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June 1, 2009

VIA HAND DELIVERY

Mr. S. Derek Phelps
Executive Director
Connecticut Siting Council
10 Franklin Square
New Britain, CT 06051

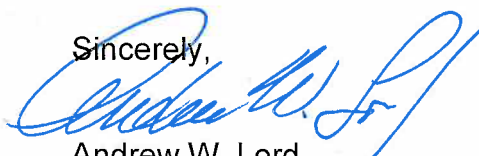
Re: NRG Energy, Inc. Responses to Office of
Consumer Counsel Interrogatories; Docket No. 370B

Dear Mr. Phelps:

Enclosed on behalf of NRG Energy, Inc. ("NRG") are responses to the first set of interrogatories and data requests addressed to NRG by the Office of Consumer Counsel.

If you have any questions, please feel free to contact me.

Sincerely,



Andrew W. Lord

Enclosures

cc: Jonathan J. Milley, NRG
Julie L. Friedberg, Esq., NRG
Service List

Witnesses: NRG Panel

Request from: OCC

QUESTION: Reference the NRG Application, 3/19/09, pp. 12-17 (describing the Meriden Project), and its Appendix A (containing the 1999 CSC certificate authorizing construction of the Meriden Project).

- (a) Has anything about the technology, fuel supply, etc. of the Meriden Project, other than as already referenced in the NRG Application of 3/19/09, changed since the Project's 1999 CSC certification was granted? If yes, please describe all such changes in specific detail.
- (b) Does NRG intend to build the Meriden Project essentially as that project was described to CSC during the earlier proceeding? If not, please describe any material changes that are planned in that regard.
- (c) Does NRG believe it would need to obtain from CSC any changes to this Project's present certificate before commencing construction?

RESPONSE:

- (a) NRG believes that its March 19, 2009 Application incorporates NRG's present plans with respect to the technology, fuel supply, cooling system, permitting, construction schedule and other material aspects of the Meriden Project as proposed.
- (b) NRG intends to build the Meriden Project essentially as described by NRG in its March 19, 2009 Application. See NRG's response to Q-CSC-1 for additional information regarding changes to the Meriden Facility since the original application was approved by the Council on April 27, 1999 in Docket No. 190.
- (c) NRG does not believe that it would need to obtain from CSC any changes to the Meriden Project's present Certificate before commencing construction other than a possible extension of the Certificate, which expires in 2011.

Witnesses: NRG Panel

Request from: OCC

QUESTION: Reference the CEAB Evaluation Report to CSC, 2/17/09, p. 38, stating that no D&M Plan, and no Operations Plan, was provided with NRG's RFP response.

- (a) Has CSC approved a D&M Plan for the Meriden Project?
- (b) Has CSC approved an Operations Plan for the Meriden Project?
- (c) If yes to either Part (a) or (b), please provide a copy of the pertinent CSC approval. If no to either Part (a) or (b), please explain why CSC approval of such Plans for this project remains pending.

RESPONSE:

- (a) Yes, in part. Following the award of a Certificate for the Meriden Project in 1999, NRG and PDC-El Paso Meriden, LLC, the former sponsor of the Meriden Project, filed and obtained CSC approval for several parts of the D&M Plan for the Meriden Project. As noted in NRG's response to Q-CSC-3, NRG is preparing a detailed chart of all Council-approved elements of the D&M Plans, the completion status of each element and the dates of the various CSC orders approving the D&M plans. All such orders are contained in the public record of Docket No. 190, for which NRG has requested that the Council take administrative notice in this proceeding.
- (b) No. The Council's Decision and Order in Docket No. 190 ordered NRG to file an Operations Plan for the Meriden Project before it commenced operation of the Facility. Due to suspension of the Meriden Project's construction, an Operations Plan was not required to be submitted to the Council for approval.
- (c) See (a) and (b) above.

Witnesses: NRG Panel

Request from: OCC

QUESTION: Is the Meriden Project, once on-line, intended to be dispatched as a peaking unit, an intermediate unit, or a baseload unit?

RESPONSE: Once on-line, NRG anticipates that the Meriden Project will be dispatched by ISO-NE in accordance with economic principles, which NRG believes will support dispatch of the Meriden Project as a baseload unit.

