

Linda Wetzel

From: Reisman, Ronald <Ronald.Reisman@csggrp.com>
Sent: Monday, November 14, 2011 5:32 PM
To: Undisclosed recipients
Subject: Draft Revisions to Biopower CF and Working Group Meeting Details
Attachments: Final Draft Revisions to Biopower Section of CF.doc

Attached please find the Market Manager's draft Compliance Filing for the biopower component of the 2012 Renewable Energy Incentive Program. This document will be the primary topic of discussion at the upcoming Biopower Working Group meeting. **The meeting will be held this Thursday, November 17, from 9:30 to 11:30 am at the CSG Offices, 75 Lincoln Highway, Iselin, NJ.**

Driving Directions: Garden State Parkway (north or south) to Exit 131. Turn right at end of exit ramp, then turn right onto Magnolia Road (just past the first building on your right). Parking lots are on both sides of the building, but visitors should go to the front door to be buzzed in.

NJ Transit: Take Northeast Corridor line to Metropark station. From the station, walk down to the first light (Wood Ave), and cross Lincoln Highway (a/k/a Route 27) toward the BP gas station. Turn right and walk up to 75 Lincoln Highway (be careful crossing those two streets just past the Shell station). For your own safety – and to avoid a jaywalking ticket – do not attempt to cross Lincoln Highway anywhere except at the traffic light.

In addition to the draft Compliance Filing, we will also be discussing the mission of the Working Group and how we can best address that mission. We are also planning to have a discussion, facilitated by representatives of the NJ Department of Environmental Protection, on issues relating to the Sustainability Determination and SOTA (State of the Art) air requirements for biopower projects.

If you haven't already RSVP'd to the meeting, please do so by sending an e-mail with your contact information to bioworkgroup@njcleanenergy.com. If you're unable to attend in person but would like to call in, here is the dial-in information:

Dial-in Number: **1-866-740-1260**
Meeting ID: **2183408#**

While we expect to have a lively discussion of the draft Compliance Filing at the meeting, please remember that your comments must be submitted in writing to us at bioworkgroup@njcleanenergy.com in order to be considered. Deadline for written comments is Wednesday, November 23.

Ronald H. Reisman
Renewable Energy Program Manager
New Jersey's Clean Energy Program
75 Lincoln Highway, Suite 100
Iselin, NJ 08830
Phone: (732) 218-3721 / Fax: (732) 634-8010
E-mail: rreisman@veic.org
www.njcleanenergy.com / 1-866-NJ SMART

**Renewable Energy Market Manager’s Straw Proposal for Biopower
In 2012 Program & Budgets NJCEP Compliance Filing**

Program Description

The biopower market in New Jersey must be invigorated if we are to achieve the goal of 900 MW by 2021 that is referenced in the 2011 Draft Energy Master Plan (EMP). To achieve this goal, the Market Manager intends to align its program efforts and incentives with recommendations from several reports and market assessments performed in the past.

A 2008 Summit Blue Consulting LLC market assessment report to the BPU called for “an increased focus on non-solar project development” that utilized “targeted outreach and incentives” to trigger growth in the market. As the report points out, biopower development has been hampered by several factors. These include high initial costs; siting and permitting issues made all the more difficult by a not-in-my-backyard culture; and feedstock security. Adding to these challenges is a biopower industry that is heterogeneous, offering a variety of technologies (anaerobic digestion, pyrolysis, gasification); feedstocks (municipal solid waste, wood, manure and agricultural crops); and types of energy produced (electricity, thermal energy and transportation fuels). The Renewable Energy Incentive Program (REIP) is focused exclusively on motivating power production, with an incentive option for combined heat and power (CHP).

Although a 2007 Rutgers study titled “Assessment for Biomass Potential in New Jersey” stated that biomass could provide up to 9% of New Jersey’s electric needs (which is roughly double the 900 MW called for in the 2008 EMP), it is clear that this potential will not be fully realized without a comprehensive effort to overcome the economic and regulatory barriers to biopower development. Greater resources are proposed to be directed toward outreach efforts, with the Market Manager taking an active role in bringing together customers in high-potential industries with equipment manufacturers, project developers, engineers, the Department of Environmental Protection (DEP) and academia. High-potential industries include those which generate large amounts of waste and have high on-site electric (and thermal, for CHP applications) demand, such as:

Target Market	Potential Technologies
Food processing facilities	Anaerobic digestion or gasification of organic waste
Wastewater treatment plants	Anaerobic digestion of wastewater
Dairy farms	Anaerobic digestion of cow manure
Hospitals and healthcare facilities	Gasification of food and medical waste
Hotels	Anaerobic digestion or gasification of food waste
Colleges and universities	Digestion/gasification/pyrolysis of food and other waste
Military installations	Digestion/gasification/pyrolysis of food and other waste
Breweries and wineries	Anaerobic digestion of fermentation wastes

November 14, 2011

Because biomass is generally a bulky, low-value commodity that is difficult and costly to transport, the on-site use of the biomass for power generation is economically preferable to transporting it to a centralized facility. However, centralized facilities will play a role in large-scale biopower projects that require the importation of feedstocks (such as municipal solid waste) from multiple sources.

