

**Witness: CL&P Panel  
Request from: Connecticut Energy Advisory Board**

**Question:**

Are the Needs Analysis and the Options Analysis based upon load flow simulations? If so, please provide the name and version of the load flow software that was used. Also, please provide the following information:

1. System Model, Study Scope and Assumptions:
  - a. System model used in study (PSS/E)
  - b. Complete PSS/E files/data
  - c. Year(s) of study
  - d. Generation dispatches and assumptions
  - e. Load levels (ISO-NE, by load areas and by substation bus)
  - f. Power Factor assumptions
  - g. Contingency deck (N-1)
  - h. Lines assumed out of service for N-1-1 testing
  - i. Major interface assumptions
  - j. Interface flows tested
  - k. Other projects assumed in service (generation and transmission)
  - l. Criteria used for system evaluation
2. Study Results:
  - a. Thermal and Voltage violations (N-1 and N-1-1) with associated contingencies
  - b. Resulting transfers
  - c. Detailed description of project(s) to address identified needs
  - d. Comparison of thermal and voltage violations and resulting transfer capabilities before and after project(s)

**Response:**

Yes the Needs Report and Options Report are based upon power-flow simulations in accordance with national and regional reliability standards. The power-flow studies that were used for the Needs Analysis and Options Analysis used the Siemens PTI PSS/E version 29.5 software package. The simulations underlying the Needs Analysis modeled the regional system as it is expected to exist in 2009, with no NEEWS additions. In later studies, the expected 2009 system was modeled with all of the NEEWS projects added. The information requested in parts 1b-2d above is provided in the electronic files of those power-flow studies. CL&P is currently performing power-flow simulations using updated forecast information and modeling the addition of the GSRP only. These studies are expected to be complete in July, at which time CL&P will provide the requested information. CL&P respectfully suggests that the later, GSRP-only studies are more relevant to the CEAB's task of determining whether to issue, and then designing an RFP. However, CL&P will provide electronic copies of the any of the above power flows requested by CEAB. To obtain this data, CEAB's consultant should contact Allen Scarfone of the NUSCO transmission planning department, at (860) 665-2519. Appropriate advance arrangements will be required to protect this power-flow data as Critical Energy Infrastructure Information.

