

February 1, 2012

VIA HAND DELIVERY & ELECTRONIC MAIL

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

**RE: Docket 4296 – The Narragansett Electric Company, d/b/a National Grid
2012 System Reliability Procurement Plan
Responses to Division Data Requests – Set 1**

Dear Ms. Massaro:

Enclosed are ten (10) copies of National Grid's¹ responses to the Division's First Set of Data Requests issued in the above-captioned proceeding.

Thank you for your attention to this filing. If you have any questions, please feel free to contact me at (401) 784-7288.

Very truly yours,



Jennifer Brooks Hutchinson

cc: Docket 4296 Service List
Jon Hagopian, Esq.
Steve Scialabba, Division

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

Division 1-1

Request:

With regard to pages 15 and 16 of the SRP, please explain how the Company converted the base investment from \$2.69 million to \$2.004 million.

Response:

As indicated on pages 16 and 17 of the 2012 SRP Report Supplement, the cost for the base investment is \$1.95 million, which is derived from the NPV of \$2.87 million in 2014. The Company discounted the investment amount in 2014 (\$2,874,600) to convert it to 2011 dollars, which is represented by \$1,959,647 in the "Base Investment" column in the table on page 17 of the 2012 SRP Report Supplement.

Prepared by or under the supervision of: Timothy Roughan

Division 1-2

Request:

With regard to page 16 of the SRP, the benefit/cost analysis, it appears as though the Company has included the costs and benefits from only 2012 in this analysis.

- a) Do the benefits include the energy savings that will be experienced over the life of the efficiency measures installed?
- b) Why does the Company not include the costs and benefits associated with all of the years of the program?
- c) Would the results be significantly different if the Company were to include all of the years of the program?

Response:

- a) Yes for Focused Energy Efficiency and SRP Energy Efficiency benefits. Please refer to Page 19 of the 2012 SRP Report Supplement.
- b) At the request of the EERMC, the Company has modeled the costs and benefits associated with all six years of the program. Please refer to Pages 16-20 and Appendix 12 of the 2012 SRP Report Supplement for this multi-year analysis.

Since the program is a Pilot, there is still uncertainty around the implementation tactics and planning assumptions of future years. It is also likely that the mixture of funding sources for future years and the associated budget may change each year. Therefore, the results of this multi-year cost-benefit analysis are provided as estimates only and are subject to change in subsequent, annual plans.
- c) Please refer to Table S-2 in Appendix 12 of the 2012 SRP Report Supplement to see the benefit/cost ratios in each of the six years of the project lifetime, as well as the overall benefit/cost ratio of the entire project.

Prepared by or under the supervision of: Lindsay Perry and Jeremy Newberger

Division 1-3

Request:

- a) With regard to page 17 of the SRP, please describe in detail how the Company calculates the Marginal Distribution Costs. Please be specific and explain how this calculation results in the \$44,098 presented for MDC costs in Appendix 12, page 5, Table S-1.
- b) With regard to page 17 of the SRP, please describe in detail how the Company calculates the additional value of the “deferral of a specific investment,” i.e., the value of deferring the proposed investment at Tiverton and Little Compton. Please be specific and explain whether and how this value is included in the benefits presented in Appendix 12, page 5, Table S-1.

Response:

- a) In 2005, the Avoided Energy Supply Cost study consultant, ICF International, created a spreadsheet tool for Program Administrators to use. The tool calculates an annualized value of avoided transmission and distribution capacity values from company-specific inputs of historic and forecast capital expenditures and loads, as well as a carrying charge calculated from applicable tax rates and FERC Form 1 accounting data.

The basic structure of this calculation is to develop an annualized cost of avoidable transmission and distribution capacity costs by dividing the sum of five years each of historic and forecast capital expenditures (equally weighted) by the sum of five years each of historic and forecast load growth (also equally weighted). A calculated carrying charge and an assumption of what percentage of capital expenditures are avoidable by the implementation of energy efficiency are also applied to determine the final annualized avoided costs. These avoided costs are then escalated by the rate of estimated inflation to 2011 dollars.

These avoided costs were used in the BCR analysis as a component of value. The equations used to calculate avoided distribution benefits are found on page 8 of Attachment C of the 2009-2011 Energy Efficiency Procurement Plan. The Company is summer peaking; therefore the T&D benefits will be exclusively associated with summer demand reduction. The \$44,098 of MDC benefits, therefore, represented the product of the present value of the distribution benefit, the 2012 sum of kW, and the line loss factor over the life of the measure.

Division 1-3 (continued, p2)

However, because of the changes the Company made to the analysis as a result of discussions with the EERMC, the \$44,098 of MDC benefits is no longer applicable. Please refer to Table S-5 of Appendix 12 in the 2012 SRP Report Supplement for the updated MDC benefit amounts.

- b) The “deferral of a specific investment” language refers to the deferral values shown in the table on page 17 of the 2012 SRP Report Supplement. If enough load relief can be enrolled and participates enough to provide the load reductions needed from 2014 through 2017 to allow deferral of the upgrade, these benefits can be claimed. The cost/benefit analysis in Table S-2 on page 18 of the 2012 SRP Report Supplement shows these benefits on the “Deferral Benefits” line.

Prepared by or under the supervision of:
Lindsay Perry, Jeremy Newberger and Timothy Roughan

Division 1-4

Request:

- a) With regard to Appendix 3, page 1 of 1, please provide the actual 2010 and 2011 summer peak demand values.
- b) With regard to Appendix 3, page 1 of 1, please explain why the peak demand is forecast to increase at such high rates, given that historical peak demands have been generally declining.