Witnesses: NRG Panel

Request from: OCC

QUESTION: Reference the NRG Application, 3/19/09, pp. 5, 11, and 21, referring to a long-term contract for the Meriden Project, one providing ratepayers with a hedge against volatile energy prices.

- (a) Please explain more fully the substantive terms expected in the “contract for differences” mentioned there. Would such a contract be substantially identical to the contracts that the DPUC approved for the peaking generation projects in June 2008 (in its Docket No. 08-01-01)?
- (b) With whom does NRG anticipate any such contract would be entered? One or both of Connecticut’s electric distribution companies?
- (c) Does NRG regard ratepayer support (i.e., cost responsibility) as an essential component of any such contract?
- (d) Please describe briefly what NRG believes would be the expected sequence of events for the company to obtain an appropriate contract for the Meriden Project. For instance, could the CSC approve such a contract? Could the DPUC do so? Could CSC recommend such a contract to the DPUC?
- (e) Would a CSC determination in this proceeding, that the Meriden Project is “the most appropriate alternative”, per CGS § 16-50p(a)(3)(F), assist any NRG effort to obtain the indicated long-term contract for the project? Would the absence of any such CSC determination interfere with any such NRG effort?

RESPONSE:

- (a) Although NRG has suggested that a contract for differences provides a potential form of contract for the Meriden Project, NRG remains open to the full panoply of long-term contractual options provided such options enable NRG to fully recover its fixed and variable operating expenses, to earn a reasonable return on its investment, and to provide sufficient certainty of income to enable the Meriden Project to be financed. Without such a contract, NRG cannot attract investors and, accordingly, could not complete the Meriden Project.
- (b) NRG anticipates that a long-term contract would be with a utility counterparty. Moreover, to the extent that the identity of the counterparty contributes to the financeability of the project, under current financial market conditions, investors are looking for investment-grade counterparties.

Witnesses: NRG Panel

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Hence, the investment grade rating of the State's utilities enhance the financeability of the Meriden Project.

- (c) As noted above, NRG believes that a long-term contract with an investment grade counterparty is needed to enable the Meriden Project to be financed and constructed and market revenues alone are not sufficient. Depending upon the structure of a long-term contract with a utility counterparty and the level of market revenues, such contract may produce net costs or net benefits to ratepayers. To the extent that a utility contract produces net costs, such costs presumably would require ratepayer support. Ultimately, the Department of Public Utility Control ("DPUC") must determine the optimal structure of the contract and the means by which a utility counterparty would recover the net costs or credit the net revenues of a long-term contract from or to its customers.
- (d) The Connecticut General Statutes (C.G.S.) do not authorize the CSC to approve a long-term contract for the Meriden Project. Additionally, the DPUC's power to approve a long-term contract is confined to the procurements authorized by the Legislature. The Legislature has authorized the DPUC to procure generation through long-term contracts as part of the Integrated Resource Plan ("IRP") for Connecticut. As further discussed below, a ruling by the CSC that the Meriden Project is a superior alternative to the GSRP/MMP could lead to a CEAB recommendation that the DPUC procure in-state generation assets and would position the Meriden Project as an optimal candidate for such a contract award. In addition, the Legislature has authorized the DPUC to solicit long-term contracts for standard service. A favorable ruling by the Council in this proceeding could very well elevate NRG's chances of securing a contract for the Meriden Project in a standard service solicitation depending upon the DPUC-approved solicitation guidelines.
- (e) A CSC determination that the Meriden Project is "the most appropriate alternative" to the GSRP/MMP would assist NRG in obtaining a long-term contract for the Meriden

Witnesses: NRG Panel

Request from: OCC

Project. The absence of any such determination would likely interfere with NRG's efforts because at present, in developing their IRP for Connecticut, the state's electric public utilities have concluded that no new generation resources are needed because they assume that the NEEWS project, of which the GSRP and MMP are components, is built as proposed. A finding that the Meriden Project is, in fact, an alternative to one or more of the components of NEEWS would require that the IRP also factor in such an alternative. If the resulting IRP finds that generation resources are needed within the state, a solicitation for long-term contracts by the DPUC presumably would follow.

