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# THE E CUBED COMPANY, L.L.C.

January 29, 2010

Hon. Secretary Jaclyn Brilling Public Service Commission Three Empire Plaza Albany, NY 12223

> Re: Case 09-E-0829 Net Metering for Residential Micro-Combined Heat and Power and Fuel Cell Generating Equipment – New York State Electric and Gas Corporation -- Statement of Support for Compliance Tariff Leafs by The E Cubed Company, LLC on behalf of the Joint Supporters

Dear Secretary Brilling:

The Joint Supporters and The E Cubed Company, LLC are pleased to present this Statement of Support for the compliance tariff issued by New York State Electric and Gas Corporation ("the Company") to effectuate net metering for Residential Micro-Combined Heat and Power Generating Systems as approved by the New York State Legislature in 2009.<sup>1</sup> The Company submitted an original filing on November 25, 2009 and a second filing on January 15, 2010.

We offer a few limited observations on points where we believe the tariffs should be modified in the interest of clarity for potential customer-generators and interested market participants. Leafs modified pursuant our recommendations are attached. Proposed insertions appear in [brackets] and deletions are struck through as in <del>deletion.</del> We will refer to Micro-combined Heat and Power Generating equipment as ("Micro-CHP").

This Statement is submitted on behalf of the Joint Supporters, a voluntary association that has united interested parties in regulatory proceedings in New York and other States in the Northeast since 1989. The Joint Supporters include for this purpose firms active in the Company's service territory and elsewhere in New York, firms engaged in the design, installation and operation of combined heat and

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<sup>&</sup>lt;sup>1</sup> Chapter 355 of the 2009 Laws of New York enacted amendments to the Public Service Law §66-j. The Company's tariff leafs employ the acronym MCHP. It should be noted that Section 66-j only refers to "micro-combined heat and power generating equipment." The acronym "MCHP" is a trademark of Honda Motor Co., LTD in relation to its small cogeneration product and should not utilized in the NYSEG Compliance tariff leafs. See <u>http://www.boliven.com/trademark/77447468</u> The acronym "micro-CHP" is a generic abbreviation employed by the industry. It is more suitable than MCHP. The term "microcogeneration" appeared in the Energy Policy Act of 2005.

power systems and Micro-combined heat and power systems, energy service companies and endusers. The promotion of net metering opportunities for Micro-CHP in New York State also advances job retention and creation in manufacturing, sales, installation and maintenance.

The Joint Supporters (JS) were early advocates for net metering for Micro-CHP in New York and the States of Maine and Maryland that also legislatively authorized net metering for Micro-CHP in 2009. These States join New York's neighbors Connecticut, Massachusetts, Pennsylvania and Vermont all of whom revised their laws and rules for net metering of small fossil-powered and renewable systems between 2005 and 2008.

Ten other jurisdictions allow the net metering of small-distributed generation/combined heat and power systems utilizing natural gas, propane, and other fuels in addition to selected renewables. By comparison these seventeen jurisdictions include forty percent of the forty-three jurisdictions that allow net metering of selected renewables in residential situations.

NYSEG proposes to modify twelve tariff leaves of P.S.C. No. 120.<sup>2</sup> We comment on selectively on matters of substance.

# 1. The term "MCHP" should be replaced throughout by the term "Micro-CHP".

As noted in footnote 1, the acronym "MCHP" is proprietary to one participant in the marketplace and should be replaced in the proposed tariff leaves by a generic term. We recommend the generic term/acronym "Micro-CHP."

# 2. Eligibility For Residential Net Metering Should Be Based Taking Service On Residential Service Classifications 1, 8, or 12 And Should Not Be Restricted To One's "Primary, Legal Residence."

# a. The company is incorrect in declaring that applicability for Micro-CHP<sup>3</sup> and Fuel

<sup>2</sup> We have reviewed in detail the transmittal letters dated November 25, 2009 and January 15, 2010 and following tariff leafs:
PSC No. 120 – Electricity, Schedule for Electric Service
Leaf No. 2.1, Revision 10
Leaf No. 116, Revision 5
Leaf No. 117.3, Revision 4
Leaf No. 117.31, Revision 3

Leaf No. 117.32, Revision 3 Leaf No. 117.35, Revision 1 Leaf No. 117.36, Revision 1 Leaf No. 117.37, Revision 1 Leaf No. 117.38, Revision 1 Leaf No. 127, Revision 7 Leaf No. 266.1, Revision 3 Leaf No. 304.1, Revision 3

Effective: February 26, 2010

<sup>3</sup> Leaf No. 117.35, revision 1 at §29 first sentence

The Company appears to have drafted its new Sections 29 and 30 by simply copying over Section 26 – Solar Residential Electric Service Option. This is natural enough. Then it made minor textual substitutions of "MCHP" and "fuel cell" for the word "solar" as in "solar generating equipment." <sup>5</sup>

The first sentence of Section 26 contains several problems, especially when repeated in the new locations. It presently reads:

Section 26 Solar Residential Electric Service Option

Applicable to any Residential Customer (as defined by HEFPA) who operates solar generating equipment located and used at his or her primary, legal residence.  $^{6}$ 

As noted earlier the sentence is unchanged in its new locations in Sections 29 and 30 except for the substitution for the word "solar" by "MCHP" and "fuel cell"

These two new generating equipment categories as approved in PSL 66-j are nowhere restricted to the <u>primary</u>, <u>legal residence</u>. In fact the word "primary" does not appear at all in PSL 66-j. Neither does the word "principal."<sup>7</sup>

Furthermore, a review of the HEFPA rules<sup>8</sup> shows that they do not state that customer has to be at its primary residence in order to receive electricity or gas service. Instead Section 11.A.2 states that "**such service is primarily used for his or her residential purposes.**"<sup>9</sup> This means that the electricity or gas must be used <u>primarily</u> for residential purposes – not that the house must be the primary residence.

