



NYSERDA

Value of Distributed Energy Resources ***Phase 1 Order***

Highlights for Mass Market and Residential

Context of Order

- As part of Reforming the Energy Vision (REV), NYS is transitioning away from net energy metering (NEM)
- NYS' Public Service Commission (PSC) recently released an order to start this transition
 - *Phase One* (issued March 9, 2017)
 - *Phase Two* (to come)

Introduction

- NEM has been effective at growing NYS' PV market
 - Policy in place since 1997
 - However, it's a blunt method for valuing distributed energy resources (VDER). Time and location of generation are not considered in compensation structure
- NYS PSC has begun to develop a more precise approach to VDER

Phase One

What's Impacted

- Solar PV, Wind, Hydro, Farm Waste Generation, and Fuel Cells up to 2MW AC
- Combined Heat and Power (CHP) up to 10kW AC
- National Grid, NYSEG, Central Hudson, Orange and Rockland, ConEd, Rochester Gas & Electric

Volumetric vs Monetary Metering

Volumetric metering tracks net kWh delivered to grid.

- NEM is a volumetric method. PV production exported to the grid is credited on the customer's utility bill with a kWh reduction on a 1:1 ratio.

Monetary metering converts energy production into dollars.

- PV customers see a dollar credit on their energy bill (rather than a kWh credit)
- Solar energy consumed onsite is not delivered to the grid and is not converted to a monetary credit

For both metering methods, PV kWh consumed on-site is a kWh not purchased from the utility. It reduces the customer's bill like energy efficiency.

Definition of Project Types

Mass Market

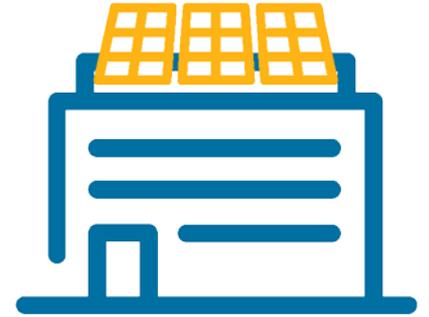
- PV system is located at off-taker site
- Residential or small commercial solar electric systems where customer has non-demand billing



Definition of Project Types

Large-scale onsite

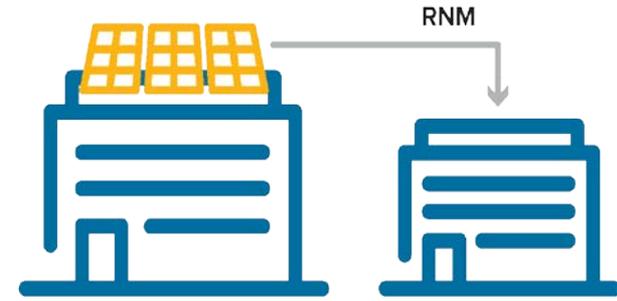
- Onsite projects for commercial customers with demand billing or mandatory hourly pricing (MHP)
- Outside the scope of this presentation



Definition of Project Types

Remote net metering (RNM)

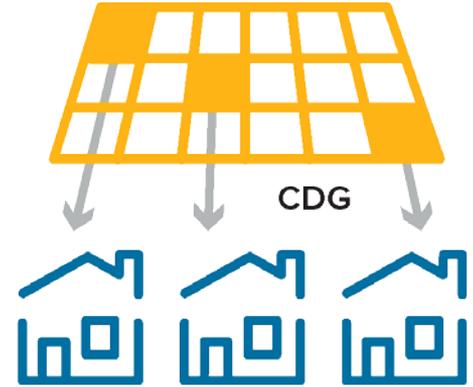
- Off-site projects of nonresidential customers; credits are used to offset use at remote meters
- Outside the scope of this presentation



Definition of Project Types

Community Distributed Generation (CDG) or Community Solar

- Off-site projects located behind a nonresidential host meter that provide bill credits to subscribed members
- Outside the scope of this presentation



Phase One - Tariff Categories

1. **Net Energy Metering (NEM)** – no longer available for new projects
2. **VDER Phase One NEM** – temporarily available for Mass Market until 1/1/2020
3. **Value Stack** – available for most commercial/industrial projects moving forward

Phase One - Tariff Categories

Net Energy Metering (NEM)

- Volumetric crediting
- Compensation for life of the system
- Annual true-up for net excess production

Phase One - Tariff Categories

VDER Phase One Net Energy Metering

Phase One NEM is similar to NEM compensation except:

- Phase One NEM projects are subject to a 20-year term
- Credits will carry over from month to month and year to year
- After a 20-year period, projects will receive the compensation structure the in effect

Phase One - Tariff Categories

Value Stack - Overview

- The Value Stack consists of several elements representing the value of a clean kWh to the grid and the environment
- Some elements are time and location sensitive
- kWh produced in congested parts of the grid during peak demand time will be paid more

Phase One - Tariff Categories

Value Stack

- Applies to projects not eligible for NEM or Phase One NEM
- Monetary crediting only. Customers will see a dollar credit on their bill
- Compensation is based on electricity delivered to the grid (not consumed on site) on an hourly basis
- Projects receiving the Value Stack will have a compensation term of 25 years, then receive compensation structure in effect
- Credits will carry over to next billing period

Net Energy Metering - *How to Qualify*

- All projects already interconnected or completed as of 3/9/2017 will retain NEM for the life of the system
 - Must have notified utilities of finished projects by 3/17/2017
- No action is required for already-interconnected projects to keep NEM

Phase One Net Energy Metering – *How to Qualify*

Mass Market

- Projects installed between 3/9/2017 and 1/1/2020 are eligible for Phase One NEM
- Subject to MW allocation, limits specified by order
- PSC will determine appropriate action when 85% allocation is hit



Mass Market MW Allocations by Utility

CHGE	O&R	NGRID	NYSEG	CoNEd	RG&E
30	25	55	20	65	5

Phase One Value Stack - *How to Qualify*

- Projects that do not receive NEM or Phase One NEM will receive the Value Stack
- Projects receiving NEM or Phase One NEM may opt into Value Stack
 - It is not anticipated that many Mass Market projects will opt into the Value Stack. For details on the Value Stack, see the general VDER presentation at on NYSERDA VDER website

Links and Resources

- NY-Sun VDER Website: nyserdera.ny.gov/VDER
- PSC order and related documents:
<http://www.dps.ny.gov/VDER>