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**Larry Rossi Task Force Working Group
Position Paper on Northeast Utilities' Proposed 345 kV Transmission Line
in Southwest Connecticut**

The towns, of Norwalk, Wilton, Bethel, Redding and Weston, (the "Towns") do not contest the need for more access to power in Southwest Connecticut (SWCT). SWCT is a congested region because its load levels are high relative to the capacity of area transmission lines, local generation and commitment to conservation and load management programs. This imbalance in demand versus supply resources results in economic costs and safety concerns to consumers throughout New England but most particularly in SWCT. The probability of loss of load in SWCT is mitigated by exercise of Operating Procedure 4 and, recently, special ISO-NE initiated contracts for load shedding and temporary generation. Even with these measures there is always the possibility that load shedding may be required. Something must be done in a cost efficient and environmentally acceptable manner to put an end to the congestion and bottlenecking of power that causes high probability of power outages and high prices to consumers. The easy solution is to say "costs be damned" and proceed with what the Towns believe is a far less than optimum solution in the construction of the 345kV project as proposed by Northeast Utilities. The Towns encourage the State to examine with an open mind all creative possible solutions to the problems in the region, and to choose the most effective, economic, and reliable and environmentally benign plan.

Independent studies conducted by the ISO-NE affirm the need for more transmission to SWCT and also show that nominal amounts of generation in critical areas can substantially help to alleviate operational problems associated with congestion. Therefore, as Connecticut Attorney General Richard Blumenthal testified, only a multi-pronged approach will effectively and successfully address the problems. The ISO-NE and representatives from NU have said that even with the 345kV plan in place all the generation in SWCT is still "required" and generators can hold consumers hostage to *higher* than necessary energy costs. This fact basically confirms that new, clean selective generation and load control programs must be part of the long-term solution.

Northeast Utilities has put forth a proposal for the construction of a 345 kV line that would run from Bethel to Norwalk. Limited research on NU's proposed line done by independent experts indicates that it would be greatly underutilized for a very high percentage of the time. This proposed line alone does not relieve the SWCT problems; a full solution relies on a larger proposal for completion for the 345 "loop" that would further tie the Norwalk-Stamford area to New Haven and back to Middletown. On December 5, 2002 ISO-NE indicated a need to augment the NU proposal with an additional 345kV line from Norwalk to Stamford to assure the expected benefits of the loop proposal. No corridor was identified for this line other than offering a Long Island Sound buried route as a possibility.

The Towns and the Attorney General contend that while the 345 loop plan would resolve the congestion issue, it would do so at an economic and environmental cost that is excessive when compared to possible alternatives. Several factors should be considered in forming the alternative plan.

The objectives and concerns of the ISO-NE Regional Transmission Expansion Plan ("RTEP") for 2002 undertaken by ISO-NE need to be considered. The RTEP addresses two broad categories - reliability of bulk power system operations and the economic impact of transmission congestion. Locational Marginal Pricing (LMP) is to be implemented in Connecticut on March 1, 2003 as part of the ISO-NE Standard Market Design (SMD). The entire rationale for the SMD is to target price signals to load serving entities inside of problem areas to better motivate development of solutions to congestion. Theoretically, high LMP prices cause additional generation and demand response to be developed. ISONE sanctioned transmission investments are expected to be a fallback for circumstances where economic signals alone are not sufficient to prompt a market response to real operational reliability problems. Arguably it is premature for ISO-NE to promote the 345kV loop plan since neither LMP nor SMD has been implemented and it is well recognized that current market price signals do not include measures to attract investment in peaking or intermediate type generators needed in the region.

Based on this background, a prudent transmission expansion plan for Southwest Connecticut needs to recognize that it will most likely take a period of time for the impact of LMP to elicit appropriate market responses. Generators have openly complained that market based pricing has not been sufficient to cover costs. It is expected that Reliability Must Run ("RMR") contracts similar to those recently awarded to NRG for Devon Station may become a common part of the "market" in Connecticut. These RMR contracts guarantee certain payments to generators, in exchange to securing operation of the plants on a cost plus basis. These arrangements then lower LMP, reducing the comparative avoided cost upon which transmission development costs are compared.

My recommendation is that a thorough and timely investigation of alternatives to the 345 loop proposal be investigated by an independent consultant with the cooperation of ISO-NE and NU. ISO-NE efforts to study a 115kV alternative line have not had promising results, but more comprehensive examination is required. The independent consultant would work interactively with ISO-NE and NU parties to develop and evaluate alternatives. As a first step the investigation should focus on a realistic set of assumptions for defining such alternatives. These alternatives should generally consist of (1) a system based on upgrades to existing 115 kV lines and related infrastructure with addition of new 115kV lines and strategically located generation as well as (2) a hybrid 345kV and 115kV systems with particular emphasis on using existing Rights of Way ("ROW") including the ROW adjacent to the Amtrak rail line, to the greatest extent possible. All systems examined should look to ways to maximize load control and conservation benefits and minimization of new construction through strategic upgrades to existing infrastructure developed in conjunction with strategically placed generation and equipment additions at existing sites.

ISO-NE studies have shown that Load Response programs totaling between 100 MW and 300 MW for the next several years should be sufficient to maintain supply resource adequacy. In addition, transmission upgrades to address congestion, must run situations, voltage and short circuit problems (such as the Glenbrook Static VAR Compensator and Middletown autotransformer) have been identified as relatively low cost investments and should be responded to and pursued on an expedited/emergency basis if we are to treat the transmission reliability as a critical problem. Other upgrades and transmission projects that would facilitate the interconnection of additional generation resources to the existing 115 kV system or sub transmission system should be identified and pursued on an expedited basis. Further, the Milford Project is all but completed, but has not been brought on-line due to pending litigation. The State of Connecticut and ISO-NE should vigorously pursue all possible alternatives to facilitate the temporary independent operation of this critical facility. In the interest of safety and security of the State's electric infrastructure, the state should seek to temporally set aside the ongoing contractual entanglements and bring this critical facility on line.

- The Siting Council hires an independent entity with expertise in transmission modeling, in particular, short circuit, thermal loading, and stability analysis. Companies such as The Shaw Group, EPRO, GE, and Westinghouse, as well as other companies under engagement to ISO New England for such studies, are qualified companies to undertake such an effort.
- The analysts should consider the scenarios of additional generation in strategic locations that have a reasonable chance of development perhaps coupled with lower voltage transmission as an alternative solution evaluated on as expected 25 year or shorter planning horizon.

Specifically additional 115kV lines from Bethel to Norwalk and New Haven to Stamford should independently be analyzed in conjunction with strategically located generation sited at identified candidate sites in Southwest Connecticut. Suggested generation options should include up to 200 MW in Norwalk and Stamford areas. The plan should assume the continuation of Special Load Response programs fashioned to be an effective investment in reliability.