STATE OF NEW YORK PUBLIC SERVICE COMMISSION

In the Matter of the (1) Value of Distributed Energy Resources (1) Case 15-E-0751

JOINT UTILITIES PETITION TO AMEND THE ENERGY STORAGE SYSTEMS TARIFF TO REQUIRE STANDBY AND BUYBACK SERVICE PROVISIONS FOR CERTAIN ENERGY STORAGE SYSTEMS PAIRED WITH ELIGIBLE TECHNOLOGIES

I. Introduction

Since the Public Service Commission's 2018 acceptance of their tariffs for the interconnection and compensation of energy storage systems (ESS) paired with eligible electric generating equipment (Hybrid Facilities), the Joint Utilities¹ have further considered these tariffs in light of the Commission's observation that these Hybrid Facilities "will offer the most benefit to their owners, the utilities, and society when the regulatory structure accounts for and provides appropriate price signals for all of the actions they take."² Accordingly, the Joint Utilities propose to apply standby and buyback services tariff provisions³ to customer-generators with certain ESS paired with eligible generation technologies as defined in Public Service Law Sections 66-j and 66-l (net energy metering (NEM)-eligible technologies), *i.e.*, where the ESS

¹ The Joint Utilities are Central Hudson Gas & Electric Corporation, Consolidated Edison Company of New York, Inc., New York State Electric & Gas Corporation, Niagara Mohawk Power Corporation d/b/a/National Grid, Orange and Rockland Utilities, Inc., and Rochester Gas and Electric Corporation.

 ² Case 15-E-0751, *In the Matter of the Value of Distributed Energy Resources* (VDER Proceeding), Order Implementing Hybrid Energy Storage System Tariff (issued December 13, 2018) (Hybrid Facilities Tariff Order), p. 8.

³ The Commission recently noted that customers with on-site generation (with some exceptions) are required to take standby service and further wrote that customers with qualifying on-site generation must take buyback service if their on-site generation will inject electricity into the grid and is not otherwise eligible for either net energy metering or the Value Stack Tariff. VDER Proceeding, Order on Standby and Buyback Service Rate Design and Establishing Optional Demand-Based Rates (issued May 16, 2019) (Standby and Buyback Service Order), p. 7.

capacity is larger than the NEM-eligible technology. These facilities will continue to be compensated under each utility's Value Stack Hybrid Facilities Tariff (together, PSL Sec. 66 Hybrid Facilities). In addition, this amendment will not affect mass market customers. As described below, both standby and buyback service tariff provisions would apply to customergenerators taking service under the Value Stack Hybrid Facilities Tariff Option C or D⁴ with a kilowatt (kW) nameplate rating for NEM-eligible technologies sized at less than the paired ESS. Standby service tariff provisions would apply to customergenerators compensated under the Value Stack Hybrid Facilities Tariff Option B with a kW nameplate of eligible technology as defined by Public Service Law Sections 66-j and 66-l sized at less than the paired ESS.

The Joint Utilities propose these amendments so that the most common and beneficial Hybrid Facilities can continue to be eligible for their otherwise applicable service classifications and rates (Otherwise Applicable Rates).⁵ After filing the requisite tariffs,⁶ upon further review, and consultation with Department of Public Service Staff, the Joint Utilities urge approval of these amendments to promote economic and beneficial deployment of Hybrid Facilities through prevention of gaming opportunities, reduction of cost shifts to non-participating customers, application of rates that more accurately reflect utility system costs, and promotion of economic dispatch of resources. To reduce cost shifts and gaming opportunities, the Joint Utilities also identify classes of Hybrid Facilities customers that can retain the ability to take service under

⁴ Value Stack Hybrid Tariff Options, A, B, C, and D refer to the configurations described in the Hybrid Facilities Tariff Order, Appendix B, and implemented in utilities' Hybrid Facilities tariffs.

⁵ The Otherwise Applicable Rates are the service classification and rates applicable to a customer without generating equipment.

⁶ *E.g.*, VDER Proceeding, Letter to Secretary Kathleen H. Burgess from Consolidated Edison Company of New York, Inc. (filed January 11, 2019).

Otherwise Applicable Rates. To assist in review of this proposal, we have attached Con Edison's draft proposed tariff revisions as an example.⁷

II. Background

The Commission has focused on the potential of ESS paired with eligible generation as an element of the NEM transition. In 2017, the Commission identified Hybrid Facilities as eligible for the Value of Distributed Energy Resource (VDER) Value Stack compensation framework.⁸ The Commission also approved Phase One NEM rates for mass market customers with storage paired NEM-eligible technologies,⁹ but deferred implementation of the Value Stack compensation for Hybrid Facilities for non-mass market customers until resolution of various rate design and technological issues.¹⁰ In September 2018, the Commission approved the application of standby and buyback service provisions¹¹ to newly eligible VDER technologies (Expanded Technologies) and project types.¹² Meanwhile, in response to the Commission's April 2018 direction, the Joint Utilities filed a draft model tariff for notice and comment for Commission determination of the appropriate methodology for Hybrid Projects.¹³ In December

⁷ The attached Con Edison draft tariff revisions provide the major amendments proposed herein for consideration as the general approach that each of the other Joint Utilities will follow. Each of the utilities will file similar tariff language but the placement within the tariff will vary by utility. When filing its compliance tariff leaves, Con Edison will also address other details unique to its tariff, such as its tariff for the New York Power Authority and the applicable application form.

⁸ VDER Proceeding, Order on Net Energy Metering Transition, Phase One of Value of Distributed Energy Resources, and Related Matters (issued March 9, 2017) (VDER Transition Order), pp. 48-49.
⁹ Id.

¹⁰ *Id.*, pp. 40-41.

¹¹ Buyback service rate provisions are implemented in each of the Joint Utilities' tariffs and include customer charges and establishment of contract demand, as applicable to each utility. The Commission ordered changes to buyback provisions in the VDER Proceeding, Standby and Buyback Service Order. In response, the Joint Utilities made their filings. *E.g.*, VDER Proceeding, Letter to Secretary Kathleen H. Burgess from Con Edison (filed June 24, 2019).

