders and other stakeholders will have until June 14, 2019 to submit written feedback on the draft RFP and Terms and Conditions. The Utilities will assess this input and issue the final RFP and Contract on July 15, 2019. Interested bidders will have until August 1, 2019 to submit their qualifications as a prerequisite to submitting a full proposal. A non-exhaustive list of qualification criteria that the Utilities are considering is outlined in the following section of this implementation plan. The Utilities will inform each bidder regarding qualification status by August 15, 2019. Only approved bidders will be allowed to submit formal project proposals.

Formal bids from approved bidders will be due on November 1, 2019. Con Edison will assess the bidders' proposals and announce the procurement results by December 31, 2019. O&R will assess bidders' proposals and announcement procurement results by January 31, 2020.

The evaluation criteria for the bids are outlined in Section V of this implementation plan. If the evaluation concludes with no financially viable projects, the Utilities will reassess the procurement strategy and storage economic trends before issuing another RFP. The precise timeframe for Contract execution with the winning bidders will depend on a variety of factors including any bidder's requested modifications to the Contract as well as the ability of all parties to obtain senior management and, in some cases, board of directors' approval in a timely manner. The Utilities will continue to draw from the shared experience of previous storage solicitations to develop a process that will enable the most efficient and timely path to Contract execution. However, experience to date has shown that the procurement and contracting process can be lengthy to negotiate an arrangement with third party suppliers that adequately captures the unique attributes of storage and new business models. The Utilities reserve the right to modify the dates of the procurement timeline as required with notification to all participants. The Utilities estimate that Contracts will be executed late in the first quarter or during the second quarter of 2020.

III. Bidder Qualification Criteria

All bidders must, as noted above, meet certain eligibility requirements to be able to submit formal RFP proposals. The Utilities are considering the following eligibility requirements for the initial qualification determination. The intent of this step is to solicit well-developed proposals to meet the in-service deadline of December 31, 2022.

1. Bidder's demonstrated experience in deploying the proposed commercialized storage technology at a scale of at least 5 MW in a single project in an expeditious manner (so that the bidder can meet the in-service deadline of December 31, 2022).
2. Bidder's ability to identify and demonstrate existing site ownership or site control for the proposed project within appropriately zoned area.

3. Bidder's identification of the exact point of interconnection for NYISO market participation.
4. Bidder's proposed project must be greater than 5 MW per premise. *i.e.*, not the result of aggregated smaller projects, interconnected electrically within the Utility's service territory and separately metered from any other customer load or generation at the site.
5. Existing storage systems and/or new systems eligible for Value Stack compensation (less than 5 MW) are ineligible to participate.
6. Storage projects that have an executed interconnection agreement as of the date of the RFP are ineligible to participate.
7. Bidder's proposed project must provide its full discharge for a minimum of four hours duration and must be capable of fully or partially cycling a minimum of a specified number of times per year for the duration of the scheduling and dispatch service Contract.
8. Bidders must accept the value of the scheduling and dispatch Contract in one upfront payment.
9. Bidders must provide at least two years of audited financials and must commit to providing a letter of credit or a guarantee from an investment-grade entity in an amount to be determined before the RFP response due date.

IV. Bid Requirements

All bids must provide the total project cost (broken down into cost components to be detailed in the RFP bid documents) and combined upfront payment requested from the Utility, co-funded by NYSERDA, in exchange for up to seven years of scheduling and dispatch rights. This payment will be in lieu of any payments directly from NYSERDA. Project costs should include the costs of the bidder to own, construct, interconnect, operate, and maintain the storage project, including any required regulatory and/or permitting approvals, for the term of the Contract. Bidders must include the proposed term of the Contract corresponding to its bid price, not to exceed seven years.

Bidders should also include their revenue-sharing mechanism proposal. Bidders, and their underwriters, will be subject to a credit review and will be required to provide supporting information. Bidders shall provide a letter of credit or guarantee in a specific form from an investment-grade entity equal to the liability associated with their proposed Contract obligations.

