

STATE OF CONNECTICUT  
CONNECTICUT SITING COUNCIL

NORTHEAST UTILITIES SERVICE	:	DOCKET NO. 272
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	:	
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	:	JULY 16, 2004

**FIRST BIWEEKLY REPORT OF THE  
RELIABILITY AND OPERABILITY COMMITTEE**

**I. SUMMARY OF WORK ACTIVITIES**

The Reliability and Operability Committee (“the Committee”) was formed by ISO-NE and the Applicants in this proceeding, The Connecticut Light and Power Company and The United Illuminating Company (collectively, “the Companies”), following the June hearings in this docket with the goal of filing with the Siting Council by August 16, 2004 a document that sets forth project modifications that would (a) reflect the maximum amount of undergrounding possible between Middletown and Norwalk, consistent with the need to assure reliable operation of the bulk power system,<sup>1</sup> and (b) be supported by ISO-NE through the Restated NEPOOL Agreement, Section 18.4 process.

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<sup>1</sup> As indicated at the June 23, 2004 Process Meeting, the Committee’s stated mission is as follows:

In accordance with its planned study approach,<sup>2</sup> The Committee began its work by preparing the attached table entitled “Middletown-Norwalk Project Study Cases.” This table describes twelve different system configurations, or “cases,” and describes the technical studies. The first case considered by the Committee is Case #5, which utilizes the Companies’ proposed route but substitutes XLPE for HPFF cable between East Devon, Singer, and Norwalk Substations, and removes one of two 10-mile 345-kV HPFF cables in the Bethel-Norwalk project from service. Cases 1-4 have higher levels of system capacitance than Case #5, while Cases 6-12 have progressively lower levels of capacitance than Case #5.

On July 12, 2004, the Companies filed a copy of the GE harmonic resonance study for Case #5 with the Siting Council. As discussed during the July 13<sup>th</sup> conference call, ISO-NE has indicated that Case 5 is not acceptable because the system operates below the third harmonic with all capacitor banks in service. However, the results of the harmonic study of Case #5 are encouraging because they demonstrate that the reduction of capacitance on the system has the effect of increasing system resonance, as the Committee had expected. Therefore, the Committee has commissioned harmonic, thermal, and voltage studies of Case #6, which modifies Case #5 by taking additional measures to reduce capacitance. Specifically, Case #6 includes removing the 115-kV capacitors at Plumtree Substation from service, reducing the capacitors at Glenbrook to 75 Mvar, and reducing the capacitors at Frost Bridge Substation to 205 Mvar in the “all capacitors in” cases. The Committee hopes to have these studies completed by July 20, 2004.

## II. CONFERENCE CALLS

The Committee held conference calls on July 6<sup>th</sup> and July 13<sup>th</sup>. The purpose of these weekly calls is to provide all interested parties and intervenors with a periodic update on the nature and status of the studies that the Committee has commissioned. The general

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To utilize the Companies’ existing proposed route as the starting point for determining the maximum linear length of undergrounding of the proposed 345-kV line that is technologically feasible, reliably operable and meets system need as defined by RTEP for the Middletown to Norwalk Project, consistent with ISO-NE’s responsibilities of assuring reliable day-to-day operation of New England’s bulk power system and with the designing and planning of that system in accordance with Good Utility Practice and national and regional reliability criteria. The goal of the . . . Committee is to file with the Siting Council by August 16, 2004 a document that sets forth project modifications that would be supported by ISO-NE through the Restated NEPOOL Agreement, Section 18.4 process.

<sup>2</sup> As indicated at the June 23, 2004 Process Meeting, the Committee’s stated plan, in determining the maximum amount of undergrounding possible consistent with the need for system reliability, was to begin by studying the Companies’ current proposal and, based on such study, then determine how much more undergrounding might be feasible. The Committee’s plan was stated as follows:

The . . . Committee will begin this process [of determining the maximum undergrounding reliably possible, as stated in its mission] by investigating effective mitigation (from an electric system standpoint) to the Companies’ current proposal for approximately 24 linear miles of underground 345-kV lines (such as the use of 345-kV XLPE cable rather than HPFF cable).

format for these conference calls is a brief update provided by ISO-NE and/or by CL&P and UI regarding the status of the ongoing technical studies, followed by questions from the participants. (Attached is a copy of the protocol for these conference calls.) For purposes of the first session, held on July 6th, the parties and intervenors were invited to attend either in person at the CCSU Institute for Technology and Business Development in New Britain or by conference call.