



Agenda Date: 1/21/15
Agenda Item: 8D

STATE OF NEW JERSEY
Board of Public Utilities
44 South Clinton Avenue, 9th Floor
Post Office Box 350
Trenton, New Jersey 08625-0350
www.nj.gov/bpu/

CLEAN ENERGY

IN THE MATTER OF THE EDISON INNOVATION)
COMMISSION ON SCIENCE AND TECHNOLOGY)
CLEAN ENERGY FUND – NOSTRUM ENERGY L.L.C.)

) ORDER
)
) DOCKET NO. EO08070471
) DOCKET NO. QG15010034

Party of Record:

Vijay Shukla, Nostrum Energy L.L.C.

BY THE BOARD:

By this order, the Board of Public Utilities ("Board") considers the Office of Clean Energy's (hereinafter, "Staff") recommendation to terminate the Edison Innovation Clean Energy Fund Grant awarded to Nostrum Energy, L.L.C. ("Nostrum").

BACKGROUND

On March 16, 2009, the Commission on Science and Technology posted a public competitive solicitation for the Edison innovation fund. The Solicitation offered financial assistance in the form of grants to support New Jersey technology companies in the developmental and ancillary activities necessary to commercialize identified renewable energy technologies and innovative technologies that significantly increase energy efficiency.

The expected benefits of the Edison Innovation Fund include encouraging the growth of the clean energy technology sector in New Jersey by leveraging public and private resources to support a vibrant renewable energy industry in New Jersey. The products developed as a result of this program were expected to ultimately benefit the New Jersey ratepayers by providing long-term energy needs in an environmentally sound manner, and by facilitating competitive and diverse electricity supply for New Jersey.

On October 29, 2009, the Board approved a \$499,834 grant to Nostrum for the development of a "windmill that will operate in low Class 2 and 3 winds and a simple fluid mill designed for rivers, canals and streams." In re: the Edison Innovation Commission on Science and Technology Clean Energy Fund Solicitation – Award Recommendation, Docket Nos.

EO08070471, EO09080730, EO09080731, EO09080732, at 2 (Oct. 29, 2009). In May 2010, a grant agreement was signed between the Board and Nostrum. Under the terms of the Grant Agreement, Nostrum received an initial grant disbursement of \$124,659.00 at the time of the grant award. Subsequent payments were made on a reimbursement basis upon submission of a signed data sheet and payment voucher.

Following the initial disbursement and subsequent reimbursements, the Staff of the Office of Clean Energy (Staff) received information indicating Nostrum was not complying with the terms of the Grant Agreement. Specifically, on July 17, 2013, Staff received a report and video from Nostrum detailing the testing of its Rotary Generator in Mumbai, India. On May 20, 2014, OCE's Site Inspector performed a final site visit to verify that a working Rotary Generator had been created as Nostrum represented. Following the inspection, the OCE Site Inspector reported:

Nostrum has failed to produce a working prototype/model demonstrating the Rotary Generators ability to generate electricity in either a local water source or testing facility. On the final visit, the models were disassembled on the laboratory floor and showed no evidence of real world testing. Nostrum did not produce evidence nor show a device which recorded the levels of energy produced during their testing in India, nor did they show evidence of a device which would record levels of energy produced once set in a suitable environment. Also, the Rotary Generator was never tested in the Raritan River as deemed in their contract.

Based on these events, Staff believes Nostrum's project is in noncompliance with the express terms of the Grant Agreement. On December 2, 2014, Staff sent a letter advising Nostrum that it planned to recommend termination of Nostrum's grant award at the next regularly scheduled Board agenda meeting because Nostrum failed to produce a working prototype/model that demonstrated locally, the Rotary Generator's ability to generate electricity, as well as moving grant activities outside of New Jersey.