Bidders must also demonstrate site control, or a Memorandum of Understanding (“MOU”) with the site owner. Bidders must have a preliminary site layout accounting for local zoning rules for the proposed project. Bids must describe and demonstrate project details including storage technology, location, grid connection point(s), secured property rights, site conditions, existing regulatory approvals (if any), environmental benefits, maintenance program, and original equipment manufacturer warranties. Winning bidders must demonstrate that the completed project conforms with these details as well as outline which provisions of the RFP, if any, for which the bidder will request modification and why the request is being made. Each Utility will individually evaluate and compare bid prices and other terms, and based on its sole discretion, decide whether to accept any bids received and proceed to Contract execution with the winner(s).

V. Bid Evaluation Criteria

The Utilities will assess each storage proposal based on both quantitative and qualitative factors.

Quantitative factors will include but are not limited to the following:

1. Total project cost and MW proposed.
2. Required payment (inclusive of MABI) in exchange for the term of the scheduling and dispatch rights.

3. All operational characteristics of the unit including any limitations on full or partial cycling of the unit, round trip efficiency of charging and discharging the battery, degradation characteristics, any restrictions on maintaining a given state of charge, and all warranties from manufacturers, installers or other service providers.
4. Whether the proposed project is in the higher value areas designated by the Utilities.
5. Expected environmental benefits. *e.g.*, electrically connected to existing renewable resources the output of which is currently or anticipated to be curtailed or a combustion turbine the operation of which could be reduced by the operation of the battery.
6. Technical requirements that will be detailed in the RFP documents.

Qualitative factors will include, but are not limited to:

1. Overall project viability including: (1) site control (property rights for the project's location); (2) status of required regulatory approvals and permits; (3) interconnection considerations including any required system upgrades and status; and (4) other relevant studies and testing.
2. Characteristics of the proposed storage technology, including maturity, operational history, safety track record, land use requirements, *etc.*
3. Feasibility of construction and timeliness of implementation.
4. The construction and operational record of the bidder.
5. The credit quality of the security underwriter.
6. The extent to which the bidder is willing to execute the proposed Contract without modification.
7. Bidder's overall plan to conduct public outreach and if bidder has a communication plan in place to approach local authorities having jurisdiction ("AHJs") if the bidder is deemed to be the winning vendor.
8. Experience deploying storage in New York State and each Utility's service territory.
9. Experience in the NYISO market.

VI. Winning Bidder Responsibilities

Winning bidders will be required to enter into a Contract granting the Utility scheduling and dispatch rights for the entire output of the resource. As such the Utility will serve as the asset's "energy manager"² for scheduling and dispatching the assets for wholesale market participation and distribution support, if applicable. Winning bidders must register the storage assets and comply with all required NYISO and Federal Energy Regulatory Commission ("FERC") rules. Winning bidders must provide the necessary staffing, communications, metering, and telemetry required to participate in the NYISO markets for installed capacity, day-ahead and real-time energy and reserves. Winning bidders will retain ownership of the storage assets and will be required to operate and maintain the system for the duration of the Contract in a manner that maintains a specified minimum (MW) capacity rating and availability for the duration of the Contract.

The Utility will have sole responsibility to bid the storage asset into the NYISO markets and will receive all NYISO revenues and pay any associated NYISO charges associated with operating the battery according to the designated schedule for the duration of the Contract. The Utility will distribute the net earnings from wholesale participation in accordance with the final Contract terms. At the end of the Contract, the Utility and developer will notify the NYISO of the successor "energy manager" with enough lead time to effectuate the change at the end of the Contract.

Winning bidders must demonstrate that they have obtained all required site control, approvals, and authorizations to construct, interconnect, operate the storage resource, and sell

² The NYISO uses the term Bidding Agent for this role.

scheduling and dispatch rights to the Utility for the term of the Contract. Winning bidders must meet applicable data security provisions as outlined in the Utility's Data Security Agreement ("DSA").

