# **FOR CONSIDERATION**

November 14, 2018

**TO:** The Board of Trustees

**FROM:** Thomas Falcone

**SUBJECT**: Authorization to execute Amendment No. 1 to the Power Purchase Agreement with

Deepwater Wind South Fork, LLC and Extension of Waiting List Enrollment

Period for Commercial Solar Feed-in Tariff III

# **Requested Action**

The Trustees are requested to approve and adopt a resolution authorizing the Chief Executive Officer, or his designee(s), to execute Amendment No. 1 to the Power Purchase Agreement ("PPA") between the Long Island Power Authority ("LIPA" or the "Authority") and Deepwater Wind South Fork, LLC ("Deepwater")<sup>1</sup>, to increase the delivered capacity ("Incremental Capacity") by up to an additional 40 megawatts ("MW") and take such other actions as may be reasonably necessary to implement arrangements by LIPA to purchase energy, installed capacity, renewable attributes and ancillary services, as summarized below.

Additionally, the Trustees are requested to adopt a resolution approving modification to LIPA's Tariff for Electric Service to extend the waiting list enrollment period for Feed-in Tariff III ("FIT III") from February 1, 2019 to February 1, 2020.

#### **Background**

On January 25, 2017, the Trustees approved the PPA for the purchase of energy, installed capacity, renewable attributes and ancillary services from Deepwater's proposed 90 MW South Fork Wind Farm (the "Project").<sup>2</sup> The Project was one of a series of initiatives designed to meet increased load on the South Fork of Long Island and defer the need for local transmission upgrades, while also contributing to the Authority's clean energy portfolio<sup>3</sup>.

The Project was planned as a 90 MW offshore wind farm located in federal waters 30 miles east of Montauk. The Project is being designed to interconnect with the LIPA transmission system via an approximately 50 mile 138-kV undersea and underground cable connecting to the existing 69 kV bus at the East Hampton substation. Deepwater Wind South Fork, LLC plans to achieve a December 1, 2022 Commercial Operation Date ("COD") for the Project.

<sup>&</sup>lt;sup>1</sup> Ørsted has acquired a 100% equity interest in Deepwater Wind, including Deepwater Wind South Fork, LLC.

<sup>&</sup>lt;sup>2</sup> The South Fork Wind Farm will be the first project developed within the federally-licensed wind development area known as Deepwater ONE.

<sup>&</sup>lt;sup>3</sup> The other initiatives are an 8 MW load reduction program and two 5MW (40-MWh) battery storage projects.

Although the Project was planned to consist of fifteen 6-MW turbines (i.e., a total of 90 MW), the PPA allows Deepwater to select from commercially available turbine sizes. To protect customers from paying for energy associated with more than 90 MW of capacity, the PPA set limits for capacity and energy deliveries from the Project.

Since the execution of the PPA, commercially available and proven turbine sizes have increased to between 8 and 12 MW. Preliminary studies indicate interconnection at the East Hampton substation, however, is limited to no more than 130 MW, without significant additional land-based transmission reinforcement that would make expansion of the project economically unattractive compared to other points of interconnection across Long Island.

This improvement in commercially available turbine technology presents the opportunity to increase the Project's energy output without expanding its infrastructure (e.g., towers, 138 kV cable, or significant investment in the land-based transmission system), thereby spreading the fixed-costs of the Project across greater clean energy output.

# **Discussion**

PSEG Long Island and Deepwater Wind recognized this opportunity and have been able to negotiate favorable terms for the additional energy and associated capacity. The proposed Amendment No. 1 would provide as much as a 44% increase in output, at an incremental price that is a significant reduction from the original contract price, within the same 15-turbine footprint as the original Project design. Notable terms of the arrangement include:

- Incremental capacity of up to 40 MW (i.e., a maximum output of 130 MW), subject to
  completing studies of transmission system upgrades that may be needed to deliver the
  Project's increased output from the East Hampton substation to the 138 kV system in
  Eastern Suffolk County. The Amendment would allow Deepwater to adjust downward the
  amount of incremental capacity to limit the parties' exposure to land-based transmission
  system upgrade costs.
- Deepwater plans to dedicate 11 turbines to the base amount of output associated with 90 MW of capacity; and the remaining 4 turbines would be dedicated to provide the incremental output of up to 130 MW.
- The target commercial operation date for the incremental capacity would be the same as that for the 90 MW portion of the Project (i.e., December 2022), subject to an allowance for development delays. The term of LIPA's obligation to purchase the incremental energy deliveries would be twenty (20) years.
- Other provisions of the existing contract will remain unchanged.

The total estimated cost of Amendment No. 1 for the 20-year term is projected to be approximately \$388 million. When compared to the cost of purchased power, the incremental output of the Project is expected to increase customer bills by 20 to 38 cents per month, depending on the cost of any

associated land-based transmission upgrades, which will be finalized after further study. This incremental cost to customers will begin after the project enters commercial operation in December 2022.<sup>4</sup>

The approval of the contract amendment at the Board's November 2018 meeting will permit the amended Project to qualify for the 2018 federal tax credit, which is scheduled to decline by 20 percent on January 1, 2019. This results in approximately \$15 million of savings to LIPA customers.

Authority staff finds that the price of the incremental output is comparable or favorable to that of other recent offshore wind projects in the Northeast; and would be the lowest cost resource to be added to LIPA's clean energy portfolio. The Project would also offer an opportunity for local labor associated with construction of the Project, as well as ongoing maintenance<sup>5</sup>.

PSEG Long Island estimates that the increased output of the Project, when added to the other renewable energy sources in LIPA's portfolio, will be sufficient to allow LIPA to comply with the State's Clean Energy Standard through approximately 2023.

That projection of compliance assumes that the existing open feed-in tariffs (FIT III and IV) are fully subscribed. As the commercial solar feed-in tariff (FIT III) remains about 5 MW short of fulfilling its 20 MW goal, Authority staff recommends extending the application deadline by one year from February 2019 to February 2020 to accommodate additional projects<sup>6</sup>.

With the approval of the Project and the extension of the application deadline for FIT III, no other immediate renewable procurements are required; however, LIPA will need to obtain additional clean energy and energy efficiency resources to meet the State's Clean Energy Standard for the period between 2023 and 2030. PSEG Long Island will assess needs beyond 2023 and will apprise the Board of any additional procurements as they may become necessary.

# **Public Comments**

The Authority has received public comments since the amendment to the Power Purchase Agreement was announced. These public comments are included as Exhibit C.

#### Recommendation

For the foregoing reasons, I recommend that the Trustees adopt two resolutions in the form of the resolutions attached hereto.

<sup>&</sup>lt;sup>4</sup> The total cost of the South Fork initiatives, including 130 MW of output from the Project, 80 MWhs of storage, and 8 MWs of load reduction will increase residential customer bills by an average of \$1.39 to \$1.57 per month.

<sup>&</sup>lt;sup>5</sup> See Exhibit D

<sup>&</sup>lt;sup>6</sup> When approved by the Board in 2016, FIT III was expected to increase customer bills by \$2.3 million per year, if fully subscribed. That equates to about 17 cents per month for the average residential customer.

# **Attachments**:

**Exhibit "A"** Resolution to Enter into Amendment No. 1 to the Power Purchase Agreement with Deepwater Wind South Fork, LLC for the South Fork Wind Farm Project.

