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Introduced by M. of A. ENGLEBRIGHT, BENEDETTO, RIVERA, GALEF, CAHILL, GUNTHER, LUPARDO, MAGNARELLI, SCHIMMINGER, O'DONNELL, L. ROSENTHAL, JAFFEE, BARRETT, SANTABARBARA -- Multi-Sponsored by -- M. of A. COLTON, COOK, GIGLIO, GOTTFRIED, KOLB, PAULIN, STIRPE -- read once and referred to the Committee on Energy

AN ACT to amend the public service law and the public authorities law, in relation to net energy metering for solar, wind, fuel cell and farm waste electric generating systems; and to repeal sections 66-j and 66-l of the public service law relating to net energy metering

The People of the State of New York, represented in Senate and Assembly, do enact as follows:

Section 1. Sections 66-j and 66-l of the public service law are REPEALED and a new section 66-j is added to read as follows:

§ 66-j. Net energy metering for solar, wind, fuel cell or farm waste electric generating systems, or micro-combined heat and power generating equipment, and micro-hydroelectric generating equipment. 1. Definitions. As used in this section, the following terms shall have the following meanings:

(a) "Customer-generator" means: (i) any customer of an electric corporation, who owns or operates solar, wind or fuel cell electric generating equipment, or any hybrid equipment of these three technologies located and used at his or her premises; (ii) a customer of an electric corporation, who owns or operates farm waste electric generating equipment located and used at his or her "farm operation," as such term is defined in subdivision eleven of section three hundred one of the agriculture and markets law; (iii) a residential customer of an electric corporation who owns, leases or operates micro-combined heat and power generating equipment located on the customer's premises; (iv) a residential customer of an electric corporation, who owns or operates micro-hydroelectric generating equipment located and used at his or her residence; and (v) a non-residential customer of an electric corporation

EXPLANATION--Matter in italics (underscored) is new; matter in brackets [-] is old law to be omitted.

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1 which owns or operates micro-hydroelectric generating equipment located
2 and used at its premises.

3 (b) "Net energy meter" means a meter that measures the reverse flow of
4 electricity to register the difference between the electricity supplied
5 by an electric corporation to the customer-generator and the electricity
6 provided to the corporation by that customer-generator.

7 (c) "Net energy metering" means the use of a net energy meter to meas-
8 ure, during the billing period applicable to a customer-generator, the
9 net amount of electricity supplied by an electric corporation and
10 provided to the corporation by a customer-generator.

11 (d) "Solar electric generating equipment" means a photovoltaic system
12 (i) with a rated capacity of not more than two thousand kilowatts; and
13 (ii) that is manufactured, installed, and operated in accordance with
14 applicable government and industry standards, that is connected to the
15 electric system and operated in parallel with an electric corporation's
16 transmission and distribution facilities, and that is operated in
17 compliance with any standards and requirements established under this
18 section.

19 (e) "Farm waste electric generating equipment" means equipment that
20 generates electric energy from biogas produced by the anaerobic
21 digestion of agricultural waste, such as livestock manure, farming
22 wastes and food processing wastes with a rated capacity of not more than
23 two thousand kilowatts, that is:

24 (i) manufactured, installed, and operated in accordance with applica-
25 ble government and industry standards;

26 (ii) connected to the electric system and operated in conjunction with
27 an electric corporation's transmission and distribution facilities;

28 (iii) operated in compliance with any standards and requirements
29 established under this section;

30 (iv) fueled at a minimum of ninety percent on an annual basis by
31 biogas produced from the anaerobic digestion of agricultural waste such
32 as livestock manure materials, crop residues, and food processing waste;
33 and

34 (v) fueled by biogas generated by anaerobic digestion with at least
35 fifty percent by weight of its feedstock being livestock manure materi-
36 als on an annual basis.

