

Proposal Concerning Modifications to LIPA's Tariff for Electric Service

Requested Action:

The Long Island Power Authority (“the Authority”) Staff proposes to modify the Tariff for Electric Service (“Tariff”) effective October 1, 2016, to authorize 20 MW of purchases of renewable resources under a new Commercial Solar Feed-In Tariff and 40 MW of resources under a new Fuel Cell Feed-In Tariff.

Background and Proposal:

The Authority has been active in promoting the expansion of renewable energy resources on Long Island and elsewhere for the benefit of its customers through a wide range of programs covering a variety of renewable technologies in a range of sizes from the smallest residential applications to the largest solar array in New York State.

As part of their overall sponsorship of renewable generation, the Trustees in 2012 set forth their plan to add 400 MW of new renewable energy generation to LIPA's resource portfolio through an expanded Feed-in Tariff program (120 MW) and a competitive procurement (280 MW). In 2013 and 2014, this plan was implemented through the issuance of the Clean Solar Initiative II (the second solar feed-in tariff), the Clean Renewable Energy Initiative (the first non-solar feed-in tariff) and the 280 MW RFP. Procurements under these three initiatives to date have achieved a portion of the 400 MW goal. It is now anticipated that more than 200 MW of additional renewable capacity will be required to meet the goal.

To fill this gap, PSEG Long Island issued another renewable RFP in 2015 and PSEG Long Island and Authority Staff now propose to modify LIPA's tariff to implement two additional Feed-In tariffs totaling an additional 60 MW:

1. Commercial (Roof-Top) Solar Feed-in Tariff - This solicitation targets up to 20 MW of nonresidential rooftop-mounted and carport-mounted solar projects between 200 kW and 1,000 kW in size, for a term of 20 years. These projects are larger in size than those targeted by PSEG Long Island's existing net metering programs but are smaller than those of the 2015 Renewable RFP.
2. Fuel Cell Feed-in Tariff – This solicitation targets up to 40 MW of fuel cell generation, for individual projects sized between 1,000 kW and 20,000 kW, for a term of 20 years. Fuel cell feed-in tariff participants must be located in those areas designated by PSEG Long Island that will benefit from the highly reliable injection of a constant power supply.

Each initiative has been designed to target selected technologies that provide specific benefits to specific aspects of the LIPA system. They build on the experience gained from previous feed-in tariff offerings and related solar energy projects, and are consistent with and supportive of the principles of the State's *Reforming the Energy Vision*. Two key environmentally important and REV-like features embodied in this proposal are that:

- Solar projects must be non-residential rooftop-mounted or carport-mounted, regardless of where they are located throughout the service territory, to minimize any negative impact on the natural environment.
- Fuel cells, which burn natural gas in a clean and efficient manner to produce electricity, will be permitted only in locations on the LIPA system where system upgrades are currently required or anticipated, thereby channeling distributed generation solutions to help defer capital spending requirements on utility infrastructure.

The purchase prices established for each feed-in tariff will entitle LIPA to the total output of these renewable generators, including all energy, capacity, ancillary services and environmental attributes produced by each facility for the full term of each agreement. The term of the agreement will be 20 years.

The prices paid by LIPA for generation from these two feed-in tariffs will be established through competitive auctions held separately for each type of generation.

- The clearing price from the Commercial (Roof-Top) Solar Feed-in Tariff will be a fixed price, in dollars per kWh.
- The price for the Fuel Cell Feed-in Tariff will be an indexed price, in dollars per kWh, that will be set monthly and consist of a fixed price per kWh plus a variable price per kWh that is indexed to, and moves in tandem with, the price of natural gas on Long Island. Each selected participant will be paid a price, based on the indexed formula they offered in their bid, but only the least expensive bids will be accepted, up to the point where the total proposed allotment of 40 MW has been achieved.

The auction process for both proposed feed-in tariffs will be similar to the solar feed-in tariff auction held for the 2013 through 2015 enrollment period. The initial application period will be from October 1st of 2016 to January 31st of 2017. Applicants must indicate the proposed size of their project and its interconnection point within the LIPA system, by circuit and substation. PSEG Long Island will screen these applications by size and bid price to create a prioritized list of projects that does not exceed the available capacity on any single circuit or substation¹. Higher priority will be given to applicants with lower bid prices (to make the program most economical for LIPA's customers) and smaller sizes since smaller projects are easier to site and construct, and result in a greater diversity among participants. In creating this priority list, both the commercial solar applicants and the fuel cell applicants will be comingled.

Following this prioritization, the lists will be separated by resource type (solar versus fuel cell). Separately for each resource type, the lowest priority (highest price) 10% of the bids will be excluded (to avoid a situation where one or a few more expensive bid prices set the

¹ The bids are being screened against the available capability of the distribution system at each specific circuit and substation location to absorb the output of distributed energy resources, in order to identify the possibility that a particular interconnection will require the construction of system upgrades. Applicants for whom system upgrades are expected will be removed from the bid process unless they indicate their willingness to pay for dedicated circuits or substation improvements that create the necessary capacity as part of their bid.

clearing price) and then the bids will be evaluated in order of priority until the desired level of capacity is reached.

To facilitate the preparation of bids, and to ensure that proposed generation will be sited at locations within the LIPA system where they provide the greater benefit, PSEG Long Island will post a list of substations where fuel cell generation will be accepted, based on its ability to defer investment in the distribution system, and a map showing the relative concentration and/or availability of the system to accept greater amounts of solar generation. The identification of these locations where distributed generation can provide the most benefit in terms of reductions in the capital spending is another REV-like feature that PSEG Long Island is proposing, and follows the development of similar aids to siting distributed generation by the other New York State utilities with the cooperation and support of the Department of Public Service.