<sup>9</sup> § 11.2 Applicability of rules,

<sup>&</sup>lt;sup>4</sup> Leaf No. 117.37, revision 1 at §30 first sentence

<sup>&</sup>lt;sup>5</sup> One substitution for the word "solar" was missed in each new section in the last paragraph third line from the end where the term "solar generating equipment" still appears. Leaf No. 117.36 Revision 1 third line from the end should replace "solar" with "Micro-CHP". Leaf No. 117.38 Revision 1 third line from the end should replace "solar" with "fuel cell".

<sup>&</sup>lt;sup>6</sup> Leaf No. 117.31, revision 3

<sup>&</sup>lt;sup>7</sup> PSL 66-j

<sup>&</sup>lt;sup>8</sup> PSC Regulations, Home Energy Fair Practices Act, Rules Governing the Provision of Gas, Electric and Steam Service to Residential Customers (incorporating amendments from the Energy Consumer Protection Act of 2002) New York State Public Service Commission: Title 16 of New York Compilation of Codes, Rules and Regulations Parts 11 and 12 Part 11: Home Energy Fair Practices Act and Energy Consumer Protection Act - Rules {Statutory Authority: Public Service Law, Article 2, §§4(1), 30-53, 66 and 80(1)}

<sup>(2)</sup> The term *residential customer or current residential customer* includes any person who, pursuant to an application for service or an agreement for the provision of commodity supply made by such person or a third party on his or her behalf, is supplied directly with all or any part of the gas, electric or steam service at a premises used in whole or in part as his or her residence where:

<sup>(</sup>ii) such service is primarily used for his or her residential purposes and the customer has so notified the utility;

b. A more suitable criteria being employed by other utilities is simply to declare customers on all residential serving tariffs, e.g. SC 1<sup>10</sup>, SC 8<sup>11</sup> & 12<sup>12</sup> customers as eligible for residential net metering.

# The first sentence in Sections 29, 30 and 26 should be changed to the following:

# Section 29 Micro-combined Heat and Power (Micro-CHP) Service Option<sup>13</sup>

Applicable to any Residential Customer taking service under Service Classifications No. 1, 8 or 12 who operates micro-combined heat and power generating equipment located and used at his or her residence.

# Section 30 Fuel Cell Residential Electric Service Option<sup>14</sup>

Applicable to any Residential Customer taking service under Service Classifications No. 1, 8 or 12 who operates fuel cell residential generating equipment located and used at his or her residence.

## Section 26 Solar Residential Electric Service Option<sup>15</sup>

Applicable to any Residential Customer taking service under Service Classifications No. 1, 8 or 12 who operates solar residential generating equipment located and used at his or her residence.

# c. Some configurations of net metering installations are quite appropriate for secondary residences and should not be summarily excluded by a restriction to "primary residences."

From our point of view this clarifies to customer-generators that service is not restricted to the "primary residence" but is available to all residences covered by the service classifications.

The amended 66-j wording approving net metering for micro-CHP allows "any technology, any fuel type." Available systems are rapidly evolving and propane-based systems are or will be available in the market place shortly. The Propane Council is demonstrating propane systems at a dozen places across the nation. This opens up locations remote from the Company's gas distribution system and from other gas

<sup>&</sup>lt;sup>10</sup> Leaf No. 118, revision 5

<sup>&</sup>lt;sup>11</sup> Leaf No. 256, revision 5

<sup>&</sup>lt;sup>12</sup> Leaf No. 295, Revision 1

<sup>&</sup>lt;sup>13</sup> Leaf No. 117.35, revision 1

<sup>&</sup>lt;sup>14</sup> Leaf No. 117.37, revision 1

<sup>&</sup>lt;sup>15</sup> Leaf No. 117.31, revision 3

distribution systems that overlap with the Company's electric system. Such locations can enhance reliability of the overall system when called upon. The minimum of two thousand kilowatt hours production annually will provide a natural restraint on second home installations that might not operate to this minimum.

# 3. The Avoided Cost Description Should Be Spelled Out In Each Option's Tariff Leaf Instead of Being Cross-referenced to the SC 10 Energy Rate.

The billing credit provisions of Section 29 and Section 30<sup>16</sup> state that the "Corporation will provide a credit on the next bill for net electricity supplied at the Corporation's avoided cost Service Classification 10 energy rate."

This rate is to be multiplied by the number of the netted kilowatt hours sold to the Corporation.

# SC 10 states that:

**Hourly Locational Based Marginal Price ("LBMP<sub>h</sub>")** is the NYISO hourly Day Ahead LBMP applicable to the zone within which deliveries are made;<sup>17</sup>

The clause "avoided cost Service Classification 10 energy rate" should be replaced with the clause "applicable average for the period of the hourly LBMPs in the Day Ahead Market for the applicable NYISO Zone within which deliveries are made."

