

STRAW PROPOSAL
Fiscal Year 2016 Sustainable Biopower Incentive Program
October 26, 2015

Introduction

The following straw proposal for the FY2016 Sustainable Biopower Incentive Program is being issued by the Staff of the Board of Public Utilities (Staff) and New Jersey's Clean Energy Program (NJCEP) Renewable Energy Market Manager (MM) following a discussion of program-related issues at a September 28, 2015 Sustainable Biopower Working Group Meeting and informed by the experiences of past programs and solicitations as described in the Background and Context section below. In accordance with the NJCEP's stakeholder process for program development, public comments on this straw proposal will be accepted for a three-week period from its date of issuance. Comments should be submitted to publiccomments@njcleanenergy.com by 5:00 pm on November 16, 2015.

The major recommendations being made in this straw proposal are as follows:

- Return to the format of an open enrollment program with a prescriptive rebate that was used prior to the FY2014 and FY2015 competitive solicitations.
- Offer eligibility to (1) new projects, (2) capacity additions to existing projects and (3) equipment to improve the efficiency or performance of existing projects.
- Adopt an incentive structure consistent with the NJCEP's Commercial & Industrial CHP program, with a \$2.00/watt rebate for CHP and \$1.00/watt for power generation only.
- Set a maximum incentive of \$1 million for any individual project, regardless of size.
- Establish a first-come, first-served application process that will continue until the \$3 million budget is fully committed. Incomplete applications will be placed at the end of the queue with an opportunity provided to cure application deficiencies.

Background and Context

In working towards the adoption of biomass conversion to electricity as a New Jersey Class I renewable energy source, the Board's Office of Clean Energy – through the NJCEP – has been providing financial incentives and registration for renewable energy certificates (RECs) to biopower projects built in New Jersey since 2002.

As of March 31, 2015, participants in the NJCEP have installed 31.155 megawatts (MW) of biopower capacity, which includes five grid supply projects with a combined capacity of 22.65 megawatts (MW) installed under the Grid Supply and Renewable Energy Advanced Power (REAP) programs, and 14 behind-the-meter projects with a combined capacity of 8.505 MW under the Renewable Energy Incentive Program (REIP). NJCEP paid combined incentives of \$7.36 million for the grid supply projects and \$7.61 million for the behind-the-meter projects for total incentive payments of \$14.97 million. In addition, three proposed behind-the-meter projects totaling 2.921 MW received incentive commitments totaling \$4.3 million during the 2012-13 program year and are currently being installed.

Up through the 2012-13 program year, the REIP was offered as an open enrollment program with a prescriptive rebate. In its FY2014 Compliance Filing, however, the MM proposed changing the program to a competitive solicitation. Following approval of the Compliance Filing by the Board, Staff and the MM obtained stakeholder input into the design, timing, process, incentive structure and eligibility criteria for the competitive solicitation.

On February 19, 2014, the Board approved Staff's recommendation to issue a competitive solicitation with a budget of \$2.5 million. Trenton Biogas LLC submitted the only application in this solicitation, proposing a 1.137 MW CHP project at the Mercer County Regional Sludge Management facility in Trenton. The Solicitation Evaluation Committee denied the application for failing to satisfy the solicitation's eligibility requirements on net metering and interconnection and for failing to submit a signed contract for the system's installation.

Informed by the results of the FY2014 solicitation, Staff and the MM restarted the stakeholder process to recommend revisions to the program for FY2015, including the elimination of the net metering and interconnection requirements that caused the denial of the Trenton Biogas LLC application. Staff recommended a revised solicitation to the Board for FY2015, which was approved at the October 22, 2014 agenda meeting.

Applications were submitted by the Gloucester County Utilities Authority (GCUA) for a 1.266 MW CHP project at its Water Pollution Control Facility in West Deptford, and by the Village of Ridgewood for the construction of a micro-grid extending its existing CHP system to service an adjacent public water well. In an Order dated March 18, 2015, the Board accepted Staff and the Solicitation Evaluation Committee's recommendation to deny GCUA's application for failing to meet the solicitation's eligibility requirement of having 100% of the feedstock derived from a Class 1 biomass resource, and to deny Ridgewood's application due to missing, incomplete or inconsistent application materials.