Financial Impacts:

The proposed feed-in tariffs are intended to procure the specified resources at the lowest price achievable through a competitive auction process. The selected resource providers will be paid monthly based upon the output of their facility each month and the price established through the competitive auction. The payments made to the resource provider will be recovered from customers through the Power Supply Charge (FPPCA) on a monthly basis, as the payments are incurred. This practice is similar to the treatment of the existing feed-in tariffs and payments made to other generators under Service Classification No. 11 Buy-Back Service.

LIPA expects to purchase approximately 24.5 GWh per year from the 20 MW of solar generation that is being solicited, which displaces generation that would have been purchased from other sources. Because the auction has not yet occurred, the clearing price has not yet been ascertained. However, by way of example, if the auction produces a clearing price of 16.5¢ per kWh with an average Load Factor of 14%, the purchase would cost LIPA approximately \$4 million per year. Using an average cost of power at 7.0¢ per kWh, based on the 2016 approved budget, this renewable power alternative will increase power supply costs by an estimated \$2.3 million per year, which will be recovered in customer's FPPCA charges.

LIPA expects to purchase approximately 333 GWh per year from the 40 MW of Fuel Cell generation that is being solicited, which displaces generation that would have been purchased from other sources. Because the auction has not yet occurred, the clearing price has not yet been ascertained. However, if the auction produces an average price of 16.5¢ per kWh with an average load factor of 95%, the purchase would cost LIPA approximately \$55 million per year. Using the average cost of power at 7.0¢ per kWh, based on the 2016 approved budget, this power alternative will increase power supply costs by an estimated \$31.6 million per year, which will be recovered in customer's FPPCA charges. A recent LIPA procurement resulted in an average levelized cost for fuel cell projects of 16.47¢.

The combined effect of these two programs totals an estimated \$34 million per year, which

is less than \$1.40 per month for a typical residential customer using 775 kWh. It is important to note, however, that the estimated impact of \$34 million per year does not reflect any of the savings in generation capacity or transmission and distribution investment deferral that these resources can be expected to provide. While the program is being designed and offered consistent with the Renewing the Energy Vision (“REV”) goals of using distributed resources to avoid the construction of new power plants and additional utility investment in the grid, those benefits cannot be quantified until the specific resources have been selected.

Proposed Tariff Changes:

1. **Expand Service Classification No. 11 – Buyback Service to include the purchase of additional solar photovoltaic and fuel cell generating resources at a fixed price for a specified term.**

Affected Tariff Leaves: 16, 255I-255V

Reason for Tariff Change

To further effect that part of the Board of Trustee’s October 25, 2012 resolution with regard to generation and transmission, which resolution called for 400 MW of additional renewable and clean generation.

Summary of Proposed Changes:

In summary, the proposed changes to LIPA’s Tariff for Electric Service will implement an additional Commercial Solar Feed-In Tariff for up to 20 MW and an additional Fuel Cell Feed-In Tariff for up to 40 MW.

The proposed new and revised Tariff Leaf Nos. 16 and 255I through 255V are attached.

I. General Information (continued):**B. Abbreviations and Definitions (continued):**

Demand Customer: A Customer who is billed for Demand charges.

Demand Meter: The device that records the maximum amount of power used by the Customer over a 15-minute interval during a specific period, such as a month.

Department: The New York State Department of Public Service.

Deposit: A sum of money given as security for payment of service.

Distribution Facilities: Facilities used to distribute electric energy to consumers, including supply lines, distribution lines, service laterals, and accessory equipment.

Distribution Line(s): A system of poles, wires, ducts, conduits, and additional equipment used for the shared distribution of electricity to Customers.

E

Easement: (See *Right-of-way*)

Energy: Energy is electric power, used or supplied over time, and measured in KWH.

Existing Overhead Areas: Areas in which electric distribution facilities are constructed overhead, and there are no requirements to construct facilities underground.

F

Farm Waste Electric Generating Equipment: Equipment that generates electric energy from biogas produced by anaerobic digestion of agricultural wastes, such as livestock manure, farming wastes and food processing wastes with a rated capacity of not more than one thousand kilowatts (1,000 kW) that is manufactured, installed and operated by Customer-generator in accordance with applicable government and industry standards, connected to the electric system and operated in conjunction with the Authority's transmission and distribution facilities, operated in compliance with the Authority's standards and requirements established therefor, fueled at a minimum of ninety (90) percent 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, and fueled by biogas generated by anaerobic digestion with at least fifty (50) percent by weight of its feed stock being livestock manure on an annual basis.

Fuel Cell Electric Generating Equipment: A solid oxide, molten carbonate, proton exchange membrane or phosphoric acid fuel cell, with a combined rated capacity of not more than ten (10) kilowatts for a residential customer or with a rated capacity of not more than one thousand five hundred (1,500) kilowatts for a non-residential customer, that is manufactured, installed and operated in accordance with applicable government and industry standards, that is connected to the electric system and operated in compliance with the Authority's standards and requirements established therefor. [This definition, including the capacity limits specified herein, does not apply to fuel cells participating in the Fuel Cell Feed-in Tariff.](#)

Fuel and Purchased Power Cost Adjustment Clause: Provisions made in electric rates schedules for the automatic adjustment of rates due to changes in cost of fuel and purchased power.

Full-Requirements Customer: A Customer whose electric power requirements are all supplied by the Authority. (See *Customer – Full Requirements Customer*)

Generation Project: A specific project that is eligible to participate in the Commercial Solar or Fuel Cell Feed-in Tariff under Service Classification No. 11 – Buy-Back Service.