¹²See VDER Proceeding, Order on Value Stack Eligibility Expansion and Other Matters (issued September 12, 2018 (Value Stack Expansion Order), where the Commission's expanded technologies included biogas, tidal, and standalone ESS (*i.e.*, storage not paired or co-located with other technologies).

¹³ Cases 18-E-0018 et al., In the Matter of Proposed Amendments to the New York State Standardized Interconnection Requirements (SIR) for Small Distributed Generators, Order Modifying Standardized

2018, the Commission reviewed the model tariff and approved compensation mechanisms for Hybrid Facilities, including Hybrid Facilities consisting of Expanded Technologies (Expanded Technology Hybrid Facilities).¹⁴ In response, each of the Joint Utilities submitted compliance filings in the form of tariff amendments.¹⁵

In the compliance filings in response to the Hybrid Facilities Tariff Order, the Joint Utilities viewed both PSL Sec. 66 Hybrid Facilities and Expanded Technology Hybrid Facilities as newly expanded VDER technologies to which standby and buyback service provisions would apply. Following clarifying direction from Department of Public Service Staff that PSL Sec. 66 Hybrid Facilities were not newly expanded VDER technologies, each of the Joint Utilities filed revised tariffs to exempt PSL Sec. 66 Hybrid Facilities from standby and buyback service provisions.¹⁶ Standby and buyback service provisions continue to apply to customer-generators with Expanded Technology Hybrid Facilities.

III. Changes Proposed

The Joint Utilities propose that standby service and/or buyback service provisions apply to certain PSL Sec. 66 Hybrid Facility configurations to promote the economic and beneficial deployment of distributed generation. These proposed changes would prevent gaming opportunities and reduce opportunities for uneconomic arbitrage while promoting economic dispatch. The changes would also reduce cost shifts to non-participant customers by applying rates that more accurately reflect system costs. Specifically, the Joint Utilities propose that:

Interconnection Requirements (issued April 19, 2018), pp. 18, 27-28. Here, the applicable term was "Hybrid Projects" that are the functional equivalents of "Hybrid Facilities."

¹⁴ VDER Proceeding, Hybrid Facilities Tariff Order, App. A.

¹⁵ See, e.g., VDER Proceeding, supra note 6.

¹⁶ See, e.g., VDER Proceeding, Letter to Secretary from Con Edison (filed December 4, 2019).

- Standby and buyback service provisions apply to customer-generators taking service under the Value Stack Hybrid Tariff Option C or D¹⁷ with a kilowatt (kW) rated capacity of NEM-eligible technologies¹⁸ sized at less than the rated capacity (kW) of the paired ESS. For example, a customer-generator with a 4,000 kW rated ESS paired with solar generation rated less than 4,000 kW would be subject to standby and buyback service provisions. A customer-generator with a 4,000 kW rated ESS paired with solar generation rated at or more than 4,000 kW would not be subject to standby or buyback service provisions.
- 2. Standby service provisions apply to customer-generators compensated under the Value Stack Hybrid Tariff Option B with a rated capacity (kW) of NEM-eligible technologies sized at less than the rated capacity (kW) of the paired ESS.

Under the Joint Utilities' proposal, there would be no change for customer-generators being compensated under a utility's Value Stack Hybrid Tariff Option A. Without regard to the sizing of either the ESS or the non-ESS paired technology, a customer-generator under Option A would not be required to take standby and/or buyback service provisions by default. The Joint Utilities' proposal also continues to allow PSL Sec. 66 Hybrid Facilities compensated under the Value Stack Hybrid Tariff Options B, C, or D for an aggregate kW capacity of NEM-eligible technologies at least as great as the rated kW capacity of the paired ESS to qualify for Otherwise Applicable Rates without buyback service provisions.

The current state of the standby and/or buyback service provisions applicable to customer-generators with various ESS configurations is shown in the following table:

¹⁷ Value Stack Hybrid Tariff Options A, B, C, and D refer to the configurations described in the Hybrid Facilities Tariff Order, App. B, as implemented in utilities' tariffs.

¹⁸ See VDER Proceeding, supra note 11.

 Table 1: Current State of Charges and Compensation for ESS under Various

 Configurations

ESS Configuration	Charges for grid consumption	Charges for grid injection	Compensation for grid injection
PSL Sec. 66 Hybrid Facilities	Otherwise Applicable Rates	n/a	Value Stack Hybrid Tariff
Expanded Technology Hybrid Facilities compensated under the Value Stack Hybrid Tariff Option A, B, C, or D	Standby Rates	Buyback service provisions*	Value Stack Hybrid Tariff
Standalone ESS compensated under the Value Stack tariff	Standby Rates	Buyback service provisions*	Value Stack
Any ESS not compensated under the Value Stack tariff	Standby Rates	Buyback service provisions*	Eligible for buyback rates

*Including contract demand and the customer charge, not yet in all utility tariffs (see note 11 supra,

The Joint Utilities' proposal to apply standby and/or buyback service provisions to a limited category of customer-generators with certain ESS configurations is shown in the following table. Cells displaying changes to the currently applicable charges are shaded in yellow.

ESS Configuration		Charges for grid consumption	Charges for grid injection	Compensation for grid injection
PSL Sec. 66 Hybrid Facilities	Value Stack Hybrid Tariff Option A <i>AND</i> Value Stack Hybrid Tariff Option B, C, or D with NEM- eligible technologies' nameplate capacity (kW) not less than the ESS nameplate capacity (kW)	Otherwise Applicable Rates	n/a	Value Stack Hybrid Tariff
	Value Stack Hybrid Tariff Option B with NEM-eligible technologies' nameplate capacity (kW) less than the ESS nameplate capacity (kW)	Standby rates	n/a	Value Stack Hybrid Tariff
	Value Stack Hybrid Tariff Option C or D with NEM- eligible technologies' nameplate capacity (kW) less than the ESS nameplate capacity (kW)	Standby rates	Buyback service provisions*	Value Stack Hybrid Tariff
Expanded Technology Hybrid Facilities compensated under the Value Stack Hybrid Tariff Option A, B, C, or D		Standby rates	Buyback service provisions*	Value Stack Hybrid Tariff
Standalone ESS compensated under the Value Stack		Standby rates	Buyback service provisions*	Value Stack
Any ESS not compensated under the Value Stack		Standby rates	Buyback service provisions*	Eligible for buyback rates

 Table 2: Proposed Charges and Compensation for ESS under Various Configurations

*Including contract demand and the customer charge, not yet in all utility tariffs (see note 11 supra).