VII. Storage Operations Expectations

Wholesale market revenues are expected to primarily come from capacity and 10-minute spinning reserve markets. Energy sales will occur to support capacity and spinning reserve commitments and any potential energy arbitrage. Distribution applications may include load relief or reliability benefits. Participation in other market services may also be pursued upon agreement. The Utility has the sole right to designate the asset to operate for either NYISO revenues or for distribution system needs, if applicable, during the Contract period and within warranty limitations. Charging costs will be the responsibility of the Utility during the Contract term.

At the end of the Contract term, all dispatch rights will revert to the asset owner that will be responsible for meeting all NYISO requirements to continue participation in the wholesale markets, if desired. An optional Contract extension for the full dispatch rights and/or for Utility-to-NYISO scheduling and dispatch services beyond the Contract term may be considered with agreement.

VIII. Contract Terms

The Utilities anticipate that the Contract will contain a minimum of the following key provisions:

1. The Contract price will be based on the bid amount which will be paid by the Utility and funded by the Utility and NYSERDA's MABI. The Utilities reserve the right to reject all bids and the designation of any winning bidder(s).
2. Compensation to each winning bidder will consist of an upfront lump sum payment at the time of commercial operation plus a share of annual payments of the actual earned wholesale market revenues, net of any charging or other costs incurred by the Utility.
3. The winning bidder will be required to maintain a minimum MW capability and at least a 95 percent availability for dispatch in each Contract year. Availability shall exclude up to two weeks of scheduled annual maintenance to be scheduled at a mutually agreeable time, and in accordance with the NYISO Outage Scheduling Manual and User Guide; with any shortfall requiring a prorated reimbursement of any lump-sum payments and/or a reduction in future annual payments.
4. Warranty requirements shall allow for a minimum number of cycles per year and minimum state of charge to meet the asset's proposed use by the Utility.

IX. Ratemaking and Accounting Treatment

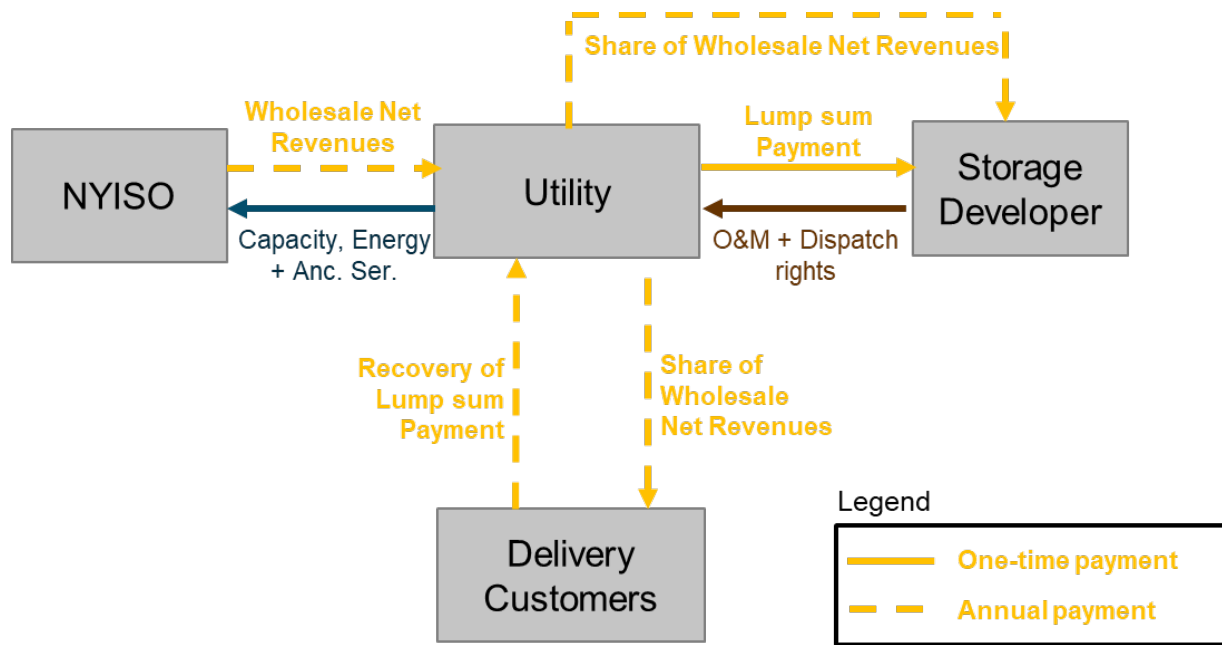
The Utilities will treat all lump sum Contract payments to energy storage developers other than any portion funded through the MABI as a regulatory asset to be amortized over the Contract term. The Utilities' weighted average cost of capital will be applied to any unamortized balances. The annual revenue requirement associated with the return of and return on the regulatory asset will be recovered from all delivery customers through an existing surcharge mechanism until included in base rates in each Utility's next rate case. As per the Storage Order, costs associated with the procurement of energy storage ("Contract costs") are to be recovered in the same manner that Non-wires Alternatives program costs are recovered at each utility. For Con Edison, Non-wires Alternatives costs are currently recovered from: (1) customers served under P.S.C. No. 10 – Electricity through the Monthly Adjustment Clause ("MAC") on a per kWh basis; and (2) customers served under P.S.C. No. 12 – Electricity as a set monthly dollar amount. Con Edison proposes that the Contract costs be collected from customers in the same

