



ATTORNEYS AND COUNSELORS AT LAW

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April 1, 2009

BY EMAIL AND FEDERAL EXPRESS

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

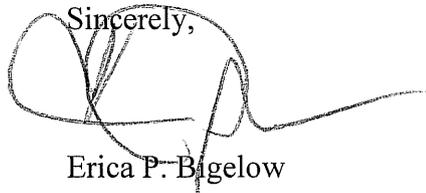
Re: Narragansett Electric Co. d/b/a National Grid's Rhode Island Reliability Project- Docket No. 4029

Dear Ms. Massaro:

Enclosed for filing in the above-captioned matter, please find on behalf of ISO New England, Inc. ("ISO-NE") an original and nine copies of the responses of ISO-NE to the Division's First and Second Set of Data Requests. For convenience of reference, we have labeled the responses as DPUC-ISO-1-1, DPUC-ISO-1-2, etc.

Please call me if there are any questions.

Sincerely,



Erica P. Bigelow

Enclosure

cc: Cynthia Wilson-Frias, Esq.
Kevin Flynn, Esq. (via e-mail)
Service List (Dkt. 4029) (via e-mail)



**STATE OF RHODE ISLAND AND PROVIDENCE PLANTATIONS
PUBLIC UTILITIES COMMISSION**

In re The Narragansett Electric Company d/b/a)
National Grid (Advisory Opinion to EFSB)
Regarding need and cost-justification for)
Proposed Rhode Island Reliability Project))

Docket No. 4029

ISO New England Inc.
Responses to the
Division's First and Second Sets Of Data Requests

DPUC-ISO-1-1: Please provide the work papers used to develop tables 3-1 and 3-2 on page 11 of the Needs Analysis (Environmental Report, Volume 1, Appendix D) in electronic spreadsheet format with all formulae intact.

Response: **Please see the attached draft versions of tables 3-1 and 3-2 included as attachment A. Additionally, the tables referenced on page 11 of the Needs Analysis are included in the attached Microsoft Excel format to reveal the formulae, provided as Attachment B.**

Person Responsible for Response: Frank Mezzanotte
Title: ISO, Manager, Area Transmission Planning
Date: April 1, 2009

ATTACHMENT A

November 2005 DRAFT

Table X. 2009 Area Resource Requirements Summary

	CT Normal	CT Emergency	RI Normal	RI Emergency	SP Normal	SP Emergency
2009 Area Load	8140	8140	2050	2050	1064	1064
Existing Capacity	6880	6880	1004	1004	874	874
Retirements >55/>60	-81	-81	0/0	0/0	-31	-31
EFOR	-483	-490	-23	-43	-60	-70
Unavailable	-1155	0	-515	0	-231	0
New Gen	0	0	0	0	0	0
Total	5161	6492	466	961	583	802
Import Req	2979	1648	1584	1089	481	262
Import Available	2300 exist 2770 mod	1200 exist 1600 mod	1200 exist 1600 mod	627 exist 827 mod	500	400

Table Y. 2016 Area Resource Requirements Summary

	CT Normal	CT Emergency	RI Normal	RI Emergency	Spfld Normal	Spfld Emergency
2016 Area Load	9100	9100	2276	2276	1163	1163
Existing Capacity	6880	6880	1004	1004	874	874
Retirements >55/>60	-204	-204	0/0	0/0	-31	-31
EFOR	-483	-490	-30	-50	-60	-70
Unavailable	-1155	0	-515	0	-231	0
New Gen	600	600	100	100	0	0
Total	5638	6786	559	1054	552	771
Import Req	3462	2314	1717	1222	611	392
Import Avail	2300 exist 2770 mod	1200 exist 1600 mod	600 exist 1630 mod	500 exist 760 mod	500	400

ATTACHMENT A

January 2006 DRAFT

Table 2.6 Summary of 2009 Area Resource Requirements (MW)

	CT Normal	CT Emergency	RI Normal	RI Emergency	Springfld Normal	Springfld Emergency
2009 Area Load 90/10	8140	8140	2050	2050	1015	1015
Existing Capacity	6880	6880	1004	1004	874	874
Retirements >60 yrs old	-81	-81	0	0	-31	-31
EFOR	-483	-490	-23	-43	-60	-70
Unavailable Generation	-1155	0	-515	0	-231	0
New Generation	0	0	0	0	0	0
Total Resource	5161	6492	466	961	583	802
Import Required	2979	1648	1584	1089	432	213
Existing Import	2500	1200	975	900	500	400
Modified Import	2600	1600	1800	1120	N/A	N/A

