

# Solicitation



## **Renewable Energy Incentive Program (REIP) Fiscal Year 2015 Sustainable Biopower Incentive**

Issued by:

Office of Clean Energy  
New Jersey Board of Public Utilities

Solicitation Open: October 23, 2014 – December 22, 2014, 5:00 p.m.

**October 23, 2014**

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## Acronyms

The following acronyms are used in this document; any agency referenced is a New Jersey agency unless otherwise noted.

- “AC”: Alternating Current
- “ANSI”: American National Standards Institute
- “Btu”: British thermal unit
- “CHP”: Combined heat and power
- “DC”: Direct Current
- “EDC”: Electric Distribution Company
- “EPC”: Engineering, procurement and construction
- “ERB”: New Jersey Energy Resilience Bank
- “kW”: Kilowatt
- “kWh”: Kilowatt Hour
- “LDC”: Local Distribution Company (gas public utility)
- “MMBtu”: Million British thermal units
- “MW”: Megawatt
- “MWh”: Megawatt hour
- “NEC”: National Electrical Code
- “N.J.A.C.”: New Jersey Administrative Code
- “NJDA”: New Jersey Department of Agriculture
- “NJBPU”: New Jersey Board of Public Utilities
- “NJCEP”: New Jersey’s Clean Energy Program™
- “NJDEP”: New Jersey Department of Environmental Protection
- “OCE”: Office of Clean Energy within the NJBPU
- “OPRA”: Open Public Records Act
- “PJM”: PJM Interconnection
- “PJM-EIS”: PJM Environmental Information Systems Inc.
- “PJM-GATS” PJM Generation Attribute Tracking System (administered by PJM-EIS)
- “PPA”: Power purchase agreement
- “REC”: Renewable Energy Certificate
- “REIP”: Renewable Energy Incentive Program
- “RPS”: Renewable Portfolio Standard
- “SADC”: State Agriculture Development Committee
- “SBC”: Societal Benefits Charge

## Definitions

- Anaerobic digestion: A process by which microorganisms break down organic materials, such as food waste or sewerage sludge, producing a biogas that can be used in electric generators.
- Applicant: The entity that applies for the REIP incentive (i.e. Applicant could be the installer/developer, system owner, or site host contact). If the Applicant is not clearly defined to the Market Manager, the default Applicant will be the site host contact.
- Behind the meter: A common phrase used to refer to a type of renewable energy system that is interconnected to the “customer-generator’s” utility meter at the site and was

installed to offset the electric consumption at that utility meter. The NJBPU rules for this type of system interconnection can be found at N.J.A.C. 14:8-5.

- Biopower: the conversion of biomass to electricity using a New Jersey Class I renewable energy source as defined at N.J.A.C. 14:8-2.5.
- Biomass Sustainability Determination: A requirement established in the NJBPU Renewable Portfolio Standard rules for certain types of biomass. A description of the determination process can be found at N.J.A.C. 14:8-2.5 (e) thru (j).
- Combined heat and power (CHP): The simultaneous production of electricity and thermal energy, also known as cogeneration.
- Customer-generator: An electricity customer, such as an industrial, large commercial, residential or small commercial customer that generates electricity behind the meter, using a Class I renewable energy source.
- Customer-sited: Another term for behind the meter.
- Developer: The entity hired by the system owner to develop the renewable energy system.
- Electric Distribution Company (EDC): The NJBPU regulated electric public utility that serves the project site. The EDCs are: Public Service Electric & Gas (PSE&G), Jersey Central Power & Light (JCP&L), Rockland Electric Company (RECO) and Atlantic City Electric (ACE).
- EDC Notification - the written notification provided by the EDC to the customer-generator that the system is authorized to be energized.
- Entity: The business, institution, or public agency that is the site host for a biopower project.
- Final As-Built: The paperwork packet required in the REIP program that is submitted once the system is installed, passed local inspection and has been "authorized to energize". The Final As-Built packet is a requirement under the REIP Program and a prerequisite for the issuance of the incentive payment.
- Fiscal Year 2015 (FY2015): The program period starting July 1, 2014 and ending June 30, 2015.
- Direct Grid-Supply or Grid-Supply: A system interconnected directly to the electric distribution system that exists primarily for the production of wholesale power.
- Interconnection agreement: An agreement between a customer-generator and an EDC which governs the connection of the customer-generator facility to the electric distribution system, as well as the ongoing operation of the customer-generator facility after it is connected to the system. An interconnection agreement shall follow the standard form agreement developed by the NJBPU pursuant to N.J.A.C. 14:8-5 and available from each EDC.
- Installer: The entity that will be installing the renewable energy system.
- Market Manager: The organization(s) that were contracted by the NJBPU to administer the NJCEP Renewable Energy Programs.
- Municipal Electric Provider: An electric power utility owned and operated by a local jurisdiction. They are: Butler, Lavallette, Madison, Milltown, Park Ridge, Pemberton, Seaside Heights, South River, Sussex Rural Electric Cooperative and Vineland.
- New Jersey Board of Public Utilities (NJBPU): The Executive Agency of the State of New Jersey with authority to oversee the regulated utilities, which provide critical services such as natural gas, electricity, water, telecommunications and cable television. The law requires the NJBPU to ensure safe, adequate, and proper utility services at reasonable rates for customers in New Jersey as well as to manage the Societal Benefits Charge which funds the New Jersey Clean Energy program.

- Public and critical facilities: For purposes of this Solicitation round, “Critical facilities” means public facilities, including federal, state, county or municipal facilities, non-profit and/or private facilities, including hospitals and communication centers determined to be Tier I or critical infrastructure facilities by the Office of Emergency Management and/or Office of Homeland Security and Preparedness.
- Ready to Build: The state of project development at which construction is anticipated to commence.
- Renewable Energy Certificate (REC): A certificate representing environmental benefits or attributes of one megawatt-hour of generation from a generating facility that produces Class I renewable energy.
- Site host: The business, institutional, or governmental entity where the project is located. The site host must be a ratepayer of an EDC or Local Gas Distribution Company (LDC) regulated by the NJBPU.
- Site host contact: The entity or individual located at the project site. This individual or entity can either own the building or grounds or be the tenant whose electric bill is being offset by the system.
- Societal Benefits Charge (SBC): A surcharge on the bills of electric and natural gas utilities regulated by the NJBPU which funds the NJCEP.
- Solicitation Evaluation Committee: The group authorized by the NJBPU to evaluate all applications to this Solicitation on the basis of established criteria and recommend incentive awards to the NJBPU. It is comprised of representatives of the Market Manager Team, Program Coordinator, Office of Clean Energy, other appropriate State agencies and external advisers.
- System owner: The entity or individual that will own the equipment, renewable energy system and typically also the RECs generated by the renewable energy system once construction is complete.

This document frequently refers to web pages and materials contained in the NJCEP website, which is located at [NJCleanEnergy.com](http://NJCleanEnergy.com). All renewable energy programs are listed under the “Renewable Energy” tab.

## 1. Program Goal

The goal of the FY2015 Sustainable Biopower Incentive Solicitation (“Solicitation”) is to provide support in the form of financial incentives to sustainable biopower projects installed behind the meter at customer sites or installed as merchant wholesale power generator on a site owned by a customer that pays the Societal Benefits Charge on an electric or gas bill

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

## **1.1 Background and Context**

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

To continue the progress towards increasing the production of electricity with sustainable biomass, the NJCEP is now offering financial incentives for biopower projects through a Competitive Solicitation rather than an administratively determined capacity-based rebate. Following a public stakeholder process, the FY2014 solicitation was issued on February 20, 2014 with responses due by April 21, 2014. One application in response to the FY2014 solicitation was submitted during the application window, and was denied by the Solicitation Evaluation Committee for failing to satisfy the Solicitation eligibility requirements as set forth in the Solicitation documents.

To gauge potential demand for biopower incentives in FY2015, in March 2014 the Market Managers issued a survey of market stakeholders. A total of 10 survey responses were received, with half of the respondents identifying themselves as “developers” and the other half as “client/end user”. Ten projects were proposed for FY2015.

In light of the low response rate to the FY2014 solicitation despite the indication of interest by developers and client/end users responding to the March survey, Staff and the Market Manager proposed that the Solicitation's eligibility requirements, evaluation criteria and application procedures should be reviewed with stakeholders prior to drafting the FY2015 Solicitation for presentation to NJBPU.