Also dated March 18, 2015, the Board approved the issuance of a second solicitation round for FY2015. GCUA resubmitted its application with modifications to address the 100% Class 1 feedstock issue cited in the denial of its Round One application. However, in an Order dated June 17, 2015, the Board accepted Staff and the Solicitation Evaluation Committee's recommendation to deny GCUA's application because it failed to achieve a minimum threshold score on the Solicitation's evaluation criteria.

Therefore, no incentive commitments were made in either FY2014 or FY2015.

Program Goal

The goal of the FY2016 Sustainable Biopower Incentive Program is to provide support in the form of financial incentives to sustainable biopower projects installed on the sites of ratepayers of regulated gas and electric utilities, either interconnected behind the meter at the customer's site or installed as a merchant wholesale power generator on a site owned by a customer that pays the Societal Benefits Charge. Projects involving the installation of equipment that enhances the performance or efficiency of an existing biopower system are also targeted for support.

This program will ultimately benefit New Jersey ratepayers by supporting the growth of biomass sourced renewable energy in government, commercial, institutional and industrial entities (including public and non-profit entities) in New Jersey that would not be able to fund the project absent the incentive.

Program Objective

The FY2016 program is designed to meet the following objectives:

- Focus on sustainable biopower projects, defined consistently with the New Jersey RPS definition of biopower as a New Jersey Class I renewable energy resource, which are “ready to build” and can be completed as expeditiously as possible.
- Establish an incentive structure and maximum incentive levels which will allow the limited amount of funds to be committed to a broader number of projects and motivated to complete construction expeditiously.

Program Budget

In an Order dated June 25, 2015 (Docket No. 0015040477, In the Matter of the Clean Energy Programs and Budget for Fiscal Year 2016), the Board approved Staff’s recommendations on the NJCEP’s FY2016 programs and budgets. The approved budget allocated \$3 million for the FY2016 Sustainable Biopower Incentive Program.

Program Design

As previously noted, the Sustainable Biopower Incentive Program transitioned in FY2014 from an open enrollment program with a prescriptive rebate to a competitive solicitation. The reasons for making this transition included:

- A reduction in the annual budget from \$7.4 million for Program Year 2012¹ to \$2.5 million for FY2014, requiring stricter limits on incentive awards; and
- A desire to use the limited budget to fund cost-effective, technologically feasible projects that could be completed in a reasonable amount of time.

However, three rounds of competitive solicitations over two fiscal years attracted only four applications, one of which was a re-submittal from an earlier round. By comparison, 10 applications were submitted during the 2012-13 program year of which only two have been completed and three remain under development.

In an effort to understand the differences in application rates between the open enrollment program and the competitive solicitations, the MM spoke informally with several industry stakeholders and then facilitated a discussion on the topic at the September 28, 2015 working group meeting. Although the evidence is anecdotal, the following three reasons were mentioned most often:

- The impact of Superstorm Sandy continues to be felt by many public agencies whose facilities were damaged or destroyed by the storm. As a result, these agencies reordered their budget

¹ In order to align NJCEP’s calendar-based Program Year with the State’s fiscal year, the Board extended the 2012 Program Year by six months and expanded each program’s budget by 50%. The comparison above uses budget numbers from comparable 12-month periods rather than the expanded 2012-13 Program Year.

priorities to focus on restoring or replacing equipment essential to their primary functions (i.e., wastewater treatment) rather than on energy systems to support those functions.

- The uncertainty of receiving incentive awards inherent in a competitive solicitation made it difficult for developers, site hosts and potential system owners to commit to projects, since the final cost of the project could not be determined with any assurance. Market participants would prefer an open ended commitment that enables multiple extensions of project completion deadlines.
- The 60-day window for submitting applications in the solicitation created timing problems for projects with extended lead times or those that needed approval from their agency's boards.

Additionally, the availability of funding from other programs such as the New Jersey Energy Resilience Bank (ERB) or the NJCEP's Commercial & Industrial CHP/Fuel Cell Program – which could offer larger incentives or have less restrictive eligibility requirements – may also be a factor in the decline of applicants to the REIP.

