



Agenda Date: 11/10/10  
Agenda Item: 8A

**STATE OF NEW JERSEY**  
**Board of Public Utilities**  
**Two Gateway Center – Suite 801**  
**Newark, NJ 07102**  
**[www.nj.gov/bpu/](http://www.nj.gov/bpu/)**

**CLEAN ENERGY**

IN THE MATTER OF THE CLEAN ENERGY PROGRAM )	ORDER
GRANT APPROVAL FOR THE OFFICE OF CLEAN )	
ENERGY (OCE) MANAGEMENT OF THE EDISON )	
INNOVATION CLEAN ENERGY R&D FUND )	
(FORMALLY THE COMMISSION ON SCIENCE AND )	
TECHNOLOGY EDISON INNOVATION CLEAN )	DOCKET NO. EG10020126,
ENERGY FUND) SOLICITATION COMPETITIVE )	EG10060395, EG10060396,
AWARD RECOMMENDATION ROUND III )	EG10060397

World Water and Solar Technologies Inc., Tech. Center of Princeton, 330 Carter Road,  
Princeton, NJ 08540  
James E. McGuire, Deputy Attorney General, on behalf of the Board of Public Utilities

BY THE BOARD:

By this Order, the Board of Public Utilities ("Board") considers the recommendation of the Commission on Science and Technology ("CST") and Board Staff ("OCE") to approve an award to World Water and Solar Technologies Inc. ("WWST"), pursuant to a competitive solicitation for The Edison Innovation Clean Energy Fund ("Edison Innovation Fund").

**BACKGROUND**

In 2008, the Board established the Edison Innovation Fund which was developed and administered by CST in accordance with a Memorandum of Understanding ("MOU") approved by the Board on September 30, 2008. The Board approved funding levels for such programs in its annual Clean Energy Program and Budget Orders. The Edison Innovation Fund offers grants of \$100,000 to \$500,000 to eligible companies for research and development projects that meet the eligibility guidelines.

On October 13, 2009, the Commission on Science and Technology posted a public competitive solicitation ("the Solicitation") for the third round of funding from the Edison Innovation Fund, with an application deadline of December 11, 2009. Approximately \$3 million in funds was available for the Solicitation.<sup>1</sup> With that funding, the Solicitation stated that awards would range

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<sup>1</sup>In 2010, the Board approved \$6,365,000 in funding for the program, consisting of \$3,365,000 carried forward and \$3 million in Board approved funding for 2010. The Board has awarded \$3 million in the first and second rounds of funding. Although the Solicitation stated that \$3 million in annual funding is anticipated for this program through

from \$100,000 to \$500,000 per project. The Solicitation stated that companies could apply for only one award per round of funding. All grant applications were required to include a "demonstration project" which would be funded by a portion of the grant funding requested.

The CST received thirteen proposals by the December 11, 2009 deadline; CST sent the thirteen proposals to OCE for a determination of whether they were technically sufficient. Following a review for technical sufficiency by OCE, TVM reviewed the thirteen proposals and scored each one. CST then reviewed the thirteen proposals and seven companies were invited to make oral presentations to the Advisory Board on May 26, 2010.

The Advisory Board, pursuant to paragraph four of the MOU, was made up of CST Commission members, Board staff ("OCE" or "Staff"), and Economic Development Authority (EDA) staff.<sup>2</sup> The Advisory Board reviewed the seven applications consistent with the stated evaluation criteria set forth in the Solicitation and scored the applicants based upon its review of the applications together with the presentations made by the seven companies.