Although the Market Manager does not have the ability to remedy some of the barriers to increased biopower development (such as siting and permitting), it can act as a facilitator with the parties that may be able to take action. For example, the Market Manager has already initiated discussions with officials at the DEP to develop a list of certified “sustainable biomass” feedstocks and to address issues related to the SOTA (state of the art) determinations required for biopower projects. Overcoming these barriers requires a greater role for education and outreach in the 2012 program plans and budget than in previously proposed Compliance Filings.

Program Changes

A report issued by the subcommittee appointed by the BPU to examine biopower issues in the Energy Master Plan (“Biomass Resources for Producing Renewable Power and Fuels in the State of New Jersey and Incentives to Promote their Development”, dated September 26, 2011) stated that “current incentives are ineffective when it comes to stimulating the development of the biomass-to-energy sector” and also noted that Class I RECs were ineffective because of their low value. In view of this, the Market Manager can align itself with the subcommittee’s recommendations by taking steps to ensure that the incentives provided through the REIP are more effective in stimulating the biopower market. To that end, the REIP incentive structure for 2012 has been revised to offer higher rebates than in previous years; to reduce the number of tiers within the structure while still recognizing the need to provide higher incentive to projects that cannot benefit from economies of scale; and coordinating the incentives for biopower CHP with those for natural gas-powered CHP offered in a different NJCEP program for commercial and industrial stand alone CHP. In an effort to encourage the development of CHP over conventional power-only generation, the incentive differential between power-only and CHP has been widened.

In placing greater emphasis on market development in biopower, the Market Manager will conduct outreach activities to high potential customers, project developers and equipment manufacturers through a series of geographically targeted meetings and workshops. In addition, the Biopower Working Group will be reconvened and meetings will resume on a regular basis. The Market Manager will also coordinate existing staff resources in partnership with the Biopower Working Group, the EMP subcommittee on biomass, and Rutgers to study specific issues outlined in the EMP subcommittee report (e.g., conducting an inventory of industrial waste; ascertaining the highest and best use New Jersey’s feedstocks, etc.) and to prepare a specific, focused re-assessment of New Jersey’s biopower market potential that will serve to update and complement the 2007 Rutgers study, “Assessment for Biomass Potential in New Jersey.”

Offerings and Customer Incentives

In 2012, the biopower incentive structure will be simplified and adjusted to reflect the emphasis placed on both biopower itself and on CHP technology. Incentives will continue to be offered for power generation only, but at a lower level than 2011. An enhanced incentive will now be offered for CHP in an effort to steer customers toward that technology, and to represent a premium over the incentive available for both power-only generation and conventional natural gas-fired CHP under the commercial and industrial energy efficiency component of the NJCEP. As per existing REIP guidelines, all projects – whether power generation only or CHP – must be net metered and must not generate power in excess of the host facility’s annual consumption. Projects capable of supplying power that exceeds the limits imposed by the Board’s Net Metering and Interconnection regulations will be steered toward the Office of Clean Energy’s Grid Supply Solicitation. In addition, applicants for the REIP incentives outlined below will have 18 months from the date of their approval letter to complete their project. REIP biomass projects will be inspected at a 100% inspection rate to ensure that the equipment described in the paperwork is actually installed at the site.

2012 REIP Biopower Incentive Schedule for Power Generation Only

Power Only Incentives	
Watts	\$ Per Watt
First 500,000	\$2.00
Next 500,000	\$1.00

For example, a 600,000 watt system would receive a rebate of \$1.1 million (500,000 watts x \$2.00 = \$1 million plus 100,000 watts x \$1.00 = \$100,000). Although there will be no limit on the size of the system itself, the REIP incentive will continue to be capped at the dollar level equal to 1 MW or 30% of the installed cost, whichever is less, up to a maximum of \$1,500,000. Installed costs include all documented capital costs to supply and operate the system including feedstock collection, fuel conversion technology, storage, refining, power generation, and monitoring systems. In situations where power generation units are being added to existing biomass-producing systems (i.e., anaerobic digesters), incentive payments will not be made on the value of any existing facilities, but will be applied only to the cost of new equipment.

