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BY ELECTRONIC MAIL AND FIRST CLASS MAIL

January 25, 2010

Connecticut Energy Advisory Board  
c/o Ms. Gretchen Deans  
Connecticut Economic Resource Center  
805 Brook Street, Building 4  
Rocky Hill, CT 06067

Re: Response to CEAB Request for Written Comments and Notice of Public Hearing on “Integrated Resource Plan for Connecticut” dated January 1, 2010 (the “EDC 2010 IRP”) prepared by The Brattle Group, The Connecticut Light & Power Company and The United Illuminating Company

Dear Ms. Deans:

Towantic Energy, LLC (“Towantic”) hereby respectfully files the following comments on the EDC 2010 IRP, in accordance with the Request for Written Comments of the Connecticut Energy Advisory Board (“CEAB”).

A key finding of the EDC 2010 IRP is that no new generation resources are required in Connecticut until 2021. The report comes to this conclusion even though its modeling shows that the best way to reduce the cost of power to Connecticut ratepayers is to add up to 1,100 MWs of new natural gas-fired combined cycle generation in the State.<sup>1</sup> In order to reconcile these two findings, EDC 2010 IRP posits an energy future in Connecticut which envisions a massive new buildout of transmission, to bring baseload power into the State from elsewhere in New England and leave the existing old, inefficient Connecticut generation in place for local reliability purposes, notwithstanding the fact that non-market “reliability-must-run” payments and floor capacity prices are already becoming necessary to meet current operating costs for the plants. Even more transmission is assumed to be built to get renewable resources from somewhere else into Connecticut to meet RPS standards. EDC 2010 IRP also suggests that The Connecticut Light and Power Company and The United Illuminating Company (the “EDCs”) be allocated up to \$65 million to locate additional

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<sup>1</sup> Page II-30, Figure 28 of EDC 2010 IRP

“demand side” and efficiency reductions to reduce load, undercutting private, market-based DSM initiatives.

In order to make the numbers work, EDC 2010 IRP assumes:

- 565 MWs of existing resources will add selective catalytic reduction to their plants at a cost of \$114/kW at a time when they are not recovering base fixed costs in the forward capacity market and therefore would not receive a positive return on the new capital expended for between 5 and 9 years.<sup>2</sup>
- the NEEWS transmission line is built and reaches completion by 2014, even though it has not yet been approved by the Connecticut Siting Council.
- electricity from the Lake Road plant in the extreme southeast of Connecticut will always import into Connecticut, rather than flowing east into Rhode Island.
- the Southwest Connecticut local operating reserve shortfall identified by ISO-New England in its 2009 Regional System Plan<sup>3</sup> should not be addressed with new generation.<sup>4</sup>

As described further in Appendix 1 to this letter, we believe that it is likely that up to an additional 1GW of existing resources not contemplated in the EDC 2010 IRP base case, will retire due to economic and environmental reasons.

Towantic, which has developed a 500MW natural gas-fired combined cycle facility (“NGCC”) to be sited in Southwest Connecticut (in the Town of Oxford), proposes a simpler plan. Our modeling shows that a new NGCC at our site would not only save the Connecticut ratepayers \$400-750MM from 2012-2018<sup>5</sup>, but would reduce emissions by approximately 215,000 tons for CO<sub>2</sub>, 270 tons for NO<sub>x</sub>, and 960 tons for SO<sub>2</sub>. ISO-New England agreed in its New England Governors’ 2009 Economic Study, that a new NGCC in South West Connecticut would reduce power costs and emissions better than any other

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<sup>2</sup> We note, further, that even this calculation is based on the vagaries of the forward capacity market, which is not certain to deliver a sufficient capacity price even in that time frame. Reliance on the possibility of a forward capacity market recovery in the distant future means that owners of facilities may not be able to obtain financing for these capital expenditures.

<sup>3</sup> ISO-New England 2009 Regional System Plan issued October 15, 2009, [www.iso-ne.com/trans/rsp/2009/rsp09\\_final.pdf](http://www.iso-ne.com/trans/rsp/2009/rsp09_final.pdf)

<sup>4</sup> Additional information regarding Towantic’s concerns regarding EDC 2010 IRP assumptions is attached to this letter as Appendix 1.