Following those reviews, the CST prepared an Evaluation Summary Report and Recommendation. In its report, the CST reviewed the evaluation criteria and the weight given to each application. Based on all of the reviews, CST then recommended that the Board consider the following companies for funding:

<b>Company</b>	<b>Proposed Amount of Funding</b>
Sunlight Photonics, Inc.	\$500,000
United Silicon Carbide, Inc.	\$500,000
World Water and Solar Technologies, Inc.	\$500,000

Sunlight Phototonics, LLC ("Sunlight") is implementing a low cost, high performance thin-film solar cell using their Thin-Film Multi-Junction (TFM) proprietary technology that will achieve improve solar cell conversion efficiency. United Silicon Carbide, Inc. ("USC"), in collaboration with their partner, Princeton Power Systems, will develop the world's first Silicon Carbide Thyristor based high power inverter for utility scale solar arrays that will significantly improve the efficiency of the power inverter, reduce the cost, and halve the size of current state of the art power inverters. WWST will design and develop a prototype and test a balanced solar energy platform which can be easily customized and upgraded to accommodate integrated subsystems to meet customer needs for water purification systems.

On May 27, 2010 Peter Reczek, Executive Director of the CST and a member of the Review Panel, sent a letter to the Board recommending that the Board consider the following proposals for grant funding: (1) Sunlight Photonics, Inc. - \$500,000; (2) United Silicon Carbide, Inc. - \$500,000; (3) World Water & Solar Technologies, Inc. - \$500,000. The total amount of funding recommended by CST is \$1,500,000.

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2012, funding decisions are subject to Board approval and further subject to State appropriations law.

<sup>2</sup> As noted in the Board's October 29, 2009 Order approving awards for the first round of funding, the terms "Review Panel" and "Review Committee" were also used to refer to the Clean Energy Advisory Board.

While the applications submitted in response to the third round of funding were being processed, the Legislature passed the State Appropriations Act for FY 2011. This act does not provide funding for the administrative staff of the CST. As of July 16, 2010, the CST no longer has staff. While the Commission continues to exist, it has no staff to directly manage any Edison Innovation Fund projects pursuant to the MOU.

The MOU provides that each party shall have the right to terminate the MOU upon 30 days prior written notice to the other party. It further provides that in the event of termination, all responsibilities for administering and enforcing the terms and conditions of any grant shall be with the Board. On September, 7, 2010, Board staff issued a Notice of Proposed Termination of the MOU to CST. The Board, at its September 16, 2010 Board Agenda meeting, approved termination of the MOU with CST upon expiration of the 30 day notice period. A Secretary's Letter was sent to the CST Commissioners confirming the termination of the MOU as of October 7, 2010. The projects recommended in this Order, as well as the previously approved projects in Rounds I and II will be managed and administered by the Board of Public Utilities Office of Clean Energy.

At its October 20, 2010 Agenda meeting, the Board approved the proposals of Sunlight and UCI. Staff recommended that the Board defer approval of the award to WWST until the company had provided further information regarding its proposal. The Board concurred with this recommendation and directed Staff to obtain further information regarding the company's intended application of its product for marketing in New Jersey and elsewhere. In addition, the Board sought information on the applicability of the WWST technology to Point of Entry Treatment ("POET") for salt water intrusion in New Jersey wells.

On October 29, 2010, Staff presented WWST with questions on the product's intended applications in the State and on the product's usefulness in POET for wells that had become brackish. WWST responded on November 1, 2010. WWST represented that its product is a solar powered generating platform capable of processing contaminated water on a continuous basis to produce drinking water standard quality water where grid tied or diesel generation is not practicable or desirable WWST further stated that: "[t]he eventual discharge, both finished water and processed wastewater, will be handled as the permitting will allow." With respect to applications in New Jersey, WWST stated that its goal was to treat such water before it can be safely reused or discharged into natural waterways and to offer a greener, cleaner, and more efficient method to process contaminated groundwater for distributed small flow difficult sites.

Staff also asked WWST whether its technology was capable of being used in New Jersey to treat, as Point Of Entry Treatment (POET) salt water intrusion. In response WWST stated its products "are capable of desalination and can treat water from these wells to potable water standards thereby giving a new lease on life for these water supplies."

After reviewing WWST's responses and consulting with the Division of Law, Staff advised the Board that the intended applications and markets were in conformance with the Solicitation and recommended that the Board approve the company's proposal.