**Exhibit "B"** Resolution to amend the Authority's tariff with respect to the 20 MW Solar feed-in

tariff

**Exhibit "C"** Public Comments on the South Fork Wind Farm Project

**Exhibit "D"** Letter from Ørsted US Offshore Wind regarding Local Commitments

Exhibit "E" Tariff leaves (redline)
Exhibit "F" Tariff leaves (clean)

# AUTHORIZATION TO ENTER INTO AMENDMENT NO. 1 TO THE POWER PURCHASE AGREEMENT WITH DEEPWATER WIND SOUTH FORK, LLC FOR THE SOUTH FORK WIND FARM PROJECT

**WHEREAS**, the Long Island Lighting Company d/b/a LIPA and Deepwater Wind South Fork, LLC ("Deepwater") are parties to a Power Purchase Agreement ("PPA"), dated January 25, 2017 for LIPA's purchase of 90 MW of capacity and associated energy from the South Fork Wind Farm;

**WHEREAS**, Amendment No. 1 to the PPA would enable LIPA to purchase up to an additional 40 MW from the South Fork Wind Farm under favorable terms that would help LIPA meet its clean energy goals.

**NOW, THEREFORE, BE IT RESOLVED**, that the Board of Trustees (the "Board") authorizes the Chief Executive Officer or his designee(s) to execute Amendment No. 1 to the PPA and other related agreements and arrangements, consistent with the terms of the accompanying memorandum, and to perform such further acts and deeds as may be necessary, convenient or appropriate, in the judgment of the Chief Executive Officer or his designee, to implement the Authority's purchase of incremental energy, capacity, renewable attributes and ancillary services from the Deepwater Wind South Fork, LLC, South Fork Wind Farm Project.

Dated: November 14, 2018

APPROVAL OF MODIFICATIONS TO LIPA'S TARIFF FOR ELECTRIC SERVICE EXTENDING THE WAITING LIST ENROLLMENT PERIOD FOR THE FEED-IN TARIFF FOR COMMERCIAL ROOFTOP SOLAR PHOTOVOLTAIC (PV) GENERATION ("FIT III")

**WHEREAS**, on September 21, 2016, the Board adopted amendments to LIPA's Tariff for Electric Service (the "Tariff") implementing FIT III, which offered to purchase up to an additional 20 MW of renewable solar photovoltaic capacity to be located exclusively on commercial rooftops or on carports over paved areas; and

**WHEREAS**, the Tariff provisions provided that the "Authority will continue to accept applications from eligible Generation Projects until February 1, 2019"; and

WHEREAS, FIT III is not yet fully subscribed; and

**WHEREAS**, certain Generation Projects have already gone through the interconnection process, while other Generation Projects will continue to have the right to remain on the waiting list; and

**WHEREAS**, the Board finds that extending the waiting list deadline has no impact on any proposer's rights under the existing Tariff provisions and will have a beneficial effect on the overall implementation of FIT III and is consistent with the Board's actions implementing FIT III in September 2016.

**NOW, THEREFORE, BE IT RESOLVED**, that for the reasons set forth herein and in the accompanying Memorandum, the Board hereby approves modifications to the Tariff to extend the waiting list enrollment period for FIT III from February 1, 2019 to February 1, 2020 and

**BE IT FURTHER RESOLVED**, that the Chief Executive Officer and his designees are authorized to carry out all actions deemed necessary or convenient to implement this tariff, and be it further

**BE IT FURTHER RESOLVED**, that the attached tariff leaves reflecting our action herein are approved.

November 14, 2018

**Suffolk County Executive Steve Bellone said,** "This change will enable New York's first offshore wind project to bring more power - and more cost-effective power - to the South Fork without the noise and emissions that accompany conventional power plants. By providing clean energy, the South Fork Wind Project is consistent with our interest in helping to mitigate climate change, while also doing its part in establishing New York State as a leader in clean energy."

John R. Durso, President of The Long Island Federation of Labor, AFL-CIO said, "We welcome LIPA's proposal to purchase additional power from the South Fork Wind Farm. The amended power purchase agreement takes advantage of continuing progress in the offshore wind industry at prices that are advantageous to Long Island's consumers. This is another big step toward a clean energy future and jobs in an emerging industry."

Gordian Raacke, Executive Director of Renewable Energy Long Island, said, "Getting more power from the South Fork Wind Farm within the same footprint, thanks to more advanced wind turbine technology, is a smart move. We hope that LIPA's Board will approve a more cost-effective project while meeting a greater portion of our energy needs from an abundant and locally available renewable energy source."