The full insertion will be incorporated with recommendations 4 (grossing up by energy losses avoided) and 5 (dealing with crediting payments to offset any of the "issuing utility's bills.") They appear at the end of recommendation 5.

# 4. The Avoided Cost Value Should be Increased by Energy Losses Avoided.

The avoided cost value (or price) to be credited for net excess should be increased by a directly identified factor for energy losses. The Company employs an energy loss factor of 1.0728 for the secondary in P.S.C. 120 in conjunction with various service offerings. A most recent complete summary of factors is at P.S.C. 120 Leaf No. 79, revision 1, which was effective on January 1, 2010. There it applies to the responsibility of ESCOs for customer loads served by the residential service classifications including SC 1, 8, and 12.<sup>18</sup>

Grossing up the average Day Ahead Hourly LBMP for the accounting period by the loss factor avoided and then multiplying it times the number of net kWh acquired by the Company in the period is analogous to the pattern already established in reverse for the computation of charges in SC 2 and other service classifications.

<sup>&</sup>lt;sup>16</sup> Leaf No. 117.35 Revision 1 and Leaf No. 117.37 Revision 1 respectively.

<sup>&</sup>lt;sup>17</sup> Leaf No. 276 Revision 0

<sup>&</sup>lt;sup>18</sup> For Secondary SCs 1, 2, 6, 7-1, 8, 9, 12, Outdoor/Street Lighting the Energy Loss Factor is 1.0728.

Other utilities are employing analogous procedures.<sup>19</sup>

Credit provisions in Section 29 (b) and Section 30 (b) should explicitly state that the average hourly day ahead LBMP should be grossed up for avoided energy losses at the rate of 1.0728.

[that is grossed up for avoided energy losses at the multiplier rate of 1.0728]

# 4. Credit Should Be Allowed to Apply to Offset Any of the Issuing Bills Directed to the Customer With Net Metering Micro-CHP or Fuel Cell Generating Equipment

As noted in its transmittal letter, the Company removed the annual crediting procedural paragraph<sup>20</sup> of Section 26 for Solar Residential Electric Service Option in creating Sections 29 and 30.

As a result, an important provision was omitted from the text for Sections 29 and 30. This provision in Section 26 states that at the end of period excess credits can be applied to "offsetting any of the issuing utility's bills directed to that customer."

Given that the offsetting of any utility bills might also benefit Micro-CHP and Fuel Cell Generating Equipment project economics, we recommend that the missing provision be inserted in the billing provisions Sections for micro-CHP and fuel cell electric generators in Section 29 and Section 30. It should be inserted in the next to last sentence in each Section. The completely revised text (as per items 3 and 4 herein) for each Section would read as follows (insertions in [brackets] and deletions in strikethrough):

Section 29 Micro-combined Heat and Power (Micro-CHP) Service Option

b) If the electricity (kWh) supplied by the customer to the Corporation during the billing period exceeds the electricity (kWh) supplied by the Corporation to the customer, the Corporation will provide a credit on the next bill for net electricity supplied at the Corporation's avoided cost Service Classification 10 energy rate [applicable average for the period of the hourly LBMPs in the Day Ahead Market for the applicable NYISO Zone within which deliveries are made that is grossed up for avoided energy losses at the multiplier rate of 1.0728.] For customers billed on time-differentiated rates (TOU meter), e.g., On-Peak/Off-Peak or Day/Night, the kWh credit will be a credit for the appropriate time period. [The monetary credit will be applied to offsetting any of the issuing utility's bills

<sup>&</sup>lt;sup>19</sup> For example: ORANGE AND ROCKLAND UTILITIES, INC. P.S.C. NO. 2 ELECTRICITY, 20th REVISED LEAF NO. 70

<sup>&</sup>lt;sup>20</sup> Leaf No. 117.32 Revision 3, paragraph 1, lines 4 and 5.

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directed to that customer.]<sup>21</sup>

Section 30 Fuel Cell Residential Electric Service Option

b) If the electricity (kWh) supplied by the customer to the Corporation during the billing period exceeds the electricity (kWh) supplied by the Corporation to the customer, the Corporation will provide a credit on the next bill for net electricity supplied at the Corporation's avoided cost Service Classification 10 energy rate [applicable average for the period of the hourly LBMPs in the Day Ahead Market for the applicable NYISO Zone within which deliveries are made that is grossed up for avoided energy losses at the multiplier rate of 1.0728.] For customers billed on time-differentiated rates (TOU meter), e.g., On-Peak/Off-Peak or Day/Night, the kWh credit will be a credit for the appropriate time period. [The monetary credit will be applied to offsetting any of the issuing utility's bills directed to that customer.]<sup>22</sup>

# 5. Add a Reference to the Future Updating of the Standardized Interconnection Requirements ("SIR") (latest update February 2009).

