



February 28, 2014

VIA ELECTRONIC FILING

The Honorable Kimberly D. Bose, Secretary
Federal Energy Regulatory Commission
888 First Street, N.E.
Washington, D.C. 20426

Re: ISO New England Inc., Docket No. ER14-____-000
Forward Capacity Auction Results Filing
April 14, 2014 COMMENT DATE REQUIRED BY REGULATION

Dear Ms. Bose:

Pursuant to Section 205 of the Federal Power Act (“FPA”)¹ and Section III.13.8.2 of the ISO New England Transmission, Markets and Services Tariff (the “Tariff”),² ISO New England Inc. (the “ISO”) submits this Forward Capacity Auction Results Filing (“FCA Results Filing”) for the eighth Forward Capacity Auction³ (“FCA”). Section III.13.8.2 (a) of the Tariff requires the ISO to file the results of the FCA with the Federal Energy Regulatory Commission (“Commission” or “FERC”) as soon as practicable after the FCA is complete. The eighth FCA was held on February 3, 2014 for the June 1, 2017 through May 31, 2018 Capacity Commitment Period. The ISO submits this filing in accordance with the Tariff.

Pursuant to Section III.13.8.2(c) of the Tariff, any objection to the FCA results must be filed with the Commission within 45 days from the date of the FCA Results Filing. **Accordingly, any objections must be filed on or before April 14, 2014, and the ISO requests that the Commission issue a notice setting an April 14, 2014 comment date.** As discussed below, the ISO requests an effective date of June 28, 2014, which is 120 days from the date of this submission.

In accordance with Section III.13.8.2 of the Tariff, this submission contains the results of the eighth FCA, including the Capacity Zones in the auction; the Capacity Clearing Price in each

¹ 16 U.S.C. § 824d (2006).

² The rules governing the Forward Capacity Market (“FCM Rules”) are primarily contained in Section III.13 of the Tariff, but also may include other provisions, including portions of Section III.12 (Calculation of Capacity Requirements).

³ Capitalized terms used but not otherwise defined in this filing have the meanings ascribed thereto in the Tariff, the Second Restated New England Power Pool Agreement and the Participants Agreement.

of those Capacity Zones; a list of which resources received Capacity Supply Obligations in each Capacity Zone; and the amount of those Capacity Supply Obligations. Pursuant to Tariff Section III.12.4, the Capacity Zones for the eighth FCA are Maine, Connecticut, Northeastern Massachusetts/Boston (“NEMA/Boston”) and Rest-of-Pool. The Rest-of-Pool Capacity Zone includes Southeastern Massachusetts, Western/Central Massachusetts, Rhode Island, New Hampshire and Vermont. Maine is an export-constrained zone and Connecticut and NEMA/Boston are import-constrained zones.

The auction commenced with a starting price of \$15.82/kW-month and concluded with a price of \$14.99/kW-month when a resource submitted a bid to withdraw from the auction if the price fell lower. The auction clearing function reset the Capacity Clearing Price to \$15.00/kW-month. New resources that received Capacity Supply Obligations in the Maine, Connecticut and Rest-of-Pool Capacity Zones will be paid the Capacity Clearing Price of \$15.00/kW-month. Existing resources that cleared in those zones will be paid the administrative price of \$7.025/kW-month. In the NEMA/Boston Capacity Zone, both new and existing resources will be paid \$15.00/kW-month.

Section III.13.8.2 of the Tariff requires the ISO to enumerate any de-list bids rejected for reliability reasons pursuant to Section III.13.2.5.2.5 of the Tariff, and the reasons for those rejections. No de-list bids were rejected for reliability.

Section III.13.8.2 (b) of the Tariff requires the ISO to provide documentation regarding the competitiveness of the FCA. The documentation may include certification from the auctioneer and the ISO that: (i) all resources offering and bidding in the FCA were properly qualified in accordance with the provisions of Section III.13.1; and (ii) the FCA was conducted in accordance with the provisions of Section III.13. Pursuant to Section III.13.8.2 (b), the ISO has included the Testimony of Stephen J. Rourke, Vice President of System Planning at the ISO (“Rourke Testimony”), the Testimony of David LaPlante, Vice President of the Internal Market Monitor (“IMM”) at the ISO (“LaPlante Testimony”); and the Testimony of Lawrence M. Ausubel, the auctioneer (“Ausubel Testimony”).

The ISO tenders the instant filing in compliance with Section III.13.8.2 of its Tariff pursuant to Section 205 of the FPA, and the ISO requests that the Commission find that the ISO conducted the eighth FCA in accordance with its FERC-approved Tariff.

I. COMMUNICATIONS

All correspondence and communications in this proceeding should be addressed to the undersigned as follows:

Raymond W. Hepper, Esq.
Kevin W. Flynn, Esq.
ISO New England Inc.
One Sullivan Road
Holyoke, MA 01040-2841
Tel: (413) 540-4592
Fax: (413) 535-4379
E-mail: rhepper@iso-ne.com
kflynn@iso-ne.com

II. STANDARD OF REVIEW

The ISO tenders the instant filing in compliance with Section III.13.8.2 of its Tariff and pursuant to Section 205 of the FPA.⁴ The ISO respectfully requests that the Commission find that the eighth FCA Results Filing meets the standard of Section 205, in that the results are just and reasonable rates derived from the auction utilizing a methodology previously approved by the Commission. As explained in the testimonies of Mr. Rourke and Mr. LaPlante, the auction prices for new resources were set by the Capacity Clearing Price and the auction prices for existing resources were established based on the various administrative pricing provisions in the ISO's Commission-approved Tariff. The attached testimonies support these conclusions, and provide the basis for the Commission to approve the resulting rates.

III. REQUESTED EFFECTIVE DATE

The ISO respectfully requests that the Commission accept the eighth FCA Results Filing, confirming that the auction was conducted in conformance with the ISO's Commission-approved Tariff, to be effective June 28, 2014 which is 120 days after the date of submission. Under the Tariff, parties have 45 days to file with the Commission an objection to the FCA Results Filing. An effective date of 120 days from the date of submission gives interested parties an opportunity to respond to any objections and provides the Commission time to review the FCA Results Filing and associated pleadings.

IV. SPECIFIC FCA RESULTS

A. Capacity Zones Resulting From the Auction

Section III.13.8.2 (a) of the Tariff requires the ISO to provide the Capacity Zones resulting from the FCA. The Capacity Zones for the eighth FCA are Maine, Connecticut, NEMA/Boston and Rest-of-Pool. Pursuant to Section III.13.2.3.4 of the Tariff, these are the same Capacity Zones that were modeled in Section III.12.4 of the Tariff.

⁴ It should be noted that the Commission has consistently held that the matters properly in dispute in the annual FCA results filing are the results of the FCA and not the underlying market design or rules. *See e.g., ISO New England Inc.*, 130 FERC ¶ 61,145 at P 33 (2010) (finding that challenges to the FCM market design are outside the scope of the proceeding evaluating the FCA results filing).

B. Capacity Clearing Price

The Tariff requires the ISO to provide the Capacity Clearing Price in each Capacity Zone (and the Capacity Clearing Price associated with certain imports pursuant to Section III.13.2.3.3(d), if applicable).⁵ For the eighth FCA, the descending clock auction starting price in each Capacity Zone was \$15.82/kW-month. The Capacity Clearing Price was \$15.00/kW-month for new resources and the administrative price of \$7.025/kW-month for existing resources in the Maine, Connecticut and Rest-of-Pool Capacity Zones. New and existing resources in the NEMA/Boston Capacity Zone be paid the Capacity Clearing Price of \$15.00/kW-month.

The provisions in the Tariff relating to Insufficient Competition (“IC Rule”), the Capacity Carry Forward (“Carry Forward Rule”) and the Capacity Clearing Price Floor determined the prices for the eighth FCA. The IC Rule addresses situations where there are less existing resources than the Net Installed Capacity Requirement (“NICR”) and not enough qualified new resources to assure adequate competition in the auction (although when combined, the existing and new resources exceed NICR). Under Section III.13.2.8.2 of the Tariff, the IC Rule is triggered in the FCA if the following two conditions are satisfied: (i) at the start of the auction, the amount of capacity offered from all existing resources is less than the NICR (the difference being defined as “New Capacity Required”) and, (ii) the amount of capacity offered from New Generating Capacity Resources and New Demand Resources is less than twice the amount of New Capacity Required. For the eighth FCA, there was Insufficient Competition system-wide because both of these conditions were in effect. Specifically, there was 32,732 MW of capacity from existing resources and 424 MW of capacity offered from New Generating Capacity Resources and New Demand Resources to meet the NICR of 33,855 MW.

Under Section III.13.2.8.2 of the Tariff, if the IC Rule is triggered, existing resources receive the lower of: (1) the Capacity Clearing Price, or (2) the administrative price in the Tariff, which for the eighth FCA is \$7.025/kW-month. Therefore, since the Capacity Clearing Price was determined to be \$15.00/kW-month for new resources in the Maine, Connecticut and Rest-of-Pool Capacity Zones, existing resources in those zones will be paid the administrative price of \$7.025/kW-month.

In the NEMA/Boston Capacity Zone, the Carry Forward Rule was triggered. The Carry Forward Rule addresses situations where a large resource met a zonal need, but eliminated any need for new resources in the subsequent auction. The intent of the Carry Forward Rule is to reset the clearing price administratively when new additional capacity would have been needed and consequently would have set the clearing price, but did not because of an excess amount of additional new capacity procured in the prior auction. Under Section III.13.2.7.9.1 of the Tariff, the Carry Forward Rule is triggered in an import-constrained zone if:

- (a) the sum of New Capacity Required plus the amount of Permanent De-List Bids clearing in the Forward Capacity Auction in the Capacity Zone is less than or equal to zero; (b) there is not Inadequate Supply in the Forward Capacity

⁵ Tariff Section III.13.8.2 (a).

Auction in the Capacity Zone; and (c) at the Capacity Clearing Price, the sum of the amount of New Capacity Required plus the amount of Permanent De-List Bids clearing in the Forward Capacity Auction plus the amount of capacity carried forward due to rationing is greater than zero. The amount of capacity carried forward due to rationing shall equal the amount of capacity above the Local Sourcing Requirement procured in that Capacity Zone in the previous Forward Capacity Auction as a result of the Capacity Rationing Rule.

In the seventh FCA, which was held in February 2013 for the 2016-2017 Capacity Commitment Period, the NEMA/Boston Capacity Zone began the auction needing new capacity. The auction in NEMA/Boston closed when Footprint Power, a 674 MW New Capacity Generating Resource, submitted an offer to withdraw from the auction at a price of \$14.99/kW-month. Without the capacity from Footprint Power, NEMA/Boston would not have had sufficient capacity to meet its Local Sourcing Requirement. Because Footprint Power elected not to be rationed, all 674 MW from Footprint Power cleared in the auction, even though NEMA/Boston only needed about 174 MW from Footprint Power to meet the zone's Local Sourcing Requirement. Therefore, there was approximately 500 MW of excess capacity from Footprint Power that carried forward to the eighth FCA and the Carry Forward Rule was triggered in NEMA/Boston.

Section III.13.2.7.9.2 of the Tariff specifies the prices to be paid in a Capacity Zone when the Carry Forward Rule is triggered. In accordance with Section III.13.2.7.9.2 of the Tariff, the Capacity Clearing Price for both new and existing resources in the NEMA/Boston Capacity Zone would be \$10.00/kW-month. However, under Section III.13.2.7.1 of the Tariff, if the Capacity Clearing Price in an import-constrained Capacity Zone is lower than the Capacity Clearing Price in Rest-of-Pool, then all resources in the import-constrained zone will be paid the Capacity Clearing Price in Rest-of-Pool for the relevant Capacity Commitment Period. Therefore, because the Capacity Clearing Price in Rest-of-Pool is \$15.00/kW-month, pursuant to Section III.13.2.7.1 of the Tariff, all resources (both new and existing) in the NEMA/Boston Capacity Zone will be paid \$15.00/kW-month for the 2017-2018 Capacity Commitment Period.

C. Capacity Supply Obligations

The Tariff requires the ISO to specify in the FCA Results Filing the resources which received Capacity Supply Obligations in each Capacity Zone.⁶ This information is provided in Attachment A.

The Tariff also requires the ISO to list which resources cleared as Conditional Qualified New Generating Capacity Resources and to provide certain information relating to Long Lead Time Generating Facilities.⁷ No resources cleared as Conditional Qualified New Generating Capacity Resources in the eighth FCA and there were no Long Lead Time Generating Facilities that secured a Queue Position to participate as a New Generating Capacity Resource in the

⁶ Tariff Section III.13.8.2 (a).

⁷ *Id.*

eighth FCA nor were any resources with a lower queue priority that were selected in the FCA subject to a Long Lead Time Generating Facility with the higher queue priority.

D. De-List Bids Reviewed For Reliability Purposes

The Tariff requires the FCA Results Filing to enumerate any de-list bids rejected for reliability.⁸ No de-list bids were rejected for reliability.⁹

V. DOCUMENTATION OF COMPETITIVENESS

Section III.13.8.2 (b) of the Tariff requires the ISO to provide documentation regarding the competitiveness of the FCA. The documentation may include certification from the auctioneer and the ISO that: (i) all resources offering and bidding in the FCA were properly qualified in accordance with the provisions of Section III.13.1 of the Tariff; and (ii) the FCA was conducted in accordance with the provisions of Section III.13 of the Tariff. In this regard, the ISO has included the Rourke Testimony, the LaPlante Testimony, and the Ausubel Testimony.

In his testimony, Mr. Rourke, who oversaw the qualification of resources, certifies that all resources offering and bidding in the eighth FCA were qualified in accordance with Section III.13.1 of the Tariff.¹⁰ Mr. Rourke testifies that he oversaw the reliability review of all submitted de-list bids for the eighth FCA and that no de-list bids were retained for reliability.¹¹ Mr. Rourke also explains the ISO's conclusion regarding the auction prices resulting from the auction.

Mr. LaPlante explains the decision to conduct the first round of the auction with an end-of-round price of \$3.00/kW-month.¹² Mr. LaPlante also explains that the IMM reviewed de-list bids from existing resources and offers from new resources submitted during the qualification process.¹³ Mr. LaPlante testifies that he oversaw the IMM's review of these bids and offers and certifies that such review was performed in accordance with the provisions of Section III.13.1.¹⁴ Mr. LaPlante also notes that the IMM's determinations with respect to the offers and bids were approved by the Commission in the Informational Filing Order.¹⁵ Finally, with respect to the NEMA/Boston Capacity Zone, Mr. LaPlante testifies that when there is Insufficient Competition, the application of Section III.13.2.7.1 of the Tariff replaces the price set using the Carry Forward Rule with the results of a non-competitive auction.¹⁶

⁸ *Id.*

⁹ Rourke Testimony at 5.

¹⁰ *Id.* at 3.

¹¹ *Id.* at 4-5.

¹² LaPlante Testimony at 3-4.

¹³ *Id.* at 2-3.

¹⁴ *Id.*

¹⁵ *Order Accepting Informational Filing*, 146 FERC ¶ 61,014 (2014); *see also* LaPlante Testimony at 3.

¹⁶ LaPlante Testimony at 7.

Mr. Ausubel, the auctioneer and chairman and founder of Power Auctions LLC, the company that helped implement and administer the FCA, certifies that the auction was conducted in accordance with Section III.13.¹⁷ Mr. Ausubel's certification is based on his vast experience in conducting energy auctions. Mr. Ausubel also testifies to the mechanics of the auction, including why \$3.00/kW-month was chosen as the end-of-round price for the first round of the auction.¹⁸

VI. ADDITIONAL SUPPORTING INFORMATION

The ISO tenders the instant filing in compliance with Section III.13.8.2 of its Tariff pursuant to Section 205 of the FPA.¹⁹ Section 35.13 of the Commission's regulations generally requires public utilities to file certain cost and other information related to an examination of cost-of-service rates.²⁰ However, the results of the FCA are not traditional "rates" and the ISO is not a traditional investor-owned utility. Therefore, to the extent necessary, the ISO requests waiver of Section 35.13 of the Commission's regulations. Notwithstanding its request for waiver, the ISO submits the following additional information in compliance with the identified filing regulations of the Commission applicable to Section 205.

35.13(b)(1) - Materials included herewith are as follows:

- a. This transmittal letter;
- b. Attachment A: List of Capacity Supply Obligations;
- c. Attachment B: Testimony of Stephen J. Rourke;
- d. Attachment C: Testimony of David LaPlante;
- e. Attachment D: Testimony of Lawrence M. Ausubel; and
- f. Attachment E: List of governors and utility regulatory agencies in Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont to which a copy of this filing has been emailed.

¹⁷ Ausubel Testimony at 3.

¹⁸ *Id.* at 4.

¹⁹ As was noted above, the Commission has consistently held that the scope of the proceeding evaluating the annual FCA results filing is limited to the results of the FCA. *See e.g., ISO New England Inc.*, 130 FERC ¶ 61,145 at P 33 (2010) (finding that challenges to the FCM market design are outside the scope of the proceeding evaluating the FCA results filing).

²⁰ 18 C.F.R. § 35.13 (2013).

35.13(b)(2) - The ISO respectfully requests that the Commission accept this filing to become effective on June 28, 2014, which is 120 days after the submission of this FCA Results Filing.

35.13(b)(3) - Pursuant to Section 17.11 (e) of the Participants Agreement, Governance Participants are being served electronically rather than by paper copy. The names and addresses of the Governance Participants are posted on the ISO's website at http://www.iso-ne.com/committees/nepool_part/index.html. An electronic copy of this transmittal letter and the accompanying materials has also been emailed to the governors and electric utility regulatory agencies for the six New England states which comprise the New England Control Area, and to the New England Conference of Public Utility Commissioners, Inc. The names and addresses of these governors and regulatory agencies are shown in Attachment E.

35.13(b)(4) - A description of the materials submitted pursuant to this filing is contained in the transmittal letter;

35.13(b)(5) - The reasons for this filing are discussed in the background section to this transmittal letter; and

35.13 (b)(7) - The ISO has no knowledge of any relevant expenses or cost of service that have been alleged or judged in any administrative or judicial proceeding to be illegal, duplicative, or unnecessary costs that are demonstrably the product of discriminatory employment practices.

VII. CONCLUSION

In this FCA Results Filing, the ISO has presented all of the information required by the Tariff. The ISO has demonstrated that the eighth FCA was conducted in accordance with the Tariff, as found just and reasonable by the Commission. The ISO has specified the Capacity Zones that resulted from the auction. The ISO has also provided the Capacity Clearing Price for each of the Capacity Zones and a list of resources that received Capacity Supply Obligations. Finally, the ISO has provided documentation in the form of testimony, regarding the outcome of the eighth FCA. Accordingly, the ISO requests that the Commission accept the results of the eighth FCA within 120 days of this filing.

Respectfully submitted,

By: /s/Raymond Hepper

Raymond W. Hepper, Esq.
Kevin Flynn, Esq.
ISO New England Inc.
One Sullivan Road
Holyoke, MA 01040-2841
Tel: (413) 540-4592
Fax: (413) 535-4379
E-mail: rhepper@iso-ne.com
kflynn@iso-ne.com

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Attachment A

ID	Name	Type	Capacity Zone ID	Capacity Zone Name	State	Load Zone	Status	Jun-17	Jul-17	Aug-17	Sep-17	Oct-17	Nov-17	Dec-17	Jan-18	Feb-18	Mar-18	Apr-18	May-18
194	FOUR HILLS LOAD REDUCER	Generator	8500	Rest-of-Pool	NH	New Hampshire	Existing	0.842	0.842	0.842	0.842	1.335	1.335	1.335	1.335	1.335	1.335	1.335	1.335
253	TURNKEY LANDFILL	Generator	8500	Rest-of-Pool	NH	New Hampshire	Existing	1.578	1.578	1.578	1.578	1.719	1.719	1.719	1.719	1.719	1.719	1.719	1.719
321	MANCHESTER 10 10A CC	Generator	8500	Rest-of-Pool	RI	Rhode Island	Existing	149	149	149	149	149	149	149	149	149	149	149	149
322	MANCHESTER 11 11A CC	Generator	8500	Rest-of-Pool	RI	Rhode Island	Existing	149	149	149	149	149	149	149	149	149	149	149	149
323	MANCHESTER 9 9A CC	Generator	8500	Rest-of-Pool	RI	Rhode Island	Existing	149	149	149	149	149	149	149	149	149	149	149	149
324	CDECCA	Generator	8501	Connecticut	CT	Connecticut	Existing	55.254	55.254	55.254	55.254	55.254	55.254	55.254	55.254	55.254	55.254	55.254	55.254
326	ALTRESCO	Generator	8500	Rest-of-Pool	MA	WCMASS	Existing	150.972	150.972	150.972	150.972	150.972	150.972	150.972	150.972	150.972	150.972	150.972	150.972
327	AMOSKEAG	Generator	8500	Rest-of-Pool	NH	New Hampshire	Existing	17.5	17.5	17.5	17.5	17.5	17.5	17.5	17.5	17.5	17.5	17.5	17.5
328	GULF ISLAND COMPOSITE Incremental	Generator	8503	Maine	ME	Maine	Existing	38.915	38.915	38.915	38.915	38.915	38.915	38.915	38.915	38.915	38.915	38.915	38.915
329	ASCUTNEY GT	Generator	8500	Rest-of-Pool	VT	Vermont	Existing	8.94	8.94	8.94	8.94	8.94	8.94	8.94	8.94	8.94	8.94	8.94	8.94
330	AYERS ISLAND	Generator	8500	Rest-of-Pool	NH	New Hampshire	Existing	8.474	8.474	8.474	8.474	8.474	8.474	8.474	8.474	8.474	8.474	8.474	8.474
331	AZISCOHOS HYDRO	Generator	8503	Maine	ME	Maine	Existing	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8
335	BELLOWS FALLS	Generator	8500	Rest-of-Pool	NH	New Hampshire	Existing	48.54	48.54	48.54	48.54	48.54	48.54	48.54	48.54	48.54	48.54	48.54	48.54
336	BERLIN 1 GT	Generator	8500	Rest-of-Pool	VT	Vermont	Existing	34.83	34.83	34.83	34.83	34.83	34.83	34.83	34.83	34.83	34.83	34.83	34.83
337	BETHLEHEM	Generator	8500	Rest-of-Pool	NH	New Hampshire	Existing	15.35	15.35	15.35	15.35	15.394	15.394	15.394	15.394	15.394	15.394	15.394	15.394
340	BRIDGEPORT HARBOR 3	Generator	8501	Connecticut	CT	Connecticut	Existing	383.426	383.426	383.426	383.426	383.426	383.426	383.426	383.426	383.426	383.426	383.426	383.426
341	BRIDGEPORT HARBOR 4	Generator	8501	Connecticut	CT	Connecticut	Existing	17.1	17.1	17.1	17.1	17.1	17.1	17.1	17.1	17.1	17.1	17.1	17.1
346	BOLTON FALLS	Generator	8500	Rest-of-Pool	VT	Vermont	Existing	1.494	1.494	1.494	1.494	4.483	4.483	4.483	4.483	4.483	4.483	4.483	4.483
348	BOOT MILLS	Generator	8500	Rest-of-Pool	MA	WCMASS	Existing	7.479	7.479	7.479	7.479	11.593	11.593	11.593	11.593	11.593	11.593	11.593	11.593
349	WHEELABRATOR BRIDGEPORT, L.P.	Generator	8501	Connecticut	CT	Connecticut	Existing	59.439	59.439	59.439	59.439	59.939	59.939	59.939	59.939	59.939	59.939	59.939	59.939
355	BRANFORD 10	Generator	8501	Connecticut	CT	Connecticut	Existing	15.84	15.84	15.84	15.84	15.84	15.84	15.84	15.84	15.84	15.84	15.84	15.84
356	BRISTOL REFUSE	Generator	8501	Connecticut	CT	Connecticut	Existing	12.365	12.										

