CENTRAL MAINE POWER COMPANY
RESPONSE TO EXAMINER'S DATA REQUEST NO. 4
DOCKET No. 2008-255

October 7, 2008

EX-04-20

Q. Please provide documentation that shows that the ISO-NE requires that planning studies be simulated at 100 percent load levels with a 90/10 probability of occurrence.

A. See attached Reliability Committee Meeting minutes from October 8, 2002. Since that meeting, the ISO and Transmission owners have used this standard.

Response Prepared and Submitted By:
Rick Conant
Manager, Power System Studies
RLC Engineering, LLC

Attachment:
1. *Meeting of the NEPOOL Reliability Committee (10/8/02)*

Meeting of the
NEPOOL Reliability Committee
Held at National Grid Offices – Westboro, MA
Tuesday, October 8, 2002

Members Present	Sector	Affiliation
P. Shortley	Chairman	- ISO New England Inc.
R. Borghesani	End Users (4)	- The Energy Consortium (TEC) and representing by proxy The Energy Council of Rhode Island (TEC-RI), Associated Industries of Massachusetts (AMI), and Texas Instruments
A. Boutsioulis	Transmission	- The United Illuminating Company
D. Capra	Generation (2)	- ANP Marketing Company and representing by proxy the Generation Group
D. Conroy	Transmission	- Central Maine Power Company
D. Disher	Generation	- Signal Hill Consulting Group representing Duke Energy North America LLC
J. Fenn	Transmission	- Bangor Hydro-Electric Company
B. Fowler	Supplier	- Sigma Consultants, Inc. representing PECO Energy Company – Power team
J. Gawronski	Transmission	- The United Illuminating Company
R. Hinners	Transmission	- Vermont Electric Power Company, Inc.
B. McKinnon	Publicly Owned (36)	- Mass. Municipal Wholesale Electric Company representing by proxy some 36 publicly owned participants
T. Morrissey	Supplier	- PG&E Energy Trading – Power, LP
T. Murrell	Transmission	- NSTAR representing Boston Edison Company
C. Salamone	Transmission	- NSTAR representing Boston Edison Company
A. Scarfone	Transmission	- Northeast Utilities System Companies
C. Sjoberg	Supplier	- AES Londonderry, Inc.
R. Stein	Generation (2)	- Signal Hill Consulting Group representing FPL Energy, LLC, and Wisvest – Connecticut L.L.C.
	Supplier (3)	- Signal Hill Consulting Group representing El Paso Merchant Energy, LP, H.Q. Energy Services (US) Inc. and by proxy NRG Power Marketing Inc.
P. Tatro	Transmission	- National Grid-USA representing New England Power Company

Guests	Affiliation
M. Boucher	- HQ TransEnergie
T. J. Dutkiewicz	- ISO New England Inc.
D. Ehrlich	- ISO New England Inc.
R. Howland	- HQ TransEnergie
G. Klabon	- EIG
R. Kowalski	- ISO New England
J. Martin	- National Grid - USA
S. Parekh	- Massachusetts DTE
O. Sanchez	- ISO New England Inc.
B. Shapiro	- Massachusetts DTE

(PT) = Part Time

1.0 Chairman's Report

Mr. Shortley reported on the activities and actions taken at the October 4, 2002 NEPOOL Participants Committee (PC) meeting. Mr. Stein noted the tables, reporting on the status of various Regional Transmission Expansion Plan (RTEP) projects, which were distributed to the PC as part of the ISO's Chief Operating Officer's report. He noted that the information indicated that the West Walpole breakers, which impact Southeast Massachusetts (SEMA) transfer limits, were not scheduled for installation until December 2003. Mr. Salamone responded that NSTAR is preparing the necessary documentation to obtain 18.4 and 15.5 approval and that, following approval, delivery times are expected to be about three months. He reported that NSTAR is hopeful of having the subject breakers in service prior to the summer 2003. Mr. Salamone was encouraged to obtain the necessary approvals as soon as possible, and to achieve consideration at the November Reliability Committee (RC) meeting if possible.