In the pending tariff filing the Company (and the other utilities in theirs) reference the SIR.<sup>23</sup> However, the February 2009 update of the SIR occurred prior to the passage in August 2009 of the amended PSL 66-j. As such the present SIR contains no references to micro-CHP and fuel cell generating equipment. This absence can be viewed as creating a barrier to customers and installers who review the new net metering tariff and then look following the reference to the current version of the SIR. It is appropriate to recognize in the tariff that the SIR is a living document and will be "modified from time to time."

a. We recommend that the following text in quotation marks be inserted at the end of the last sentence in the first paragraph on Leaf No. 117.35 revision 1 and leaf No. 117.37 revision 1.

[as may be updated from time to time. The February 2009 SIR does not include specific reference to micro-CHP and fuel cell generating equipment and that this will be addressed in the next update of the SIR.]

- b. In order to avoid confusion (and confusion crates barriers) for potential customers and installers of these systems, the SIR should be promptly up dated.
- c. We recommend that the DPS/PSC identify in its order(s) approving this and the other utility tariffs identify a timetable for making conforming revisions to the SIR to reflect the changes in net metering law for new technologies and sizes at the residential level.

<sup>&</sup>lt;sup>21</sup> Leaf No. 117.35, revision 1

<sup>&</sup>lt;sup>22</sup> Leaf No. 117.37, revision 1

<sup>&</sup>lt;sup>23</sup> 7th Revised Leaf No. 22L-29, Original Leaf No. 22L-29-1

#### January 29, 2010

### 6. Ready Website Availability of Average Avoided Cost Information And Values

We respectfully request that the Commission in its authorizing order encourage the Company and all other regulated Companies to make updated average avoided cost values readily available on the Company's website as close as possible to end of the month.

We appreciate the opportunity to offer these comments for consideration by the Commission.

Very Truly Yours,

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Ruben S. Brown, M.A.L.D. President, The E Cubed Company, LLC

On behalf of The Joint Supporters who for this purpose include:

Capstone Turbine Corporation Climate Energy, LLC Comverge, Inc. E Cubed Company, LLC ECR International, Inc. Energy Concepts Engineering, PC Energy Spectrum, Inc. National Association of Energy Services Companies (NAESCO) Red Hook Green Power, LLC Whisper Tech, Ltd.

Leaf No. 2.1 Revision: 10 Superseding Revision: 9

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ISSUED BY: James A. Lahtinen, Vice President Rates and Regulatory Economics, Binghamton, New York

#### 22. Farm Waste Electric Generating System Option

Applicable to any customer who owns or operates farm waste electric generating equipment ("Facility"), that generates electric energy from biogas produced by the anaerobic digestion of agricultural wastes with a rated capacity of not more than five hundred kilowatts (500 kW), located and used at his or her "farm operation" as defined in Subdivision 11 of Section 301 of the Agriculture and Markets Law. Such definition states that a "farm operation" means the land and on-farm buildings, equipment, manure processing and handling facilities, and practices which contribute to the production, preparation and marketing of crops, livestock and livestock products as a commercial enterprise, including a "commercial horse boarding operation" as defined in subdivision thirteen of this Section 301 of the Agriculture and Markets Law.

The Facility must be manufactured, installed and operated in accordance with applicable government and industry standards. Such Facility must be connected to NYSEG's electric system and operated in parallel with NYSEG's transmission and distribution facilities. The Facility must be fueled, at a minimum of 90% on an annual basis, by biogas produced from the anaerobic digestion of agricultural waste such as livestock manure materials, crop residues and food processing waste. The Facility must be fueled by biogas generated by anaerobic digestion with at least 50% by weight of its feedstock being livestock manure materials on an annual basis. The customer, at its expense, shall promptly provide to NYSEG all relevant, accurate and complete information, documents, and data, as may be reasonably requested by NYSEG, to enable NYSEG to determine whether the customer is in compliance with these requirements.

The Farm Waste Electric Generating System Option will be available to eligible customers, on a first come, first served basis, until the total rated generating capacity for solar, farm waste, MCHP [Micro-CHP] and fuel cell electric generating

equipment owned, leased or operated by customer-generators in NYSEG's service area is equivalent to 28,260 kW (one percent of NYSEG's electric demand for the year 2005).

Customers electing service under this Section 22 must operate in compliance with standards and requirements set forth in the Distributed Generation Interconnection Requirements found in PSC 119 - Electricity, Section 9 and Addendum-SIR to PSC 119. In addition, customers must execute the NYS Standardized Contract For Interconnection of New Distributed Generation Units With Capacity of 2 MW or Less Connected in Parallel with Utility Distribution Systems ("SIR Contract"), as contained within Addendum-SIR of PSC 119 - Electricity.

For a net metered customer, the Corporation will install metering appropriate for the customer's service classification that enables the Corporation to measure the electricity delivered to the customer and measure the electricity supplied by the customer to the Corporation. Where the Corporation determines that a second meter should be installed, no additional costs shall be billed to the customer. When a second meter is requested by the customer that is not required by the Corporation, the customer will be responsible for the cost of the meter, the installation and any additional costs. For each billing period during the term of the SIR Contract, the Corporation will net the electricity (kWh) delivered to the customer with the electricity (kWh) supplied by the customer to the Corporation.

a) If the electricity (kWh) supplied by the Corporation exceeds the electricity supplied by the customer to the Corporation during the billing period, the customer shall be billed for the net kWh supplied by the Corporation to the customer at the standard service class rates. For customers billed on time-differentiated rates (TOU meter), e.g., On-Peak/Off-Peak or Day/Night, netting will occur in each time period.

