From: Reyes, Jorge [mailto:Jorge.Reyes@dep.state.nj.us]
Sent: Wednesday, October 16, 2013 3:20 PM
To: Reisman, Ronald
Subject: Further Note Re: Comments on Bio-Power Straw Proposal

Ron,

Further to our telephone discussions last week regarding my comments, I am providing an additional note for your consideration (particularly on the suggestion regarding discounting).

Economics improves the validity of project evaluation. There is a distinction between finance-oriented and economic project evaluation. The former is from the viewpoint of the project proponent assessing what net benefits the project owner gains from the project. The latter is from the standpoint of society as a whole, and from this perspective, project costs and benefits are identified and assessed. Since changes occur over time, the stream of project costs and benefits should be discounted to the present in order to allow realistic comparison. A key issue in this case is what discount rate to use. Standard project evaluation methods provide guidance on how to appropriately handle this issue.

Hope this helps a bit in providing context for the comment and sorry for the delay (quite busy with sandy recovery program).

Thanks and kind regards.

Jorge Reyes
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From: Reyes, Jorge
To: "publiccomments@njcleanenergy.com"
Subject: Biopower Working Group- Straw Proposal Fiscal Year 2014 Biopower Program (September 18, 2013)
Date: Monday, October 07, 2013 8:58:56 AM

Comments on : ***Straw Proposal Fiscal Year 2014 Biopower Program (September 18, 2013)***

*On page 3 (under Program Eligibility), last bullet point which reads "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 emission standards." We suggest adding a phrase at the end stating "including solid waste regulatory standards for ash management." We also may need to add another statement saying "Sourcing and production of feedstock should show evidence of environmental sustainability including but not limited to sustainable land use and management."

*On page 7 and 8 (under Application Process and Evaluation Criteria), for the Economic Criterion, my suggestion is that the cost calculation should involve time discounting over the life of the project (20 years) for this to be truly an economic valuation. For the Technical Criterion (third bullet point), there should be a minimum number of years that the supply contract should guarantee. I recommend at least 5 years to ensure supply sustainability in the critical stage of production. Further, a bullet point should be added saying "The system should also meet specified efficiency standards." For the Resiliency Criterion, to the first bullet point we should add "or that the host site is located proximate or connectible to public and critical facilities." Also we should add a bullet point that states "The facility itself should be secure in the event of an emergency, that is, it has resiliency safeguards."

*Lastly, on page 9, last paragraph: I beg to disagree with the view of the Market Manager that it would be difficult develop metrics for inclusion of societal and environmental benefits as additional criteria. There are already available metrics and indicators for this purpose. Also, and more importantly, since public funds are involved, these are essential criteria to include in the evaluation process."

Thank you.

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Oct. 7, 2013

Mr. Scott Hunter, Renewable Energy Program Administrator
New Jersey Clean Energy Program
New Jersey Board of Public Utilities
44 South Clinton Avenue
Trenton, NJ 08625

Re: September 18, 2013 Straw Proposal regarding New Jersey's Clean Energy Program Fiscal Year 2014 Biopower Program

Dear Mr. Hunter:

I am writing regarding the September 18, 2013 Straw Proposal regarding New Jersey's Clean Energy Program Fiscal Year 2014 Biopower Program on behalf of the Association of Environmental Authorities of NJ. Our members are publicly owned clean water and solid waste utilities providing service to approximately 8 million New Jerseyans as well as the professionals and businesses that work within the sector. Among our member are the clean water utilities that were most severely damaged in Superstorm Sandy. We respectfully submit the following comments and questions on the Straw Proposal:

"For FY2014, the biopower incentive structure will change from a fixed incentive schedule to a competitive solicitation which will be administered by the Market Manager."

> The competitive aspect of this proposal provides disincentive for wastewater providers to participate because it suggests that efforts and expenditures will be undertaken without assurance that they will be productive. Applying under these circumstances would be especially difficult for smaller AEA member organizations, such as Hackettstown MUA, which has a 3.3MGD treatment facility.

"Focus on sustainable biopower projects, defined consistently with the New Jersey Renewable Portfolio Standard definition of biopower as a NJ Class I RE resource, which are "ready to build" and can be completed as expeditiously as possible."

> Focusing on "ready to build" projects could be problematic because it would require authorities to spend money on engineering and design services for a project that may not be as feasible without the NJCEP funding.

"Increasing this amount by approximately 25% would result in a four-year funding level of approximately $10 million. Therefore, Staff recommended an FY20143 funding level of $2.5 million for biopower projects."

"Establish maximum incentive amounts which will allow the limited amount of funds to be committed to a broader number of projects."