Table 2.7 Summary of 2016 Area Resource Requirements(MW)

	CT Normal	CT Emergency	RI Normal	RI Emergency	Springfld Normal	Springfld Emergency
2016 Area Load 90/10	9100	9100	2276	2276	1180	1180
Existing Capacity	6880	6880	1004	1004	874	874
Retirements >60 yrs old	-204	-204	0/0	0/0	-31	-31
EFOR	-483	-490	-30	-50	-60	-70
Unavailable Generation	-1155	0	-515	0	-231	0
New Generation	500	500	100	100	0	0
Total Resource	5638	6786	559	1054	552	771
Import Required	3462	2314	1717	1222	628	409
Existing Import	2500	1200	800	865	500	400
Modified Import	2600	1600	1800	1120	N/A	N/A

ATTACHMENT A

August 2006 DRAFT

Table 3.2.1 Summary of 2009 Area Resource Requirements (MW)

	CT Normal	CT Emergency	RI Normal	RI Emergency	Springfld Normal	Springfld Emergency
2009 Area Load 90/10	8,065	8,065	1,883	1,883	1,015	1,015
Existing Capacity	6,797	6,797	1,016	1,016	874	874
Retirements >60 yrs old	-81	-81	0	0	-31	-31
EFOR	-501	-501	-23	-43	-60	-70
Unavailable Generation	-1,200	0	-515	0	-231	0
New Generation	0	0	0	0	0	0
Total Resource	5,015	6,215	478	993	583	802
Import Required	3,050	1,850	1,405	910	432	213
Existing Import Capability	2,500	1,200	1,420	900	446 ^a	326 ^a
Capacity Margin/(Deficiency)	(550)	(650)	15	(10)	14	113

^aThe import values exclude constraints associated with 115 kV double circuit tower contingencies that are not normally used in daily operation of the system.

Table 3.2.2 Summary of 2016 Area Resource Requirements (MW)

	CT Normal	CT Emergency	RI Normal	RI Emergency	Springfld Normal	Springfld Emergency
2016 Area Load 90/10	8,970	8,970	2,085	2,085	1,135	1,135
Existing Capacity	6,797	6,797	1,016	1,016	874	874
Retirements >60 yrs old	-204	-204	0/0	0/0	-31	-31
EFOR	-501	-501	-30	-50	-60	-70
Unavailable Generation	-1,200	0	-515	0	-231	0
New Generation	500	500	0	0	0	0
Total Resource	5,392	6,592	471	966	552	771
Import Required	3,578	2,378	1,614	1,119	628	409
Existing Import Capability	2,500	1,200	1,370	865	205	274
Capacity Margin/(Deficiency)	(1078)	(1178)	(244)	(254)	(423)	(135)

ATTACHMENT A

^aThe import values exclude constraints associated with 115 kV double circuit tower contingencies that are not normally used in daily operation of the system.

October 2006 FINAL

Table Error! No text of specified style in document..1: Summary of 2009 Area Requirements

	CT Normal	CT Emergency	RI Normal	RI Emergency	Springfld Normal	Springfld Emergency
2009 Area Load 90/10 ^a	8,065	8,065	1,883	1,883	1,015	1,015
Existing Capacity	6,797	6,797	1,016	1016	874	874
Retirements >60 yrs old	-81	-81	0	0	-31	-31
EFOR	-501	-501	-23	-43	-60	-70
Unavailable Generation	-1,200	0	-515	0	-231	0
New Generation	0	0	0	0	0	0
Total Resource	5,015	6,215	478	993	552	773
Transfer Required	3,050	1,850	1,405	910	463	242
Existing Transfer Capability	2,500	1,220	1420	900	446 ^b	326 ^b
Load Margin/(Deficiency)	(550)	(630)	15	(10)	(17)	84

^a As noted in earlier sections, this analysis is based on the April 2005 ISO-NE published peak load forecast.

^b The import values exclude constraints associated with 115 kV double circuit tower contingencies that are not normally used in daily operation of the system.

Table Error! No text of specified style in document..2: Summary of 2016 Area Requirements

	CT Normal	CT Emergency	RI Normal	RI Emergency	Springfld Normal	Springfld Emergency
2016 Area Load 90/10 ^a	8,970	8,970	2,085	2,085	1,135	1,135
Existing Capacity	6,797	6,797	1,016	1,016	874	874
Retirements >60 yrs old	-204	-204	0/0	0/0	-31	-31
EFOR	-501	-501	-30	-50	-60	-70
Unavailable Generation	-1,200	0	-515	0	-231	0
New Generation	500	500	0	0	0	0
Total Resource	5,392	6,592	471	966	552	773
Transfer Required	3,578	2,378	1,614	1,119	583	362
Existing Transfer Capability	2,500	1,220	1370	865	205 ^b	274 ^b
Load Margin/(Deficiency)	(1078)	(1158)	(244)	(254)	(378)	(88)

^a As noted in earlier sections, this analysis is based on the April 2005 ISO-NE published peak load forecast.