To minimize further costs shifts and gaming opportunities, the Joint Utilities propose that

the following customer-generators with PSL Sec. 66 Hybrid Facilities retain their ability to take

their Otherwise Applicable Rates:

- Customer-generators that have paid at least 25 percent of their interconnection upgrade costs as part of the New York State Standardized Interconnection Requirements and Application Process For New Distributed Generators and Energy Storage Systems 5 MW or Less Connecting in Parallel with Utility Distribution Systems ("SIR") for PSL Sec. 66 Hybrid Facilities between December 9, 2019 and the date of this filing; or
- Customer-generators that have executed an SIR contract for PSL Sec. 66 Hybrid Facilities between December 9, 2019 and the date of this filing, if no upgrade costs were identified.

As described above, on December 9, 2019, utility tariffs went into effect to exempt PSL Sec. 66 Hybrid Facilities from standby and buyback service provisions. Prior to that date, utility tariffs provided that all Hybrid Facilities customers would be subject to standby and buyback service provisions. Therefore, customer-generators that reached SIR milestones before December 9, 2019 will interconnect under the assumption of taking standby and buyback service. Customer-generators reaching SIR milestones after the date of this filing will have been on notice about the proposed changes.¹⁹

IV. Basis for Proposal

This proposal is consistent with the Commission's decisions limiting applicability of standby and buyback service. The technologies first eligible for Value Stack compensation were limited to NEM-eligible technologies because the Value Stack is the successor compensation to the statutory NEM established by Public Service Law Sections 66-j and 66-l. As those statutes

¹⁹ When closing gaming opportunities, the Commission has previously established grandfathering dates based on when the loophole was publicized on the record. VDER Proceeding, Order Regarding Value Stack Compensation for High-Capacity-Factor Resources (issued and effective December 12, 2019) (High-Capacity-Factor Order), p. 18.

required,²⁰ customers with those specified technologies were exempt from standby or buyback charges. These exemptions continued for the initial set of Value Stack-eligible technologies to promote the same renewable and other NEM-eligible technologies. However, neither ESS nor Hybrid Facilities meet the criteria to be considered NEM-eligible technologies.²¹ Therefore, the PSL Sections 66-j and 66-l restrictions against applying standby and buyback service provisions do not apply to customers with ESS.

It bears emphasis that this petition does not propose changes to any standby rate exemptions that a utility may already have in its tariff. For example, if a customer-generator does not meet the requirements proposed in this petition but nonetheless meets other applicable standby rate exemptions, that customer-generator will be billed under their Otherwise Applicable Rate unless the customer waives the exemption or otherwise opts into standby rates. In sum, these changes will continue to promote renewable generation, prevent gaming opportunities, promote economic dispatch, and reduce cost shifts by applying rates that more accurately reflect system costs.

A. Continuing to promote renewable generation

The Joint Utilities' proposal recognizes that certain configurations should continue to be exempt from standby and buyback service provisions. These include all customer-generators with PSL Sec. 66 Hybrid Facilities with NEM-eligible technologies that are sized, on a rated capacity (kW) basis, not less than the rated capacity (kW) of the ESS. For example, 1,000 kW of solar generation co-located and paired with no more than 1,000 kW of ESS would continue to be exempt from standby and buyback service under this proposal. In this way, the proposal promotes siting of at least as much renewable generation as ESS in PSL Sec. 66 Hybrid Facility

 $^{^{20}}$ E.g., Public Service Law Sections 66-j (3)(d) and 66-j (4)(d).

²¹ Public Service Law Sections 66-j and 66-l.

configurations. This serves to encourage investments which contribute toward achieving New York State's renewable goals.

Additionally, the Joint Utilities' proposal allows customer-generators with PSL Sec. 66 Hybrid Facilities taking service under a utility's Value Stack Hybrid Tariff Option A to continue to avail themselves of Otherwise Applicable Rates without buyback provisions. For these customers, the ESS is guaranteed to charge exclusively from the paired NEM-eligible technologies. Therefore, any grid export from these customers is either from NEM-eligible technologies, or from the co-located ESS which was exclusively charged from NEM-eligible technologies. In this circumstance, the ESS's energy consumption imposes no incremental grid costs and any export is either time-shifted, or occurs instantaneously, from NEM-eligible technologies, which have historically been exempt from standby and buyback service provisions.

Accordingly, the Joint Utilities' proposal maintains the provision that customergenerators with a PSL Sec. 66 Hybrid Facilities taking service under a utility's Value Stack Hybrid Tariff Option B are not subject to buyback service. Under the rules of the Value Stack Hybrid Tariff Option B,²² the ESS is guaranteed to never export to the grid; rather, under this configuration, only the co-located, paired NEM-eligible technology can export to the grid. Therefore, there is no apparent basis to require, at this time, buyback service for such export. However, because the ESS under Value Stack Hybrid Tariff Option B has unrestricted ability to charge from the grid, standby rates are more cost reflective than the customer's Otherwise Applicable Rates.