Lisa Dix New York Senior Representative for the Sierra Club said, "We support and applaud the Long Island Power Authority's proposal to bring even more job creating, renewable, affordable, reliable, pollution-free energy to Long Island. Expanding LIPA's commitment for offshore wind is not only a good investment for Long Island's electric customers, but will also curb climate pollution, create family wage jobs and new economic development opportunities for Long Islanders. Today's announcement further positions Long Island and New York as a regional hub for the offshore wind industry and as a national climate and renewable energy leader."

Richard V. Guardino, Executive Director Long Island Regional Planning Council said, "From the outset LIPA's off-shore wind project was going to be the largest source of renewable energy on Long Island. The opportunity to increase the maximum output of the South Fork Offshore Wind Project using new technology is an exciting, cost effective and attractive way to expand Long Island's clean energy portfolio. This project will provide new sources of power to meet the increasing demands of the south fork and will establish Long Island as national leader in this growing industry."

Adrienne Esposito, Executive Director, Citizens Campaign for the Environment said, "We are witnessing an historic project for our island. As wind technology improves our clean energy future improves. Maximizing wind energy potential, minimizes our fossil fuel use, and that's a legacy that all New Yorkers will be proud of. Maximizing this project with state of art energy technology is a prudent way to help East Hampton to meet their 100% renewable energy goal."

**Eric Alexander, Director, Vision Long Island said**, "The future of Long Island's energy infrastructure is shifting towards renewable energy and this agreement with Deepwater Wind for accelerated production is a needed step towards achieving that goal. Kudos to LIPA, Deepwater Wind and local stakeholders that are working to successfully plan this increase."

**Kyle Strober, Executive Director of Association for a Better Long Island said**, "Capturing the potential of off-shore wind could result in a boom for Long Island's economy. Over the long term, studies have shown that there is significant potential for off-shore wind projects to generate clean energy manufacturing jobs and attract new business to create genuine job growth. The LIPA Board of Trustees, with a vote in favor of New York's first off-shore wind farm, has the opportunity to spur even more economic development on Long Island."

Sammy Chu, Chairman, USGBC Long Island Chapter said, "As clean energy solutions continue to present themselves as a better value option for Long Island ratepayers, we are grateful that LIPA has committed to not only deploying more wind power capacity, but also doing it in a way that makes it more attractive financially. It requires leadership to keep up with technology and opportunity, and LIPA has provided that leadership to the betterment of Long Island."

Anne Reynolds, Executive Director of ACE NY said, "It is exciting to see LIPA's leadership investing in offshore wind, and it is excellent news that the South Fork Wind Farm will be using the most up-to-date turbines to provide even more electricity for Long Islanders. These are real steps toward achieving New York's 50% renewable energy goal."



November 9, 2018

# **VIA ELECTRONIC MAIL**

Long Island Power Authority ATTN: Tom Falcone, CEO 333 Earle Ovington Blvd Uniondale, NY 11553

> Offer to Sell Incremental Capacity from the South Fork Wind Farm RE:

Dear Mr. Falcone:

Reference is made to the subject offer, which we submitted to PSEG Long Island on your behalf on September 14, 2018, and to our response to their counter-offer, which we submitted on October 22, 2018 (together, the "2018 Offer"), and to our Proposal for South Fork Resources submitted to PSEG Long Island on your behalf on December 2, 2015 (the "2015 Offer").