Response:

- a) Actual Western NEECo Summer Peak Values:

<u>Year</u>	<u>Peak MW</u>	<u>Growth over Prior Year</u>
2010	869.425	4.8%
2011	924.507	6.3%

- b) Historical peak demands generally declined over the 2004-2009 period because of the regional economic slowdown and the severe 2008/09 recession. Forecasted load growth is expected to be higher because the Rhode Island economy is expected to recover from the recession. Projections of Rhode Island economic growth were provided by Moody's Analytics, a leading economic consulting firm. Please see the Company's response to EERMC 1-3 for these details.

Please note that actual Western NEECo peak load for 2011 was 0.9% higher than the extreme weather forecast for 2011 and 9.5% higher than the normal weather forecast for 2011. Actual peak day weather conditions were slightly hotter than the extreme weather conditions assumed for the forecast and well above the normal.

Division 1-5

Request:

With regard to Appendix 4, page 1, please explain how the peak demand at Tiverton relates to the peak demand at the Western NECP PSA (Appendix 3).

Response:

Tiverton load growth is driven by the same factors that drive load growth in the Western NECo PSA, namely residential and commercial development. Load growth in other areas of Rhode Island have been held back because of industrial declines, which have been absent in Tiverton.

Both Western NECo and Tiverton have ready access to major highways to the Massachusetts labor markets. Both areas have relatively low home prices and good amenities compared to many areas of neighboring Massachusetts. Western NECo is the fastest growing PSA in Rhode Island. Tiverton is one of the fastest growing areas within the Western NECo PSA. Tiverton has a greater share of residential load than Western NECo as a whole. Bordering Fall River, Massachusetts on the north, residents have ready access to Routes I-24 and 138 to the Massachusetts labor markets. This has fueled residential and commercial development. For planning purposes, Tiverton peak demand is projected to increase at the same rate as the Western NECo non-coincident peak forecast. Although this is a conservative approach, it is preferable to having Tiverton load grow at the same rate as The Narragansett Electric Company as a whole, which is forecast to grow slower because of on-going reductions in industrial load in other PSAs.

The table below compares peak demand growth rates for Rhode Island and the Western NECo PSA to those found for Tiverton in Appendix 4:

Division 1-5 (continued, p2)

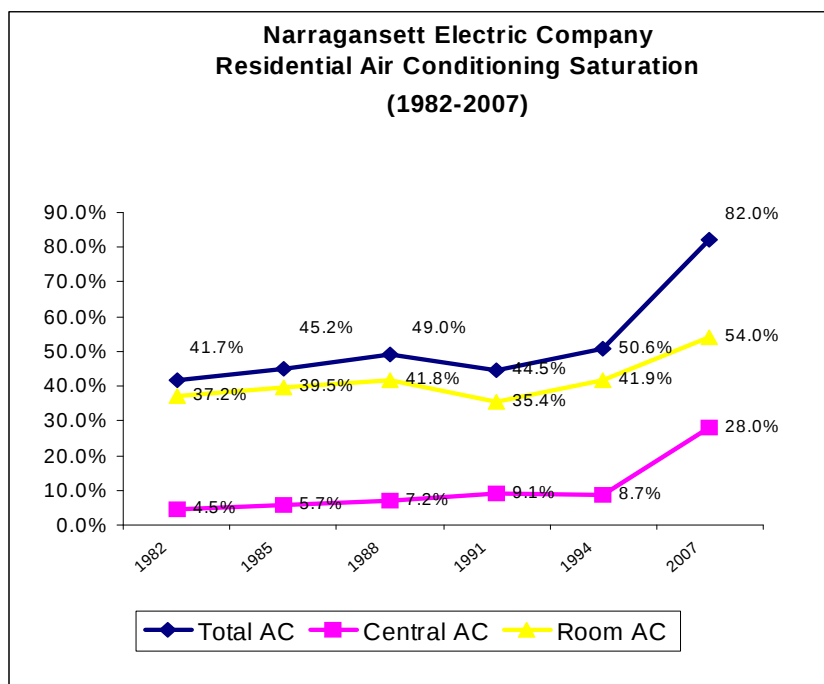
Peak Load Growth Comparison
2002 - 2011

	Annual Growth*
Rhode Island	0.6%
Western Neco PSA	1.3%
Tiverton 33F4	2.9%
Tiverton 33F3	3.4%
Tiverton Sum	3.2%

* Compound average annual growth, 2002 -2011

With the residential and commercial sectors driving growth in Western NECo and Tiverton, peak load is becoming more sensitive to weather because of air conditioning use. The chart below shows that residential air conditioning saturation increased from only 51% in 1994 to about 82% currently. The load forecast models trends in the sensitivity of peak load to weather and assumes that past trends will continue. It, therefore, makes sense to target air-conditioning use in the Pilot as a means to reduce peak load growth in Tiverton.

Division 1-5 (continued, p3)



Prepared by or under the supervision of: Alfred P. Morrissey, Jr.

Certificate of Service

I hereby certify that a copy of the cover letter and / or any materials accompanying this certificate has been electronically transmitted, sent via U.S. mail or hand-delivered to the individuals listed below.



Joanne M. Scanlon

12/19/2011
Date

Docket No. 4296 - National Grid's 2012 System Reliability Plan Report Service List – Updated 12/19/11

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