VIII. SERVICE CLASSIFICATIONS (continued):**O. SERVICE CLASSIFICATION NO. 11 - Buy-Back Service (continued):
(Rate Code: 289)****7. Feed-in Tariff for Commercial Solar Photovoltaic Renewable Resources:**

The Authority establishes a Commercial Solar Feed-in Tariff program under the terms defined below.

a) Who Is Eligible

Generation Projects that qualify under and satisfy all the requirements of this Tariff including the Smart Grid Small Generator Interconnection Procedures ("Smart Grid SGIP"), with a minimum output of 200 kW and maximum output of less than 1,000 kW, and will enter into a Solar Power Purchase Agreement for the Solar Feed-in Tariff (the "Power Purchase Agreement").

- (1) Eligible generation is limited to solar photovoltaic (PV) systems that generate electricity directly from sunlight.
- (2) Eligible PV systems must be mounted on:
 - (a) The roof of an active non-residential Customer's building or structure; or
 - (b) A non-residential Customer's carport that is used to shelter motor vehicles. The carport must be installed over a paved parking area composed of asphalt, concrete, or similar permanent material.
- (3) Eligible Generation Projects must be connected directly to the Authority's distribution system with a dedicated meter.
- (4) Eligible PV systems are required to use smart inverters that conform to LIPA's technical interconnection requirements. The operation of the smart inverters may limit the amount of energy that the Generation Project provides to the system and correspondingly limit the compensation received by the Generation Project.
- (5) Eligible PV systems are precluded from participating in the Commercial System Relief Program or the Distribution Load Relief Program.

b) Who Is Not Eligible

- (1) Generation Projects that were interconnected to the Authority's system as of the date of applying for this tariff are not eligible to participate.
- (2) Generation Projects that received a Solar Pioneer rebate, a Solar Entrepreneur program rebate or research and development funding from the Authority are not eligible to participate, regardless of whether the payment was made to the current Customer or a previous Customer at the same location.
- (3) Generation Projects that are in the Smart Grid SGIP queue prior to being accepted for this tariff are not eligible to participate unless they withdraw from the Smart Grid SGIP queue.

VIII.SERVICE CLASSIFICATIONS (continued):**O. SERVICE CLASSIFICATION NO. 11 - Buy-Back Service (continued):****(Rate Code: 289)****Feed-in Tariff for Commercial Solar Photovoltaic Renewable Resources (continued):**

- c) The Power Purchase Agreement will be available on the Manager's website and at its business offices.
- d) All of the Solar Products (as defined in the Power Purchase Agreement) from the facility will be sold to the Authority pursuant to the Power Purchase Agreement. Solar Products include all solar PV electric capacity, energy and ancillary services, together with all of the Environmental Attributes.
- e) The Authority will purchase Solar Products at a fixed price per kWh for a fixed term of 20 years.
- f) The Generation Project owner will be responsible for all interconnection costs and all other costs of developing, installing, operating and maintaining the renewable generating resource and all other costs and charges, as specified in this Service Classification or elsewhere in the Tariff. The generator must meet all the requirements of the Smart Grid Small Generator Standardized Interconnection Procedures (Smart Grid SGIP).
- g) In addition to the foregoing requirements, all Generation Projects and associated interconnection facilities must be designed to withstand 130 mph winds and have equipment elevations to accommodate updated one-in-500 year flood zones.
- h) The Generation Project owner shall be responsible for obtaining any and all necessary permits and approvals for Generation Project facilities and interconnection facilities and for conducting all necessary public outreach.
- i) Solar Generation Projects that are not selected for the program may sell their generation to the Authority under the general terms of this Service Classification No.11 - Buy-Back Service, if they meet the qualifications or may apply for Net Metering or Community Net Metering pursuant to the Authority's rules for Net Metering or Community Net Metering.
- j) The Generation Project owner will be paid on a monthly basis for each kilowatt-hour delivered to the Authority as measured by the dedicated meter. Any energy flowing back to the site on that same meter will be deducted from the amount flowing to the Authority at the same rate as the purchase price. If the Authority determines that more than an incidental amount of energy (1% of gross output of the generator in a given month) is flowing to the Generator Project's site under this arrangement, then purchases and payments may be terminated until such time as the cause of the amount flowing to the site can be determined and remedied by the Generator Project owner to the Authority's satisfaction.
- k) Rates and Charges for Purchase
The Authority will determine the rate paid for the purchase of Solar Products from the results of a bidding process as defined below. The rate will be a fixed price expressed in \$/kWh to the nearest \$0.0000 applicable to all projects selected by the Authority for the term of the Power Purchase Agreement.

The rates determined through the bidding process will be shown on the separate "Statement of Feed-in Tariff Rates" attached to the Tariff that also shows the results of all other Feed-in Tariff solicitations. The Statement will show the type of resource, the enrollment period and the purchase rate for the Solar Product.

VIII. SERVICE CLASSIFICATIONS (continued):**O. SERVICE CLASSIFICATION NO. 11 - Buy-Back Service (continued):****(Rate Code: 289)****Feed-in Tariff for Commercial Solar Photovoltaic Renewable Resources (continued):****l) Generator Bidding Process for the Enrollment Period from 10/1/16 to 1/31/17**

The Authority will solicit standardized bids from eligible Generation Projects between October 1, 2016 and January 31, 2017, inclusive. Bids must be submitted electronically to the Authority at the address shown on the Manager's website. The Manager is authorized to establish limitations on the size and format of applications or establish other restrictions as it deems appropriate for the operation of its website.

- (1) The Authority will provide non-binding guidance with respect to estimates of available capacity to prospective bidders with regards to potential points of interconnection within the Authority's electric distribution system through information posted on the Manager's website. Substations that are at or near their maximum injection capacity would necessitate extensive modification to incorporate the injection of new resources. The cost of all modifications shall be borne solely by the bidder.

The bidder will specify the bidder's proposed capacity, proposed connection point (including substation and circuit designation), and proposed fixed price per kWh. Bidders may, but are not required to, specify alternative capacity amounts smaller than the proposed capacity.