[illegible]

[illegible]

ID	Name	Type	Capacity Zone ID	Capacity Zone Name	State	Load Zone	Status	Jun-17	Jul-17	Aug-17	Sep-17	Oct-17	Nov-17	Dec-17	Jan-18	Feb-18	Mar-18	Apr-18	May-18
542	ECO MAINE	Generator	8503	Maine	ME	Maine	Existing	10.886	10.886	10.886	10.886	10.1	10.1	10.1	10.1	10.1	10.1	10.1	10.1
546	RESCO SAUGUS	Generator	8502	NEMA-Boston	MA	NEMA-Boston	Existing	30.114	30.114	30.114	30.114	30.114	30.114	30.114	30.114	30.114	30.114	30.114	30.114
547	WHEELABRATOR NORTH ANDOVER	Generator	8502	NEMA-Boston	MA	NEMA-Boston	Existing	29.622	29.622	29.622	29.622	29.768	29.768	29.768	29.768	29.768	29.768	29.768	29.768
555	SEABROOK	Generator	8500	Rest-of-Pool	NH	New Hampshire	Existing	1245.463	1245.463	1245.463	1245.463	1245.463	1245.463	1245.463	1245.463	1245.463	1245.463	1245.463	1245.463
556	SCHILLER 4	Generator	8500	Rest-of-Pool	NH	New Hampshire	Existing	47.5	47.5	47.5	47.5	47.5	47.5	47.5	47.5	47.5	47.5	47.5	47.5
557	SCHILLER 5	Generator	8500	Rest-of-Pool	NH	New Hampshire	Existing	43.082	43.082	43.082	43.082	43.082	43.082	43.082	43.082	43.082	43.082	43.082	43.082
558	SCHILLER 6	Generator	8500	Rest-of-Pool	NH	New Hampshire	Existing	47.938	47.938	47.938	47.938	47.938	47.938	47.938	47.938	47.938	47.938	47.938	47.938
559	SCHILLER CT 1	Generator	8500	Rest-of-Pool	NH	New Hampshire	Existing	17.621	17.621	17.621	17.621	17.621	17.621	17.621	17.621	17.621	17.621	17.621	17.621
561	SEARSBURG	Generator	8500	Rest-of-Pool	MA	WCMASS	Existing	4.755	4.755	4.755	4.755	4.755	4.755	4.755	4.755	4.755	4.755	4.755	4.755
562	SECREC-PRESTON	Generator	8501	Connecticut	CT	Connecticut	Existing	16.366	16.366	16.366	16.366	16.629	16.629	16.629	16.629	16.629	16.629	16.629	16.629
563	SEMASS 1	Generator	8500	Rest-of-Pool	MA	SEMASS	Existing	46.955	46.955	46.955	46.955	49.057	49.057	49.057	49.057	49.057	49.057	49.057	49.057
564	SEMASS 2	Generator	8500	Rest-of-Pool	MA	SEMASS	Existing	22.096	22.096	22.096	22.096	25.002	25.002	25.002	25.002	25.002	25.002	25.002	25.002
565	SHELDON SPRINGS	Generator	8500	Rest-of-Pool	VT	Vermont	Existing	4.598	4.598	4.598	4.598	10.498	10.498	10.498	10.498	10.498	10.498	10.498	10.498
566	SHEPAUG	Generator	8501	Connecticut	CT	Connecticut	Existing	41.511	41.511	41.511	41.511	41.86	41.86	41.86	41.86	41.86	41.86	41.86	41.86
567	SHERMAN	Generator	8500	Rest-of-Pool	MA	WCMASS	Existing	6.154	6.154	6.154	6.154	6.154	6.154	6.154	6.154	6.154	6.154	6.154	6.154
569	SKELTON	Generator	8503	Maine	ME	Maine	Existing	22.08	22.08	22.08	22.08	22.08	22.08	22.08	22.08	22.08	22.08	22.08	22.08
570	SMITH	Generator	8500	Rest-of-Pool	NH	New Hampshire	Existing	10.632	10.632	10.632	10.632	15.729	15.729	15.729	15.729	15.729	15.729	15.729	15.729
572	SO. MEADOW 11	Generator	8501	Connecticut	CT	Connecticut	Existing	35.781	35.781	35.781	35.781	35.781	35.781	35.781	35.781	35.781	35.781	35.781	35.781
573	SO. MEADOW 12	Generator	8501	Connecticut	CT	Connecticut	Existing	37.701	37.701	37.701	37.701	37.701	37.701	37.701	37.701	37.701	37.701	37.701	37.701
574	SO. MEADOW 13	Generator	8501	Connecticut	CT	Connecticut	Existing	38.317	38.317	38.317	38.317	38.317	38.317	38.317	38.317	38.317	38.317	38.317	38.317
575	SO. MEADOW 14	Generator	8501	Connecticut	CT	Connecticut	Existing	36.746	36.7										

[illegible]

ID	Name	Type	Capacity Zone ID	Capacity Zone Name	State	Load Zone	Status	Jun-17	Jul-17	Aug-17	Sep-17	Oct-17	Nov-17	Dec-17	Jan-18	Feb-18	Mar-18	Apr-18	May-18
783	HIGHGATE FALLS	Generator	8500	Rest-of-Pool	VT	Vermont	Existing	3.415	3.415	3.415	3.415	8.793	8.793	8.793	8.793	8.793	8.793	8.793	8.793
	KEZAR LEDGEMERE COMPOSITE	Generator	8503	Maine	ME	Maine	Existing	0.423	0.423	0.423	0.423	0.922	0.922	0.922	0.922	0.922	0.922	0.922	0.922
786	CEC 002 PAWTUCKET US	Generator	8500	Rest-of-Pool	RI	Rhode Island	Existing	0.265	0.265	0.265	0.265	0.646	0.646	0.646	0.646	0.646	0.646	0.646	0.646
	CENTENNIAL HYDRO	Generator	8500	Rest-of-Pool	MA	WCMASS	Existing	0.29	0.29	0.29	0.29	0.557	0.557	0.557	0.557	0.557	0.557	0.557	0.557
793	METHUEN HYDRO	Generator	8502	NEMA-Boston Rest-of-Pool	MA	NEMA-Boston New Hampshire	Existing	0.016	0.016	0.016	0.016	0.188	0.188	0.188	0.188	0.188	0.188	0.188	0.188
794	MINIWAUA	Generator	8500	Rest-of-Pool	NH	New Hampshire	Existing	0.167	0.167	0.167	0.167	0.596	0.596	0.596	0.596	0.596	0.596	0.596	0.596
	RIVER MILL HYDRO	Generator	8500	Rest-of-Pool	NH	New Hampshire	Existing	0	0	0	0	0.089	0.089	0.089	0.089	0.089	0.089	0.089	0.089
796	GOODWIN DAM	Generator	8501	Connecticut	CT	Connecticut	Existing	3	3	3	3	3	3	3	3	3	3	3	3
	CEC 003 WYRE WYND US	Generator	8501	Connecticut	CT	Connecticut	Existing	0.462	0.462	0.462	0.462	1.464	1.464	1.464	1.464	1.464	1.464	1.464	1.464
798	COLEBROOK	Generator	8501	Connecticut	CT	Connecticut	Existing	0.625	0.625	0.625	0.625	0.683	0.683	0.683	0.683	0.683	0.683	0.683	0.683
800	KINNEYTOWN B	Generator	8501	Connecticut	CT	Connecticut	Existing	0.348	0.348	0.348	0.348	0.65	0.65	0.65	0.65	0.65	0.65	0.65	0.65
801	WILLIMANTIC 1	Generator	8501	Connecticut	CT	Connecticut	Existing	0.06	0.06	0.06	0.06	0.218	0.218	0.218	0.218	0.218	0.218	0.218	0.218
802	WILLIMANTIC 2	Generator	8501	Connecticut	CT	Connecticut	Existing	0.037	0.037	0.037	0.037	0.176	0.176	0.176	0.176	0.176	0.176	0.176	0.176
803	TOUTANT	Generator	8501	Connecticut	CT	Connecticut	Existing	0.251	0.251	0.251	0.251	0.251	0.251	0.251	0.251	0.251	0.251	0.251	0.251
804	PUTNAM	Generator	8501	Connecticut	CT	Connecticut	Existing	0.198	0.198	0.198	0.198	0.436	0.436	0.436	0.436	0.436	0.436	0.436	0.436
806	MECHANICSVILLE	Generator	8501	Connecticut	CT	Connecticut	Existing	0.037	0.037	0.037	0.037	0.128	0.128	0.128	0.128	0.128	0.128	0.128	0.128
	CEC 004 DAYVILLE POND US	Generator	8501	Connecticut	CT	Connecticut	Existing	0.005	0.005	0.005	0.005	0.062	0.062	0.062	0.062	0.062	0.062	0.062	0.062
	SANDY HOOK HYDRO	Generator	8501	Connecticut	CT	Connecticut	Existing	0.007	0.007	0.007	0.007	0.058	0.058	0.058	0.058	0.058	0.058	0.058	0.058
810	QUINEBAUG	Generator	8501	Connecticut	CT	Connecticut	Existing	0.408	0.408	0.408	0.408	1.062	1.062	1.062	1.062	1.062	1.062	1.062	1.062
811	BANTAM	Generator	8501	Connecticut	CT	Connecticut	Existing	0.023	0.023	0.023	0.023	0.109	0.109	0.109	0.109	0.109	0.109	0.109	0.109
812	BEEBE HOLBROOK	Generator	8500	Rest-of-Pool Connecticut	MA	WCMASS	Existing	0.04	0.04	0.04	0.04	0.103	0.103	0.103	0.103	0.103	0.103	0.103	0.103
813	TUNNEL	Generator	8501	Rest-of-Pool	CT	Connecticut	Existing	0.479	0.479	0.479	0.479	1.403	1.403	1.403	1.403	1.403	1.403	1.403	1.403
814	PATCH	Generator	8500	Rest-of-Pool	VT	Vermont	Existing	0.027	0.027	0.027	0.027	0.113	0.113	0.113	0.113	0.113	0.113	0.113	0.113
815	CARVER FALLS	Generator	8500	Rest-of-Pool	VT	Vermont	Existing	0.322	0.322	0.322	0.322	1.077	1.077	1.077	1.077	1.077	1.077	1.077	1.077
816	CAVENDISH	Generator	8500	Rest-of-Pool	VT	Vermont	Existing	0.323	0.323	0.323	0.323	0.951	0.951	0.951	0.951	0.951	0.951	0.951	0.951
817	TAFTSVILLE VT	Generator	8500	Rest-of-Pool	VT	Vermont	Existing	0.072	0.072	0.072	0.072	0.103	0.103	0.103	0.103	0.103	0.103	0.103	0.103
818	PIERCE MILLS	Generator	8500	Rest-of-Pool	VT	Vermont	Existing	0.092	0.092	0.092	0.092	0.223	0.223	0.223	0.223	0.223	0.223	0.223	0.223
819	ARNOLD FALLS	Generator	8500	Rest-of-Pool	VT	Vermont	Existing	0.154	0.154	0.154	0.154	0.218	0.218	0.218	0.218	0.218	0.218	0.218	0.218
820	PASSUMPSIC	Generator	8500	Rest-of-Pool	VT	Vermont	Existing	0.243	0.243	0.243	0.243	0.27	0.27	0.27	0.27	0.27	0.27	0.27	0.27
821	GAGE	Generator	8500	Rest-of-Pool	VT	Vermont	Existing	0.215	0.215	0.215	0.215	0.432	0.432	0.432	0.432	0.432	0.432	0.432	0.432
822	SMITH (CVPS)	Generator	8500	Rest-of-Pool	VT	Vermont	Existing	0.435	0.435	0.435	0.435	0.674	0.674	0.674	0.674	0.674	0.674	0.674	0.674
823	EAST BARNET	Generator	8500	Rest-of-Pool	VT	Vermont	Existing	0.605	0.605	0.605	0.605	1.249	1.249	1.249	1.249	1.249	1.249	1.249	1.249
824	BATH ELECTRIC HYDRO	Generator	8500	Rest-of-Pool	NH	New Hampshire	Existing	0.237	0.237	0.237	0.237	0.221	0.221	0.221	0.221	0.221	0.221	0.221	0.221
827	SEARSBURG WIND	Generator	8500	Rest-of-Pool	MA	WCMASS	Existing	0.229	0.229	0.229	0.229	1.075	1.075	1.075	1.075	1.075	1.075	1.075	1.075
828	BARTON HYDRO	Generator	8500	Rest-of-Pool	VT	Vermont	Existing	0.344	0.344	0.344	0.344	0.651	0.651	0.651	0.651	0.651	0.651	0.651	0.651
	ENOSBURG 2 DIESEL	Generator	8500	Rest-of-Pool	VT	Vermont	Existing	0.598	0.598	0.598	0.598	0.598	0.598	0.598	0.598	0.598	0.598	0.598	0.598
	ENOSBURG HYDRO	Generator	8500	Rest-of-Pool	VT	Vermont	Existing	0.371	0.371	0.371	0.371	0.439	0.439	0.439	0.439	0.439	0.439	0.439	0.439
831	VAIL & GREAT FALLS	Generator	8500	Rest-of-Pool	VT	Vermont	Existing	0.463	0.463	0.463	0.463	0.652	0.652	0.652	0.652	0.652	0.652	0.652	0.652
	CENTER RUTLAND	Generator	8500	Rest-of-Pool	VT	Vermont	Existing	0	0	0	0	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02
833	BARNET	Generator	8500	Rest-of-Pool	VT	Vermont	Existing	0.05	0.05	0.05	0.05	0.166	0.166	0.166	0.166	0.166	0.166	0.166	0.166
834	COMPTU FALLS	Generator	8500	Rest-of-Pool	VT	Vermont	Existing	0.159	0.159	0.159	0.159	0.415	0.415	0.415	0.415	0.415	0.415	0.415	0.415

ID	Name	Type	Capacity Zone ID	Capacity Zone Name	State	Load Zone	Status	Jun-17	Jul-17	Aug-17	Sep-17	Oct-17	Nov-17	Dec-17	Jan-18	Feb-18	Mar-18	Apr-18	May-18
	SALMON FALLS HYDRO	Generator	8503	Maine	ME	Maine	Existing	0.953	0.953	0.953	0.953	0.824	0.824	0.824	0.824	0.824	0.824	0.824	0.824
884	SWANS FALLS	Generator	8500	Rest-of- Pool	NH	New Hampshire	Existing	0.385	0.385	0.385	0.385	0.41	0.41	0.41	0.41	0.41	0.41	0.41	0.41
885	STEVENS MILL	Generator	8500	Rest-of- Pool	NH	New Hampshire	Existing	0.08	0.08	0.08	0.08	0.094	0.094	0.094	0.094	0.094	0.094	0.094	0.094
886	COCHECO FALLS	Generator	8500	Rest-of- Pool	NH	New Hampshire	Existing	0.133	0.133	0.133	0.133	0.421	0.421	0.421	0.421	0.421	0.421	0.421	0.421
887	CHINA MILLS DAM	Generator	8500	Rest-of- Pool	NH	New Hampshire	Existing	0.076	0.076	0.076	0.076	0.44	0.44	0.44	0.44	0.44	0.44	0.44	0.44
888	NEWFOUND HYDRO	Generator	8500	Rest-of- Pool	NH	New Hampshire	Existing	0.359	0.359	0.359	0.359	1.059	1.059	1.059	1.059	1.059	1.059	1.059	1.059
889	SUNAPEE HYDRO	Generator	8500	Rest-of- Pool	NH	New Hampshire	Existing	0.069	0.069	0.069	0.069	0.319	0.319	0.319	0.319	0.319	0.319	0.319	0.319
890	NASHUA HYDRO	Generator	8500	Rest-of- Pool	NH	New Hampshire	Existing	0.43	0.43	0.43	0.43	0.781	0.781	0.781	0.781	0.781	0.781	0.781	0.781
891	HILLSBORO MILLS	Generator	8500	Rest-of- Pool	NH	New Hampshire	Existing	0.024	0.024	0.024	0.024	0.246	0.246	0.246	0.246	0.246	0.246	0.246	0.246
892	LAKEPORT DAM	Generator	8500	Rest-of- Pool	NH	New Hampshire	Existing	0.257	0.257	0.257	0.257	0.331	0.331	0.331	0.331	0.331	0.331	0.331	0.331
893	WEST HOPKINTON HYDRO	Generator	8500	Rest-of- Pool	NH	New Hampshire	Existing	0.203	0.203	0.203	0.203	0.395	0.395	0.395	0.395	0.395	0.395	0.395	0.395
894	LISBON HYDRO	Generator	8500	Rest-of- Pool	NH	New Hampshire	Existing	0.231	0.231	0.231	0.231	0.319	0.319	0.319	0.319	0.319	0.319	0.319	0.319
895	LOWER ROBERTSON DAM	Generator	8500	Rest-of- Pool	NH	New Hampshire	Existing	0.281	0.281	0.281	0.281	0.599	0.599	0.599	0.599	0.599	0.599	0.599	0.599
897	OLD NASH DAM	Generator	8500	Rest-of- Pool	NH	New Hampshire	Existing	0.026	0.026	0.026	0.026	0.085	0.085	0.085	0.085	0.085	0.085	0.085	0.085
898	SUGAR RIVER HYDRO	Generator	8500	Rest-of- Pool	NH	New Hampshire	Existing	0	0	0	0	0.116	0.116	0.116	0.116	0.116	0.116	0.116	0.116
900	GREAT FALLS LOWER	Generator	8500	Rest-of- Pool	NH	New Hampshire	Existing	0.147	0.147	0.147	0.147	0.625	0.625	0.625	0.625	0.625	0.625	0.625	0.625
901	WATERLOOM FALLS	Generator	8500	Rest-of- Pool	NH	New Hampshire	Existing	0.008	0.008	0.008	0.008	0.036	0.036	0.036	0.036	0.036	0.036	0.036	0.036
902	HOSIERY MILL DAM	Generator	8500	Rest-of- Pool	NH	New Hampshire	Existing	0.094	0.094	0.094	0.094	0.115	0.115	0.115	0.115	0.115	0.115	0.115	0.115
903	WYANDOTTE HYDRO	Generator	8500	Rest-of- Pool	NH	New Hampshire	Existing	0.002	0.002	0.002	0.002	0.072	0.072	0.072	0.072	0.072	0.072	0.072	0.072
904	LOCHMERE DAM	Generator	8500	Rest-of- Pool	NH	New Hampshire	Existing	0.369	0.369	0.369	0.369	0.572	0.572	0.572	0.572	0.572	0.572	0.572	0.572
905	ASHUELOT HYDRO	Generator	8500	Rest-of- Pool	NH	New Hampshire	Existing	0.289	0.289	0.289	0.289	0.573	0.573	0.573	0.573	0.573	0.573	0.573	0.573
906	ROLLINSFORD HYDRO	Generator	8500	Rest-of- Pool	NH	New Hampshire	Existing	0.289	0.289	0.289	0.289	0.913	0.913	0.913	0.913	0.913	0.913	0.913	0.913
908	OTIS MILL HYDRO	Generator	8500	Rest-of- Pool	NH	New Hampshire	Existing	0	0	0	0	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
909	STEELS POND HYDRO	Generator	8500	Rest-of- Pool	NH	New Hampshire	Existing	0.057	0.057	0.057	0.057	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15
910	CAMPTON DAM	Generator	8500	Rest-of- Pool	NH	New Hampshire	Existing	0.114	0.114	0.114	0.114	0.193	0.193	0.193	0.193	0.193	0.193	0.193	0.193
911	KELLEYS FALLS	Generator	8500	Rest-of- Pool	NH	New Hampshire	Existing	0.001	0.001	0.001	0.001	0.236	0.236	0.236	0.236	0.236	0.236	0.236	0.236
913	GOODRICH FALLS	Generator	8500	Rest-of- Pool	NH	New Hampshire	Existing	0.191	0.191	0.191	0.191	0.299	0.299	0.299	0.299	0.299	0.299	0.299	0.299
914	CHAMBERLAIN FALLS	Generator	8500	Rest-of- Pool	NH	New Hampshire	Existing	0	0	0	0	0.004	0.004	0.004	0.004	0.004	0.004	0.004	0.004
919	HOPKINTON HYDRO	Generator	8500	Rest-of- Pool	NH	New Hampshire	Existing	0.074	0.074	0.074	0.074	0.164	0.164	0.164	0.164	0.164	0.164	0.164	0.164
922	NOONE FALLS	Generator	8500	Rest-of- Pool	NH	New Hampshire	Existing	0.03	0.03	0.03	0.03	0.076	0.076	0.076	0.076	0.076	0.076	0.076	0.076
925	OTTER LANE HYDRO	Generator	8500	Rest-of- Pool	NH	New Hampshire	Existing	0.008	0.008	0.008	0.008	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029
926	PETERBOROUGH LOWER HYDRO	Generator	8500	Rest-of- Pool	NH	New Hampshire	Existing	0	0	0	0	0.035	0.035	0.035	0.035	0.035	0.035	0.035	0.035
928	SALMON BROOK STATION 3	Generator	8500	Rest-of- Pool	NH	New Hampshire	Existing	0.024	0.024	0.024	0.024	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12
931	AVERY DAM	Generator	8500	Rest-of- Pool	NH	New Hampshire	Existing	0.173	0.173	0.173	0.173	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.21
932	WATSON DAM	Generator	8500	Rest-of- Pool	NH	New Hampshire	Existing	0.028	0.028	0.028	0.028	0.161	0.161	0.161	0.161	0.161	0.161	0.161	0.161
933	WESTON DAM	Generator	8500	Rest-of- Pool	NH	New Hampshire	Existing	0.243	0.243	0.243	0.243	0.354	0.354	0.354	0.354	0.354	0.354	0.354	0.354
935	SUNNYBROOK HYDRO 2	Generator	8500	Rest-of- Pool	NH	New Hampshire	Existing	0.016	0.016	0.016	0.016	0.013	0.013	0.013	0.013	0.013	0.013	0.013	0.013

