

Fuel Cell Feed-in Tariff IV

Frequently Asked Questions

The following Frequently Asked Questions (“FAQs”), which may be updated from time to time, are being provided for informational purposes only and any information, data, or comments provided in the FAQs are not to be construed as altering, modifying or replacing the requirements or contents of the Fuel Cell FIT. Applicants are encouraged to carefully read and adhere to the requirements as articulated in the Tariff.

1. What is the relationship between the Long Island Power Authority (“the Authority” or “LIPA”) and PSEG Long Island in regard to the Fuel Cell FIT?

PSEG Long Island, as agent of and acting on behalf of the Authority, will administer the Fuel Cell FIT.

2. What is the Authority’s Fuel Cell Feed-in Tariff?

The Fuel Cell Feed-In Tariff is a program in which the owner of an eligible Fuel Cell is paid a formula rate for every kilowatt-hour generated over the 20-year term of the Power Purchase Agreement between the owner and the Authority. The Fuel Cell Feed-in Tariff program has been issued to support the Authority’s goal, as set forth by its Board of Trustees in 2012, to add 400 MW of renewable generation to its service territory.

3. Has the Fuel Cell FIT changed since the proposal was first issued on May 18, 2016?

In response to public comment and further internal review, certain limited changes were made to the May 18th Tariff proposal. Also, a delay in Tariff effective date necessitated changes to the originally proposed program timelines. Applicants are encouraged to carefully read the final Tariff as approved at the September 21, 2016 Board of Trustees meeting.

4. What is the size of the program?

The Authority will award contracts for up to 40 MW under this program.

5. When will the Authority begin accepting applications for the Fuel Cell Feed-in Tariff?

The initial Fuel Cell FIT application submittal period commences on October 1, 2016 and will remain open until January 31, 2017. To provide for any possible attrition in the initial pool of applications, additional applications will be accepted from February 1, 2017 through February 1, 2019 and placed on a Waiting List. The Waiting List applications will only be considered in the event the initial pool of successful applications does not meet the targeted award level under the program and additional resources are needed to meet the 400 MW goal.

6. What projects are eligible to participate in the Fuel Cell Feed-in Tariff?

Fuel Cell projects must meet certain eligibility requirement including, among others, that they be rated at greater than or equal to 1 MW_{AC}¹ and no more than 20 MW_{AC}, that they must be located and interconnected only in specific areas deemed beneficial to system operations by the Authority, and that they must be installed and interconnected to the electric system with a dedicated meter in the Authority's service territory. Projects that do not meet these eligibility requirements will be considered unresponsive and rejected. Additional eligibility requirements apply. Careful review of the Fuel Cell Resources Feed-in Tariff IV document is advised to see all eligibility requirements.

7. Will the Authority be offering any specific sites for locating fuel cells?

No, specific sites will not be offered by the Authority in support of the Fuel Cell Feed-in Tariff. All siting related activity, including but not limited to acquisition, permitting and community acceptance, is the responsibility of the Generation Project owner.

8. Is it necessary to demonstrate site control as part of an application?

Site control is highly encouraged. While site control is not required for the initial application, it is required for the interconnection application that must be filed by accepted applicants within 10 business days of acceptance into the Fuel Cell Feed-in Tariff program.

9. Will the Authority be offering any support related to fuel supply?

No, fuel supply is the responsibility of the Generation Project owner. Generation project owner is responsible for all costs and implementation, including without limitation those associated with fuel infrastructure, procurement, and delivery.

10. For what costs is the Generation Project owner responsible?

¹ Threshold minimum capacity level for NYISO monitoring and qualifying to participate in the NYISO Wholesale markets.

The Generation Project owner is responsible for all interconnection costs and all other costs of developing, installing, operating and maintaining the proposed fuel cell resource.

11. What projects are ineligible to participate in the Fuel Cell Feed-in Tariff?

Ineligible projects include those already interconnected to the Authority's electric system as of the date of applying for this program, and project(s) that have previously received research and development funding from the Authority. Eligible fuel cell generation projects are precluded from participating in the Commercial System Relief Program or the Distribution Load Relief Program.

