

STATE OF CONNECTICUT
CONNECTICUT SITING COUNCIL

ISO New England Inc.
Docket 424

Witness: Stephen Rourke
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Civie -1.

Regionalization: Describe how regionalized funds from other states are collected for and transferred to the Interstate project. List how the money is collected from other states and the procedures for transferring the money to the interstate project.

ISO Response:

Schedules 12 and 12C of the ISO New England Open Access Transmission Tariff (OATT) describe the cost recovery for transmission projects that are determined through the regional planning process to meet reliability needs. Transmission projects that are included as a part of the Regional System Plan are eligible for cost recovery in accordance with the ISO OATT through the Regional Network Service rate mechanisms. These costs are allocated based on each state's proportional share of electric demand across the region, through a determinant known as Network Load. Connecticut's share of the regional Network Load is approximately 26%, which can vary slightly on an annual basis.

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Civie - 2.

List all unplanned (not refueling) greater than 72 hour shutdowns recorded for Millstone 2 and Millstone 3.

ISO Response:

The Information Policy, which is Attachment D to the ISO New England Open Access Transmission Tariff, prohibits the release of market sensitive information that is not publicly available.

Millstone 2 has recently been on an outage from August 12, 2012 to August 23, 2012 due to high water temperatures in Long Island Sound. Additionally, since 2004, Millstone 3 has been forced out-of-service for a period of greater than 72 hours five (5) times, and Millstone 2 has been forced out-of-service for a period of greater than 72 hours nine (9) times. Also, both Millstone 2 and 3 were out-of-service from late March 1996 through early July 1998.

Publicly available data with respect to the operating status of Millstone 2 and 3 can also be found at the following web address:

<http://www.nrc.gov/reading-rm/doc-collections/event-status/reactor-status/>

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Civie - 3A.

In reference to any line violations regarding the “Follow-Up Analysis to the 2011 New England East-West Solution (NEEWS): Interstate Reliability Project Component Updated Needs Assessment” report dated July 2012 or any other study or analysis to be presented

- A. Provide the transmitted power (Watts) and directions of the lines studied.
 - i. Specifically list the transmitted power (Watts) and transmitted directions of lines 3196, 368, 383, 371, 330, 1465 and 1280-3.

ISO Response:

This update looked at several dispatches, a number of initial element outages, followed by 1000’s of contingency events. Data is recorded for lines that are near or above a specified limit for each scenario and the worst case violations are reported in the summary tables in the needs assessment report. The base case loading of the lines (Watts) requested are shown in the following table:

Monitored Element							Base Case Flow (W)		
Line #	From Bus	Bus Name	To Bus	Bus Name	ID	kV	E→W	W→E	RI
3196	116045	Ludlow	116081	Agawam	1	345	793,700,000	149,700,000	811,500,000
368	119064	Card St	119077	Manchester	1	345	454,400,000	309,200,000	356,800,000
371	119181	Montville	119194	Millstone	1	345	-73,500,000	-548,400,000	-104,300,000
383	119064	Card St	119194	Millstone	1	345	506,500,000	-477,300,000	493,700,000
330	119051	Lake Rd	119064	Card St	1	345	1,162,300,000	-29,400,000	1,055,200,000
1465	119673	Mystic CT	119682	Shunock	1	115	-17,100,000	112,600,000	10,700,000
1280-3	119664	Whipple Jct	119673	Mystic CT	1	115	45,300,000	176,500,000	73,300,000

Lists of all elements near or above limits are recorded in the appendices of the July 2012 Needs Assessment report. Tables 5-1, 5-2, 5-4, and 5-6 of the July 2012 Needs Assessment,¹ filed under CEII Protective Order as Applicant’s Exhibit 29, list worst case

¹ Draft “Follow-Up Analysis to the 2011 New England East-West Solution (NEEWS): Interstate Reliability Project Component Updated Needs Assessment,” published July 9, 2012.

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Civie - 3A.

ISO Response (Cont'd):

line loadings above 90% of their specified limit (Long-term emergency rating) in the study area. The Long-term emergency ratings (W) of the lines requested are as follows:

Monitored Element							Long -term Emergency Ratings (W)
Line #	From Bus	Bus Name	To Bus	Bus Name	ID	kV	
3196	116045	Ludlow	116081	Agawam	1	345	2,635,000,000
368	119064	Card St	119077	Manchester	1	345	1,604,000,000
371	119181	Montville	119194	Millstone	1	345	1,884,000,000
383	119064	Card St	119194	Millstone	1	345	1,884,000,000
330	119051	Lake Rd	119064	Card St	1	345	1,912,000,000
1465	119673	Mystic CT	119682	Shunock	1	115	284,000,000
1280-3	119664	Whipple Jct	119673	Mystic CT	1	115	284,000,000

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Civie - 3B.