The program has identified a goal of having limited funding provided to a broader spectrum of projects, and the proposal calls for distributing $10M in funding over four years, with the annual budget amount of $2.5M. We believe that this allocation and the method of "distributing it to "a broader number of projects" is unlikely to provide significant incentive to engage public wastewater service providers. This would be especially true of AEA's larger-member organizations – such as Middlesex County Utilities Authority, which operates a 147MGD treatment facility and services 32 communities.

"Focus on facilities that are defined as "public and critical"6 with the goal of keeping them operational during power outages."

We recommend that the criteria include blackstart and rapid loading, along with islanding capabilities. Without these capabilities working together, a combined heat and power facility would not provide true resilience as stated in the program goals.

A wastewater treatment facility using a combined heat and power system, whether powered with biopower, natural gas, or a combination of both, would need "islanding" capability in order to be able to remain operational in a power outage situation such as Superstorm Sandy. Joint Meeting UEC and Rahway Valley SA are examples of UAs that did this. Anticipating a power outage as the forecasts called for a severe storm, these operators took their facilities into island mode before the power outage. In the event of a sudden power outage, for which there is no warning, however, wastewater treatment facilities require blackstart with rapid loading capability. Both islanding and blackstarting capability add to the cost and complexity of these projects.

In addition to the added cost and complexity associated with islanding capability, designing for this requirement affects the cost-effectiveness of the project. Traditionally CHP projects are designed around the required heat load; the electrical generation capacity is sized to satisfy that load. Alternatively, CHP plants at wastewater treatment plants that produce biogas with anaerobic digestion could size the CHP plant based on the available biogas. In order to provide islanding, CHP projects would be forced to design around the peak electrical load of the plant, thereby sacrificing efficiency by not having a use for all of the available heat generated.

No two wastewater facilities are alike. They are designed specifically for their location, type of wastewater to be treated, volume of wastewater and other factors. The completion deadlines, the size of the incentives, and the competitive nature of the solicitation seem at odds with the goal of keeping public, critical facilities such as ours operational during outages.

"Projects must be interconnected to the New Jersey electric distribution system pursuant to N.J.A.C. 14:8-2.9, and must be behind-the-meter net metered projects sized to produce no more than 100% of the host facility's historic annual electric consumption."

Does this requirement preclude facilities from exporting power to the grid during days when the host facility electrical demand is less than the peak generating capacity?

"Applicant must supply cost information that is accurate and based upon the actual, as-built installation costs. 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."

Regarding "actual as-built installation cost" for a project: How is this requirement applied for projects that have yet to be built?

"The FY2014 competitive solicitation should focus on mature biopower technologies with proven track records of success using sustainable biomass feedstocks readily available in New Jersey."

The NJCEP can make the most effective use of limited funds by providing funding and/or preference to upgrade of existing CHP systems or to upgrade of the biogas production, cleaning, and/or delivery systems within a plant. The NJCEP could realize the most return on the investment by assisting facilities where electric generation technologies are currently installed using natural gas by converting these facilities to biogas fired systems, thereby taking advantage of previously invested funds to gain the greatest megawatt pre dollar return.

"…incentives should be calculated and provided in consideration of project development costs, recognizing factors such as economies of scale and the additional expenses associated with using sustainable biomass feedstock over conventional fossil fuels. Ideally, the incentive should provide the incremental amount required to motivate investment, the tipping point at which a project becomes economically feasible without creating a ratepayer-financed windfall for the developer."

Given the ratepayer-financed aspect of this funding, it would make sense that the program give preference or consideration for project applications being financed with public funds with little to no developer involvement.

These comments and questions were prepared with the assistance of the AEA Energy Committee, whose members include chairs Richard Kunze and Katie Vesey, and Rahway Valley SA Chief Engineer, John Buonocore. AEA is grateful for this opportunity to comment, and we are happy to answer questions about our comments and to continue to work with the Clean Energy Program to support the effective and efficient operation of public clean water providers.

Very truly,

Peggy Gallos
Executive Director

Cc: AEA Energy Committee

From:	Kunze, Richard C.
To:	publiccomments@njcleanenergy.com
Cc:	Peggy Gallos (pgallos@aeanj.org); Conklin, Scott M.; O"Regan, Cornelius; Warren, Richard M.
Subject:	FY2014 Biopower Program - Straw Proposal - Comments
Date:	Monday, October 07, 2013 2:19:04 PM

Dear Mr. Hunter,

I am a member of the Biopower Working Group representing the Wastewater Industry through The Association of Environmental Authorities (AEA) and I am employed by The Ocean County Utilities Authority (OCUA).

AEA has submitted comments under signature of Peggy Gallos, Executive Director. I am in general agreement with those comments.

