CONNECTICUT ENERGY ADVISORY BOARD

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June 20, 2005

Independent System Operator-NE
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100 Field Point Road
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Northeast Utilities
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P.O. Box 270
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RE: Docket No. F-2005: Connecticut Siting Council Review of the Ten-Year Forecast of Connecticut Electric Loads and Resources

Dear Attorneys Macleod and Gibelli:

The Connecticut Energy Advisory Board (CEAB) issues the enclosed interrogatories to the Connecticut Light & Power Company (CL&P) and to ISO New England (ISO-NE). ISO-NE filed a Motion to Intervene on June 13, 2005, in response to a letter from the Siting Council inviting ISO-NE's formal participation in this matter.

CEAB issues these interrogatories to both entities based on CL&P's representation in its March 1, 2005 filing that the forecast CL&P uses for transmission planning is from ISO-NE, "which is responsible for regional transmission planning and develops its own aggregated demand forecast based on input from the individual utilities and states." See, CL&P filing Docket No. F-2005, dated March 1, 2005 at I-2. CL&P stated further that "transmission planning is now the responsibility of the Independent System Operator of New England." See, CL&P filing in Docket No. F-2005 dated March 1, 2005 at I-1. CEAB requests that CL&P and ISO-NE determine which entity is better suited to provide a response to each interrogatory.

In order to adhere to the current schedule, the enclosed interrogatories request that CL&P and/or ISO-NE file certain documents that are currently in the public domain in this proceeding and concurrently present questions on those documents.

Please submit answers as they are available to expedite review.

If you have questions on any of the interrogatories, please contact:

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Thank you in advance for your assistance.

Sincerely,

Mary J. Healy
CONSUMER COUNSEL

Mary J. Healy, Consumer Counsel
Vice Chairman
Connecticut Energy Advisory Board

cc: Service List
Ms. Pam Katz
Connecticut Siting Council

Information Requests From
The Connecticut Energy Advisory Board:

Second Set To Connecticut Light and Power Company
&
First Set to ISO New England

CSC Docket No. F-2005

General Questions:

1. Please identify and provide a copy (including supporting documentation) of ISO New England's most recent load forecast, as will be used for purpose of planning generation and/or transmission infrastructure improvements in Connecticut. Provide specific information that details all assumptions included in this forecast pertaining to existing and planned demand-side management, conservation, demand-response, or interruptible load measures.

2. Please provide a copy of ISO New England's draft Regional System Plan 2005 recommendations for Connecticut, with any supporting analyses and documentation that is available.

3. Please provide a copy of the most recent "FERC 715" report(s) addressing transmission issues in Connecticut.

4. Please provide copies of the most recent studies performed by ISO New England that assess the need for additional transmission infrastructure in the 2005 to 2014 period in (a) Connecticut and (b) central and western Massachusetts and Rhode Island (to the extent that such needs have the potential to influence Connecticut's needs or infrastructure, or the ability for Connecticut generation or load serving entities to import/export power from/to the rest of New England). This response should include the most recent studies related to the Southern New England Reinforcement project and any associated studies that would integrate the Lake Road facility into the Connecticut system.

5. (a) Please provide a copy of ISO New England's current assessment (including supporting documentation) of (i) Southwest Connecticut's and (ii) the rest of Connecticut's need for additional capacity resources based on consideration of Connecticut's share of installed reserves necessary to meet the New England region's "objective capability." To the extent that there are any limitations on where such additional capacity can be added to be effective in meeting the identified need, indicate all such limitations and provide supporting analyses that form the basis for determining those limitations. (b) Please describe whether, how, and in what quantity the contributions (i.e., MWs) from existing and planned demand-side and distributed resources are included in that need calculation.

6. (a) Please provide a copy of ISO New England's current assessment (including supporting documentation) of (i) Southwest Connecticut's and (ii) the rest of Connecticut's need for

additional capacity resources based on consideration of operating capacity standards. To the extent that there are any limitations on where such additional capacity can be added to be effective in meeting the identified need, indicate all such limitations and provide supporting analyses that form the basis for determining those limitations. (b) Please describe whether, how, and in what quantity the contributions (i.e., MWs) from existing and planned demand-side and distributed resources are included in that need calculation.

