

STATE OF NEW HAMPSHIRE**Inter-Department Communication****DATE:** September 22, 2016
AT (OFFICE): NHPUC

FROM: Barbara Bernstein^{EB} Energy Analyst

SUBJECT: REC 16-608 Locus Energy Request for Waiver of Puc 2505.09(i)(1), Puc 2505.09(a), and Puc 2505.09(g) On-Site REC Meter Inspection Requirements 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 ^{WC}
David K. Wiesner, Staff Attorney

On May 25, 2016, the Commission received an application from Locus Energy requesting approval as an independent monitor under the Puc 2500 rules regarding the Renewable Portfolio Standard (RPS). Locus Energy 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 Locus Energy provide a letter requesting waivers from specified rules, as discussed in more detail below. Locus Energy submitted their letter requesting waivers from three specific rules on September 12, 2016. Staff recommends that rule waivers be granted for all three requests to permit Locus Energy to implement its remote electronic monitoring process in New Hampshire.

Locus Energy Independent Monitoring Model

Locus Energy has developed a remote monitoring and generation reporting system, specifically designed for solar photovoltaic (PV) facilities, that uses equipment and software included with the PV system installation. According to Locus Energy, its metering equipment and companion software is compatible with, and able to monitor, other third party revenue grade meters on its platform while ensuring automatic, accurate reporting of revenue grade kWh generation. The Locus Energy system detects any anomalies, such as an excess of reasonably expected output or negative data and has a dedicated team that reviews and verifies anything deemed questionable. Locus Energy states that the facility location and MAC ID are linked, often in conjunction with the installer and developer registering them in its platform. At the project site, installers can confirm that the meter and system are online using the meter face, calling to confirm if they are unsure, and/or by logging onto the Locus Energy platform to register the meter using the serial number and inputting the facility location. At times, the project developer or finance or leasing company will register the MAC ID and location on the Locus Energy platform once the installer confirms the system is online.

Excluding NEPOOL, Locus Energy currently reports generation data and manages portfolios for nine other incentive-based programs nationwide, all of which can be monitored and validated remotely. In addition, the Locus Energy system has been approved for and is in use for independent monitoring in Massachusetts, Connecticut, Maine, Vermont and Rhode Island. While the Locus Energy 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 Locus Energy, its internal inventory system tracks the association between the particular metering device (via its MAC ID) and where it is installed. Locus Energy also completes an analysis of the meter in the field and compares it with its own algorithms to calculate the meter's location, ensuring a match. In addition, Locus Energy is able to continuously validate data by juxtaposing the power generation readings from the revenue grade meter with the power generation readings archived on the system's backup meters or inverters. Therefore, through multiple methods, Locus Energy is able to verify a meter's location and certify the validity of the data it is communicating. Locus Energy also states that it staffs a full time support team to offer technical troubleshooting assistance and to answer any related regulatory inquiries. In addition, Locus Energy offers technical support if an installer or electrician has a question about meter installation and data validation.

Staff's review has determined that the Locus Energy 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 Locus Energy'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 effectively requires that the independent monitor have no vested interest in the production of Renewable Energy Certificates (RECs) from any monitored renewable energy source. Locus Energy sells the Locus Energy system to the installer, project developer, or financing company (depending on the type of project), which includes it with the PV system installed for the facility owner. Locus Energy receives no

compensation and has no other financial interest in any renewable energy source using the Locus Energy system that is a function of the production of RECs by that source.

Staff recommends that the Commission approve Locus Energy'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 Locus Energy, the commitment to provide remote electronic system production monitoring and reporting services is packaged with the sale of the Locus Energy system installed together with the complete PV system. Locus Energy's independent monitoring commitment is provided for a period of five years at a cost of \$150 for residential systems and \$450 for commercial systems, which cost is included in the system purchase price charged to the installer, developer or financing company. After the end of this initial five-year period, the facility owner can negotiate an extended independent monitoring services arrangement with Locus Energy.

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 Locus Energy's independent detection and resolution of apparent data anomalies, substantial benefits are provided to renewable energy source owners. Staff therefore recommends that the Commission also approve Locus Energy'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 that also utilize electronic monitoring platforms. An increase in approved and active independent monitors would help alleviate the current shortage of 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.

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- DEBRA A HOWLAND
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- b) **Serve an electronic copy with each person identified on the Commission's service list and with the Office of Consumer Advocate.**
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