<sup>5</sup> Letter from the Brattle Group to GE Energy Financial Services, September 15, 2008

strategy it examined.<sup>6</sup> The plant would also create jobs and tax revenues (including a substantial amount of state sales taxes) in Connecticut.<sup>7</sup>

Moreover, EDC 2010 IRP's reliance on build-out of the NEEWS transmission line and the associated upgrades ("NEEWS") by 2014 flies in the face of Connecticut's stated objective of energy independence. NEEWS is a multi-jurisdictional, multi-state project requiring approval by each state's jurisdictional entity. While Towantic doesn't have state-by-state details of the approval status of NEEWS, EDC 2010 IRP's reliance on NEEWS in-service date of 2014 appears premature on many counts, i.e.: (i) ISO-New England in its 2009 Regional System Plan stated its intent to perform a needs re-assessment for NEEWS and (ii) the Connecticut Siting Council has yet to approve the Connecticut portion of NEEWS. Further, Towantic questions the need for the Connecticut ratepayers to bear the schedule and cost risks of a large transmission project if a modern, efficient and well-sited generation resource can be an effective alternative without the ratepayers taking on many of the risks of a transmission build-out.

With a new, efficient plant like Towantic available near the load and flexible enough to assist in grid stability as 4.8GWs of intermittent renewable resources are added to the system, existing resources could be allowed to retire and existing transmission could be reserved for out-of-state renewable imports.

Towantic therefore suggests that an additional Recommendation be added to the EDC 2010 IRP that the CEAB issue a request for proposals for generation resources to determine whether new generation resources would provide greater grid reliability, lower cost power and lower emissions and if so, to enable construction of those resources through award of a power purchase agreement approved by the Connecticut Department of public Utility Control. As we and others have pointed out, the various ISO-New England power markets do not provide enough revenue certainty to permit new generation to be built without a long-term offtake agreement for its power.

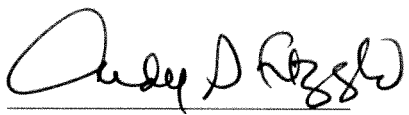
Mindful of the difficulty in adding new generation quickly (a new NGCC often faces a decade-long permitting process and a subsequent 30-36 month construction period) and the costs associated with bridging the gap until new generation can come on line, we urge the CEAB to begin a procurement process to allow award of power purchase agreements to meritorious projects at the earliest possible time.

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<sup>6</sup> Preliminary Results for New England Governors' 2009 Economic Study, [www.iso-ne.com/committees/comm\\_wkgrps/prtcpnts\\_comm/pac/mtrls/2009/aug142009/economic\\_study\\_draft\\_results.pdf](http://www.iso-ne.com/committees/comm_wkgrps/prtcpnts_comm/pac/mtrls/2009/aug142009/economic_study_draft_results.pdf)

<sup>7</sup> We refer to our comment letter of even date herewith on "Policy and Technology Options for Repowering Connecticut's Generation Fleet" prepared by NRG Energy, Inc., which further describes the Towantic project and its advantages for Connecticut resource planning.

Respectfully submitted,  
Towantic Energy, LLC

By:   
Its: Vice President

APPENDIX 1  
FURTHER COMMENTS ON EDC 2010 IRP MODELING ASSUMPTIONS

- **Comments on the EDC 2010 IRP’s Resource Adequacy.** The EDC 2010 IRP findings that “Connecticut has sufficient generation installed or under contract to assure locational resource adequacy requirement for reliability over the next 10 years, even if significant uneconomic, high-emissions generating plants retire<sup>8</sup>” are partly driven by the following assumptions which Towantic believes to be aggressive.
  - **Unit retirement.** The EDC 2010 IRP correctly highlighted the expectation that a substantial amount (approximately 1.5GW) of uneconomic, heavily polluting generation in Connecticut will retire within the next 6 years in, whether due to economic reasons or environmental pressures. However, Towantic believes that such retirements will be higher (approximately 2.4GW in the State of Connecticut) and accelerated, because:
    - Bridgeport Harbor 3 (383MW) coal-fired generation with in-service date in 1968 is not listed in the Base Case Final Unit Retirement Analysis in the EDC 2010 IRP although it will face economic pressure to comply with environmental regulation.
    - Middletown 2 (117MW) and New Haven Harbor (448MW) are assumed to continue to operate, despite the analysis that they will have to expend significant additional capital to install selective catalytic reduction devices (SCRs) and would have to operate with negative Cumulative NPV of Net Revenues for the first five to nine years of operations with no certainty of recovery after that time.<sup>9</sup>
    - There are a number of New England plants which are currently unable to cover their fixed costs because of the low capacity payments available in the ISO-New England forward capacity market but which are assumed to continue to operate; retirement of these plants may affect ability to import power into Connecticut, negatively affecting the State’s resource adequacy.
    - In fact, the EDC 2010 IRP acknowledges that there is substantial uncertainty around its retirement estimates and that retirement could exceed 4GW under certain market conditions.<sup>10</sup>