Per your request, we write to confirm the following, subject to the terms and conditions of the 2018 Offer and the 2015 Offer:

- For the construction work on Long Island that is associated with the South Fork Wind Farm, Orsted US Offshore Wind<sup>1</sup> will work with one or more local contractors who have negotiated and executed a Project Labor Agreement ("PLA") with the Nassau Suffolk Building and Construction Trades Council ("NSBCTC") and its affiliated local trade unions, which is affiliated with the Long Island Federation of Labor, AFL-CIO ("LI FED"), subject to the terms and conditions of our Long Island Project Labor Commitment for Deepwater ONE, which we submitted to the LI FED on October 30, 2014, and which is enclosed herewith for reference.
- Each such PLA shall include a requirement to pay prevailing wage.
- Subject to the terms and conditions of our final Community Benefits Agreements with (a) the Town of East Hampton, and (b) with Trustees of the Freeholders and Commonalty of the Town of East Hampton, we will require our turbine maintenance contractor, if any, to: (i) establish and maintain in the Montauk area, until the South Fork Wind Farm ceases commercial operations, the operations and maintenance facility for the South Fork Wind Farm, which shall also serve as a base for the Project's crew transfer vessel(s) and (ii) make good faith efforts to make qualified residents of the

<sup>&</sup>lt;sup>1</sup> On November 7, 2018, Orsted completed an acquisition of all of the equity of Deepwater Wind. A new company, Orsted US Offshore Wind, combines the personnel and assets of the two North American offshore wind developers. A management team consisting of former Deepwater Wind management and Orsted management leads the new company in the US.

- Town of East Hampton aware of job openings in connection with the operations and maintenance facility.
- Orsted US Offshore Wind supports New York State's goal of cultivating the offshore wind industry so that it can, over time, become an important employer in Long Island and throughout New York State. While the amount of construction and staging work to be performed in New York State is ultimately dependent upon, among other things, the availability of suitable waterfront industrial facilities that are consistent with the project's budget, schedule, and permitted execution plans, Orsted US Offshore Wind will conduct certain construction work for the South Fork Wind Farm on Long Island involving several hundred New York workers. In addition, we plan to leverage the investments made in connection with the South Fork Wind Farm to conduct even more construction and staging activities out of New York facilities for its future offshore wind projects serving the State, where doing so is technically and commercially viable.

Thank you for your leadership and partnership in advancing the South Fork Wind Farm and for your continuing confidence in us. We look forward to working with you to build a project that all Long Islanders can be proud of.

Sincerely,

Jeffrey M. Grybowski Co-Chief Executive Officer

fly Ihly

Clinton L. Plummer Head of Market Strategies and New Projects

Plum

cc: Mike Deering



October 30, 2014

Mr. John Durso, President Long Island Federation of Labor, AFL-CIO 390 Rabro Drive Hauppauge, NY 11788

**RE:** Long Island Project Labor Agreement Commitment for Deepwater ONE

#### Dear John:

Deepwater Wind recognizes that the Long Island Federation of Labor, AFL-CIO (LI FED) has provided our industry and our projects with invaluable assistance and support. I write to thank you for all of your efforts advocating on behalf of offshore wind in countless forums on Long Island and elsewhere in New York State. We share a common belief that the offshore wind industry can, over time, become an important employer in Long Island and throughout the downstate New York and southern New England region. Working closely with the LI FED and your members is an important element in making that potential a reality.

As you know, Deepwater Wind has submitted a proposal for the sale of energy from our utility-scale wind farm located east of Montauk, known as the Deepwater ONE project, to the Long Island Power Authority (LIPA) in response to its recent renewable energy solicitation.

As a next step, I write to inform you that, for the construction work on Long Island that is associated with the Deepwater ONE project, Deepwater Wind will endeavor to work with one or more local contractor(s) ("signatory contractors") who have negotiated and signed Project Labor Agreement(s) ("PLA") with the Nassau Suffolk Building and Construction Trades Council ("NSBCTC") and its affiliated local trade unions, which is affiliated with the LI FED.

We expect that the PLA(s) will contain commercial reasonable terms and conditions for projects of this type. Accordingly, the PLA(s) with signatory contractors will reflect the parties' agreement on the following terms:

- 1. A No Strike / No Lockout clause.
- 2. A Plan for Settlement of Jurisdictional Disputes, which will be the only process for resolving jurisdictional disputes.
- 3. That certain equipment and components that will be pre-fabricated or pre-assembled and dismantled for shipment.
- 4. That Deepwater Wind or its contactor(s) will retain the right to use any off-site fabricated, factory assembled, or pre-cast items, materials, apparatus, or equipment purchased in connection with this Project, as well as any labor-saving devices or tools used in the construction of this Project.