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941	PETERBOROUGH UPPER HYDRO	Generator	8500	Rest-of- Pool	NH	New Hampshire	Existing	0	0	0	0	0.083	0.083	0.083	0.083	0.083	0.083	0.083	0.083
942	DUNBARTON ROAD LANDFILL	Generator	8500	Rest-of- Pool	NH	New Hampshire	Existing	0.266	0.266	0.266	0.266	0.288	0.288	0.288	0.288	0.288	0.288	0.288	0.288
943	FOUR HILLS LANDFILL	Generator	8500	Rest-of- Pool	NH	New Hampshire	Existing	0.21	0.21	0.21	0.21	0.082	0.082	0.082	0.082	0.082	0.082	0.082	0.082
948	PEPPERELL HYDRO COMPANY LLC	Generator	8500	Rest-of- Pool	MA	WCMASS	Existing	0.507	0.507	0.507	0.507	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84
949	VALLEY HYDRO - QF	Generator	8500	Rest-of- Pool	RI	Rhode Island	Existing	0.051	0.051	0.051	0.051	0.168	0.168	0.168	0.168	0.168	0.168	0.168	0.168
950	LP ATHOL - QF	Generator	8500	Rest-of- Pool	MA	WCMASS	Existing	0.098	0.098	0.098	0.098	0.067	0.067	0.067	0.067	0.067	0.067	0.067	0.067
951	BALTIC MILLS - QF	Generator	8500	Rest-of- Pool	NH	New Hampshire	Existing	0.038	0.038	0.038	0.038	0.063	0.063	0.063	0.063	0.063	0.063	0.063	0.063
953	ATTLEBORO LANDFILL - QF	Generator	8500	Rest-of- Pool	MA	SEMASS	Existing	0.179	0.179	0.179	0.179	0.264	0.264	0.264	0.264	0.264	0.264	0.264	0.264
954	MM LOWELL LANDFILL - QF	Generator	8500	Rest-of- Pool	MA	WCMASS	Existing	0.108	0.108	0.108	0.108	0.106	0.106	0.106	0.106	0.106	0.106	0.106	0.106
957	HG&E HYDRO CABOT 1-4	Generator	8500	Rest-of- Pool	MA	WCMASS	Existing	0.947	0.947	0.947	0.947	1.36	1.36	1.36	1.36	1.36	1.36	1.36	1.36
959	BARTON 1-4 DIESELS	Generator	8500	Rest-of- Pool	VT	Vermont	Existing	0.605	0.605	0.605	0.605	0.605	0.605	0.605	0.605	0.605	0.605	0.605	0.605
969	POWDER MILL HYDRO	Generator	8500	Rest-of- Pool	MA	WCMASS	Existing	0.01	0.01	0.01	0.01	0.092	0.092	0.092	0.092	0.092	0.092	0.092	0.092
970	DUDDLEY HYDRO	Generator	8500	Rest-of- Pool	MA	WCMASS	Existing	0.036	0.036	0.036	0.036	0.112	0.112	0.112	0.112	0.112	0.112	0.112	0.112
978	NEW MILFORD	Generator	8501	Connectic ut	CT	Connecticut	Existing	1.631	1.631	1.631	1.631	1.336	1.336	1.336	1.336	1.336	1.336	1.336	1.336
1005	BG DIGHTON POWER LLC	Generator	8500	Rest-of- Pool	MA	SEMASS	Existing	160.3	160.3	160.3	160.3	160.3	160.3	160.3	160.3	160.3	160.3	160.3	160.3
1028	BUNKER RD #12 GAS TURB	Generator	8500	Rest-of- Pool	MA	SEMASS	Existing	2.351	2.351	2.351	2.351	2.351	2.351	2.351	2.351	2.351	2.351	2.351	2.351
1029	BUNKER RD #13 GAS TURB	Generator	8500	Rest-of- Pool	MA	SEMASS	Existing	2.84	2.84	2.84	2.84	2.84	2.84	2.84	2.84	2.84	2.84	2.84	2.84
1030	OAK BLUFFS	Generator	8500	Rest-of- Pool	MA	SEMASS	Existing	8.12	8.12	8.12	8.12	8.12	8.12	8.12	8.12	8.12	8.12	8.12	8.12
1031	WEST TISBURY	Generator	8500	Rest-of- Pool	MA	SEMASS	Existing	5.568	5.568	5.568	5.568	5.568	5.568	5.568	5.568	5.568	5.568	5.568	5.568
1032	BRIDGEPORT ENERGY 1	Generator	8501	Connectic ut	CT	Connecticut	Existing	454.434	454.434	454.434	454.434	454.434	454.434	454.434	454.434	454.434	454.434	454.434	454.434
1034	RIVERSIDE 4-7	Generator	8500	Rest-of- Pool	MA	WCMASS	Existing	1.287	1.287	1.287	1.287	1.844	1.844	1.844	1.844	1.844	1.844	1.844	1.844
1035	RIVERSIDE 8	Generator	8500	Rest-of- Pool	MA	WCMASS	Existing	2.64	2.64	2.64	2.64	2.37	2.37	2.37	2.37	2.37	2.37	2.37	2.37
1047	FAIRFAX	Generator	8500	Rest-of- Pool	VT	Vermont	Existing	1.504	1.504	1.504	1.504	3.932	3.932	3.932	3.932	3.932	3.932	3.932	3.932
1048	WARE HYDRO	Generator	8500	Rest-of- Pool	MA	WCMASS	Existing	0.241	0.241	0.241	0.241	0.696	0.696	0.696	0.696	0.696	0.696	0.696	0.696
1049	COLLINS HYDRO	Generator	8500	Rest-of- Pool	MA	WCMASS	Existing	0.456	0.456	0.456	0.456	0.771	0.771	0.771	0.771	0.771	0.771	0.771	0.771
1050	CHICOPPEE HYDRO	Generator	8500	Rest-of- Pool	MA	WCMASS	Existing	0.843	0.843	0.843	0.843	1.383	1.383	1.383	1.383	1.383	1.383	1.383	1.383
1054	BLACKSTONE HYDRO ASSOC	Generator	8500	Rest-of- Pool	RI	Rhode Island	Existing	0	0	0	0	0.185	0.185	0.185	0.185	0.185	0.185	0.185	0.185
1057	BLACKSTONE HYDRO LOAD REDUCER	Generator	8500	Rest-of- Pool	RI	Rhode Island	Existing	0.307	0.307	0.307	0.307	0.578	0.578	0.578	0.578	0.578	0.578	0.578	0.578
1059	BARRE LANDFILL	Generator	8500	Rest-of- Pool	MA	WCMASS	Existing	0.657	0.657	0.657	0.657	0.659	0.659	0.659	0.659	0.659	0.659	0.659	0.659
1061	MASCOMA HYDRO	Generator	8500	Rest-of- Pool	NH	New Hampshire	Existing	0.237	0.237	0.237	0.237	0.834	0.834	0.834	0.834	0.834	0.834	0.834	0.834
1062	MWRA COSGROVE	Generator	8500	Rest-of- Pool	MA	WCMASS	Existing	0.871	0.871	0.871	0.871	0.36	0.36	0.36	0.36	0.36	0.36	0.36	0.36

ID	Name	Type	Capacity Zone ID	Capacity Zone Name	State	Load Zone	Status	Jun-17	Jul-17	Aug-17	Sep-17	Oct-17	Nov-17	Dec-17	Jan-18	Feb-18	Mar-18	Apr-18	May-18
1086	BERKSHIRE POWER	Generator	8500	Rest-of-Pool	MA	WCMASS	Existing	229.279	229.279	229.279	229.279	229.279	229.279	229.279	229.279	229.279	229.279	229.279	229.279
1107	SOMERSET	Generator	8503	Maine	ME	Maine	Existing	0	0	0	0	0.023	0.023	0.023	0.023	0.023	0.023	0.023	0.023
1109	MMWAC	Generator	8503	Maine	ME	Maine	Existing	1.744	1.744	1.744	1.744	2.011	2.011	2.011	2.011	2.011	2.011	2.011	2.011
1113	BRASSUA HYDRO	Generator	8503	Maine	ME	Maine	Existing	2.123	2.123	2.123	2.123	2.809	2.809	2.809	2.809	2.809	2.809	2.809	2.809
1117	GREAT WORKS COMPOSITE	Generator	8503	Maine	ME	Maine	Existing	0.028	0.028	0.028	0.028	0.16	0.16	0.16	0.16	0.16	0.16	0.16	0.16
1119	KENNEBAGO HYDRO	Generator	8503	Maine	ME	Maine	Existing	0.25	0.25	0.25	0.25	0.494	0.494	0.494	0.494	0.494	0.494	0.494	0.494
1122	CASCADE-DIAMOND-QF	Generator	8500	Rest-of-Pool	MA	WCMASS	Existing	0.137	0.137	0.137	0.137	0.225	0.225	0.225	0.225	0.225	0.225	0.225	0.225
1165	CADYS FALLS	Generator	8500	Rest-of-Pool	VT	Vermont	Existing	0.218	0.218	0.218	0.218	0.327	0.327	0.327	0.327	0.327	0.327	0.327	0.327
1166	MORRISVILLE PLANT #2	Generator	8500	Rest-of-Pool	VT	Vermont	Existing	0.327	0.327	0.327	0.327	0.568	0.568	0.568	0.568	0.568	0.568	0.568	0.568
1167	WOLCOTT HYDRO #1	Generator	8500	Rest-of-Pool	VT	Vermont	Existing	0.134	0.134	0.134	0.134	0.389	0.389	0.389	0.389	0.389	0.389	0.389	0.389
1168	H.K. SANDERS	Generator	8500	Rest-of-Pool	VT	Vermont	Existing	1.686	1.686	1.686	1.686	1.686	1.686	1.686	1.686	1.686	1.686	1.686	1.686
1185	STONY BROOK GT1A	Generator	8500	Rest-of-Pool	MA	WCMASS	Existing	100	100	100	100	100	100	100	100	100	100	100	100
1186	STONY BROOK GT1B	Generator	8500	Rest-of-Pool	MA	WCMASS	Existing	97	97	97	97	97	97	97	97	97	97	97	97
1187	STONY BROOK GT1C	Generator	8500	Rest-of-Pool	MA	WCMASS	Existing	100	100	100	100	100	100	100	100	100	100	100	100
1209	CRRA HARTFORD LANDFILL	Generator	8501	Connecticut	CT	Connecticut	Existing	1.707	1.707	1.707	1.707	1.725	1.725	1.725	1.725	1.725	1.725	1.725	1.725
1210	MILLENNIUM	Generator	8500	Rest-of-Pool	MA	WCMASS	Existing	325.786	325.786	325.786	325.786	325.786	325.786	325.786	325.786	325.786	325.786	325.786	325.786
1216	MAINE INDEPENDENCE STATION	Generator	8503	Maine	ME	Maine	Existing	488.276	488.276	488.276	488.276	488.276	488.276	488.276	488.276	488.276	488.276	488.276	488.276
1221	ESSEX DIESELS	Generator	8500	Rest-of-Pool	VT	Vermont	Existing	7.215	7.215	7.215	7.215	7.215	7.215	7.215	7.215	7.215	7.215	7.215	7.215
1225	TANNERY DAM	Generator	8500	Rest-of-Pool	MA	WCMASS	Existing	0	0	0	0	0.006	0.006	0.006	0.006	0.006	0.006	0.006	0.006
1226	TIVERTON POWER	Generator	8500	Rest-of-Pool	RI	Rhode Island	Existing	244.086	244.086	244.086	244.086	244.086	244.086	244.086	244.086	244.086	244.086	244.086	244.086
1255	RUMFORD POWER	Generator	8503	Maine	ME	Maine	Existing	244.94	244.94	244.94	244.94	244.94	244.94	244.94	244.94	244.94	244.94	244.94	244.94
1258	BHE SMALL HYDRO COMPOSITE	Generator	8503	Maine	ME	Maine	Existing	0.817	0.817	0.817	0.817	1.926	1.926	1.926	1.926	1.926	1.926	1.926	1.926
1267	SPARHAWK	Generator	8503	Maine	ME	Maine	Existing	0.001	0.001	0.001	0.001	0.043	0.043	0.043	0.043	0.043	0.043	0.043	0.043
1270	SYSKO STONY BROOK	Generator	8503	Maine	ME	Maine	Existing	0.017	0.017	0.017	0.017	0.016	0.016	0.016	0.016	0.016	0.016	0.016	0.016
1271	SYSKO WIGHT BROOK	Generator	8503	Maine	ME	Maine	Existing	0.003	0.003	0.003	0.003	0.024	0.024	0.024	0.024	0.024	0.024	0.024	0.024
1273	KENNEBEC WATER U5	Generator	8503	Maine	ME	Maine	Existing	0.099	0.099	0.099	0.099	0.53	0.53	0.53	0.53	0.53	0.53	0.53	0.53
1283	LEWISTON U5	Generator	8503	Maine	ME	Maine	Existing	0.304	0.304	0.304	0.304	0.305	0.305	0.305	0.305	0.305	0.305	0.305	0.305
1286	ANP-BLACKSTONE ENERGY CO. #1	Generator	8500	Rest-of-Pool	MA	SEMASS	Existing	237.356	237.356	237.356	237.356	237.356	237.356	237.356	237.356	237.356	237.356	237.356	237.356
1287	ANP-BLACKSTONE ENERGY 2	Generator	8500	Rest-of-Pool	MA	SEMASS	Existing	241.154	241.154	241.154	241.154	241.154	241.154	241.154	241.154	241.154	241.154	241.154	241.154
1288	BUCKSPORT ENERGY 4	Generator	8503	Maine	ME	Maine	Existing	144	144	144	144	144	144	144	144	144	144	144	144
1342	LAKE ROAD 1	Generator	8501	Connecticut	CT	Connecticut	Existing	245.792	245.792	245.792	245.792	245.792	245.792	245.792	245.792	245.792	245.792	245.792	245.792
1343	LAKE ROAD 2	Generator	8501	Connecticut	CT	Connecticut	Existing	251.213	251.213	251.213	251.213	251.213	251.213	251.213	251.213	251.213	251.213	251.213	251.213
1344	LAKE ROAD 3	Generator	8501	Connecticut	CT	Connecticut	Existing	254.717	254.717	254.717	254.717	254.717	254.717	254.717	254.717	254.717	254.717	254.717	254.717
1345	WESTBROOK	Generator	8503	Maine	ME	Maine	Existing	524.744	524.744	524.744	524.744	524.744	524.744	524.744	524.744	524.744	524.744	524.744	524.744

[illegible]

ID	Name	Type	Capacity Zone ID	Capacity Zone Name	State	Load Zone	Status	Jun-17	Jul-17	Aug-17	Sep-17	Oct-17	Nov-17	Dec-17	Jan-18	Feb-18	Mar-18	Apr-18	May-18
2284	GARDINER HYDRO	Generator	8503	Maine	ME	Maine	Existing	0.193	0.193	0.193	0.193	1	1	1	1	1	1	1	1
2285	GREENVILLE HYDRO	Generator	8503	Maine	ME	Maine	Existing	0.182	0.182	0.182	0.182	0.374	0.374	0.374	0.374	0.374	0.374	0.374	0.374
2286	HACKETT MILLS HYDRO	Generator	8503	Maine	ME	Maine	Existing	0.152	0.152	0.152	0.152	0.418	0.418	0.418	0.418	0.418	0.418	0.418	0.418
2287	MECHANIC FALLS HYDRO	Generator	8503	Maine	ME	Maine	Existing	0.227	0.227	0.227	0.227	0.555	0.555	0.555	0.555	0.555	0.555	0.555	0.555
2288	NORWAY HYDRO	Generator	8503	Maine	ME	Maine	Existing	0	0	0	0	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037
2289	PIONEER DAM HYDRO	Generator	8503	Maine	ME	Maine	Existing	0.057	0.057	0.057	0.057	0.078	0.078	0.078	0.078	0.078	0.078	0.078	0.078
2290	PITTSFIELD HYDRO	Generator	8503	Maine	ME	Maine	Existing	0.209	0.209	0.209	0.209	0.637	0.637	0.637	0.637	0.637	0.637	0.637	0.637
2291	WAVERLY AVENUE HYDRO	Generator	8503	Maine	ME	Maine	Existing	0.142	0.142	0.142	0.142	0.252	0.252	0.252	0.252	0.252	0.252	0.252	0.252
2292	YORK HYDRO	Generator	8503	Maine	ME	Maine	Existing	0.318	0.318	0.318	0.318	0.832	0.832	0.832	0.832	0.832	0.832	0.832	0.832
2424	CITIZENS BLOCK LOAD	Generator	8500	Rest-of-Pool	VT	Vermont	Existing	30	30	30	30	30	30	30	30	30	30	30	30
2425	SPRINGFIELD REFUSE-NEW	Generator	8500	Rest-of-Pool	MA	WCMASS	Existing	5.132	5.132	5.132	5.132	5.827	5.827	5.827	5.827	5.827	5.827	5.827	5.827
2426	Hydro Kennebec	Generator	8503	Maine	ME	Maine	Existing	7.626	7.626	7.626	7.626	10.855	10.855	10.855	10.855	10.855	10.855	10.855	10.855
2430	BELDENS-NEW	Generator	8500	Rest-of-Pool	VT	Vermont	Existing	1.41	1.41	1.41	1.41	3.18	3.18	3.18	3.18	3.18	3.18	3.18	3.18
2431	DODGE FALLS-NEW	Generator	8500	Rest-of-Pool	VT	Vermont	Existing	3.272	3.272	3.272	3.272	4.422	4.422	4.422	4.422	4.422	4.422	4.422	4.422
2432	HUNTINGTON FALLS-NEW	Generator	8500	Rest-of-Pool	VT	Vermont	Existing	1.634	1.634	1.634	1.634	3.113	3.113	3.113	3.113	3.113	3.113	3.113	3.113
2433	RYEGATE 1-NEW	Generator	8500	Rest-of-Pool	VT	Vermont	Existing	20.468	20.468	20.468	20.468	19.396	19.396	19.396	19.396	19.396	19.396	19.396	19.396
2434	GORGE 18 HYDRO-NEW	Generator	8500	Rest-of-Pool	VT	Vermont	Existing	0.246	0.246	0.246	0.246	1.525	1.525	1.525	1.525	1.525	1.525	1.525	1.525
2435	VERGENNES HYDRO-NEW	Generator	8500	Rest-of-Pool	VT	Vermont	Existing	0.845	0.845	0.845	0.845	1.317	1.317	1.317	1.317	1.317	1.317	1.317	1.317
2439	BROCKWAY MILLS U5	Generator	8500	Rest-of-Pool	VT	Vermont	Existing	0.016	0.016	0.016	0.016	0.217	0.217	0.217	0.217	0.217	0.217	0.217	0.217
2462	PLAINVILLE GEN QF U5	Generator	8500	Rest-of-Pool	MA	SEMASS	Existing	2.964	2.964	2.964	2.964	3.217	3.217	3.217	3.217	3.217	3.217	3.217	3.217
2466	CHERRY 7	Generator	8500	Rest-of-Pool	MA	WCMASS	Existing	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8
2467	CHERRY 8	Generator	8500	Rest-of-Pool	MA	WCMASS	Existing	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4
2468	CHERRY 10	Generator	8500	Rest-of-Pool	MA	WCMASS	Existing	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1
2469	CHERRY 11	Generator	8500	Rest-of-Pool	MA	WCMASS	Existing	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1
2470	CHERRY 12	Generator	8500	Rest-of-Pool	MA	WCMASS	Existing	4.999	4.999	4.999	4.999	4.999	4.999	4.999	4.999	4.999	4.999	4.999	4.999
9100	CL&P Connecticut Portfolio	Demand	8501	Connecticut	CT	Connecticut	Existing	11.046	11.046	11.046	11.046	11.046	11.046	11.046	11.046	11.046	11.046	11.046	11.046
9102	CLM Residential Energy Effic	Demand	8501	Connecticut	CT	Connecticut	Existing	0	0	0	0	0	0	0	0	0	0	0	0
9103	CLM C&I Energy Efficiency	Demand	8501	Connecticut	CT	Connecticut	Existing	3.639	3.639	3.639	3.639	3.639	3.639	3.639	3.639	3.639	3.639	3.639	3.639
9104	EI C&I Energy Efficiency	Demand	8501	Connecticut	CT	Connecticut	Existing	1.406	1.406	1.406	1.406	1.406	1.406	1.406	1.406	1.406	1.406	1.406	1.406
9105	PSNH CORE EE Pgm Portfolio I	Demand	8500	Rest-of-Pool	NH	New Hampshire	Existing	2.92	2.92	2.92	2.92	2.92	2.92	2.92	2.92	2.92	2.92	2.92	2.92
9108	Residential Energy Efficiency	Demand	8500	Rest-of-Pool	VT	Vermont	Existing	0.043	0.043	0.043	0.043	0.043	0.043	0.012	0.012	0.012	0.012	0.043	0.043

ID	Name	Type	Capacity Zone ID	Capacity Zone Name	State	Load Zone	Status	Jun-17	Jul-17	Aug-17	Sep-17	Oct-17	Nov-17	Dec-17	Jan-18	Feb-18	Mar-18	Apr-18	May-18
9109	Commercial Energy Efficiency	Demand	8500	Rest-of-Pool	VT	Vermont	Existing	0.085	0.085	0.085	0.085	0.085	0.085	0.085	0.085	0.085	0.085	0.085	0.085
9114	ngrid nh odr ee project_1	Demand	8500	Rest-of-Pool	NH	New Hampshire	Existing	0.707	0.707	0.707	0.707	0.707	0.707	0.707	0.707	0.707	0.707	0.707	0.707
9115	CL&P Dist Gen 2007	Demand	8501	Connecticut	CT	Connecticut	Existing	0.293	0.293	0.293	0.293	0.293	0.293	0.293	0.293	0.293	0.293	0.293	0.293
9116	ngrid ri odr ee project_1	Demand	8500	Rest-of-Pool	RI	Rhode Island	Existing	7.032	7.032	7.032	7.032	7.032	7.032	7.032	7.032	7.032	7.032	7.032	7.032
9118	Unitil EE Project - 2007	Demand	8500	Rest-of-Pool	MA	WCMASS	Existing	0.066	0.066	0.066	0.066	0.066	0.066	0.066	0.066	0.066	0.066	0.066	0.066
9120	ngrid sema odr ee project_1	Demand	8500	Rest-of-Pool	MA	SEMASS	Existing	5.275	5.275	5.275	5.275	5.275	5.275	5.275	5.275	5.275	5.275	5.275	5.275
9121	ngrid wcma odr ee project_1	Demand	8500	Rest-of-Pool	MA	WCMASS	Existing	5.442	5.442	5.442	5.442	5.442	5.442	5.442	5.442	5.442	5.442	5.442	5.442
9122	ngrid nema odr ee project_1	Demand	8502	NEMA-Boston	MA	NEMA-Boston	Existing	3.862	3.862	3.862	3.862	3.862	3.862	3.862	3.862	3.862	3.862	3.862	3.862
9123	NSTAR SEMA	Demand	8500	Rest-of-Pool	MA	SEMASS	Existing	3.41	3.41	3.41	3.41	3.41	3.41	3.41	3.41	3.41	3.41	3.41	3.41
9125	UES EE Project 2007	Demand	8500	Rest-of-Pool	NH	New Hampshire	Existing	0.622	0.622	0.622	0.622	0.622	0.622	0.622	0.622	0.622	0.622	0.622	0.622
9126	NSTAR NEMA 07	Demand	8502	NEMA-Boston	MA	NEMA-Boston	Existing	4.304	4.304	4.304	4.304	4.304	4.304	4.304	4.304	4.304	4.304	4.304	4.304
9127	CL&P CT Portfolio - 2007	Demand	8501	Connecticut	CT	Connecticut	Existing	0	0	0	0	0	0	0	0	0	0	0	0
9128	NHEC CORE EE Pgm Portfolio 1	Demand	8500	Rest-of-Pool	NH	New Hampshire	Existing	0.159	0.159	0.159	0.159	0.159	0.159	0.159	0.159	0.159	0.159	0.159	0.159
9129	UMass Amherst - 4 MW Steam Turbine	Demand	8500	Rest-of-Pool	MA	WCMASS	Existing	1.62	1.62	1.62	1.62	1.62	1.62	1.62	1.62	1.62	1.62	1.62	1.62
9131	WMECO MA Portfolio 2006	Demand	8500	Rest-of-Pool	MA	WCMASS	Existing	0.045	0.045	0.045	0.045	0.045	0.045	0.045	0.045	0.045	0.045	0.045	0.045
10091	MWRA Deer Island	Demand	8502	NEMA-Boston	MA	NEMA-Boston	Existing	15.66	15.66	15.66	15.66	15.66	15.66	15.66	15.66	15.66	15.66	15.66	15.66
10106	Citizens Group A	Demand	8500	Rest-of-Pool	VT	Vermont	Existing	5.94	5.94	5.94	5.94	5.94	5.94	5.94	5.94	5.94	5.94	5.94	5.94
10308	MECCO COGENERATION FACILITY	Generator	8502	NEMA-Boston	MA	NEMA-Boston	Existing	4.871	4.871	4.871	4.871	4.871	4.871	4.871	4.871	4.871	4.871	4.871	4.871
10361	BOC Kittery Load	Demand	8503	Maine	ME	Maine	Existing	9.396	9.396	9.396	9.396	9.396	9.396	9.396	9.396	9.396	9.396	9.396	9.396
10401	CELLEY MILL U5	Generator	8500	Rest-of-Pool	NH	New Hampshire	Existing	0	0	0	0	0.085	0.085	0.085	0.085	0.085	0.085	0.085	0.085
10402	PETTYBORO HYDRO U5	Generator	8500	Rest-of-Pool	NH	New Hampshire	Existing	0.002	0.002	0.002	0.002	0.008	0.008	0.008	0.008	0.008	0.008	0.008	0.008
10403	EASTMAN BROOK U5	Generator	8500	Rest-of-Pool	NH	New Hampshire	Existing	0.005	0.005	0.005	0.005	0.052	0.052	0.052	0.052	0.052	0.052	0.052	0.052
10404	WHEELABRATOR CLAREMONT U5	Generator	8500	Rest-of-Pool	NH	New Hampshire	Existing	3.65	3.65	3.65	3.65	3.527	3.527	3.527	3.527	3.527	3.527	3.527	3.527
10406	LOWER VALLEY HYDRO U5	Generator	8500	Rest-of-Pool	NH	New Hampshire	Existing	0.149	0.149	0.149	0.149	0.453	0.453	0.453	0.453	0.453	0.453	0.453	0.453
10407	WOODSVILLE HYDRO U5	Generator	8500	Rest-of-Pool	NH	New Hampshire	Existing	0.121	0.121	0.121	0.121	0.151	0.151	0.151	0.151	0.151	0.151	0.151	0.151
10408	LOWERC VILLAGE HYDRO U5	Generator	8500	Rest-of-Pool	NH	New Hampshire	Existing	0	0	0	0	0.401	0.401	0.401	0.401	0.401	0.401	0.401	0.401
10409	SWEETWATER HYDRO U5	Generator	8500	Rest-of-Pool	NH	New Hampshire	Existing	0.134	0.134	0.134	0.134	0.405	0.405	0.405	0.405	0.405	0.405	0.405	0.405