- (2) The Authority will not accept a bid whose fixed price exceeds \$0.1688/kWh ("Price Cap"). A Generation Project's bid will be rejected as nonresponsive if the fixed price bid exceeds the Price Cap or if it is incomplete or otherwise not in conformance with the provisions of this Tariff.
- (3) The Authority will evaluate the Generation Project's bids for responsiveness as they are received. For bids received prior to January 17, 2017, and if time allows, the Authority will attempt to inform the bidder in the event that a bid is deemed non-responsive or subject to additional interconnection costs. Notified bidders will be given the opportunity to remedy the deficiency by resubmitting the bid on or before January 31, 2017. The Authority does not guarantee that sufficient time will be afforded to the bidder for resubmittal.
- (4) The timestamp of a Generation Project's bid will be set by the e-mail's time stamp. The timestamp of resubmitted Generation Project's bid will be reset by the e-mail's time stamp of the resubmitted bid.

VIII.SERVICE CLASSIFICATIONS (continued):**O. SERVICE CLASSIFICATION NO. 11 - Buy-Back Service (continued):****(Rate Code: 289)****Feed-in Tariff for Commercial Solar Photovoltaic Renewable Resources (continued):**

(5) The Authority will evaluate bids as follows:

- Step 1 Complete and responsive Solar Feed-in Tariff and Fuel Cell Feed-In Tariff bids will be ranked in price order with the lowest bid price given the highest priority. Where multiple bids are received with the same bid price, the bid with the smaller capacity will be prioritized ahead of the bid with the larger capacity. Where multiple bids are received with the same bid price and the same capacity, priority will be given to the bid with the earlier timestamp of submission. Once the bids are ranked using the method outlined above, any bid ranked (in whole or part) in the lowest priority 10% of capacity of each of the Solar Feed-in Tariff and Fuel Cell Feed-in Tariff bids will be excluded from further evaluation and the excluded Solar Feed-in Tariff bid(s) will be added to the waiting list (see Section VIII.O.7.m below).
- Step 2 Bids will be reviewed by the Authority using the SGIP's preliminary screening process to determine if the Generation Project can be integrated into the system at that location based on the proposed size. If the Generation Project passes the preliminary screening at its proposed size or at a level above its minimum proposed size the project will be advanced for further evaluation. If the Generation Project fails the preliminary screening process it will be excluded from further evaluation and the excluded Solar Feed-in Tariff bid(s) will be added to the waiting list (see Section VIII.O.7.m)
- Step 3 Once the lowest priority 10% of capacity bids are excluded from further evaluation, complete and responsive Solar Feed-in Tariff bids and Fuel Cell Feed-in Tariff bids will be evaluated sequentially in order from highest priority to lowest priority as determined in Steps 1 and 2. A bid will be accepted into the Commercial Solar Photovoltaic Feed-in Tariff if it satisfies all three of the following conditions:
- a) The bid capacity, combined with the aggregate capacity of all higher priority accepted bids from the same Feed-in Tariff program, does not exceed the program cap of 20 MW for the Solar Feed-in Tariff and 40 MW for the Fuel Cell Feed-in Tariff; and
 - b) The bid capacity, combined with the aggregate capacity of all higher priority accepted bids proposing to interconnect to the same distribution circuit, does not exceed the remaining available capacity for the circuit as determined in Step 2; and
 - c) The bid capacity, combined with the aggregate capacity of all higher priority accepted bids proposing to interconnect to the same substation, does not exceed the remaining available capacity for the substation as determined in Step 2.

VIII. SERVICE CLASSIFICATIONS (continued):**O. SERVICE CLASSIFICATION NO. 11 - Buy-Back Service (continued):****(Rate Code: 289)****Feed-in Tariff for Commercial Solar Photovoltaic Renewable Resources (continued):**

If a bid fails to satisfy one or more of the three conditions above, it will be evaluated at all alternative capacity amounts specified in the bid, per Section VIII.O.7.I.1. The bid will be accepted with the highest alternative capacity amount that satisfies all three of the conditions above. If the bid and all alternative bid capacity amounts fail to satisfy one or more of the three conditions above, the bid will not be accepted and will be removed from the evaluation process and added to the Waiting List (see Section VIII.O.7.m below).

- Step 4 The rate for the Commercial Solar Feed-in Tariff will be set equal to the bid price of the highest-price bid accepted. A Power Purchase Agreement at that rate will be offered to all successful bidders for a term of twenty (20) years. This rate will also apply to Generation Projects that are accepted from the Commercial Solar Feed-in Tariff Waiting List.
- (6) Upon completion of Step 4 above, the Authority will notify Generation Project owners of their acceptance or non-acceptance into the Solar Feed-in Tariff. Generation project owners with responsive bids that were not accepted will be placed on a Waiting List unless the bidder requests otherwise in a written request to the Authority.
- (7) Once notified of acceptance, Generation Projects then must apply to the Smart Grid SGIP process within 10 business days. Accepted Generation Projects will be expected to complete the Smart Grid SGIP process in accordance with the timelines therein. The Generation Project owner shall be responsible for any and all interconnection and system upgrade costs.
- (8) The Authority will apply the procedures in the Smart Grid SGIP to determine how long an applicant may take to complete the interconnection process before forfeiting its acceptance in the Solar Feed-in Tariff.
- m) Waiting List for the Enrollment Period from 2/1/17 to 2/1/19
- (1) The Authority will continue to accept applications from eligible Generation Projects until February 1, 2019. Applications submitted after January 31, 2017 need not include a proposed price. For the duration of this enrollment period, all responsive bids that have not been accepted into the Commercial Solar Feed-in Tariff nor withdrawn by the Generation Project owner will be on the Waiting List.
- (2) In order to provide guidance to prospective applicants with regards to potential points of interconnection within the Authority's electric distribution system, remaining available capacity on specific distribution circuits and substations will be displayed on the website of the Manager, and updated from time to time as circumstances warrant.
- (3) At any time after the initial award of Power Purchase Agreements and before February 1, 2019, the Authority may offer a Power Purchase Agreement to projects on the waiting list to achieve but not exceed the 20,000 kW enrollment target.

