

STRAW PROPOSAL

Fiscal Year 2014 Biopower Program September 18, 2013

Background and Context

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

As of September 2013, participants in the New Jersey Clean Energy Program have installed 30.905 megawatts of biopower capacity. From 2004 through 2007, a total of 22.65 megawatts (MW) was installed under the Grid Supply and Renewable Energy Advanced Power (REAP) programs, with five projects receiving a total of \$7.61 million in incentives. In addition, 12 behind-the-meter projects were installed between 2002 and 2010 with a combined capacity of 8.255 MW and total incentive payments of \$6.57 million. During the 2012-13 program year, which ended June 30, 2013, approval letters were issued under the Renewable Energy Incentive Program (REIP) for 10 sustainable biopower projects totaling 5.29 MW, with incentive commitments totaling \$11.17 million¹. None of these recent projects with incentive commitments have been completed as of the date of this straw proposal.

Based on the activity in the market during the 2012-13 program year, BPU Staff recommended through the Comprehensive Resource Analysis (CRA)² that the four-year funding level for biopower be set about 25% above the level of commitments made since 2009. The level of incentives paid and/or commitments made since 2009 is \$8.3 million. Increasing this amount by approximately 25% would result in a four-year funding level of approximately \$10 million. Therefore, Staff recommended an FY2014³ funding level of \$2.5 million for biopower projects.

To continue the progress towards increasing the production of electricity with biomass as a New Jersey Class I renewable energy (NJ Class I RE) resource, the NJCEP will continue to offer financial incentives for sustainable biopower projects, but will do so through a competitive solicitation rather than a structured, administratively fixed, one-size-fits-all incentive.

¹ The program also issued incentive commitments of \$69,274 for three feasibility studies in 2012-13.

² Adopted in the Board Order dated June 21, 2013 In the Matter of the Comprehensive Energy Efficiency and Renewable Energy Resource Analysis for Fiscal Years 2014-2017 Clean Energy Program, Docket No. EO11050324V.

³ In a Board Order dated November 20, 2012 in Docket Nos. EO07030203 and EO1100631V, the Board aligned the NJCEP program year with the State's July 1-June 30 fiscal year. Thus, references in this straw proposal to FY2014 mean the program year running from July 1, 2013 to June 30, 2014.

In its FY2014 Compliance Filing⁴, the Honeywell Market Manager Team proposed the following to establish a biopower solicitation program:

“For FY2014, the biopower incentive structure will change from a fixed incentive schedule to a competitive solicitation which will be administered by the Market Manager. During the 3rd quarter of 2013, Board Staff and the Market Manager will hold discussions with interested stakeholders to develop the solicitation process. The intent is to develop a solicitation schedule with one solicitation during each quarter from Q4 of 2013 through Q2 of 2014. The solicitation would rely upon past project eligibility requirements and program application forms but would include a dollar per watt cap and a total project payment cap to be determined with input from interested parties through the stakeholder process.”

Following the Board’s approval of the Compliance Filing, the Market Manager and BPU Staff began the process of transitioning the sustainable biopower program to a competitive solicitation by convening a meeting of the Biopower Working Group on July 23, 2013 to obtain stakeholder input into the design, timing, process, incentive structure and eligibility criteria for the competitive solicitation.

This straw proposal is the result of the ideas and recommendations expressed at that meeting, along with written comments submitted subsequently. In keeping with the transparent and inclusive nature of NJCEP program development, public comments on this straw proposal will be welcomed and considered. Based upon that input, a final version of the competitive solicitation will be presented to the Board for its review and approval at one of its regularly scheduled agenda meetings later this year. It is the intent of the Market Manager to issue the first round solicitation prior to the end of the calendar year. The schedule below highlights specific dates in the timeline for issuing the solicitation:

- Sept. 17, 2013: Market Manager issues straw proposal for solicitation concepts.
- Sept. 20, 2013: Next Biopower Working Group meeting – discuss the recently released straw proposal
- Oct. 7, 2013: Deadline for written comments on straw proposal⁵.
- Oct. 18, 2013: Market Manager presents final program proposal to NJBPU.
- Nov. 22, 2013: BPU agenda meeting; Board votes on final program proposal.
- Dec. 10, 2013: Roll-out of first solicitation.

⁴ Adopted in the Board Order dated June 21, 2013 In the Matter of the Clean Energy Programs and Budgets for the Fiscal year 2014, Docket No. EO13050376V.

⁵ Comments should be submitted to publiccomments@njcleanenergy.com by COB on October 7, 2013.