Witnesses: NRG Panel

Request from: OCC

QUESTION: Reference the "Comments of NRG Energy, Inc.", a document apparently filed with CEAB on December 2, 2008.

- (a) Please file a copy of those comments in this proceeding.
- (b) Does NRG wish to supplement or modify those comments at present? If so, please do so.
- (c) Does NRG contend that a long-term contract for the Meriden Project could be structured to make the Project cost-effective for Connecticut ratepayers, relative to the FERC-approved rates that would support GSRP/MMP, even if the latter rates would be charged (at least in part) to ratepayers in the other New England states? Please explain in specific detail.

RESPONSE: (a) NRG has attached a copy of the referenced comments.

(b) NRG does not wish to supplement those comments at this time. (c) As it stated in its December 2, 2008 comments to the CEAB,

Currently, the cost of the GSRP is estimated to be \$728 million, and the overall NEEWS project has an estimated cost of \$1.9 billion. . . . As a general matter, generation is expected to recover its costs via the wholesale market mechanisms administered by ISO New England Inc. ("ISO-NE"). All load across the region shares those costs proportionally to their electricity requirements and usage, with some recognition for localized reliability needs or transmission constraints identified in the market systems. When states take action to meet locally-identified needs that the wholesale markets are not delivering, the incremental costs (i.e., the costs not recovered through the wholesale markets) of those actions are borne solely by the consumers of that state. In contrast, when transmission is built that contributes to the reliability of the regional system (such projects are referred to as "Pool Transmission Facilities"), the costs of such transmission projects, once approved by the Federal Energy Regulatory Commission, are recovered from all consumers in the region, in proportion to each state's share of the regional energy usage. As a result, Connecticut is responsible for approximately 27% of the cost of new Pool Transmission Facilities, whether they are located in Connecticut or elsewhere in the region.

Witnesses: NRG Panel

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The differences between these recovery mechanisms suggests that Pool Transmission Facilities would generally be a lower-cost alternative for Connecticut, since the other New England states would be responsible for the majority of the project's costs. However, when one considers the revenues available to generation from the wholesale markets, the economic case is close enough to warrant careful evaluation in each specific case.

Consider the following example. Assume transmission upgrades cost \$2 billion and add approximately 1,100 MW of import capability into Connecticut (this reflects NRG's current understanding of the transfer capability impact of NEEWS, and a conservative assumption regarding the final total cost of the project that currently has a cost estimate of approximately \$1.9 billion).¹ Assuming a 20% carrying charge rate, the annual cost of these upgrades is approximately \$400 million. Connecticut's 27% share would be \$108 million.

On the other hand, a reasonable assumption is that a combined cycle generation can be built for a levelized cost of approximately \$15/kW-month. Expectations of energy margins available from the market will vary, but are likely to be in the range of \$6 to \$7/kW-month. Likewise, capacity market prices are uncertain, but estimates for the period starting in 2013 are in the range of \$4 to \$5/kW-month. The energy and capacity revenues from the market are not incremental costs, since consumers will purchase only the quantity of energy and capacity required in the market, at the market clearing price. Taking market

¹ Recent ISO-NE materials (November 14, 2008 Power Supply Planning Committee, http://www.iso-ne.com/committees/comm_wkgrps/reblty_comm/pwrsuppln_comm/mtrls/2008/nov142008/representative_lsr_mcl_2012_2016_with_neews-20081113draft.pdf) indicate that the entire NEEWS project will increase the CT import capability by 1,100 MW. Recent history has shown that major transmission projects in New England increase in cost by an average of approximately 70% between the time the project is first approved by the NEPOOL Reliability Committee and the time the proponent requests cost allocation treatment under ISO-NE's tariff. Clearly, the ultimate cost of transmission is likely to be substantially higher based on recent experience, and that increase will further tilt the economics in favor of generation.

Witnesses: NRG Panel

Request from: OCC

revenues into account, the estimated net cost of a state-of-the-art combined cycle, i.e., the cost not recovered from the competitive wholesale markets, could be approximately \$3 to \$5/kW-month. At this rate, or \$36 to \$60/kw-year, 1,100MW of new combined cycle capacity would have a net incremental cost of \$40 to \$66 million per year, tens of millions less than the transmission proposal. This substantial cost differential in net costs to ratepayers needs to be carefully considered before accepting a transmission alternative.