37 (f) "Micro-combined heat and power generating equipment" means an
38 integrated, cogenerating building heating and electrical power gener-
39 ation system, operating on any fuel and of any applicable engine, fuel
40 cell, or other technology, with a rated capacity of at least one kilo-
41 watt and not more than ten kilowatts electric and any thermal output
42 that at full load has a design total fuel use efficiency in the
43 production of heat and electricity of not less than eighty percent, and
44 annually produces at least two thousand kilowatt hours of useful energy
45 in the form of electricity that may work in combination with supple-
46 mental or parallel conventional heating systems, that is manufactured,
47 installed and operated in accordance with applicable government and
48 industry standards, that is connected to the electric system and oper-
49 ated in conjunction with an electric corporation's transmission and
50 distribution facilities.

51 (g) "Fuel cell electric generating equipment" means:

52 (i) a solid oxide, molten carbonate, proton exchange membrane or phos-
53 phoric acid fuel cell with a combined rated capacity of not more than
54 two thousand kilowatts; and

55 (ii) that is manufactured, installed and operated in accordance with
56 applicable government and industry standards, that is connected to the

1 electric system and operated in parallel with an electric corporation's
2 transmission and distribution facilities, and that is operated in
3 compliance with any standards and requirements established under this
4 section.

5 (h) "Micro-hydroelectric generating equipment" means a hydroelectric
6 system (i) (A) in the case of a residential customer, with a rated
7 capacity of not more than twenty-five kilowatts; and (B) in the case of
8 a non-residential customer, with a rated capacity of not more than two
9 thousand kilowatts; and (ii) that is manufactured, installed, and oper-
10 ated in accordance with applicable government and industry standards,
11 that is connected to the electric system and operated in conjunction
12 with an electric corporation's transmission and distribution facilities,
13 and that is operated in compliance with any standards and requirements
14 established under this section.

15 (i) "Wind electric generating equipment" means a wind generator or
16 generators with a combined rated capacity of not more than two thousand
17 kilowatts that is manufactured, installed and operated in accordance
18 with applicable government and industry standards, that is connected to
19 the electric system and operated in parallel with an electric corpo-
20 ration's transmission and distribution facilities, and that is operated
21 in compliance with any standards and requirements established under this
22 section.

23 (j) "Electric corporation" means any public or privately owned entity
24 that offers retail electrical service to end-use electric consumers.

25 (k) "Eligible technologies" means the solar, wind, fuel cell or farm
26 waste electric generating equipment.

27 2. Interconnection and net energy metering. An electric corporation
28 shall provide for the interconnection of eligible technologies, micro-
29 combined heat and power generating equipment, and micro-hydroelectric
30 generating equipment owned or operated by a customer-generator and for
31 net energy metering, provided that the customer-generator enters into a
32 net energy metering contract with the corporation or complies with the
33 corporation's net energy metering schedule and complies with standards
34 and requirements established under this section.

35 3. Conditions of service. (a) On or before three months after the
36 effective date of this section, each electric corporation shall develop
37 a model contract and file a schedule that establishes consistent and
38 reasonable rates, terms and conditions for net energy metering to
39 customer-generators, according to the requirements of this section. The
40 commission shall render a decision within three months from the date on
41 which the schedule is filed.

42 (b) An electric corporation shall impose no other charge or fee,
43 including, but not limited to, back-up, stand by and demand charges, for
44 the provision of net energy metering to a customer-generator, except as
45 provided in paragraph (d) of subdivision four of this section.

46 (c) A customer who owns or operates a farm operation as such term is
47 defined in subdivision eleven of section three hundred one of the agri-
48 culture and markets law, or a residential customer-generator as defined
49 by subparagraph (iii) of paragraph (a) of subdivision one of this
50 section that locates solar electric generating equipment or farm waste
51 electric generating equipment with a net energy meter on property owned
52 or leased by such customer-generator may designate all or a portion of
53 the net metering credits generated by such equipment to meters at any
54 property owned or leased by such customer-generator within the service
55 territory of the same electric corporation to which the customer-
56 generator's net energy meters are interconnected and being within the

1 same load zone as determined by the location based marginal price as of
2 the date of initial request by the customer-generator to conduct net
3 metering. The electric corporation will credit the accounts of the
4 customer by applying any credits to the highest use meter first, then
5 subsequent highest use meters until all such credits are attributed to
6 the customer. Any excess credits shall be carried over to the following
7 month.