^b The import values exclude constraints associated with 115 kV double circuit tower contingencies that are not normally used in daily operation of the system.

ATTACHMENT B

Table 3-1
Summary of 2009 Area Requirements

	CT Normal	CT Emergency	RI Normal	RI Emergency	Springfld Normal	Springfld Emergency
2009 area load 90/10	8065	8065	1883	1883	1015	1015
Existing capacity	6797	6797	1016	1016	874	874
Retirements >60 yrs old	-81	-81	0	0	-31	-31
EFOR	-501	-501	-23	-43	-60	-70
Unavailable generation	-1200	0	-515	0	-231	0
New generation	0	0	0	0	0	0
Total resource	5015	6215	478	973	552	773
Transfer required	3050	1850	1405	910	463	242
Existing transfer capability	2500	1220	1420	900	446	326
Load margin/(deficiency)	(550)	(630)	15	(10)	(17)	84

(a) This analysis is based on the ISO's April 2005 published peak-load forecast

(b) The import values exclude constraints associated with 115 kV double-circuit tower contingencies that are not normally used in daily operation of the system. Thus, transfer capability into the Springfield load pocket would be greatly reduced if these design contingencies were included.

Table 3-2
Summary of 2016 Area Requirements

	CT Normal	CT Emergency	RI Normal	RI Emergency	Springfld Normal	Springfld Emergency
2016 area load 90/10	8970	8970	2085	2085	1135	1135
Existing capacity	6797	6797	1016	1016	874	874
Retirements >60 yrs old	-204	-204	0	0	-31	-31
EFOR	-501	-501	-30	-50	-60	-70
Unavailable generation	-1200	0	-515	0	-231	0
New generation	500	500	0	0	0	0
Total resource	5392	6592	471	966	552	773
Transfer required	3578	2378	1614	1119	583	362
Existing transfer capability	2500	1220	1370	865	205	274
Load margin/(deficiency)	(1078)	(1158)	(244)	(254)	(378)	(88)

(a) This analysis is based on the ISO's April 2005 published peak-load forecast

(b) The import values exclude constraints associated with 115 kV double-circuit tower contingencies that are not normally used in daily operation of the system. Thus, transfer capability into the Springfield load pocket would be greatly reduced if these design contingencies were included.

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National Grid (Advisory Opinion to EFSB)
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Docket No. 4029

ISO New England Inc.
Responses to the
Division's First and Second Sets Of Data Requests

DPUC-ISO-1-2: Please describe in detail the process used to calculate the 2016 load forecast in table 3-2 on page 11 of the Needs Analysis (Environmental Report, Volume 1, Appendix D), given that the 2005 RSP forecast that is referenced load only contains a forecast through 2014.

Response: To extend the forecast beyond the 10-year period of the RSP 2005 forecast, the ISO used the long-term growth rates between the last two years (2013 and 2014) of the RSP 2005 forecast. The 2014 forecast of 32,050 MW was divided by the 2013 forecast of 31,700 MW to yield a growth factor of 1.011 or a growth rate of 1.1%. Using this approach, the 2015 load forecast was estimated to be 32,050 MW multiplied by 1.011 or 32,403 MW. Similarly, the 2016 load forecast was estimated to be 32,403 MW multiplied by 1.011 or 32,759 MW.

Person Responsible for Response: Frank Mezzanotte
Title: ISO, Manager, Area Transmission Planning
Date: April 1, 2009

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DPUC-ISO-1-3: Please provide the amount of demand side resources included in the load forecast in the Needs Analysis (Environmental Report, Volume 1, Appendix D). Please include all work papers and documentation used to develop the demand side resource estimates including a description of the process used to develop the estimates.

Response: **The DSM included in the load forecast is detailed in the 2005 CELT forecast, specifically in tabs 13 and 14 of the excel file "Forecast Data 2005" This information can be found at the following link:**

http://www.iso-ne.com/trans/celt/fsct_detail/2005/index.html

For the 2005 forecast, this information was provided to the ISO by the New England utilities.