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10424	Great Lakes - Berlin Incremental	Generator	8500	Rest-of-Pool	NH	New Hampshire	Existing	9.171	9.171	9.171	9.171	12.662	12.662	12.662	12.662	12.662	12.662	12.662	12.662
10451	WESTFIELD #1 US	Generator	8500	Rest-of-Pool	MA	WCMASS	Existing	0.046	0.046	0.046	0.046	0	0	0	0	0	0	0	0
10615	BLUE SPRUCE FARM US	Generator	8500	Rest-of-Pool	VT	Vermont	Existing	0.207	0.207	0.207	0.207	0.195	0.195	0.195	0.195	0.195	0.195	0.195	0.195
10770	WEST SPRINGFIELD HYDRO US	Generator	8500	Rest-of-Pool	MA	WCMASS	Existing	0.341	0.341	0.341	0.341	0.884	0.884	0.884	0.884	0.884	0.884	0.884	0.884
10801	COVENTRY CLEAN ENERGY	Generator	8500	Rest-of-Pool	VT	Vermont	Existing	3.38	3.38	3.38	3.38	3.46	3.46	3.46	3.46	3.46	3.46	3.46	3.46
10959	RRIG EXPANSION PHASE 2	Generator	8500	Rest-of-Pool	RI	Rhode Island	Existing	5.244	5.244	5.244	5.244	4.831	4.831	4.831	4.831	4.831	4.831	4.831	4.831
11052	GRTR NEW BEDFORD LFG UTIL PROJ	Generator	8500	Rest-of-Pool	MA	SEMASS	Existing	2.605	2.605	2.605	2.605	2.672	2.672	2.672	2.672	2.672	2.672	2.672	2.672
11126	NORTH HARTLAND HYDRO	Generator	8500	Rest-of-Pool	VT	Vermont	Existing	3.09	3.09	3.09	3.09	4.074	4.074	4.074	4.074	4.074	4.074	4.074	4.074
11273	Worcester Water Filtration	Demand	8500	Rest-of-Pool	MA	WCMASS	Existing	0.864	0.864	0.864	0.864	0.864	0.864	0.864	0.864	0.864	0.864	0.864	0.864
11408	HULL WIND TURBINE II	Generator	8500	Rest-of-Pool	MA	SEMASS	Existing	0.073	0.073	0.073	0.073	0.316	0.316	0.316	0.316	0.316	0.316	0.316	0.316
11424	RUMFORD FALLS	Generator	8503	Maine	ME	Maine	Existing	29.083	29.083	29.083	29.083	35.329	35.329	35.329	35.329	35.329	35.329	35.329	35.329
11842	WATERSIDE POWER	Generator	8501	Connecticut	CT	Connecticut	Existing	71.218	71.218	71.218	71.218	71.218	71.218	71.218	71.218	71.218	71.218	71.218	71.218
11925	BROCKTON BRIGHTFIELDS	Generator	8500	Rest-of-Pool	MA	SEMASS	Existing	0.141	0.141	0.141	0.141	0	0	0	0	0	0	0	0
12108	FIEC DIESEL	Generator	8503	Maine	ME	Maine	Existing	1.64	1.64	1.64	1.64	1.64	1.64	1.64	1.64	1.64	1.64	1.64	1.64
12180	BERKSHIRE COW POWER	Generator	8500	Rest-of-Pool	VT	Vermont	Existing	0.287	0.287	0.287	0.287	0.366	0.366	0.366	0.366	0.366	0.366	0.366	0.366
12274	GREEN MOUNTAIN DAIRY	Generator	8500	Rest-of-Pool	VT	Vermont	Existing	0.185	0.185	0.185	0.185	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22
12323	COVENTRY CLEAN ENERGY #4	Generator	8500	Rest-of-Pool	VT	Vermont	Existing	2.235	2.235	2.235	2.235	2.307	2.307	2.307	2.307	2.307	2.307	2.307	2.307
12450	NYPA - CMR	Import	8500	Rest-of-Pool			Existing	68.8	68.8	68.8	68.8	68.8	68.8	68.8	68.8	68.8	68.8	68.8	68.8
12451	NYPA - VT	Import	8500	Rest-of-Pool			Existing	14	14	14	14	14	14	14	14	14	14	14	14
12452	VJO - Highgate	Import	8500	Rest-of-Pool			Existing	0	0	0	0	0	0	0	0	0	0	0	0
12500	Thomas A. Watson	Generator	8500	Rest-of-Pool	MA	SEMASS	Existing	105.2	105.2	105.2	105.2	105.2	105.2	105.2	105.2	105.2	105.2	105.2	105.2
12504	Devon 15-18	Generator	8501	Connecticut	CT	Connecticut	Existing	187.552	187.552	187.552	187.552	187.552	187.552	187.552	187.552	187.552	187.552	187.552	187.552
12505	Middletown 12-15	Generator	8501	Connecticut	CT	Connecticut	Existing	187.6	187.6	187.6	187.6	187.6	187.6	187.6	187.6	187.6	187.6	187.6	187.6
12509	UNH Power Plant	Generator	8500	Rest-of-Pool	NH	New Hampshire	Existing	2	2	2	2	2	2	2	2	2	2	2	2
12510	Swanton Gas Turbine 1	Generator	8500	Rest-of-Pool	VT	Vermont	Existing	19.44	19.44	19.44	19.44	19.44	19.44	19.44	19.44	19.44	19.44	19.44	19.44
12511	Swanton Gas Turbine 2	Generator	8500	Rest-of-Pool	VT	Vermont	Existing	19.723	19.723	19.723	19.723	19.723	19.723	19.723	19.723	19.723	19.723	19.723	19.723
12521	Lowell Power Reactivation	Generator	8500	Rest-of-Pool	MA	WCMASS	Existing	74	74	74	74	74	74	74	74	74	74	74	74
12524	Cos Cob 13&14	Generator	8501	Connecticut	CT	Connecticut	Existing	36	36	36	36	36	36	36	36	36	36	36	36
12526	Pierce	Generator	8501	Connecticut	CT	Connecticut	Existing	76.515	76.515	76.515	76.515	76.515	76.515	76.515	76.515	76.515	76.515	76.515	76.515
12530	Sheffield Wind Farm	Generator	8500	Rest-of-Pool	VT	Vermont	Existing	3.29	3.29	3.29	3.29	8.241	8.241	8.241	8.241	8.241	8.241	8.241	8.241

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ID	Name	Type	Capacity Zone ID	Capacity Zone Name	State	Load Zone	Status	Jun-17	Jul-17	Aug-17	Sep-17	Oct-17	Nov-17	Dec-17	Jan-18	Feb-18	Mar-18	Apr-18	May-18
14595	Granite Reliable Power	Generator	8500	Rest-of-Pool	NH	New Hampshire	Existing	9.93	9.93	9.93	9.93	17.052	17.052	17.052	17.052	17.052	17.052	17.052	17.052
14599	Rhode Island LFG Genco, LLC - ST	Generator	8500	Rest-of-Pool	RI	Rhode Island	Existing	26	26	26	26	26	26	26	26	26	26	26	26
14610	Princeton Wind Farm Project	Generator	8500	Rest-of-Pool	MA	WCMASS	Existing	0.205	0.205	0.205	0.205	0.482	0.482	0.482	0.482	0.482	0.482	0.482	0.482
14614	Kleen Energy	Generator	8501	Connecticut	CT	Connecticut	Existing	620	620	620	620	620	620	620	620	620	620	620	620
14623	Valley Hydro (Station No. 5)	Generator	8500	Rest-of-Pool	MA	WCMASS	Existing	0.214	0.214	0.214	0.214	0.46	0.46	0.46	0.46	0.46	0.46	0.46	0.46
14652	Templeton Wind Turbine	Generator	8500	Rest-of-Pool	MA	WCMASS	Existing	0.037	0.037	0.037	0.037	0.153	0.153	0.153	0.153	0.153	0.153	0.153	0.153
14660	Lempster Wind	Generator	8500	Rest-of-Pool	NH	New Hampshire	Existing	3.012	3.012	3.012	3.012	7.875	7.875	7.875	7.875	7.875	7.875	7.875	7.875
14661	Berkshire Wind Power Project	Generator	8500	Rest-of-Pool	MA	WCMASS	Existing	1.621	1.621	1.621	1.621	4.344	4.344	4.344	4.344	4.344	4.344	4.344	4.344
14663	WMRE Crossroads	Generator	8503	Maine	ME	Maine	Existing	2.294	2.294	2.294	2.294	2.294	2.294	2.294	2.294	2.294	2.294	2.294	2.294
14665	Record Hill Wind	Generator	8503	Maine	ME	Maine	Existing	13.6	13.6	13.6	13.6	16.7	16.7	16.7	16.7	16.7	16.7	16.7	16.7
14706	Kimberly-Clark Corp Energy Independence Project	Generator	8501	Connecticut	CT	Connecticut	Existing	13.431	13.431	13.431	13.431	13.431	13.431	13.431	13.431	13.431	13.431	13.431	13.431
15415	Dartmouth Power Expansion	Generator	8500	Rest-of-Pool	MA	SEMASS	Existing	20.611	20.611	20.611	20.611	20.611	20.611	20.611	20.611	20.611	20.611	20.611	20.611
15477	New Haven Harbor Units 2, 3, & 4	Generator	8501	Connecticut	CT	Connecticut	Existing	129.6	129.6	129.6	129.6	129.6	129.6	129.6	129.6	129.6	129.6	129.6	129.6
15509	Plainfield Renewable Energy	Generator	8501	Connecticut	CT	Connecticut	Existing	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5
15543	Plymouth Wind	Demand	8500	Rest-of-Pool	MA	SEMASS	Existing	0.323	0.323	0.323	0.323	0.323	0.323	0.323	0.323	0.323	0.323	0.323	0.323
15586	Gardner Wind Turbine	Demand	8500	Rest-of-Pool	MA	WCMASS	Existing	0.318	0.318	0.318	0.318	0.318	0.318	0.318	0.318	0.318	0.318	0.318	0.318
16296	Milford Hydro	Generator	8503	Maine	ME	Maine	Existing	6.422	6.422	6.422	6.422	6.643	6.643	6.643	6.643	6.643	6.643	6.643	6.643
16523	Stillwater	Generator	8503	Maine	ME	Maine	Existing	1.582	1.582	1.582	1.582	1.483	1.483	1.483	1.483	1.483	1.483	1.483	1.483
16525	Medway	Generator	8503	Maine	ME	Maine	Existing	3.443	3.443	3.443	3.443	2.869	2.869	2.869	2.869	2.869	2.869	2.869	2.869
16547	UI C&LM Programs	Demand	8501	Connecticut	CT	Connecticut	Existing	4.32	4.32	4.32	4.32	4.32	4.32	4.32	4.32	4.32	4.32	4.32	4.32
16631	Victory Road Dorchester PV	Generator	8502	NEMA-Boston	MA	NEMA-Boston	Existing	0.316	0.316	0.316	0.316	0	0	0	0	0	0	0	0
16640	Hilldale Ave Haverhill PV	Generator	8502	NEMA-Boston	MA	NEMA-Boston	Existing	0.27	0.27	0.27	0.27	0	0	0	0	0	0	0	0
16642	Railroad Street Revere PV	Generator	8502	NEMA-Boston	MA	NEMA-Boston	Existing	0.245	0.245	0.245	0.245	0	0	0	0	0	0	0	0
16643	Rover Street Everett PV	Generator	8502	NEMA-Boston	MA	NEMA-Boston	Existing	0.168	0.168	0.168	0.168	0	0	0	0	0	0	0	0
16644	Main Street Whitinsville PV	Generator	8500	Rest-of-Pool	MA	SEMASS	Existing	0.28	0.28	0.28	0.28	0	0	0	0	0	0	0	0
16651	Efficiency Maine Trust Efficient Products	Demand	8503	Maine	ME	Maine	Existing	49.993	49.993	49.993	49.993	49.993	49.993	49.993	49.993	49.993	49.993	49.993	49.993
16653	Berlin Biopower	Generator	8500	Rest-of-Pool	NH	New Hampshire	Existing	58.7	58.7	58.7	58.7	58.7	58.7	58.7	58.7	58.7	58.7	58.7	58.7
16659	Ipswich Wind Farm 1	Generator	8502	NEMA-Boston	MA	NEMA-Boston	Existing	0.136	0.136	0.136	0.136	0.306	0.306	0.306	0.306	0.306	0.306	0.306	0.306

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16675	Fox Island Wind	Generator	8503	Maine	ME	Maine	Existing	0	0	0	0	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09
16687	Bangor Hydro OP	Demand	8503	Maine	ME	Maine	Existing	11.232	11.232	11.232	11.232	11.232	11.232	11.232	11.232	11.232	11.232	11.232	11.232
16688	Nor1	Generator	8501	Connecticut	CT	Connecticut	Existing	1.954	1.954	1.954	1.954	1.954	1.954	1.954	1.954	1.954	1.954	1.954	1.954
16700	RI CoolSentry	Demand	8500	Rest-of-Pool	RI	Rhode Island	Existing	10.188	10.188	10.188	10.188	10.188	10.188	10.188	10.188	10.188	10.188	10.188	10.188
16713	Comverge CoolSentry 2	Demand	8501	Connecticut	CT	Connecticut	Existing	5	5	5	5	5	5	5	5	5	5	5	5
16718	Comverge CoolSentry 4	Demand	8501	Connecticut	CT	Connecticut	Existing	5	5	5	5	5	5	5	5	5	5	5	5
16729	DFC-ERG Hybrid Fuel Cell	Generator	8501	Connecticut	CT	Connecticut	Existing	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5
16737	DFC-ERG Hybrid Fuel Cell (3)	Generator	8501	Connecticut	CT	Connecticut	Existing	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5
16738	BFCP Fuel Cell	Generator	8501	Connecticut	CT	Connecticut	Existing	13.054	13.054	13.054	13.054	13.054	13.054	13.054	13.054	13.054	13.054	13.054	13.054
16750	Norden #2	Generator	8501	Connecticut	CT	Connecticut	Existing	1.948	1.948	1.948	1.948	1.948	1.948	1.948	1.948	1.948	1.948	1.948	1.948
16752	Norden #3	Generator	8501	Connecticut	CT	Connecticut	Existing	1.942	1.942	1.942	1.942	1.942	1.942	1.942	1.942	1.942	1.942	1.942	1.942
16790	WCMA Project E	Demand	8500	Rest-of-Pool	MA	WCMASS	Existing	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
17321	RTEG_76_Springfield MA (7516)	Demand	8500	Rest-of-Pool	MA	WCMASS	Existing	3.866	3.866	3.866	3.866	3.866	3.866	3.866	3.866	3.866	3.866	3.866	3.866
17334	RTDR_50093_Western MA (7517)	Demand	8500	Rest-of-Pool	MA	WCMASS	Existing	4.706	4.706	4.706	4.706	4.706	4.706	4.706	4.706	4.706	4.706	4.706	4.706
17359	Sugar River 2	Generator	8500	Rest-of-Pool	NH	New Hampshire	Existing	0	0	0	0	0.104	0.104	0.104	0.104	0.104	0.104	0.104	0.104
35442	Seaman Energy	Generator	8500	Rest-of-Pool	MA	WCMASS	Existing	0.397	0.397	0.397	0.397	0.44	0.44	0.44	0.44	0.44	0.44	0.44	0.44
35453	Efficiency Maine Trust	Demand	8503	Maine	ME	Maine	Existing	21.306	21.306	21.306	21.306	21.306	21.306	21.306	21.306	21.306	21.306	21.306	21.306
35485	Fitchburg-FCA-5	Generator	8500	Rest-of-Pool	MA	WCMASS	Existing	2.978	2.978	2.978	2.978	2.978	2.978	2.978	2.978	2.978	2.978	2.978	2.978
35555	GMCW	Generator	8500	Rest-of-Pool	VT	Vermont	Existing	2.38	2.38	2.38	2.38	3.54	3.54	3.54	3.54	3.54	3.54	3.54	3.54
35593	Fiske Hydro	Generator	8500	Rest-of-Pool	NH	New Hampshire	Existing	0.057	0.057	0.057	0.057	0.113	0.113	0.113	0.113	0.113	0.113	0.113	0.113
35594	Spaulding Pond Hydro	Generator	8500	Rest-of-Pool	NH	New Hampshire	Existing	0.007	0.007	0.007	0.007	0.172	0.172	0.172	0.172	0.172	0.172	0.172	0.172
35656	Rainbow_2	Generator	8501	Connecticut	CT	Connecticut	Existing	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1
35657	Shrewsbury Diesels	Generator	8500	Rest-of-Pool	MA	WCMASS	Existing	13.75	13.75	13.75	13.75	13.75	13.75	13.75	13.75	13.75	13.75	13.75	13.75
35658	Rainbow_1	Generator	8501	Connecticut	CT	Connecticut	Existing	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1
35693	Spruce Mountain Wind	Generator	8503	Maine	ME	Maine	Existing	4.5	4.5	4.5	4.5	9	9	9	9	9	9	9	9
35728	Moretown LG	Generator	8500	Rest-of-Pool	VT	Vermont	Existing	4.617	4.617	4.617	4.617	4.617	4.617	4.617	4.617	4.617	4.617	4.617	4.617
35979	Kingdom Community Wind	Generator	8500	Rest-of-Pool	VT	Vermont	Existing	12	12	12	12	21.673	21.673	21.673	21.673	21.673	21.673	21.673	21.673
37040	KENDALL STEAM	Generator	8502	NEMA-Boston	MA	NEMA-Boston	Existing	27.75	27.75	27.75	27.75	27.75	27.75	27.75	27.75	27.75	27.75	27.75	27.75
37050	Groton Wind Project	Generator	8500	Rest-of-Pool	NH	New Hampshire	Existing	0	0	0	0	0	0	0	0	0	0	0	0
37051	Silver lake PV	Generator	8500	Rest-of-Pool	MA	WCMASS	Existing	0	0	0	0	0	0	0	0	0	0	0	0
37072	Beaver_Ridge_Wind	Generator	8503	Maine	ME	Maine	Existing	0.466	0.466	0.466	0.466	1.292	1.292	1.292	1.292	1.292	1.292	1.292	1.292
37077	Woronoco Hydro LLC	Generator	8500	Rest-of-Pool	MA	WCMASS	Existing	0.676	0.676	0.676	0.676	1.576	1.576	1.576	1.576	1.576	1.576	1.576	1.576
37079	Indian River Power Supply LLC	Generator	8500	Rest-of-Pool	MA	WCMASS	Existing	0	0	0	0	0	0	0	0	0	0	0	0
37090	MATEP (Combined Cycle)	Generator	8502	NEMA-Boston	MA	NEMA-Boston	Existing	0	0	0	0	0	0	0	0	0	0	0	0
37093	NH DR 1	Demand	8500	Rest-of-Pool	NH	New Hampshire	Existing	1.898	1.898	1.898	1.898	1.898	1.898	1.898	1.898	1.898	1.898	1.898	1.898
37095	WCMA DR 7515	Demand	8500	Rest-of-Pool	MA	WCMASS	Existing	8.538	8.538	8.538	8.538	8.538	8.538	8.538	8.538	8.538	8.538	8.538	8.538

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37105	Blue Sky West	Generator	8503	Maine	ME	Maine	Existing	42.27	42.27	42.27	42.27	87.3	87.3	87.3	87.3	87.3	87.3	87.3	87.3
37112	Efficiency Maine Trust FCA6	Demand	8503	Maine	ME	Maine	Existing	1.89	1.89	1.89	1.89	1.89	1.89	1.89	1.89	1.89	1.89	1.89	1.89
37120	Thundermist Hydropower	Generator	8500	Rest-of- Pool	RI	Rhode Island	Existing	0	0	0	0	0.872	0.872	0.872	0.872	0.872	0.872	0.872	0.872
37853	Hess DR Northwest VT 2013-14	Demand	8500	Rest-of- Pool	VT	Vermont	Existing	0	0	0	0	0	0	0	0	0	0	0	0
37854	Hess DR Northwest VT 2014-15	Demand	8500	Rest-of- Pool	VT	Vermont	Existing	0	0	0	0	0	0	0	0	0	0	0	0
37855	Hess DR Northwest VT 2015-16	Demand	8500	Rest-of- Pool	VT	Vermont	Existing	0	0	0	0	0	0	0	0	0	0	0	0
37889	RTDR_50092_East ern CT (7500) - 2	Demand	8501	Connectic ut	CT	Connecticut	Existing	22.293	22.293	22.293	22.293	22.293	22.293	22.293	22.293	22.293	22.293	22.293	22.293
37890	RTDR_50092_Nor thern CT (7501) - 2	Demand	8501	Connectic ut	CT	Connecticut	Existing	47.961	47.961	47.961	47.961	47.961	47.961	47.961	47.961	47.961	47.961	47.961	47.961
37891	RTDR_50092_Nor walk - Stamford (7502) - 2	Demand	8501	Connectic ut	CT	Connecticut	Existing	2.622	2.622	2.622	2.622	2.622	2.622	2.622	2.622	2.622	2.622	2.622	2.622
37892	RTDR_50092_Wes tern CT (7503) - 2	Demand	8501	Connectic ut	CT	Connecticut	Existing	26.254	26.254	26.254	26.254	26.254	26.254	26.254	26.254	26.254	26.254	26.254	26.254
37896	RTDR_50689_Ban gor Hydro (7504) - Grp A	Demand	8503	Maine	ME	Maine	Existing	27	27	27	27	27	27	27	27	27	27	27	27
37903	RTDR_50689_Mai ne (7505) - Grp A	Demand	8503	Maine	ME	Maine	Existing	43.2	43.2	43.2	43.2	43.2	43.2	43.2	43.2	43.2	43.2	43.2	43.2
37917	RTDR_50744_Bos ton (7507) - Grp C	Demand	8502	NEMA-Bos ton	MA	NEMA-Boston	Existing	18.71	18.71	18.71	18.71	18.71	18.71	18.71	18.71	18.71	18.71	18.71	18.71
37918	RTDR_50744_Cen tral MA (7515) - Grp A	Demand	8500	Rest-of- Pool	MA	WCMASS	Existing	2.28	2.28	2.28	2.28	2.28	2.28	2.28	2.28	2.28	2.28	2.28	2.28
37919	RTDR_50744_Low er SEMA (7511) - Grp C	Demand	8500	Rest-of- Pool	MA	SEMASS	Existing	0.939	0.939	0.939	0.939	0.939	0.939	0.939	0.939	0.939	0.939	0.939	0.939
37920	RTDR_50744_Nor th Shore (7508) - Grp C	Demand	8502	NEMA-Bos ton	MA	NEMA-Boston	Existing	1.599	1.599	1.599	1.599	1.599	1.599	1.599	1.599	1.599	1.599	1.599	1.599
37921	RTDR_50744_Nor thern CT (7501) - Grp A	Demand	8501	Connectic ut	CT	Connecticut	Existing	0	0	0	0	0	0	0	0	0	0	0	0
37922	RTDR_50744_Nor thern CT (7501) - Grp B	Demand	8501	Connectic ut	CT	Connecticut	Existing	21.579	21.579	21.579	21.579	21.579	21.579	21.579	21.579	21.579	21.579	21.579	21.579
37923	RTDR_50744_Nor walk - Stamford (7502) - Grp A	Demand	8501	Connectic ut	CT	Connecticut	Existing	0	0	0	0	0	0	0	0	0	0	0	0
37924	RTDR_50744_SEM A (7512) - Grp C	Demand	8500	Rest-of- Pool	MA	SEMASS	Existing	5.684	5.684	5.684	5.684	5.684	5.684	5.684	5.684	5.684	5.684	5.684	5.684
37925	RTDR_50744_Spr ingfield MA (7516) - Grp A	Demand	8500	Rest-of- Pool	MA	WCMASS	Existing	1.38	1.38	1.38	1.38	1.38	1.38	1.38	1.38	1.38	1.38	1.38	1.38
37926	RTDR_50744_Wes tern CT (7503) - Gro A	Demand	8501	Connectic ut	CT	Connecticut	Existin	0	0	0	0	0	0	0	0	0	0	0	0