8 (d) A customer who owns or operates a farm operation as such term is
9 defined in subdivision eleven of section three hundred one of the agri-
10 culture and markets law, or a non-residential customer-generator as
11 defined by subparagraph (v) of paragraph (a) of subdivision one of this
12 section that locates micro-hydroelectric generating equipment with a net
13 energy meter on property owned or leased by such customer-generator may
14 designate all or a portion of the net metering credits generated by such
15 equipment to meters at any property owned or leased by such customer-
16 generator within the service territory of the same electric corporation
17 to which the customer-generator's net energy meters are interconnected
18 and being within the same load zone as determined by the location based
19 marginal price as of the date of initial request by the customer-genera-
20 tor to conduct net metering. The electric corporation will credit the
21 accounts of the customer by applying any credits to the highest use
22 meter first, then subsequent highest use meters until all such credits
23 are attributed to the customer. Any excess credits shall be carried over
24 to the following month.

25 4. Rates. An electric corporation shall use net energy metering to
26 measure and charge for the net electricity supplied by the corporation
27 and provided to the corporation by a customer-generator, according to
28 these requirements:

29 (a) In the event that the amount of electricity supplied by the corpo-
30 ration during the billing period exceeds the amount of electricity
31 provided by a customer-generator, the corporation shall charge the
32 customer-generator for the net electricity supplied at the same rate per
33 kilowatt hour applicable to service provided to other customers in the
34 same service class which do not generate electricity onsite.

35 (b) In the event that the amount of electricity produced by a custom-
36 er-generator during the billing period exceeds the amount of electricity
37 used by the customer-generator, the corporation shall apply a credit to
38 the next bill for service to the customer-generator for the net elec-
39 tricity provided at the same rate per kilowatt hour applicable to
40 service provided to other customers in the same service class which do
41 not generate electricity onsite, except for micro-combined heat and
42 power or fuel cell customer-generators, who will be credited at the
43 corporation's avoided costs. The avoided cost credit provided to micro-
44 combined heat and power or fuel cell customer-generators shall be treat-
45 ed for ratemaking purposes as a purchase of electricity in the market
46 that is includable in commodity costs.

47 (c) At the end of the year or annualized over the period that service
48 is supplied by means of net energy metering, the corporation shall
49 promptly issue payment at its avoided cost to the customer-generator, as
50 defined in subparagraph (i) or (ii) of paragraph (a) of subdivision one
51 of this section, for the value of any remaining credit for the excess
52 electricity produced during the year or over the annualized period by
53 the customer-generator.

54 (d) In the event that the corporation imposes charges based on kilo-
55 watt demand on customers who are in the same service class as the
56 customer-generator but which do not generate electricity on site, the

1 corporation may impose the same charges at the same rates to the custom-
2 er-generator, provided, however, that the kilowatt demand for such
3 demand charges is determined by the maximum measured kilowatt demand
4 actually supplied by the corporation to the customer-generator during
5 the billing period.

6 (e) Net energy metering shall be accomplished using a single meter
7 capable of registering the flow of electricity in two directions. An
8 additional meter or meters to monitor the flow of electricity in each
9 direction may be installed with the consent of the customer-generator,
10 at the expense of the electric corporation, and the additional metering
11 shall be used only to provide the information necessary to accurately
12 bill or credit the customer-generator pursuant to paragraph (f) of this
13 subdivision, or to collect system performance information on the eligi-
14 ble technology for research purposes. If the existing electrical meter
15 of an eligible customer-generator is not capable of measuring the flow
16 of electricity in two directions and provided the reason the meter is
17 not capable of measuring the flow in two directions is not related
18 either to a mechanical device installed by an electric corporation or
19 such corporation's selection of a meter without this capability when
20 other meters capable of measuring the flow of electricity in two
21 directions were available to the electric corporation, the customer-gen-
22 erator shall be responsible for all expenses involved in purchasing and
23 installing a meter that is able to measure the flow of electricity in
24 two directions. If an additional meter or meters are installed, the net
25 energy metering calculation shall yield a result identical to that of a
26 single meter.