VIII.SERVICE CLASSIFICATIONS (continued):**O. SERVICE CLASSIFICATION NO. 11 - Buy-Back Service (continued):****(Rate Code: 289)****Feed-in Tariff for Commercial Solar Photovoltaic Renewable Resources (continued):**

- (4) The Commercial Solar Feed-in Tariff waiting list will be prioritized according to: (1) earlier application submittal timestamp over later timestamp and, for projects submitted at the same time and (2) smaller capacity projects over larger capacity projects. Unsuccessful bidders to the Commercial Solar Feed-in Tariff will have the timestamp of submission of their Commercial Solar Feed-in Tariff responsive bid treated as their application submittal timestamp for the purposes of this Waiting List. In the event that acceptance of a bid exceeds the desired capacity, the Authority reserves the right to offer a reduced amount of capacity to the applicant(s).
 - (5) Applicants in the waiting list will be evaluated for remaining available capacity on the designated circuit and substation. Applicants that exceed the remaining available capacity on a given circuit or substation will be removed from consideration, but may remain in the waiting list. In the event that multiple applicants propose to interconnect to the same circuit or substation leading to an exceedance of available capacity, the applicants will be evaluated in priority order to determine which applicants are removed from consideration.
 - (6) An applicant that fails the SGIP preliminary screen may request that the Authority complete, at the applicant's expense, the appropriate interconnection study required by the Smart Grid SGIP. If the Smart Grid SGIP interconnection review process concludes that the project can be interconnected to the system it will be advanced for further evaluation on the Commercial Solar Feed-in Tariff Waiting List.
 - (7) Once notified of acceptance from the Commercial Solar Feed-in Tariff wait list, Generation Projects then must apply to the Smart Grid SGIP process within 20 business days. Generation Projects will be expected to complete the Smart Grid SGIP process in accordance with the timelines therein. The Generation Project owner shall be responsible for any and all interconnection and system upgrade costs.
- n) Without waiving or limiting any other rights of the Authority, in the event that any Generation Project owner fails to comply with the Tariff, the Smart Grid SGIP or the Interconnection Agreement, the Authority reserves the right to withdraw its acceptance of the Generation Project into the Commercial Solar Feed-in Tariff.
 - o) Generation projects in active consideration during the evaluation process will be considered to have priority over any projects submitted to the SGIP process after January 31, 2017 until such time as Generation projects are notified of acceptance and are afforded the 10 days to submit their applications into the Smart Grid SGIP process.
 - p) The application fee is \$1,000 to be submitted at the time of application by certified check made payable to PSEG Long Island. The fee will be refunded to any applicant that is deemed non-responsive, is not accepted into the Solar Feed-in Tariff or Waiting List, or withdraws prior to the applicant being accepted in the Solar Feed-in Tariff.
 - q) The Authority reserves the right to reject any and all applications and/or bids at any time prior to the execution of both the Power Purchase Agreement and Interconnection Agreement by all parties.

VIII.SERVICE CLASSIFICATIONS (continued):**O. SERVICE CLASSIFICATION NO. 11 - Buy-Back Service (continued):
(Rate Code: 289)****8. Feed-in Tariff for Fuel Cell Resources:**

The Authority establishes a Fuel Cell Feed-in Tariff program under the terms defined below.

a) Who Is Eligible

Fuel cell Generation Projects that qualify under and satisfy all the requirements of this Tariff including the Smart Grid Small Generator Interconnection Procedures ("Smart Grid SGIP"), with a minimum output of greater than or equal to 1000 kW and maximum output of no more than 20,000 kW, and will enter into a Fuel Cell Power Purchase Agreement for the Fuel Cell Feed-in Tariff (the "Power Purchase Agreement").

- (1) Fuel cell Generation Projects must attach to the system at or within a beneficial area as listed on the Manager's website, which may be updated from time to time.
- (2) Fuel cell generating technology that uses less than 100% renewable energy sources are eligible to participate.
- (3) Fuel cell Generation Projects must be connected directly to the Authority's electric system with a dedicated meter.
- (4) Fuel cells Generation Projects do not need to comply with the Qualifying Facility requirements of this Service Classification.
- (5) The Generation Project owner shall obtain Station Service Power for the Project in order to supply the facility's needs when the Generation Project is not generating electricity.
- (6) Fuel cells Generation Projects are precluded from participating in the Commercial System Relief Program or the Distribution Load Relief Program.

b) Who Is Not Eligible

- (1) Generation Projects that were interconnected to the Authority's system as of the date of applying for this tariff are not eligible to participate.
- (2) Generation Projects that received research and development funding from the Authority are not eligible to participate, regardless of whether the payment was made to the current Customer or a previous Customer at the same location.
- (3) Generation Projects that are in the Smart Grid SGIP queue or NYISO interconnection queues are not eligible to participate unless they withdraw from such queue.

- c) The Power Purchase Agreement will be available on the Manager's website and at its business offices.
- d) All of the Fuel Cell Products (as defined in the Power Purchase Agreement) from the facility will be sold to the Authority pursuant to the Power Purchase Agreement. Fuel Cell Products include all Fuel Cell electric capacity, energy and ancillary services, together with all of the Environmental Attributes.