Mr. Fowler reported on the fire that occurred at the New Boston station. Although a thorough assessment has not been completed, it appears that unit 2 received extensive damage while unit 1 received less damage. Mr. Fowler noted that the ISO has requested an assessment of the feasibility of returning unit 1 to service as soon as possible to meet the reliability requirements of the area. Unit 1 was retired on July 1, 2002, and unit 2 is covered by a reliability contractual arrangement. Although the assessment has not been completed, Mr. Fowler noted that if the ISO wishes to proceed down that path, an 18.4 would need to be submitted to reactivate unit 1 and a second 18.4 to retire unit 2. After discussion, the committee concluded that swapping of the units would have no adverse impact on the system and that 18.4 review would be a relatively routine matter.

2.0 Minutes

Deferred to a future meeting.

3.0 18.4 Applications (Level II and Level III)

3.1 New England Power Company (NEP) – Installation of a Type III SPS at the ANP Bellingham Plant in Bellingham, Massachusetts – Transmission Facilities 18.4 Application - NEP-02-X02

Mr. Tatro summarized the 18.4 application, NEP-02-X02, for the installation of a Type III Special Protection System (SPS) at the ANP Bellingham plant to protect unit 2 from potential shaft fatigue resulting from automatic reclosure of the 3520 line between West Medway and the Bellingham switchyard.

Mr. Shortley reminded the committee that these SPSs are very undesirable, can lead to loss of multiple units at or near the same time, and that every reasonable alternative to avoid the need for the SPS should be pursued. For these reasons, he suggested conditions be placed on the 18.4 approval similar to those placed on the Lake Road project, which includes a review after a one year period.

It was moved and seconded to recommend approval of the New England Power Company (NEP) Transmission Facilities 18.4 Application, NEP-02-X02, for the installation of a Type III Special Protection System (SPS) that will trip the Unit 2 generator circuit breaker at American National Power's (ANP) Bellingham plant located in Bellingham, Massachusetts, as initiated by a line 3520 protection system trip of 345 kV circuit breaker 03-20 at the plant switchyard in order to limit the potential for fatigue damage to the Unit 2 shaft that may result following synchronism check reclosing of the 03-20 circuit breaker with both lines 3520 and 303 energized, with an in service date of November 2002, as detailed in Mr. Philip Tatro's September 27, 2002 transmittal to Mr. Paul Shortley which will not have a significant adverse effect upon the reliability or operating characteristics of the NEPOOL system so long as the following condition is satisfied:

1. Subject to review, within twelve (12) months, and consideration of the need and appropriateness for continuation of the SPS.

And to further specify that any otherwise needed future expansion of the system should consider any additional upgrades that are appropriate to eliminate the ANP Bellingham SPS with regard to the reliability benefits that would result.

This motion was passed unanimously with a vote of 100% in favor, no abstentions: All Sectors present.

4.0 18.4 Applications (Level 1 – Information Only)

4.1 Northeast Utilities System Companies (NU) - Construction of new 115 kV Transmission Line J125 – Transmission Facilities 18.4 Application – NU-02-T18

Mr. Scarfone reviewed 18.4 application, NU-02-T18, for the construction of a second 14-mile non-PTF 115 kV transmission line (J125) between Webster and Laconia (Lake Region Energy Project), as detailed in his September 20, 2002 transmittal to Mr. Paul Shortley. Mr. Scarfone noted that the new line is needed to provide reliable service to the Laconia 115/34.5 kV substation.

The Committee reviewed the application and concurred that it was Level 1 and accepted the notice.

5.0 2000-2001 Load Power Factor Audit Results

Mr. Sanchez presented an overview of NEPOOL Operating Procedure No. 17 – Load Power Factor Correction (OP 17). OP 17 defines the study procedures used to establish minimum and maximum subarea load power factor standards as a function of load level. OP 17 also defines the survey process used to assess Participant compliance with the established standards.

Mr. Dutkiewicz reviewed the study methodology used by the Voltage Task Force (VTF) to update the load power factor minimum and maximum standards. He reported that, for this purpose, the system was divided into ten subareas, as opposed to the five subareas that had been used in the past. Mr. Dutkiewicz and Mr. Sanchez reviewed the 2003 load power factor standards for each subarea resulting from the studies.

Next, Mr. Dutkiewicz and Mr. Sanchez reviewed the load power factor survey results. The surveys were based on selected days in 2000 and 2001 covering a variety of on peak and off peak system conditions. Based on the survey results compared to the new 2003 load power factor standards, a number of Participants were deficient. Mr. Dutkiewicz and Mr. Sanchez reviewed the capacitors and new capacitor switching capabilities or reactors needed by Participants in order to achieve compliance with the new standards.