Concepts for potential revisions to the FY2015 Solicitation were discussed at the June 26, 2014 Biopower Technical Working Group meeting and presented in a Straw Proposal distributed to stakeholders on July 22, 2014. Public comments on the Straw Proposal were received through August 21, 2014. This Solicitation reflects the potential revisions contained in the Straw Proposal and consideration of the public comments submitted by stakeholders.

## **1.2 Program Objectives**

This Solicitation 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 maximum incentive amounts which will allow the limited amount of funds to be committed to a broader number of projects.
- Prioritize facilities that are defined as “public and critical” with the goal of keeping critical systems functionally operational during power outages.

## 2. Program Eligibility

The following are eligibility requirements for the Solicitation. Please review the requirements thoroughly to ensure compliance prior to submitting an application to the NJCEP for an incentive award.

When preparing your application in response to this Solicitation, keep in mind that in the Solicitation, the word “shall” or “must” denotes submittal items which are mandatory for an application to be complete; the word “should” denotes submittal items which are recommended, but not mandatory; and the word “may” denotes submittal items which are permissible but not mandatory.

### 2.1 Project Eligibility Requirements

- Projects must generate electricity (and thermal energy, if a CHP system is proposed) with 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 are ineligible for this Solicitation but may be eligible for incentives under the NJCEP’s Commercial and Industrial CHP program (Visit <http://www.njcleanenergy.com/commercial-industrial/programs/combined-heat-power/combined-heat-power> for details).
- A biomass sustainability determination from the New Jersey Department of Environmental Protection (NJDEP) must be submitted with the application if required. Pursuant to N.J.A.C. 14:8-2.5(b), a biomass sustainability determination is not required for any of the following:
  - Electricity generated by the combustion of methane gas captured from a landfill (landfill gas facilities should document that the methane fuel has a minimum availability of five years);
  - Electricity generated by a fuel cell powered by a biomass derived fuel;
  - Electricity generated by the combustion of gas from the anaerobic digestion of food waste and sewage sludge at a biomass generating facility

All other forms of biomass included as Class I eligible in N.J.A.C. 14:8-2.5(e), (f) and (g), are required to obtain a biomass sustainability determination from the NJDEP.

- 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, including solid waste regulatory standards for ash management.
- Sustainable biopower projects of any size measured by capacity to produce electricity in kW or MW may apply for the Solicitation.
- The proposed system must be installed in New Jersey and interconnected with the electric distribution system serving New Jersey.
- The Solicitation is applicable only for sustainable biopower as defined in the NJ RPS Rules N.J.A.C. 14:8-2.5 (b) 7 or N.J.A.C. 14:8-2.5 (d) - (j).

- The customer must contribute to the Societal Benefits 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 New Jersey Board of Public Utilities.
- Expansion of an existing biopower project with new equipment is also eligible for incentives, although only the incremental expansion would be eligible for the incentive. The combined capacity of the proposed expansion and existing generators are held to sizing requirements based upon historical consumption. Detailed information of load assumptions must be submitted with the application.
- Equipment that is designed to improve the performance and/or efficiency of an existing biopower system without adding to its rated capacity is also eligible for incentives, although incentives will be limited to 30% of the cost of the incremental equipment only. 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.
- 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. However, Applicants who pursue grant incentives for their sustainable biopower application from the New Jersey Energy Resilience Bank 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 sustainable biopower application may apply in this solicitation.
- 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. Applicants who may have to satisfy



this requirement are urged to contact the NJDA for instructions on applying for this approval.

## **2.2 Technology Eligibility 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). Applicants should provide verification of performance claims relating to the conversion of biomass feedstock into the biogas or heat that is required by prime movers to generate electricity. This information may be required by DEP's Division of Air Quality to support air emissions claims before operating permits are issued.
- 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. However, the Solicitation Evaluation Committee will give priority in the evaluation process to systems with a higher efficiency level than other systems applying for incentives.
- 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. The warranty shall cover the full cost of repair or replacement of defective components or systems, including coverage for labor costs to remove and reinstall defective components or systems. In the event the system warranty does not meet program requirements, the Applicant must purchase an extended warranty or a five year maintenance/service contract. The cost of the five year warranty or service contract may be considered as part of the cost of the project.
- The system must be installed in accordance with requirements specified in the REIP Biopower Technical Worksheet and the owner's representative and site host contact must each be provided with owner's manuals and warranty documentation.

## **3. Program Funding and Incentive Levels**

### **3.1 Available Program Funding for FY2015**

In an Order dated June 30, 2014 In the Matter of the Clean Energy Program -- Programs and Budgets for the Fiscal Year 2015, Docket No. QO14050489, the NJBPU approved Staff's recommendation to increase the Fiscal Year 2015 budget to \$3,000,000 for the Sustainable

Biopower Incentive Solicitation. The full \$3,000,000 is available for incentive commitments in this Solicitation.

### **3.2 Maximum Incentive Amounts**

Applicants shall request the minimum incentive necessary to make their project economically feasible and ensure its timely completion. Since the budget for the FY2015 Solicitation was increased by 20% over FY2014, the maximum incentive amounts for FY2015 have been increased proportionately.

Applicants may request incentive payments no greater than \$900,000 per project or 30% of the project's total installed cost after deducting any other incentives, whichever is less. Eligible project costs are discussed in Section 5.3.

In addition to the maximum per-project incentive, there shall also be a maximum per-entity incentive. An entity may submit multiple projects in a Solicitation round, but the total incentive requested for those projects shall not exceed \$1,375,000. For purposes of the per-entity maximum, an "entity" shall be defined as the business, corporation, non-profit, institution or public agency that is the site host for the biopower project(s). The per-entity maximum does not apply to project developers that are not also the systems' owners. The NJBPU, at its discretion, may waive the per-entity maximum if sufficient program funding exists.

The incentive amount approved for any project shall be the maximum incentive amount the project may receive, exclusive of the early completion premium described in Section 3.4. If, upon completion, a project is sized below the capacity for which it was approved, the incentive shall be reduced by a dollar amount equal to the capacity reduction multiplied by the project's approved per-Watt incentive. For example, a 400 kW project approved for a \$400,000 incentive has a per-Watt incentive of \$1.00. If the project is ultimately sized at 300 kW, it would receive a prorated incentive of only \$300,000 based on the reduced capacity ( $\$1.00 \times 100,000 \text{ watts} = \$100,000$ ;  $\$400,000 - \$100,000 = \$300,000$ ).

### **3.3 Reapplying for Incentives**

A project that is granted an incentive commitment in one Solicitation round may not reapply for an incentive in a subsequent, consecutive Solicitation round. A project would be eligible to reapply in any round thereafter.

### **3.4 Incentive Premiums and Reductions**

To encourage the completion of projects in as short a timeframe as possible, projects that submit a completed Final As-Built packet within 12 months of the date on their REIP approval letter will receive 100% of the incentive plus a 10% bonus incentive payment.

Projects that submit a completed Final As-Built packet 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 6-month extension following the expiration of the initial 18-month approval period will be paid 90% of the approved incentive amount. (See Section 7.3 concerning extension requests).

All incentives will be paid following the successful completion of the program inspection. (See Section 7.5 concerning inspections).

#### 4. Solicitation Timeline

The timeline for this round of the Solicitation is as follows:

**October 22, 2014:** NJBPU Staff presents Solicitation to the NJBPU for approval at its agenda meeting.

**October 23, 2014:** Solicitation is issued through email distribution to RE and biopower listserv and posting on NJCEP website.

Applicants may begin submitting written questions regarding the Solicitation to [bioworkgroup@njcleanenergy.com](mailto:bioworkgroup@njcleanenergy.com).

**November 6, 2014:** Written question submittal period ends at 5:00 pm EST.

**November 13, 2014:** Market Manager conducts a webinar to review application submittal procedures and provide answers to previously submitted questions.

**December 22, 2014:** Deadline for application submittal. All paperwork must be received by the Market Manager by 5:00 pm EST.

**January 5, 2015:** Market Manager finishes its review of all applications for completeness. It identifies incomplete applications as such prior to forwarding all applications to the Solicitation Evaluation Committee. Incomplete applications may be evaluated at the discretion of the Committee.

**January 22, 2015:** The Committee completes its evaluation of all applications and recommends incentive awards for Staff's presentation to the NJBPU at the next regularly scheduled NJBPU Agenda meeting, or as soon thereafter as practicable.