VIII. SERVICE CLASSIFICATIONS (continued):**O. SERVICE CLASSIFICATION NO. 11 - Buy-Back Service (continued):****(Rate Code: 289)****Feed-in Tariff for Fuel Cell Resources (continued):**

- e) The Authority will offer to purchase Fuel Cell Products at a fixed price per kWh plus a variable cost of fuel determined by a fixed heat rate multiplied by a natural gas index price for a fixed term. The terms of the offer are defined below.
- f) Generation Projects intending to connect to the distribution system (Point of Interconnection on 13 kV or lower) must meet all the requirements of the Smart Grid SGIP. Generation Projects intending to connect to the transmission system (Point of Interconnection on 23 kV or higher) must adhere to the NYISO's Large Generator Interconnection Procedures, NYISO's Small Generator Interconnection Procedures, and LIPA's Smart Grid SGIP, as applicable. Generation Projects greater than 10 MW must connect to the transmission system.
- g) Non-synchronous Generation Projects proposing to connect to the transmission system must comply with the requirements listed in the statement "Performance Requirements for Transmission-Connected Resources Using Non-Synchronous Generation." The requirements of this statement do not supersede the requirements of the Smart Grid SGIP, NYISO's Large Generator Interconnection Procedures, or NYISO's Small Generator Interconnection Procedures. This requirement is in addition to those documents.
- h) In addition to the foregoing requirements, all Generation Projects and associated interconnection facilities must be designed to withstand 130 mph winds and have equipment elevations to accommodate updated one-in-500 year flood zones.
- i) The Generation Project owner shall be responsible for obtaining any and all necessary permits and approvals for Generation Project facilities and interconnection facilities and for conducting all necessary public outreach.
- j) The Generation Project owner will be responsible for all interconnection costs and all other costs of developing, installing, operating and maintaining the generating resource and all other costs and charges, as specified in this Service Classification or elsewhere in the Tariff.
- k) Fuel Cell Generation Projects that are not selected for the program may sell their generation to the Authority under the general terms of this Service Classification No.11 - Buy-Back Service, if they meet the qualifications or may apply for Net Metering or Community Net Metering pursuant to the Authority's rules for Net Metering or Community Net Metering.
- l) The Generation Project owner will be paid on a monthly basis for each kilowatt-hour delivered to the Authority as measured by the dedicated meter. Any energy flowing back to the site on that same meter will be deducted from the amount flowing to the Authority at the same rate as the purchase price. If the Authority determines that more than an incidental amount of energy (1% of gross output of the generator in a given month) is flowing to the Generation Project's site under this arrangement, then purchases and payments may be terminated until such time as the cause of the amount flowing to the site can be determined and remedied by the Generation Project owner to the Authority's satisfaction or agrees to pay for Station Service on all inflows of power to the Generation Project.

VIII. SERVICE CLASSIFICATIONS (continued):**O. SERVICE CLASSIFICATION NO. 11 - Buy-Back Service (continued):****(Rate Code: 289)****Feed-in Tariff for Fuel Cell Resources (continued):****m) Rates and Charges for Purchase:**

The Authority will determine the rate paid for the purchase of Fuel Cell Products from the results of a bidding process as defined below. The rate will be a formula expressed as a fixed price in \$/kWh to the nearest \$0.0000 plus a heat rate factor expressed in BTU/kWh to the nearest whole number to be multiplied by a gas price index in \$/MMBtu and divided by 1,000,000. The rate formula for all projects selected by the Authority will be calculated and set daily based on daily gas prices.

The gas price index will be the flow date midpoint price from the Daily Price Survey published in Platts Gas Daily for either (1) Iroquois Zone 2; (2) Transco Zone 6 N.Y.; or (3) a simple average of index (1) and index (2). Bidders must specify which gas price index will be used to calculate their PPA rate.

n) Generator Bidding Process for the Enrollment Period from 10/1/16 to 1/31/17

The Authority will solicit standardized bids from eligible Generation Projects between October 1, 2016 and January 31, 2017, inclusive. Bids must be submitted electronically to the Authority at the address shown on the Manager's website. The Manager is authorized to establish limitations on the size and format of applications or establish other restrictions as it deems appropriate for the operation of its website.

- (1) Prior to September 30, 2016 the Authority will publish information on the Manager's website that identifies geographical areas by distribution/transmission substation boundaries or transmission circuits that are deemed beneficial locations for the connection of fuel cell Generation Projects (i.e. locations where the Manager determines interconnection of a fuel cell Generation Project is reasonably likely to avoid or defer future distribution and/or transmission system costs). As part of the evaluation process described in Section (8), the Manager will estimate the present value of the avoided or deferred future distribution and/or transmission costs associated with each responsive bid. This information will be considered in ranking the responsive bids as described in Section (8) Step (1). Generation Projects proposing to connect directly to the distribution system must be proposed for a connection point within the distribution beneficial locations as posted on the Manager's website. Generation Projects proposing to connect to the transmission system must be proposed for a connection point within the distribution and transmission beneficial locations as posted on the Manager's website. The Authority will provide non-binding guidance with respect to estimates of available capacity and to potential points of interconnection within the Authority's electric system through information posted on the Manager's website. Substations that are at or near their maximum injection capacity would necessitate extensive modification to incorporate the injection of new resources. The cost of all modifications shall be borne solely by the bidder.