7. Please identify, for each Connecticut utility, a listing of the largest customers on the systems (i.e., those with peak loads that exceed 0.5 MWs). Include in that listing (i) identification of the town in which each such customer is located, (ii) the business type of each such customer, (iii) the hour in which the customers' load typically achieves its daily peak, and (iv) the magnitude of the peak load (MWs). Please note that it is not necessary to reveal customer names, and other sensitive information.

8. (a) Please indicate whether (i) CL&P, (ii) UI, (iii) ISO New England, or (iv) some other entity has completed (or is completing) a recent study of opportunities for distributed generation resources to be sited in Southwest Connecticut or Connecticut. If so, please provide a copy of any and all such studies performed by or in the possession of CL&P or ISO New England. (b) Please indicate whether CL&P, UI or ISO-NE possesses or has access to such a study performed by any other entity. If so, please provide a copy of such study or studies.

9. Please provide a copy of the most recent study of the maximum achievable cost effective potential for demand response programs to be implemented in Connecticut.

10. Please provide a copy of the most recent study of the maximum achievable cost effective potential for electric peak load management programs in Connecticut.

11. Please provide a copy of the most recent study of the maximum achievable cost effective potential for renewable energy resources to be implemented in Connecticut.

12. Please identify the name, capacity (MW), status and expected completion date (or approval dates) of all requests for system impact studies for (a) generation resources and (b) transmission infrastructure that have been filed with ISO New England in relation to facilities to be located in Connecticut and regarding which construction has not yet begun. In responding to this question, please provide full information relative to the status of the (i) Meriden, (ii) Towantic and (iii) Kleen facilities (among others) and state the milestones that must be met (e.g., ISO New England approvals) before for developers can begin commercial operation.

13. (a) Has ISO New England initiated, or does it plan to initiate, a study to determine the amounts (MWs) of generation that could be added in Southwest Connecticut prior to the completion of the Bethel to Norwalk (Phase I) or the Middletown to Norwalk(Phase II)? Please explain. (b) If so, please provide a copy of such study.

14. Please identify and provide a copy (with supporting documentation) of (a) the ISO load forecast (including supporting documentation) and (b) other analyses used to establish the need for proposed transmission projects described in Table V of CL&P's March 1, 2005 filing in the instant docket.

15. Please confirm (a) that the CELT04 load forecast is used in transmission planning in RTEP04, and (b) that the CELT05 forecast will form the basis for transmission planning in RTEP05. (c) Please provide a copy of each of the above-referenced documents.

16. (a) Please state whether the "Other Proposed Transmission Circuits in Connecticut" described in Table V of CL&P's March 1, 2005 filing in the instant docket are a consequence of ISO New England's RTEP 2004 planning process. (b) If not, please identify the studies that establish the need for each such project and provide a copy of each such study.

17. Regarding the RTEP04 Executive Summary, at 4: How does ISO New England determine when "adequate market solutions" have not developed "in a timely manner," such that "regulated transmission solutions" may be required to ensure reliability or wholesale market efficiency? Please explain, for example, the criteria for identifying market failures and how far in advance (or after) of a reliability problem ISO New England acts to implement a regulated solution.

18. Regarding RTEP04 Key Findings, at 6 (n.3): Please identify the analysis by which ISO New England determined that additional capacity was needed beginning June 1, 2004 through the Summer of 2007 "to help fill a reliability gap until a long-term solution to Southwest Connecticut's reliability problem is in place."

19. Please confirm that all of ISO New England's plans for transmission infrastructure improvements in Connecticut are identified in its RTEP04 summary report.

20. (a) Please identify the major components and locations of the Southern New England Reinforcement Project ("SNERP") and their locations. (b) Please identify which of these are needed to ensure system reliability and which are needed to ensure market efficiency. (c) Please provide the analysis that establishes the need for each major component of the SNERP. (d) Please identify the currently projected in-service date for each major component of the SNERP. (e) Please provide an analysis that provides a current projection of Connecticut's need for additional capacity resources with and without the SNERP. (f) Please provide a current critical path schedule that describes the permitting and other milestones that must be achieved to bring each major component of the SNERP into service, and describe the progress to date relative to those milestones.

