

Monetizing Electricity Produced by Farm-Based Anaerobic Digestion in NY

Part 2: Compare and contrast electricity tariff options

September 2020

Overview

After identifying which electricity tariff option(s) are available using the appropriate decision tree (see Part 1 of this Fact Sheet Series), the table below can be used to compare the options. The tariff structure is subject to change and should always be verified with the most recent electric rate filing issued by your utility. In addition, the example tariff values¹ given in Table 1 are only to be used as a relative reference and are based on a dairy farm located in central New York (NYISO zone C) within NYSEG utility territory analyzed in June 2020. The specific tariff values applicable to your project will depend on the location, utility, the actual electricity generation, and the onsite connected load (if applicable).

Table 1. New York state electricity tariffs with June 2020 component values and example total values by technology for a dairy farm anaerobic digester gas to electricity system located in central NY (NYISO C) and NYSEG utility.

Tariff	Technology used for electricity generation	Environmental Value ^(a) (\$/MWh)	Community Credit ^(b) (\$/MWh)	Total Value (\$/MWh)
Net Energy Metering (NEM)	reciprocating IC engine microturbine gas turbine fuel cell	N/A	N/A	\$45.50
Phase One Value Stack	reciprocating IC engine microturbine gas turbine	\$0.00	\$20.00	\$60.00
	fuel cell ^(c)	\$27.41	\$3.20	\$70.61
Phase One NEM	reciprocating IC engine microturbine gas turbine fuel cell	N/A	N/A	Reduction of electricity (kWh) usage

- (a) The Climate Leadership and Community Protection Act² (CLCPA) gives a definition of *renewable energy systems* that includes “fuel cells which do not utilize fossil fuels in the process of generating electricity”, but does not explicitly list biogas or biomass energy systems. A December 2019 NYS Public Service Commission (PSC) order³ established that only *renewable energy systems* as defined in the CLCPA may receive the Environmental (E) value under the Value Stack tariff. This can be interpreted as fuel cells using anaerobic digester gas (not a fossil fuel) to produce electricity do receive the E value, but engine and turbine technologies do not. However, a NYS Department of Public Service (DPS) and NYSERDA white paper⁴ has proposed to interpret the CLCPA definition as including only fuel cells that utilize hydrogen (or other non-fossil fuel) that has been produced using a *renewable energy system* as a primary energy source. The white paper’s proposed interpretation, if adopted, would preclude all biogas-fueled technologies from receiving the E value.
- (b) The Community Credit (CC) is available for Community Distributed Generation (CDG) projects with participating members. The CC is also subject to utility capacity limits within NYSEG, RG&E, National Grid, and Consolidated Edison territories. Refer to Part 5 of this Fact Sheet Series for more details.
- (c) Fuel cell systems receive 16% of the CC value per the December 2019 NYS PSC order³.

Considerations

Both the NEM value and the Value Stack vary each month. The NEM value is derived from the cost of electricity delivery and supply, but the formula is not consistent among utilities or made public. In contrast, the Value Stack tariff formula is publicly defined and consistent among utilities; however, the energy, capacity, and demand reduction value components vary hourly and/or monthly according to published pricing. Refer to Part 5 of this Fact Sheet Series for the details of the Value Stack components.

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

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

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¹ NYSERDA VDER Value Stack Calculator version 2.3, <https://www.nyserra.ny.gov/All-Programs/Programs/NY-Sun/Contractors/Value-of-Distributed-Energy-Resources/Solar-Value-Stack-Calculator>.

² New York State Senate Bill S6599. <https://www.nysenate.gov/legislation/bills/2019/s6599>.

³ NYS DPS Case 15-E-0751, Order Regarding High Capacity Factor Resources (issued December 12, 2019).

⁴ NYS DPS Case 15-E-0302, *White Paper on Clean Energy Standard Procurements to Implement New York's Climate Leadership and Community Protection Act* (issued June 18, 2020).