CONNECTICUT ENERGY ADVISORY BOARD REQUEST FOR PROPOSALS
SEEKING ALTERNATIVES TO THE CONNECTICUT LIGHT AND POWER COMPANY'S
PROPOSED GREATER SPRINGFIELD RELIABILITY PROJECT
AND MANCHESTER TO MEEKVILLE PROJECT

Comments of NRG Energy, Inc.

December 2, 2008

On November 4, 2008, the Connecticut Energy Advisory Board ("CEAB") issued a Request for Proposals ("RFP") Seeking Alternatives To The Connecticut Light And Power Company's ("CL&P") Proposed Greater Springfield Reliability Project and Manchester to Meekville Project (collectively, the "GSRP"). As described by the CEAB, "the objective of the CEAB RFP process is to solicit specific project proposals that may serve as contemporaneous alternatives for consideration by the [Connecticut Siting Council ("CSC")] as they consider the GSRP application." RFP at 13. The CEAB also expressed interest in "comments from market participants that may have bearing on the CEAB's consideration of alternatives to the GSRP and [the CEAB's] recommendations to the [CSC] on alternatives." *Id.* The CEAB therefore invited "comments on issues that market participants may wish to call to the attention of the CEAB that are directly relevant to the CEAB's evaluation." *Id.* Accordingly, NRG Energy, Inc. ("NRG") hereby submits the following comments in response to the CEAB's invitation.

NRG is a competitive wholesale generator in Connecticut with power plants located in Montville, Middletown, Norwalk, Devon, Cos Cob, Torrington, and Branford

that provide over 2,000 MW of generation to Connecticut. NRG respectfully submits the following comments in regard to the CEAB RFP.

Preferential Criteria – Threshold Analysis:

The GSRP are part of a larger group of projects, known collectively as the New England East-West Solution (“NEEWS”), being advanced to address a range of reliability and economic objectives in southern New England. Conducting this RFP process, the CEAB will apply its Preferential Criteria for Evaluation of Energy Proposals (“Preferential Criteria”)¹ to evaluate the GSRP, as well as any alternatives offered in response to the RFP. At the conclusion of the RFP process, the CEAB will submit a report to the CSC “containing the CEAB’s commentary on the manner in which the proposal(s) achieves Connecticut’s energy policy goals as reflected in the [Preferential] Criteria.”²

In the Preferential Criteria, the CEAB notes that “the CEAB is likely to perform a threshold screening to determine whether a proposal proponent is viable and financially stable and its proposal is reasonably likely to be financed and constructed before moving into the balance of the CEAB evaluation phase.”³ NRG agrees that the financial viability of a project proponent is a reasonable threshold criterion. However, this criterion cannot be evaluated in a vacuum, without regard to the practical differences between the transmission proposal now before the CSC and any generation alternatives offered in response to the CEAB’s RFP.

¹ http://www.ctenergy.org/pdf/pc_12_01_04.pdf

² Id. at page 1 of 7.

³ Id.

For example, whereas transmission projects have access to full cost recovery under the standard regulatory construct (which includes a return both of and on capital investment, even in cases of significant cost overruns), a generation alternative may only obtain the assurance of cost recovery via a long-term contract through a state-sanctioned procurement process in order to be financeable. Currently, no path exists for a generation alternative to NEEWS to obtain such a contract, though the Department of Public Utility Control (“DPUC”) may initiate such a process if there is a defined need for resources. In evaluating respondents’ proposals in this RFP process, the CEAB has the opportunity to define such a need. For that reason, NRG urges the CEAB to note this regulatory gap in its evaluation, and the attendant procedural and economic disadvantages that generation alternatives face in this process, but not disqualify any otherwise viable generation alternative on the basis that such a contract does not yet exist. Moreover, NRG urges the CEAB to recommend that the DPUC initiate a process by which an alternative generation project is ultimately awarded a long term contract if it can effectively displace a transmission project, such as GSRP, that triggers a reactive RFP process.