²² VDER Proceeding, Hybrid Facilities Tariff Order, App. B, p. 2

B. Preventing gaming opportunities

The utilities' tariffs currently provide a potential gaming opportunity for customers that would otherwise be subject to standby and/or buyback service provisions but for the installation of a *de minimus* amount of co-located, paired NEM-eligible technologies. Customers that choose to install ESS should not avoid their fair share of grid costs solely by adding an additional generating technology.²³ Customers with ESS may have no intention of grid export but, by adding a single solar panel and applying for Value Stack compensation, these customers would be exempt from standby rates. As such, the Joint Utilities' proposal aligns with the Commission's historic aversion to gaming opportunities and excessive, unintended cost shifts, such as uneconomic NEM arbitrage²⁴ and other customer-generator compensation matters.²⁵

C. Preventing uneconomic dispatch and reducing cost shifts by applying rates to more accurately reflect system costs

The Commission has repeatedly recognized that standby and buyback service rates more accurately reflect a utility's cost to serve a customer.²⁶ Indeed, the Commission described standby and buyback service rates as "among the most theoretically pure rate designs available for aligning an individual customers' contribution to system costs with the rates such customers pay."²⁷ The Commission has already properly determined that standby and buyback service

²³ The Joint Utilities note that Department of Public Service Staff recently acknowledged that in addition to such public benefit programs, utilities provide numerous other benefits to DER customers, including 24x7 emergency service, storm response, relocating utility infrastructure to facilitate municipal projects, cybersecurity protection, and public safety programs. *See* VDER Proceeding, Staff Whitepaper on Rate Design for Mass Market Net Metering Successor Tariff (filed December 9, 2019), p. [1].

²⁴ See, e.g., Cases 14-E-0151 *et al.*, *Petition of Hudson Valley Clean Energy, Inc. for an Increase to the Net Metering Minimum Limitation at Central Hudson Gas & Electric Corporation*, Order Raising Net Metering Minimum Caps, Requiring Tariff Revisions, Making Other Findings, and Establishing Further Procedures (issued December 15, 2014), pp. 26-27.

²⁵ See, e.g., VDER Proceeding, High-Capacity-Factor Order.

 ²⁶ See, e.g., VDER Proceeding, Standby and Buyback Service Order, p. 42. See also Case 18-E-0130, In the Matter of Energy Storage Deployment Program, Order Establishing Storage Goal and Deployment Policy (issued December 13, 2018) (Energy Storage Order), p. 15.
 ²⁷ Id.

provisions apply to both standalone ESS and Expanded Technology Hybrid Facilities, for which the cost of utility service is identical to PSL Sec. 66 Hybrid Facilities with the same capacities and operating characteristics.²⁸ Similarly, applying standby and buyback service provisions to certain PSL Sec. 66 Hybrid Facility configurations, as proposed here, is in the best interest of all customers.

Customer-generators with Hybrid Facilities should have properly aligned price signals to optimize their ESS dispatch. For these customer-generators, their dispatch should be influenced not only by Value Stack compensation when discharging, but also by consumption costs when charging. The economics of a Hybrid Facility should not be blind to, nor over-simplify, the costs they impose on the grid for both their import and export. Customers-generators taking service under Otherwise Applicable Rates may be uneconomically dispatched. For example, customergenerators that may benefit by charging their Hybrid Facilities from the grid during peak hours may not be paying their fair share of costs imposed on the electric grid. Said another way, the utility's cost to serve such customer-generators may be above or below the price set by the customer-generator's Otherwise Applicable Rates. Hybrid Facilities taking their Otherwise Applicable Rates can cause the costs to serve such customer-generators to shift to other utility customers within the same service classification.²⁹ Applying standby and buyback service provisions to such customer-generators would promote the economic dispatch of ESS and is analogous to the Commission's determination that ESS sized for grid export be required to take mandatory hourly pricing for supply in order to prevent uneconomic arbitrage and mitigate

²⁸ VDER Proceeding, Value Stack Expansion Order.

 $^{^{29}}$ *E.g.*, at Con Edison, the annual cost shifts due to a PSL Sec. 66 Hybrid Facility charging and/or discharging inefficiently (*i.e.*, charging from the grid during daytime hours to avoid a customer's nighttime-peaking load) could be as high as \$180 per year per kW of ESS.

impacts to non-participants.³⁰ Finally, as described above, in addition to its above referenced historic aversion to uneconomic arbitrage, the Commission expressly urged watchfulness on those grounds and those of avoiding cost shifts in its consideration of the Value Stack Hybrid Tariff.³¹

V. Conclusion

Consistent with the Commission's observation that Hybrid Facilities are most beneficial to their owners, the utilities, and society when the regulatory structure sends appropriate price signals,³² the Joint Utilities urge the Commission's adoption of this proposal to apply standby and buyback services tariff provisions³³ to customer-generators with certain ESS in combination with eligible generation technologies defined in Public Service Law Sections 66-j and 66-l, and compensated under each utility's Value Stack Hybrid Facilities Tariff. This proposal (with draft amendments) would allow the most common and beneficial Hybrid Facilities continued eligibility for their otherwise applicable service classifications and rates, promote economic and beneficial deployment of Hybrid Facilities through prevention of gaming opportunities, reduce cost shifts to non-participating customers, apply rates that more accurately reflect utility system

³⁰ VDER Proceeding, Value Stack Expansion Order, p. 17.

³¹ VDER Proceeding, Hybrid Facilities Tariff Order, p. 8.

³² *Id*.

³³ The Commission recently noted that customers with on-site generation (with some exceptions) are required to take standby service and further wrote that customers with qualifying on-site generation must take buyback service if their on-site generation will inject electricity into the grid and is not otherwise eligible for either net energy metering or the Value Stack Tariff. VDER Proceeding, Standby and Buyback Service Order, p. 7.

costs, and promote economic dispatch of resources. The Joint Utilities look forward to

consideration of this proposal.

Dated: May19, 2020

Respectfully submitted,

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PSC NO: 10 – Electricity Consolidated Edison Company of New York, Inc. Initial Effective Date: Leaf: Revision: Superseding Revision: 152

GENERAL RULES

20. Standby Service and Standby Service Rates

Customers who take Standby Service are subject to all terms and conditions of this General Rule, including the Interconnection Charge, whether they are billed under Standby Service rates or Standard rates.