Program Goals

- Focus on sustainable biopower projects, defined consistently with the New Jersey Renewable Portfolio Standard definition of biopower as a NJ Class I RE resource, which are “ready to build” and can be completed as expeditiously as possible.
- Establish maximum incentive amounts which will allow the limited amount of funds to be committed to a broader number of projects.
- Focus on facilities that are defined as “public and critical”⁶ with the goal of keeping them operational during power outages.

Program Eligibility

Although the biopower component of the REIP will transition to a competitive solicitation, the basic eligibility requirements of the program will remain the same. The guidelines regarding the sustainability determination and the timing of applying for and obtaining permits remains the same as currently specified in the REIP Biopower program guidelines. The sustainability determination must be obtained prior to submitting the REIP Biopower application. All necessary permits and the electrical inspection must be provided to the Market Manager with the Final As-Built Packet. Applicants must continue to meet the following standards in order to qualify for financial incentives in FY2014:

- Projects must generate electricity (and thermal energy, if they are CHP) with Class I biomass resources as defined in N.J.A.C. 14:8-2.5. Depending on the type of feedstock the project intends to use, a biomass sustainability determination from the New Jersey Department of Environmental Protection (NJDEP) may or may not be required.
 - Pursuant to N.J.A.C. 14:8-2.5(b), a biomass sustainability determination is not required for systems fueled by landfill gas or digester gas produced from food waste or sewage sludge.
 - Pursuant to N.J.A.C. 14:8-2.5(d), a biomass sustainability determination is required for systems fueled by wood waste, bioenergy crops, agricultural waste or any other form of biomass not specifically mentioned in the regulation.
- The applicant must be able to demonstrate that the acceptable biomass feedstock is available on a sustainable basis and the combustion of the manufactured biogas satisfies New Jersey’s regulatory emissions standards.

⁶ BPU Staff is in the process of finalizing a definition for public and critical facilities for purposes of developing incentives for CHP and other distributed generation. For the purpose of this solicitation, the following definition will be used; it may be subject to change in subsequent proceedings or the next solicitation round: “*Public and Critical Facilities would be public facilities including federal, state, county or municipal and could include private hospitals or communication centers. The public and critical facilities would include police stations, fire and rescue facilities, hospitals, shelters, schools, nursing homes, water supply and waste treatment facilities, and other structures the community identifies as essential to the health and welfare of the population and that are especially important following a disaster. The public and critical facilities would be able to provide shelter and sustenance 24/7 during and after an emergency.*”

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- Projects must be interconnected to the New Jersey electric distribution system pursuant to N.J.A.C. 14:8-2.9, and must be behind-the-meter net metered projects sized to produce no more than 100% of the host facility's historic annual electric consumption.
- The customer must contribute to the Societal Benefit Charge (SBC) through their utility bills, i.e., is the customer of an Electric Distribution Company (EDC) or Local Gas Distribution Company (LDC) regulated by the Board of Public Utilities.
- 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.
- Applicant must supply cost information that is accurate and based upon the actual as-built installation cost. Eligible installed system cost includes all key system components, installation, and applicable interconnection costs before *New Jersey's Clean Energy Program* incentive, less any other direct incentives.
- Applicant must provide the source of funds and amount of any other direct incentives received for the project. Staff may recommend that the Board continue the practice of deducting other direct incentives from total installed cost in the calculation of final incentive amounts.

Technology Eligibility

The FY2014 competitive solicitation should focus on mature biopower technologies with proven track records of success using sustainable biomass feedstocks that are readily available in New Jersey. This would help achieve the program's stated goal of rapid project completion and effective expenditure of the limited budget, since the equipment would be more easily and quickly obtainable than equipment needed for technologies that may require additional research and development. The Market Manager therefore recommends that the competitive solicitation be focused on projects using 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).

Incentive Structure and Maximums

Creating the optimal incentive structure is a challenging task. An administratively determined incentive in a fixed structure provides some applicants with more incentive than required and many with too little. As BPU staff noted during the Biopower Working Group's facilitated

discussion, incentives are a representation of the energy, environmental and societal benefits a project brings to the ratepayers who are funding it. In essence, incentives place a dollar value on those benefits and should be evaluated accordingly. At the same time, incentives should be calculated and provided in consideration of project development costs, recognizing factors such as economies of scale and the additional expenses associated with using sustainable biomass feedstock over conventional fossil fuels. Ideally, the incentive should provide the incremental amount required to motivate investment, the tipping point at which a project becomes economically feasible without creating a ratepayer-financed windfall for the developer.