12. Can an applicant's bid contain a minimum project size along with its proposed project size?

Yes. An applicant has the option, but not the obligation, to provide alternative capacity amounts either as one or more discrete MW_{AC} quantities or as a range, provided that alternative capacity amounts are all less than the bid project size and greater than or equal to 1 MW_{AC}. Alternative capacity amounts will be considered in the evaluation process in the event that there are capacity injection constraints at the selected point of interconnection and the bid project size is too big to fit within those constraints. Providing alternative capacity amounts, however, does not guarantee project selection. Also, note that the bid price for the proposed project will be applied to any project size.

13. How much will I be paid under the Fuel Cell Feed-in Tariff program?

The rate paid will be determined through a rate formula expressed as the sum of (i) the as bid, fixed price in \$/kWh to the nearest \$0.0001, plus (ii) the as bid, variable component. The fixed price component of the rate formula would include delivery charges, O&M and capital recovery as may be specific to the individual project. The variable component will be calculated by multiplying the as bid fixed heat rate factor expressed in BTU/kWh to the nearest whole number by the bidder selected natural gas price index in \$/MMBtu and divided by 1,000,000 to determine the \$/kWh rate paid. The rate paid for all projects selected 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 both indices. Bidders must specify in their bids which gas price index option will be used to calculate their as bid/paid rate.

The amount of electricity produced will be measured using a dedicated meter for each approved project.

14. How will successful applicants to this program be paid?

Successful applicants will be paid by check or wire transfer on a monthly basis for all Fuel Cell Products delivered to the Authority in the prior month pursuant to the fully executed PPA. Payments will not be made as a credit on a customer bill.

15. Why is the contract rate assessed daily?

Natural gas prices are set daily and can experience significant day-to-day volatility.

16. How will the bid price be set for evaluation purposes?

At the time when the evaluation is conducted it will be unknown what the actual contract rates will be over the 20-year contract period. However, bids must be characterized with a single “bid price” in the evaluation process for two purposes: 1) prioritizing fuel cell bids for the purpose of acceptance into the FIT; and 2) comparing fuel cell bids with fixed-price Commercial Solar FIT bids in the event multiple projects are bidding for the same constrained interconnection point. The evaluation bid price will be determined for evaluation purposes only using the 20-year levelized natural gas price forecast corresponding to the bidder’s choice of natural gas price index.

17. How was the 20-year levelized natural gas price forecast set?

The Authority has developed a 20-year levelized natural gas price forecast based on an independent natural gas price forecast for Transco zone 6, N.Y. and Iroquois zone 2, similar in nature to the forecast relied upon for the Authority’s Integrated Resource Plan. Forecast 2018 – 2037 prices were levelized using a discount rate of 5%.² A volatility adder of no more than 15% was applied, at the Authority’s discretion, to the levelized price in order to account for price uncertainty. The 20-year levelized natural gas price forecast for each gas index has been published on the PSEG Long Island website.

18. How will projects be evaluated?

The Authority is simultaneously running two FIT programs – the Commercial Solar PV Feed-in Tariff and the Fuel Cell Feed-in Tariff.

Applications will be received between October 1, 2016 and January 31, 2017. Applicants must indicate the proposed size of their project and its interconnection point within the LIPA system, by circuit and/or substation. These applications will be screened by size and bid price to create a prioritized list of projects that does not exceed the available capacity on any single circuit or substation. Higher priority will be given to applicants with lower bid prices (to make the program most economical for LIPA’s customers), higher estimated present value of avoided future distribution and/or transmission costs (to

² The levelizing calculation can be thought of as a weighted average of future forecast prices, with greater weight placed on near future prices and less weight on far future prices due to the time value of money. The discount rate determines the difference in value placed on near vs. far future values.

ensure LIPA's customers benefit from generation projects optimally located to avoid or defer imminent system investment) and smaller sizes since smaller projects are easier to site and construct, and result in a greater diversity among participants. In creating this priority list, both the commercial solar applicants and the fuel cell applicants will be comingled. Following this prioritization, the lists will be separated by resource type (solar versus fuel cell). Separately for each resource type, the highest 10% of the bids will be excluded and then the bids will be evaluated in increasing order of price until the desired level of capacity is reached.

