

January 19, 2018

BY HAND DELIVERY AND ELECTRONIC MAIL

Luly E. Massaro, Commission Clerk
Rhode Island Public Utilities Commission
89 Jefferson Boulevard
Warwick, RI 02888

RE: Docket 4774 - Proposed 2018 Renewable Energy Growth Program Tariff and Rule Changes
Responses to Record Requests

Dear Ms. Massaro:

I have enclosed ten copies of National Grid's¹ responses to the record requests issued at the PUC's technical session in the above-referenced docket.

Thank you for your attention to this matter. If you have any questions, please contact me at 781-907-2121.

Very truly yours,



Raquel J. Webster

Enclosures

cc: Docket 4774 Service List
Leo Wold, Esq.
Jon Hagopian, Esq.

¹ The Narragansett Electric Company d/b/a National Grid (National Grid or Company).

Record Request No. 1

Request:

Did National Grid consider performance metrics pertaining to quality assurance in this docket?

Response:

The Company strongly supported Cadmus Inc.'s development of the Quality Assurance (QA) Study with the understanding that the study could enhance customer value and safety. The Company supports the continuation of this work and will review whether the next version of the QA study finds improvements in the overall quality of installed projects during the intervening period.

The Company did not directly consider performance metrics pertaining to quality assurance of the customer-side aspects of solar facilities that were the focus of the Cadmus' QA reviews, as highlighted in Cadmus' 2016 field research. Facilities on the customer side of the point of common coupling are owned by and are the responsibility of the property owner/customer, and changes to such electrical facilities are the responsibility of local building inspectors to ensure compliance with local, state, and national electrical code requirements. To the extent that clarity around the Company's interconnection requirements, metering requirements, meter socket wiring, and disconnect wiring and labeling has had an impact on the Company's ability to efficiently install meters when requested and avoid unnecessary rework by the customer or second visits by Company personnel, these elements can and should be made as clear as possible to installers. The Company supports providing information on these requirements and does so through its regularly held three times a year DG Seminars and in technical documentation that is available to installers on the Company's website. Please see the documentation of this change in Attachment RR-1. This type of information has an indirect impact on the proposed metric the Company advanced in the proceeding around the percent of "simple application" meters able to be set within 10 days of complete construction and inspection, which is currently at a 98% rate.

Effective January 1, 2017

Notice for customers regarding Rhode Island Renewable Energy Growth (RE-Growth) dual meter installations

This notice serves to clarify the acceptable installation methodology for multiple meter installations related to Rhode Island's Renewable Energy Growth (RE-Growth) program. This notice does not nullify or supersede National Grid standard requirements for meter installation. It is provided for additional clarification, specifically related to the unique installations of Rhode Island RE-Growth.

The following installation approaches are acceptable. Any other installation approach is not acceptable by National Grid. All installations are subject to review and approval by National Grid. Clarification on the topic will be added to the next scheduled revision of ESB 756.

Note: Due to the required service change for this program if your electrical meter is currently located inside it will need to be moved outside at your location to meet National Grid standards.

Overhead Service Installations

- At the home, provide single service from the weatherhead to a multi-gang meter socket, for installation of the multiple meters required for RE-Growth.
- At the home, provide parallel services from the weatherhead to individual meter sockets, for installation of the multiple meters required for RE-Growth.

Note: Installation of a single service from the weatherhead to a junction box mounted on the side of the house, which would subsequently serve individual meter sockets is not acceptable. Bifurcation of the service for the purposes of serving multiple meters related to RE-Growth is only acceptable at the weatherhead.

Underground Service Installations

Provide single service to house, which will feed a multi-gang meter socket, for installation of the multiple meters required for RE-Growth. Expansion joint is required for the feeder entering the meter socket, which is consistent with National Grid standard practice for meter installation.

Note: Due to the nature of underground service installations, a multi-gang meter socket is the only acceptable means of installation.

Record Request No. 2

Request:

What, if anything, has National Grid done in response to the following recommendations contained in the Cadmus Group's *Study of Renewable Energy Installation Quality in the Renewable Energy Growth Program* dated April 20, 2017 (OER Exhibit 2, p. 35-36) and if nothing, please explain why:

- a. National Grid Metering Technicians
- b. Closely Manage Self-Installations
- c. Enhance Program Minimum Technical Requirements

Response:

- a. The Company had some early configuration issues with customer use of two position meter sockets. The Company remedied the situation by re-programming the meters to read properly for that configuration. The Company developed and posted additional documentation for installers on the appropriate meter socket set up for RE Growth systems, eliminating one possible configuration. The Company is not aware of other widespread or ongoing issues with meter wiring or installation. Please see Attachment-RR-1.
- b. At the application stage, the Company does not track whether a system is considered a "self-installation." The Company does not have the authority to review or inspect any of the customer-side work that any party would conduct in developing a new facility under the RE Growth Program tariff. The Company did sponsor training for electrical inspectors in coordination with the Rhode Island Office of Energy Resources, so that the findings of the Cadmus report would be delivered to those inspectors and help improve the overall level of their inspections going forward, including the issues found with self-installed facilities. This training was held on June 29, 2017 in Lincoln, RI, and all electrical inspectors in the state of Rhode Island were invited to attend the training.

Record Request No. 2, page 2

- c. Most of the items included in the subject “Enhance Program Minimum Technical Requirements”, as listed in Appendix A of the Cadmus report, are issues with application of the National Electrical Code to the installation of solar PV systems, and are not under the authority or control of the Company. Licensed electricians should review and be familiar with these requirements. As a first step, installation companies and their electricians should self-sponsor and attend trainings to improve their understanding of these issues. Industry groups, such as the Solar Energy Business Association of New England, regularly sponsor specialized training on solar installation and the National Electrical Code,¹ and Rhode Island installers and electricians could be required to participate in such continuing professional education as part of their licensing by the Rhode Island Department of Labor.

The Company did reduce the options available to interconnect the second “generation” meter socket to the customer’s service, effective January 1, 2017. The options are now either requiring a two-gang meter socket connection to the existing drop, or requiring a separate conduit from the weatherhead to a separate and adjacent meter socket.² In both cases, the replacement of the existing service drop, and the conduit from PCC to meter, is a matter of electric service installation compliance according to the Company’s specifications for electrical installations³, is the responsibility of the customer, and falls under the jurisdiction of local electrical inspectors to ensure electrical safety and code compliance. This change was documented and communicated in the document included as Attachment-RR-1 and was communicated at DG Seminars hosted by the Company for installers and other stakeholders over the past year and a half.

¹ SEBANE is sponsoring such a seminar on March 1, 2018, in Auburn, MA, entitled “PV Systems and National Electric Code: 2017 and what is ahead for 2019 and 2020,” at a cost of \$125-195 per attendee.

² See Section 7.3 in National Grid’s Specifications for Electrical Installations, ESB No. 750 at https://www.nationalgridus.com/media/pronet/constr_esb750.pdf for self-contained meter socket installations.

³ See National Grid’s Specifications for Electrical Installations, ESB No. 750 at https://www.nationalgridus.com/media/pronet/constr_esb750.pdf for rules regarding new or changed electric service.

Certificate of Service

I hereby certify that a copy of the cover letter and any materials accompanying this certificate was electronically transmitted to the individuals listed below.

The paper copies of this filing are being hand delivered to the Rhode Island Public Utilities Commission and to the Rhode Island Division of Public Utilities and Carriers.



Joanne M. Scanlon

January 19, 2018

Date

**Docket No. 4774 – Renewable Energy Growth Program for Year 2018
RI Distributed Generation Board and National Grid**

Service List updated 1/17/18

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