**TBD:** The BPU makes a final determination on the Committee's recommendations. Following that determination, all applicants are notified in writing as to whether their applications have been approved and, if so, at what funding level.

**TBD:** The Market Manager issues REIP approval letter(s) upon receiving a signed Order from the NJBPU.

## 5. Application Process

The Market Manager will accept program applications for review on a competitive basis between the issuance date of this Solicitation and 5:00 pm EST on December 22, 2014. The chronological order in which applications are received will not factor into the evaluation process. Applications received after the submittal deadline will not be considered for this round of the Solicitation and will be returned by mail to the Applicant.

Applicants must include all completed forms and all other items listed on the REIP Biopower Application Checklist. The Checklist and all forms are available online at <http://www.njcleanenergy.com/reipapps> and also in Appendices A, B, C, D and E of this Solicitation. Original signatures are required on at least one copy of the Application packet.

Applicants should mail or hand-deliver one (1) original hard copy and four (4) electronic copies of the completed REIP Application packet in a digital format (CD, DVD or thumb drive). Please ensure that all electronic documents are individually scanned and identified as they appear on the Biopower Application Checklist. Any documents that are faxed or emailed will not be accepted. Please send all materials to:

Renewable Energy Incentive Program – Biopower Solicitation  
New Jersey Clean Energy Program  
c/o Conservation Services Group  
75 Lincoln Highway, Suite 100  
Iselin, NJ 08830

### 5.1 Documentation to include in the Application

All of the following forms and documents must be included in the Application packet.

#### REIP Application Requirements:

- Biopower Application Checklist with all items checked (or marked as not applicable).
- Completed REIP Application with all appropriate signatures.
- Completed Biopower Technical Worksheet. CHP applicants should attach a separate sheet showing how the calculations in the Section C chart were made and the source of the data used.
- A copy of a recent electric bill with annual usage in kilowatt hours or copies of monthly electric bills for the previous 12 months (most recent bill must be within the past three months). Proof of electric or gas account from a regulated utility is required to process the incentive application.
- If the installation is part of a new construction or expansion project, or the property is under new ownership, and 12 months of recent electric bills are not available, applicant must

provide all available electric bills and a copy of a signed and sealed load estimator from a Professional Engineer (PE).

- Manufacturer's warranty for main system components, as specified on the Biopower Technical Worksheet.
- Equipment Specification sheets showing the total system rated net continuous output and how much feedstock is required.
- A feedstock plan is required detailing the type and source(s) of the project's feedstock; whether it is produced on- or off-site and an estimate of the annual production and Btu value of the biogas the feedstock will produce. The Solicitation Evaluation Committee will give credit to Applicants who submit a feedstock contract, if applicable, with their REIP Application. Applicants who do not submit a feedstock contract with their REIP Application will not be deemed incomplete. In lieu of a feedstock contract(s), Applicants who submit a document demonstrating feedstock control (i.e., a sound plan for obtaining the necessary quantities of feedstock over time, showing the plan in place for obtaining the contract(s)) will receive partial credit under the Technical Feasibility criteria (5.2.3).
- A Biomass Sustainability Determination from the NJDEP, if required.
- A one-page site map. This document can be an overhead view drawing or a single line electrical diagram and must clearly indicate the location of the generator(s), batteries (if any), lockable disconnect switch (unless otherwise approved by the electric utility, the disconnect switch shall be installed at the electric utility meter location), and point of connection with the utility system. The installation address, current electric utility account number at that address, and the installer/developer's name and telephone number must also be included on the site map.
- A 10-year certification agreement signed by both the applicant and the installer/developer. This document states that the applicant agrees to repay a pro-rated share of the incentive received if the installed equipment is sold, moved, or transferred outside of the State of New Jersey within 10 years of the incentive payment date.
- A copy of the EPC contract signed by both the applicant and installer/developer or, in lieu of such a contract, a legally binding document that includes a timeline showing the expected date on which an executed contract will be submitted, and any relevant milestones leading up to that date. If the project is a Power Purchase Agreement (PPA), a copy of the contract between the applicant and the PPA provider, or a legally binding document that includes a timeline showing the expected date on which an executed contract will be submitted and any relevant milestones leading up to that date. The Solicitation Evaluation Committee will give credit to applicants that submit an executed EPC contract with their REIP Application. Applications without an executed EPC contract will not be deemed incomplete. Applicants that submit a legally binding document will receive partial credit under the Project Readiness criteria (5.2.2).
- A letter signed by the project developer and applicant that includes a breakdown of the total estimated cost of the project (see Section 5.3 for eligible costs) and all funding sources. The letter should list key system components and other costs that support the system cost information on the Biopower Technical Worksheet. The proposed incentive requested

through this Solicitation and any additional incentives from other programs must be included. Other funding sources to finance the balance of the project (i.e., bonds, loans, capital funds, etc.) must be identified.

- An analysis to determine the cost per kWh of generation based on the system's estimated production. This analysis will be a simple calculation that divides the total installed cost after deducting all incentives other than the requested REIP incentive by the system's estimated production over its first 20 years of operation. The analysis must also include a calculation of the requested incentive on a per-MWh basis over the first 20 years of operation (with data entered in Section D of the Biopower Technical Worksheet).
- A completed REIP Milestone Reporting Form for Sustainable Biopower Projects (see Appendix D).
- A completed Data Collection for Evaluation Form (see Appendix E).
- Feasibility evaluation results if a feasibility study was conducted. This is optional, but will help to support the project's technical and economic merit.
- A list of companies and key team members involved in the project and their profiles.
- A description of similar projects successfully installed by the project team, including location, size, time in operation and annual system efficiency, utilization factor and energy production.
- Documentation of approval or application for approval from the New Jersey Department of Agriculture for projects 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.).

## **5.2 Confidentiality**

Applications received will be reviewed only by the Market Manager and the Solicitation Evaluation Committee. All proposals submitted will be subject to requests for disclosure, including but not limited to, a request pursuant to the Open Public Records Act ("OPRA"), N.J.S.A. 47:1A-1 et seq. If the applicant believes that information contained in its proposal merits confidential treatment pursuant to OPRA, any such purportedly confidential information submitted to the NJBPU shall be specifically identified and marked by the applicant and submitted to the NJBPU Records Custodian in compliance with the regulations at N.J.A.C. 14:1-12 et seq.

## **5.3 Eligible Project Costs**

Eligible installed system costs include all key system components (including the prime mover and equipment associated with processing the feedstock or cleaning the biogas), installation, five-year warranty or service agreement and applicable interconnection costs before NJCEP incentive. Applicants will not be able to receive funding under another State and/or Federal-funded program(s) which, together with the estimated amount of the incentive, exceeds 50% of the total cost of the project. These costs must be documented by invoices from the vendor(s),

as well as proof of customer purchase (copy of customer's check, credit card receipt or lease contract and documentation) and be submitted prior to the issuance of the incentive payment.

#### 5.4 Question and Answer Procedures

All questions regarding this Solicitation must be submitted in writing by electronic mail to [bioworkgroup@njcleanenergy.com](mailto:bioworkgroup@njcleanenergy.com). The deadline for submitting written questions is 5:00 pm EST on November 6, 2014. The Market Manager will not respond to questions on the phone or in individual consultations. Questions and answers will be reviewed during the webinar scheduled for November 13, 2014 and subsequently posted on the NJCEP website at <http://www.njcleanenergy.com/reipapps>.

### 6. Evaluation Process and Criteria

#### 6.1 Initial Application Review

All Applications received by the Market Manager prior to the December 22, 2014 submittal deadline will be accepted for review. The Market Manager will conduct an initial review of each Application to determine if all the forms and documents listed in Section 5.1 of this Solicitation are included and properly completed. Missing or incomplete forms and documents will be noted by the Market Manager on a Required Document Checklist attached to the Application so that the Solicitation Evaluation Committee is aware of each Application's complete/incomplete status. The Committee will evaluate all Applications but may, at its discretion, disqualify or otherwise penalize Applications deemed incomplete by the Market Manager.

#### 6.2 Solicitation Evaluation Committee Review

Upon receipt of all Applications that have undergone initial review by the Market Manager, the Solicitation Evaluation Committee shall schedule a meeting either in person or by teleconference to conduct a competitive review process.