#### 24. Electric Hybrid Generating System Option

Applicable to any customer who owns or operates two types of electric generating equipment as defined in General Information Sections 22, 23, 26, 27, 29, or 30 of this Schedule ("Hybrid Facility") at the same location. The Hybrid Facility Option is intended to allow hybrid facilities the benefit of net metering for qualified generation.

Customers electing service under this Section must operate in compliance with standards and requirements set forth in the Distributed Generation Interconnection Requirements found in PSC 119 - Electricity, Section 9 and Addendum-SIR to PSC 119. In addition, customers must execute the NYS Standardized Contract For Interconnection of New Distributed Generation Units With Capacity of 2 MW or Less Connected in Parallel with Utility Distribution Systems ("SIR Contract"), as contained within Addendum-SIR of PSC 119 - Electricity.

#### Metering

The Corporation will install metering appropriate for the customer's service classification that enables the Corporation to measure the electricity delivered to the customer and measure the qualified electricity supplied by the customer to the Corporation. Billing, netting or compensation for generation will be consistent for the qualified generation as defined in General Information Sections 22, 23, 26, 27, 29, and 30.

Where the Corporation determines additional meters should be installed, no additional meter costs shall be billed to the customer. When a second meter is requested by the customer that is not required by the Corporation, the customer will be responsible for all additional costs.

26. Solar Residential Electric Service Option

Applicable to any Residential Customer (as defined by HEFPA) who operates solar generating equipment located and used at his or her primary, legal residence. Applicable to any Residential Customer taking service under Service Classifications No. 1, 8 or 12 who operates solar residential generating equipment located and used at his or her residence.

Solar generating equipment is defined as a solar system, with a rated

capacity of not more than 25 kilowatts that is manufactured, installed and operated in accordance with applicable government and industry standards. Such system must be connected to the customer's electric system and operated in parallel with NYSEG's transmission and distribution facilities. Application of the Solar Residential Service Option will be available to eligible customers, on a first come, first served basis, until the total rated generating capacity for solar, farm waste, MCHP [Micro-CHP] and fuel cell electric generating equipment owned, leased or operated by

customer-generators in NYSEG's service area is equivalent to 28,260 kW (one percent of NYSEG's electric demand for the year 2005) and is available only in non-network areas of the Corporation's territory. Customers electing service under this provision must execute a New York State Standardized Contract for Interconnection of New Distributed Generation Units with Capacity of 2 MW or Less Connected in Parallel with Utility Distribution Systems ("SIR Contract"). In addition, customers must operate in compliance with standards and requirements set forth in the New York State Standard Interconnection Requirements and Application Process for New Distributed Generators 2 MW or Less Connected in Parallel with Utility Distribution SIR of Schedule PSC 119.

For a net metered customer, the Corporation will install metering appropriate for the customer's service classification that enables the Corporation to measure the electricity delivered to the customer and measure the electricity supplied by the customer to the Corporation. Where the Corporation determines that a second meter should be installed, no additional costs shall be billed to the customer. When a second meter is requested by the customer that is not required by the Corporation, the customer will be responsible for the cost of the meter, the installation and any additional costs. For each billing period during the term of the SIR Contract, the Corporation will net the electricity (kWh) delivered to the customers with the electricity (kWh) supplied by the customer to the Corporation.

a) If the electricity (kWh) supplied by the Corporation exceeds the electricity supplied by the customer to the Corporation during the billing period the customer shall be billed for the net kWh supplied by the Corporation to the customer at the standard service class rates. For customers billed on time differentiated rates (TOU meter), e.g., On-Peak/Off-Peak or Day/Night, netting will occur in each time period.

b) If the electricity (kWh) supplied by the customer to the Corporation during the billing period exceeds the electricity (kWh) supplied by the Corporation to the customer, a kWh credit will be carried forward for the next billing period. For customers billed on time-differentiated rates (TOU meter), e.g., On-Peak/Off-Peak or Day/Night, the kWh credit will be carried forward as a credit to the appropriate time period.

For customers billed on TOU rates, if the electricity (kWh) supplied by the customer to the Corporation is not metered for each TOU period and until such time as metering is installed to measure electricity supplied to the Corporation in each TOU period, an allocation of the electricity supplied to the Corporation will be done according to allocation factors as set forth in a Special Provision provided in each service classification in this Schedule.

PSC No: 120 - Electricity New York State Electric and Gas Corporation Initial Effective Date: February 26, 2010 Leaf No. 117.32 Revision: 3 Superseding Revision: 2

#### GENERAL INFORMATION

#### 26. Solar Residential Electric Service Option (Cont'd.)

At the end of a year, or annualized over the period that service is supplied under this provision, the value of any credit remaining on a customer's account for excess electricity produced by the customer-generator shall be paid to the customer at the Corporation's avoided cost for energy. Payment will occur in the form of a voucher which will be issued under authority of Order of the Public Service Commission to the customer-generator, for use in offsetting any of the issuing utility's bills directed to that customer during the year following the date of the voucher. Upon the Corporation's determination that the customer has taken service under this Section 26 while in violation of the conditions of service set forth herein, the customer shall forfeit any positive balance accrued during the annual period in which the violation occurred.