21. (a) Please provide (a) the 2004 annual load duration curve and (b) the associated hourly peak load data for (i) Connecticut and (ii) Southwest Connecticut.

22. (a) Please provide, for each year through 2014, an analysis that demonstrates the number of hours per year during which operable capacity levels are projected to be below the established NERC standards in (i) Connecticut and (ii) Southwest Connecticut. (b) Please

provide, for each year through 2014, an estimate of the costs of unserved load that would be incurred (e.g., at the "societal" level) if load shedding were necessary to preserve operable capacity at appropriate levels at all times (e.g., so as to avoid any below-standard levels identified in the response to Part (a), above). (c) Please provide copies of the load shedding policies that would apply if operable capacity levels fall below established standards.

23. Please provide a copy of ISO New England's January 4, 2005 report entitled "Connecticut Energy Plan Framework: Recommended Solutions and Actions for the State of Connecticut."

24. Refer to ISO New England's January 4, 2005 report entitled "Connecticut Energy Plan Framework: Recommended Solutions and Actions for the State of Connecticut," at 7: (a) Please provide a copy of the "operable capacity analyses conducted during RTEP04" that resulted in a projected shortfall of 130 MW in Southwest Connecticut in 2004 to meet the 90/10 summer peak load forecast plus operating reserve requirements. (b) Please identify the peak load forecast, including the assumptions regarding existing or planned demand-side measures, on which the "operable capacity analyses conducted during RTEP04" is based (e.g., is it the same peak load forecast as is presented in the April 2004 CELT Report?). (c) Please explain the basis for deriving the distribution of peak loads as a function of weather conditions.

25. In regard to ISO New England's January 4, 2005 report entitled "Connecticut Energy Plan Framework: Recommended Solutions and Actions for the State of Connecticut," at 7: (a) Please indicate whether certain resource proposals submitted in response to a "GAP RFP" were rejected because it was determined that the location(s) of the proposed resource(s) was problematic relative to the identified need. (b) Please identify the specific areas in which GAP RFP resources were found to be needed, or not, (c) Please explain how the suitability of locations for GAP RFP resources were identified.

26. In regard to ISO New England's January 4, 2005 report entitled "Connecticut Energy Plan Framework: Recommended Solutions and Actions for the State of Connecticut," at 8: (a) Please describe the "aggressive demand response and conservation programs" that Connecticut electric companies are implementing in order to hedge against a possible delay in the installation of new transmission facilities. Please indicate how those programs are reflected in the need for capacity analysis included in that report. (b) Are any of these demand response or conservation programs targeted specifically at reducing summer peak electric demand? Please explain.

27. In regard to ISO New England's January 4, 2005 report entitled "Connecticut Energy Plan Framework: Recommended Solutions and Actions for the State of Connecticut," at 8 (Figure 1, Note 2): (a) Please describe, for each year through 2014, the generating capacity (i.e., MWs) that will be "unbottled" with the implementation of the Southwest Connecticut Reliability Project (Phase 1 and/or Phase 2). (b) Please explain how this "unbottled" capacity is different from the "Southwest CT Reliability Project" Phase 1 and Phase 2 capacity represented in Figure 1.

28. In regard to ISO New England's January 4, 2005 report entitled "Connecticut Energy Plan Framework: Recommended Solutions and Actions for the State of Connecticut," at 10: Please describe the "additional resources" that Connecticut electric companies are pursuing to address the fact that ISO New England's Loss of Load Expectation analysis shows Connecticut and Southwest Connecticut to be "extremely vulnerable to unexpected load increases, unit deactivations, or generator forced outages including fuel supply interruptions." Explain how such resources are being pursued.

29. In regard to CL&P's filing dated March 1, 2005, at V-18: Please provide a summary describing how LICAP charges affecting Connecticut are to be calculated (e.g., relative to different level of installed capacity) under ISO New England's LICAP proposal.

30. In regard to CL&P's filing dated March 1, 2005, at V-18: Please provide a current estimate of the cost impacts of LICAP within each Connecticut electric utility's service area (i.e., at foreseeable levels of installed capacity). That is, (a) will LICAP result in bill increases or decreases to such customers, and (b) by how much?