Person Responsible for Response: David Ehrlich
Title: ISO, Principal Economist/Load Forecaster
Date: April 1, 2009

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DPUC-ISO-1-4: Please describe fully how future energy efficiency and demand side management programs affect the load forecast used in the Needs Analysis (Environmental Report Volume 1, Appendix B). Please include all work papers and documentation in electronic format. To the extent that any of the documents are spreadsheets please provide them in electronic format with all formulae intact.

Response: The load forecast used in the Needs Analysis for the Rhode Island Reliability Project is detailed in the 2005 CELT report. Estimates of DSM levels were provided to the ISO by the New England utilities and the 2005 forecast was adjusted downward to reflect these estimates.

Person Responsible for Response: David Ehrlich
Title: ISO, Principal Economist/Load Forecaster
Date: April 1, 2009

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DPUC-ISO-1-5: Please provide the forecast described on page 3-5 of the Environmental Report, Volume 1, as the "2012 extreme summer forecast (90/10) peak-load level." Indicate the source of the forecast, and include in electronic format with all formulae intact, all calculations and workpapers involved in developing this forecast.

Response: **The forecast reference is the 2006 CELT forecast and is documented in the excel spreadsheet titled "Forecast Data 2006" found at:**

http://www.iso-ne.com/trans/celt/fsct_detail/2006/index.html

Person Responsible for Response: David Ehrlich
Title: ISO, Principal Economist/Load Forecaster
Date: April 1, 2009

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DPUC-ISO-2-1: Please provide the forecast that is labeled "revised forecast" in lines 21 and 22 of page 14 of Mr. Mezzanotte's testimony. Include all available years of this forecast and describe the areas covered by the forecast.

Response: **The revised forecast refers to the RSP 2009 Long-Range forecast. The forecast was presented at the Planning Advisory Committee on February 25, 2009 and is available at the following link:**

http://www.isone.com/committees/comm_wkgrps/prtcpnts_comm/pac/mtrls/2009/feb252009/a_long-run_forecast.pdf

Person Responsible for Response: Frank Mezzanotte
Title: ISO, Manager, Area Transmission Planning
Date: April 1, 2009

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DPUC-ISO-2-2: Please indicate whether demand resources that cleared in FCA 1 are included in the "revised forecast" in lines 21 and 22 of page 14 of Mr. Mezzanotte's testimony. Provide an estimate of demand resources that cleared in FCA 1 for both Rhode Island and the load area of critical concern (Southwestern Rhode Island the coastal communities).

Response: The ISO considers the effect of resources that clear in the Forward Capacity Auction on the need for Regulated Transmission Solutions. As such, the ISO has evaluated the impact of the Demand Resources that cleared in the auctions on the timing of the need for the Rhode Island Reliability Project.

The amount of passive demand response (energy efficiency type measures) that cleared in FCA 2 (which includes existing FCA 1 resources that did not de-list) in Rhode Island for the 2011-2012 Capacity Commitment Period is approximately 48 MW. Based on historical testing, the availability of passive demand response is assumed to be 100%.

The amount of active demand response that cleared in Rhode Island in FCA2 is approximately 41 MW. Based on historical testing, the availability of active demand response is assumed to be 69%. Applying this availability rating to the 41 MW results in 28 MW.

The 76 MW of demand response that appears in my testimony is the sum of the 48 MW of passive demand response and the 28 MW of available active demand response. A very rough estimate places about half of this, or 38 MW, in the critical load area.

Person Responsible for Response: Frank Mezzanotte
Title: ISO, Manager, Area Transmission Planning
Date: April 1, 2009

**STATE OF RHODE ISLAND
AND PROVIDENCE PLANTATIONS**

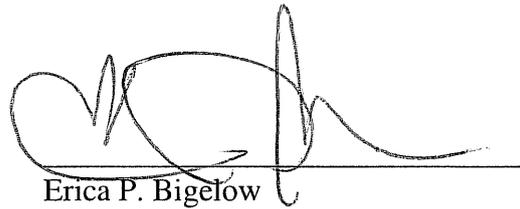
PUBLIC UTILITIES COMMISSION

DOCKET No. 4029

CERTIFICATE OF SERVICE

I hereby certify that I have this day served the foregoing document upon all parties of record in this proceeding in accordance with the requirements of Section 1.7 (d) of the Public Utilities Commission's Rules of Practice and Procedure.

Dated at Boston, Massachusetts this 1st day of April, 2009.

A handwritten signature in black ink, appearing to read 'Erica P. Bigelow', is written over a horizontal line. The signature is stylized and cursive.

Erica P. Bigelow
Counsel

Of Counsel for
ISO New England, Inc.