I have two additional comments:

Concerning “islanding capability” to reinforce resiliency of the power grid, not all existing Biopower (aka Cogeneration) units at wastewater facilities have this capability. Wastewater facilities are required to have “emergency generators” to power the facility during commercial power outages. Some Cogeneration systems rely on commercial power for synchronization but were not designed to synch. with emergency generators during commercial power outages. Current technology can incorporate synchronization with emergency power with additional cost for what has traditionally been an infrequent short termsituation.

Concerning “co-mingling” of digester gas and natural gas, there are situations where a minimal amount of natural gas is introduced into an engine to protect the engine from fouling due to contaminants in the digester gas. A complete ban on this practice is unreasonable. If you want to impose a maximum percentage of natural gas (i.e. 5% or 10%) for maintenance purposes, that would be reasonable. This could be accomplished through a definition of “co-mingling”.

I am available for further discussion.

Thank you,

Richard C. Kunze
OCUA Director of Technical Services
AEA Energy Committee Co-Chair

State of New Jersey

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CHRIS CHRISTIE
Governor

KIM GUADAGNO
Lt. Governor

STEFANIE A. BRAND
Director

October 7, 2013

VIA HAND DELIVERY AND ELECTRONIC MAIL
Honorable Kristi Izzo, Secretary
New Jersey Board of Public Utilities
44 South Clinton Avenue, 9th Floor
P.O. Box 350
Trenton, New Jersey 08625

Re: Comments of the New Jersey Division of Rate Counsel
Fiscal Year 2014 Biopower Program Straw Proposal October 7, 2013

Dear Secretary Izzo:

Enclosed please find original and ten copies of comments submitted on behalf of the New Jersey Division of Rate Counsel in connection with the above-captioned matter.

We are enclosing one additional copy of the comments. Please stamp and date the extra copy as 'filed" and return it in our self-addressed stamped envelope.

Thank you for your consideration and assistance.

Respectfully submitted,

STEFANIE A. BRAND
Director, Division of Rate Counsel

By: Sarah H. Steindel
Sarah H. Steindel, Esq.
Assistant Deputy Rate Counsel

c: OCE@bpu.state.nj.us
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Elizabeth Ackerman, BPU
B. Scott Hunter, BPU
Tricia Caliguire, Esq, BPU
Jerome May, BPU
Rachel Boylan, Esq., BPU
Marisa Slaten, DAG

Comments of the New Jersey Division of Rate Counsel
Re: Fiscal Year 2014 Biopower Program Straw Proposal
October 7, 2013

The Division of Rate Counsel ("Rate Counsel") would like to thank the Board of Public Utilities Office of Clean Energy ("OCE" or "Staff") for the opportunity to present comments in response to the Biopower Straw Proposal issued September 18, 2013.

Background

Based on the activity in the market during the 2012-2013 program year, BPU Staff recommended through the Comprehensive Resource Analysis ("CRA") that the four-year funding level for biopower be increased to approximately 25 percent above the level of commitments made since 2009. This increased funding level equated to $10 million over the proposed four year period, so subsequently, when the CRA funding request was limited to one year only while a new program administrator could be selected, this amount was reduced to $2.5 million for FY2014.[1]

In its FY2014 Compliance Filing, the Honeywell Market Manager Team proposed to change the existing fixed incentive structure of the Biopower REIP program to a competitive solicitation.[2] BPU Staff subsequently convened a meeting of the Biopower Working Group on July 23, 2013 to obtain stakeholder input into various aspects of and eligibility criteria for a competitive solicitation.[3] Based on the input from the Biopower Working Group, Staff developed a Biopower Straw Proposal which was circulated to stakeholders on September 18, 2013, with a later detailed presentation and discussion occurring at a second Biopower Working Group meeting held September 20, 2013.[4]

Staff proposes three goals which will drive the overall biopower solicitation: (1) a focus on sustainable biopower projects as defined by the New Jersey Renewable Portfolio Standard ("RPS") that are "ready to build," (2) establishing maximum incentive amounts, and (3) a focus on "public and critical" facilities with the goal of promoting ongoing operations during power outages.[5] Staff is proposing to retain the same basic program eligibility requirements from the existing REIP program, except that the eligible technologies would be limited to "mature biopower technologies with proven track records of success using sustainable biomass feedstocks that are readily available in New Jersey."[6] Staff is also proposing to cap incentives at $750,000 per project or 30 percent of the project's total installed costs less any other incentives.[7] Furthermore, no one end-use entity may request more than $1,125,000 in total.[8] Finally, to encourage completion of projects in as short a time frame as possible, OCE proposes that projects

[1] Straw Proposal, p.1.
[2] Straw Proposal, p.2.
[3] Straw Proposal, p.2.
[4] FY2014 Biopower Straw Proposal, presentation to the September 20, 2013, Biopower Working Group Meeting.
[5] Straw Proposal, p. 3.
[6] Straw Proposal, pp. 3-4.
[7] Straw Proposal, p. 5.
[8] Straw Proposal, p. 5.

that are completed within 12 months of REIP approval receive 110 percent of approved incentives, while projects not completed within the initial 18 month approval period only receive 90 percent of the approved incentive.[9]

Comments of Rate Counsel

Rate Counsel appreciates the OCE's desire to move the existing REIP program based on fixed incentives to one determined through a competitive solicitation. Rate Counsel also agrees with the OCE's continuation of existing REIP eligibility restrictions and the inclusion of the proposed technological restrictions.

