**Public Service Company of New Hampshire**
**Docket No. 11-094**

**Record Request RR-01**

**Dated: 11/30/2011**
**Q-RR-001**
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**Witness:** **William H. Smagula,Robert A. Baumann**
**Request from:** **New Hampshire Public Utilities Commission Staff**

**Question:**
What were the results of PSNH's investigation of the costs associated with acquiring the tools to perform transient stability analyses and the details involved in developing and maintaining the in-house expertise?

**Response:**
In response to the Hearing Day data request, PSNH personnel from Generation, Distribution and Transmission further discussed the anticipated requirements, tasks and costs associated with developing and maintaining in-house expertise to perform transient stability analyses. PSNH distribution engineering can access the software, currently used by the Transmission organization, to perform these studies, but distribution engineering currently does not use the software. PSNH also believes the effort involved to thoroughly model the generation and distribution system's equipment in order to study the impact of changes made to distribution protective device clearing times on the stability of each hydroelectric generating station is not fully defined or understood at present.

Notwithstanding these observations, PSNH understands the potential value of the effort. PSNH agrees to develop the in-house expertise to identify planned changes in the distribution system which have the likelihood to create a transient instability event at PSNH's hydroelectric generating stations. In house knowledge will begin to be developed in January. PSNH distribution and generation personnel will begin to meet on at least a quarterly basis, beginning the first quarter of 2012, to identify and discuss potential impacts of distribution system changes on the performance of PSNH's hydroelectric generating stations including a review of the benefits, potential risks and costs. As feasible, modeling for hydro facilities with higher risk for instability will be prioritized. As deemed appropriate, PSNH will have a transient stability study performed either by in-house engineers or by an outside consulting firm. With this approach, PSNH hopes to minimize cost to customers while maximizing value and reducing risk. PSNH will report progress on this plan by the next reconciliation filing on or about May 1, 2012.