

Monetizing Electricity Produced by Farm-Based Anaerobic Digestion in NY

Part 3: Overview and eligibility guidelines of Net Energy Metering and Phase One Value Stack electricity tariffs

September 2020

Overview of Net Energy Metering (NEM) and remote NEM

The New York State (NYS) NEM electricity tariff was the first available accounting method for farm anaerobic digester gas (ADG) to electricity generation systems interconnected to the utility grid. The NEM tariff tracks onsite electricity generation that exceeds onsite demand (export to utility grid) and electricity usage that exceeds onsite generation (import from utility grid) over a billing period, typically a month. The sum of the imported electricity, expressed as a positive value, and exported electricity, expressed as a negative value, across the period equals the net metered electricity reported on the utility bill in kilowatt-hours (kWh). A variable rate is assigned to the net negative electricity that compensates the farm for electricity supplied to the utility grid.

The NEM tariff uses an annual true-up process that allows the farm to elect a monetary payment from the utility for excess accumulated credits. Excess credit is common with a well-performing ADG-to-electricity system. "Remote NEM" is when electricity generated and exported to the utility at the farm (host) site is applied to remote site(s) that are importing electricity from the same utility in the same NYISO zone. Under remote NEM, all participating utility accounts must be in the same ownership name.

Overview of Phase One Value Stack

The Phase One Value Stack electricity tariff was first established by the NYS Public Service Commission (PSC) under the Value of Distributed Energy Resources (VDER) proceeding¹ in March 2017 to provide a more granular electricity valuation than the NEM tariff. The Value Stack tariff establishes a

monetary value for the electric power exported to the grid by the ADG-to-electricity system at each individual hour of the day throughout the year, and includes the societal benefits of the power source (e.g., emission reductions, community access). The Phase One Value Stack is comprised of 3 to 6 component values that apply depending on the system type, technology, location, and project format. The details of the Value Stack components and their applicability are covered in Part 5 of this Fact Sheet Series.

Once initiated, the Value Stack tariff has a 25-year term and while credits are monetary on the utility bill, any excess credit is carried over month-to-month and over the annual period with unused credits forfeited at the end of the term. There is no annual true-up payment option.

Eligibility of NEM (including Phase One NEM)

System size and type

The NEM tariff was applicable to certain system types and sizes, including manure-based ADG-to-electricity systems that are smaller than 2,000 kW (2 MW). The eligibility requirements also permitted co-digestion of other feed stocks with livestock manure materials up to 50% by weight. After the March 2017 NYS PSC order, all new ADG-to-electricity systems would either be eligible for Phase One NEM or for the Phase One Value Stack tariffs. All existing systems became eligible to opt-in (at any time) to the new Value Stack tariff instead of the NEM tariff. Opting into the Value Stack tariff is an irreversible decision.

Phase One NEM differs from the original NEM tariff in that any excess credits carry over to the next billing periods (no annual true-up) and the term is capped at 20 years. Presently, the Phase One NEM tariff can be selected up to January 1,

2021 for new ADG-to-electricity systems that meet all the following requirements:

- 1) Have a rated capacity of 750 kW or less.
- 2) Are at the same location and behind the same meter as the utility customer (farm) whose usage they are designed to off-set.
- 3) Have an estimated annual electricity output \leq 110% of that farm's historic annual usage in kWh.

System interconnection date

All farm-based ADG-to-electricity systems interconnected before 3/10/17 are eligible to continue using the NEM tariff for electricity generated. Most ADG-to-electricity systems interconnected after March 2017 must use the Value Stack tariff, with a couple of exceptions. Refer to Part 1 of this Fact Sheet Series to identify which tariff or tariffs apply to your specific case.

Eligibility of Phase One Value Stack

The Value Stack is intended to become the only electricity tariff option for all new utility-interconnected electricity generation systems in NYS over time. Phase One refers to the Value Stack tariff structure that applies to the system types that were previously eligible for NEM, as well as a few additional types added through PSC orders (e.g., ADG produced from food waste or sewage, and energy storage systems).

Any ADG-to-electricity system that has a rated capacity of 5 MW or less, regardless of the installation date, can opt to use the Phase One Value Stack tariff. Contact your electric utility

representative to initiate the Value Stack tariff opt-in process. All systems interconnected after 3/9/17 must use the Phase One Value Stack tariff unless they are eligible for, and opt-in to, the Phase One NEM tariff (see NEM eligibility section above for requirements). Because eligibility was expanded under the NYS Clean Energy Standard², the requirement that manure constitutes 50% by weight or more of the digester feedstock no longer applies.

Remote/satellite account(s) and Community Distributed Generation (CDG)

Remote metering is still available under the Value Stack tariff and has the same requirements that all remote accounts have the same ownership name and be in the same utility and NYISO zone.

CDG is a project format that adds flexibility to the remote metering concept. Under a CDG format, the host generator can apply electricity generation to utility accounts under different ownership if they are within the same utility territory. (Note: they do not have to be within the same NYISO zone.) A CDG format can be useful or even necessary when a host generator cannot apply all the electricity generated to their owned utility account(s). CDG enables the host to monetize the electricity they are generating by collecting membership payments from the participating members in return for the utility bill credit they receive. Part 5 of this Fact Sheet Series will review the CDG project format, including the “farm-based” and “standard” options.

FACT SHEET SERIES: Monetizing Electricity Produced by Farm-Based Anaerobic Digestion in New York

Part 1: Decision tree to identify electricity tariff options available

Part 2: Compare and contrast electricity tariff options

Part 3: Overview and eligibility guidelines of NEM and Phase One Value Stack electricity tariffs

Part 4: How the Net Energy Metering (NEM) tariff works

Part 5: How the Phase One Value Stack tariff works (including Community Distributed Generation)

Authors

Lauren Ray

Email: ler25@cornell.edu

Curt Gooch

Email: cag26@cornell.edu

¹ NYS DPS Case 15-E-0751, Order on NEM Transition, Phase One of VDER, and Related Matters (issued March 9, 2017).

² NYS DPS Case 15-E-0302, Order Adopting a Clean Energy Standard (issued August 1, 2016).