- 5. That certain equipment is of a highly technical nature and will require direct supervision by the vendor's factory representatives and/or employees Deepwater Wind or its contractor(s) not covered by the PLA(s).
- 6. That following installation, Deepwater Wind or its contractor(s) may utilize specialized equipment to inspect or test equipment after installation, using the execution their or a manufacturer's personnel.

The PLA(s) will not apply to the personnel of Deepwater Wind, its construction manager, contractors for work not performed on Long Island, manufacturers or venders, unless they are performing work on Long Island within the scope of the PLA(s) to be agreed to, or to Deepwater Wind's affiliates or investors or to any work performed by public utilities or their contractors. Additionally, the following work will not be subject to a PLA:

- 1. Offshore installation, commissioning and warranty work in connection with the wind turbine generators and support structures;
- 2. Work performed by the offshore installation and cable-laying vessels; and
- 3. Work that requires ports, infrastructure or other waterfront facilities that are not available in Nassau or Suffolk counties.

The commitments of this Letter are necessarily conditioned upon LIPA's selection of Deepwater Wind's proposal and the successful negotiation, execution and approval of a Power Purchase Agreement (PPA) between Deepwater Wind and LIPA.

Deepwater Wind greatly values our relationship with the LI FED and also thanks you for your continued support of the Deepwater ONE project.

Once again, thank you on behalf of Deepwater Wind.

Very truly yours,

Chief Frecutive Officer

# O. SERVICE CLASSIFICATION NO. 11 - <u>Buy-Back Service</u> (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.

O. SERVICE CLASSIFICATION NO. 11 - <u>Buy-Back Service</u> (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.

O. SERVICE CLASSIFICATION NO. 11 - <u>Buy-Back Service</u> (continued):

(Rate Code: 289)

Feed-in Tariff for Commercial Solar Photovoltaic Renewable Resources (continued):

I) 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.

O. SERVICE CLASSIFICATION NO. 11 - <u>Buy-Back Service</u> (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.

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 2/1/2019
  - (1) The Authority will continue to accept applications from eligible Generation Projects until February 1, 202019. 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, 202019, 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.

P. SERVICE CLASSIFICATION NO. 11 - <u>Buy-Back Service</u> (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.

# O. SERVICE CLASSIFICATION NO. 11 - <u>Buy-Back Service</u> (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.

O. SERVICE CLASSIFICATION NO. 11 - <u>Buy-Back Service</u> (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.
- I) 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.

#### 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.

O. SERVICE CLASSIFICATION NO. 11 - <u>Buy-Back Service</u> (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.

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.

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.

O. 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.

P. SERVICE CLASSIFICATION NO. 11 - <u>Buy-Back Service</u> (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.

Effective: April 1, 2016 Tariff for Electric Service

# O. SERVICE CLASSIFICATION NO. 11 - <u>Buy-Back Service</u> (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.

O. SERVICE CLASSIFICATION NO. 11 - <u>Buy-Back Service</u> (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.

O. SERVICE CLASSIFICATION NO. 11 - <u>Buy-Back Service</u> (continued):

(Rate Code: 289)

Feed-in Tariff for Commercial Solar Photovoltaic Renewable Resources (continued):

I) 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.

O. SERVICE CLASSIFICATION NO. 11 - <u>Buy-Back Service</u> (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.

O. SERVICE CLASSIFICATION NO. 11 - <u>Buy-Back Service</u> (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 2/1/20
  - (1) The Authority will continue to accept applications from eligible Generation Projects until February 1, 2020. 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, 2020, 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.

P. SERVICE CLASSIFICATION NO. 11 - <u>Buy-Back Service</u> (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.

# O. SERVICE CLASSIFICATION NO. 11 - <u>Buy-Back Service</u> (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.

O. SERVICE CLASSIFICATION NO. 11 - <u>Buy-Back Service</u> (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.
- I) 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.

