

Value of Distributed Energy Resources Value Stack Expanded Eligibility

Overview of PSC Order

Webinar for NYC DG Developers

December 3, 2018

Agenda

Value of DER Expansion Order Summary

Expanded Eligibility

Standby and Buy-back Provisions

Q&A

Expanded Eligibility Order Highlights

September 12, 2018: Order on Value Stack Eligibility Expansion and Other Matters ([link](#))

Effective 12/1/18

Certain restrictions removed

- Removal of size limits based on customer type
- Interzonal credits for RNM & CDG permitted
- Any Tier 1-eligible technology¹ can be a CDG host

New technologies eligible for Value Stack

- Standalone Energy Storage, Regenerative Braking, and Vehicle-to-Grid (V2G)²
- Tidal and Biomass/Biogas
- Newly eligible technologies are subject to Standby and Buy-back provisions

1. Tier 1-eligible technologies include Solar PV, Wind, Tidal, Fuel Cell, Biomass/Biogas, Micro-Hydro

2. To be eligible for Value Stack accounts with these technologies must go on MHP for import (unless storage capacity < 115% of demand)

Removal of Size Limits Based on Customer Type

- “Removal of Customer-Type Based Technology and Size Limits”
 - Any type of customer – any Service Class – can install any technology from PSL 66-j or 66-l up to 5 MW
- VDER Value Stack: no size limitations for residential customers; SC1/EL1 can solar install >25 kW
 - Phase One NEM: size limits remain at ≤ 25 kW for solar, wind, and hydro, and at ≤ 10 kW for fuel cells

Updates to Community DG and RNM Conditions

	Condition	Remote Net Metered (RNM)	Community Distributed Generation (CDG)
Host Rules	Customer Type / Service Class	Any except residential (SC1)	
	DER Technology	Farm waste, PV, wind, micro-hydro, fuel cell	All Tier 1-eligible technologies
Satellite Rules	Customer Type / Service Class	Any	Larger satellites, ≥25 kW demand, can only take ≤ 40% of output (unless SC8)
	Account Ownership	Accounts owned in the same name as Host	N/A
	Geographic and NYISO zone	Any NYISO zone served by the same utility as the Host	
	Minimum number of satellites	1	10 (unless all on same premise or SC8)
	Minimum yearly offtake	N/A	1,000 kWh per satellite
	Can a satellite also be a host?	No	
	Can a satellite have multiple hosts?	Yes	No
	Can a satellite also be a net-metered customer-generator?	Yes, but not on Buy-back (SC11)	No
Forms	Application Forms	Form G	CDG Appendix A, B, and C

Value Stack for Stand-Alone Storage

- Modified Value Stack

Energy (LBMP)	Yes
Capacity (ICAP)	Yes, Alternative 3
Environmental (REC)	No
Demand Reduction Value (DRV)	Yes
Market Transition Credit (MTC)	No, stand-alone battery not eligible for CDG
Locational System Relief Value (LSRV)	Yes, if in eligible location

- Mandatory Hourly Pricing (MHP): to be eligible for Value Stack accounts must go on MHP for import (unless storage capacity < 115% of demand)

Application Forms for Stand-Alone Storage:

SIR Appendix K

“Energy Storage System (ESS) Application Requirements / System Operating Characteristics / Market Participation” ([link](#))

- Enter all details on specs and planned operating parameters, for example:
 - How and when will it charge and discharge?
 - What is the Protection & Control scheme?
 - Will the system be compensated by the NYISO or a utility tariff?
- Complete electronically in PowerClerk as part of initial application submittal (same for Hybrid)

Application Forms for Stand-Alone Storage: Form G

“Application for Rider R or Standby Service and/or Buy-Back Service”

- Request type of service and compensation:

Choices for Storage

Section 3. Type of Service Requested

Please check one of the following services that you are requesting:

<input type="checkbox"/> Grand Fathered Net Metering (Rider R)	<input type="checkbox"/> Phase One Net Metering (Rider R)	<input type="checkbox"/> Value Stack (Rider R)
<input type="checkbox"/> Standby Service	<input type="checkbox"/> Standby Service for Station Use	
<input type="checkbox"/> Buy-back Service (SC 11) with Payment for Energy		
<input type="checkbox"/> Buy-back Service (SC 11) with Value Stack compensation under Rider R		
<input type="checkbox"/> Standby Service and Buy-back Service (SC 11) with Payment for Energy		
<input type="checkbox"/> Standby Service and Buy-back Service (SC 11) with Value Stack compensation under Rider R		

Effective 12/1/2018

- Enter key information related to Standby and Buy-Back provisions
- Complete electronically (preferred) or by hand and then sign and attach in PowerClerk as part of initial application submittal

Standby Service & Standby Rates

- Standby Service is provided to backup and/or supplement the energy ordinarily generated by a generating facility on customer premises
- Customers receiving Standby Service are billed under Standby Service Rates unless exempt
- If exempt under Designated Technology or Targeted Exemptions, customers are billed under their corresponding standard rate

