

**STATE OF CONNECTICUT  
CONNECTICUT SITING COUNCIL**

**Northeast Utilities Service Company Application to the Connecticut Siting Council for a Certificate of Environmental Compatibility and Public Need ("Certificate") For The Construction of a New 345-Kv Electric Transmission Line Facility and Associated Facilities Between Scovill Rock Switching Station in Middletown and Norwalk Substation In Norwalk, Including the Reconstruction of Portions of Existing 115-kV and 345-kV Electric Transmission Lines, the Construction of Beseck Switching Station in Wallingford, East Devon Substation in Milford, and Singer Substation in Bridgeport, Modifications at Scovill Rock Switching Station and Norwalk Substation, and the Reconfiguration of Certain Interconnections**

**Docket No. 272**

**December 8, 2004**

**ANSWERS OF ABB, INC. TO  
SECOND SET OF INTERROGATORIES OF  
THE CONNECTICUT LIGHT AND POWER COMPANY AND  
THE UNITED ILLUMINATING COMPANY DIRECTED TO ABB, INC.  
DATED NOVEMBER 30, 2004**

17. The answer to CL&P/UI Interrogatory No. 12 includes a table that aggregates outage data for the Cross Sound Cable and Murrylink projects. Please disaggregate the data and provide a separate outage data table for each project individually (without including the outage data for the other project). Also, calculate the annualized forced outage rate (in %, with 8,760 hours = 100%) and annualized scheduled outage rate for each project, based on experience through August 31, 2004.

The data required to answer interrogatory No.17 has not been released by the owners of these projects for submission to third parties. The owners refer ABB and CL&P/UI to the technical papers published by CIGRE for public information regarding the projects.

The papers are available at the ABB website [www.abb.com/hvdc](http://www.abb.com/hvdc). When the page is found, select the "HVDC Light" icon, then "Technical papers – HVDC Light". Both papers are found under the heading "Papers presented at the Cigré conference, Paris, France, Aug. 29 - Sept. 03, 2004". The documents are:

J.J. Miller, B.D. Railing, G. Moreau, C. Clarke, B. Williams, I. Matsson, A. Ericsson, "Murraylink, The Longest Underground HVDC Cable in the World", CIGRE 2004, Paper No. B4-103, Paris, France.

J.J. Miller, B.D. Railing, P. Steckley, P. Bard, G. Moreau, L. Ronstrom, J. Lindberg, "Cross Sound Cable Project, Second Generation VSC Technology for HVDC", CIGRE 2004, Paper No. B4-102, Paris, France.

18. Please disaggregate the price/cost information included in the answer to CL&P/UI Interrogatory No. 16, to provide a separate cost estimate for each of the following components, for each option:

- (a) labor;
- (b) material;
- (c) equipment;
- (d) overhead;
- (e) contingency costs;
- (f) each other component of your cost estimate.

The previous response defined the scope covered by our price estimates. We are however at this stage not prepared to give more details.

19. For each interrogatory response 1 through 18, please state the ABB witness who will be available at the upcoming hearings to testify as to the answer.

The following ABB witnesses will be available at the hearings:

Dave Dickmader - Lead spokesperson  
Mike Bahrman - Lead spokesperson  
Rana Mukerji – Lead Spokesperson  
Leif Ronstrom - VSC-HVDC Technical Support  
Magnus Larsson-Hoffstein - VSC-HVDC Cable Support