Evaluation bid price is capped at \$0.1688/kwh. Bids with an evaluation bid price in excess of the price cap will be rejected as unresponsive. Bid heat rate factor is capped at 10,000 BTU/kWh. Bids with a heat rate factor in excess of the heat rate factor cap will be rejected as unresponsive.

19. Certain fuel cell technology produces better economic results in combined-heat-and-power (CHP) applications. Are there any provisions in the evaluation to cover this?

The Fuel Cell Feed-in Tariff is designed to encourage the development of new fuel cell resources to meet the electrical requirements and associated environmental goals of the Authority's Transmission and Distribution system. The potential combined heating and cooling benefits may enable bidders of CHP projects to submit more competitive bids. However, factors considered in the evaluation process will only include bid price, project size, timestamp of submittal and, as appropriate, the value of potential system deferrals. The Generation Project owner is solely responsible for identifying any potential heating and/or cooling customers.

20. How will projects connecting to the distribution system be screened to ensure they do not exceed the capacity on any single circuit or substation?

Each project application will be reviewed by the Authority using the Smart Grid SGIP preliminary screening process to determine on a preliminary basis whether the distribution circuit and/or substation proposed for interconnection is capable of accepting the capacity proposed by the applicant. In the event that more than one application from this Fuel Cell FIT and/or the concurrent Commercial Solar FIT is made for the same circuit or substation, the applications will be considered in order of their bid price such that the lowest bid will receive preference until the available capacity is consumed.

21. Recent FITs conducted by the Authority as well as the proposed Commercial Solar PV FIT pay at a single clearing price. Why a different approach for the Fuel Cell FIT?

Unlike solar projects which have largely fixed costs, a substantial portion of the cost of power from a fuel cell is the variable cost of the fuel supply. The risk premiums that a developer would incur for a 20-year contract could make projects prohibitively expensive. The indexing proposal allows this fuel price

variability risk to be assumed by the Authority. The effects of gas price volatility can be partially mitigated through the hedging programs that the Authority runs for other gas-fired power plants.

22. How many years will I be eligible for the Fuel Cell Feed-in Tariff payment?

You will receive a varying payment per kWh based on the as bid rate formula for energy delivered commencing on the commercial operation date of the project for a 20-year term, as more specifically set forth in the PPA.

23. Can I receive other incentives or grants from the Authority and participate in the Fuel Cell Feed-in Tariff?

No. You cannot receive any other grants or incentives from the Authority for any fuel cell system proposed under the Fuel Cell Feed-in Tariff.

24. Can I receive other Federal and/or State incentives or grants?

Yes, other federal and state tax incentives or grants may be used to help reduce the cost or finance the system, as long as they conform to the rules in place for those incentives or grants. These could include, but are not necessarily limited to tax credits, accelerated depreciation, and grants. However, no Authority-funded grants or incentives may be used for a system under the FIT. The Generation Project owner is expected to use their best judgment as to the future availability of Federal and/or State incentives or grants when developing its bid price proposal.

25. Can I participate in the Net Metering Tariff and the Fuel Cell Feed-in Tariff?

No. Under this FIT, the output of the fuel cell system is sold directly to the Authority and separately metered.

26. What happens to complete and responsive applications that are not selected?

Applications that are not selected will be placed in an excess queue (“Waiting List”) with an option to be removed at the project owner’s discretion.

27. How long will this program be available?

The FIT application submittal process begins on October 1, 2016 and ends on January 31, 2017. The Authority will continue to accept applications for the Waiting List until such time that the full 40 MW have been awarded and all accepted projects have achieved commercial operation, or February 1, 2019

(whichever comes first). Applications may be accepted from the Waiting List. Acceptance from the Waiting List will be made in priority order according to their evaluation bid price, with lower bid prices taking priority over higher bid prices. In the event that multiple applications have the same evaluation bid price, smaller capacity projects will be given priority. In the event that multiple applications have the same evaluation bid price and proposed capacity, the earlier submittal timestamp will be given priority.

