



State of Rhode Island and Providence Plantations

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Patrick C. Lynch, Attorney General

February 27, 2008

Ms. Luly Massaro
Clerk
Public Utilities Commission
89 Jefferson Boulevard
Warwick, RI 02888

**Re: National Grid Tariff Advice Filing
R.I.P.U.C. No. 2007 – Standards For
Connecting Distributed Generation –
PUC Docket No. 3904, Section 2**

Dear Ms. Massaro:

I have enclosed a copy of a memorandum prepared by Gregory L. Booth, PE, President of Gregory L. Booth, PLLC and PowerServices, Inc., for the Division of Public Utilities and Carriers in the referenced docket. Mr. Booth has been retained by the Division to review National Grid's Tariff Advice Filing in this matter. We would appreciate it if you would accept this letter and the enclosed memorandum of Mr. Booth for filing as the Division's position in this docket.

Thank you for your consideration.

Sincerely,

William K. Lueker (R.I. Bar No. 6334)
Special Assistant Attorney General
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Encl.

Copy to: Service List, Docket 3904

MEMORANDUM

TO: Steve Scialabba
FROM: Gregory L. Booth, PE
TOPIC: Comments on National Grid Tariff Advice Filing R.I.P.U.C. No. 2007
Standards For Connecting Distributed Generation – PUC Docket No.
3904, Section 2
DATE: February 27, 2008

Introduction

Gregory L. Booth, PE, President of Gregory L. Booth, PLLC and PowerServices, Inc., has been retained by the Rhode Island Division of Public Utilities and Carriers ("DPUC") to review the National Grid Tariff Advice Filing - R.I.P.U.C. No. 2007 - Standards for Connecting Distributed Generation for comparison with other jurisdictional interconnection standards, and to provide comments and recommendations on this filing and on the comments filed by other interested parties in this docket (Rhode Island Public Utilities Commission – "PUC" – Docket No. 3904, Section 2). As of the filing deadline of February 13, 2008, there were no comments filed by other interested parties.

The comments and recommendations that follow are both of a general nature as well as recommending specific changes to the filing. Our review of the filing and this report contain comments and recommendations which could be given further consideration in future filings, or possibly be the basis of modifications to certain aspects of the standards as filed.

Overall, the Standards For Connecting Distributed Generation as filed are fair, reasonable and balanced.

General Comments

The National Grid filing in Rhode Island has been taken, in large part, verbatim from the tariff in Massachusetts (M.D.T.E. No. 1116-A, effective April 2, 2007), which applies to the two National Grid affiliates operating in Massachusetts -- Massachusetts Electric Company and Nantucket Electric Company. The National Grid document filed in Rhode Island was changed by National Grid to: 1) conform to differing entities appropriate for the different states, 2) conform to the state laws and utility regulations in the state of Rhode Island, and 3) address any issues that are unique to Rhode Island.

In several places in the Tariff, provisions are made for cost estimates to be provided by the Company and, further, that pre-payments be made by the Interconnecting Customer. We recommend that provisions for cost true-ups be incorporated in the Tariff. This would allow for excess cost to be collected by the Company and also provide for cost savings to be reflected in the Company's collections from the Interconnecting Customer.

The Interconnecting Customer should not pay more than the actual costs incurred by the Company.

We also suggest it would be in the best interest of electric reliability that procedures for Company dispatch of Distributed Generation under certain conditions, such as system emergencies or system reliability enhancement, be developed and incorporated within the next 24 months.

Specific Comments on the National Grid filing

The following is a discussion by filing section of our analysis and suggestions and recommendations.

Section 1.0 – Introduction

- Sub-section 1.1 states, “If the Facility will always be isolated from the Company’s Electric Power System (“EPS”), (i.e., it will never operate in parallel to the Company’s EPS), then this Interconnection Tariff does not apply.” We recommend the following be added. “At any time in the future, should the Facility elect to convert its operation to be completely isolated from the Company’s EPS, this Interconnection Tariff between the Company and the Interconnecting Customer will no longer be applicable.”
- Sub-section 1.2 contains the definition for DR as “The Facility. This term is used in IEEE Standard 1547-2003.” We recommend that DR be spelled out as “Distributed Resources” in the definition, and that it be noted that the IEEE standard used is the same as that used for Distributed Generation.

Section 2.0 – Basic Understandings

- The first paragraph of this section contains the following: “It is the responsibility of the Interconnecting Customer to design, procure, install, operate, and maintain all necessary equipment on its property for connection to the Company EPS.” We recommend adding “at no cost to the Company or its retail customers.”