It should be noted that the above schedule applies to projects which seek to generate onsite power only (i.e., proposing to connect behind-the-meter in accordance with the BPU’s net metering and interconnection regulations).

Projects which seek to generate combined heat and power (CHP) will be eligible for an additional incentive defined in the section below. The 2012 incentive structure has been simplified from 2011 and adjusted to reflect both the economies of scale inherent in larger projects and the incentives available under a separate NJCEP commercial stand alone program for non-renewable CHP.

2012 REIP Biopower Incentive Schedule for Combined Heat and Power

Combined Heat & Power (CHP) Incentive	
Watts	\$ per Watt
First 500,000	\$3.00
Next 500,000	\$2.00

For example, a 600,000 watt system would receive a rebate of \$1.7 million (500,000 watts x \$3.00 = \$1.5 million plus 100,000 watts x \$2.00 = \$200,000). As with the power-only incentives, there will be no limit on the size of the system itself, as long as it is net metered and does not exceed the annual electric consumption of the host site. However, overall incentives for CHP projects will be capped at the lesser of 40% of project costs or the per-watt incentive calculated according the schedule above, up to a maximum of \$2,500,000. The incremental costs associated with heat recovery will be eligible for inclusion in the calculation. However, the value of any existing biomass-producing systems (i.e., anaerobic digesters) to which CHP equipment is being added will not be eligible for inclusion in calculating the total project incentive. As with power generation only, incentive payments will not be made on the value of any existing facilities but will be applied only to the cost of new CHP equipment.

Any biopower project applying for CHP incentives must meet all eligibility requirements as defined by the NJCEP for a CHP program. The Market Managers will refer customers to the CHP program that best suits the customer needs; whether that be natural gas powered CHP or biopowered CHP.

Rebate payments will continue to be made for all biopower projects on the existing basis of 100% payment upon project completion.

WIND & BIOPOWER FEASIBILITY STUDIES

The Feasibility Study Incentive is designed to promote development of customer sited wind energy and sustainable biopower projects by offering an incentive during the feasibility phase of the project. A feasibility study is a compilation of analytical tools and assessments that assist in determining the viability of a project. The incentive will provide financial support for sound engineering, financial, and legal analysis of projects to help improve the likelihood of the systems being built. It will also provide an opportunity for companies interested in pursuing projects with wind and biopower technologies to evaluate the feasibility of the projects without incurring the entire financial burden. The study shall entail a comprehensive analysis that provides the necessary information to determine if a development project is technically, economically, and legally viable to allow the customer to make an informed "Go" or "No-Go" decision. A detailed outline of data required in the study has been developed to ensure consistency of formats and thoroughness of the study documentation.

The Feasibility Study Incentive is available to all New Jersey non-residential market segments that contribute to the Societal Benefit Charge (SBC) through the utility bill. Only behind the meter / net metered projects are eligible. The system(s) proposed must satisfy the current technical and program requirements as defined by the existing REIP program for wind or biopower equipment. The anticipated system size must be greater than or equal to 100 kW as justified through current 12 months historical energy consumption. All feasibility studies must be stamped by a licensed professional engineer. For wind systems, studies performed by a certified wind site assessor will also be acceptable. The size of the incentive awards will be determined by the expected size of the project. The NJCEP will pay up to 50% of the cost of the feasibility study not to exceed \$50,000. The incentive payment will be paid in two equal installments. The first incentive payment will occur after completion of the feasibility study, and the second incentive payment will occur only if the wind or biopower project that was studied is completed, and will be paid after the installation is complete.

In 2012, the incentive structure for wind and biopower feasibility studies is being simplified and made consistent with the project incentive structure per the chart below:

2012 Feasibility Study Incentive Structure

Expected Project Size	Incentive Award Range
100,000 – 500,000 watts	50% of the cost of the feasibility study or \$25,000, whichever is less.
501,000 – 1,000,000 watts	50% of the cost of the feasibility study or \$50,000, whichever is less.

All other 2011 requirements for feasibility studies remain in effect. These include:

- Submission of a completed and signed REIP application when applying for the study.
- Applicant pre-qualification, including a statement of the project's goals and the anticipated sustainable fuel source or feedstock.
- Site pre-qualification, including zoning and permitting requirements, property size and orientation, and indications of road or railway access for feedstock delivery.
- A letter of commitment including a price of the study, outline of deliverables and a timetable for the study's completion.
- Qualifications of the development and feasibility study team.