28. If projects are selected off the Waiting List, how is rate determined?

Projects selected from the Waiting List will be offered their as bid rate formula in the same manner as projects accepted during the initial enrollment period.

29. What are the interconnection requirements?

Fuel Cell projects intending to connect to the distribution system must meet all the requirements of the Smart Grid Small Generator Interconnection Procedures (“SGIP”). Projects intending to connect to the transmission system must adhere to the NYISO’s Large Generator Interconnection Procedures or the NYISO’s Small Generator Interconnection Procedures, as applicable. Fuel Cell Projects greater than 10 MW must connect to the transmission system.

Non-synchronous Generation Projects proposing to connect to the transmission system must also 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 statement is in addition to those documents.

The Generation Project owner will be responsible for any and all interconnection and system upgrade costs.

30. Who owns the renewable energy credits or other environmental attributes of the system?

The Authority will own any beneficial environmental attributes, if any, that may arise from or accrue to the project.

31. Do I need to be a customer?

No, you do not need to be a customer in order to install a system eligible for this FIT. However, the system must be installed within the Authority’s service territory.

32. Can I sell my project or transfer ownership to a 3rd party?

Yes, a project can be sold or transferred to a third party subject to the terms and conditions in the PPA.

33. Can I own more than one project?

Yes.

34. Can there be more than one owner per project?

Yes, but only one person or legal entity can sign the PPA and will be held responsible for executing the terms and conditions of the PPA.

35. Can there be multiple projects at a given site?

No. Sites are limited to one project.

36. Can I terminate the agreement before the end of the term?

No. The term of the PPA will be twenty (20) years from the commercial operation date of the project and cannot be terminated early; however, an event of default or force majeure may cause the PPA to be terminated. The Authority will not allow a project that has had its PPA terminated early due to a Seller default to re-enter the FIT or to switch to the net meter tariff.

37. What happens if the project is rendered non-operational at any point?

Following commercial operation, if a project is rendered inoperable for longer than 12 months, regardless of the cause, the Authority may terminate the PPA and cease payments to the owner.

38. What happens at the end of the term?

At the end of the PPA term, the system owner may keep, dismantle or sell the system, and its continued operation and interconnection to the Authority's grid would be subject to the terms and conditions in place at the time the PPA expires. The system owner will be responsible for complying with all laws and regulations in effect at the end of the contract term applying to system removal, safe disposal of equipment, and site restoration.

39. What is the latest Commercial Operation Date (COD) that would be accepted?

There is no specific date for accepted generation projects to achieve COD. However, the Tariff, PPAs, and relevant interconnection procedures contain activity deadlines that require timely progress toward COD. The Authority may reject a bid for failing to make such timely progress. For instance, once notified of acceptance in the initial enrollment period, generation projects then must apply within 10 business days for interconnection to the Authority's system under the Smart Grid SGIP or NYISO's Small Generator Interconnection Procedures, as applicable. Projects must complete the interconnection process according to the schedule of the appropriate interconnection process. The Authority expects to execute a Fuel Cell or Solar PPA with the generation project owner shortly after execution of the Interconnection Agreement. The generation project must achieve COD within two years of PPA execution by all parties, unless a delay has been approved according to the provisions of the PPA. While the elapsed time from acceptance to required COD may vary, it typically would not take longer than 2 ½ to 3 years.

40. Is there an application fee?

Yes. The application fee is \$1 per kilowatt_{AC} rated capacity of the proposed project. At the time of application to the Fuel Cell FIT, the submitter will need to provide, within three (3) business days of application submittal, a certified check payable to PSEG Long Island. The application fee will be refunded to any applicant that is deemed unresponsive, or withdraws prior to being accepted in the FIT. Certified checks should be delivered to:

PSEG Long Island
ATTN: Stephen Cantore, Power Asset Management
175 E. Old Country Road
EOB, 2nd Floor
Hicksville, NY 11801

41. In what format should bids be submitted?

An application form is available on the Manager's website. The completed application form must be submitted electronically to PAMfitLI@pseg.com.