The Committee shall review Applications on the basis of four categories: 1) Financial and Economic Viability; 2) Project Readiness; 3) Technical Feasibility; and 4) Resilience (see Section 6.3 for specific criteria). The categories will be weighted as per the chart below, with the weighting based on a possible total of 100 points that can be awarded to any one project.

Category	Weight as % of Total	Maximum Point Total
Financial and Economic Viability	30%	30
Project Readiness	30%	30
Technical Feasibility	20%	20
Resilience	20%	20
<b>Total</b>	<b>100%</b>	<b>100 points</b>

Funds are expected to be committed to the Applicants who are determined to rank highest on the point scoring system. Funds shall be committed subject to availability. The NJBPU reserves the right to reject incomplete applications and to terminate this Solicitation round if no proposal passes a minimum threshold score or if insufficient funding exists.

## **6.3 Evaluation Criteria**

### **5.2.1 Financial and Economic Viability**

The Committee will evaluate the cost effectiveness of projects based on the following:

- (a) What is the proposed incentive per kWh of projected annual electric generation?
- (b) What is the cost per kWh generated (based on 20-year analysis)?
- (c) Have other incentives for which the project may be eligible been applied for or obtained?
- (d) What is the projected payback period, including all potential incentives?
- (e) Other relevant economic information pertaining to the proposed project.

### **5.2.2 Project Readiness**

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

- (a) What is the projected completion date?
- (b) Are the project schedule and milestones realistic?
- (c) Have required permits been identified and what progress has been made in obtaining them?
- (d) What is the status of contractors and are contracts in place?
- (e) Other relevant project readiness information pertaining to the proposed project.

### **5.2.3 Technical Feasibility**

The Committee will evaluate projects based on:

- (a) Has project team successfully completed similar projects and, if so, have operational results of those projects met initial projections?
- (b) What is the annual system efficiency?
- (c) What is the projected capacity factor?
- (d) Does the project utilize proven and mature technology and commercially available equipment?
- (e) Is the feedstock readily available and has it been contracted?
- (f) Other relevant technical information pertaining to the proposed project (Note: Technology claims must be independently verified)

### **5.2.4 Resilience**

The Committee will evaluate projects based on the following:

- (a) Is the host site defined as a “public and critical facility”?
- (b) Does the system incorporate islanding and black start capabilities?
- (c) Is the feedstock supply and the facility itself secure in the event of an emergency?



## **6.4 Minimum Score Requirement**

The Evaluation Committee will conduct its evaluation regardless of the number of Applications submitted, or if the Applications have an aggregate total requested incentive that is less than the funds available in the Solicitation. The lack of competition or the availability of funds does not suggest that projects will be funded by default. In all cases, the Committee must make a determination that a project has met a minimum threshold score in the evaluation process in order to receive an incentive payment.

## **6.5 Notification of Results**

The Market Manager shall notify all Applicants in writing of the NJBPU determinations with regard to their Applications following the issuance of a Board Order. This notification of proposal acceptance or denial shall include (a) whether the Applicant's project has been approved for funding; (b) if approved, the amount of funding committed to the project; and (c) whether it has been rejected or disqualified with reasons for that determination. The Committee shall not disclose information to Applicants relating to their score, the scores of other Applicants or their ranking against other Applicants.

# **7. Project Completion**

## **7.1 Project Status Updates**

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 REIP Approval Letter, each Applicant shall submit to the Market Manager an updated REIP Milestone Reporting Form documenting the progress made on the project during that period. The Form shall include, but not be limited to, adherence to the schedule and the achievement of milestones set forth in the Form submitted with the Application; delivery and installation of equipment; progress on obtaining necessary permits; and any changes in the expected completion date; the status of contracts with installer/developers and feedstock providers. Once the EPC contract or feedstock contract has been executed; signed by both the applicant and installer/developer it must be submitted with the next quarterly REIP Milestone Reporting Form.

Milestone Reporting Forms are due at quarterly intervals until such time as the Final As-Built packet is submitted.

The Market Manager should be promptly notified by the Applicant if a project has been cancelled. In order for a project to be considered cancelled, the Market Manager must receive notice from the Applicant in writing and on the Applicant's letterhead indicating that the project is cancelled. Cancelled projects will not receive incentives.

## 7.2 Changes in Proposed Project

Projects are expected to be completed as designed and proposed. However, the Market Manager recognizes that some project changes may be required in order to be in compliance with local state or federal permitting requirements, or as the result of events that were unforeseen at the time the Application was submitted. The Market Manager must be notified in advance in writing of any proposed change in a project.

If the changes impact the project's eligibility under this Solicitation or are determined to have a material adverse effect on the purpose or process of the REIP, the Market Manager may recommend that the NJBPU take action to terminate the award in whole or in part, depending upon the nature and impact of such.

## 7.3 Extensions

The project is expected to be completed within the timeframe specified in the Application and within the 18-month approval period noted in the Approval Letter. In the event that the project fails to be completed during the 18-month approval period, Applicants may apply for an extension.

Extension requests must be received before 5:00 PM on the expiration date of the initial incentive commitment, and must include detailed documentation regarding the reasons for the delay. Progressive documentation of project issues to the Market Manager through the Project Status Updates described in Section 7.1 will significantly improve the case for an extension.

The Market Manager will consider extensions in cases where significant progress has been made toward completion of the project, and where the delay was unavoidable or unforeseeable at the time the Application was submitted. Approval of any extension will depend on the totality of circumstances related to reasonable progress toward each of the items listed below and the reason why the delay was unavoidable or unforeseeable as demonstrated through documentation provided with the extension request.

- Physical construction has started at the customer's site, which means that:
  - a) construction permits have been granted (where applicable); b) project materials are either onsite or in storage; and c) installation work has started
- Irrevocable orders have been placed with the manufacturers of the major items of equipment and,
- Construction permits have been approved by the authority having jurisdiction (where applicable) and,
- Engineering and design work has been started and progressed to a significant degree
- Material and/or equipment have been received from the manufacturer, and are either onsite or in storage.

If the extension is granted, the incentive commitment will be extended for a maximum of six (6) calendar months and the incentive will be reduced by 10% (See Section 3.4). No second extensions will be granted by the Market Manager. If a project exceeds the extended deadline, the Market Manager may recommend that the NJBPU take action to terminate the award.

## 7.4 Project Completion Paperwork

In order to receive an incentive payment, applicants will be required to submit a Final As-Built packet once the project has been built, has received local code inspection, and is interconnected to the New Jersey distribution system. The Final As-Built packet must include:

- The Final Application Form signed by the Applicant, installer/developer and system owner, if different from Applicant. This document is the third page of the REIP approval letter, which is sent to all applicants receiving an incentive commitment in the REIP.
- Completed and signed Final As-Built Biopower Technical Worksheet. The authorized representative for each party listed at the bottom of the Technical Worksheet must sign the form in the designated space.
- Documentation of installed system costs. These costs must be documented by invoices from the vendor(s), as well as proof of customer purchase (copy of customer's check, credit card receipt or lease contract and documentation). Submit updated list of key system components and other costs that support the system cost information listed on the Final As-Built Biopower Technical Worksheet if applicable. Eligible installed system cost includes all key system components, installation, and interconnection costs (if applicable) before NJCEP incentive, less any other direct incentives
- Revised warranty information. If the equipment manufacturer, equipment specifications or installer/developer listed on the Final As-Built Biopower Technical Worksheet has changed from the information listed on the REIP Biopower Technical Worksheet, the Applicant must submit an updated warranty.
- A copy of a New Jersey Tax Clearance Certificate (needed only for commercial, non-profit, farms, and public projects that enter into a PPA); not required for projects owned by a public entity. Form is available at [www.njcleanenergy.com/misc/renewable-energy/tax-clearance-certificate](http://www.njcleanenergy.com/misc/renewable-energy/tax-clearance-certificate).
- A one-page final site map (if the site map has changed from initial application submittal). This document can be an overhead view drawing or a single line electrical diagram and must clearly indicate the specific location of the renewable energy technology, the inverter, batteries (if any), lockable disconnect switch, and the point of connection with the utility system. The installation address, current electric utility account number at that address, and the installer/developer's name and telephone number must also be included on the site map.
- A copy of the signed Electrical Uniform Construction Code (UCC) Inspection Certificate and other applicable permits. NJCEP rebates are contingent upon the applicant meeting all other program requirements, including but not limited to compliance with the host Electric Distribution Company's (EDC) interconnection requirements (see below) and compliance with all applicable local state and federal laws, permit requirements and regulations.
- EDC Notification - the written notification provided by the EDC to the customer-generator that the system is authorized to be energized. Once the EDC performs an inspection or determines that no inspection is needed and has received an executed interconnection

agreement from the customer-generator; the EDC shall notify the customer-generator in writing that the customer-generator is authorized to energize the customer-generator facility. Note: If this document is not included in the Final As-Built paperwork, and the remainder of the Final As-Built paperwork is complete, the project will not be considered expired. However, the program inspection or inspection waiver will not be scheduled until this document is received by the Market Manager. Any premium or reduction in the incentive (see Section 3.4) shall be calculated on the basis of the date the completed Final As-Built paperwork is received.

