

February 10, 2020

Q020020147

Hon. Aida Camacho-Welch, Secretary New Jersey Board of Public Utilities PO Box 350 Trenton, NJ 08625

## Subject: Petition for Assignment of "Preferred" TREC Factor for Floating Photovoltaic Solar in the Transition Incentive Order

Dear Secretary Camacho-Welch,

The North Jersey District Water Supply Commission (NJDWSC) wishes to add our support to the letter sent to you by SUEZ North America (SUEZ) petitioning the Board to classify floating solar projects as a **"Preferred Siting"** category and a **1.0 factor under the Transition Renewable Energy Certificates (TREC) program**. We, as did SUEZ, reference the Board's January 8, 2020 clarification that *"new or innovative solar technologies can file a petition with the Board requesting that these type projects be assigned a TREC factorization level."* We agree with SUEZ that recognizing this innovative solar array deployment will further the Board's desired outcomes relative to space utilization, efficiency, solar renewable leadership and attainment of the State's renewable energy goals.

NJDWSC is itself proceeding with the development of an approximately 12MW floating solar array on the Wanaque Reservoir.

## We concur with the following rationale cited by SUEZ for a Preferred Siting classification for floating solar projects:

- A. Siting
- In 2017, the New Jersey Department of Environmental Protection (NJDEP) Bureau of Energy and Sustainability provided an update to their 2012 Solar Siting Analysis (SSA), the essence of which provided state level guidance on siting solar photovoltaic projects based on land use/cover. Areas were classified for suitability as Preferred, Indeterminate and Not Preferred.



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- 2. In its 2017 Bureau of Energy and Sustainability update to their 2012 Solar Siting Analysis (SSA), NJDEP recognized that placing photovoltaic installations on natural or artificial lakes may be a practical use. Due to the then limited number of floating photovoltaic systems on water bodies in the United States, the report classified such bodies of water as "Indeterminate" but stated that as the technology matures, it may be practical to change the Solar Siting designation to "Preferred". Where land is limited and/or desired to be protected, a floating solar array provides both water storage and a power generation opportunity; a Preferred situation.
- 3. The NJDEP has reviewed and approved the 4.4MW floating solar project for the Borough of Sayreville that was energized last year. This project is the largest operational floating solar project in the United States. Additionally, it is approximately 25% smaller in footprint than a comparable ground mount system, resulting in higher productivity per acre of land deployed for solar generation.
- 4. The ability of floating solar to utilize water bodies, instead of valuable land, preserves green space, recreational and agricultural areas within New Jersey and fits in well with the BPU's siting preferences.
- 5. The benefit to the source water due to the cooling effect from the shading by the solar panels reduces algae blooms and water evaporation.

## B. <u>Technology</u>

- 1. Combining floating solar with innovative bifacial solar panels (to maximize reflectivity and generation) increases efficiency.
- 2. The 12MW floating solar array for NJDWSC will be located on the Wanaque Reservoir and provides renewable energy to NJDWSC's Wanaque Water Treatment Facility in Wanaque, NJ. This project will provide more than 75% of the total power for the plant's operation and will represent a significant reduction in grid based energy.

## C. Cost and Development Cycle

- 1. The Sayreville project provides confirmation of the technology and siting advantages that floating solar provides over traditional ground mount systems. However, this project was approximately 48% higher in cost than traditional ground mount systems.
- 2. In addition to higher costs for floating solar, the cost for insurance, financing and other "soft" project costs are expected to be higher due to the fact that this is an emerging technology in the United States.
- 3. The general timeline to design, engineer and construct a floating solar project is approximately 18 to 24 months, significantly longer than the timeline for ground mount systems.

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We believe that classifying floating solar as a "**Preferred Siting**" category and a TREC Factor of 1.0 is consistent with the Board's policy of continuing New Jersey's leadership in solar development, and will help to maintain a vibrant solar marketplace in the State. We would welcome the opportunity to meet with you to further address these issues.

Sincerely,

---so/h

Timothy J. Eustace Executive Director