42. Can multiple projects be applied for under one application?

No. Each project requires its own application.

43. Is there a recommended or approved list of consultants or contractors?

No, Generation Project owners are free to use whatever resources they choose.

44. If I am proposing a project with interconnection to the transmission system, is there any way to obtain an interconnection cost estimate prior to bidding, given that I am prohibited from entering the NYISO Interconnection Queue?

PSEG Long Island will, at the request of a potential bidder and for an appropriate fee, conduct analysis similar to the activities found in NYISO SGIP section 32.2.4 “Supplemental Review” of potential interconnection costs for a proposed project. Based on this analysis, PSEG Long Island will provide a non-binding good faith estimate of the relevant interconnection costs for a proposed project. Potential bidders are encouraged to contact PSEG Long Island Power Asset Management at 516-949-8295 or PAMFitLI@pseg.com for more information.

45. Are projects proposing to interconnect to the transmission system allowed to participate in the Fuel Cell Feed-in Tariff?

Yes. The final Power Purchase Agreement associated with the Tariff has provisions facilitating transmission level projects.

----- Questions added on November 7th, 2016 -----

46. Are fuel cells projects restricted to specific substations and circuits?

Yes. Eligible fuel cell projects must be connected to the system at or within a beneficial area. The lists of beneficial areas are available on the Manager’s website. Potential Respondents are advised to contact PSEG Long Island’s Power Asset Management Group at PAMFITLI@pseg.com to get definitive electrical interconnection information.

47. Have there been any changes to the list of locations designed as beneficial areas for fuel cell installations?

Yes. The Authority has published changes to the lists of beneficial areas for distribution and transmission-connected fuel cell resources subsequent to its initial posting in May 2016. Please see the Manager’s website for the latest list of beneficial areas.

48. How do I submit additional information regarding my project that cannot be inputted directly into the FIT application?

Applicants may submit additional project information that cannot be entered directly into the FIT application as a separate attachment to their application.

49. Will the Authority provide water, or any other utility, to the project?

No. Water, or any other utility, are the responsibility of the Generation Project owner.

50. When will developers be notified about winning bids?

It is anticipated that notification of initial awards of Power Purchase Agreements will occur in the first half of 2017. This estimated schedule is subject to change.

51. Are applications for mutually exclusive proposals on the same site allowed?

Yes. Applications for mutually exclusive proposals on the same site are allowed provided that the applicant identifies on its application the other mutually exclusive proposals. Applicants should identify the other mutually exclusive proposals in the “Other pertinent information relating to this proposal” section of the FIT application form.

----- Questions added on November 28th, 2016 -----

52. Please provide an example showing how a Fuel Cell bid will be evaluated on price.

Assume a hypothetical fuel cell developer, ABC Fuel Cells (“ABC”), submits a responsive Fuel Cell Feed-in Tariff bid for a 6 MW project interconnecting to the Authority’s distribution system within a designated beneficial area. ABC’s application specifies the following bid parameters related to pricing:

- Fixed price component: \$0.08/kWh
- Heat rate factor: 8,500 BTU/kWh
- Gas price index selection: Transco zone 6 N.Y.

As noted in FAQs 16 – 18 above, the bid will be evaluated based on a single “bid price” determined by using the rate formula and the 20-year levelized natural gas price forecast published on the PSEG Long Island website for the selected index. ABC’s bid has selected Transco zone 6 N.Y. for its gas price index, so the 20-year levelized gas price forecast is \$7.71/MMBtu. ABC’s bid price (for evaluation purposes only) is determined by solving the following formula:

ABC’s Bid Price

$$\begin{aligned}
 &= \text{As-bid fixed price component} + (\text{As-bid heat rate factor} * \text{levelized gas price forecast}) / 1,000,000 \\
 &= \$0.08/\text{kWh} + (8,500 \text{ BTU}/\text{kWh} * \$7.71/\text{MMBtu}) * 1 \text{ MMBtu} / 1,000,000 \text{ Btu} \\
 &= \$0.08/\text{kWh} + \$0.0655/\text{kWh} \\
 &= \$0.1455/\text{kWh}
 \end{aligned}$$