Section 3.0 – Process Overview

- The third paragraph of this section addresses the process where the Interconnecting Customer has not made a final decision on the specific generator supplier. It allows for the Interconnecting Customer to submit up to three generator suppliers for review and acceptance by the Company for interconnection. The provisions in this paragraph allow the Company to provide the Interconnecting Customer with the additional cost for reviewing all options. We recommend an alternative which allows the Interconnecting Customer to designate a “worst case” option and for the Company to limit additional cost estimates to the incremental cost of performing reviews of other options.
- In Table 2, Fee Schedules and, with the accompanying note 5 to this Table, the Tariff addresses O&M. All of the other fees are one-time or non-recurring

charges while O&M appears to be an ongoing charge. We recommend specific provisions for the frequency of periodic billing of these charges.

Section 4.0 – Interconnection Requirements

- We recommend that the Tariff allow for waivers of certain IEEE 1547 standards contained within the Tariff upon mutual agreement by the parties. However, requirements in addition to IEEE 1547 standards, if not contained within the Tariff, should not be allowed. This is consistent with the standards followed by larger Regional Transmission Organizations.

Section 5.0 – Responsibility for Costs of Interconnecting a Facility

- As much as is practicable, we suggest that the Point of Common Coupling (“PCC”) be identified as early in the process as possible, as this may impact the cost to the Interconnecting Customer through the planning and design process.
- Sub-section 5.4 addresses the separation of costs when the Company combines the installation of System Modifications with additions to the Company’s EPS to serve other customers, including other interconnecting customers. This sub-section precludes the inclusion of costs of separate or incremental facilities from being billed to the Interconnecting Customer under the System Modifications required under this Tariff. The Tariff does not address the method of identifying these costs as System Modification or EPS or allocating them to those categories. We recommend a more specific method of allocating these costs. Although there are a number of methods of cost allocation in use, one industry standard that has been successfully used is a load-ratio share allocation of these costs where this data is available.
- We strongly recommend another sub-section to this Section that allows the Interconnecting Customer access to all relevant books and records that verify the costs billed by the Company to the Interconnecting Customer.

Section 6.0 – Operating Requirements

- Sub-section 6.2 addresses No Adverse Effects; Non-Interference. This sub-section states that an Interconnecting Customer will protect itself from normal disturbances from the Company EPS, which disturbances will not constitute unreasonable interference unless the Company has deviated from Good Utility Practice (defined in Section 1.0). The sub-section also provides for the Company to eliminate any adverse effect if this effect is a result of a deviation from Good Utility Practice. We suggest that National Grid be held responsible for consequential damages to the Interconnecting Customer that result from deviations from Good Utility Practices as determined by the PUC. We also recommend that the language of this sub-section be modified to reflect that any Facilities Connection Requirements that may be filed at the Federal Energy Regulatory Commission that apply to National Grid shall also apply to any Interconnecting Customer.

- We recommend that the Interconnecting Customer be allowed to use the Company's distribution facilities to export power to another EPS to the extent that the Company's load flow indicates no adverse consequences.

Section 7.0 – Disconnection

- Sub-section 7.1.b states, "Company shall make an effort to schedule such curtailment (maintenance, construction and repair) or temporary disconnection with Interconnecting Customer." We suggest that the Company's schedule of such curtailment also be required to be scheduled so as to minimize the impact on the overall Company's cost so that the Company's retail customers and other interconnecting customers are not impacted.

Section 8.0 – Metering, Monitoring, and Construction

- The third paragraph in sub-section 8.1 states that the Interconnecting Customer is responsible for the cost to routinely test and make repairs on the metering equipment or to replace the meter. Since the Company owns the meters, we recommend that the test cost be limited to one test per year at the Interconnecting Customer's expense.
- Sub-section 8.1 addresses the provisions for non-net metering based on size of the Interconnecting Customer's metered units. Specifically, this sub-section bifurcates between bi-directional non-interval metering without remote access requirements (under 10 kW) and bi-directional interval metering with remote access requirements (over 10 kW). The latter of these categories should be inclusive of 10 kW. Additionally the National Grid Tariff in Massachusetts makes distinction between these two in the Facilities for non-net metered Interconnecting Customers (over 60 kW and those net-metered Interconnecting Customers which elect another form of metering) but does not provide for specific bifurcation, all of which are presumed to be over 60 kW. Massachusetts also requires all non-net metered Interconnecting Customers over 60 kW to have remote access. We recommend that National Grid provide comment on these differences between the Rhode Island proposed Tariff and the Massachusetts Tariff.

Section 9.0 – Dispute Resolution

- We recommend the inclusion of a flowchart of the resolution with a time schedule similar to that contained Table 1 of Section 3.0.
- The Massachusetts National Grid Tariff provides for the exclusion of any disputes from inclusion into the MDTE service quality investigations unless an Interconnecting Customer so requests. The Rhode Island National Grid Tariff filing contains no language with regard to this. If the PUC requires service quality investigations, we recommend language similar to the Massachusetts Tariff.

