

STATE OF NEW HAMPSHIRE

Inter-Department Communication

NHPUC 18JUL'16PM2:44

DATE: July 18, 2016
AT (OFFICE): NHPUC

FROM: Barbara Bernstein, Energy Analyst

SUBJECT: REC 16-474 Solar Data Systems, Inc. Request for Waiver of Puc 2505.09(i)(1) On-Site REC Meter Inspection Requirement for Independent Monitors

TO: Martin P. Honigberg, Chairman
Robert R. Scott, Commissioner
Kathryn M. Bailey, Commissioner
Debra A. Howland, Executive Director and Secretary

CC: Karen Cramton, Director, Sustainable Energy Division
David K. Wiesner, Staff Attorney

On April 29, 2016, the Commission received an application from Solar Data Systems, Inc. (SDS) requesting approval as an independent monitor under the Puc 2500 rules regarding the Renewable Portfolio Standard (RPS). SDS proposes to implement a remote monitoring and reporting process that varies in certain respects from the process contemplated by the Puc 2500 RPS rules. Staff reviewed the application and recommended that SDS resubmit it with certain modifications, together with requested waivers for specified rules as discussed in more detail below. SDS resubmitted their application on June 6, 2016 and requested waivers from three specific rules. The SDS rule waiver requests have been docketed and Staff recommends that rule waivers be granted for all three requests to permit SDS to implement its remote electronic monitoring process in New Hampshire.

SDS Independent Monitoring Model

SDS has developed a remote PV monitoring and generation reporting system, specifically designed for residential photovoltaic (PV) facilities, that uses equipment and software included with the PV system installation. SDS' Solar-Log monitoring system includes proprietary software and combines their "Solar-Log" monitoring equipment with General Electric revenue grade meters (both are ANSI C12.20 certified, +/-0.2% accuracy). According to SDS, the metering equipment and companion software enables SDS to monitor system performance remotely and provide automatic, accurate reporting of revenue grade kWh generation. SDS's system detects any anomalies, such as production in excess of reasonably expected system output, and flags these anomalies for further review and verification. The cost of the Solar-Log system is included in the product and installation costs for the system and no additional charge is assessed for the monitoring and reporting services. The Solar-Log system has been approved for and is in wide use in other state

RPS programs, and SDS is approved as an independent monitor in both Massachusetts and Connecticut. While the SDS Solar-Log system appears to offer a reasonable alternative for monitoring and verification of system output for small PV systems, it is not fully consistent with the obligations of RPS independent monitors as stated in three separate provisions of Puc 2505.09, as discussed below.

Rules Waiver Requests for RPS Independent Monitor Approval

Puc 2505.09(i)(1) - *the duties of the independent monitor shall be to **perform an initial inspection** of the source's meters for accuracy and capability to measure the electricity or useful thermal energy produced, unless the meter is owned by a distribution utility that has already inspected it pursuant to Puc 305.*

This rule states that one of the duties of the independent monitor is to perform an initial inspection of the installed meter to confirm its accuracy and verify that it is capable of measuring production. According to SDS and through subsequent communications with Staff, SDS confirmed that when the Solar-Log equipment is installed by a licensed electrician, the electrician or installer notifies SDS of the equipment's serial number and installation location, therefore making an initial site inspection unnecessary. SDS offers technical support if an installer or electrician has a question about meter installation and data validation. The serial number of each installed Solar-Log meter is referenced on a geographic map through address and GPS coordinates within SDS's software platform, and the metered output of the PV system where the meter is installed is monitored and tracked electronically through the SDS software system.

Staff's review has determined that the Solar-Log system installation procedures and electronic tracking process provide an adequate alternative to the initial on-site inspection required under the rule. Staff therefore recommends that the Commission approve SDS's request for this rule waiver.

Puc 2505.09(g) - *No customer-sited source or source producing useful thermal energy shall use an independent monitor who is a member of the immediate family of the owner of the source, holds a direct or indirect ownership interest in the source, or **who sold or installed the renewable energy system and associated equipment**;*

This rule requires that the independent monitor have no vested interest in the production of Renewable Energy Certificates (RECs) from any monitored renewable energy source. SDS sells the Solar-Log system, which is used to remotely monitor the PV systems with which it is installed, to the installer who includes it with the PV system installed for the facility owner. Neither SDS nor the PV system installer receives compensation or otherwise has a financial interest in any renewable energy source using the Solar-Log system that is a function of the production of RECs by that source.

Staff recommends that the Commission approve SDS's request for a waiver of this rule because the mere fact of its sale of certain facility equipment seems unlikely to compromise its independence with respect to the production monitoring and reporting functions it performs remotely.

Puc 2505.09(a) - *An independent monitor shall verify the electricity production of a customer-sited source or the production of useful thermal energy from an eligible source and report such production and REC calculation to the GIS. A customer-sited source or a source producing useful thermal energy shall **retain the services of an independent monitor directly.***

This rule requires that the customer-sited renewable energy source owner retain the services of an independent monitor directly. In the case of SDS, the commitment to provide remote electronic system production monitoring and reporting services is packaged with the sale of the Solar-Log system installed together with the complete PV system. SDS's independent monitoring commitment is provided to the facility owner for no extra charge for a period of five years. After the end of this initial five-year period, the facility owner can negotiate an extended independent monitoring services arrangement with SDS.

This transactional model provides PV system owners a reasonable alternative means of obtaining independent monitoring services to measure, verify, and report their PV system production to create RECs. Electronic systems serve to reduce or eliminate potential data entry errors and improve reporting efficiency. Given the accuracy improvements through automation and SDS's independent detection and resolution of apparent data anomalies, substantial benefits are provided to renewable energy source owners for no extra charge and without the need for a direct contractual relationship with SDS. Staff therefore recommends that the Commission also approve SDS's request for a waiver of this rule provision.

Staff further observes that, if the Commission were to approve the aforementioned rules waivers, it would be more likely that the State can attract additional independent monitors who also utilize electronic monitoring platforms. An increase in approved and active independent monitors would help alleviate the current shortage in qualified and active independent monitors. Staff understands that such electronic monitoring is prevalent in neighboring states where similar data verification is required.

In conclusion, Staff recommends that the Commission grant the requested rules waivers under Puc 201.05, based on a finding that the waivers will not disrupt the orderly and efficient resolution of matters before the Commission and will serve the public interest, where compliance with the rules would be onerous given the circumstances of the affected person and the purpose of the rules would be satisfied by the alternative method proposed.

SERVICE LIST - EMAIL ADDRESSES - DOCKET RELATED

Pursuant to N.H. Admin Rule Puc 203.11 (a) (1): Serve an electronic copy on each person identified on the service list.

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FILING INSTRUCTIONS:

- a) Pursuant to N.H. Admin Rule Puc 203.02 (a), with the exception of Discovery, file 7 copies, as well as an electronic copy, of all documents including cover letter with:**

DEBRA A HOWLAND
EXECUTIVE DIRECTOR
NHPUC
21 S. FRUIT ST, SUITE 10
CONCORD NH 03301-2429

- b) Serve an electronic copy with each person identified on the Commission's service list and with the Office of Consumer Advocate.**
- c) Serve a written copy on each person on the service list not able to receive electronic mail.**