- Representative digital photographs of the system. The photos shall be a minimum of 5" x 7" at 300 DPI and must include 1) the renewable energy system (e.g., engine or generator), 2) nameplate of the renewable energy system, 3) site changes if any from original application or registration and 4) the ANSI C12.1-2008 meter (close-up showing the nameplate) – required for all biopower systems.
- ANSI C12 Certified Meter Worksheet. A revenue-grade kWh production meter that has been certified to the ANSI C12.1-2008 standards is required for all REIP biopower systems.

## **7.5 Program Inspection and Funding Disbursement**

Once the project is complete, and all Final As-Built paperwork has been received and deemed complete by the Market Manager, a program inspection will occur. Once the project passes the program inspection the incentive payment will be set up for disbursement.

**Appendices**

**Appendix A**

**FY2015 Renewable Energy Incentive Program (REIP)  
Sustainable Biopower Competitive Solicitation  
Appendix A - Application Form**



# FY2015 Renewable Energy Incentive Program (REIP)

## Sustainable Biopower Competitive Solicitation Appendix A - Application Form

### Application Form: Requirements, Instructions, Terms and Conditions

Before completing the attached Renewable Energy Incentive Program (REIP) Application Form and the related REIP Biopower Technical Worksheet, please carefully read all of the information in sections A, B, and C. below.

#### A. Qualification Requirements

1. The proposed system must be installed in New Jersey and interconnected with the electric distribution system serving New Jersey.
2. The REIP is applicable only for net metered sustainable biopower projects installed behind the meter and sized no greater than 100% of the host's historic annual electric consumption, or a merchant wholesale power generator on a site owned by a customer that pays the Societal Benefits Charge on an electric or gas bill..
3. The system must be installed in accordance with requirements specified in the *New Jersey's Clean Energy Program*<sup>TM</sup> REIP Technical Worksheet and it must come with owner's manuals and warranty documentation.
4. Only new commercially available and permanently installed equipment is eligible for incentives and RECs. Equipment that is designed to improve the performance and/or efficiency of an existing biopower system without adding to its rated capacity is also eligible for incentives, although incentives will be limited to 30% of the cost of the incremental equipment only.
5. System warranty must be all-inclusive for at least 5 years. A copy of the warranty must be submitted with the REIP Technical Worksheet.
6. Applicant/Site Host must contribute to the Societal Benefit Charge (SBC).
7. The Solicitation Evaluation Committee will recommend incentive requests for approval by the New Jersey Board of Public Utilities (NJBPU).
8. **The Applicant must receive an REIP Approval letter from the Renewable Energy Market Manager acting on behalf of the NJBPU prior to commencing installation.**
9. Once approved, Applicants will have 18 months from the date of the REIP Approval letter to satisfy all program requirements and submit the [Final As-Built Packet](#) to request an REIP inspection.
10. Combined Heat and Power (CHP) systems powered by sustainable biomass may be eligible for REIP incentives. Applicants for CHP systems must complete Section C of the REIP Biopower Technical Worksheet. CHP systems powered by a non-renewable or a combination of a non-renewable and renewable fuel source and heat recovery or other mechanical recovery systems may be eligible for incentives through the Commercial and Industrial energy efficiency programs or through the Energy Resilience Bank. Visit [www.njcleanenergy.com](http://www.njcleanenergy.com) or call 1-866-NJSMART for more information.

#### B. Instructions for Completing the Application Form

1. Complete all of Sections A through E of the REIP Application Form. All information is necessary for processing applications.
2. **All signatures on forms or contracts are required.**

#### C. Important Terms and Conditions

1. The "Applicant/Site Host Contact" is defined as the entity at which the proposed biopower system will be installed.
2. The Applicant/Site Host Contact is responsible for submission of all forms and for communications regarding this REIP Application.
3. The Applicant/Site Host Contact must agree to an REIP inspection of their installed biopower electric system by a program representative. The Applicant/Site Host Contact must also agree to allow a program representative to verify the facility's energy production for the life of the system.
4. The NJBPU reserves the right to modify or withdraw this program. Approved projects will be honored under the terms stated in the REIP Approval letter.



# FY2015 Renewable Energy Incentive Program (REIP)

## Sustainable Biopower Competitive Solicitation Appendix A - Application Form

5. Installation must comply with the host Electric Distribution Company's (EDC) interconnection requirements, which are available online; these include operation/disconnection procedures, liability/indemnity and insurance requirements according to the size of the project. For information on interconnection, please see our website at [www.NJCleanEnergy.com](http://www.NJCleanEnergy.com) or contact your EDC.
6. The Applicant must comply with the installation requirements in the REIP Technical Worksheet.
7. If anything is changed from the original REIP Application submitted, an updated REIP Application Form must be submitted PRIOR to the REIP inspection of the installed system.
8. Systems shall be installed according to manufacturer's instructions.
9. Portable systems are not eligible to participate in the REIP Sustainable Biopower program.
10. Information may be subject to the Open Public Records Act (OPRA) requirements. Aggregated Information will be used in reports and evaluations, and the geographic location will be used to update GIS mapping.
11. All installations must comply with all applicable local, state and federal laws, permit requirements and regulations.
12. 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. Applicants who may have to satisfy this requirement are urged to contact the NJDA for instructions on applying for this approval.

### Updates to the Program requirements are subject to change.

For more information or updates about *New Jersey's Clean Energy Program*, please contact the NJBPU at 866-NJSMART or visit [www.NJCleanEnergy.com](http://www.NJCleanEnergy.com).

Mail or hand deliver completed package to:  
(Faxes and e-mails are not accepted.)

Renewable Energy Incentive Program  
New Jersey Clean Energy Program  
c/o Conservation Services Group  
75 Lincoln Highway, Suite 100  
Iselin, NJ 08830





# FY2015 Renewable Energy Incentive Program (REIP)

## Sustainable Biopower Competitive Solicitation Appendix A - Application Form

### A: APPLICANT/SITE HOST CONTACT (Where will the system be installed?)

Electric Utility Name: \_\_\_\_\_ Account Number: \_\_\_\_\_  
 Gas Utility Name: \_\_\_\_\_ Account Number: \_\_\_\_\_  
 Company Name (if applicable): \_\_\_\_\_  
 First Name: \_\_\_\_\_ Last Name: \_\_\_\_\_  
 Daytime Phone: \_\_\_\_\_ Fax: \_\_\_\_\_ Email: \_\_\_\_\_  
 Installation Address: \_\_\_\_\_  
 City: \_\_\_\_\_ State: \_\_\_\_\_ Zip Code: \_\_\_\_\_  
 Building Type: Existing: \_\_\_ New Construction: \_\_\_  
 Mailing Address (if different): \_\_\_\_\_  
 City: \_\_\_\_\_ State: \_\_\_\_\_ Zip Code: \_\_\_\_\_  
 Type:  Residential  Commercial  Non-Profit  Public School  School other  Government  Farm

### B: SYSTEM OWNER (Who will own the system after it is installed?) FILL OUT IF DIFFERENT PERSON THAN SECTION A

Company Name: \_\_\_\_\_ Contact Person: \_\_\_\_\_  
 Mailing Address: \_\_\_\_\_  
 City: \_\_\_\_\_ State: \_\_\_\_\_ Zip Code: \_\_\_\_\_  
 Daytime Phone: \_\_\_\_\_ Fax: \_\_\_\_\_ Email: \_\_\_\_\_

### C: REBATE RECIPIENT (Fill in section if rebate check is to be issued to an organization / person other than the Site Host Contact)

