



February 9th, 2014

Senator Ramon Luis Nieves
President, Senate Commission on Energy Issues and Water Resources
Senate of the Commonwealth of Puerto Rico
El Capitolio
P.O. Box 9023431
San Juan, Puerto Rico 00902-3431

*Attention: Lcda. Gladys A. Maldonado
Executive Director, Senate Commission on Energy Issues and Water
Resources*

Submitted by: Jacob Hoheim, Regional Manager, SunEdison Puerto Rico

Re: *SunEdison Support of Senate Bill 840, Proposed Amendment of Regulations Relating to Net-Metering*

SunEdison wishes to express its appreciation to the *Comision de Asuntos Energeticos y Recursos de Agua del Senado de Puerto Rico* for the opportunity to present before the commission and provide this written statement in support of Senate Bill 840.

Summary of SB 840 Benefits and Reasoning to Support

The intent of this memorandum is to demonstrate the importance of passing SB 840 in order to practically amend recently introduced interconnection and net-metering regulations by the Puerto Rico Electric Power Authority (PREPA). Certain requirements adopted under these regulations, known as "Additional Technical Requirements" (ATRs), place barriers to restrict the development of green energy projects. This is in direct contrast to the will of this Legislature, which recently increased the capacity of net metering systems in order to promote green energy projects, advance environmental goals, create jobs and decrease energy costs for local businesses.

Specifically, PREPA ATRs obligate all¹ 'on-site' renewable energy systems of 1-5 MW to assume significant additional costs (~30%) to interconnect and net-meter energy to the grid, without even demonstrating the need for the ATRs. Additionally, the interconnection requirements increase financing costs, if they can be obtained at all, since PREPA reserves the right to disconnect the system from the grid for convenience. SB 840 would require PREPA to adopt nationally accepted interconnection procedures and feasibility studies, ensure PREPA contracts are consistent with legal standards, and include a means to resolve any disputes.

The result would be the creation of practical and safe interconnection solutions based on the actual characteristics of the proposed system and conditions of the grid at the point of interconnection. The referenced standards and processes would be derived from the Federal

¹ The PREPA regulations "grandfather" the first 20 MWs of such 1-5 MW net metering projects interconnected to the grid. However, based on available information, that capacity has already been consumed.

Energy Regulatory Commission's (FERC) *Small Generator Interconnection Procedures*, already accepted as the basis of interconnection procedures throughout the US and notably in other island environments, such as Hawaii.

SunEdison – A Local and Worldwide Expert in Renewable Energy

SunEdison, in operation in Puerto Rico since 2009 and globally since 2003, is a leading developer of solar photovoltaic (PV) projects with over 1.2 GW of clean, renewable energy capacity—larger than that of a typical nuclear power plant. We wish to utilize our experience and significant data gleaned from operational systems in Puerto Rico and around the world to provide the best possible solution to efficiently safeguard the Puerto Rico electricity grid, while also supporting government and business interests in empowering existing legislation and creating jobs.

SB 840 Empowers Previously Passed Legislation Currently Impeded by Electric Power Authority (PREPA) Regulations

In July of 2010 and June of 2012 the Puerto Rico Legislature passed Act 82-2010 and Act 103-2012, which created the Renewable Portfolio Standard (RPS) and allowed interconnection of systems with a nameplate capacity of 1-5 MW to the electricity grid, respectively. Act 82-2010 established the need to have 12% of the total energy generated in Puerto Rico to be derived from renewable, green energy sources by 2015. Act 103-2012 established the ability of 1-5 MW on-site generation systems to interconnect and net-meter. Net-metering is a critical benefit of renewable energy systems, allowing excess renewable energy generated on-site to be redistributed to the grid and crediting the PREPA customer for excess electricity. However, current PREPA regulations indiscriminately mandate costly technical requirements on each renewable project of 1-5 MW regardless of actual system or grid conditions, a fact which significantly inhibits the implementation of the legislative mandate.

Analysis done by independent 3rd parties, such as Sandia Labs in collaboration with the University of California San Diego, shows PREPA did not take into account the grid stabilizing effects of geographic dispersion of these smaller, distributed renewable energy projects impacted by the ATRs. That means, energy storage and other such additional requirements are not necessary to safely interconnect the majority of distributed renewable projects of 1-5 MWs, even on island grids.

Therefore, SB 840 establishes a basis of studies and processes to efficiently assess the conditions and potential effects of interconnecting and net-metering each project. These studies have already been implemented at the national level and tellingly, at other island grids, such as Hawaii.

PREPA Regulations Challenge Projects that Create Jobs and Aid the Local Economy

In addition to impeding existing law, PREPA ATRs inhibit PR businesses from adopting, clean, economic renewable energy by adding significant cost and resources to developing such projects. These requirements include energy storage equipment and other uncommon technical components which amount to 30% or more of potentially unnecessary costs—severely limiting the adoption of renewable projects in most cases.

During these challenging economic times, clean energy projects create valuable employment and foment experience and education in a rapidly growing high-tech field while other industries

stagnate. A study conducted by UC Berkeley showed that for each megawatt hour of energy produced (a 1 MW system running for one hour equals 1 MWh), solar created 8-10 jobs, while coal and gas create ~1. Notably, PR manufacturers alone have the capacity to install hundreds of MWs of solar energy, creating thousands of desirable jobs in the process.

In addition to significant job creation, renewable energy provides bottom-line support to businesses by decreasing their energy costs while also achieving environmental goals. Moreover, businesses that adopt renewable energy show greater commitment to the local economy, as such projects are considered long-term investments.

In sum, SB 840 promotes the use of reliable national industry standards and measures in lieu of potentially excessive and costly technical requirements applied regardless of actual site-specific realities. In turn, the Senate will be strengthening already enacted legislation while stimulating job growth and supporting PR business.

SunEdison thanks the Committee for its consideration of the bill and is pleased to provide any further assistance.

Sincerely,



Jacob Hoheim
Regional Manager, Caribbean
SunEdison