The Preferential Criteria are, appropriately, broad in scope, and address a project’s ability to address various energy policy goals in light of the project’s costs and environmental impacts. However, the Preferential Criteria do not reflect any relative weighting of these criteria to guide the CEAB, or to explain to prospective respondents how the Preferential Criteria will be applied. As such, the CEAB’s evaluation process lacks sufficient transparency and could result in uncertainty among respondents. Further adding to respondents’ uncertainty is the lack of specific detail with regard to how well the GSRP meets the Preferential Criteria. Certainly, to the extent that GSRP and

NEEWS are designed to increase the ability to move energy into Connecticut, and particularly into the western part of Connecticut, generation alternatives sited in western Connecticut will directly address these same objectives. For these reasons, in order to keep respondents and their proposed alternatives on reasonably even footing with the GSRP proposal, NRG recommends that the CEAB evaluate proposed alternatives based on their overall merits in meeting the Preferential Criteria, with emphasis on the Economic Criterion addressing life-cycle costs and ratepayer benefits of the various alternatives.

Transmission vs. generation economic considerations:

Currently, the cost of the GSRP is estimated to be \$728 million, and the overall NEEWS project has an estimated cost of \$1.9 billion. During its November 7, 2008 meeting, the CEAB discussed in general terms the ability of generation projects to compete with transmission given the socialized nature of transmission project costs. NRG illustrates below, with representative values, the need to perform a full analysis of the generation alternatives that takes into account the differing regimes under which transmission versus generation solutions in the New England region recover their costs.

As a general matter, generation is expected to recover its costs via the wholesale market mechanisms administered by ISO New England Inc. (“ISO-NE”). All load across the region shares those costs proportionally to their electricity requirements and usage, with some recognition for localized reliability needs or transmission constraints identified in the market systems. When states take action to meet locally-identified needs that the wholesale markets are not delivering, the incremental costs (i.e., the costs not recovered through the wholesale markets) of those actions are borne solely by the consumers of that

state. In contrast, when transmission is built that contributes to the reliability of the regional system (such projects are referred to as “Pool Transmission Facilities”), the costs of such transmission projects, once approved by the Federal Energy Regulatory Commission, are recovered from all consumers in the region, in proportion to each state’s share of the regional energy usage. As a result, Connecticut is responsible for approximately 27% of the cost of new Pool Transmission Facilities, whether they are located in Connecticut or elsewhere in the region. In effect an approval of the NEEWS project in Connecticut essentially binds Connecticut ratepayers to a long term contract for Transmission services.

The differences between these recovery mechanisms suggests that Pool Transmission Facilities would generally be a lower-cost alternative for Connecticut, since the other New England states would be responsible for the majority of the project’s costs. However, when one considers the revenues available to generation from the wholesale markets, the economic case is close enough to warrant careful evaluation in each specific case.

Consider the following example. Assume transmission upgrades cost \$2 billion and add approximately 1,100 MW of import capability into Connecticut (this reflects NRG’s current understanding of the transfer capability impact of NEEWS, and a conservative assumption regarding the final total cost of the project that currently has a cost estimate of approximately \$1.9 billion).⁴ Assuming a 20% carrying charge rate, the

⁴ Recent ISO-NE materials (November 14, 2008 Power Supply Planning Committee, http://www.iso-ne.com/committees/comm_wkgrps/reliabty_comm/pwrsuppln_comm/mtrls/2008/nov142008/representative_isr_mcl_2012_2016_with_neews-20081113draft.pdf) indicate that the entire NEEWS project will increase the CT import capability by 1,100 MW. Recent history has shown that major transmission projects in New England increase in cost by an average of approximately 70% between the time the project is first approved by the NEPOOL Reliability Committee and the time the proponent requests

annual cost of these upgrades is approximately \$400 million. Connecticut's 27% share would be \$108 million.