Rate Counsel, however, finds the OCE's proposed incentive caps are overly restrictive for the size of the solicitation being offered. Furthermore, while Rate Counsel agrees with OCE's desire to promote the completion of projects are quickly as possible after the conclusion of the solicitation, Rate Counsel disagrees with the design of the proposed incentive structure, as further explained below.

- The current $2.5 million solicitation is sufficiently small that only a small handful of projects will be able to qualify based on historical incentive rates, even without Staff's inclusion of proposed financial restrictions. In the 2012-2013 application year, OCE received applications for ten projects with a total of 5,290 kW and $11.17 million in incentives.[10] This equates to an average project size of 529 kW and $2,112 in incentives per kW.

    - Based on participation during the 2012-13 program period, it is likely that the potential applicant pool for the proposed $2.5 million solicitation would consist of approximately 1.2 MW of biopower capacity, or approximately two projects. It should be noted that, based on historical applications, the two projects would exceed the proposed $750,000 per-project cap.[11]

    - The proposed $750,000 per-project incentive cap places a de-facto limit on the potential pool of applicants to only small projects. The entity cap further limits the number of proposals any entity can submit. This may be contrary to the program's goals, as larger projects have inherent economies of scale, and are thus less expensive on a marginal per-kW basis. OCE should remove this limitation.

    - OCE should also remove the restriction on the amount of projects that may be submitted by a single entity. Even if the entire $2.5 million is earmarked for a single project (which would be consistent with Bergen County Utilities Authority's awarded incentive last year)[12] or a series of projects involving a

[9] Straw Proposal, p. 6.
[10] Biopower Program Plan Overview, presentation to the September 20, 2013, Biopower Working Group Meeting, p. 4.
[11] Straw Proposal, p. 5.
[12] Biopower Program Plan Overview, presentation to the September 20, 2013, Biopower Working Group Meeting, p. 4.

single entity such as a municipality, such project or projects may provide the best allocation of ratepayer funds in terms of economics.

- Rate Counsel agrees with Staff's desire to promote fast completion of projects after approval. However, Rate Counsel is doubtful the proposed 10% incentive and 10% penalty is sufficient to drive early completion to a substantial degree. Furthermore, Rate Counsel believes it is unwise to include any addition to an existing incentive when such incentives are based on the economics of the proposed project.

    - Rate Counsel instead proposes that the OCE allow participants to the solicitation to submit a binding deadline for Final As-Built status shorter than the 18 month deadline typically associated with REIP projects. The OCE will make it known to potential applicants that, all else equal, the OCE will prioritize projects which have earlier completion dates. Rate Counsel believes the responses derived from the current solicitation will improve OCE's understanding of a realistic project completion timeline for mature and viable biopower projects, which it may use in setting restrictions in future potential solicitations.

From: Patraju, Ravi
To: "publiccomments@njcleanenergy.com"
Subject: Biopower Straw Proposal Comments
Date: Monday, October 07, 2013 3:35:57 PM

My comments to the Fiscal Year 2014 Biopower Straw Proposal are as follows:

Current Funding Cycle (FY 2014): To assess whether certain technologies are proven and mature, the Solicitation Evaluation Committee should require verification of performance claims relating to the conversion of biomass feedstocks (especially if modified) into the biogas or heat that is required by prime movers to generate electricity. This information may be required by NJDEP's Division of Air Quality to support air emissions claims before operating permits are issued.

Future Funding Cycles (FY 2015 & Beyond): Since one of the scoring criteria for bio-power projects is resiliency, future funding should be made available for wastewater treatment facilities (considered critical infrastructures in NJ) equipped with anaerobic digestion (AD) systems to produce high quality biofuels. Currently, methane from wastewater treatment facilities in NJ is not of a sufficiently high enough quality to support direct combustion for power generation and is instead flared or used in boilers for heating applications. Therefore, funding opportunities should be extended to the upgrade of anaerobic digestion and biogas cleanup systems to facilitate cost effective power generation to satisfy the electricity needs of the respective facilities, and reduce demand from PJM grid and other non-renewable combustion fuels.

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