way that Non-wires Alternatives costs, other than those collected through base rates, are recovered. The Contract costs would be collected as a component of the MAC, subject to the same reconciliation process as current MAC components as described in the Con Edison's tariffs. For O&R, there is currently no cost recovery approved by the Commission for Non-wires Alternatives projects; however, in the Joint Proposal filed in Case 18-E-0067, which is awaiting approval by the Commission, costs associated with Non-wires Alternatives projects are to be recovered through the Energy Cost Adjustment ("ECA") applicable to service classification groups based on each service classification group's contribution to the non-coincident demand specific to the voltage level of the traditional project the Non-wires Alternatives project would defer. Non-wires Alternatives costs are then collected on a per kWh basis for non-demand billed service classification groups and on a per kW basis for demand-billed groups. O&R proposes a recovery mechanism through the ECA similar to that pending before the Commission for Non-wires Alternatives project cost recovery; however, costs will be allocated to the service classification groups based solely on the transmission demand allocator. Any over- or under-recovery would be reconciled through the Base ECA mechanism as described in O&R's tariff. All incremental costs incurred by the Utilities related to implementing the Contract and monitoring compliance not specifically reflected in rates shall be deferred and recovered from all delivery customers through the surcharge mechanism described above until an allowance can be made for their recovery in base rates.

Actual annual wholesale market revenues minus charging costs, NYISO fees, and other related costs incurred by the Utility (net amount) will be credited to customers via the surcharge mechanism used to collect costs associated with the storage project. A portion of the actual revenues will be shared with the winning bidder(s) to incentivize the energy storage

owner/operator to maximize asset’s operating performance over the life of the Contract. To the extent that net actual annual wholesale market revenues exceed the Contract costs on an annual basis, the excess after paying the developer share will be split on a 70/30 basis between all delivery customers and shareholders per the Storage Order.

Figure 1: Deal Structure



X. Conclusion

As described above, Con Edison and O&R look forward to executing their implementation plan for a competitive direct procurement to secure scheduling and dispatch rights from new qualified energy storage systems in support of and in compliance with the Commission's Storage Order.

New York, New York
Dated: February 11, 2019

Respectfully submitted,



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