ID	Name	Type	Capacity Zone ID	Capacity Zone Name	State	Load Zone	Status	Jun-17	Jul-17	Aug-17	Sep-17	Oct-17	Nov-17	Dec-17	Jan-18	Feb-18	Mar-18	Apr-18	May-18
37927	RTDR_50744_Western CT (7503) - Grp B	Demand	8501	Connecticut	CT	Connecticut	Existing	9.159	9.159	9.159	9.159	9.159	9.159	9.159	9.159	9.159	9.159	9.159	9.159
37928	RTDR_50786_Boston (7507)	Demand	8502	NEMA-Boston	MA	NEMA-Boston	Existing	38.207	38.207	38.207	38.207	38.207	38.207	38.207	38.207	38.207	38.207	38.207	38.207
37929	RTDR_50786_Central MA (7515)	Demand	8500	Rest-of-Pool	MA	WCMASS	Existing	7.378	7.378	7.378	7.378	7.378	7.378	7.378	7.378	7.378	7.378	7.378	7.378
37930	RTDR_50786_Eastern CT (7500)	Demand	8501	Connecticut	CT	Connecticut	Existing	2.786	2.786	2.786	2.786	2.786	2.786	2.786	2.786	2.786	2.786	2.786	2.786
37931	RTDR_50786_Lower SEMA (7511)	Demand	8500	Rest-of-Pool	MA	SEMASS	Existing	2.41	2.41	2.41	2.41	2.41	2.41	2.41	2.41	2.41	2.41	2.41	2.41
37932	RTDR_50786_Maine (7505)	Demand	8503	Maine	ME	Maine	Existing	5.379	5.379	5.379	5.379	5.379	5.379	5.379	5.379	5.379	5.379	5.379	5.379
37933	RTDR_50786_New Hampshire (7509)	Demand	8500	Rest-of-Pool	NH	New Hampshire	Existing	6.612	6.612	6.612	6.612	6.612	6.612	6.612	6.612	6.612	6.612	6.612	6.612
37934	RTDR_50786_North Shore (7508)	Demand	8502	NEMA-Boston	MA	NEMA-Boston	Existing	12.115	12.115	12.115	12.115	12.115	12.115	12.115	12.115	12.115	12.115	12.115	12.115
37935	RTDR_50786_Northern CT (7501)	Demand	8501	Connecticut	CT	Connecticut	Existing	2.789	2.789	2.789	2.789	2.789	2.789	2.789	2.789	2.789	2.789	2.789	2.789
37936	RTDR_50786_Norwalk - Stamford (7502)	Demand	8501	Connecticut	CT	Connecticut	Existing	8.209	8.209	8.209	8.209	8.209	8.209	8.209	8.209	8.209	8.209	8.209	8.209
37937	RTDR_50786_Portland Maine (7506)	Demand	8503	Maine	ME	Maine	Existing	7.447	7.447	7.447	7.447	7.447	7.447	7.447	7.447	7.447	7.447	7.447	7.447
37938	RTDR_50786_Rhode Island (7518)	Demand	8500	Rest-of-Pool	RI	Rhode Island	Existing	12.96	12.96	12.96	12.96	12.96	12.96	12.96	12.96	12.96	12.96	12.96	12.96
37939	RTDR_50786_SEMA (7512)	Demand	8500	Rest-of-Pool	MA	SEMASS	Existing	10.449	10.449	10.449	10.449	10.449	10.449	10.449	10.449	10.449	10.449	10.449	10.449
37940	RTDR_50786_Seacoast (7510)	Demand	8500	Rest-of-Pool	NH	New Hampshire	Existing	1.139	1.139	1.139	1.139	1.139	1.139	1.139	1.139	1.139	1.139	1.139	1.139
37941	RTDR_50786_Springfield MA (7516)	Demand	8500	Rest-of-Pool	MA	WCMASS	Existing	5.669	5.669	5.669	5.669	5.669	5.669	5.669	5.669	5.669	5.669	5.669	5.669
37942	RTDR_50786_Vermont (7514)	Demand	8500	Rest-of-Pool	VT	Vermont	Existing	6.134	6.134	6.134	6.134	6.134	6.134	6.134	6.134	6.134	6.134	6.134	6.134
37943	RTDR_50786_Western CT (7503)	Demand	8501	Connecticut	CT	Connecticut	Existing	17.247	17.247	17.247	17.247	17.247	17.247	17.247	17.247	17.247	17.247	17.247	17.247
37944	RTDR_50786_Western MA (7517)	Demand	8500	Rest-of-Pool	MA	WCMASS	Existing	4.781	4.781	4.781	4.781	4.781	4.781	4.781	4.781	4.781	4.781	4.781	4.781
37990	RTEG_50017_Bangor Hydro (7504)	Demand	8503	Maine	ME	Maine	Existing	0.581	0.581	0.581	0.581	0.581	0.581	0.433	0.433	0.433	0.433	0.581	0.581
37991	RTEG_50017_Boston (7507)	Demand	8502	NEMA-Boston	MA	NEMA-Boston	Existing	8.816	8.816	8.816	8.816	8.816	8.816	8.588	8.588	8.588	8.588	8.816	8.816
37993	RTEG_50017_Eastern CT (7500)	Demand	8501	Connecticut	CT	Connecticut	Existing	6.628	6.628	6.628	6.628	6.628	6.628	6.628	6.628	6.628	6.628	6.628	6.628
37994	RTEG_50017_Lower SEMA (7511)	Demand	8500	Rest-of-Pool	MA	SEMASS	Existing	5.373	5.373	5.373	5.373	5.373	5.373	5.373	5.373	5.373	5.373	5.373	5.373
37995	RTEG_50017_Maine (7505)	Demand	8503	Maine	ME	Maine	Existing	7.612	7.612	7.612	7.612	7.612	7.612	5.883	5.883	5.883	5.883	7.612	7.612
37996	RTEG_50017_New Hampshire (7509)	Demand	8500	Rest-of-Pool	NH	New Hampshire	Existing	13.338	13.338	13.338	13.338	13.338	13.338	11.361	11.361	11.361	11.361	13.338	13.338

ID	Name	Type	Capacity Zone ID	Capacity Zone Name	State	Load Zone	Status	Jun-17	Jul-17	Aug-17	Sep-17	Oct-17	Nov-17	Dec-17	Jan-18	Feb-18	Mar-18	Apr-18	May-18
37997	RTEG_50017_North Shore (7508)	Demand	8502	NEMA-Boston	MA	NEMA-Boston	Existing	1.72	1.72	1.72	1.72	1.72	1.72	1.72	1.72	1.72	1.72	1.72	1.72
37998	RTEG_50017_Northern CT (7501)	Demand	8501	Connecticut	CT	Connecticut	Existing	3.528	3.528	3.528	3.528	3.528	3.528	3.528	3.528	3.528	3.528	3.528	3.528
37999	RTEG_50017_Northern Vermont (7513)	Demand	8500	Rest-of-Pool	VT	Vermont	Existing	1.768	1.768	1.768	1.768	1.768	1.768	1.768	1.768	1.768	1.768	1.768	1.768
38001	RTEG_50017_Portland Maine (7506)	Demand	8503	Maine	ME	Maine	Existing	3.609	3.609	3.609	3.609	3.609	3.609	2.983	2.983	2.983	2.983	3.609	3.609
38004	RTEG_50017_Seacoast (7510)	Demand	8500	Rest-of-Pool	NH	New Hampshire	Existing	0.684	0.684	0.684	0.684	0.684	0.684	0.684	0.684	0.684	0.684	0.684	0.684
38005	RTEG_50017_Springfield MA (7516)	Demand	8500	Rest-of-Pool	MA	WCMASS	Existing	3.19	3.19	3.19	3.19	3.19	3.19	2.656	2.656	2.656	2.656	3.19	3.19
38006	RTEG_50017_Vermont (7514)	Demand	8500	Rest-of-Pool	VT	Vermont	Existing	1.098	1.098	1.098	1.098	1.098	1.098	1.098	1.098	1.098	1.098	1.098	1.098
38008	RTEG_50017_Western MA (7517)	Demand	8500	Rest-of-Pool	MA	WCMASS	Existing	3.162	3.162	3.162	3.162	3.162	3.162	3.142	3.142	3.142	3.142	3.162	3.162
38009	RTEG_50092_Eastern CT (7500) - 2	Demand	8501	Connecticut	CT	Connecticut	Existing	11.829	11.829	11.829	11.829	11.829	11.829	11.829	11.829	11.829	11.829	11.829	11.829
38010	RTEG_50092_Northern CT (7501) - 2	Demand	8501	Connecticut	CT	Connecticut	Existing	24.807	24.807	24.807	24.807	24.807	24.807	24.807	24.807	24.807	24.807	24.807	24.807
38011	RTEG_50092_Norwalk - Stamford (7502) - 2	Demand	8501	Connecticut	CT	Connecticut	Existing	7.234	7.234	7.234	7.234	7.234	7.234	7.234	7.234	7.234	7.234	7.234	7.234
38012	RTEG_50092_Western CT (7503) - 2	Demand	8501	Connecticut	CT	Connecticut	Existing	31.807	31.807	31.807	31.807	31.807	31.807	31.807	31.807	31.807	31.807	31.807	31.807
38057	Efficiency Maine Trust FCA6 B	Demand	8503	Maine	ME	Maine	Existing	30.457	30.457	30.457	30.457	30.457	30.457	43.912	43.912	43.912	43.912	30.457	30.457
38078	NFM Solar Power, LLC	Generator	8500	Rest-of-Pool	MA	WCMASS	Existing	0.507	0.507	0.507	0.507	0	0	0	0	0	0	0	0
38089	Footprint Combined Cycle	Generator	8502	NEMA-Boston	MA	NEMA-Boston	Existing	674	674	674	674	674	674	674	674	674	674	674	674
38095	Cape Wind Offshore	Generator	8500	Rest-of-Pool	MA	SEMASS	Existing	0	0	0	0	0	0	0	0	0	0	0	0
38110	West Brookfield Solar	Generator	8500	Rest-of-Pool	MA	WCMASS	Existing	0.41	0.41	0.41	0.41	0	0	0	0	0	0	0	0
38114	East Bridgewater Solar Energy Project	Generator	8500	Rest-of-Pool	MA	SEMASS	Existing	0.85	0.85	0.85	0.85	0	0	0	0	0	0	0	0
38115	Harrington Street PV Project	Generator	8500	Rest-of-Pool	MA	WCMASS	Existing	1.43	1.43	1.43	1.43	0	0	0	0	0	0	0	0
38120	RTDR_50017_Bangor Hydro (7504) - 3	Demand	8503	Maine	ME	Maine	Existing	2.436	2.436	2.436	2.436	2.436	2.436	2.436	2.436	2.436	2.436	2.436	2.436
38121	RTDR_50017_Boston (7507) - 3	Demand	8502	NEMA-Boston	MA	NEMA-Boston	Existing	5.847	5.847	5.847	5.847	5.847	5.847	3.23	3.23	3.23	3.23	5.847	5.847
38122	RTDR_50017_Central MA (7515) - 3	Demand	8500	Rest-of-Pool	MA	WCMASS	Existing	21.597	21.597	21.597	21.597	21.597	21.597	18.836	18.836	18.836	18.836	21.597	21.597
38123	RTDR_50017_Eastern CT (7501) - 3	Demand	8501	Connecticut	CT	Connecticut	Existing	6.084	6.084	6.084	6.084	6.084	6.084	6.084	6.084	6.084	6.084	6.084	6.084

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ID	Name	Type	Capacity Zone ID	Capacity Zone Name	State	Load Zone	Status	Jun-17	Jul-17	Aug-17	Sep-17	Oct-17	Nov-17	Dec-17	Jan-18	Feb-18	Mar-18	Apr-18	May-18
38129	RTDR_50017_Nor thwest Vermont (7513) - 3	Demand	8500	Rest-of- Pool	VT	Vermont	New	2.16	2.16	2.16	2.16	2.16	2.16	2.16	2.16	2.16	2.16	2.16	2.16
38144	ReEnergy Fort Fairfield	Import	8503	Maine			New	29	29	29	29	29	29	29	29	29	29	29	29
38145	ReEnergy Black River	Import	8500	Rest-of- Pool			New	0	0	0	0	0	0	0	0	0	0	0	0
38146	ReEnergy Lyonsdale	Import	8500	Rest-of- Pool			New	0	0	0	0	0	0	0	0	0	0	0	0
38147	ReEnergy Chateaugay	Import	8500	Rest-of- Pool			New	0	0	0	0	0	0	0	0	0	0	0	0
38148	ReEnergy Ashland	Import	8503	Maine			New	0	0	0	0	0	0	0	0	0	0	0	0
38149	Carr Street Generating Station Import 2017-18	Import	8500	Rest-of- Pool			New	79.134	79.134	79.134	79.134	79.134	79.134	79.134	79.134	79.134	79.134	79.134	79.134
38150	Erie Boulevard HYDRO Import 2017-18	Import	8500	Rest-of- Pool			New	250	250	250	250	250	250	250	250	250	250	250	250
38151	LIEVRE RIVER Import 2017-18	Import	8500	Rest-of- Pool			New	120	120	120	120	120	120	120	120	120	120	120	120
38152	Madison County FCA8	Import	8500	Rest-of- Pool			New	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4
38153	Oneida-Herkimer FCA8	Import	8500	Rest-of- Pool			New	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2
38154	High Acres I FCA8	Import	8500	Rest-of- Pool			New	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2
38155	High Acres II FCA8	Import	8500	Rest-of- Pool			New	6.4	6.4	6.4	6.4	6.4	6.4	6.4	6.4	6.4	6.4	6.4	6.4
38156	Mill Seat FCA8	Import	8500	Rest-of- Pool			New	6.1	6.1	6.1	6.1	6.1	6.1	6.1	6.1	6.1	6.1	6.1	6.1
38157	Chaffee FCA8	Import	8500	Rest-of- Pool			New	6.1	6.1	6.1	6.1	6.1	6.1	6.1	6.1	6.1	6.1	6.1	6.1
38158	Monroe- Livingston FCA8	Import	8500	Rest-of- Pool			New	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
38159	HQ_HG_Yearly_1 7-18	Import	8500	Rest-of- Pool			New	111	111	111	111	111	111	111	111	111	111	111	111
38163	HQ_NB_Yearly_17- 18	Import	8503	Maine			New	173	173	173	173	173	173	173	173	173	173	173	173
38165	HQ_NY_Yearly_17- 18	Import	8500	Rest-of- Pool			New	189	189	189	189	189	189	189	189	189	189	189	189
38167	HQ_PII_Yearly_17- 18	Import	8500	Rest-of- Pool			New	126	126	126	126	126	126	126	126	126	126	126	126
38171	Seneca Energy Grandfathered FCA 8	Import	8500	Rest-of- Pool			New	45	45	45	45	45	45	45	45	45	45	45	45
38172	Seneca Energy Non- Grandfathered	Import	8500	Rest-of- Pool			New	5	5	5	5	5	5	5	5	5	5	5	5
38173	Saddleback Ridge Wind	Generator	8503	Maine	ME	Maine	New	5.5	5.5	5.5	5.5	15	15	15	15	15	15	15	15
38176	HS1	Demand	8501	Connectic ut	CT	Connecticut	New	0	0	0	0	0	0	0	0	0	0	0	0
38178	Southbridge Landfill Gas to Energy 17-18	Generator	8500	Rest-of- Pool	MA	WCMASS	New	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4
38181	Westford Solar	Generator	8500	Rest-of- Pool	MA	WCMASS	New	0	0	0	0	0	0	0	0	0	0	0	0
38182	MAT-2 (MATEP Combined Cycle)	Generator	8502	NEMA- Boston	MA	NEMA-Boston	New	13.85	13.85	13.85	13.85	13.85	13.85	13.85	13.85	13.85	13.85	13.85	13.85

[illegible]

Attachment B

**UNITED STATES OF AMERICA
BEFORE THE
FEDERAL ENERGY REGULATORY COMMISSION**

ISO New England Inc.

) **Docket No. ER14-____-000**

TESTIMONY OF STEPHEN J. ROURKE

1 **Q: PLEASE STATE YOUR NAME, TITLE AND BUSINESS ADDRESS.**

2 A: My name is Stephen J. Rourke. I am Vice President of System Planning with ISO
3 New England Inc. (the “ISO”). My business address is One Sullivan Road,
4 Holyoke, Massachusetts 01040.

5

6 **Q: PLEASE DESCRIBE YOUR EDUCATIONAL BACKGROUND AND**
7 **WORK EXPERIENCE.**

8 A: I have a B.S. in Electrical Engineering from Worcester Polytechnic Institute and a
9 M.B.A. from Western New England College. In my current position as Vice
10 President of System Planning, I am responsible for overseeing development of the
11 annual Regional System Plan (“RSP”); analysis and approval of new transmission
12 and generation interconnection projects, including the approval of qualification of
13 generating capacity resources, demand resources, and import capacity resources
14 to participate in the Forward Capacity Auction¹ (“FCA”); implementing the
15 Federal Energy Regulatory Commission (“Commission” or “FERC”) approved
16 generator interconnection process; developing the ISO’s findings for

¹ Capitalized terms used but not otherwise defined in this filing have the meanings ascribed thereto in the ISO’s Transmission, Markets and Services Tariff (the “Tariff”). Section III of the Tariff is Market Rule 1.

1 Transmission Cost Allocation; and supporting the capacity market in New
2 England.

3

4 Previously, I served as the ISO's Director, Reliability and Operations Services. I
5 was also a former manager of the Rhode Island—Eastern Massachusetts—
6 Vermont Energy Control ("REMVEC") center in Westborough, Massachusetts
7 and former manager of marketing operations for Northeast Utilities/Select Energy
8 Inc. in Berlin, Connecticut. I have over 30 years of experience in the operations
9 and planning of the New England bulk power system.

10

11 **Q: WHAT IS THE PURPOSE OF YOUR TESTIMONY?**

12 A: The first purpose of my testimony is to certify that resources participating in the
13 recent eighth FCA held on February 3, 2014 were properly qualified in
14 accordance with Section III.13.1 of the Tariff. Section III.13.8.2 (b) of the Tariff
15 requires that documentation regarding the competitiveness of the FCA be filed
16 with the Commission. Section III.13.8.2 (b) states that such documentation may
17 include a certification from the ISO that all entities offering and bidding in the
18 FCA were properly qualified in accordance with Section III.13.1 of the Tariff.
19 My testimony provides such certification.

20

21 Further, my testimony explains the ISO's conclusion regarding the auction prices
22 resulting from the eighth FCA.

23

1 **Q: WERE ALL RESOURCES OFFERING AND BIDDING IN THE FCA**
2 **HELD ON FEBRUARY 3, 2014 PROPERLY QUALIFIED IN**
3 **ACCORDANCE WITH SECTION III.13.1?**

4 A: Yes. Section III.13.1 of the Tariff sets forth the process for qualification in the
5 FCA. In my role as Vice President of System Planning, I was responsible for
6 overseeing the qualification of all resources in the eighth FCA held on February 3,
7 2014. I certify that all resources offering and bidding in the FCA were properly
8 qualified in accordance with Section III.13.1. In a November 5, 2013 filing with
9 the Commission, the ISO explained the qualification process for resources to
10 participate in the eighth FCA.² The Commission approved the Informational
11 Filing on January 16, 2014.³

12
13 **Q: WHAT WAS YOUR ROLE IN THE RELIABILITY REVIEW OF THE**
14 **VARIOUS DE-LIST BIDS?**

15 A: As the Vice President of System Planning, I oversaw the reliability review of all
16 submitted de-list bids.

17
18 **Q: PLEASE DESCRIBE THE ISO’S REVIEW OF DE-LIST BIDS.**

² *ISO New England Inc.*, Informational Filing for Qualification in the Forward Capacity Market, Docket No. ER14-329-000 (filed November 5, 2013) (“Informational Filing”).

³ *ISO New England Inc.*, Order Accepting Informational Filing, 146 FERC ¶ 61,014 (2014) (“Informational Filing Order”).

1 A: Under the Tariff, all existing resources participate in the FCA, unless the resource
2 submits a de-list bid.⁴ There are two types of review performed by the ISO on the
3 de-list bids.

4 First, as described in the Informational Filing, the ISO's Internal Market Monitor
5 ("IMM") reviews Permanent and Static De-List Bids to determine whether the
6 bids are consistent with the resource's net risk-adjusted going forward and
7 opportunity costs. This review is not performed for Dynamic De-List Bids, which
8 are submitted during the auction itself if the price drops below a prescribed
9 threshold. For the eighth FCA, this threshold was \$1.00/kW-month.

10

11 **Q. WHAT IS THE OTHER TYPE OF REVIEW THAT THE ISO PERFORMS**
12 **WITH REGARD TO DE-LIST BIDS?**

13 A: Prior to the eighth FCA, pursuant to Section III.13.2.5.2.5 of the Tariff, the ISO
14 reviewed each Permanent De-List Bid, Static De-List Bid, and Export Bid to
15 determine if the capacity associated with the bids was needed for reliability during
16 the Capacity Commitment Period associated with the FCA. The Tariff provides
17 that capacity will be needed for reliability if the absence of that capacity would
18 result in violation of any NERC, NPCC, or ISO criteria.⁵ If the capacity
19 associated with the de-list bid is determined not to be needed for reliability, and
20 the auction price falls below the de-list bid price (meaning they were not required

⁴ Section III.13.2.3.2(c) of the Tariff.

⁵ Section III.13.2.5.2.5 of the Tariff.

1 for regional or zonal resource adequacy), the capacity associated with the bid is
2 removed from the auction.

3 **Q: FOR THE EIGHTH FCA, HOW MANY DE-LIST BIDS DID THE ISO**
4 **REVIEW FOR RELIABILITY?**

5 A. For the eighth FCA, a total of 7,751 MW of pre-auction Static De-list Bids were
6 submitted by the Existing Capacity Qualification Deadline and reviewed by the
7 IMM. However, pursuant to Tariff Section III.13.1.2.3.2.1.1.2, some participants
8 elected to withdraw their Static De-list Bids. In addition, nine resources⁶
9 converted their Static De-list Bids into Non-Price Retirement Requests (“NPPR”).
10 This resulted in 4,009 MW of Static De-list Bids being reviewed for reliability.
11 Because the auction price did not go below \$1.00/kW-month, no Dynamic De-
12 List Bids were submitted. Also, for the eighth FCA no Permanent De-list Bids or
13 Export Bids were submitted.

14

15 **Q: DID THE ISO REVIEW SHOW THE NEED TO RETAIN FOR**
16 **RELIABILITY ANY DE-LIST BIDS SUBMITTED FOR THE EIGHTH**
17 **FCA?**

18 A. No.

19

20 **Q. FOR THE EIGHTH FCA, HOW MANY NPRRS DID THE ISO REVIEW**
21 **FOR RELIABILITY?**

⁶ The nine resources included Norwalk Harbor Station (3), Brayton Point Station (5), and Citizens Block Load.