In view of the preference that stakeholders expressed for the open enrollment program with a prescriptive rebate, Staff and the MM are recommending a return to that format for FY2016.

Program Eligibility Requirements

Projects must generate electricity (and thermal energy, if a CHP system is proposed) using sustainable Class I biomass resources as defined in N.J.A.C. 14:8-2.5. Projects designed to operate on any combination of sustainable biomass and any other feedstock not specifically designated as sustainable biomass in N.J.A.C. 14:8-2.5 (i.e., natural gas, oil, etc.) are ineligible for this program but may be eligible for incentives under the NJCEP's Commercial and Industrial CHP program or the New Jersey Energy Resilience Bank.

The expansion of an existing biopower project with new equipment is also eligible for incentives, although the incentive will be based solely on the additional capacity of the new equipment. The combined capacity of the proposed expansion and existing generators, when employed to participate in net metering with an electric distribution company, may be limited to the sizing requirements based upon historical consumption. Detailed information of load assumptions or twelve months of electric billing data must be submitted with applications proposing to net meter.

Additionally, equipment that is designed to improve the performance and/or efficiency of an existing biopower system is also eligible for incentives. This type of equipment may include, but is not limited to, that which cleans or removes impurities and/or contaminants from landfill gas, digester gas or other forms of sustainable biomass that qualify as Class 1 renewable energy under N.J.A.C. 14:8-2.5. Applicants must document their system's historic electric production; its current electric production; and projections for electric production following installation of the equipment. Applicants must also provide information on the potential decrease in maintenance costs and increase in the system efficiency when installing the equipment. Incentives will be based on the amount of useful capacity recaptured or gained through the installation of the equipment.

All projects must also meet the following requirements:

- The applicant must be able to demonstrate that the acceptable biomass feedstock is available on a sustainable basis and the combustion of the biogas satisfies New Jersey's regulatory emissions standards, including solid waste regulatory standards for ash management.
- The proposed system must be installed in New Jersey and interconnected with the electric distribution system serving New Jersey.
- The customer must contribute to the Societal Benefits Charge (SBC) through their utility bills.
- NJCEP incentives are contingent upon the applicant meeting all other program requirements, including but not limited to compliance with the host Electric Distribution Company's interconnection requirements and compliance with all applicable local, state and federal laws, permit requirements and regulations.
- Applicants must agree as a condition of the incentive payment to supply accurate cost information based upon the actual final as-built installation cost.
- Applicants must identify to NJBPU staff the source of funds and the amount of any other direct incentives received for the project. Applicants must deduct other direct incentives from the total installed cost in the calculation of final incentive amounts.
- Applicants who pursue grant incentives for their sustainable biopower application from the ERB will not be eligible to receive incentives under this program. However, applicants participating in the ERB loan program that have not received grant funds for their projects may apply.
- Applicants must not have any unresolved environmental violations, past due unresolved Federal financial obligations, past due unresolved obligations to the State of New Jersey, and must be current in all payment of all state and local taxes at time of application submittal and through the entire term of any financing received by Applicant.
- Pursuant to N.J.S.A. 4:1C-32.5, any biopower project proposed to be developed on land that is valued, assessed and taxed pursuant to the "Farmland Assessment Act of 1964," P.L.1964, c.48 (C.54:4-23.1 et seq.), must receive the approval of the New Jersey Department of Agriculture (NJDA). Documentation of such approval or application for approval must be included in the Application packet.

Technical Requirements

- Projects should use established biomass conversion technologies (including, but not limited to, anaerobic digestion and gasification) in proven and commercially available electric generating systems (including, but not limited to, gas engines and gas turbines).
- Equipment must be new. Used, refurbished, temporary, pilot or demonstration equipment is not eligible.

- Equipment must be permanently installed. Portable systems and systems used solely for the purpose of providing emergency backup power are not eligible.
- There is no minimum efficiency level for CHP systems.
- Sustainable biopower systems must be covered by an all-inclusive warranty for at least five years from date of installation. The warranty must cover the major components of the system eligible for the incentive to protect against breakdown or degradation in electrical output of more than 10 percent from the originally rated electrical output.