B. What was the total import from New York to Connecticut.

ISO Response:

Base case flows (Watts) on the lines connecting New York and Connecticut can be seen in the following table:

Monitored Element							Base Case Flow (W)		
Line #	From Bus	Bus Name	To Bus	Bus Name	ID	kV	E→W	W→E	RI
398	119272	NE_398_NY	119259	Long Mtn	1	345	8,100,000	296,100,000	97,500,000
601	121408	NE_601_NY	121406	Norwalk Hbr	1	138	-66,900,000	-200,000	-67,300,000
602	121409	NE_602_NY	121406	Norwalk Hbr	1	138	-66,700,000	-200,000	-67,000,000
603	121410	NE_603_NY	121406	Norwalk Hbr	1	138	-66,300,000	-200,000	-66,600,000
690	120389	NE_690_NY	120380	Salisbury	1	69	5,700,000	-1,800,000	7,200,000
CSC	128880	SHMHVDCL	123635	Halvarsson		HVDC	-114,500,000	0	-344,500,000

Additional information on imports from New York to New England for each base case dispatch is listed in the base case summaries Appendix B1-B5 of the July 2012 Needs Assessment, and a summary table can be found in Appendix B6 and B7 of the July 2012 Needs Assessment.

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Civie - 3C.

C. What outages or violations occurred in western Connecticut.

ISO Response:

Contingency events were modeled for all 115 kV of CT, MA, and RI and all 345 kV of New England. No initial line outages were taken in western Connecticut for N-1-1 analysis in the July 2012 Needs Assessment. Only violations in the study area were reported in the summary tables of the report and all violations in New England can be found in the summarized results in Appendix D1 and D2 of the July 2012 Needs Assessment.

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Civie - 3D.

D. What algorithm was used to calculate the violations.

ISO Response:

All lines that were at or above 90% of their LTE (Long Term Emergency) limits were reported in the detailed results of Appendix D1 and D2. Any line loading above 100% of the line's LTE was reported as a violation and marked as a red value in Tables 5-1, 5-2, 5-4, and 5-6 of the July 2012 Needs Assessment.

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Civie - 3E.

E. What generation projects at any stage whether or not they received PPA or any other approval were not included in the study. Please include major transmission sources including resources not cleared as of the 2012 auction, Real Time Emergency Generation and transmission projects that have not been fully developed.

ISO Response:

As of 08/01/12, there are currently 71² generation projects in the ISO-NE Interconnection Queue³. All transmission projects with Proposed Plan Application approval as of the March 2012 RSP Project Listing⁴ and generation resources that cleared the most recent Forward Capacity Auction #6 were included in the July 2012 Needs Assessment. Several other ongoing studies are developing transmission solutions to local area reliability needs that are not PPA approved are: Pittsfield/Greenfield MA study, Vermont/New Hampshire study, Greater Boston study, Southwest Connecticut Phase II study, Greater Hartford / Central Connecticut study, and the Southeast MA / Rhode Island study. Real Time Emergency Generation is not modeled in transmission needs assessments and is explained more in detail on page 18 of the July 2012 Needs Assessment. The amount of Real Time Emergency Generation in New England is listed below:

² Excludes "Elective Transmission" queue projects.

³ http://www.iso-ne.com/genrtion_resrcs/nwgen_inter/status/interconnection_request_queue_08012012.xls

⁴ http://www.iso-ne.com/committees/comm_wkgrps/prtcpnts_comm/pac/projects/2012/march2012_projects.xls

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Civie - 3E.

ISO Response (Cont'd):

Load Zone	Qualified Capacity (MW)	CSO (MW)
Connecticut	303	185
Maine	39	35
NEMA/BOSTON	151	130
WCMA	102	83
SEMA	80	64
New Hampshire	44	40
Rhode Island	97	66
Vermont	21	14
New England	837	617

Subarea	Qualified Capacity (MW)	CSO (MW)
Western NE	426	283
Eastern NE	314	268
Rhode Island	97	66
Connecticut (included in the western NE numbers above)	303	185

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Civie - 4.

In reference to any study, solution or analysis in which the violations where [sic] eliminated by the proposed configuration /alternative of this Docket No. 424 application,

- A. Provide the transmitted power (Watts) and directions of the lines studied.
- i. Specifically list the transmitted power (Watts) and directions in lines 3196, 368, 383, 330, 1465 and 1280-3.

ISO Response:

Data is only recorded for lines that are near or above a specified limit for each scenario and the worst case violations are reported in the summary tables in the needs assessment report. The base case loading of the lines (Watts) requested are shown in the following table:

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383	119064	Card St	119194	Millstone	1	345	602,500,00	-522,100,000	587,800,000
330	119051	Lake Rd	119064	Card St	1	345	707,400,000	-78,800,000	653,600,000
1465	119673	Mystic CT	119682	Shunock	1	115	0	107,900,000	20,900,000
1280-3	119664	Whipple Jct	119673	Mystic CT	1	115	62,400,000	171,700,000	83,600,000

Lists of all remaining elements near or above limits are recorded in the Appendix E4 of the July 2012 Solution Study,⁵ Applicant’s Exhibit 32, filed under Protective Order as CEII. The Long-term emergency ratings of the facilities are provided in response to Civie-3A.

⁵ Draft “Follow-Up Analysis to the 2012 New England East-West Solution (NEEWS): Interstate Reliability Project Component Updated Solution Study Report,” published on July 23, 2012.

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Civie - 5.

Provide the Appendices along with title, description and terms of the tables found therein for the ISO-New England “Follow-Up Analysis to the 2011 New England East-West Solution (NEEWS): Interstate Reliability Project Component Updated Needs Assessment” report dated July 2012.

ISO Response: The July 2012 Needs Assessment appendices have been submitted by the Applicant as CEII under protective order as part of Applicant’s Exhibit 29.