1 A. For the eighth FCA, a total of 3,135 MW of NPRRs were submitted⁷ and
2 reviewed for reliability pursuant to Tariff Section III.13.2.5.2.5 and Planning
3 Procedure No. 10.
4

5 **Q: DID THE ISO REVIEW SHOW THE NEED TO RETAIN FOR**
6 **RELIABILITY ANY NPRR SUBMITTED FOR THE EIGHTH FCA?**

7 A. Yes. Brayton Point Station generators 1 – 4 submitted a NPRR on October 6,
8 2013 and, on December 20, 2013, the ISO provided the determination that the
9 four resources, totaling 1,525 MW,⁸ were needed for reliability. However, on
10 January 27, 2014, the ISO was informed that these four resources would seek
11 retirement effective June 1, 2017. As a result, the Brayton Point Station 1 – 4
12 generators did not participate in the eighth FCA.
13

14 **Q: WHEN DID THE AUCTION CONCLUDE?**

15 A. The auction commenced at the starting price of \$15.82/kW-month and concluded
16 at \$14.99/kW-month when a resource submitted an offer to withdraw from the
17 auction if the price fell lower. The auction clearing function reset the Capacity
18 Clearing Price to \$15.00/kW-month. The auction concluded with 33,702 MW of
19 resources receiving Capacity Supply Obligations to meet an Installed Capacity
20 Requirement (“ICR”) of 33,855 MW for the 2017-2018 Capacity Commitment
21 Period.

⁷ NPRR submissions are available at: http://www.iso-ne.com/genrion_resrcs/reports/sts_non_retrmnt_rqst/index.html

⁸ The Brayton Point diesels, representing 10 MW as a single resource, were not retained for reliability.

1 **Q: THE CAPACITY CLEARING PRICE FOR THE EIGHTH FCA IS**
2 **DIFFERENT FROM PREVIOUS AUCTIONS. PLEASE EXPLAIN WHY.**

3 A. The ISO previously has held seven capacity auctions since 2008. In each of these
4 auctions, with one limited exception,⁹ the market cleared at the price floor and the
5 region had procured significantly excess capacity. As recently as the fall of 2013,
6 it appeared very likely that a surplus of capacity resources (both new and existing)
7 would be participating in the eighth FCA.

8
9 Well after the deadline for seeking to qualify new resources to participate in the
10 eighth FCA, however, the capacity supply situation in New England changed
11 dramatically. In August, Entergy announced the retirement of the Vermont
12 Yankee nuclear plant (604 MW) and submitted an NPPR.¹⁰ On October 16, 2013
13 the ISO determined the resource was not needed for reliability. In late
14 September/early October an additional nearly 2,400 MWs requested to leave the
15 market by submitting NPRRs, specifically five resources representing 1,535 MW
16 from the Brayton Point Station, three resources representing 342 MW from
17 Norwalk Harbor Station and 554 MW of demand response resources. On
18 December 20, 2013 the ISO issued the reliability determination for these
19 resources. Only the Brayton Point Station 1 – 4 generators were needed for
20 reliability. Given Brayton Point's subsequent decision to retire on June 1, 2017,

⁹ In FCA 7, the NEMA/Boston Capacity Zone began the auction needing new capacity. Footprint Power cleared the auction at price of \$14.99/kW-month and, because of Insufficient Competition in that zone, all existing resources that received Capacity Supply Obligations will be paid \$6.66/kW-month.

¹⁰ NPPRs are addressed in Section III.13.2.5.2.5 of the Tariff.

1 these events combined to change the supply-demand balance from a surplus of
2 existing resources of over 2,000 MWs to a deficiency of over 1,000 MWs
3 compared to the ICR. This abrupt change in the supply-demand balance coupled
4 with a general decline in the amount of new resources seeking to participate in the
5 auction resulted in the auction prices being set by the administrative pricing rules
6 in the Tariff.

7
8 **Q: WHAT IS THE FINAL SET OF CAPACITY ZONES RESULTING FROM**
9 **THE AUCTION?**

10 A. In accordance with Section III.12.4 of the Tariff, the ISO modeled the following
11 Capacity Zones for the eighth FCA: Maine, Connecticut, NEMA/Boston and
12 Rest-of-Pool. The NEMA/Boston Capacity Zone includes the Greater Boston and
13 North Shore regions of Massachusetts. The Rest-of-Pool Capacity Zone includes
14 Southeastern Massachusetts, Western/Central Massachusetts, Rhode Island, New
15 Hampshire, and Vermont. As set forth in the Informational Filing, given potential
16 export constraints, the ISO modeled Maine as an export-constrained Capacity
17 Zone and, given potential import constraints, Connecticut and NEMA/Boston as
18 import-constrained Capacity Zones. Import-constrained zones are areas that may
19 not have adequate local resources and transmission capability to reliably serve
20 local demand. The Local Sourcing Requirement is the minimum amount of
21 capacity that must be electrically located within an import-constrained zone. As
22 detailed in the Informational Filing, for the eighth FCA, the Local Sourcing

1 Requirement for the Connecticut and NEMA/Boston zones are 7,319 MW and
2 3,428 MW, respectively.¹¹

3 The Maximum Capacity Limit is the maximum amount of capacity that can be
4 procured within an export-constrained zone to meet the NICR. The Maximum
5 Capacity Limit for the Maine export-constrained Load Zone is 3,960 MW.¹²

6 This is the amount of capacity resources that can be procured in the eighth FCA
7 from the Maine Capacity Zone.

8

9 **Q: WHAT IS THE CAPACITY CLEARING PRICE IN EACH OF THE FOUR**
10 **CAPACITY ZONES?**

11 A. Pursuant to Section III.13.2.4 of the Tariff, each Capacity Zone modeled in the
12 FCA had the same starting price, which for the eighth FCA was set at \$15.82/kW-
13 month. The Capacity Clearing Price in the Maine, Connecticut, and Rest-of-Pool
14 Capacity Zones is \$15.00/kW-month, which will be paid to new resources.
15 Existing resources in those Capacity Zones will receive \$7.025/kW-month. In the
16 NEMA/Boston Capacity Zone, both new and existing resources will be paid
17 \$15.00/kW-month.

18

19 **Q: WHY ARE THE PRICES FOR NEW AND EXISTING RESOURCES**
20 **DIFFERENT IN ALL THE CAPACITY ZONES EXCEPT**
21 **NEMA/BOSTON?**

¹¹ Informational Filing at p. 8.

¹² *Id.* at pp. 8-9.

1 A. Although the FCA is intended to produce a single price for all new and existing
2 resources, subject only to zonal differences, under certain conditions the prices
3 paid for new and existing resources may differ. The provisions in the Tariff
4 relating to Insufficient Competition (“IC Rule”), Capacity Carry Forward (“Carry
5 Forward Rule”) and the Capacity Clearing Price Floor determined the prices for
6 the eighth FCA.

7
8 **Q: WHAT IS THE IC RULE?**

9 A. The IC Rule addresses situations where there are less existing resources than the
10 Net Installed Capacity Requirement (“NICR”) and not enough qualified new
11 resources to assure adequate competition in the auction (although when
12 combined, the existing and new resources exceed NICR). Under Section
13 III.13.2.8.2 of the Tariff, the IC Rule is triggered in the FCA if the following two
14 conditions are satisfied: (i) at the start of the auction, the amount of capacity
15 offered from all existing resources is less than the NICR (the difference being
16 defined as “New Capacity Required”) and, (ii) the amount of capacity offered
17 from New Generating Capacity Resources and New Demand Resources is less
18 than twice the amount of New Capacity Required.

19
20 **Q: WAS THE IC RULE TRIGGERED FOR THE EIGHTH FCA?**

21 A: Yes. For the eighth FCA, there was Insufficient Competition system-wide
22 because both of the conditions described above were in effect. Specifically, there
23 were 32,732 MW of capacity from existing resources and 424 MW of capacity

1 offered from New Generating Capacity Resources and New Demand Resources to
2 meet the NICR of 33,855 MW.

3

4 **Q: WHAT IS THE RESULTING AUCTION PRICE?**

5 A. Under Section III.13.2.8.2 of the Tariff, if the IC Rule is triggered, existing
6 resources receive the lower of (1) the Capacity Clearing Price, or (2) the
7 administrative price in the Tariff, which for the eighth FCA is \$7.025/kW-month.
8 New resources receive the Capacity Clearing Price. Therefore, because the
9 Capacity Clearing Price was determined to be \$15.00/kW-month in the Maine,
10 Connecticut and Rest-of-Pool Capacity Zones, for the eighth FCA existing
11 resources will be paid the “lower of” administrative price of \$7.025/kW-month
12 and new resources will receive the Capacity Clearing Price of \$15.00/kW-month.

13

14 **Q: WHAT IS THE CARRY FORWARD RULE?**

15 A. The Carry Forward Rule addresses situations where a large resource met a zonal
16 need, but eliminated any need for new resources in the subsequent auction. The
17 intent of the Carry Forward Rule is to reset the clearing price administratively
18 when new additional capacity would have been needed and consequently would
19 have set the clearing price, but did not because of an excess amount of additional
20 new capacity procured in the prior auction. Under Section III.13.2.7.9.1 of the
21 Tariff, the Carry Forward Rule is triggered in an import-constrained zone if:

22 (a) the sum of New Capacity Required plus the amount of Permanent De-
23 List Bids clearing in the Forward Capacity Auction in the Capacity Zone
24 is less than or equal to zero; (b) there is not Inadequate Supply in the
25 Forward Capacity Auction in the Capacity Zone; and (c) at the Capacity

1 Clearing Price, the sum of the amount of New Capacity Required plus the
2 amount of Permanent De-List Bids clearing in the Forward Capacity
3 Auction plus the amount of capacity carried forward due to rationing is
4 greater than zero. The amount of capacity carried forward due to rationing
5 shall equal the amount of capacity above the Local Sourcing Requirement
6 procured in that Capacity Zone in the previous Forward Capacity Auction
7 as a result of the Capacity Rationing Rule.
8

9 **Q: PLEASE EXPLAIN THE ISO'S CONCLUSION THAT THE CARRY**
10 **FORWARD RULE WAS TRIGGERED IN NEMA/BOSTON?**

11 A. At the start of the seventh FCA, which was held in February 2013 for the 2016-
12 2017 Capacity Commitment Period, the NEMA/Boston Capacity Zone needed
13 new capacity. The auction in NEMA/Boston closed when Footprint Power, a 674
14 MW New Capacity Generating Resource, submitted an offer to withdraw from the
15 auction at a price of \$14.99/kW-month. Without the capacity from Footprint
16 Power, NEMA/Boston would not have had sufficient capacity to meet its Local
17 Sourcing Requirement. Because Footprint Power elected not to be rationed, all
18 674 MW from Footprint Power cleared in the auction, even though
19 NEMA/Boston only needed about 174 MW from Footprint Power to meet the
20 zone's Local Sourcing Requirement. Therefore, there was approximately 500
21 MW of excess capacity from Footprint Power that carried forward to the eighth
22 FCA.
23

24 **Q: WHAT WAS THE SUM OF NEW CAPACITY REQUIRED PLUS THE**
25 **AMOUNT OF PERMAMENT DE-LIST BIDS CLEARED IN**
26 **NEMA/BOSTON?**

1 A. Because of excess capacity from Footprint Power, there was no New Capacity
2 Required in NEMA/Boston. There were no Permanent De-List Bids submitted or
3 cleared in the NEMA/Boston Capacity Zone for the eighth FCA.
4

5 **Q: DID THE ISO CONCLUDE THERE WAS INADEQUATE SUPPLY IN**
6 **NEMA/BOSTON?**

7 A. No. Under Section III.13.2.8.1.1 of the Tariff, Inadequate Supply occurs in an
8 import-constrained zone if at the FCA Starting Price, the amount of new resources
9 offered in the Capacity Zone is less than the amount of New Capacity Required in
10 that Capacity Zone. As explained above, because of the excess capacity from
11 Footprint Power, which is treated as existing, there was no New Capacity
12 Required in NEMA/Boston. Therefore, Inadequate Supply did not occur in
13 NEMA/Boston.
14

15 **Q: PLEASE EXPLAIN THE ISO'S CONCLUSION AS TO WHETHER THE**
16 **LAST CONDITION UNDER THE CARRY FORWARD RULE WAS**
17 **TRIGGERED IN NEMA/BOSTON.**

18 A. The last condition of the Carry Forward Rule requires that at the Capacity
19 Clearing Price, the sum of the amount of New Capacity Required, plus the
20 amount of Permanent De-List Bids clearing in the Forward Capacity Auction plus
21 the amount of capacity carried forward due to rationing be greater than zero.
22 Because of the excess capacity from Footprint Power, the amount of capacity
23 carried forward due to rationing is greater than zero. Consequently, all three

1 conditions under Section III.13.2.7.9.1 of the Tariff were met so that the Carry
2 Forward Rule was triggered in NEMA/Boston for the eighth FCA.

3

4 **Q: WHY IS THE CAPACITY CLEARING PRICE FOR EXISTING**
5 **RESOURCES IN NEMA/BOSTON HIGHER THAN THE OTHER**
6 **CAPACITY ZONES?**

7 A. The ISO's determination is that circumstances in the NEMA/Boston zone
8 triggered the Carry Forward Rule requiring that both existing and new resources
9 be paid the same Capacity Clearing Price. Specifically, Section III.13.2.7.9.2 of
10 the Tariff requires that when the Carry Forward Rule is triggered:

11 the Capacity Clearing Price for the Capacity Zone shall be the lesser of:
12 (1) \$0.01 below the price at which the last New Generating Capacity
13 Resource, New Import Capacity Resource, or New Demand Resource in
14 the Capacity Zone to withdraw withdrew from the Forward Capacity
15 Auction; or (2) the Offer Review Trigger Price for a combustion turbine,
16 as set forth in Section III.A.21.1.1 of the Tariff; provided, however, if
17 there is Insufficient Competition in the Capacity Zone and no capacity
18 offered from New Generating Capacity Resources, New Import
19 Capacity Resources, and New Demand Resources has
20 withdrawn from the Forward Capacity Auction, then the Capacity
21 Clearing Price shall equal the Offer Review Trigger Price for a
22 combustion turbine, as set forth in Section III.A.21.1.1 of the Tariff.
23

24 The Offer Review Trigger Price for a combustion turbine in Section III.A.21.1.1
25 of the Tariff is \$10.00/kW-month, which is lower than the price at which the last
26 new resource sought to withdraw from the auction.¹³ Therefore, in accordance
27 with Section III.13.2.7.9.2 of the Tariff, the Capacity Clearing Price for both new
28 and existing resources in the NEMA/Boston Capacity Zone would be \$10.00/kW-
29 month.

¹³ The last new resource withdrew from the NEMA/Boston Capacity Zone at \$14.99/kW-month.

Q: WHY DID THE ISO CONCLUDE THAT ALL RESOURCES IN NEMA/BOSTON WILL RECEIVE \$15.00/KW-MONTH?

A. NEMA/Boston is an import-constrained zone and Section III.13.2.7.1 of the Tariff establishes the Capacity Clearing Price Floor in an import-constrained Capacity Zone under certain conditions. Specifically, under Section III.13.2.7.1 of the Tariff, “[t]he Capacity Clearing Price in an import-constrained zone shall not be lower than the Capacity Clearing Price in the Rest-of-Pool Capacity Zone.”

The Capacity Clearing Price of \$10.00/kW-month established by the Carry Forward Rule for all resources, new and existing, in NEMA/Boston is lower than the Capacity Clearing Price in Rest-of-Pool of \$15.00/kW-month. According to Section III.13.2.7.1 of the Tariff:

[i]f after the Forward Capacity Auction is conducted, the Capacity Clearing Price in an import-constrained Capacity Zone is less than the Capacity Clearing Price in the Rest-of-Pool Capacity Zone, all resources clearing in the import-constrained Capacity Zone shall be paid based on the Capacity Clearing Price in the Rest-of-Pool Capacity Zone during the associated Capacity Commitment Period.

Therefore, the ISO’s determination is that, because the Capacity Clearing Price in Rest-of-Pool is \$15.00/kW-month, pursuant to Section III.13.2.7.1 of the Tariff, all resources (both new and existing) in the NEMA/Boston Capacity Zone will be paid \$15.00/kW-month for the 2017-2018 Capacity Commitment Period.

Q: CONNECTICUT IS ALSO AN IMPORT-CONSTRAINED ZONE, BUT ONLY NEW RESOURCES IN CONNECTICUT ARE RECEIVING \$15.00/KW-MONTH. WHY?

1 A. The Carry Forward Rule was not triggered in Connecticut. The Capacity Clearing
2 Price in Connecticut of \$15.00/kW-month is the same as Rest-of-Pool. Therefore,
3 Section III.13.2.7.1 is not applicable to the Connecticut Capacity Zone.
4

5 **Q: MAINE WAS AN EXPORT-CONSTRAINED CAPACITY ZONE. WHY**
6 **WAS THERE NO PRICE SEPERATION BETWEEN THE MAINE AND**
7 **REST-OF-POOL CAPACITY ZONES?**

8 A. As explained above, the Maximum Capacity Limit is the maximum amount of
9 capacity that can be procured in an export-constrained zone to meet the ICR. The
10 Maximum Capacity Limit for the Maine export-constrained Load Zone is 3,960
11 MW.¹⁴ This is the amount of capacity resources that can be procured in the
12 eighth FCA from the Maine Capacity Zone. For the eighth FCA, 3,755 MW of
13 capacity from resources cleared in Maine. Because the amount of capacity from
14 the cleared resources in Maine is less than the Maximum Capacity Limit for
15 Maine, there was no price separation in Maine for the eighth FCA.
16

17 **Q: CAN YOU PROVIDE THE AMOUNT OF MWS OF RESOURCES THAT**
18 **WILL BE PAID THE UNDER THE IC RULE?**

19 A. Yes. In the Maine, Connecticut and Rest-of-Pool Capacity Zones, there are
20 approximately 1,371 MWs of new resources that will receive the Capacity
21 Clearing Price of \$15.00/kW-month and approximately 24,885 MWs of existing
22 resources that will receive the administrative price of \$7.025/kW-month. Self-

¹⁴ *Id.* at pp. 8-9.

1 supply resources totaling 3,330 MW will not be paid through the FCM. Another 357
2 MW of existing resources with multi-year obligations will be paid at rates set in
3 previous auctions, ranging from \$2.52/kW-month to \$3.43/kW-month.
4

5 **Q: WHAT ABOUT IN THE NEMA/BOSTON CAPACITY ZONE?**

6 **A.** In the NEMA/Boston Capacity Zone, approximately 3,085 MW of both new and
7 existing resources will be paid the Capacity Clearing Price of \$15.00/kW-month.
8 Footprint Power elected a multi-year commitment in the seventh FCA and will be
9 paid \$14.99/kW-month.

10
11 **Q: YOU MENTIONED THAT THE AUCTION DID NOT PROCURE**
12 **SUFFICIENT RESOURCES FOR THE 2017-2018 CAPACITY**
13 **COMMITMENT PERIOD. WHY IS THERE A SHORTFALL**
14 **FOLLOWING THE CONCLUSION OF THE AUCTION?**

15 **A.** The auction concluded at the NICR of 33,855 MW. However, subsequent to the
16 conclusion of the auction, a de-list bid that totaled 142 MW administratively
17 cleared the auction. The de-list bid was priced below the Capacity Clearing Price
18 of \$15.00/kW-month, but above the administrative price of \$7.025/kW-month.
19 Pursuant to Section III.13.2.5.2.7 of the Tariff, when the administrative price is
20 set through the IC Rule and a de-list bid clears that otherwise would not have
21 cleared, the de-listed capacity will not be replaced in the current auction.
22

23 **Q: WHAT STEPS WILL THE ISO TAKE TO ADDRESS THE SHORTFALL?**

1 A. As mentioned above, the auction procured 142 MWs less than the NICR. The
2 ISO will seek to procure additional resources to make up for this shortfall in the
3 upcoming reconfiguration auctions for the 2017-2018 Capacity Commitment
4 Period.

5
6 **Q: WILL THERE BE PRORATION?**

7 A. No. Because there was no price floor for eighth FCA, there will be no proration.

8

9 **Q: DOES THIS CONCLUDE YOUR TESTIMONY?**

10 A: Yes.

1 I declare that the foregoing is true and correct.

2

3

4

5

6

7

8

9

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Stephen J. Rourke

Attachment C

1 **UNITED STATES OF AMERICA**
2 **BEFORE THE**
3 **FEDERAL ENERGY REGULATORY COMMISSION**

4
5)
6 **ISO New England Inc.**) **Docket No. ER14-____-000**
7)

8 **TESTIMONY OF DAVID LAPLANTE**
9

10 **Q: PLEASE STATE YOUR NAME, TITLE AND BUSINESS ADDRESS.**

11 A. My name is David LaPlante. I am Vice President of Market Monitoring within
12 ISO New England Inc. (the “ISO”), where I perform the role of the Internal
13 Market Monitor (“IMM”). My business address is One Sullivan Road, Holyoke,
14 Massachusetts 01040.

15
16 **Q: PLEASE DESCRIBE YOUR WORK EXPERIENCE AND EDUCATIONAL**
17 **BACKGROUND.**

18 A. I have a Bachelor’s degree in statistics from Princeton University and a Master’s
19 Degree in City and Regional Planning from Harvard University. I have over 30
20 years experience in the energy and utility industry. I began my career working in
21 the areas of power supply planning and resource adequacy for the Massachusetts
22 Municipal Wholesale Electric Company and the New England Power Pool
23 (“NEPOOL”). I have been working on the deregulation of the wholesale electric
24 industry in New England since 1994. This work included helping create ISO New
25 England and the development and implementation of the region’s first set of
26 wholesale markets in 1999. Following that, I was responsible for the market

1 design portion of the Standard Market Design implemented by the ISO in March
2 2003. I was integrally involved in the Forward Capacity Market (“FCM”)
3 settlement agreement and in the development of the FCM rules from 2004 to
4 2008. In July 2008, I was promoted to my current position of Vice President of
5 Market Monitoring. This experience has given me extensive knowledge of
6 wholesale electric markets and their regulation by FERC, ISO/RTO operations,
7 and most recently, detailed understanding of the monitoring of electricity markets.
8

9 **Q: WHAT IS THE PURPOSE OF YOUR TESTIMONY?**

10 A. The purpose of this testimony is to certify (1) that all offers and bids in the FCA
11 that were required by the applicable rules to be reviewed by the IMM were in fact
12 properly reviewed, (2) whether or not the recently conducted eighth Forward
13 Capacity Auction (“FCA”) was conducted consistent with the Tariff, and (3)
14 whether or not the prices resulting from the auction were based on a competitive
15 auction. Section III.13.8.2 (b) of the ISO New England Transmission, Markets
16 and Services Tariff (the “Tariff”) requires that after each FCA, documentation
17 regarding the competitiveness of the FCA be filed with the Commission.
18

19 **Q: WERE ALL EXISTING RESOURCE DE-LIST BIDS AND NEW**
20 **RESOURCE OFFERS PROPERLY REVIEWED BY THE IMM AND**
21 **QUALIFIED IN ACCORDANCE WITH SECTION III.13.1 PRIOR TO**
22 **THE FCA CONDUCTED FEBRUARY 3, 2014?**

23 A. Yes. Section III.13.1 of the Tariff sets forth the process for qualifying resources
24 to participate in the FCA. Section III.13.1.2.3.2 of the Tariff requires that the
25 IMM review each Static De-List Bid, Export De-List Bid and Permanent De-List

1 Bid above \$1.00/kW-month to determine whether the bid is consistent with the
2 resource's net risk-adjusted going forward costs and opportunity costs.
3 Additionally, pursuant to Section III.A.21.2 of the Tariff, the IMM reviews
4 requests submitted by each New Capacity Resource to offer in the FCA below the
5 Offer Review Trigger Price for the applicable resource type. If the IMM
6 determines that the requested offer price is inconsistent with the IMM's capacity
7 price estimate, then the resource's New Resource Offer Floor Price is be set to a
8 level that is consistent with the capacity price estimate, as determined by the
9 IMM.