The following Customers are required to be billed under Standby Service rates, unless they are exempt pursuant to <u>General Rule 20.3: (1)</u> Customers who take Standby Service with on-site generation equipment having a total nameplate rating equal to more than 15 percent of their maximum potential demand served from all sources; or(2) are Customers served under Section A.9, <u>H.5.b.(ii)(a)</u>, <u>H.5.b.(iii)(a)</u>, or <u>H.5.b.(iv)(a)</u> of Rider R; are required to be billed under Standby Service rates, unless they are exempt pursuant to General Rule 20.3: or (3) Customers under Option (2) of the Applicability section or Section H.5.b.(ii)(a), <u>H.5.b.(iii)(a)</u>, or <u>H.5.b.(iv)(a)</u> of the Value Stack Tariff for PASNY Customer-Generators in the PASNY Rate Schedule.

Unless otherwise required to take Standby Service rates, or exempt from Standby Service rates pursuant to General Rule 20.3, demand-billed Customers under SCs 5, 8, 9, 12, and 13, with or without a generating facility, can elect to be billed under Standby Service rates ("Rate Choice Customers"). A Rate Choice Customer may elect to change its billing rate to or from Standby Service rates no more than once every 12 months. All such notices must be made at least 30 days in advance in writing. A Rate Choice Customer will be billed under Standby Service rates commencing with the first full billing period for which interval metering data is available subsequent to the Company's receipt of notice of such election. Subsequent changes will become effective with the first full billing period. Rate Choice Customers served under Rider R, or who do not have on-site generation equipment, or have emergency generating facilities used for self supply pursuant to General Rule 8.2, are not subject to General Rules 20.2 and 20.7.

Unless the Customer is a Rate Choice Customer, General Rule 20 is not applicable to generating facilities that are: (1) used for emergency self-supply under General Rule 8.2; (2) served under Rider R, except for Customers served under Section A.9.<u>H.5.b.(ii)(a), H.5.b.(iii)(a), or H.5.b.(iv)(a)</u> of Rider R; or (3) served under the Value Stack Tariff for PASNY Customer-Generators General Provision in the PASNY Rate Schedule, except for Customers served under Option (2) of the Applicability section.<u>Section H.5.b.(ii)(a), H.5.b.(iii)(a), or H.5.b.(iv)(a)</u> of the Value Stack Tariff for PASNY Customer-Generators General Provision in the PASNY Rate Schedule.

20.1 Definitions and Abbreviations

- "Standard rates" refers to the rate under which the Customer would otherwise be billed if not billed under Standby Service rates.
- "Standby Service" means the delivery of power and energy that is used:
 - (a) to replace and/or supplement the power and energy ordinarily generated by means of a private generating facility on a Customer's premises, or
 - (b) for Station Use by a Customer that is a Wholesale Generator. "Wholesale Generator" is a generator that delivers its output directly to the Company's facilities for sale on a wholesale basis. "Station Use" means:
 - (i) power and energy is delivered over the Company's distribution facilities at a voltage lower than

Issued by: Robert Hoglund, Senior Vice President & Chief Financial Officer, New York, NY

100 kV for the Customer's use at its premises in connection with its generating facility; and

- (ii) the Customer has provided written proof to the Company that it is registered with the NYISO under the provisions of the NYISO "ISO Market Administration and Control Area Services Tariff" ("Market Services Tariff") to self-supply and net station power.
- "Standby Service rates" refers to the following Rates, as applicable: Rate III or Rate IV of SC 5, Rate IV or Rate V of SC 8, 9, or 12, or Rate II of SC 13.

PSC NO: 10 – Electricity Consolidated Edison Company of New York, Inc. Initial Effective Date: Leaf: 244.1 Revision: Superseding Revision:

GENERAL RULES

24. Service Classification Riders (Available on Request) – Continued

RIDER R - Net Metering and Value Stack Tariff for Customer-Generators - Continued Applicable to SCs 1, 2, 5, 8, 9, 11, 12, and 13

A. Applicability - Continued

9. Customers with: (a) biomass electric generating equipment rated up to 5,000 kW as defined in the NYSERDA Clean Energy Standard Tier 1 eligibility criteria, including biogas and liquid biofuel, with an in-service date after January 1, 2015; (b) tidal/ocean electric generating equipment rated up to 5,000 kW as defined in the NYSERDA Clean Energy Standard Tier 1 eligibility criteria, with an in-service date after January 1, 2015; (c) generating equipment rated up to 5,000 kW listed in (a) and (b) as a resource ineligible for Clean Energy Standard Tier 1 solely by virtue of having an in-service date prior to January 1, 2015; (d) Stand-alone Electric Energy Storage for any hourly injection into the grid; and (e) a Hybrid Facility consisting of Electric Energy Storage and at least one of the eligible electric generating equipment types described in (a) – (c).

Options A.1 – A.8 are not available to Customers who take service under SC 11, except for Customers served under Section H.5.b.(iii)(a) or H.5.b.(iv)(a) of this Rider.

The kW of facilities with generating equipment located near each other will be aggregated to determine if the kW limit is met unless each facility meets all of the following criteria: (a) each is located on a separate site (i.e., a separately deeded location); (b) each is separately metered and interconnected to the Company's grid; and (c) each is operated independently of the others. The aggregated rated capacity of electric generating equipment shall be limited to 25 kW for residential Customers served under Grandfathered Net Metering or Phase One NEM, 2,000 kW for non-residential Customers served under Grandfathered Net Metering or Phase One NEM, and 5,000 kW for Customers served under the Value Stack Tariff. The Company will waive the 2,000 kW limit for a Grandfathered Net Metering or Phase One NEM (customer solar electric generating facility successfully participated in the NYSERDA – Competitive Solar PV Solicitation: Program Opportunity Notice ("PON") 2589, PON 2860, or PON 2956 or the New York City Department of Environmental Protection and Economic Development Corporation's March 2, 2012 Request for Proposals ("RFP") if the Customer demonstrates that the PON or RFP participant made good faith efforts to comply with the 2,000 kW limit in configuring its proposal.