Incentive Structure and Maximum

Staff and the Market Manager’s objectives in establishing an incentive structure and maximum incentive limits for this program are guided by the need to provide an incentive sufficient to make a project economically viable while opening the program’s \$3 million budget to the greatest number of participants practicable. The experience from prior program years, where participants receive large incentive commitments that must be extended over multiple program years before the project can reach commercial operation, makes it impractical to establish a program budget larger than \$3 million. To the extent possible, the incentive structure should also be comparable to other incentives available in similar programs, i.e., NJCEP’s Commercial and Industrial CHP/Fuel Cell Program.

Therefore, Staff and the Market Manager recommend the adoption of the following incentives for new biopower systems or additions to existing biopower projects:

- Combined heat and power: \$2.00 per Watt
- Power generation only: \$1.00 per Watt

Incentives for equipment to improve performance or efficiency will be calculated on the formulas noted above for each Watt of capacity recaptured or gained as a result of installing that equipment. Capacity gains must be documented by the applicant at the time of application.

All incentives will be capped at the lesser of the prescriptive rebate or 30% of the total project cost. For additions to existing projects and efficiency or performance enhancing equipment, the per-watt incentive will apply only to the capacity being added and the 30% maximum will apply only to the incremental cost of the addition or the new equipment installed.

All projects will be limited for a maximum incentive of \$1 million regardless of capacity or project cost. Due to the program’s limited budget, only one application per entity (defined as a business, corporation, institution or public agency that is the site host of the project, or a developer who is also the owner of the project) will be accepted by the program manager during the FY2016 program.

Application Process

The FY2016 program will open on the effective date of the Board Order approving the program. Beginning on that date, the program manager will post the program forms on the NJCEP website. Applicants may then download the forms, complete them and submit them along with other documents required in the application package (as described on the Application Checklist) to the program manager.

All applications must be submitted in hard copy to the program manager and delivered via U.S. Postal Service, overnight courier or in person to 75 Lincoln Highway, Suite 100, Iselin, NJ 08830.

Since this is an open enrollment program, applications will be considered on a first-come, first-served basis. The order of applications will be determined by the date they are received by the program manager (all applications are date-stamped on receipt). There will be no priority given to applications from any particular customer sector or geographic area of the state.

The program manager will determine if an application is complete. If they deem an application incomplete, they will contact the applicant with the reason(s) for their determination and indicate the step(s) the applicant must take to make the application complete. Since this is not a competitive solicitation, the applicant and program manager are allowed to communicate with each other regarding the proper submittal of applications.

Applications that are deemed incomplete will be immediately removed from the queue. Once an applicant remedies the deficiencies by submitting the necessary items to make the application complete, the application will be time-stamped a second time, thus placing it at the end of the queue. Applications will continue to be accepted for this phase of the FY2016 program until such time as the \$3 million budget has been fully committed, or an insufficient amount of money remains to fund the next project in the queue.

Once an application is approved, the program manager will mail an Approval Letter to the applicant. The Approval Letter will include the amount of the incentive commitment and the 18-month deadline for project completion. A Final As-Built package must be submitted prior to the 18-month deadline. The forms required in the Final As-Built package will be posted on the NJCEP website. If extenuating or unforeseen circumstances result in applicants being unable to complete the project within 18 months, they may apply to the program manager for one six-month extension.

On a quarterly basis beginning with the first end-of-quarter date (March 31, June 30, September 30 and December 31) from the date of the Approval Letter, each Applicant shall submit to the program manager an updated REIP Milestone Reporting Form documenting the progress made on the project during that period.

All biopower projects are required to pass an NJCEP program inspection in addition to any inspections required by local code officials or electric distribution companies (EDCs). The program inspection will verify that the equipment installed at the host site is the same equipment described in the Final As-Built package and meets the energy capacity specifications on which the incentive award is based.

Incentive checks will be processed upon receipt of a passed inspection report by the program manager, and are generally issued within 60 to 90 days from the start of processing. The program manager will also send the system owner of a new biopower project a New Jersey Certification Number that may be used to set up an account with PJM-GATS for Class 1 renewable energy certificates.

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