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Karen Geraghty
Administrative Director
Maine Public Utilities Commission
State House Station #18
242 State Street
Augusta, ME 04333-0018

Re: CENTRAL MAINE POWER COMPANY and MAINE PUBLIC Request for Certificate of Public Convenience And Necessity for the Maine Power Reliability Program Consisting of the Construction of Approximately 350 Miles of 345 kV and 115 kV Transmission Lines ("MPRP")
Docket 2008-255

Dear Karen:

Enclosed for filing in the above-captioned proceeding is ISO New England Inc.'s responses to the following ODRs.

ODR-03-01
ODR-03-02
ODR-03-05
ODR-03-08
ODR-03-09
ODR-03-17
ODR-03-29

Very truly yours,

A handwritten signature in black ink, appearing to read "William V. Ferdinand, Jr." with a stylized flourish at the end.

William V. Ferdinand, Jr.

WVF/smc

From: Oberlin, Brent [boberlin@iso-ne.com]
Sent: Tuesday, August 07, 2007 12:00 PM
To: Mobarak, Mohamed
Cc: Conroy, David; Briggs, Alden; Scott, Brian; Wilcox, Andrew
Subject: RE: MPRP - Change in Power Flow

Mohamed,

Unfortunately, this is a 10 year out study, so I really don't want to get tied to a specific set of conditions. In generic terms, if we lose one of the northern Maine lines, it would likely be beneficial to back down the flow from NB. In the case where we are sending power to NB, when we lose one of the lines between NH and Maine, it seems to make sense that we would see less overloads in that area if we back down what we are sending to NB.

I have taken out of your statements that it is not unreasonable to go from -300 to 0 and 1000 to 500 MW. We will continue to use these assumptions going forward. The system may have more capability, I don't think we should bank on that 10 years from now.

Brent Oberlin

Transmission Planning

ISO New England Inc.

boberlin@iso-ne.com

(413)540-4512

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From: Mobarak, Mohamed [mailto:MMobarak@nbpower.com]
Sent: Tuesday, August 07, 2007 11:33 AM
To: Oberlin, Brent
Cc: Conroy, David; Briggs, Alden; Scott, Brian; Wilcox, Andrew
Subject: RE: MPRP - Change in Power Flow

Brent,

Technically speaking the answers to both questions are yes and depending on the generation dispatch and the status of our interconnections with Nova Scotia and Quebec and regardless where the starting flow on the NB-NE interface, the flow between NB and NE can be adjusted within its capability limits of 1000 MW into NE and 550 from NE, following the first contingency, as long as system reliability is preserved. However, it is difficult for me to give a general answer in the absence of the conditions of the system at the time when and if the scenarios of question 1 and question 2 arise, and whether the background issues are related to Operating Studies, SIS or congestion management. I would like to see a specific scenario where you find it necessary to cut NB to NE flow from 1000 to below 500 MW or NE to NB flow from 300 MW to below zero.

Mohamed Mobarak

From: Oberlin, Brent [mailto:boberlin@iso-ne.com]
Sent: August 07, 2007 11:29 AM
To: Mobarak, Mohamed
Cc: Conroy, David; Briggs, Alden; Scott, Brian; Wilcox, Andrew
Subject: RE: MPRP - Change in Power Flow

Thanks for your response. I understand that a "one size fits all" approach may not work. What I was really looking for was a sanity check two thoughts...

1. Is it reasonable to take NB export to NE from 1000 to 500 MW? If the answer is yes, could it be cut back even further?
2. Is it reasonable to take NB import from NE from 300 MW to 0 MW? If the answer is yes, could you go from importing 300 MW to actually exporting power to NE? If so, how much.

Brent Oberlin

Transmission Planning

ISO New England Inc.

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From: Mobarak, Mohamed [mailto:MMobarak@nbpower.com]
Sent: Tuesday, August 07, 2007 10:00 AM
To: Oberlin, Brent
Cc: Conroy, David; Briggs, Alden; Scott, Brian; Wilcox, Andrew
Subject: RE: MPRP - Change in Power Flow

Hi Brent,

In general cutting NB to NE exports and cutting NB imports from NE following first contingency in NE or NB is acceptable as long as it is a necessary measure to ensure reliable system performance following the second contingency. However, as shown in the (n-1) analysis of the transfer limits in the NRI/IPL operating study, the final numbers can vary depending on which facility is out and on system conditions. It is difficult to pick a number that works for all possible (n-1) contingencies and all possible dispatch conditions in NB and NE. Cutting NB to NE export from 1000 MW to 500 MW as was suggested below may work well for many cases but may not work in some cases as in the following examples:

- 1) Line 388 is out and Bangor at light load (say 150 MW) and MIS is out of service. The 500 MW for NB to NE is high enough to cause thermal overload of the 115 kV lines south of Orrington.
- 2) As in the above scenario with line 388 out of service and with light or higher Bangor load, but MIS is on-line. In this case the 500 MW from NB and the 550 MW from MIS are far above the STE rating of the 115 kV lines south of Bangor.
- 3) Cutting the NB to NE export from 1000 MW to 500 MW may be too much if the facility out of service is the NRI/IPL line as NB can still send 600 to 700 MW to NE.
- 4) Cutting the NB to NE export from 1000 MW to 500 MW may be too much following the Maine Yankee DCT contingency (actually the NRI/IPL Operating Study team is addressing this issue as we speak).

Similarly, it is valid under certain conditions to cut the NB imports from NE from 300 MW to zero or even reversing the flow from NB to NE (as in the case when Bangor is islanded with the Maritimes following loss of line 388 or 392 or in the case of minimum flow requirements today with one 345 kV tie between NB and NE). However, in other cases this may be an unnecessary cut, as in the case when the NRI/IPL is out of service, all other facilities in-service and some generation is available in the Bangor area, where NB can import up to 250 MW. Also under emergency conditions in NE there may be a room, on a case by case basis, to re-dispatch NB generation and NB-HQ interchanges to support NE.

So the numbers you suggested below may work well in many (n-1) cases, but they need to be checked on a case by case basis. In some cases these numbers, under certain conditions, could amount to unnecessary transfer between NB and NE or vice versa and in other cases they could be high enough to cause thermal, voltage or stability violations. If you are working with specific cases, we would be glad to provide input.

Regards,

Mohamed Mobarak; P.Eng.

NBPT

From: Oberlin, Brent [mailto:boberlin@iso-ne.com]
Sent: August 06, 2007 2:54 PM
To: Mobarak, Mohamed
Cc: Conroy, David
Subject: MPRP - Change in Power Flow

Mohamed,

We are doing studies for the Maine Power Reliability Program. This is essentially looking at the ability of the Maine transmission system to serve the Maine load. We are doing some second contingency testing, assuming that the operators can take their 30 minute actions between the two contingencies. The one wild card is how much can we change imports and exports from NB.

Let me start with NB exporting to NE at 1000 MW in the all lines in case. In the study, we have assumed that this export could be cut back to 500 MW following the first contingency in preparation for the second. Does this sound reasonable? Could we have cut back the transfers even further?

In the second case NB is importing from NE at 300 MW in the all lines in case. In the study, we have assumed that this import could be cut back to 0 MW following the first contingency in

preparation for the second. Does this sound reasonable? Could we have adjusted transfers even further?

Brent Oberlin

Transmission Planning

ISO New England Inc.

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