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<sup>8</sup> Page I-3 paragraph 2 of the EDC 2010 IRP

<sup>9</sup> Table 1.8 Base Case Cumulative NPV of Net Revenues page 1-20 of EDC 2010 IRP

<sup>10</sup> Page I-7 of the EDC 2010 IRP

- **Delist.** Towantic would also like to highlight that the ability for the State of Connecticut and New England in general to meet its reliability needs today is partly supported by the payment of out of market, Reliability Must Run payments. In the recent Forward Capacity Auction, several facilities were not allowed to de-list due to reliability issues and were compensated for running out-of-merit with additional payments.
- **Locational reliability.** ISO-New England's 2009 Regional System Plan highlighted the need for 200 MW of additional generation resources to meet local reliability needs in Southwest Connecticut. ISO-New England has specifically suggested, in its 2009 Regional System Plan, that regulators consider adding baseload resources in Southwest Connecticut (and Boston) as a way of augmenting grid reliability, while reducing power costs and pollutant emissions.
- **Lake Road availability to supply Connecticut.** Lake Road is currently not a Connecticut resource. Lake Road's availability to supply Connecticut is dependent on completion of NEEWS, multi-state, multi-jurisdictional transmission project. The Connecticut portion of the NEEWS has yet to be approved by the Connecticut Siting Council. By including Lake Road as a Connecticut resource, the EDC 2010 IRP is not only making a bet on the Connecticut Siting Council's decision in this regard, it is also betting that other states and other jurisdiction will also timely approve the necessary upgrades in their respective states / jurisdictions. Finally, even if the NEEWS is approved in all the states / jurisdictions, timeframe and cost to complete these upgrades are highly uncertain.
- **Comments on the "Six Alternative Resource Strategy"<sup>11</sup>.** Towantic supports the EDC 2010 IRP's alternative scenario entitled "Efficient Gas Expansion". The EDC 2010 IRP states that adding 1.1GW hypothetical NGCC capacity in Connecticut in advance of need for new capacity will provide substantial cost savings for the ratepayers in Connecticut and result in one of the lowest annual average power supply-related cost to ratepayers in 2020 compared to the other resource strategies considered.<sup>12</sup>

Towantic has performed several similar analyses that show that building Towantic in its location within the load pocket of Southwestern CT will (i) reduce ratepayers cost by approximately \$400MM-750MM from 2012-2018<sup>13</sup>, (ii) reduce emission of the State by approximately 215,000 tons for CO<sub>2</sub>, 270 tons for NO<sub>x</sub>, and 960 tons for SO<sub>2</sub><sup>14</sup>, (iii) increase reliability, (iv) and relieve the existing transmission capacity to help the State import the renewable capacity that it needs to meet the RPS. Moreover,

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<sup>11</sup> Page II-26 D.1. Six Alternative Resource Strategies, of the EDC 2010 IRP, page II-26

<sup>12</sup> Page II-30, Figure 28 of EDC 2010 IRP

<sup>13</sup> Letter from the Brattle Group to GE Energy Financial Services dated September 15, 2008

<sup>14</sup> Letter from the Brattle Group to GE Energy Financial Services dated September 15, 2008

- Turbine providers have introduced new versions of NGCC technology, which provide more flexibility to cycle to better meet grid reliability needs as well as reducing emissions.
- NGCC, utilized in combination with air-cooled technology, can dramatically decrease the need for process water over oil, coal and water-cooled facilities.
- Turbine heat rates have declined significantly to increase efficiency of fuel usage and decrease volatility due to fuel costs.