Company Name: \_\_\_\_\_ Contact Person: \_\_\_\_\_  
 Daytime Phone: \_\_\_\_\_ Fax: \_\_\_\_\_ Email: \_\_\_\_\_  
 Mailing Address: \_\_\_\_\_  
 City: \_\_\_\_\_ State: \_\_\_\_\_ Zip Code: \_\_\_\_\_  
 Applicant Signature: \_\_\_\_\_

### D: CONTRACTOR / INSTALLER

Company Name: \_\_\_\_\_ Contact Person: \_\_\_\_\_  
 Daytime Phone: \_\_\_\_\_ Fax: \_\_\_\_\_ Email: \_\_\_\_\_  
 Mailing Address: \_\_\_\_\_  
 City: \_\_\_\_\_ State: \_\_\_\_\_ Zip Code: \_\_\_\_\_  
 Installer to be determined: Yes \_\_\_ No \_\_\_ Self Install: \_\_\_

### E: CERTIFICATIONS

The undersigned warrants, certifies and represents that 1) the information provided in this form is true and correct to the best of his or her knowledge; 2) this is either a net metered behind-the-meter system that will not exceed 100% of the host's historic annual electric usage; or a merchant wholesale power generator on a site owned by a customer that pays the Societal Benefits Charge on an electric or gas bill. 3) the installer/developer will provide manuals related to the system operation and maintenance to the system owner; 4) the system proposed will be constructed, installed and operated in accordance with all NJBPU rules and applicable laws, and all NJBPU policies and procedures for the REIP biopower program; 5) the applicant/site host contact is the Customer of Record for the Utility Account; 6) the site host contact gives permission for a program representative to review their electric and gas account information, both prior to installation and subsequent to installation; 7) all signed parties realize that certain information in their application may be subject to the Open Public Records Act (OPRA); 8) the installer/developer has reviewed and explained the applicable REIP Biopower Technical Worksheet; and 9) The REIP Biopower Technical Worksheet that accompanies this application is accurate and system installation will follow the instructions detailed on the instruction page of the Worksheet.

#### System Owner

#### Contractor/Installer

#### Site Host Contact

(if different from system owner)

Signature: \_\_\_\_\_

Signature: \_\_\_\_\_

Signature: \_\_\_\_\_

Print Name: \_\_\_\_\_

Print Name: \_\_\_\_\_

Print Name: \_\_\_\_\_

Date: \_\_\_\_\_

Date: \_\_\_\_\_

Date: \_\_\_\_\_

**Appendix B**

**FY2015 Renewable Energy Incentive Program (REIP)  
Sustainable Biopower Competitive Solicitation  
Appendix B - Biopower Application Checklist**



## FY2015 *Renewable Energy Incentive Program (REIP)* **Sustainable Biopower Competitive Solicitation** **Appendix B - Biopower Application Checklist**

The REIP offers financial incentives through a competitive solicitation process for applicants investing in biopower projects that convert acceptable biomass energy crops or waste into biogas or fuel that may be used by proven, commercially available prime movers such as gas engines and gas turbines to generate electricity. The manufacture of the fuel can be accomplished through established conversion technologies such as anaerobic digestion and gasification.

REIP offers incentives for projects that generate electricity with Class 1 biomass resources. To qualify for an incentive, the applicant must be able to demonstrate that the acceptable biomass energy crop or waste is available on a sustainable basis and the combustion of the manufactured biogas satisfies New Jersey's regulatory emissions standards, including solid waste regulatory standards for ash management. For further information on acceptable biomass feedstock, emission standards and ash management, please refer to the Biomass Sustainability Determination Instruction Sheet.

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. If you have not already done so, it is important that you contact your municipality to learn more about any approvals required to install biopower equipment. Once approved, REIP applicants will have 18 months from the date of the REIP Approval letter to satisfy all program requirements and submit the [Final As-Built Packet](#) to request an NJCEP program inspection.

### **Listed below is the documentation required when submitting an application packet.**

- Completed [REIP Application Form](#) (Appendix A) with all appropriate signatures.
- Completed [Biopower Technical Worksheet](#) (Appendix C). CHP applicants should attach a separate sheet showing how the calculations in the Section C chart were made and the source of the data used.
- Copy of a recent electric bill with yearly usage in kilowatthours or copies of monthly electric bills for the previous 12 months (last bill within past three months). **Proof of electric or gas account from a regulated utility is required to process the REIP Application.**
  - If the installation is part of a new construction or expansion project, or the property is under new ownership, and 12 months of recent electric bills are not available, applicant must provide all available electric bills **and** a copy of a **signed and sealed load estimator from a Professional Engineer (PE)**.
- Manufacturer's warranty for main system components, as specified on the [Biopower Technical Worksheet](#).
- [Equipment Specification sheets](#) showing the total system rated net continuous output and how much feedstock is required.
- A feedstock plan detailing the type and source(s) of the project's feedstock; whether it is produced on- or off-site; and an estimate of the annual production and Btu value of the biogas the feedstock will produce. Applicants who do not submit a feedstock contract with their REIP Application will not be deemed incomplete. In lieu of a feedstock contract(s), Applicants may submit a document demonstrating feedstock control (i.e., a sound plan for obtaining the necessary quantities of feedstock over time, showing the plan in place for obtaining the contract(s)).
- A one-page [site map](#). This document can be an **overhead view drawing or a single line electrical diagram** and must clearly indicate the location of the generator(s), batteries (if any), lockable disconnect switch (unless otherwise approved by the electric utility, the disconnect switch shall be installed at the electric utility meter location), and point of connection with the utility system. The installation address, current electric utility account number at that address, and the installer's name and telephone number must also be included on the site map.



**FY2015 Renewable Energy Incentive Program (REIP)  
Sustainable Biopower Competitive Solicitation  
Appendix B - Biopower Application Checklist**

- Biomass sustainability determination from the NJDEP, if required. Please refer to the Biomass Sustainability Determination Instruction Sheet for information on requesting this document.
- Copy of 10-year certification addendum signed by both the applicant and the installer/developer. This document states that the applicant agrees to repay a pro-rated share of the incentive received if the installed equipment is sold, moved, or transferred outside the State of New Jersey within 10 years of the incentive payment date.
- A copy of the EPC contract signed by both the applicant and installer/developer or, in lieu of such a contract, a legally binding document that includes a timeline showing the expected date on which an executed contract will be submitted, and any relevant milestones leading up to that date. If the project is a Power Purchase Agreement (PPA), a copy of the contract between the applicant and the PPA provider, or a legally binding document that includes a timeline showing the expected date on which an executed contract will be submitted and any relevant milestones leading up to that date.
- A letter signed by the project developer and applicant that includes a breakdown of the total estimated cost of the project (see Section 5.4 for eligible costs) and all funding sources. The letter should list key system components and other costs that support the system cost information on the Biopower Technical Worksheet. The proposed incentive requested through this Solicitation and any additional incentives from other programs must be included. Other funding sources to finance the balance of the project (i.e., bonds, loans, capital funds, etc.) must be identified.
- An analysis to determine the cost per kWh of generation based on the system's estimated production. This analysis will be a simple calculation that divides the total installed cost after deducting all incentives other than the requested REIP incentive by the system's estimated production over its first 20 years of operation. The analysis must also include a calculation of the requested incentive on a per-MWh basis over the first 20 years of operation (with data entered in Section E of the Biopower Technical Worksheet).
- A completed REIP Milestone Reporting Form for Sustainable Biopower Projects (Appendix D), This Form must be submitted as an initial report with the REIP Application packet and quarterly thereafter, including any extensions to the initial REIP Approval period, until the Final As-Built packet is submitted.
- A completed Data Collection for Evaluation Form (see Appendix E).
- Feasibility evaluation results if a feasibility study was conducted. This is optional, but will help to support the project's technical and economic merit.
- A list of companies and key team members involved in the project and their profiles.
- A description of similar projects successfully installed by the project team, including location, size, time in operation and annual system efficiency, utilization factor and energy production.
- If applicable, documentation of approval or application for approval from the New Jersey Department of Agriculture for projects 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.).