VIII.SERVICE CLASSIFICATIONS (continued):**O. SERVICE CLASSIFICATION NO. 11 - Buy-Back Service (continued):****(Rate Code: 289)****Feed-in Tariff for Fuel Cell Resources (continued):**

- (2) Prior to September 30, 2016, the Authority will develop and post a 20-year levelized gas price forecast for the three gas price indices specified in Section VIII.O.8.m. The 20-year levelized gas prices will be based on an independent natural gas price forecast for various delivery points, similar in nature to the forecast relied upon for the Manager's Integrated Resource Plan. Forecast 2018 – 2037 prices will be levelized using a discount rate of 5.0%. A volatility adder of no more than 15% may also be applied to the final 20-year levelized gas price forecast. The bidder will specify the bidder's proposed capacity, proposed connection point on the transmission or distribution system (including substation and circuit designation or transmission interconnection point), proposed fixed price component per kWh, proposed heat rate factor in BTU/kWh, and gas price index selection. Bidders may, but are not required to, specify alternative capacity amounts smaller than the proposed capacity.
- (3) The Authority will not accept a bid whose proposed heat rate factor exceeds 10,000 BTU/kWh ("Heat Rate Cap"). A Generation Project's bid will be rejected as nonresponsive if the heat rate factor exceeds the Heat Rate Cap.
- (4) Fuel Cell bid prices shall be calculated for the purposes of this evaluation as the proposed heat rate times the posted 20-year levelized gas price forecast (including volatility adder, if any, as determined by the Authority) for the bidder's selected gas index, divided by 1,000,000, and added to the fixed cost component.
- (5) The Authority will not accept a bid whose bid price for evaluation purposes is greater than \$0.1688/kWh ("Price Cap"). A Generation Project's bid will be rejected as nonresponsive if the evaluated bid price exceeds the Price Cap or if it is incomplete or otherwise not in conformance with the provisions of this tariff.
- (6) The Authority will evaluate the Generation Project's bids for responsiveness as they are received. For bids received prior to January 17, 2017, and if time allows, the Authority will attempt to inform the bidder in the event that a bid is deemed non-responsive or subject to additional interconnection costs. Notified bidders will be given the opportunity to remedy the deficiency by resubmitting the bid on or before January 31, 2017. The Authority does not guarantee that sufficient time will be afforded to the bidder for resubmittal.
- (7) The timestamp of a Generation Project's bid will be set by the e-mail's time stamp. The timestamp of resubmitted Generation Project's bid will be reset by the e-mail's time stamp of the resubmitted bid.

VIII.SERVICE CLASSIFICATIONS (continued):**O. SERVICE CLASSIFICATION NO. 11 - Buy-Back Service (continued):****(Rate Code: 289)****Feed-in Tariff for Fuel Cell Resources (continued):**

(8) The Authority will evaluate bids as follows:

- Step 1 Complete and responsive Solar Feed-in Tariff and Fuel Cell Feed-in Tariff bids will be ranked in price order with the lowest bid price given the highest priority. Where multiple bids are received with the same bid price, the Manager's estimate of the present value of the avoided future distribution and/or transmission costs associated with each responsive bid will be considered in ranking the responsive bids of equal price. Beyond this, the bid with the smaller capacity will be prioritized ahead of the bid with the larger capacity and, beyond that, priority will be given to the bid with the earlier timestamp of submission. Once the bids are ranked using the method outlined above, any bid ranked (in whole or part) in the lowest priority 10% of capacity of each of the Solar Feed-in Tariff and Fuel Cell Feed-in Tariff bids will be excluded from further evaluation and the excluded Fuel Cell Feed-in Tariff bid(s) will be added to the waiting list (see Section VIII.O.8.o below).
- Step 2 Bids will be reviewed by the Authority using the SGIP's preliminary screening process to determine if the Generation Project can be integrated into the system at that location based on the proposed size. If the Generation Project passes the preliminary screening at its proposed size or at a level above its minimum proposed size the project will be advanced for further evaluation. If the Generation Project fails the preliminary screening process it will be excluded from further evaluation and the excluded Fuel Cell Feed-in Tariff bid(s) will be added to the waiting list (see Section VIII.O.8.o.)
- Step 3 Once the lowest priority 10% of capacity bids are excluded from further evaluation, complete and responsive Solar Feed-in Tariff bids and Fuel Cell Feed-in Tariff bids will be evaluated sequentially in order from highest priority to lowest priority as determined in Steps 1 and 2 above. A bid will be accepted into the Fuel Cell Feed-in Tariff if it satisfies all three of the following conditions:
- a) The bid capacity, combined with the aggregate capacity of all higher priority accepted bids from the same Feed-in Tariff program, does not exceed the program cap of 20 MW for the Solar Feed-in Tariff and 40 MW for the Fuel Cell Feed-in Tariff; and
 - b) The bid capacity, combined with the aggregate capacity of all higher priority accepted bids proposing to interconnect to the same distribution circuit, does not exceed the remaining available capacity for the circuit as determined in Step 2; and
 - c) The bid capacity, combined with the aggregate capacity of all higher priority accepted bids proposing to interconnect to the same substation, does not exceed the remaining available capacity for the substation as determined in Step 2.

VIII.SERVICE CLASSIFICATIONS (continued):**O. SERVICE CLASSIFICATION NO. 11 - Buy-Back Service (continued):
(Rate Code: 289)****Feed-in Tariff for Fuel Cell Resources (continued):**

If a bid fails to satisfy one or more of the three conditions above, it will be evaluated at all alternative capacity amounts specified in the bid, per Section VIII.O.8.n.2. The bid will be accepted with the highest alternative capacity amount that satisfies all three of the conditions above. If the bid and all alternative bid capacity amounts fail to satisfy one or more of the three conditions above, the bid will not be accepted and will be removed from the evaluation process and added to the Waiting List (see Section VIII.O.8.o. below).