Pursuant to the Standard Interconnection Requirements set forth within Addendum-SIR of P.S.C. No. 119, customers are responsible for providing all meter boxes and sockets. In the event that NYSEG determines that it is necessary to install a dedicated transformer or transformers, or other equipment to protect the safety and adequacy of electric service provided to other customers, the customer-generator shall pay for the cost of installing the transformer or transformer or transformer of \$350.00. The Corporation will not charge any additional solar electric specific interconnection costs incurred by NYSEG other than \$350.00 for dedicated transformers or other equipment, if necessary. Customers are responsible for any costs related to the installation of their solar generating equipment. Notwithstanding the provisions herein, residential solar electric customers are responsible for meeting all otherwise applicable provisions and requirements of P.S.C. Nos. 119 and 120.

#### 27. Solar Non-Residential Electric Service Option

Applicable to any Non-Residential Customer who operates solar generating equipment located and used at its premises. Solar generating equipment is defined as a solar system that is manufactured, installed and operated in accordance with applicable government and industry standards with a rated capacity of not more than the lesser of two thousand kilowatts or such customers' peak load as measured over the prior twelve month period. In the case that such twelve month period of measurement is not available, the applicant shall supply information to the utility to enable it to estimate the customer's peak load eligible for net metering. Demand metered customers without the prior twelve month history may accept the Company's analysis of rated capacity, or may petition the Public Service Commission for a determination of the rated capacity that may be installed. Small non-demand metered customers may size generators to a rated capacity of 5 KW. Such system must be connected to the customer's electric system and operated in parallel with NYSEG's transmission and distribution facilities. Application of the Solar Non-Residential Electric Service Option be available to eligible customers, on a first come, first served basis, until the total rated generating capacity for solar, farm waste, MCHP [Micro-CHP] and fuel cell electric generating equipment owned or

operated by customer-generators in NYSEG's service area is equivalent to 28,260 kW (one percent of NYSEG's electric demand for the year 2005) and is available only in non-network areas of the Corporation's territory. Customers electing service under this provision must execute a New York State Standardized Contract for Interconnection of New Distributed Generation Units with Capacity of 2 MW or Less Connected in Parallel with Utility Distribution Systems ("SIR Contract"). In addition, customers must operate in compliance with standards and requirements set forth in the New York State Standard Interconnection Requirements and Application Process for New Distributed Generators 2 MW or Less Connected in Parallel with Utility Distribution Systems, as set forth within Addendum-SIR of Schedule PSC 119.

Leaf No. 117.35 Revision: 1 Superseding Revision: 0

29. Micro-combined Heat and Power (MCHP [Micro-CHP]) Service Option

# Applicable to any Residential Customer (as defined by HEFPA) who operates MCHP [Micro-CHP]-generating equipment located

and used at his or her primary, legal residence. [Applicable to any Residential Customer taking service under Service Classifications No. 1, 8 or 12 who operates micro-combined heat and power generating equipment located and used at his or her residence.] <u>MCHP</u> [Micro-CHP] generating equipment is defined as an

integrated, cogenerating building heating and electrical power generation system, operating on any fuel and of any applicable engine, fuel cell, or other technology, with a rated capacity of at least one kilowatt and not more than ten kilowatts electric and any thermal output that at full load has a design total fuel use efficiency in the production of heat and electricity of not less than eighty percent, and annually produces at least two thousand kilowatt hours of useful energy in the form of electricity that may work in combination with supplemental or parallel conventional heating systems, that is manufactured, installed and operated in accordance with applicable government and industry standards, that is connected to the electric system and operated in conjunction with an electric system and operated in parallel with NYSEG's transmission and distribution facilities. Application of the MCHP [Micro-CHP] Residential

Service Option will be available to eligible customers, on a first come, first served basis, until the total rated generating capacity for solar, farm waste, MCHP [Micro-CHP] and fuel cell electric generating equipment owned, leased or

operated by customer-generators in NYSEG's service area is equivalent to 28,260 kW (one percent of NYSEG's electric demand for the year 2005) and is available only in non-network areas of the Corporation's territory. Customers electing service under this provision must execute a New York State Standardized Contract for Interconnection of New Distributed Generation Units with Capacity of 2 MW or Less Connected in Parallel with Utility Distribution Systems ("SIR Contract"). In addition, customers must operate in compliance with standards and requirements set forth in the New York State Standard Interconnection Requirements and Application Process for New Distributed Generators 2 MW or Less Connected in Parallel with Utility Distribution Systems, as set forth within Addendum-SIR of Schedule PSC 119–[as may be updated from time to time. The February 2009 SIR does not include specific reference to micro-CHP and fuel cell generating equipment and that this will be addressed in the next update of the SIR.]