#### 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.

O. SERVICE CLASSIFICATION NO. 11 - <u>Buy-Back Service</u> (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.

O. SERVICE CLASSIFICATION NO. 11 - <u>Buy-Back Service</u> (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.

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.

O. 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.

P. SERVICE CLASSIFICATION NO. 11 - <u>Buy-Back Service</u> (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.

Effective: April 1, 2016 Tariff for Electric Service

# Briefing on Clean Energy Initiatives

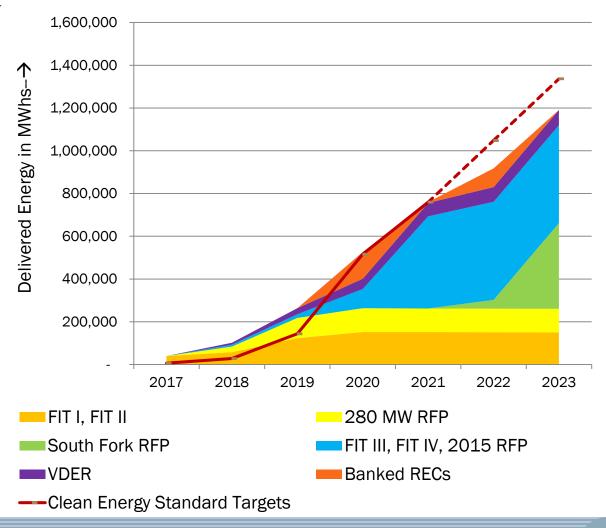
NOVEMBER 14, 2018



## Clean Energy Standard Resources Coming Online Through 2023

- PSEG Long Island is on target to meet New York's aggressive energy efficiency and clean energy goals
- Current projections of qualifying renewable energy are adequate to meet projected New York's CES targets through 2021

## **CES Targets Vs Anticipated Supply**





# **Clean Energy Procurement Actions**

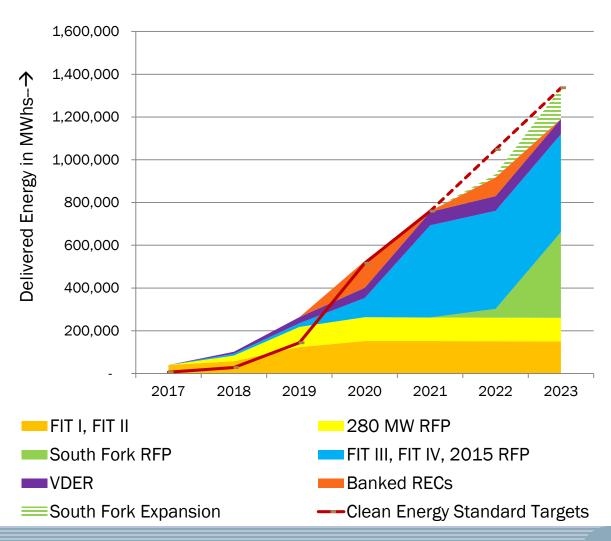
- Amend the South Fork Wind Farm contract to provide 40 MW of additional capacity
- Extend the rooftop and carport solar feed-in tariff (FIT-3) by one year
  - Current projects fill about 15 MW of 20 MW goal
  - Registration scheduled to end February 1, 2019
  - By extending registration to February 1, 2020, we expect to reach 100%
- Continue working to meet New York's clean energy goals beyond 2023



## **Clean Energy Standard Resources With Upgrade**

 Extension of registration of FIT III and the South Fork Wind Farm upgrade will allow LIPA to meet estimated CES target in 2023