PSC NO: 10 – Electricity Consolidated Edison Company of New York, Inc. Initial Effective Date: Leaf: Revision: Superseding Revision: 249

GENERAL RULES

24. Service Classification Riders (Available on Request) - Continued

RIDER R - Net Metering and Value Stack Tariff for Customer-Generators - Continued

D. Requirements for Parallel Operation - Continued

8. Except as specified in General Rules 8.1 and 8.2 of this Rate Schedule, if there is a generator on the premises in addition to the electric generating equipment eligible for net metering or the Value Stack Tariff, the Customer will not qualify for service under this Rider unless the Customer segregates the additional equipment and associated load so that it is not served under this Rider. If a Customer has solar, wind, and/or micro-hydro electric generating equipment as well as micro-CHP and/or fuel cell electric generating equipment, the Customer will qualify for service under Grandfathered Net Metering or Phase One NEM only if the load served by the residential micro-CHP and/or fuel cell electric generating equipment is not served under the same net-metered account as the load served by the solar, wind, and/or micro-hydro electric generating equipment. If a non-residential Customer has farm waste electric generating equipment as well as solar, wind, and/or micro-hydro electric generating equipment at its Non-farm Location, the Customer will qualify for service under Grandfathered Net Metering or Phase One NEM only if the load served by the farm waste electric generating equipment is not served under the same net-metered account as the load served net metering or Phase One NEM only if the load served by the farm waste electric generating equipment is not served under the same net-metered account as the load served under the same net-metered account as the load served by the solar, wind and/or micro-hydroelectric generating equipment is not served under the same net-metered account as the load served by the solar, wind and/or micro-hydroelectric generating equipment is not served under the same net-metered account as the load served by the solar, wind and/or micro-hydroelectric generating equipment.

Mass Market Customers may qualify for service under Grandfathered Net Metering or Phase One NEM if there is Electric Energy Storage on the premises in addition to the electric generating equipment eligible for net metering. All other Customers with a Hybrid Facility will qualify for service under the Value Stack Tariff. Customers with a Hybrid Facility described in Section A.9 of this Rider will be subject to Standby Service and Standby Service Rates, as applicable.

9. Prior to commencing service under this Rider, a Customer with micro-CHP generating equipment must submit technical documentation, acceptable to the Company, establishing that the equipment meets the requirements specified in Public Service Law Section 66-j and in the Standardized Interconnection Requirements. No more than once annually thereafter, the Company may require the Customer to submit technical documentation establishing continued eligibility. A Customer who fails to provide documentation acceptable to the Company within 30 days of a Company request will be deemed ineligible to participate under this Rider until the first billing cycle commencing after acceptable documentation is received.

PSC NO: 10 – Electricity Consolidated Edison Company of New York, Inc. Initial Effective Date: Leaf: 253.1 Revision: Superseding Revision:

GENERAL RULES

24. Service Classification Riders (Available on Request) – Continued

RIDER R - Net Metering and Value Stack Tariff for Customer-Generators - Continued

H. Charges and Credits – Value Stack Tariff

- 1. The Company will employ two readings: net hourly consumption from the Company's system and net hourly injections into the Company's system.
- 2. The Customer will be billed for the net hourly consumption in a billing period at the rates specified in the Customer's applicable Service Classification, including applicable customer, metering, and demand charges. Customer-generators specified in Section A.9, H.5.b.(ii)(a), H.5.b.(iii)(a), or H.5.b.(iv)(a) of this Rider will be billed for the net hourly consumption in a billing period pursuant to the provisions specified in General Rule 20.
- 3. For CDG Accounts, the net hourly injection kWhr generated on the CDG Host Account will be allocated to the CDG Host and CDG Satellite Accounts based on the Allocation of Generator Output methodology outlined in section F.2.c. of this Rider. Each CDG Satellite Account will then be credited for its allocated net hourly injections as described in (4) below. For RNM Accounts, the net hourly injection kWhr generated on the RNM Host Account will be converted to a monetary value as described in (4) below and distributed to the RNM Host and RNM Satellite Accounts as described in section H.4.h of this Rider.
- 4. The Customer will be credited for net hourly injections as follows:
 - a. Value Stack Energy Component

For any hour in a monthly billing period where there is a net injection into the Company's system by a customer-generator, the customer-generator will receive a credit for energy by multiplying the injection in that hour times the Value Stack Energy Component rate. These dollars will be summed up in the Customer's billing period.

The Value Stack Energy Component rate will be equal to the NYISO's day-ahead Locational Based Marginal Price for the customer-generator's applicable NYISO electric load zone, adjusted by the Factor of Adjustment for Losses as shown in General Rule 25.1.

b. Value Stack Capacity Component

Customer-generators with intermittent generation (i.e., solar, wind, micro-hydro, and farm waste electric generating equipment) will choose between Alternative 1, 2, or 3 for their Value Stack Capacity Component credits as follows: Alternative 1 is the default methodology for intermittent generation; however, customer-generators with intermittent generation can choose Alternative 2 or 3; provided that, once chosen, the customer-generator cannot switch from Alternative 2 to Alternative 1 or switch from Alternative 3 to either Alternative 1 or 2. Customer generators will notify the Company in writing to make such election. For a CDG or RNM Account, the Value Stack Capacity Component alternative chosen by the Host Account will be applicable to all credit allocations to Satellite Accounts served by the Host and to all allocations retained by the Host.

Customer-generators with dispatchable generation (i.e., all other electric generating equipment served Issued by: Robert Hoglund, Senior Vice President & Chief Financial Officer, New York, NY

under this Rider) and customer-generators, including Stand-alone Electric Energy Storage, that are not PSL Sections 66-j and 66-l eligible resources (based on generator type) will be required to receive the Value Stack Capacity Component credit under Alternative 3.