Please mail or deliver all material to  
(faxes or e-mail are not accepted):

Renewable Energy Incentive Program  
New Jersey's Clean Energy Program  
c/o Conservation Services Group  
75 Lincoln Highway, Suite 100  
Iselin, NJ 08830

**Appendix C**

**FY2015 Renewable Energy Incentive Program (REIP)  
Sustainable Biopower Competitive Solicitation  
Appendix C - Biopower Technical Worksheet**



# FY2015 Renewable Energy Incentive Program (REIP) Sustainable Biopower Competitive Solicitation Appendix C – Biopower Technical Worksheet

Please read carefully all of the following information. With the help of your installation contractor, fully complete sections A through F of this REIP Biopower Technical Worksheet.

## Program Terms and Conditions

To qualify for an incentive, the applicant must comply with all *Renewable Energy Incentive Program* (REIP) eligibility requirements, terms and conditions, installation requirements and submit all completed forms. All applications are evaluated by the Solicitation Evaluation Committee on the basis of the criteria set forth in the Solicitation. The Committee's recommendations on incentive awards require approval by the New Jersey Board of Public Utilities (NJBPU).

Equipment installation must meet the following minimum requirements in order to qualify for payment under the provisions set by the NJBPU. Proposed changes to the requirements will be considered, but they must be documented by the applicant or installation contractor and approved by the NJBPU. These requirements are not all-encompassing and are intended only to address certain minimum safety and efficiency standards. 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.

## Program Installation Requirements

1. The installation must comply with the provisions of the National Electrical Code (NEC) and all other applicable local, state, and federal codes and permit requirements or practices.
2. All required permits must be properly obtained and posted.
3. REIP inspection must be performed after the local building code enforcement office has inspected the project.
4. All required inspections must be performed (Electrical/NEC, local building codes enforcement office inspection, etc.).  
Note: In order to ensure compliance with provisions of the NEC, an inspection by a state-licensed electrical inspector is mandatory.
5. The installation must comply with manufacturer's instructions and with the interconnection and protection requirements of the local electric distribution company.
6. Generators must be properly installed according to manufacturer's instructions.
7. The system should be equipped with the following capabilities, indicators and/or controls:
  - On/off control on site
  - Operating mode setting indication - parallel vs. stand-alone
  - AC and DC overcurrent protection or equivalent
  - Operating status indicator
  - Remote control and data acquisition capability
  - Electric load-following capability
8. Warning labels must be posted on the control panels and junction boxes indicating that the circuits are energized by an alternate power source independent of utility-provided power.
9. All interconnecting wires must be copper. (Some provisions may be made for aluminum wiring; approval must be received from utility engineering departments prior to acceptance.)
10. All wiring splices must be contained in UL-approved workboxes.
11. Operating instructions must be posted on or near the system, or on file with facilities operation and maintenance documents.
12. All projects regardless of size must have a revenue grade kilowatt hour production meter that has been certified to the ANSI C12.1-2008 standards.



## FY2015 Renewable Energy Incentive Program (REIP) Sustainable Biopower Competitive Solicitation Appendix C – Biopower Technical Worksheet

### A: Applicant/Site Host Contact Information

The name that appears on the REIP Application Form (Appendix A) must be the name that appears on this form.

### B: Power Only Proposed Equipment Information

**Note: Complete either Section B (for Power only equipment), Section C (for Combined Heat and Power equipment) or Section D (Performance or efficiency improvement equipment).**

1. The equipment listed in this section of the REIP Biopower Technical Worksheet must be a true representation of the equipment proposed to install at the site covered by this submittal.
2. To determine the total system rated net continuous output, multiply the capacity rating per generator by the number of generators. This number must be calculated accurately to process the REIP application.

### C: CHP Proposed Equipment Information

The equipment listed in this section of the REIP Biopower Technical Worksheet must be a true representation of the equipment proposed to install at the site covered by this submittal.

### D: Performance or Efficiency Improvement Proposed Equipment Information

1. The equipment listed in this section of the REIP Biopower Technical Worksheet must be a true representation of the equipment installed at the site covered by this submittal.
2. Enter information on past, present and projected electric production and efficiency of biopower system.

### E: Incentive Request and System Cost Information

Applicants **must** supply cost information that is accurate and has been updated to reflect the total installed cost of the proposed system as of the date of this submittal. Applications for performance or efficiency improvement equipment should reflect only the cost of the add-on equipment, not the original biopower system. The 20-year cost calculation for such equipment should be done on a going-forward basis and should not include previous years during which the biopower system may have been operating. Cost data will also be required with any revised worksheets submitted. Cost data can be submitted for protection under New Jersey's Open Public Records Act (OPRA) by following the Board's procedures found at [www.nj.gov/bpu](http://www.nj.gov/bpu).

### F: Warranty Information

Behind-the-meter systems must be covered by an all-inclusive warranty for at least five years from the date of installation to protect the purchaser against component or system breakdown. The warranty must cover all major components of the system against breakdown or degradation in electrical output of more than 10% from their originally rated electrical output during the five-year period. The warranty shall cover the full cost of repair or replacement of defective components or systems, including coverage for labor costs to remove and reinstall defective components or systems. The manufacturer and installer may provide the required warranty in conjunction, covering major system components and labor, respectively. An owner's manual, including warranty documentation, must be delivered to the customer on completion of the installation. In the event the system warranty does not meet program requirement, customer must purchase an extended warranty or a five year maintenance/service contract. The cost of the five year warranty or service contract may be considered as part of the cost of the project. **Note: A copy of the warranty must be submitted with this REIP Biopower Technical Worksheet.**

### G: Team Member and Project History

Pursuant to Section 5.1 of the Solicitation, Applicants must provide:

- a list of companies and key team members involved in the project and their profiles; and
- a description of similar projects successfully installed by the project team, including location, size, time in operation and annual system efficiency, utilization factor and energy production.





## FY2015 Renewable Energy Incentive Program (REIP) Sustainable Biopower Competitive Solicitation Appendix C – Biopower Technical Worksheet

### A: SITE HOST CONTACT / APPLICANT INFORMATION

Applicant Name: \_\_\_\_\_  
 Applicant Company Name: (if applicable) \_\_\_\_\_

### B: Power Only PROPOSED EQUIPMENT INFORMATION

**Complete either Section B (for Power only equipment), Section C (for Combined Heat and Power equipment) or Section D (Performance or efficiency improvement equipment).**

1. Electrical Generator Equipment Type (i.e., gas engine, gas turbine, etc.) \_\_\_\_\_
2. Electrical Generator Manufacturer: \_\_\_\_\_
3. Model Number: \_\_\_\_\_
4. Energy Input (MMBtu): \_\_\_\_\_
5. Capacity Rating of each Electric Generator: \_\_\_\_\_ AC Watts
6. Number of Electric Generators: \_\_\_\_\_
7. Total System Rated Net Continuous Output: \_\_\_\_\_ AC Watts (No. of Electric Generators x Capacity Rating)
8. Projected annual hours of operation \_\_\_\_\_
9. Capacity factor (response in Line 8 divided by 8,760) \_\_\_\_\_ %
10. Islanding capability: Yes \_\_\_ No \_\_\_ Blackstart capability: Yes \_\_\_ No \_\_\_
11. Projected annual O&M costs for power generation equipment \_\_\_\_\_

### C: CHP PROPOSED EQUIPMENT INFORMATION

1. CHP Equipment Type (i.e., gas engine, gas turbine, etc.) \_\_\_\_\_
2. CHP Equipment Manufacturer \_\_\_\_\_
3. Model Number \_\_\_\_\_
4. Primary use for thermal energy \_\_\_\_\_
5. Capacity Rating of each CHP system: \_\_\_\_\_ AC Watts
6. Number of CHP systems: \_\_\_\_\_
7. Total System Rated Net Continuous Output: \_\_\_\_\_ AC Watts (No. of CHP systems x Capacity Rating)
8. Projected annual hours of operation \_\_\_\_\_
9. Capacity factor (response in Line 8 divided by 8,760) \_\_\_\_\_ %
10. Islanding capability: Yes \_\_\_ No \_\_\_ Blackstart capability: Yes \_\_\_ No \_\_\_
11. Projected annual O&M costs for CHP equipment \_\_\_\_\_

Rated System Information		
Prime Mover Model		
Energy Input	(MMBtu/h)	
Rated Electric Output	(kW)	
	(MMBtu/h)	
Total Thermal Output	(MMBtu/h)	
Recoverable Thermal Output	(MMBtu/h)	
Fuel Conversion Efficiency (1)	(%)	