## **CES Targets Vs Anticipated Supply**





# South Fork Wind Farm Upgrade





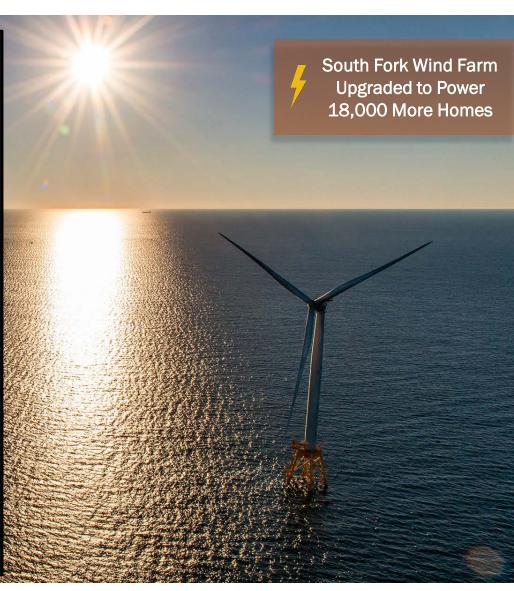
# South Fork Wind Farm Project Background

- In February 2017, the LIPA Board of Trustees approved the South Fork Wind Farm from among 20 other proposals
  - ✓ Wind farm was part of the least cost package of solutions to meet the South Fork's growing energy needs and New York's clean energy goals
- The 15-Turbine wind farm will deliver clean energy to an area on Long Island that needs more power
- Connected to East Hampton substation
- Operational December 1, 2022
- 30 miles offshore out of sight from Long Island beaches



# South Fork Wind Farm Upgrade

- One-time opportunity to cost-effectively maximize clean energy output
- Next-generation turbines increase capacity by up to 40MW using original 15-turbine project footprint
- Standard industry practice to upgrade turbine technology as the project enters final design stages
- All energy will be delivered to the same point, at the East Hampton Substation, using the same cable system
- Captures 2018 federal tax credit, saving customers \$15 million
- Additional turbines metered separately





# **Community Support for the South Fork Wind Farm**



County Executive Steve Bellone



Adrienne Esposito
Citizens Campaign for
the Environment



Gordian Raacke Renewable Energy Long Island



Kit Kennedy NRDC



Nancy Kelly
The Nature Conservancy



Kyle Strober Association for a Better Long Island



Lisa Dix Sierra Club



Sammy Chu USGBC



Richard Guardino Long Island Regional Planning Council



Eric Alexander Vision Long Island



Bob Deluca Group for the East End



John Durso AFL-CIO

...and more!

# South Fork Wind Farm Upgrade FAQ

- Q) What is the expected monthly cost to customers of the South Fork Wind Farm?
- The estimated average monthly bill impact of the upgrade is 20 to 38 cents starting in 2023.
- The incremental energy will be the lowest cost utility-scale renewable in the LIPA portfolio
- Newer turbine technology, economies of scale, and 2018 federal tax credit lowered cost
- Q) Will the South Fork Wind Farm keep expanding?
- No. It will not exceed its original 15-turbine project footprint
- Q) Beyond the environmental benefits, will the project help the local community or economy?
- Yes. The developer has negotiated a community benefits package and committed to build its
  operation and maintenance center on Long Island. The developer is working with the Building
  Trades Council and Long Island Federation of Labor towards a project labor agreement
  covering several hundred New York construction jobs
- Q) Will the upgrade require significant changes to the cable system connecting to Long Island?
- No. Other than minor modifications, the cable system will be the same, delivering power to the same point at the East Hampton Substation.



# Clean Energy Initiatives By The Numbers

South Fork Clean Energy Package

New York's First Off-Shore Wind Farm

- + New York's First Utility Scale Battery
  Storage Projects
  - + Transmission Upgrades
    - + Peak Load Reduction
- + Next Generation Turbine Technology

Average Monthly Bill Impact of 130 MW Project: \$1.39 - \$1.57 month

(20 to 38 cents for incremental 40 MW)

Feed In Tariff III

(Commercial Rooftop Solar)

16.4 cents / kWh

20 MW Maximum

Average Monthly Bill Impact: 17 cents / month if fully subscribed