For a net metered customer, the Corporation will install metering appropriate for the customer's service classification that enables the Corporation to measure the electricity delivered to the customer and measure the electricity supplied by the customer to the Corporation. Where the Corporation determines that a second meter should be installed, no additional costs shall be billed to the customer. When a second meter is requested by the customer that is not required by the Corporation, the customer will be responsible for the cost of the meter, the installation and any additional costs. For each billing period during the term of the SIR Contract, the Corporation will net the electricity (kWh) delivered to the customers with the electricity (kWh) supplied by the customer to the Corporation.

a) If the electricity (kWh) supplied by the Corporation exceeds the electricity supplied by the customer to the Corporation during the billing period the customer shall be billed for the net kWh supplied by the Corporation to the customer at the standard service class rates. For customers billed on time-differentiated rates (TOU meter), e.g., On-Peak/Off-Peak or Day/Night, netting will occur in each time period.

b) If the electricity (kWh) supplied by the customer to the Corporation during the billing period exceeds the electricity (kWh) supplied by the Corporation to the customer, the Corporation will provide a credit on the next bill for net electricity supplied at the Corporation's <del>avoided cost Service Classification 10 energy rate</del> [applicable average for the period of the hourly LBMPs in the Day Ahead Market for the applicable NYISO Zone within which deliveries are made that is grossed up for avoided

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energy losses at the multiplier rate of 1.0728.] For customers billed on time-differentiated rates (TOU meter), e.g., On-Peak/Off-Peak or Day/Night, the kWh credit will be a credit for the appropriate time period. [The monetary credit will be applied to offsetting any of the issuing utility's bills directed to that customer.]

29. Micro-combined Heat and Power (MCHP [Micro-CHP]) Service Option (cont'd.)

At the end of a year, the value of any credit remaining on a customer's account for excess electricity produced by the customer-generator shall be paid to the customer at the Corporation's avoided cost for energy. Upon the Corporation's determination that the customer has taken service under this Section while in violation of the conditions of service set forth herein, the customer shall forfeit any positive balance accrued during the annual period in which the violation occurred.

Pursuant to the Standard Interconnection Requirements set forth within Addendum-SIR of P.S.C. No. 119, customers are responsible for providing all meter boxes and sockets. In the event that NYSEG determines that it is necessary to install a dedicated transformer or transformers, or other equipment to protect the safety and adequacy of electric service provided to other customers, the customer-generator shall pay for the cost of installing the transformer or transformer or transformer or safety and adequacy of safety and adequate transformer or transformers, or other equipment up to a maximum amount of \$350.00. The Corporation will not charge any additional MCHP [Micro-CHP] electric specific interconnection costs incurred by NYSEG other than \$350.00 for

dedicated transformers or other equipment, if necessary. Customers are responsible for any costs related to the installation of their <del>solar</del> [Micro-CHP] generating equipment. Notwithstanding the provisions herein, residential MCHP [Micro-CHP] electric

customers are responsible for meeting all otherwise applicable provisions and requirements of P.S.C. Nos. 119 and 120.

30. Fuel Cell Residential Electric Service Option

Applicable to any Residential Customer (as defined by HEFPA) who owns, leases or operates fuel cell generating equipment located and used at his or her primary, legal residence. [Applicable to any Residential Customer taking service under Service Classifications No. 1, 8 or 12 who operates fuel cell residential generating equipment located and used at his or her residence.]

Fuel cell generating equipment is defined as a

solid oxide, molten carbonate, proton exchange membrane or phosphoric acid fuel cell with a combined rated capacity of not more than ten kilowatts that is manufactured, installed and operated in accordance with applicable government and industry standards, that is connected to the electric system and operated in parallel with an electric corporation's transmission and distribution facilities, and that is operated in compliance with any standards and requirements established under this section. Such system must be connected to the customer's electric system and operated in parallel with NYSEG's transmission and distribution facilities. Application of the Fuel Cell Residential Service Option will be available to eligible customers, on a first come, first served basis, until the total rated generating capacity for solar, farm waste, MCHP [Micro-CHP] and fuel cell electric generating equipment owned, leased or

operated by customer-generators in NYSEG's service area is equivalent to 28,260 kW (one percent of NYSEG's electric demand for the year 2005) and is available only in non-network areas of the Corporation's territory. Customers electing service under this provision must execute a New York State Standardized Contract for Interconnection of New Distributed Generation Units with Capacity of 2 MW or Less Connected in Parallel with Utility Distribution Systems ("SIR Contract"). In addition, customers must operate in compliance with standards and requirements set forth in the New York State Standard Interconnection Requirements and Application Process for New Distributed Generators 2 MW or Less Connected in Parallel with Utility Distribution Systems, as set forth within Addendum-SIR of Schedule PSC 119–[as may be updated from time to time. The February 2009 SIR does not include specific reference to micro-CHP and fuel cell generating equipment and that this will be addressed in the next update of the SIR.]

For a net metered customer, the Corporation will install metering appropriate for the customer's service classification that enables the Corporation to measure the electricity delivered to the customer and measure the electricity supplied by the customer to the Corporation. Where the Corporation determines that a second meter should be installed, no additional costs shall be billed to the customer. When a second meter is requested by the customer that is not required by the Corporation, the customer will be responsible for the cost of the meter, the installation and any additional costs. For each billing period during the term of the SIR Contract, the Corporation will net the electricity (kWh) delivered to the customers with the electricity (kWh) supplied by the customer to the Corporation.

a) If the electricity (kWh) supplied by the Corporation exceeds the electricity supplied by the customer to the Corporation during the billing period the customer shall be billed for the net kWh supplied by the Corporation to the customer at the standard service class rates. For customers billed on time-differentiated rates (TOU meter), e.g., On-Peak/Off-Peak or Day/Night, netting will occur in each time period.

b) If the electricity (kWh) supplied by the customer to the Corporation during the billing period exceeds the electricity (kWh) supplied by the Corporation to the customer, the Corporation will provide a credit on the next bill for net electricity supplied at the Corporation's avoided cost Service Classification 10 energy rate [applicable average for the period of the hourly LBMPs in the Day Ahead Market for the applicable NYISO Zone within which deliveries are made that is grossed up for avoided energy losses at the multiplier rate of 1.0728.] For customers billed on time-differentiated rates (TOU meter), e.g., On-Peak/Off-Peak or Day/Night, the kWh credit will be a credit for the appropriate time period. [The monetary credit will be applied to offsetting any of the issuing utility's bills directed to that customer.