In a letter dated December 10, 2014, Nostrum requested a "way to continue to work together to conclude this mutually important project." The letter further provided that beginning on December 30, 2010, there was "some work" going on in India. The Company advised in the initial reports that they would use some of the matching funds to support their efforts, in India. The Company, now being made aware of the OCE strenuous objections to the work being performed in India pledged to do all the remaining work in New Jersey.

Nostrum further advised that, "part of the problem in providing a test of a working prototype was caused by the significant delay, from six months to a year, in obtaining the funding necessary to provide the final State testing." In addition, Nostrum stated, "on the date of the site visit . . . there was a prototype that proved the Company had achieved 'mechanical function.'" The Company is fully confident that the current prototype will be able to generate power in a New Jersey body of water.

Last, Nostrum stated, "[t]he Company is 'this close' to achieving results and believes that an additional \$30,000 . . . which the Company will match, can achieve the results that both [Staff] and the Company so desperately seek."

In a letter dated January 5, 2015, Staff responded to Nostrum noting that, on July 17, 2013, Staff received a report (the "July Report") from Nostrum detailing the testing of its Rotary Generator in India along with pictures of the work performed in India. Staff also noted that Nostrum's July Report represented that a modular component-based prototype had been developed and that testing had been completed at the laboratory of the Institute of Marine and Coastal Science at Rutgers's University. The July Report also stated that a prototype was developed for testing at Alden Labs, but Nostrum's testing was delayed due to funding problems. The July Report further represented a simulation predicting the power generation for the hydrokinetic device was performed utilizing computer codes developed by Dr. Sane, inventory of the technology. These representations by Nostrum led to a payment of \$163,034.46, with an understanding by Staff that the project's final report and inspection would be accomplished by October 22, 2013. However, due to various winter storms, the final inspection was extended to a date no later than May 23, 2014.

Staff further notes that, despite Nostrum's representations contained in the July Report, the final inspection revealed that Nostrum had not produced a working prototype/model that demonstrated the Rotary Generator's ability to generate electricity in a local water source or local testing facility, nor could Nostrum provide any data generated from the test performed at the laboratory of the Institute of Marine and Coastal Science or from the computational model discussed in the July Report.

Moreover, Staff notes that the funding for the grant is based on a reimbursement basis. Therefore, Staff considers Nostrum's claim for additional funding to complete and test the project to be an unacceptable resolution to the noncompliance issues raised by Staff. Based upon these facts, Staff's letter, dated January 5, 2015, informed Nostrum that Staff still believes Nostrum is not compliant with the express terms of the Grant Agreement, and planned to proceed with its recommendation to terminate the grant agreement at the next scheduled Board agenda meeting.

DISCUSSION AND FINDINGS

The BPU, in its sole discretion, may deem the Grantee in non-compliance with terms of this grant if any of the following events occur:

- 1) The Grantee materials fails to comply with any term of the Agreement of a state or federal statute or regulation;
- 2) The BPU determines that the technical goals of the funded activity are not being met; or
- 3) The BPU determines, in whole or in part, that the continuation of the funded activity would not produce beneficial results commensurate with the further expenditures of funds.

In this case, Staff asserts Nostrum is in noncompliance with the grant terms because Nostrum failed to notify Staff of any problems, delays, or adverse conditions impairing its ability to attain program objectives, time schedules, and goals; such as the failure to produce a working prototype of the time of the final site inspection, in violation of the express terms of Grant Agreement Section XX(1)(a). Specifically Section XX(1)(a) provides:

The Grantee shall inform the Commission of the following types of conditions which affect program objectives and performance as soon as they become known: (a) problems, delays or adverse conditions which will materially impair the ability to attain program objectives, prevent the meeting of time schedules and goals, or preclude the attainment of project work units by established time periods, accompanied by a statement of the action taken, or contemplated, and any Commission on Science and Technology assistance needed to resolve the situation;

Staff also asserts Nostrum failed to comply with the express terms of the Grant Agreement, because Nostrum moved grant activities outside the State of New Jersey in violation of the express terms of Grant Agreement Section XXIV. Section XXIV provides, in pertinent part: "In the event that the Grantee relocates grant activities outside the State of New Jersey the grant shall be terminated."