Several stakeholders stressed the importance of maintaining a fixed incentive based on system capacity. The stakeholders felt that having a fixed per-kilowatt incentive increases the level of certainty required for project financing. Staff believes that a fixed per-kilowatt incentive should not be confused with a structured, administratively set capacity-based rebate offered to all applicants without regard to project economics or benefits that would remove the competitive element in evaluating projects on the basis of their economics. Fixed incentive amounts can be competitively determined, where the applicant defines the incremental amount necessary to make the investment worthwhile while providing the ratepayer with the greatest benefit at the least cost and spreading the limited budget among the greatest number of applicants. Thus, an applicant requesting a \$600,000 incentive for a 300 kW project is essentially fixing their incentive at \$2.00 per watt. If the final project is downsized to 240 kW, however, the incentive would be reduced accordingly on a \$2.00 per watt basis.

The establishment of a maximum incentive amount will help ensure the widest and most equitable distribution of funds while encouraging applicants to request only the minimum incentive required to build their projects. In order to ensure that the awards resulting from each solicitation round are competitive, the evaluation committee will not consider any incentive requests that exceed the dollar-per-Watt threshold that will be established by the Solicitation Evaluation Committee prior to the issuance of the solicitation.

Applicants will be required to submit a list of additional/other incentives they may have applied for and/or received, as well as a summary of intended funding sources (i.e., bonds, loans, capital funds, etc.) These additional incentives will be considered in calculating the final REIP incentive for which they will be eligible.

Applicants may request incentive payments no greater than \$750,000 per project or 30% of the project's total installed cost after deducting any other incentives, whichever is less. Although each entity may submit more than one project, the total incentive request for each NJCEP fiscal year is limited to \$1,125,000. For purposes of the per-entity maximum, an entity is defined as the business, institution or public agency that is the site host for the biopower project(s). The per-entity maximum does not apply to project developers. It will remain in effect for all solicitations within a single fiscal year. Projects that are granted incentive commitments in one solicitation round of a fiscal year may not reapply in the following round, although they are eligible to reapply in any round thereafter.

To encourage the completion of projects in as short a timeframe as possible, incentives will be paid at 110% for projects that submit a completed Final As-Built packet within 12 months of the date on their REIP approval letter. Projects that submit Final As-Built packets after 12 months – but before the 18-month deadline in the approval letter – will be paid at 100% of the approved incentive. Projects that require a 12-month extension following the expiration of the initial 18-month approval period will be paid 90% of the approved incentive amount. The REIP portion of the incentive will be paid in its entirety following the successful completion of the program inspection.

Solicitation Structure, Timing and Frequency

The FY2014 Compliance Filing sets a target of three solicitation rounds for the program year, with one round scheduled in each of the year's final three quarters. While this is the target, the Market Manager may recommend that the Board exercise some flexibility in this schedule based on the program budget, the logistics of soliciting and evaluating project applications within a condensed timeframe and the stated goal of funding and completing projects as expeditiously as possible.

The Market Manager therefore proposes that the full \$2.5 million budget amount be made available in the first round (see schedule on Page 2). In the event that the full \$2.5 million is not committed in the first round, or additional funding becomes available, a second round will be held in the late first/early second quarter of 2014.

Each round of the solicitation will last approximately 90 days. The timeline for each round will be structured as follows:

- Day 1: Posting of solicitation document on NJCEP website and email distribution through biopower listserv. Written question submittal period opens.
- Day 7: Written question submittal period closes.
- Day 14 (approx.): Market Manager conducts a webinar to review application submittal procedures and provide answers to previously submitted questions.
- Day 60: Deadline for submitting completed applications to Market Manager.
- Days 61-70: Market Manager conducts preliminary review of applications for completeness; identifies incomplete applications as such prior to forwarding all applications to the Solicitation Evaluation Committee⁷.

⁷ The Solicitation Evaluation Committee shall be comprised of representatives from the OCE, Market Manager, Program Coordinator and such other State agencies as may be appropriate (i.e., DEP). Evaluation criteria will be discussed in the following section.

- Days 71-88: Solicitation Evaluation Committee meets to review all applications; determining whether incomplete applications should be included in the evaluation process, ranking all applications on the basis of evaluation criteria and recommending incentive awards.
- Day 90: All applicants are notified in writing as to whether their applicants have been approved, and if approved, at what funding level.

Application Process and Evaluation Criteria

The REIP application packet will essentially remain unchanged. The Market Manager intends to use all existing REIP forms – the Application Checklist, Application Form and Technical Worksheet – revised to reflect the change in the program to a competitive solicitation. All the documents that must currently accompany those forms in the application packet will continue to be required, with the likelihood of additional documents being needed to achieve the solicitation’s goals. A complete list of the application packet’s components will be included in the solicitation announcement, with detailed instructions on their proper completion offered during the webinar.