10
11 As Vice President of the IMM, I am responsible for overseeing the IMM's review
12 of all of these bids and offers, and I certify that such review was performed in
13 accordance with the provisions of Section III.13.1 of the Tariff. The IMM's
14 determinations with respect to these bids and offers were filed with the
15 Commission in docket number ER14-329-000, and were approved by the
16 Commission on January 16, 2014.¹

17
18 **Q: PLEASE EXPLAIN WHY YOU AGREE WITH THE DECISION TO**
19 **CONDUCT THE FIRST ROUND OF THE AUCTION WITH AN END OF**
20 **ROUND PRICE OF \$3.00/KW-MONTH.**

21 A. The descending clock auction design is used to maximize the likelihood of a
22 competitive outcome. These measures include releasing only the amount of
23 aggregate supply remaining at the end of each round and releasing no information

¹ *Order Accepting Informational Filing*, 146 FERC ¶ 61,014 (2014) ("Informational Filing Order").

1 between rounds about the supply remaining in import constrained zones. In
2 previous auctions, there was robust competition and the supply available
3 significantly exceeded the demand. The robust supply meant that the potential for
4 the exercise of market power by pivotal suppliers was very low. In fact, no
5 pivotal suppliers had sufficient de-lists bids to be able to stop the auction on their
6 own in the first seven auctions. Consequently, the auctioneer was able to use
7 smaller round sizes to maximize price discovery and competition within the
8 auction without the risk of the exercise of market power.

9 The supply demand balance in FCA 8 differed dramatically from that in the
10 previous auctions. At the start of the auction, the auctioneer knew that there was
11 very little competition to supply the demand for new capacity. If smaller round
12 sizes were used, then it is very likely that several of the suppliers of new capacity
13 would have known that they were pivotal at the end of the first round. The larger
14 size of the first round was intended to reduce the likelihood of this happening.

15
16 **Q: WAS THE FCA CONDUCTED ON FEBRUARY 3, 2014 FOR THE 2017-**
17 **2018 CAPACITY COMMITMENT PERIOD CONDUCTED IN**
18 **ACCORDANCE WITH THE TARIFF?**

19
20 **A.** Yes. The FCA was conducted in accordance with the rules and the resultant
21 auction prices were calculated in accordance with the Tariff. As I discuss below,
22 there were three administrative pricing provisions of the Tariff that were triggered
23 in this FCA. These provisions were appropriately applied to determine the
24 auction prices included in Mr. Rourke's testimony. Mr. Rourke's testimony

describes these provisions and what caused them to be triggered in more detail.

**Q: WHICH ADMINISTRATIVE PRICING PROVISIONS WERE
TRIGGERED IN FCA 8?**

A: The first administrative pricing provision that was triggered system-wide is Insufficient Competition.² The Insufficient Competition provisions were triggered because new capacity was needed to meet the region's Installed Capacity Requirement and there was less than twice the amount of new demand resources and generation resources needed to meet the deficiency in the Installed Capacity Requirement. When the Insufficient Competition rules are triggered, new resources receive the Capacity Clearing Price from the auction and existing resources receive the lower of the Capacity Clearing Price or an administrative price, which was set at \$7.025/kW-month for FCA 8.

The second administrative pricing provision that was triggered was the Carry Forward rule.³ The Carry Forward rule was triggered in the NEMA/Boston Capacity Zone because in FCA 7 the 674 MW Footprint Power Plant cleared in the NEMA/Boston Capacity Zone and resulted in a surplus for the NEMA/Boston Capacity Zone in FCA 8. Under the Capacity Carry Forward rule, the Capacity Clearing Price in the NEMA/Boston zone was set to the cost of a new combustion turbine (\$10.00/kW-month) because the last new generation or new demand resource in the NEMA/Boston zone left the auction at a price greater than

² Section III.13.2.8.2 of the Tariff.

³ Section III.13.2.7.9.1 of the Tariff.

1 \$10.00/kW-month.⁴

2
3 The third administrative pricing provision that was triggered was the rule that
4 requires the Capacity Clearing Price in an import constrained zone to be no lower
5 than the Capacity Clearing Price in the Rest-of-Pool Capacity Zone.⁵ The
6 Capacity Clearing Price in the Rest-of-Pool Capacity Zone was set at \$15.00/kW-
7 month in the auction. After the application of the Capacity Carry Forward rule,
8 the Capacity Clearing Price in NEMA/Boston was set to \$10.00/kW-month.
9 Since the Capacity Clearing in NEMA/Boston was less than the Capacity
10 Clearing Price in Rest-of-Pool, the NEMA/Boston Capacity Clearing Price was
11 set to the \$15.00/kW-month Rest-of-Pool Capacity Clearing Price.

12
13 **Q: YOU STATED THAT THE AUCTION AND THE RESULTANT PRICES**
14 **WERE CONDUCTED CONSISTENT WITH THE TARIFF. DOES THIS**
15 **MEAN THAT THE PRICES WERE THE RESULT OF A COMPETITIVE**
16 **AUCTION?**

17 **A.** No. There was not sufficient new entry for the auction to be competitive. In a
18 competitive auction, the price will be set by the supplier willing to provide
19 capacity at the lowest price. Such a price represents the lowest cost supplier's
20 costs of providing capacity. Since there was Insufficient Competition, it cannot
21 be concluded that the auction clearing price represents the lowest cost supplier's
22 cost of supplying capacity.

23

⁴ Section III.13.2.7.9.2 of the Tariff.

⁵ Section III.13.2.7.1 of the Tariff.

1 **Q: DO YOU HAVE ANY CONCERNS ABOUT THE RESULTS OF THE**
2 **APPLICATION OF THE ADMINISTRATIVE PRICING RULES IN THE**
3 **NEMA/BOSTON CAPACITY ZONE?**

4 A. Yes. As stated earlier, I believe the Tariff was applied properly. However, when
5 there is Insufficient Competition, the application of the third administrative
6 pricing provision discussed above replaces the price set using the Carry Forward
7 rule with the results of a non-competitive auction. Prices that are the result of a
8 non-competitive auction may not be economically efficient because the auction
9 lacked the requisite market discipline.

10
11 **Q: DOES THIS CONCLUDE YOUR TESTIMONY?**

12 A. Yes.
13

1

2 I declare that the foregoing is true and correct.

3

4

A handwritten signature in blue ink, reading "David LaPlante", written over a horizontal line.

5

David LaPlante.

6

7

8

Attachment D

1 UNITED STATES OF AMERICA
2 BEFORE THE
3 FEDERAL ENERGY REGULATORY COMMISSION
4

5
6
7 ISO New England Inc.

)
)
)

Docket No. ER14-____-000

8
9
10 TESTIMONY OF LAWRENCE M. AUSUBEL
11

12 Q. PLEASE STATE YOUR NAME, TITLE AND BUSINESS ADDRESS.

13 A. My name is Lawrence M. Ausubel. I am the Chairman and Founder of Power
14 Auctions LLC, the company that has helped to design, implement, and administer
15 the Forward Capacity Auction (“FCA”) for ISO New England Inc. (the “ISO”).
16 I am also the President of Market Design Inc. and a Professor of Economics at the
17 University of Maryland. My business address is 1000 Potomac St. NW Suite 260,
18 Washington, DC 20007.

19
20 Q. PLEASE DESCRIBE YOUR EDUCATIONAL BACKGROUND AND
21 WORK EXPERIENCE.

22 A. I have an A.B. in Mathematics from Princeton University, an M.S. in
23 Mathematics from Stanford University, an M.L.S. in Legal Studies from Stanford
24 University, and a Ph.D. in Economics from Stanford University.
25 I am the Chairman of Power Auctions LLC, a provider of auction implementation
26 services and software worldwide. I am also the President of Market Design Inc.,
27 an economics consultancy that offers services in the design of auction markets.
28 In recent years, I have played a lead role in the design and implementation of:

1 electricity auctions in France, Germany, Spain, Belgium and the US; gas auctions
2 in Germany, France, Hungary and Denmark; the world's first auction for
3 greenhouse gas emission reductions in the UK; and a prototype airport slot
4 auction in the US. I have advised the US Federal Communications Commission,
5 Industry Canada and the Australian Communications and Media Authority on
6 spectrum auctions. I have also advised BOEM (the US Bureau of Ocean Energy
7 Management) and ICANN (the Internet Corporation for Assigned Names and
8 Numbers) on auction design. I designed the 2005 Trinidad and Tobago GSM
9 auction and served as its auction manager. I hold twenty U.S. patents related to
10 auction technology and I have published numerous articles on auction design,
11 bargaining, industrial organization and financial markets. My curriculum vitae,
12 which includes a list of publications and other experience, is attached.
13

14 **Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY?**

15 A. The purpose of this testimony is to certify that the recently concluded FCA was
16 conducted in accordance with the relevant filed market rules. Section III.13.8.2
17 (b) of the ISO New England Transmission, Markets and Services Tariff (the
18 "Tariff") requires that after each FCA, documentation regarding the
19 competitiveness of the FCA be filed with the Federal Energy Regulatory
20 Commission ("Commission"). Section III.13.8.2 (b) states that such
21 documentation may include certification from the auctioneer that the FCA was
22 conducted in accordance with the provisions of Section III.13 of the Tariff.
23 Section III.13.2 of the Tariff provides the rules relating to the mechanics of the

1 FCA. My testimony certifies that the FCA was conducted in accordance with
2 Section III.13.2.

3 **Q. PLEASE DESCRIBE POWER AUCTIONS LLC**

4 A. Power Auctions LLC designs, implements and conducts high-stakes electronic
5 auctions utilizing proprietary software, processes, and other intellectual property.
6 The PowerAuctions software platform designed by Power Auctions LLC has been
7 used to implement over 150 auctions worldwide in the electricity, gas and
8 resource sectors. In the electricity sector, the software platform was used to
9 operate 42 quarterly EDF Generation Capacity Auctions in France. It was also
10 used for the Endesa-Iberdola Virtual Power Plant Auctions in Spain, the
11 Electrabel Virtual Power Plant Auctions in Belgium and the E.ON Virtual Power
12 Plant Auction in Germany. Further, Power Auctions LLC is part of the team that
13 the Federal Communications Commission has assembled to design and implement
14 incentive auctions for the United States, and is the prime contractor to the
15 Governments of Australia and Canada for implementation of spectrum auctions.
16 Power Auctions LLC worked with the ISO to design and implement (on the
17 PowerAuctions platform) the previous FCAs held on February 4-6, 2008;
18 December 8-10, 2008; October 5-6, 2009; August 2-3, 2010; June 6-7, 2011;
19 April 2-3, 2012 and February 4-5, 2013.

20
21 **Q. WHAT WAS POWER AUCTIONS LLC'S ROLE IN THE FORWARD**
22 **CAPACITY AUCTION HELD ON FEBRUARY 3, 2014?**

1 A. The ISO retained Power Auctions LLC as the independent auction manager
2 (“Auction Manager”) for the eighth FCA. As the Auction Manager, Power
3 Auctions LLC worked with the ISO to design and implement the FCA in
4 conformance with the Tariff. By design, the Auction Manager conducted the
5 auction independently, with limited involvement by the ISO. The auction was
6 implemented using the PowerAuctions software platform.
7

8 **Q. PLEASE DESCRIBE THE MECHANICS OF THE EIGHTH FCA**

9 A. The auction closed in one round. The determination was made to set the End-of-
10 Round Price for the first round at \$3.00/kW-month due to the limited excess
11 supply in the auction. To begin, there was a limited amount of excess supply,
12 system-wide, at the auction starting price of \$15.82/kW-month. In addition, the
13 first round included new offers that had offer review trigger prices at or near the
14 auction starting price, ISO-submitted de-list bids, an Administrative De-List Bid,
15 and out-of-market capacity from FCA 6 and FCA 7. When combined, those
16 factors further depleted the excess supply, system-wide, at prices just below the
17 auction starting price. Note that the amount of excess supply remaining at the end
18 of each round is revealed to auction participants. As the person at Power
19 Auctions ultimately responsible for setting the price decrements, I was concerned
20 that revealing the excess supply at a price greater than \$3.00/kW-month could
21 result in auction participants making use of the revealed information to submit
22 offers that might not be competitive.
23

1 **Q. WAS THE FCA, HELD ON FEBRUARY 3, 2014 CONDUCTED IN**
2 **ACCORDANCE WITH SECTION III.13.2 OF THE TARIFF?**

3 A. Yes. In accordance with Section III.13.8.2 (b) of the Tariff, I certify that to the
4 best of my knowledge, the FCA of February 3, 2014 was conducted in
5 conformance with the provisions of Section III.13.2 of the Tariff.

6 **Q. DOES THIS CONCLUDE YOUR TESTIMONY?**

7 A. Yes.

8

9

1 I declare that the foregoing is true and correct.

2

3

Laurence Ausubel

4

Lawrence M. Ausubel

5

6

7

8

9

4810-5537-0008, v. 1

Curriculum Vitae

LAWRENCE M. AUSUBEL

Address

Department of Economics
University of Maryland
Tydings Hall, Room 3105
College Park, MD 20742
301.405.3495 TEL 202.318.0863 FAX
ausubel@econ.umd.edu
www.ausubel.com

Power Auctions LLC
1000 Potomac St. NW, Suite 260
Washington, DC 20007-3540
ausubel@powerauctions.com
www.powerauctions.com

2744 32nd Street, NW
Washington, DC 20008

Personal

Year of Birth: 1959
Place of Birth: New York City

Education

Ph.D. (1984) Stanford University, Economics
M.L.S. (1984) Stanford Law School, Legal Studies
M.S. (1982) Stanford University, Mathematics
A.B. (1980) Princeton University, Mathematics

Honors: Fellow of the Econometric Society
Phi Beta Kappa
Sigma Xi
Magna cum laude in mathematics
Stanford University Economics Department, graduate fellowship, 1982
Stanford Law School, fellowship in law and economics, 1983

Fields of Concentration

Microeconomic Theory and Game Theory
Auctions and Bargaining
Credit Cards, Bankruptcy and Banking
Industrial Organization
Regulation
Law and Economics

Professional Experience

Professor of Economics, University of Maryland (August 1992 – present).

Chairman and Founder, Power Auctions LLC (2004 – present).

A technology provider of auction software, auction design and implementation services. The PowerAuctions™ software platform has been used in more than 150 high-stakes auctions, with transaction value in the tens of billions of dollars.

President, Market Design Inc. (2003 – present).

A consultancy of leading economists and game theorists (Peter Cramton, R. Preston McAfee, Paul Milgrom, Robert Wilson, et al) that works with governments and companies worldwide to design and implement state-of-the-art auctions and markets.

Assistant Professor of Managerial Economics and Decision Sciences, Kellogg School, Northwestern University (September 1984 – August 1992).

Visiting Assistant Professor, New York University (January 1990 – May 1990).

Recent Consulting Experience

Provided expert bidding advice to bidders in more than a dozen large spectrum auctions, including Bharti Airtel in India's 900/1800 MHz auction, Orange in Slovakia's Multi-Band spectrum auction, Three (Hutchison) in the UK 800 MHz and 2.6 GHz auction, Eircom in Ireland's 800/900/1800 MHz auction, Aircel in India's 3G/BWA auctions, Spain's Telefónica in the UK, German, Italian and Austrian UMTS/3G spectrum auctions, Ericsson in the US PCS spectrum auctions, MTN in the Nigerian spectrum auctions, MCI in the US Direct Broadcast Satellite auction, US Airwaves in the US C-Block Auction, Mobile Media in the US Narrowband Auction, and other confidential clients.

Advisor to the Federal Communications Commission (US) on the design and implementation of incentive auctions, 2011 – present.

Advisor to the Canadian government (Industry Canada) on the design and implementation of the 700 MHz and 2.5 GHz spectrum auctions, 2008 – present.

Advisor to the Australian government (ACMA) on the design and implementation of the Australian Digital Dividend auction, 2011 –2013.

Provided auction design advice to the IDA Singapore on their Auction of Public Cellular Mobile Telecommunication Services Spectrum Rights, 2007 – 2008.

Design and implementation of the Trinidad and Tobago GSM auction, 2005.

Design and implementation of the Forward Capacity Auction for ISO-New England (2007 – present).

Design and implementation of the quarterly Electricité de France generation capacity auctions (2001 – 2011) and Long-Term Contract auctions (2008 – 2009).

Design and implementation of the quarterly Spanish Virtual Power Plant (VPP) auctions (2007 – present).

Design and implementation of the E.ON VPP auction in Germany (2007).

Design and implementation of auctions for new gTLDs for ICANN (Internet Corporation for Assigned Names and Numbers) (2008 – present).

Design and implementation of rough diamond auctions for Okavango Diamond Company, Botswana (2013 – present).

Design and implementation of rough diamond auctions for BHP Billiton/Dominion Diamonds (2007 – present).

Design and implementation of the annual E.ON Földgáz Trading gas release programme auction in Hungary (2006 – 2013).

Design and implementation of the annual Danish Oil and Natural Gas (DONG Energy) gas release programme auction (2006 – 2011).

Design and implementation of the annual E.ON Ruhrgas gas release programme auction in Germany (2003 – 2008, 2010).

Design and implementation of the Gaz de France gas storage auction (2006).

Design and implementation of the Gaz de France gas release programme auction (2004).

Design and implementation of the Total gas release programme auction (2004).

Design and implementation of the UK Emissions Trading Scheme auction to procure greenhouse gas emission reductions for the UK Government (2002).

Design and implementation of a demonstration auction of landing and takeoff slots for LaGuardia Airport, for the US Federal Aviation Administration (2005).

Teaching

Econ 456	Law and Economics (Undergraduate; Maryland)
Econ 603	Microeconomic Analysis (Ph.D.; Maryland)
Econ 661	Industrial Organization (Ph.D.; Maryland)
Econ 704	Game Theory, Bargaining and Auctions (Ph.D.; Maryland)
Mngl Econ D30	Intermediate Microeconomics (M.B.A.; Northwestern)

Publications

“Market Design and the Evolution of the Combinatorial Clock Auction” (with Oleg V. Baranov), *American Economic Review: Papers & Proceedings*, forthcoming, May 2014.

“Sequential Kidney Exchange” (with Thayer Morrill), *American Economic Journal: Microeconomics*, forthcoming, 2014.

“Common-Value Auctions with Liquidity Needs: An Experimental Test of a Troubled Assets Reverse Auction” (with Peter Cramton, Emel Filiz-Ozbay, Nathaniel Higgins, Erkut Ozbay and Andrew Stocking), *Handbook of Market Design*, Oxford University Press, forthcoming July 2013.

“Non-Judicial Debt Collection and the Consumer’s Choice among Repayment, Bankruptcy and Informal Bankruptcy” (with Amanda E. Dawsey and Richard M. Hynes), *American Bankruptcy Law Journal*, Vol. 87, pp. 1-26 [lead article], March 2013.

“Virtual Power Plant Auctions” (with Peter Cramton), *Utilities Policy*, Vol. 18, No. 4, pp. 201-208, December 2010.

“Using Forward Markets to Improve Electricity Market Design” (with Peter Cramton), *Utilities Policy*, Vol. 18, No. 4, pp. 195-200, December 2010.

“An Efficient Dynamic Auction for Heterogeneous Commodities,” *American Economic Review*, Vol. 96, No. 3, pp. 602-629, June 2006.

“An Efficient Ascending-Bid Auction for Multiple Objects,” *American Economic Review*, Vol. 94, No. 5, pp. 1452-1475, December 2004.

“Dynamic Auctions in Procurement” (with Peter Cramton), Chapter 9 of *Handbook of Procurement* (N. Dimitri, G. Piga, and G. Spagnolo, eds.), pp. 220-245, Cambridge: Cambridge University Press, 2006.

“The Lovely but Lonely Vickrey Auction” (with Paul Milgrom), Chapter 1 of *Combinatorial Auctions* (P. Cramton, Y. Shoham, and R. Steinberg, eds.), pp. 17-40, Cambridge: MIT Press, 2006.

“Ascending Proxy Auctions” (with Paul Milgrom), Chapter 3 of *Combinatorial Auctions* (P. Cramton, Y. Shoham, and R. Steinberg, eds.), pp. 79-98, Cambridge: MIT Press, 2006.

“The Clock-Proxy Auction: A Practical Combinatorial Auction Design” (with Peter Cramton and Paul Milgrom), Chapter 5 of *Combinatorial Auctions* (P. Cramton, Y. Shoham, and R. Steinberg, eds.), pp. 115-138, Cambridge: MIT Press, 2006.

- “Auctioning Many Divisible Goods” (with Peter C. Cramton), *Journal of the European Economics Association*, Vol. 2, Nos. 2-3, pp. 480-493, April-May 2004.
- “Vickrey Auctions with Reserve Pricing” (with Peter C. Cramton), *Economic Theory*, 23, pp. 493-505, April 2004. Reprinted in Charalambos Aliprantis, et al. (eds.), *Assets, Beliefs, and Equilibria in Economic Dynamics*, Berlin: Springer-Verlag, 355-368, 2003.
- “Auction Theory for the New Economy,” Chapter 6 of *New Economy Handbook* (D. Jones, ed.), San Diego: Academic Press, 2003.
- “Ascending Auctions with Package Bidding” (with Paul Milgrom), *Frontiers of Theoretical Economics*, Vol. 1, No. 1, Article 1, August 2002.
<http://www.bepress.com/bejte/frontiers/vol1/iss1/art1>
- “Bargaining with Incomplete Information” (with Peter Cramton and Raymond Deneckere), Chapter 50 of *Handbook of Game Theory* (R. Aumann and S. Hart, eds.), Vol. 3, Amsterdam: Elsevier Science B.V., 2002.
- “Package Bidding: Vickrey vs. Ascending Auctions” (with Paul Milgrom), *Revue Economique*, Vol. 53, No. 3, pp. 391-402, May 2002.
- “Implications of Auction Theory for New Issues Markets,” *Brookings-Wharton Papers on Financial Services*, Vol. 5, pp. 313-343, 2002.
- “Synergies in Wireless Telephony: Evidence from the Broadband PCS Auctions” (with Peter Cramton, R. Preston McAfee, and John McMillan), *Journal of Economics and Management Strategy*, Vol. 6, No. 3, Fall 1997, pp. 497-527.
- “Credit Card Defaults, Credit Card Profits, and Bankruptcy,” *American Bankruptcy Law Journal*, Vol. 71, Spring 1997, pp. 249-270; recipient of the Editor's Prize for the best paper in the American Bankruptcy Law Journal, 1997.
- “Efficient Sequential Bargaining” (with R. Deneckere), *Review of Economic Studies*, Vol. 60, No. 2, April 1993, pp. 435-461.
- “A Generalized Theorem of the Maximum” (with R. Deneckere), *Economic Theory*, Vol. 3, No. 1, January 1993, pp. 99-107.
- “Durable Goods Monopoly with Incomplete Information” (with R. Deneckere), supercedes “Stationary Sequential Equilibria in Bargaining with Two-Sided Incomplete Information,” *Review of Economic Studies*, Vol. 59, No. 4, October 1992, pp. 795-812.
- “Bargaining and the Right to Remain Silent” (with R. Deneckere), *Econometrica*, Vol. 60, No. 3, May 1992, pp. 597-625.
- “The Failure of Competition in the Credit Card Market,” *American Economic Review*, Vol. 81, No. 1, March 1991, pp. 50-81; reprinted as Chapter 21 in *Advances in Behavioral Finance* (D. Thaler, ed.), Russell Sage Foundation, 1993.

“Insider Trading in a Rational Expectations Economy,” *American Economic Review*, Vol. 80, No. 5, December 1990, pp. 1022-1041.

“Partially-Revealing Rational Expectations Equilibrium in a Competitive Economy,” *Journal of Economic Theory*, Vol. 50, No. 1, February 1990, pp. 93-126.

“A Direct Mechanism Characterization of Sequential Bargaining with One-Sided Incomplete Information” (with R. Deneckere), *Journal of Economic Theory*, Vol. 48, No. 1, June 1989, pp. 18-46; reprinted as Chapter 15 in *Bargaining with Incomplete Information* (P. Linhart, R. Radner, and M. Satterthwaite, eds.), Academic Press, 1992.

“Reputation in Bargaining and Durable Goods Monopoly” (with R. Deneckere), *Econometrica*, Vol. 57, No. 3, May 1989, pp. 511-531; reprinted as Chapter 13 in *Bargaining with Incomplete Information* (P. Linhart, R. Radner, and M. Satterthwaite, eds.), Academic Press, 1992.