ABC’s bid price of \$0.1455/kWh does not exceed the Price Cap of \$0.1688/kWh. When compared to other Fuel Cell and Commercial Solar Feed-in Tariff bids, ABC’s bid will be given priority over all bids with

bid prices greater than \$0.1455/kWh. Conversely, other bids with bid prices of less than \$0.1455/kWh will be given priority over ABC's bid. If another applicant's bid price equals exactly \$0.1455/kWh, priority will be determined according to the tiebreaker considerations discussed in FAQ #18.

53. If the hypothetical ABC bid described above were accepted into the Fuel Cell FIT, how much would the resulting project be paid for its generation?

Assuming that ABC's bid is accepted and that ABC successfully completes the SGIP process, it could then sign a Power Purchase Agreement ("PPA") for the Fuel Cell Feed-in Tariff with its as-bid price parameters in the Fuel Cell Products Price rate formula. ABC's Fuel Cell Products Price will be calculated daily based on the flow date midpoint price for Transco zone 6 N.Y. from the Daily Gas Price Survey published in Platts Gas Daily.

As a hypothetical example, assume ABC's fuel cell produces 138,000 kWh on Oct. 21, 2020 as measured at its dedicated meter. That same day, Platts Gas Daily publishes an October 21 flow date midpoint price for Transco zone 6 N.Y. of \$3.20/MMBtu. ABC's Fuel Cell Products Price *for that day only* would be given by the following formula:

ABC's Fuel Cell Product Price for 10/21/2020

= As-bid fixed price component + (As-bid heat rate factor * Transco zone 6 daily price) / 1,000,000

= \$0.08/kWh + (8,500 BTU/kWh * \$3.20/MMBtu) * 1 MMBtu / 1,000,000 Btu

= \$0.08/kWh + \$0.0272/kWh

= \$0.1072/kWh

ABC would receive 138,000 kWh * \$0.1072/kWh = \$14,793.60 for its generation output on that day.

54. Must a bidder's as-bid heat rate factor bear any specific relationship to a physical heat rate of the fuel cell project?

No. A bidder's heat rate factor need not bear any specific relationship to the generator's actual operating characteristics. The as-bid heat rate factor may be any whole number between 0 and 10,000, at the bidder's sole discretion (provided that the total bid price, when evaluated using the levelized gas price forecast, does not exceed the price cap of \$0.1688/kWh).

55. If a fuel cell project's actual fuel expenses differ from the gas price indices used in the pricing formula, how does that affect the price paid for the generator's output?

A generator's actual fuel expenses are not a factor in the daily pricing formula. Each bidder must make their own determination of the optimal bid parameters to balance the bidder's projected costs and risk profile. Neither PSEG Long Island nor LIPA can provide advice on bidding strategy.

56. Would the Project owner bear the risks and costs of output losses (e.g., associated with any lines and/or other equipment) that may occur from the generator up to the point of interconnection to the Authority’s system?

Yes. The Project owner would bear the risks and costs of any output losses up to the point of interconnection to the Authority’s system. The electricity output of the Project will be measured at the point of interconnection to the Authority’s system using a dedicated meter and payments to the Project owner will be based on that output amount.

----- Question added on December 22nd, 2016 -----

57. If LIPA orders the Project owner to reduce plant output, will LIPA pay for the energy that was not delivered but was available to deliver?

No. However, such a scenario is not expected to occur frequently. The Power Purchase Agreement for the Fuel Cell Feed-In Tariff (“PPA”) obligates the Authority to “purchase and receive or cause to be received, one hundred percent (100%) of the Fuel Cell Products generated by the Facility up to the Nameplate Capacity.” (See PPA Article 5.1) The Facility will not be ordered to reduce output as a result of economic dispatch. Nevertheless, certain circumstances may cause LIPA to order the Project to generate electricity at a level below its full capability for limited periods of time, without compensation for the undelivered energy. These include, without limitation, curtailment resulting from system maintenance or reliability emergencies.