31. In regard to CL&P's filing dated March 1, 2005, at V-18 and ISO New England's LICAP proposal: Please provide an analysis of the amount of capacity additions (or demand reductions) needed in (i) Connecticut and (ii) Southwest Connecticut LICAP zones in each year through 2014 to maintain the LICAP price at:
    (a) the estimated benchmark cost of capacity ("EBCC");
    (b) 50 percent of the EBCC; and
    (c) zero.

32. In regard to CL&P's filing dated March 1, 2005, at I-3,4: Please provide each electric utility's and ISO New England's current projection of base case electricity prices (i.e., for all components of retail rates) in (a) Southwest Connecticut and (b) for the rest of Connecticut. Please provide the price of electricity projections used as input to the most recent CL&P and ISO New England load forecasts presented in this proceeding and include the date and source for those projections. Please indicate whether the price of electricity inputs in the load forecasts include the effects of LICAP.

33. (a) Please identify any plans by Connecticut electric utilities to secure incremental supply- or demand-side resources that might reduce LICAP costs to consumers. (b) Please indicate whether (i) Connecticut electric utilities or (ii) ISO New England have completed studies of where best to site resources to mitigate LICAP costs, and provide copies of all such studies.

34. (a) Has an electric utility or ISO New England developed a forecast of peak load and resource requirements that is specific to (i) Connecticut, (ii) Southwest Connecticut, or (iii) the Norwalk sub-area? (b) If so, please explain and address how local information is incorporated into such forecast. (c) Does such forecast reflect end-use data that is specific to (i) Connecticut, (ii) Southwest Connecticut, or (iii) the Norwalk sub-area? (d) Does such forecast reflect capacity contributions from demand-side programs that are specific to (i) Connecticut, (ii) Southwest Connecticut, or (iii) the Norwalk sub-area? (e) Does such a

forecast reflect economic and demographic projections specific to (i) Connecticut, (ii) Southwest Connecticut, or (iii) the Norwalk sub-area?

35. (a) Must Connecticut have sufficient resources to meet operating capability standards in order to ensure a reliable supply of electricity? Please explain. (b) Please provide a document that describes how operating capability requirements are determined for (i) Southwest Connecticut and (ii) the rest of Connecticut. (c) Please indicate whether and to what degree Connecticut has any current or projected deficiencies in operating capability requirements. (d) Would any penalties accrue to Connecticut entities (e.g., load serving entities) if Connecticut fails to meet established operating capability standards (i) now, or (ii) in the future. Please explain.

36. In regard to ISO New England's LICAP proposal (i.e., as approved by FERC's administrative law judge in an Initial Decision issued on June 15, 2005): (a) Has ISO New England assessed the implications for existing Connecticut generation of investments in new capacity that are intended to "move" the total capacity serving Connecticut from (i) the capacity target (i.e., "C_{Target}"), to (ii) a point further to the right along the demand curve (i.e., representing even greater system capacity levels, as may be necessary to achieve both operating capability requirements and system reliability). In short, has ISO New England evaluated whether investments can be made to satisfy operating capability requirements without undermining revenues to existing Connecticut generation, and thus Connecticut capacity markets? (b) Please explain the response to Part (a). (c) Please provide copies of all studies that address this issue.

RE: ISO New England Short-Run Forecast of Energy & Peak Load (April 2005)

37. Please provide a copy of ISO New England's Short-Run Forecast of Energy & Peak Load (April 2005).

Net Energy For Load Forecast

38. Please identify the time period on which the statistics for the net energy for load model on page 6 of the report were derived.

39. Please identify the software package used to generate the model coefficients presented on page 6 of the report.

40. Please provide a copy of the computer output pages from the model specification presented on page 6 of the report.

41. (a) Please indicate if ISO New England breaks its projections of net energy for load and peak demand down by individual state or sub-regions. (b) If so, please describe the process and provide all electronic files or working papers that present the steps taken to break the forecast out by area.

42. (a) Regarding the economic outlook, were projections of disposable income and number of households obtained from any sources other than Economy.com? (b) If so, how do they compare to those developed by Economy.com. (c) If projections of income and number of households were not collected from other sources, please explain why they were not.