- Step 4 All accepted Fuel Cell Feed-in Tariff bidders will be offered their own as-bid rate formula (Fixed price component, heat rate factor, and gas index price option) for a term of up to twenty (20) years in accordance with the provisions of the PPA and this Tariff.
- (9) Upon completion of Step 4 above, the Authority will notify Generation Project owners of their acceptance or non-acceptance into the Fuel Cell Feed in Tariff. Generation project owners with responsive bids that were not accepted will be placed on a Waiting List unless the bidder requests otherwise in a written request to the Authority.
- (10) Once notified of acceptance, Generation Projects then must apply within 10 business days for interconnection with the Authority's system under the Smart Grid SGIP, NYISO's Large Generator Interconnection Procedures, and NYISO's Small Generator Interconnection Procedures, as applicable. Accepted Generation Projects will be expected to complete the interconnection process in accordance with the timelines in the Smart Grid SGIP, NYISO's Large Generator Interconnection Procedures, and NYISO's Small Generator Interconnection Procedures, as applicable. The Generation Project owner shall be responsible for any and all interconnection and system upgrade costs.
- (11) The Authority will apply the procedures in the Smart Grid SGIP, NYISO's Large Generator Interconnection Procedures and NYISO's Small Generator Interconnection Procedures, as applicable, to determine how long an applicant may take to complete the interconnection process before forfeiting its acceptance in the Fuel Cell Feed-in Tariff.
- o) Waiting List for the Enrollment Period from 2/1/17 to 2/1/19
- (1) The Authority will continue to accept applications from eligible Generation Projects until February 1, 2019. Applications will have all required information as outlined in Section VIII.O.8.n.2). For the duration of this enrollment period, all responsive bids that have not been accepted into the Fuel Cell Feed-in Tariff nor withdrawn by the Generation Project owner will be on the Waiting List.
- (2) In order to provide guidance to prospective applicants with regards to potential points of interconnection within the Authority's electric distribution system, remaining available capacity on specific distribution circuits and substations will be displayed on the website of the Manager, and updated from time to time as circumstances warrant.

VIII.SERVICE CLASSIFICATIONS (continued):**P. SERVICE CLASSIFICATION NO. 11 - Buy-Back Service (continued):
(Rate Code: 289)****Feed-in Tariff for Fuel Cell Resources (continued):**

- (3) At any time after the initial award of Power Purchase Agreements and before February 1, 2019, the Authority may offer a Power Purchase Agreement to projects on the waiting list to achieve but not exceed the 40 MW enrollment target.
- (4) The Fuel Cell Feed-in Tariff waiting list will be prioritized according to: (1) bid price and, for projects submitted with the same bid price (2) the smaller capacity projects will be prioritized over larger capacity projects and for projects submitted with the same bid price and capacity, timestamp will be used to set the priority. Unsuccessful bidders to the Fuel Cell Feed-in Tariff will have the timestamp of submission of their Fuel Cell Feed-in Tariff responsive bid treated as their application submittal timestamp for the purposes of this Waiting List. In the event that acceptance of a bid exceeds the desired capacity, the Authority reserves the right to offer a reduced amount of capacity to the applicant(s).
- (5) Applicants in the waiting list will be evaluated for remaining available capacity on the designated circuit and substation. Applicants that exceed the remaining available capacity on a given circuit or substation will be removed from consideration, but may remain in the waiting list. In the event that multiple applicants propose to interconnect to the same circuit or substation leading to an exceedance of available capacity, the applicants will be evaluated in priority order to determine which applicants are removed from consideration.
- (6) An applicant that fails the SGIP preliminary screen may request that the Authority complete, at the applicant's expense, the appropriate interconnection study required by the Smart Grid SGIP. If the Smart Grid SGIP interconnection review process concludes that the project can be interconnected to the system it will be advanced for further evaluation on the Fuel Cell Feed-in Tariff Waiting List.

All accepted Fuel Cell Feed-in Tariff bidders will be offered their own as-bid rate formula as expressed in Section VIII.O.8.m. (Fixed price component, heat rate factor, and gas index price option) for a term of up to twenty (20) years in accordance with the provisions of the PPA and this Tariff. Bidders must also comply with the requirements for bids set forth in Section VIII.O.8.n.

VIII. SERVICE CLASSIFICATIONS (continued):**O. SERVICE CLASSIFICATION NO. 11 - Buy-Back Service (continued):****(Rate Code: 289)****Feed-in Tariff for Fuel Cell Resources (continued):**

- (7) Once notified of acceptance from the Fuel Cell Feed-in Tariff wait list, Generation Projects then must apply within 20 business days for interconnection with the Authority's system under the Smart Grid SGIP, NYISO's Large Generator Interconnection Procedures, and NYISO's Small Generator Interconnection Procedures, as applicable. Accepted Generation Projects will be expected to complete the interconnection process in accordance with the timelines in the Smart Grid SGIP, NYISO's Large Generator Interconnection Procedures, and NYISO's Small Generator Interconnection Procedures, as applicable. The Generation Project owner shall be responsible for any and all interconnection and system upgrade costs.
- p) Without waiving or limiting any other rights of the Authority, in the event that any Generation Project owner fails to comply with the Tariff, the Smart Grid SGIP, NYISO's Large Generator Interconnection Procedures, NYISO's Small Generator Interconnection Procedures or the Interconnection Agreement, the Authority reserves the right to withdraw its acceptance of the Generation Project into the Fuel Cell Feed-in Tariff.
- q) Generation projects in active consideration during the evaluation process will be considered to have priority over any projects submitted to the SGIP process after January 31, 2017, until such time as Generation projects are notified of acceptance and are afforded the 10 days to submit their applications into the Smart Grid SGIP process.
- r) The application fee is \$1 per kilowatt nameplate capacity of the proposed project. The fee will be refunded to any applicant that is deemed non-responsive, is not accepted into the Fuel Cell Feed-in Tariff or Waiting List, or withdraws prior to the applicant being accepted in the Fuel Cell Feed-in Tariff.
- s) The Authority reserves the right to reject any and all applications and/or bids at any time prior to the execution of both the Power Purchase Agreement and Interconnection Agreement by all parties.