## **DISCUSSION AND FINDINGS**

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; promoting collaboration between

New Jersey technology companies and New Jersey research universities, companies and institutions; increasing corporate and venture capital investment in New Jersey technology companies; and providing support for development of technological advances that will assist renewable technologies to become competitive with traditional energy generation technologies.

The products developed as a result of this program should ultimately advantage 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 in accord with the State of New Jersey Energy Master Plan; New Jersey's implementation of the Regional Greenhouse Gas Initiative, P.L. 2007, c. 340; and the Global Warming Response Act, P.L. 2007, c. 112.

In considering the eligibility of these projects for funding under this program, the Board looks for New Jersey technology companies, in partnership with a New Jersey research university, another company or institution for developmental and ancillary activities necessary to commercialize identified renewable energy technologies and innovative technologies that significantly increase energy efficiency. The balanced solar energy platform the company intends to develop has the potential to contribute to the remediation of contaminated groundwater in New Jersey and to assist in lengthening the useful life of wells suffering from or at risk for salt water intrusion. The award of financing to WWST will provide incentives for the commercialization of innovative clean energy technologies in New Jersey, intended to stimulate marketable applications of clean energy technology in New Jersey and elsewhere.

The award of funding to WWST's proposal will complement the OCE's existing renewable energy and energy efficiency incentives, which fund the installation of renewable energy generation and energy efficiency measures. The award will be utilized to advance the renewable energy and energy efficiency business infrastructure necessary to deliver to the marketplace cost-effective clean energy technologies and services. This product will create a positive benefit for the environment, by encouraging investment in a clean energy technology company in New Jersey. The award of the funding to the recommended proposal will be used to assist in the wide scale deployment of renewable energy systems, which will mean cleaner air, additional peak load generation from renewable energy sources, and better use of existing resources.

Upon consideration of the facts, the Board **HEREBY FINDS** that the Commission on Science and Technology has reviewed and considered all the reviews of the application and prepared an Evaluation Summary Report and Recommendation, which recommends consideration of this grant. Board Staff reviewed the Evaluation Summary Report and Recommendation submitted by CST along with underlying documents and recommends that the Board approve the recommendation of WWST. The Board **FINDS** that the recommended grant award of \$500,000 to WWST is consistent with the eligibility criteria published in the Solicitation issued on March 16, 2009. The Board **FURTHER FINDS** that the additional information provided by WWST about the intended applications and markets for its proposed product development has been responsive to the Board's questions and has enabled the Board to make a fully informed decision regarding this project.

Now, therefore, in accordance with the policy established by the Board and the approval of the Clean Energy Program fund payment policies and procedures, the Board **HEREBY APPROVES** a grant of \$500,000 to WorldWater Solar Technologies, Inc. under the Edison Innovation Clean Energy Fund, subject to relevant terms and conditions contained herein and in

the Solicitation issued by the CST. The Board **HEREBY DIRECTS** the Director of the Office Clean Energy, to issue a commitment letter to this grantee, consistent with the terms of the MOU and this Order. The Board **FURTHER DIRECTS** Staff to prepare the Grant Funding Agreement consistent with the terms of this Order, program guidelines, and Department of Treasury requirements.

The Board **HEREBY AUTHORIZES** the Board President to sign the Grant Funding Agreement that are consistent with Department of Treasury requirements; program guidelines; and the terms of this Order.


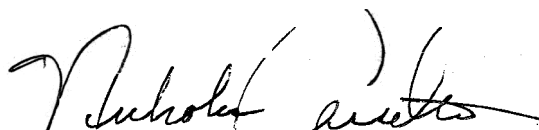
The effective date of this Order is as set forth below.

DATED: 11/10/10

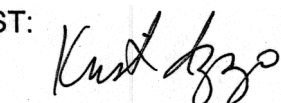
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ATTEST:

  
KRISTI IZZO  
SECRETARY

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