The committee discussed the work of the VTF and agreed to the following actions:

- The VTF has committed to assuring that a review and update of the minimum and maximum load power factor standards occurs annually.
- The ISO staff has committed to assure that a survey of load power factor compliance will be performed annually.
- The 2003 load power factor standard curves will be presented for formal action by the Reliability Committee at its November meeting.
- OP 17 needs some additional work and modifications. The VTF will complete this review and present OP 17 for action by the Reliability Committee at a future meeting.
- The ISO will issue letters to Participants who have reactive deficiencies relative to the new 2003 standards and request submittal of plans to achieve compliance; the Reliability Committee will be appraised of results, and if Participants are not responsive, the NEPOOL Committee process will be asked to assist.
- The Compliance Working Group will be asked to formally incorporate OP 17 requirements into the NEPOOL compliance program.

6.0 PPS Report

Mr. Kowalski reviewed proposed changes to NEPOOL Planning Procedure 5-1 – Requirements, Procedures and Forms for Submitting 18.4 Applications (PP5-1). Draft changes were distributed to the committee prior to the meeting. The draft changes were developed by the Planning Procedure Subcommittee (PPS) and are being presented for discussion and input at this meeting, not action.

Discussion focused on the proposed process for terminating outstanding 18.4 applications for dormant or no longer valid projects. Mr. Kowalski indicated that the intent was to remove projects which are no longer viable or which are no longer intended to be completed. Removal of these projects is necessary and desirable for an accurate system representation in on going studies and for proper evaluation of valid projects. Without elimination of these 18.4 application, one does not know what system configuration should be studied.

Proposed revisions to PP5-1 would require a demonstration of due diligence and/or a demonstration of continued active project pursuit when the project is more than two years past its 18.4 declared in service date. Members of the committee expressed concern over the introduction of 18.4 approval uncertainty. Examples of actual, legitimate project delays of two years or more were cited. In such circumstances, the ability to arbitrarily remove project 18.4 approval was troublesome for some members.

An alternative approach was suggested in which the Reliability Committee periodically review the status of 18.4 approvals and make a determination as to when a project would no longer be reflected in system studies.

It was suggested that Section 1.1.4 of PP5-1 be amended to include the authority of the Reliability Committee to recommend conditions that may be placed on 18.4 approval. Additional comments and suggestions regarding the draft PP5-1 document are to be submitted to Mr. Kowalski by Tuesday, October 22, 2002.

7.0 2002 Summer Peak Loads

Mr. Ehrlich presented an overview of the results of weather normalization of the 2002 summer peak loads. He reviewed in detail the weather normalization process. The results of the analysis of summer 2001 and 2002 were presented as follows:

	Actual Peak	Reconstituted for OP 4	Weather Normalized	Forecast	Forecast % Error
2001	24967	25566	23790	23650	-0.6
2002	25348	25516	24370	24200	-0.7

Mr. Ehrlich reported that the analysis also determined a random behavior of daily peaks of about ± 750 MW that is due to factors other than weather. Although the probabilistic nature of weather is modeled in Objective Capability (OC) studies, the additional daily random behavior is not. The Power Supply Planning Committee (PSPC) should consider this phenomenon relative to OC determination and make a recommendation to the Reliability Committee. The PSPC is also considering how best to deal with the uncertainty associated with when the extreme weather will occur during the summer.

After lengthy discussion, the Committee concluded:

- That the 50/50% peak forecast is appropriate for continued use in probabilistic models such as those used to establish Objective Capability. The PSPC should continue to address how best to capture other uncertainties including the timing of peak eliciting extreme weather conditions.

- That the Reliability Committee urges that a higher load forecast, such as the 90th percentile load, should be reviewed by the TTF for use when performing deterministic analysis. This would include transmission planning needs assessments and capacity adequacy analyses and presentations.

Future Meetings

The next regularly scheduled meeting of the Reliability Committee will be held on Tuesday, November 5, 2002, at the National Grid-USA offices in Westboro, Massachusetts.

Respectfully submitted,

Paul Shortley, Chair
NEPOOL Reliability Committee