PSC NO: 10 – Electricity Consolidated Edison Company of New York, Inc. Initial Effective Date: Leaf: 253.7 Revision: Superseding Revision:

GENERAL RULES

24. Service Classification Riders (Available on Request) - Continued

RIDER R - Net Metering and Value Stack Tariff for Customer-Generators - Continued

H. Charges and Credits - Value Stack Tariff - Continued

- 5. Hybrid Facilities Continued
 - b. Continued
 - (ii) Storage Controls Configuration For Customers operating Hybrid Facilities who install appropriate controls to ensure that net hourly injections are only made with the Electric Energy Storage system not in a charging or discharging mode from the electric grid, the Value Stack Capacity Component Alternative 1 or Alternative 2 credit (if elected), Environmental Component credit, and MTC (or Community Credit, as applicable) will be based on net hourly injections to the Company's system and calculated as described in paragraphs H.4.b.(i), H.4.b.(ii), H.4.b.(iii), H.4.b.(iv), H.4.c, H.4.d, and H.4.g of this Rider. The Value Stack Capacity Component Alternative 3 credit (if elected) will be calculated as specified in paragraph H.4.b.(v) of this Rider. Customers will be responsible for any work required to accommodate the appropriate controls and/or multiple meter configuration. This controls demonstration may require separate Company revenue grade interval meter(s) and appropriate telemetry on the AC side of the applicable inverter(s) and explicit Company acceptance.
 - (a) Customers under this compensation methodology with a Hybrid Facility described in Section A.8 of this Rider where the Electric Energy Storage system has a rated capacity (kW) greater than the aggregated rated capacity (kW) of all other eligible electric generating equipment, are subject to the provisions specified in General Rule 20 unless the Customer, between December 9, 2019 and April 3, 2020, paid at least 25 percent of its interconnection costs or executed the interconnection agreement (if no such payment was required).
 - (iii) Storage Import Netting Configuration For Customers operating Hybrid Facilities with a separate Company revenue grade interval meter and appropriate telemetry on the AC side of the inverter of the Hybrid Facility and whose storage configuration does not meet the requirements of 5.b.(i) or 5.b.(ii) above, the Value Stack Capacity Component Alternative 1 credit (if elected), Environmental Component credit, and MTC will be determined by reducing the net hourly injections, as measured at the Company's meter located at the Customer's PCC with the Company's system, by the monthly consumption of energy recorded on the Company's separate Hybrid Facility meter. The Value Stack Capacity Component Alternative 2 credit (if elected) will be determined by reducing the net hourly injections during applicable hours, as measured at the Company's meter located at the Customer's PCC with the Company's system, by the monthly consumption of energy recorded on the Company's separate Hybrid Facility meter. The Value Stack Capacity Component Alternative 2 credit (if elected) will be determined by reducing the net hourly injections during applicable hours, as measured at the Company's system, by the monthly consumption of energy recorded on the Company's separate Hybrid Facility meter. The Value Stack Capacity Component Alternative 3 credit (if elected) will be calculated as specified in paragraph H.4.b.(v) of this Rider.

(a) Customers under this compensation methodology with a Hybrid Facility

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described in Section A.8 of this Rider where the Electric Energy Storage system has a rated capacity (kW) greater than the aggregated rated capacity (kW) of all other eligible electric generating equipment, are subject to the provisions specified in General Rule 20 and SC 11 unless the Customer, between December 9, 2019 and April 3, 2020, paid at least 25 percent of its interconnection costs or executed the interconnection agreement (if no such payment was required).

- (iv) Storage Default Configuration For all other Customers with an Electric Energy Storage system paired with electric generating equipment, the Value Stack Capacity Component Alternative 1 or Alternative 2 credit (if elected), Environmental Component credit, and MTC will be based on netting of all metered consumption and injections at the PCC over the applicable billing period. The Value Stack Capacity Component Alternative 3 credit (if elected) will be calculated as specified in paragraph H.4.b.(v) of this Rider.
 - (a) Customers under this compensation methodology with a Hybrid Facility described in Section A.8 of this Rider where the Electric Energy Storage system has a rated capacity (kW) greater than the aggregated rated capacity (kW) of all other eligible electric generating equipment, are subject to the provisions specified in General Rule 20 and SC 11 unless the Customer, between December 9, 2019 and April 3, 2020, paid at least 25 percent of its interconnection costs or executed the interconnection agreement (if no such payment was required).
- c. (v) The Customer is responsible for any costs associated with additional metering requirements and telemetry as described in the Metering Section of this Rider.

PSC NO: 10 – Electricity Consolidated Edison Company of New York, Inc. Initial Effective Date: Leaf: 253.8 Revision: Superseding Revision:

GENERAL RULES

24. Service Classification Riders (Available on Request) – Continued

RIDER R - Net Metering and Value Stack Tariff for Customer-Generators - Continued

H. Charges and Credits – Value Stack Tariff - Continued

- 5. SC 11 Customer-generators taking service under this Rider as specified in Section A.9, <u>H.5.b.(iii)(a)</u> or <u>H.5.b.(iv)(a)</u> will receive compensation for net hourly injections based on the Value Stack Tariff rather than on the SC 11 Payment Rate for Energy and will receive compensation for capacity based on the Value Stack Tariff rather than on the SC 11 Payment Rate for Capacity. Customer-generators specified in Section A.9, <u>H.5.b.(iii)(a)</u>, or <u>H.5.b.(iv)(a)</u> and served under the Value Stack Tariff will be considered to be Rider R Customers for the purposes of this Rate Schedule. Customer-generators qualifying for Section A.9, <u>H.5.b.(iii)(a)</u>, or <u>H.5.b.(iv)(a)</u> and not taking service under the Value Stack Tariff will not be considered to be Rider R Customers for the purposes of this Rate Schedule.
- 6. A Full Service Customer-generator with a Hybrid Facility or Stand-alone Electric Energy Storage technology served under the Value Stack Tariff is subject to the provisions of Rider M.
- 7. Crediting under the Value Stack Tariff will commence with the bill to the customer-generator having a "from" date that commences after all necessary metering is installed and final acceptance as per the SIR has been granted by the Company.
- 8. After a final bill is rendered for any Customer receiving Value Stack credits, any remaining credit will not be cashed out, refunded, or transferred. CDG Satellite Accounts shall no longer receive credits after the final bill is rendered on the account of its CDG Host.
- 9. Value Stack Credits Statements will be filed with the Commission no less than three days prior to the effective date. The Value Stack Credits Statement will be posted to the Company's website prior to its effective date.