43. (a) Please identify and provide the heating and cooling degree day values collected from the eight weather stations referenced on page 3 of the report. (b) Provide the weights used to compute the New England aggregates and a description of how the weights were derived.

44. (a) Please discuss the assumption that real electricity prices in the New England area are projected to remain flat throughout the forecast period. (b) Upon what information is the assumption based, and did the assumption include input from staff at the individual electric utilities?

Peak Load Forecast

45. (a) Please provide the data used to estimate the peak demand model coefficients presented in ISO_NE_2005_Forecast_Data.xls [Short_Run_Model_Coefficients]. (b) Also identify the software used to estimate the summer and winter peak demand models, and provide the computer outputs from the regression process.

46. Please explain how ISO NE forecasts peak loads for years beyond the short-run forecast horizon.

47. Please explain how the short-run and long-run load forecasts are integrated.

48. Regarding the peak load models, please explain how the summer CLI and C-BLI indexes are developed and provide the data necessary to compute the values for years 1992-2004.

49. Regarding the peak load models, please explain how the winter HLI and H-BLI indexes are developed and provide the data necessary to compute the values for years 1992-2004.

RE: ISO New England Long-Run Forecast of Net Energy For Load (April 2005)

50. Please provide a copy of ISO New England's Long-Run Forecast of Net Energy For Load (April 2005).

51. In the report, there is no description of how long-run peak load is forecasted. Please describe the methodology and process used to produce the reference peak demand forecast (50% range) for years 2005-2014 presented in the spreadsheet ISO_NE_2005_Forecast_Data.xls [Peak_Load_Forecast_Distribution].

52. Please identify all adjustments made to the peak demand forecast to account for impacts associated with demand-side management activities. Identify what DSM programs are

included, how the associated DSM impacts are derived, and how the peak demand impacts were accounted for in the final peak load forecast.

53. Please indicate if ISO has evaluated end-use sales forecasting techniques to supplement its current econometric approach.

RE: ISO New England Sub-Area Forecast of Peak Load & Energy (April 2005)

54. Please provide a copy of ISO New England's Sub-Area Forecast of Peak Load & Energy (April 2005).

55. Regarding the April 2005 "ISO New England Sub-area Forecast of Peak Load and Energy," at 2 of 3: (a) Please confirm that Connecticut electric utilities do not develop a "bottom up" forecast (i.e., based on local requirements, rather than some allocation of a state- or region-wide forecast) of needs for incremental transmission or capacity resources at (i) the bus level, or (ii) at the sub-area level. (b) If such "bottom up forecasts are developed by the electric utilities or ISO New England, please provide a discussion of the (i) forecast methodologies and (ii) results.

56. Please provide the spreadsheet developed (rules included in cells) that computes the projections presented on page 2 of 3 of the report.

57. Please provide the spreadsheet developed (rules included in cells) that show the calculations of net energy for load, summer peaks, and winter peaks, for the values presented in the table entitled ISO-NE RSP Sub-area Energy and Peak Load Forecast Summary Table, on page 3 of 3 of the report.

58. Please describe any efforts made by ISO and identify any results available that correspond to the development of energy and peak load forecasts at the sub-area level rather than at the utility level and subsequently broken down to the sub-area level.

59. Please provide the bus level load (MW and MVAR) for each bus in the power flow models (summer and winter peak) filed as part of the most recent FERC-715 filing located within the state of Connecticut for the years 2005-2020. Please include the following data:
    (a) Bus Number;
    (b) Bus Name;
    (c) Bus Voltage;
    (d) PSS/E Zone;
    (e) PSS/E Area; and
    (f) Bus load total MW and MVAR.

    Please identify the source of the projections and describe how the projections were developed.

60. Please identify and provide any information collected by ISO from local land use planners or local zoning commissions that was incorporated by ISO in development of sub-area load forecasts or that support the projected energy and peak demand growth rates developed by ISO by sub-area.

61. Has CL&P, during the process of developing load projections at the bus level, incorporated information from land use planners or local zoning commissions that would support load growth in specific areas of Connecticut?

62. (a) Does ISO develop forecasts at the sub-area level that are independent of the bus load projections developed by the individual electric utilities or available from FERC? (b) If so, identify them and provide a copy of the report(s), including a complete description of the methodologies employed.