Further, Staff recommends termination of Nostrum's grant award because the technical goals of the funded activity are not met. Specifically, Nostrum failed to produce a working rotary generator-based power generating unit as proposed in Nostrum's application, or any data in support of the testing completed at Rutgers Institute of Marine and Coastal Sciences. Furthermore, a request for additional funding to complete testing is unacceptable. According to the Grant's terms, funding are provided on a reimbursement basis. Staff believes this request is evidence that Nostrum can no longer provide the upfront financial resources for the project which deems Nostrum noncompliant with the terms and conditions of the Grant Agreement. Staff believes the continuation of the funded activity would not produce beneficial results commensurate with the further expenditure of funds.

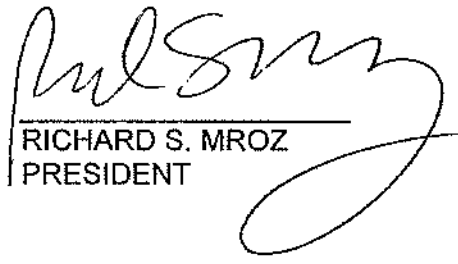
Accordingly, due to these violations of the Grant Agreement's express terms, Staff recommends the Board terminate the grant award to Nostrum and reallocate the remaining funds to other New Jersey Clean Energy Programs in a manner consistent with policies and procedures of the State and the NJCEP.

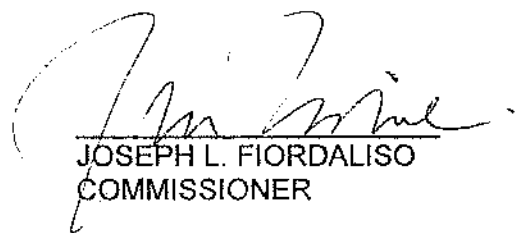
Based upon the lack of progression on the project since the Board awarded the grant on October 29, 2009, the failure to provide testing and data documentation during final inspection, and the overall increased demand for NJCEP funds, the Board **FINDS** Staff's recommendation to terminate the grant award reasonable and prudent under the specific circumstances affecting this matter.

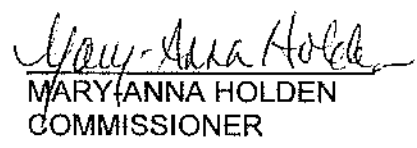
The Board **HEREBY TERMINATES** the grant award to Nostrum and **ORDERS** Staff to reallocate the remaining grant funds to other New Jersey Clean Energy Programs, subject to Board approval.

DATED: 1/21/15

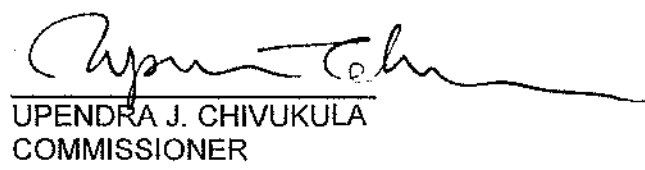
BOARD OF PUBLIC UTILITIES
BY:

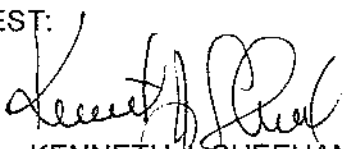

RICHARD S. MROZ
PRESIDENT

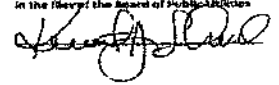

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ATTEST:

KENNETH J. SHEEHAN
SECRETARY

I HEREBY CERTIFY that the within document is a true copy of the original in the files of the Board of Public Utilities


IN THE MATTER OF THE EDISON INNOVATION COMMISSION ON SCIENCE AND
TECHNOLOGY CLEAN ENERGY FUND – NOSTRUM ENERGY L.L.C

Docket Nos. EO08070471 and QG15010034

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