Standby Rate Components:

- Contract Demand: based on the customer's maximum potential demand on Con Edison's system
- As-Used Demand charges: based on the customer's maximum actual demand for each weekday from 8am-10pm.
- Other misc. charges: Customer charges, metering charges, associated MACs, SBC, and taxes

Standby Exemptions

Customers exempt from Standby Service Rates will be billed under standard rates:

- Customers with on-site generation equipment of a total nameplate rating $\leq 15\%$ of the Customer's maximum potential demand
- SC 1, SC 2, or the energy-only rate of SC 12 Customers
- Customers with a Contract Demand < 50 kW

Designated
Technologies
Exemption:

billed under
Standard rates

Fuel cells, wind, solar thermal, photovoltaics, sustainably-managed biomass, tidal, geothermal, and/or methane waste that commences operation between July 29, 2003 and May 31, 2019

Uses Electric Energy Storage with maximum capability up to and including 1 MW

Standby Exemptions

Targeted Exemptions – Battery Storage Conditions

Targeted Exemption:	New installs of battery storage no less than 50 kW on or after January 1, 2017
billed under Standard rates	Submits a completed application for interconnection by December 31, 2019, and commences operation by December 31, 2021
	Exempt from Standby Service rates for ten years from the date the battery storage project commences operation*
	Total exemption limit of 25 MW of new battery energy storage projects across all customers

***Shadow billing will be provided, for informational purposes, at rates under Rider Q - Option B during the term of such rates, and at the then-effective Standby Service rates thereafter**

Standby Exemptions

Additional Metering Requirements

- Customers with Targeted Exemptions must comply with these additional metering requirements:
 - The charging/discharge of the battery storage must be separately metered using an Output Meter that the customer arranges to be furnished and installed at their expense.
 - The Output Meter must consist of PSC-approved revenue grade metering equipment that can communicate with Con Edison metering data system and its associated IT infrastructure.
 - The customer, at its expense, must provide and maintain the communications service for the Output Meter

Standby Pilot Rate Program (Rider Q)

- Pilot rate program allows options for Standby Service customers to:
 - Option A: Choose their own contract demand with penalties
 - Option B: Select a different As-Used demand period*
 - Option C: Receive credits for consistent export of power via the buy-back (SC-11) rate

*** Customers under Option B will also receive shadow billing, for informational purposes, at the applicable Standby Service rates**

Electric Buy-Back (SC-11)

- Customer pays a customer charge and a contract demand charge based the generating facility's ability to deliver energy to the grid
- As an alternative to Value Stack, customers may sell energy to Con Edison:
 - The payment rate for energy will be based on the applicable wholesale rate, which is the Locational Based Marginal Price (LBMP) set by the New York Independent System Operator (NYISO)
 - Customers delivering energy at the secondary distribution level will have the LBMP increased by a factor of 1.066 to account for line losses

Resources

- Con Edison DG website: www.coned.com/dg
- Con Edison solar website: www.coned.com/solar
- Con Edison Guides: www.coned.com/privategenerationguides
- Con Edison VDER info: [link](#)
- Con Edison [Standby Service, page 156](#)
- Con Edison Customer Project Manager Contact Info: [link](#)
- Billing questions
 - Residential customers: netmetering@coned.com or 212-780-6600
 - Large/commercial customers: dl-CCGNet-metering@coned.com
- Technical, process, or rate questions: dgexpert@coned.com

Coming up next...

DG Winter Installer Workshop

December 12th, 2018

1:00 – 4:30 PM

Check-in begins at 12:30 PM

Con Edison, Edison Room

4 Irving Place, New York, NY 10003

RSVP by COB Today – Email dgexpert@coned.com





Questions?



APPENDIX

Outcome of Value of Distributed Energy Resources (VDER) Orders

Impacted Technologies: Solar PV, Wind, Hydro, Farm Waste Generation, Fuel Cells, Biogas, Tidal, and Battery Energy Storage up to 5 MW AC; and Combined Heat and Power (CHP) up to 10kW AC

 <p>Systems operating as of March 9, 2017</p>	<ul style="list-style-type: none"> • No changes; receive Net Energy Metering (NEM) for life of system, can opt-in to new structure
 <p>New residential & small commercial systems installed through sooner of January 1, 2020 or Phase 2 Order.</p>	<ul style="list-style-type: none"> • Eligible for 20 years of NEM (“Phase One NEM”) • Residential size restrictions: ≤25 kW for Solar PV, Wind, and Hydro; ≤10 kW for fuel cells
 <p>New large commercial and industrial, remote net metering installations</p>	<ul style="list-style-type: none"> • Receive “Value Stack” without transition credit for 25 years
 <p>New Community DG projects</p>	<ul style="list-style-type: none"> • Tranche 0 receives NEM for 20 years • Others receive “Value Stack” for 25 years • Mass market subscribers to Solar PV, Fuel Cell, Micro-Hydroelectric, and Wind CDG receive transition credit (MTC) that declines by tranche