On the other hand, a reasonable assumption is that a combined cycle generation can be built for a levelized cost of approximately \$15/kW-month. Expectations of energy margins available from the market will vary, but are likely to be in the range of \$6 to \$7/kW-month. Likewise, capacity market prices are uncertain, but estimates for the period starting in 2013 are in the range of \$4 to \$5/kW-month. The energy and capacity revenues from the market are not incremental costs, since consumers will purchase only the quantity of energy and capacity required in the market, at the market clearing price. Taking market revenues into account, the estimated net cost of a state-of-the-art combined cycle, i.e., the cost not recovered from the competitive wholesale markets, could be approximately \$3 to \$5/kW-month. At this rate, or \$36 to \$60/kw-year, 1,100MW of new combined cycle capacity would have a net incremental cost of \$40 to \$66 million per year, tens of millions less than the transmission proposal. This substantial cost differential in net costs to ratepayers needs to be carefully considered before accepting a transmission alternative.

Perhaps the most difficult and important judgment the CEAB will need to make in the evaluation process will be to determine the true and reasonable final cost of the GSRP. Although a generation alternative proposed in this RFP process is only indicative, a generation project (if awarded a contract through a resource need RFP) would lock in a cost for ratepayers based on the ultimate bid price. In contrast, the final cost of GSRP is

cost allocation treatment under ISO-NE's tariff. Clearly, the ultimate cost of transmission is likely to be substantially higher based on recent experience, and that increase will further tilt the economics in favor of generation.

5 ISO New England, Inc, "Regional System Plan Transmission Projects October 2008 Update"

unknown, puts ratepayers at risk for equipment cost escalation, design change impacts, and construction risks, and, thus, provides no cost certainty for ratepayers

There are numerous recent examples of large scale transmission projects that finally came in at more the twice the original proposed costs and none that have come in at or below budget. Recent experience has shown that the costs for which transmission owners seek recovery under the ISO-NE Transmission Cost Allocation procedures are typically higher than the budgetary estimates, often by 50-70% or more. As reported by ISO New England at the Planning Advisory Committee meeting on October 17, 2008, the estimated cost of NEEWS had increased by \$272 million from the estimate provided in July 2008⁵. Another deficiency in a transmission project is its failure to provide cost certainty on the energy and capacity provided by the projects. This difference also requires due consideration when comparing the alternatives.

Finally, as the CEAB is required to seek alternative sources to the need addressed by proposed facilities, it is imperative that such needs be independently validated so that proposals can be accurately compared and contrasted. For example, CL&P concludes from its Reliability Analysis that the GSRP increases the power transfer capability between Massachusetts and Connecticut and increases Connecticut import capabilities (Vol. 1, F.6). However, the value of these increases is not apparent, especially among the various components of NEEWS such as the GSRP. Further, meaningful generation alternatives to the GSRP may have as much or more impact on the other components of NEEWS which may provide more of the import capability benefits of the project. Since the benefits of NEEWS are generally presented in the context of the entire project, NRG agrees with the comment, made by LaCapra at the bidder's conference, that NEEWS

⁵ ISO New England, Inc, "Regional System Plan Transmission Projects October 2008 Update"

should be viewed in totality when analyzing benefits and alternatives, and, for that reason, NRG also recommends that the CEAB compare generation alternatives presented in this process against the NEEWS project as a whole.

Conclusion:

NRG is fully cognizant of the enormous challenge before the CEAB in fulfilling its statutory obligations relative to the RFP. For that reason, NRG appreciates the opportunity to provide these comments on the CEAB regarding the RFP evaluation process.

Witnesses: NRG Panel

Request from: OCC

QUESTION: Reference the CEAB Evaluation Report to CSC, 2/17/09, pp. 26-31, summarizing an ICF study of non-transmission alternatives to GSRP/MMP, as included in the CL&P Application.

- (a) Please supply a comparable analysis of non-transmission alternatives to GSRP/MMP, one which assumes inclusion of the DPUC-approved peaking projects, and of the NRG Meriden project, and which assumes curtailment of Cross Sound Cable flows.
- (b) In connection with Part (a) just above, please also include an analysis of variant cases that NRG considers reasonable.
- (c) With the analyses responsive to Parts (a) and (b) just above, please provide all electronic spreadsheets, including all linked spreadsheets, relied upon. In those spreadsheets, please leave all cell formulas intact.

RESPONSE: The studies being requested by the OCC require a significant investment of time and resources by NRG and have not been conducted previously by NRG. At this time, NRG respectfully objects to this question as unduly burdensome, but would be pleased to confer with the OCC to determine if a different type of analysis would suffice to address the OCC's questions.