Section 10.0 – Insurance Requirements

- The Massachusetts National Grid Tariff allows for an Interconnecting Customer to self-insure under certain conditions. The Rhode Island National Grid Tariff filing has no provisions for an Interconnecting Customer to self-insure. It is unclear if self-insurance is allowed under the proposed standards. This should be clarified by National Grid. On this point, we recommend that self-insurance by an Interconnecting Customer be precluded, since there are many instances when an Interconnecting Customer is predominantly a paper organization without any substantive resources or equity and to allow self-insurance would not be in the best interest of all parties, particularly the Company and its customers.
- The Massachusetts National Grid Tariff allows a waiver of the requirement that the Company be included as an additional insured in the event that: 1) an insurance carrier prevents the Interconnecting Customer from obtaining the required insurance without additional cost or, 2) provides a written refusal by the insurance carrier to provide the required insurance. The Rhode Island National Grid Tariff filing is silent on this issue. We recommend that the Company and the Interconnecting Customer work to find a mutually acceptable solution in the event that this arises.
- The insurance requirements for Interconnecting Customers established by the National Grid proposed Tariff have more detailed requirements than those prescribed by larger Regional Transmission Organizations.

Summary of Comments and Recommendations

1. Procedures for Company dispatch of DGs under certain conditions such as system emergencies or system reliability enhancement be developed and incorporated within the next 24 months.
2. The following language should be added to Subsection 1.1. “At any time in the future, should the Facility elect to convert its operation to be completely isolated from the Company’s EPS, this Interconnection Tariff between the Company and the Interconnecting Customer will no longer be applicable.”
3. The Point of Common Coupling should be identified as early in the process as possible as this may impact the cost to the Interconnecting Customer through the planning and design process.
4. National Grid should be held responsible for consequential damages to the Interconnecting Customer as a result from deviations from Good Utility Practices as may be determined by PUC.
5. To the extent that National Grid is held to any Facility Connection Standards that may be filed at the FERC, the Interconnecting Customer shall be held, at a minimum, to these same standards.

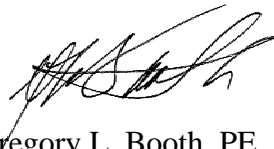
6. The Company's schedule of disconnection for routine maintenance, construction and repair should be required to be scheduled so as to minimize the impact on the overall Company's cost so that the Company's retail customers and other interconnecting customers are not impacted. (Sub-section 7.1.b)
7. Provisions for cost true-ups should be incorporated in the Tariff.
8. DR should be spelled out as "Distributed Resources" in the definitions (Sub-section 1.2) and noted that the IEEE standard is the same as for Distributed Generation.
9. Add "at no cost to the Company or its retail customers" for the Interconnecting Customer to design, procure, install, operate and maintain all necessary equipment... (Section 2.0)
10. Provide an additional alternative which allows the Interconnecting Customer to designate a "worst case" option and for the Company to limit additional cost estimates to the incremental cost of performing reviews of other options. (Section 3.0)
11. Specific provisions should be established for the periodic billing and payment of O&M charges. Also, the term "TBD" should be spelled out (Table 2 of Section 3.0).
12. Tariff should allow for waivers of certain IEEE 1547 standards contained within the Tariff upon mutual agreement by the parties. However, requirements additional to IEEE 1547 standards, if not contained within the Tariff, should not be allowed (Section 4.0).
13. Tariff should address the method of allocating costs where system modifications are required by the Company to serve other customers. (Sub-section 5.4)
14. Interconnecting Customer should have access to Company's books and records to verify costs.
15. Interconnecting Customer should be allowed access to Company's distribution system to export power to another Electric Power System.
16. Meter test cost should be limited to one test per year at the Interconnecting Customer's expense. (Sub-section 8.1)
17. National Grid should provide comments on the differences between its Massachusetts DG Interconnection Tariff and the proposed Rhode Island Interconnection Tariff for non-net metered Interconnection Customers. (Sub-section 8.1).

18 National Grid should include a time schedule flow-chart for dispute resolution similar to that in Section 3.0, Table 1.

19. National Grid should include language that exempts disputes between parties from any service quality investigations except where the Interconnecting Customer requests – similar to the National Grid Tariff in Massachusetts. (Section 9.0)

20. We recommend that the provision on self-insurance by an Interconnecting Customer be clarified in the standards. We further believe that allowing an Interconnecting Customer to self-insure would not be in the best interest of National Grid or its customers. (Section 10.0)

21. Language should be inserted to require that the Company and the Interconnecting Customer work to find a mutually acceptable solution if the Interconnecting Customer is either precluded from or is assessed an additional cost for including the Company as an additional insured. (Section 10.0)

A handwritten signature in black ink, appearing to read 'Gregory L. Booth', is positioned above the printed name.

Gregory L. Booth, PE
President of Gregory L. Booth, PLLC and
PowerServices, Inc.