27 (f) Every electric corporation shall develop a standard contract or
28 tariff providing for net energy metering, and shall make this contract
29 available to eligible customer-generators, upon request. Every electric
30 corporation shall ensure that requests for establishment of net energy
31 metering are processed in a time period not exceeding that for similarly
32 situated customers requesting new electric service, but not to exceed
33 one month from the date the electric corporation receives a completed
34 application form from an eligible customer-generator. If an electric
35 corporation is unable to process the request within the allowable time-
36 frame, the electric corporation shall notify the customer-generator of
37 the reason for its inability to process the request and the date the
38 request will be completed. Every electric corporation shall make all
39 necessary forms and contracts for net energy metering available for
40 download from the internet.

41 (g) Each net energy metering contract or tariff shall be identical,
42 with respect to rate structure, all retail rate components and any
43 monthly charges, to the contract or tariff to which the same customer
44 would be assigned if such customer was not an eligible customer-genera-
45 tor, except that eligible customer-generators shall not be assessed
46 standby charges on the electrical generating capacity or the kilowatt-
47 hour production of an eligible technology. The charges for all retail
48 rate components for eligible customer-generators shall be based exclu-
49 sively on the customer-generator's net kilowatt-hour consumption over a
50 twelve month period, without regard to the customer-generator's choice
51 of electric corporation. Any new or additional demand charge, standby
52 charge, customer charge, minimum monthly charge, interconnection charge
53 or other charge that would increase an eligible customer-generator's
54 costs beyond those of other customers in the rate class to which the
55 eligible customer-generator would otherwise be assigned are contrary to

1 the intent of this section, and shall not form a part of net energy
2 metering contracts or tariffs.

3 (h) For all eligible customer-generators taking service under tariffs
4 employing "time of use" rates, any net monthly consumption of electric-
5 ity shall be calculated according to the terms of the contract or tariff
6 which the same customer would be assigned to or be eligible for if the
7 customer was not an eligible customer-generator. When those same custom-
8 er-generators are net generators during any discrete time of use period,
9 the net kilowatt-hours produced shall be valued at the same price per
10 kilowatt-hour as the electric corporation would charge for retail kilo-
11 watt-hour sales during that same time of use period and that value shall
12 be applied as a credit to any of the discrete time of use periods under
13 the tariff. If the eligible customer-generator's time of use electrical
14 meter is unable to measure the flow of electricity in two directions,
15 the provisions of paragraph (d) of this subdivision shall apply.

16 5. Safety standards. (a) On or before three months after the effective
17 date of paragraph (b) of this subdivision, the commission shall estab-
18 lish standards for interconnection of generators, taking into account
19 applicable industry standards including IEEE 1541, and best practices
20 included in the Interstate Renewable Energy Council's model intercon-
21 nection rules MR-12005. Such standards shall not be more restrictive of
22 interconnection than standards established in FERC Orders 2006 and 2006a
23 as of the effective date of paragraph (b) of this subdivision.

24 (b) The commission shall promulgate regulations ensuring that simpli-
25 fied contracts will be used for the interconnection of generators that
26 have a production capacity not exceeding two thousand kilowatts and
27 shall consider the best practices for consumer friendly contracts
28 adopted by national associations of state utility regulators. Such
29 contracts shall not require liability or other insurance in excess of
30 what is typically carried by customer-generators for general liability.