“One is Almost Enough for Monopoly” (with R. Deneckere), *Rand Journal of Economics*, Vol. 18, No. 2, Summer 1987, pp. 255-274.

Patents

“System and Method for a Dynamic Auction with Package Bidding” (with Paul Milgrom), U.S. Patent Number 8,566,211, issued October 22, 2013.

“System and Method for an Efficient Dynamic Multi-Unit Auction,” U.S. Patent Number 8,447,662, issued May 21, 2013.

“System and Method for a Hybrid Clock and Proxy Auction” (with Peter Cramton and Paul Milgrom), U.S. Patent Number 8,335,738, issued December 18, 2012.

“System and Method for a Hybrid Clock and Proxy Auction” (with Peter Cramton and Paul Milgrom), U.S. Patent Number 8,224,743, issued July 17, 2012.

“System and Method for the Efficient Clearing of Spectrum Encumbrances” (with Peter Cramton and Paul Milgrom), U.S. Patent Number 8,145,555, issued March 27, 2012.

“Computer Implemented Methods and Apparatus for Auctions,” U.S. Patent Number 8,065,224, issued November 22, 2011.

“Ascending Bid Auction for Multiple Objects,” U.S. Patent Number 7,966,247, issued June 21, 2011.

“System and Method for an Auction of Multiple Types of Items” (with Peter Cramton and Wynne P. Jones), U.S. Patent Number 7,899,734, issued March 1, 2011.

“System and Method for an Efficient Dynamic Multi-Unit Auction,” U.S. Patent Number 7,870,050, issued January 11, 2011.

- “Computer Implemented Methods and Apparatus for Auctions,” U.S. Patent Number 7,774,264, issued August 10, 2010.
- “System and Method for a Hybrid Clock and Proxy Auction” (with Peter Cramton and Paul Milgrom), U.S. Patent Number 7,729,975, issued June 1, 2010.
- “System and Method for an Efficient Dynamic Multi-Unit Auction,” U.S. Patent Number 7,467,111, issued December 16, 2008.
- “System and Method for an Efficient Dynamic Multi-Unit Auction,” U.S. Patent Number 7,343,342, issued March 11, 2008.
- “Ascending Bid Auction for Multiple Objects,” U.S. Patent Number 7,337,139, issued February 26, 2008.
- “Computer Implemented Methods and Apparatus for Auctions,” U.S. Patent Number 7,249,027, issued July 24, 2007.
- “System and Method for an Efficient Dynamic Multi-Unit Auction,” U.S. Patent Number 7,165,046, issued January 16, 2007.
- “System and Method for an Efficient Dynamic Multi-Unit Auction,” U.S. Patent Number 7,062,461, issued June 13, 2006.
- “System and Method for an Efficient Dynamic Auction for Multiple Objects,” U.S. Patent Number 6,026,383, issued February 15, 2000.
- “Computer Implemented Methods and Apparatus for Auctions,” U.S. Patent Number 6,021,398, issued February 1, 2000.
- “Computer Implemented Methods and Apparatus for Auctions,” U.S. Patent Number 5,905,975, issued May 18, 1999.

Book Reviews and Encyclopedia Entries

- “Auction Theory,” *New Palgrave Dictionary of Economics*, Second Edition, Steven N. Durlauf and Lawrence E. Blume, eds., London: Macmillan, 2008.
- “Credit Cards,” *McGraw-Hill Encyclopedia of Economics*, McGraw-Hill, 1994.
- “Book Review: The Credit Card Industry, by Lewis Mandell,” *Journal of Economic Literature*, Vol. 30, No. 3, September 1992, pp. 1517-18.
- “Credit Cards,” *New Palgrave Dictionary of Money and Finance*, Stockton Press, 1992.

Working Papers

- “The Combinatorial Clock Auction, Revealed Preference and Iterative Pricing,” (with Oleg V. Baranov), February 2014.
- “Core-Selecting Auctions with Incomplete Information” (with Oleg V. Baranov), working paper, University of Maryland, August 2010.
- “Penalty Interest Rates, Universal Default, and the Common Pool Problem of Credit Card Debt” (with Oleg V. Baranov and Amanda E. Dawsey), mimeo, University of Maryland, June 2010.
- “A Troubled Asset Reverse Auction” (with Peter Cramton), working paper, University of Maryland, October 2008.
- “Time Inconsistency in the Credit Card Market” (with Haiyan Shui), mimeo, University of Maryland, January 2005.
- “Informal Bankruptcy” (with Amanda E. Dawsey), mimeo, University of Maryland, April 2004.
- “Adverse Selection in the Credit Card Market,” mimeo, University of Maryland, June 1999.
- “The Credit Card Market, Revisited,” mimeo, University of Maryland, July 1995.
- “Walrasian Tâtonnement for Discrete Goods,” mimeo, University of Maryland, July 2005.
- “Demand Reduction and Inefficiency in Multi-Unit Auctions” (with Peter Cramton), Working Paper No. 96-07, University of Maryland, July 2002.
- “Bidder Participation and Information in Currency Auctions” (with Rafael Romeu), Working Paper WP/05/157, International Monetary Fund, 2005.
- “A Mechanism Generalizing the Vickrey Auction,” mimeo, University of Maryland, September 1999.
- “The Ascending Auction Paradox” (with Jesse Schwartz), mimeo, University of Maryland, July 1999.
- “The Optimality of Being Efficient” (with Peter Cramton), mimeo, University of Maryland, June 1999.
- “Sequential Recontracting Under Incomplete Information” (with Arijit Sen), mimeo, University of Maryland, June 1995.
- “Separation and Delay in Bargaining” (with Raymond Deneckere), mimeo, University of Maryland, April 1994.

“A Model of Managerial Discretion and Corporate Takeovers,” mimeo, University of Maryland, March 1993.

“Rigidity and Asymmetric Adjustment of Bank Interest Rates,” mimeo, University of Maryland, August 1992.

“Oligopoly When Market Share Matters,” mimeo, Stanford University, May 1984.

“Partially-Revealing Equilibria,” Stanford University, Department of Economics, August 1984. Dissertation committee: Mordecai Kurz (principal advisor); Peter J. Hammond; Kenneth J. Arrow.

Works in Progress

“The Hungarian Auction” (with T. Morrill)

“Bargaining and Forward Induction” (with R. Deneckere)

Op-Eds

“Making Sense of the Aggregator Bank” (with Peter Cramton), *Economists’ Voice*, Vol. 6, Issue 3, Article 2, February 2009.

“No Substitute for the ‘P’-Word in Financial Rescue” (with Peter Cramton), *Economists’ Voice*, Vol. 6, Issue 2, Article 2, February 2009.

“Auction Design Critical for Rescue Plan” (with Peter Cramton), *Economists’ Voice*, Vol. 5, Issue 5, Article 5, September 2008.

Research Grants

Principal Investigator, “Common-Value Auctions with Liquidity Needs” (with P. Cramton, E. Filiz-Ozbay and E. Ozbay), National Science Foundation Grant SES-09-24773, September 1, 2009 – August 31, 2013.

Principal Investigator, “Dynamic Matching Mechanisms” (with P. Cramton), National Science Foundation Grant SES-05-31254, August 15, 2005 – July 31, 2008.

Co-Principal Investigator, “Slot Auctions for U.S. Airports” (with M. Ball, P. Cramton and D. Lovell), Federal Aviation Administration, September 1, 2004 – August 31, 2005.

Co-Principal Investigator, “Rapid Response Electronic Markets for Time-Sensitive Goods” (with G. Anandalingam, P. Cramton, H. Lucas, M. Ball and V. Subrahmanian), National Science Foundation Grant IIS-02-05489, Aug 1, 2002 – July 31, 2005.

Principal Investigator, “Multiple Item Auctions” (with P. Cramton), National Science

Foundation Grant SES-01-12906, July 15, 2001 – June 30, 2004.

Principal Investigator, “Auctions for Multiple Items” (with P. Cramton), National Science Foundation Grant SBR-97-31025, April 1, 1998 – March 31, 2001.

Co-Principal Investigator, “Auctions and Infrastructure Conference” (with P. Cramton), National Science Foundation, April 1, 1998 – March 31, 1999.

Principal Investigator, “Bargaining Power, Sequential Recontracting, and the Principal-Agent Problem” (with A. Sen), National Science Foundation Grant SBR-94-10545, October 15, 1994 – September 30, 1997.

Principal Investigator, “Insider Trading and Economic Efficiency,” The Lynde and Harry Bradley Foundation, May 15, 1989 – May 14, 1992.

Principal Investigator, “Bargaining with One- and Two-Sided Incomplete Information” (with R. Deneckere), National Science Foundation Grant SES-86-19012, June 1, 1987 – May 31, 1989.

Principal Investigator, “Information Transmission in Bargaining and Markets” (with R. Deneckere), National Science Foundation Grant IST-86-09129, July 1, 1986 – June 30, 1987.

Conference Presentations

“On Generalizing the English Auction,” Econometric Society Winter Meetings, Chicago, January 1998.

“The Optimality of Being Efficient,” Maryland Auction Conference, Wye River, May 1998.

“Adverse Selection in the Credit Card Market,” Western Finance Association, Monterey, June 1998.

“The Optimality of Being Efficient,” Econometric Society Summer Meetings, Montreal, June 1998.

“Bargaining and Forward Induction,” Northwestern Summer Microeconomics Conference, Evanston, IL, July 1998.

“Predicting Personal Bankruptcies,” National Conference of Bankruptcy Judges, Dallas, October 1998.

“Adverse Selection in the Credit Card Market,” NBER Behavioral Macroeconomics Conference, Boston, December 1998.

“The Ascending Auction Paradox,” Econometric Society Summer Meetings, Madison, June 1999.

- “Adverse Selection in the Credit Card Market,” Econometric Society Summer Meetings, Madison, June 1999.
- “Predicting Personal Bankruptcies,” Meeting of the National Association of Chapter Thirteen Trustees, New York, July 1999.
- “The Ascending Auction Paradox,” Southeast Economic Theory Conference, Washington DC, November 1999.
- “Adverse Selection in the Credit Card Market,” Utah Winter Finance Conference, Salt Lake City, February 2000.
- “An Efficient Dynamic Auction for Heterogeneous Commodities,” Conference on Auctions and Market Structure, Heidelberg, Germany, July 2000.
- “An Efficient Dynamic Auction for Heterogeneous Commodities,” Conference on Multiunit Auctions, Stony Brook, NY, July 2000.
- “A Mechanism Generalizing the Vickrey Auction,” Econometric Society World Congress, Seattle, August 2000.
- “Auctions for Financial E-Commerce,” New York Federal Reserve Bank Conference on Financial E-Commerce, New York, February 2001.
- “An Efficient Dynamic Auction for Heterogeneous Commodities,” NSF General Equilibrium Conference, Providence, RI, April 2001.
- “An Efficient Dynamic Auction for Heterogeneous Commodities,” NSF/NBER Decentralization Conference, Evanston, IL, April 2001.
- “Informal Bankruptcy,” Association of American Law Schools Workshop on Bankruptcy, St. Louis, MO, May 2001.
- “An Efficient Dynamic Auction for Heterogeneous Commodities,” Econometric Society Summer Meetings, College Park, MD, June 2001.
- “Ascending Auctions with Package Bidding,” FCC, SIEPR and NSF Conference on Combinatorial Auctions, Wye River, MD, October 2001.
- “The Electricité de France Generation Capacity Auctions,” CORE-ECARES-LEA Workshop on Auctions, Brussels, Belgium, November 2001.
- “Informal Bankruptcy,” Utah Winter Finance Conference, Salt Lake City, February 2002.
- “Defictionalizing the Walrasian Auctioneer,” Conference on Market Design in Honor of Robert Wilson, Stanford, CA, May 2002.
- “Adverse Selection in the Credit Card Market,” Conference on the Economics of Payment Networks, Toulouse, France, June 2002.

- “Ascending Auctions with Package Bidding,” Econometric Society Summer Meetings, Los Angeles, June 2002.
- “An Efficient Dynamic Auction for Heterogeneous Commodities,” Conference in Honor of Mordecai Kurz, Stanford, CA, August 2002.
- “Adverse Selection in the Credit Card Market,” Conference on Credit, Trust and Calculation, San Diego, November 2002.
- “Package Bidding for Spectrum Auctions,” American Economic Association Meetings, Washington, DC, January 2003.
- “Auctioning Many Divisible Goods,” invited session, European Economic Association Meetings, Stockholm, August 2003.
- “Spectrum Auctions with Package Bidding,” TPRC Research Conference on Communication, Information and Internet Policy, Arlington, VA, September 2003.
- “Defictionalizing the Walrasian Auctioneer,” invited lecture, Conference on Auctions and Market Design: Theory, Evidence and Applications, Fondazione Eni Enrico Mattei, Milan, September 2003.
- “Clock Auctions, Proxy Auctions, and Possible Hybrids,” Workshop on Auction Theory and Practice, Pittsburgh, PA, November 2003.
- “Clock Auctions, Proxy Auctions, and Possible Hybrids,” FCC Combinatorial Bidding Conference, Wye River, MD, November 2003.
- “Time Inconsistency in the Credit Card Market,” Utah Winter Finance Conference, Salt Lake City, February 2004.
- “The Clock-Proxy Auction: A Practical Combinatorial Auction Design,” Conference on Auctions and Market Design: Theory, Evidence and Applications, Consip, Rome, Italy, September 2004.
- “Bidder Participation and Information in Currency Auctions,” Conference on Auctions and Market Design: Theory, Evidence and Applications, Consip, Rome, Italy, September 2004.
- “The Clock-Proxy Auction: A Practical Combinatorial Auction Design,” Market Design Conference, Stanford University, December 2004.
- “Dynamic Matching Mechanisms,” Econometric Society World Congress, London, August 2005.
- “The Clock-Proxy Auction, with Recent Applications,” SISL Workshop, Caltech, October 2005.

- “Dynamic Matching Mechanisms,” Conference on Matching and Two-Sided Markets, University of Bonn, May 2006.
- “The Hungarian Auction,” DIMACS Workshop on Auctions with Transaction Costs, Rutgers University, March 2007.
- “The Hungarian Auction,” PSE Lecture at the Paris School of Economics, June 2007.
- “Time Inconsistency in the Credit Card Market,” John M. Olin Conference on Law and Economics of Consumer Credit, University of Virginia, February 2008.
- “The Hungarian Auction,” 6th Annual International Industrial Organization Conference, Arlington, VA, May 2008.
- “The Hungarian Auction,” Frontiers of Microeconomic Theory and Policy, Symposium in Honour of Ray Rees, University of Munich, July 2008.
- “Common-Value Auctions with Liquidity Needs: An Experimental Test of a Troubled Assets Reverse Auction,” 2009 CAPCP Conference on Auctions and Procurement, Penn State University, March 2009.
- “Market Design for Troubled Assets,” NBER Workshop on Market Design, Cambridge, MA, May 2009.
- “Market Design for Troubled Assets,” Madrid Summer Workshop on Economic Theory, Universidad Carlos III de Madrid, June 2009.
- “Virtual Power Plant Auctions,” (with Peter Cramton), Workshop: Designing Electricity Auctions, Research Institute of Industrial Economics, Stockholm, Sweden, September 2009.
- “Using Forward Markets to Improve Electricity Market Design,” (with Peter Cramton), Workshop: Designing Electricity Auctions, Research Institute of Industrial Economics, Stockholm, Sweden, September 2009.
- “Virtual Power Plant Auctions,” (with Peter Cramton), Market Design 2009 Conference, Stockholm, Sweden, September 2009.
- “Using Forward Markets to Improve Electricity Market Design,” (with Peter Cramton), Market Design 2009 Conference, Stockholm, Sweden, September 2009.
- “Auctions with Multiple Objects,” 2009 Erwin Plein Nemmers Prize in Economics, Conference in Honor of Paul Milgrom, Northwestern University, November 2009.
- “Penalty Interest Rates, Universal Default, and the Common Pool Problem of Credit Card Debt” (with Oleg V. Baranov and Amanda E. Dawsey), Credit, Default and Bankruptcy Conference, University of California - Santa Barbara, June 2010.

- “Core-Selecting Auctions with Incomplete Information” (with Oleg V. Baranov), World Congress of the Econometric Society, Shanghai, China, August 2010.
- “Core-Selecting Auctions with Incomplete Information” (with Oleg V. Baranov), NBER Workshop on Market Design, Cambridge, MA, October 2010.
- “Core-Selecting Auctions with Incomplete Information” (with Oleg V. Baranov), NSF/CEME Decentralization Conference, Ohio State University, April 2011
- “Penalty Interest Rates, Universal Default, and the Common Pool Problem of Credit Card Debt” (with Oleg V. Baranov and Amanda E. Dawsey), Centre for Financial Analysis & Policy Conference on Consumer Credit and Bankruptcy, University of Cambridge, UK, April 2011.
- “Core-Selecting Auctions with Incomplete Information” (with Oleg V. Baranov), Center for the Study of Auctions, Procurements and Competition Policy Conference, Penn State University, April 2011.
- “Design Issues for Combinatorial Clock Auctions,” (with Oleg V. Baranov), Annual Meeting of the Institute for Operations Research and the Management Sciences (INFORMS), Phoenix AZ, October 2012.
- “An Enhanced Combinatorial Clock Auction,” (with Oleg V. Baranov), SIEPR Conference on the FCC Incentive Auctions, Stanford University, February 2013.
- “Enhancing the Combinatorial Clock Auction,” (with Oleg V. Baranov), Ofcom Conference, Combinatorial Auctions for Spectrum, London School of Economics, September 2013.
- “The Combinatorial Clock Auction, Revealed Preference and Iterative Pricing,” (with Oleg V. Baranov), NBER Workshop on Market Design, Stanford University, October 2013.
- “Market Design and the Evolution of the Combinatorial Clock Auction,” (with Oleg V. Baranov), American Economic Association meetings, Philadelphia, January 2014.

Professional Service

- Member of working group for the design and implementation of incentive auctions for the US Federal Communications Commission, 2011–present.
- Advisor to Industry Canada and the Australian Communications and Media Authority for the design and implementation of 700 MHz and 2.5 GHz spectrum auctions, 2011–present.
- Congressional Briefing on “How Fundamental Economic Research Improves People’s Lives,” Rayburn House Office Building, March 2010.
- Testified before the Committee on Banking, Housing and Urban Affairs of the US Senate, Hearing on “Modernizing Consumer Protection in the Financial Regulatory System: Strengthening Credit Card Protections,” February 12, 2009.

Testified before the Subcommittee on Financial Institutions and Consumer Credit of the US House of Representatives, Hearing on “The Credit Cardholders’ Bill of Rights: Providing New Protections for Consumers,” March 13, 2008.

Member, National Science Foundation Economics Panel, 2004–2005.

Associate Editor, *Berkeley Electronic Journals of Theoretical Economics*, 2004–present.

Guest Associate Editor, *Management Science*, issue on Electronic Auctions, 2003.

Program Chair of the 2001 North American Summer Meeting of the Econometric Society (with Peter Cramton), University of Maryland, June 21–24, 2001.

Organized Maryland Auction Conference (with Peter Cramton), Wye River Conference Center, May 1998, sponsored by the National Science Foundation, the World Bank, and the University of Maryland.

Spoke at a Forum on Bankruptcy of the Financial Services Committee of the United States House of Representatives, February 28, 2001.

Testified before the Subcommittee on Commercial and Administrative Law of the United States House of Representatives, Hearing on the Consumer Bankruptcy Issues in the Bankruptcy Reform Act of 1998, March 10, 1998.

Testified before the Subcommittee on Financial Institutions and Regulatory Relief of the United States Senate, Hearing on Bankruptcy Reform, February 11, 1998.

Program Committee of the North American Summer Meeting of the Econometric Society, UCLA, June 2002, and University of Pennsylvania, June 1991.

Testified before the National Bankruptcy Review Commission, January 1997.

Referee for: *American Economic Review*, *Econometrica*, *European Economic Review*, *Games and Economic Behavior*, *International Journal of Game Theory*, *International Journal of Industrial Organization*, *Journal of Banking and Finance*, *Journal of Business*, *Journal of Economic Theory*, *Journal of Financial Intermediation*, *Journal of Political Economy*, *Quarterly Journal of Economics*, *Rand Journal of Economics*, *Review of Economic Studies*, and the National Science Foundation.

Professional Organizations

American Economic Association
Econometric Society

Attachment E

New England Governors, State Utility Regulators and Related Agencies

Maine

The Honorable Paul LePage
One State House Station
Office of the Governor
Augusta, ME 04333-0001
Kathleen.Newman@maine.gov

Maine Public Utilities Commission
18 State House Station
Augusta, ME 04333-0018
Maine.puc@maine.gov

New Hampshire

The Honorable Maggie Hassan
Office of the Governor
26 Capital Street
Concord NH 03301
Molly.Connors@nh.gov
Meredith.Hatfield@nh.gov

New Hampshire Public Utilities Commission
21 South Fruit Street, Ste. 10
Concord, NH 03301-2429
steve.mullen@puc.nh.gov
tom.frantz@puc.nh.gov
george.mccluskey@puc.nh.gov
F.Ross@puc.nh.gov
David.goyette@puc.nh.gov
RegionalEnergy@puc.nh.gov

Vermont

The Honorable Peter Shumlin
Office of the Governor
109 State Street, Pavilion
Montpelier, VT 05609
elizabeth.miller@state.vt.us
Jeb.Spaulding@state.vt.us

Vermont Public Service Board
112 State Street
Montpelier, VT 05620-2701
mary-jo.krolewski@state.vt.us

Vermont Department of Public Service
112 State Street, Drawer 20
Montpelier, VT 05620-2601
bill.jordan@state.vt.us
chris.recchia@state.vt.us
Ed.McNamara@state.vt.us

Massachusetts

The Honorable Deval Patrick
Office of the Governor
Rm. 360 State House
Boston, MA 02133

Massachusetts Attorney General Office
One Ashburton Place
Boston, MA 02108
Jesse.reyes@state.ma.us

Massachusetts Department of Public Utilities
One South Station
Boston, MA 02110
Thomas.Bessette@state.ma.us

Rhode Island

The Honorable Lincoln Chafee
Office of the Governor
State House Room 115
Providence, RI 02903
Marion.Gold@energy.ri.gov
CKearns@doa.ri.gov
Danny.Musher@energy.ri.gov

Rhode Island Public Utilities Commission
89 Jefferson Blvd.
Warwick, RI 02888
nicholas.ucci@energy.ri.gov
paul.roberty@puc.ri.gov

New England Governors, State Utility Regulators and Related Agencies

Connecticut

The Honorable Dannel P. Malloy
Office of the Governor
State Capitol
210 Capitol Ave.
Hartford, CT 06106
Liz.Donohue@ct.gov
Luke.Bronin@ct.gov
Paul.Mounds@ct.gov

Harvey L. Reiter, Esq.
Counsel for New England Conference of Public
Utilities Commissioners, Inc.
c/o Stinson Morrison Hecker LLP
1150 18th Street, N.W., Ste. 800
Washington, DC 20036-3816
HReiter@stinson.com

Connecticut Public Utilities Regulatory
Authority
10 Franklin Square
New Britain, CT 06051-2605
robert.luysterborghs@ct.gov
michael.coyle@ct.gov
clare.kindall@ct.gov

New England Governors, Utility Regulatory and Related Agencies

Anne Stubbs
Coalition of Northeastern Governors
400 North Capitol Street, NW
Washington, DC 20001
coneg@sso.org

Heather Hunt, Executive Director
New England States Committee on Electricity
655 Longmeadow Street
Longmeadow, MA 01106
HeatherHunt@nescoe.com
JasonMarshall@nescoe.com

Sarah Hofman, Executive Director
New England Conference of Public Utilities
Commissioners
50 State Street – Suite 1
Montpelier, VT 05602
director@necpuc.org
shofmannnecpuc@gmail.com

James Volz, President
New England Conference of Public Utilities
Commissioners
112 State Street, Drawer 20
Montpelier, VT 05620-2601
james.volz@state.vt.us