Since the biopower program has become a competitive solicitation, the Market Manager will no longer offer individual assistance to potential applicants in terms of walking them through the process on the phone or scheduling pre-application meetings to ensure that all the paperwork requirements are met. Instead, the Market Manager will use its mailbox at bioworkgroup@njcleanenergy.com to receive written questions on the solicitation; those questions, along with the Market Manager’s answers, will be reviewed during the webinar held at approximately the 14-day mark of the application period and posted on the NJCEP website so that all potential applicants can benefit from the exchange. Individual consultation with applicants will be permitted following the issuance of incentive commitments.

Copies of applications deemed both complete and incomplete by the Market Manager will be distributed to all members of the Solicitation Evaluation Committee for their review. It will be at the discretion of the Committee to either evaluate or reject the incomplete applications. The Committee will evaluate the applications based on four criteria related to the program’s goals, which may not be equally weighted either in relationship to each other or to the questions within each category.

Economic: Applicants will be required to submit an analysis to determine the cost per kWh of generation based on the system’s estimated production. The analysis will be a simple calculation that divides the total installed cost after deducting all incentives by the system’s estimated production over its first 20 years of operation. In addition to the cost per kWh analysis, other evaluation criteria will include:

- Incentive per kWh of projected annual electric generation
- Annual system efficiency
- Projected payback period
- Other incentives for which the project may be eligible

Project Readiness: The Committee will evaluate projects on the basis of their readiness to be installed expeditiously, including:

- Projected completion date with realistic schedule and milestones
- Whether a Sustainability Determination, if needed, has been obtained
- The identification and progress of obtaining permits
- Status of contractors and contracts in place

Technical: The Committee will evaluate projects based on whether:

- The project utilizes proven and mature technology
- Equipment is commercially available
- Feedstock is readily available and has been contracted for
- The system's projected capacity factor is sufficiently high

Resiliency: The Committee will evaluate projects based on whether:

- The host site is defined as a "public and critical facility"
- The system incorporates islanding capability
- The feedstock supply is secure in the event of an emergency

The above are conceptual guidelines. The exact criteria, the grading system and other specifics relating to the evaluation process and the ranking of projects will be contained in the actual solicitation document.

The Committee will conduct its evaluation even if only one application is submitted in a solicitation round, or if multiple applications submitted in a solicitation round have a total requested incentive that is less than the funds available in that round. The lack of competition or the availability of funds does not mean that projects will be funded by default. In all cases, the Committee must make a determination that a project has met a minimum score in the evaluation process in order to receive an incentive payment.

Issues Deferred for Future Consideration

The idea of setting aside a portion of the FY2014 program budget to fund innovative or experimental technologies was briefly discussed during the working group meeting. The Market Manager believes that it is not feasible at this time, given the limited budget of \$2.5 million and the extended lead times these technologies may require to achieve commercialization. The

Market Manager would instead suggest that incentives for innovative technology development are reviewed during program budget planning for FY2015 and beyond⁸.

There was also a discussion at the meeting about extending REIP incentives to projects which co-mingled digester gas with natural gas. While the co-mingling argument may have merit, the Market Manager believes that the imperative for developing a competitive solicitation for FY2014 that can be implemented quickly and seamlessly would not allow for the time necessary to put such a major program change into effect. The Market Manager therefore recommends that the FY2014 competitive solicitation technology eligibility requirements be maintained as is, but that the issue of allowing REIP incentives to be paid to projects using a combination of digester gas and natural gas should be studied for possible implementation in FY2015 and beyond.

An additional comment was discussed regarding extending incentive eligibility for the co-firing of biomass waste with coal in power generating stations. This recommendation was also made in written comments submitted by the Rutgers Eco-complex. Since the REIP is limited to behind-the-meter systems, this type of project would not be eligible for incentives without a major program change that would not be feasible for the reason noted above. In future years, the BPU may want to consider other solicitations involving grid supply projects utilizing sustainable biopower.

Suggestions were made during the discussion that evaluation criteria include the environmental and societal benefits of the projects submitted. The Market Manager believes that it would be difficult to develop measurable and accurate metrics for these criteria, and therefore chose to limit the evaluation to the four areas outlined in the previous section of this proposal.

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⁸ Developers interested in promoting innovative technologies are recommended to participate in the Comprehensive Resource Assessment (CRA) process scheduled to commence this fall for developing funding levels for the NJCEP in FY15 through 17. Announcements of stakeholder meetings for the CRA for FY15 – 17 will be circulated through the RE and Biopower distribution lists.