31 6. Safety standards; non-residential solar electric generating equip-
32 ment and micro-hydroelectric generating equipment. (a) On or before
33 three months after the effective date of this subdivision, each electric
34 corporation shall establish standards that are necessary for net energy
35 metering and the interconnection of non-residential solar electric
36 generating equipment or micro-hydroelectric generating equipment to its
37 system and that the commission shall determine are necessary for safe
38 and adequate service and further the public policy set forth in this
39 section. Such standards may include but shall not be limited to:

40 (i) equipment necessary to isolate automatically the solar generating
41 system or micro-hydroelectric generating equipment from the utility
42 system for voltage and frequency deviations; and

43 (ii) a manual lockable disconnect switch provided by the customer-gen-
44 erator which shall be located on the outside of the customer-generator's
45 premises and externally accessible for the purpose of isolating the
46 solar electric generating equipment or micro-hydroelectric generating
47 equipment.

48 (b) In the event that the total rated generating capacity of solar
49 electric generating equipment or micro-hydroelectric generating equip-
50 ment that provides electricity to the electric corporation through the
51 same local feeder line exceeds twenty percent of the rated capacity of
52 the local feeder line, the electric corporation may require the custom-
53 er-generator to comply with reasonable measures to ensure safety of the
54 local feeder line.

55 (c) Unless otherwise determined to be necessary by the commission, an
56 electric corporation may not require a customer-generator to comply with

1 additional safety or performance standards, perform or pay for addi-
2 tional tests, or purchase additional liability insurance provided that
3 the solar electric generating equipment or micro-hydroelectric generat-
4 ing equipment meets the safety standards established pursuant to this
5 subdivision.

6 (d) Upon its own motion or upon a complaint, the commission, or its
7 designated representative, may investigate and make a determination as
8 to the reasonableness and necessity of the standards or responsibility
9 for compliance with the standards.

10 7. Electric restructuring. Notwithstanding the provisions of this
11 section, a customer-generator shall comply with any applicable determi-
12 nations of the commission relating to restructuring of the electric
13 industry.

14 8. Severability of provisions. The provisions of this section shall be
15 severable and if the application of any clause, sentence, paragraph,
16 subdivision, section, or part thereof to any person or circumstance
17 shall be adjudged by any court of competent jurisdiction to be invalid,
18 such judgment shall not necessarily affect, impair, or invalidate the
19 application of any such clause, sentence, paragraph, subdivision,
20 section, part or remainder thereof, as the case may be, to any other
21 person or circumstance, but shall be confined in its operation to the
22 clause, sentence, paragraph, subdivision, section or part thereof
23 directly involved in the controversy in which such judgment shall have
24 been rendered.

25 § 2. Subdivision (h) of section 1020-g of the public authorities law,
26 as amended by chapter 546 of the laws of 2011, is amended to read as
27 follows:

28 (h) To implement programs and policies designed to provide for the
29 interconnection of: (i) [~~(A)~~] solar, wind, fuel cell or farm waste elec-
30 tric generating equipment owned or operated by [~~residential customers,~~
31 ~~(B) farm waste electric generating equipment owned or operated by~~
32 ~~customer generators, (C) solar electric generating equipment owned or~~
33 ~~operated by non-residential customers, (D)~~] customer-generators, (ii)
34 micro-combined heat and power generating equipment owned, leased or
35 operated by residential customers, [~~(E)~~] (iii) fuel cell electric gener-
36 ating equipment owned, leased or operated by residential customers, and
37 [~~(F)~~] (iv) micro-hydroelectric generating equipment owned, leased or
38 operated by customer-generators and for net energy metering consistent
39 with section sixty-six-j of the public service law, to increase the
40 efficiency of energy end use, to shift demand from periods of high
41 demand to periods of low demand and to facilitate the development of
42 cogeneration[, ~~and (ii) wind electric generating equipment owned or~~
43 ~~operated by customer generators and for net energy metering consistent~~
44 ~~with section sixty-six-l of the public service law~~].

45 § 3. This act shall take effect immediately.