I. Restrictions

Service under this Rider shall not be available to a Customer taking service under: (a) Rider W, or SC 9 - Special Provision H; or (b) the PASNY Rate Schedule.

With the exception of the Customer-generators specified in Section A.9, <u>H.5.b.(ii)(a)</u>, <u>H.5.b.(iii)(a)</u>, <u>or</u> <u>H.5.b.(iv)(a)</u> of this Rider and Rate Choice Customers as described in General Rule 20, all other Customers served under this Rider shall be exempt from General Rule 20.

Customers served under Section A.9, <u>H.5.b.(iii)(a)</u>, or <u>H.5.b.(iv)(a)</u> of this Rider are ineligible to take service under Option C of Rider Q.

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PSC NO: 10 – Electricity Consolidated Edison Company of New York, Inc. Initial Effective Date: Leaf: Revision: Superseding Revision: 254

GENERAL RULES

24. Service Classification Riders (Available on Request) - Continued

RIDER R - Net Metering and Value Stack Tariff for Customer-Generators - Continued

J. Term of Service

Unless otherwise directed by the Public Service Commission, there is no end-date to the term of service under this Rider for Customers with Grandfathered Net Metering, except for RNM Customers receiving monetary crediting under Section G.2.c.(iii). The term of service for those Customers is 25 years from the later of April 17, 2015, or the project in-service date.

The term of service under this Rider is 20 years from the in-service date for Customers with Phase One NEM, unless: (1) a one-time, irrevocable election was made to opt-in to the Value Stack Tariff; (2) for Customers with projects described in (A)(2) of the Applicability Section of this Rider, the date at which 25% of interconnection costs have been paid or the date when an SIR contract was executed if no such payment was required was on or after January 1, 2020; or (3) for Customers with projects described in (A)(3) of the Applicability Section of this Rider, the project in-service date was on or after January 1, 2020. These Customers with projects described in (2) and (3) above will receive compensation under Phase One NEM only until a new compensation methodology is effective, at which time they will be transferred to the new compensation methodology.

The term of service under this Rider is 25 years from the project's in-service date for Customers served under the Value Stack Tariff. Generators currently in-service for greater than 25 years at the time of application under this Rider can take service under the Value Stack Tariff until such time that a successor to the Value Stack Tariff is established by the Commission.

At the end of the term of service, Customers with on-site generation, RNM Host Accounts, CDG Host Accounts, RNM Satellite Accounts, and CDG Satellite Accounts will forfeit any net-metering or Value Stack credit that remains. Projects still in operation will be billed and credited based on the tariff that is then in effect.

A Customer served under <u>Section A.9, H.5.b.(iii)(a)</u>, or <u>H.5.b.(iv)(a)</u> of this Rider may elect to change its compensation mechanism (i.e., the Value Stack Tariff credit or the SC 11 Payment Rate for Energy and Payment Rate for Capacity, as applicable) no more than once every 12 months, with 60 days' notice.

PSC NO: 10 – Electricity Consolidated Edison Company of New York, Inc. Initial Effective Date: Leaf: Revision: Superseding Revision: 462

SERVICE CLASSIFICATION NO. 11 - Continued BUY-BACK SERVICE

Payment Rate for Energy (per month)

In accordance with Special Provision (G), for Customers and other entities selling energy under this Service Classification and energy sellers selling energy to the Company priced at or based upon the SC 11 Buy-Back energy rates, the payment rate for energy will be based on the applicable locational based marginal prices ("LBMP") determined by the NYISO.

Customers with export capability or deliveries that exceed 1 MW in any hour during a twelve-month period shall deliver to the Company a prospective schedule for electricity export in accordance with protocols established by the Company. The Company will pay such Customers (i) the applicable hourly day-ahead price for scheduled deliveries and (ii) the lower of the hourly day-ahead and real-time prices, not to be less than zero, for variances from the scheduled deliveries. Customers whose export capabilities and deliveries do not exceed 1 MW in any hour during a twelve-month period are not required to deliver a prospective schedule. The Company will pay those Customers the applicable monthly average real-time price for all deliveries.

Payments for energy delivered to the Company's border will be based on the applicable LBMP at the point of delivery. Payments for energy delivered within the Company's service area will be based on the zonal LBMP applicable to the zone within which such deliveries are made.

Adjustment Factor: For Customers delivering energy at secondary distribution, whether such energy is delivered to the NYISO or to the Company, the LBMP price will be increased by a factor of adjustment of 1.066, taken to the nearest cent.

Payment Rate for Capacity (per month)

In accordance with Special Provision (H), the Company will pay for the capacity it purchases based on the NYISO market price applicable to such capacity. Upon meeting the requirements described in Special Provision (H), the Company will commence capacity purchases hereunder commencing with the first calendar month following such qualification.

Credit under Rider R

In lieu of the above Payment Rate for Energy and Payment Rate for Capacity, as applicable, eligible Customers as specified in Section A.9, <u>H.5.b.(iii)(a)</u> or <u>H.5.b.(iv)(a)</u> of Rider R served under this SC may elect to receive credit under the Value Stack Tariff as described in Rider R.

Credit under Option (2) of the Applicability section of the Value Stack Tariff for PASNY Customer-Generators General Provision in the PASNY Rate Schedule

In lieu of the above Payment Rate for Energy and Payment Rate for Capacity, as applicable, eligible Customers as specified in Option (2) of the Applicability section, <u>Section H.5.b.(iii)(a) or H.5.b.(iv)(a)</u> of the Value Stack Tariff for PASNY Customer-Generators General Provision in the PASNY Rate Schedule served under this SC may elect to receive credit under the Value Stack Tariff for PASNY Customer-Generators General Provision as described in in the PASNY Rate Schedule.

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