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30. Fuel Cell Residential Electric Service Option (cont'd.)

Upon the Corporation's determination that the customer has taken service under this Section while in violation of the conditions of service set forth herein, the customer shall forfeit any positive balance accrued during the period in which the violation occurred.

Pursuant to the Standard Interconnection Requirements set forth within Addendum-SIR of P.S.C. No. 119, customers are responsible for providing all meter boxes and sockets. In the event that NYSEG determines that it is necessary to install a dedicated transformer or transformers, or other equipment to protect the safety and adequacy of electric service provided to other customers, the customer-generator shall pay for the cost of installing the transformer or transformers, or other equipment up to a maximum amount of \$350.00. The Corporation will not charge any additional fuel cell electric specific interconnection costs incurred by NYSEG other than \$350.00 for dedicated transformers or other equipment, if necessary. Customers are responsible for any costs related to the installation of their solar [residential fuel cell] generating equipment. Notwithstanding the provisions herein, residential fuel cell electric

customers are responsible for meeting all otherwise applicable provisions and requirements of P.S.C. Nos. 119 and 120.

### SERVICE CLASSIFICATION NO. 1 (Continued)

#### **SPECIAL PROVISIONS: (Cont'd):**

(i) Farm Waste Electric Generating System Option:

This option is for a customer qualifying for the Farm Waste Electric Generating System Option pursuant to General Information Section 22 of this Schedule and taking service under SC 1.

(j) Wind Electric Service Option:

This option is for a customer qualifying for the Wind Electric Service Option pursuant to General Information Section 23 of this Schedule and taking service under SC 1.

(k) Electric Hybrid Generating System Option:

This option is for a customer qualifying for the Electric Hybrid Generating System Option pursuant to General Information Section 24 of this Schedule and taking service under SC 1.

(1) Micro-combined Heat and Power (MCHP [Micro-CHP]) Service Option:

This option is for a customer qualifying for the MCHP [Micro-CHP] Service Option pursuant to General Information Section 29 of this Schedule and taking service under SC 1.

Section 27 of this Schedule and taking service under Se

(m) Fuel Cell Residential Electric Service Option:

This option is for a customer qualifying for the Fuel Cell Service Option pursuant to General Information Section 30 of this Schedule and taking service under SC 1.

PSC No: 120 - Electricity New York State Electric and Gas Corporation Initial Effective Date: February 26, 2010 Leaf No. 266.1 Revision: 3 Superseding Revision: 2

#### SERVICE CLASSIFICATION NO. 8 (Continued)

SPECIAL PROVISIONS: (Cont'd.)

(k) Electric Hybrid Generating System Option:

This option is for a customer qualifying for the Electric Hybrid Generating System Option pursuant to General Information Section 24 of this Schedule and taking service under SC 8.

(1) Micro-combined Heat and Power (MCHP [Micro-CHP]) Service Option:

This option is for a customer qualifying for the MCHP [Micro-CHP] Service Option pursuant to General Information Section 29 of this Schedule and taking service under SC 8.

(m) Fuel Cell Residential Electric Service Option:

This option is for a customer qualifying for the Fuel Cell Service Option pursuant to General Information Section 30 of this Schedule and taking service under SC 8.

PSC No: 120 - Electricity New York State Electric & Gas Corporation Initial Effective Date: February 26, 2010 Leaf No. 304.1 Revision: 3 Superseding Revision: 2

#### SERVICE CLASSIFICATION NO. 12 (Continued)

(i) Wind Electric Service Option:

This option is for a customer qualifying for the Wind Electric Service Option pursuant to General Information Section 23 of this Schedule and taking service under SC 12. For customers billed on time-differentiated rates, if the electricity (kWh) supplied by the customer to the Corporation is not metered for the time-differentiated periods, an allocation to each TOU period will be done according to allocation factors as set forth below:

Winter and summer – December, January, February, June, July, August: 24 % [for On-Peak] 45% [for Mid-Peak] 31% [for Off-Peak]

**Off-Season – March, April, May, September, October, November:** 67% [for Mid-Peak] 33% [for Off-Peak]

(j) Electric Hybrid Generating System Option:

This option is for a customer qualifying for the Electric Hybrid Generating System Option pursuant to General Information Section 24 of this Schedule and taking service under SC 12.

(k) Micro-combined Heat and Power (MCHP [Micro-CHP]) Service Option:

This option is for a customer qualifying for the MCHP [Micro-CHP] Service Option pursuant to General Information

Section 29 of this Schedule and taking service under SC 12.

(l) Fuel Cell Residential Electric Service Option:

This option is for a customer qualifying for the Fuel Cell Service Option pursuant to General Information Section 30 of this Schedule and taking service under SC 12.