Proposed System Overview (annual)		
Prime Mover Type		
Energy Input	(MMBtu)	
Electric Output	(kWh)	
	(MMBtu)	
Recoverable Thermal Output	(MMBtu)	
Utilized Thermal Output (2)	(MMBtu)	
Annual System Efficiency (3)	(%)	

- (1) – Fuel Conversion Efficiency (FCE) = (Rated Electric Output (MMBtu/h) + Recoverable Thermal Output)/Energy Input  
 FCE is defined as the ratio (expressed as a percentage) of the total usable energy produced by a technology to the sum of all fuel or other energy inputs to the technology measured at each fuel's higher heating value.
- (2) – Utilized thermal output is heat used from the CHP systems for the purpose of heating and cooling      1kWh = 0.003412 MMBtu
- (3) – Annual System Efficiency = (Electric output (MMBtu) + Utilized Thermal Output)/Energy Input

**Please attach a separate sheet showing how the calculations in the chart above were made and the source of the data used.**





**FY2015 Renewable Energy Incentive Program (REIP)  
Sustainable Biopower Competitive Solicitation  
Appendix C – Biopower Technical Worksheet**

**D: Performance or Efficiency Improvement PROPOSED EQUIPMENT INFORMATION**

1. Equipment Type \_\_\_\_\_
2. Equipment Manufacturer \_\_\_\_\_
3. Model Number \_\_\_\_\_
4. Rated capacity of biopower generator (kW) \_\_\_\_\_
5. Did biopower system receive an incentive from any NJCEP program?      Yes \_\_\_\_      No \_\_\_\_  
     If yes, BPU/MM/REIP No. \_\_\_\_\_  
     If yes, amount of incentive \_\_\_\_\_

	Historic 12-month period from _____ to _____ mm/yyyy    mm/yyyy	Most recent 12-month period from _____ to _____ mm/yyyy    mm/yyyy	Projected 12 month period from _____ to _____ mm/yyyy    mm/yyyy
Electric output (kWh)			
Thermal output if CHP (MMBtu)			
Annual system efficiency (%)			
Annual O&M costs			

Please summarize how this equipment will improve the performance or efficiency of existing system:

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

**E: INCENTIVE REQUEST AND SYSTEM COST INFORMATION**

1. Total system rated net continuous output (Section B or C, line 7 above): \_\_\_\_\_ AC Watts
2. Estimated electric production in kWh for first 20 years of operation (from analysis document) \_\_\_\_\_
3. Projected cost per kWh of electric output for first 20 years of operation (from analysis document) \_\_\_\_\_
4. Requested Incentive: \$ \_\_\_\_\_ (**Maximum incentive is \$900,000 per project and \$1,375,000 per entity.**)
5. Requested incentive per kWh of projected electric generation for first 20 years of operation (Line E4 divided by Line E2)  
     \_\_\_\_\_
6. Total Installed System 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. These costs must be documented by invoices from the vendor(s), as well as proof of customer purchase (copy of customer's check, credit card receipt or lease contract and documentation) submitted with the Final As-Built packet.
7. Identification of other incentive(s) applied for or obtained that was subtracted from Total Installed System Cost on Line E6. Please identify the agency, program and dollar amount of each incentive: \_\_\_\_\_  
     \_\_\_\_\_
8. Maximum allowable incentive (Multiply Line E6 by 30%):    \$ \_\_\_\_\_
9. Final incentive amount requested (Input the lesser of Line E4 or E8):    \$ \_\_\_\_\_



**FY2015 Renewable Energy Incentive Program (REIP)  
Sustainable Biopower Competitive Solicitation  
Appendix C – Biopower Technical Worksheet**

**F: WARRANTY INFORMATION**

- |  |                              |                                 |
|--|------------------------------|---------------------------------|
| 1. Power only Equipment: _____ Years                           | 2. Installation: _____ Years | 3. Parts and Labor: _____ Years |
| 1. CHP Equipment: _____ Years                                  | 2. Installation: _____ Years | 3. Parts and Labor: _____ Years |
| 1. Performance or Efficiency Improvement Equipment _____ Years | 2. Installation: _____ Years | 3. Parts and Labor: _____ Years |

An all-inclusive 5-year warranty is required for all systems installed through *New Jersey's Clean Energy Program*. A copy of the warranty must be submitted.

**G: TEAM MEMBERS AND PROJECT HISTORY**

**List of Key Project Team Members and Profiles**

Company Name	Project Team Member Name	Title/Role	Contact Information

**Similar Projects Successfully Installed by the Project Team**

Project Name	Location	Time in Operation	System Size (kW)	Annual System Efficiency	Energy Production (kWh/yr.)	Utilization Factor

**Appendix D**

**FY2015 Renewable Energy Incentive Program (REIP)  
Sustainable Biopower Competitive Solicitation  
Appendix D - Milestone Reporting Form for Sustainable Biopower Projects**





## Renewable Energy Incentive Program (REIP) Milestone Reporting Form For Sustainable Biopower Projects

### Section B: Project Milestones

Milestone	Achieved (Y/N)	Date Achieved	Date Expected to Achieve
1. Applications submitted for all required federal, state and local permits			
2. All required federal, state and local permits obtained			
3. Interconnection application approval			
4. Contract signed with installer*			
5. Contract(s) signed for feedstock deliveries* (if applicable)			
6. Equipment delivered to site			
7. Construction/installation begun			
8. Construction/installation complete			
9. Passed local inspection (UCC)			
10. Receive authorization to operate from EDC			

**\*NOTE:** Once an EPC or Feedstock Contract has been executed, a hard copy should be submitted to the Market Manager with the next quarterly Milestone Reporting Form submission. Copies of any/all contracts must be submitted prior to scheduling an REIP inspection.

**Comments** (optional):

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### Section C: Certifications

The undersigned warrants, certifies and represents that the information provided in this form is true and correct to the best of his or her knowledge.

**Applicant/Site Host Contact**

**System Owner (if different from Applicant)**

Signature: \_\_\_\_\_

Signature: \_\_\_\_\_

Print Name: \_\_\_\_\_

Print Name: \_\_\_\_\_

Date: \_\_\_\_\_

Date: \_\_\_\_\_

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**FY2015 Renewable Energy Incentive Program (REIP)  
Sustainable Biopower Competitive Solicitation  
Appendix E – Data Collection for Evaluation Form**



**FY2015 Renewable Energy Incentive Program (REIP)  
Sustainable Biopower Competitive Solicitation  
Appendix E – Data Collection for Evaluation Form**



	<b>Evaluation Criteria Category</b>	<b>Unit</b>	<b>Inputs to be provided by Applicant</b>
<b>A</b>	<b><i>Financial and Economic Viability</i></b>		
1	Total Installed System Cost	\$	
2	Total Installed System Cost	\$/kW	
3	Fixed O&M Cost (Estimated Annual Value)	\$	
4	Fixed O&M Cost (Estimated Annual Value per kW)	\$/kW-yr.	
5	Incentive Amount Requested	\$	
6	Other incentives requested for the same project	\$	
7	Maximum allowable incentive	\$	
<b>B</b>	<b><i>Project Readiness</i></b>		
1	Estimated Construction Start Date	Date	
2	Estimated Construction Completion Date	Date	
3	Have all required permits been identified and applied for?	Y/N	
4	Have all required permits been obtained?	Y/N	
5	Is EPC contract in place?	Y/N	
6	Is feedstock contract in place?	Y/N	
<b>C</b>	<b><i>Technical Feasibility</i></b>		
1	Biopower Technology Type		
2	Electric Capacity Rating of System	KW	
3	Estimated annual hours of operation	Hr.	
4	Capacity factor	%	
5	Rated electric output (kWh)	kWh	
6	Rated electric output (MMBtu)	MMBtu	
7	Recoverable thermal energy output (MMBtu/hr)	MMBtu	
8	Recoverable thermal energy output (MMBtu/yr)	MMBtu	
9	Fuel conversion efficiency	%	
10	Annual system efficiency	%	
11	Estimated electric production in kWh for first 20 years	kWh	
<b>D</b>	<b><i>Resilience</i></b>		
1	Is the host site a "public and critical facility"?	Yes/No	
2	Does biopower system have islanding capability?	Yes/No	
3	Planned host facility load met by the project in emergency	kW	
4	Percent of facility's critical load met by the project in emergency	%	