

**ROBERT FROMER**

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Chairman and Members  
Connecticut Energy Advisory Board  
C/o CERC  
805 Brook Street, Building 4  
Rocky Hill, CT 06067-3405

**Re: Comments on whitepaper prepared for the Connecticut Energy Advisory Board by NRG Energy, Inc. entitled “2010 Connecticut Integrated Resource Plan: Policy and Technology Options for Repowering Connecticut’s Generation Fleet”**

Dear Chairman and Members:

Section I of the white paper described the legislative background supporting the development of comprehensive procurement plans for the state and the specific focus on existing sites, as well as both a qualitative and quantitative discussion of the benefits of repowering and reusing existing power plant sites. This section supported the concept that Connecticut should adopt a pro-active strategy for achieving the repowering and reuse of its existing infrastructure sites.

Section II of the paper presents a process by which the state can accomplish that strategy, through a competitive procurement that includes as a threshold a requirement that each new project proposal be accompanied by a significant retirement of existing capacity and associated air and water permits. Such a process would allow the state to obtain lower electricity costs along with efficiency, environmental and economic development benefits during the current surplus that will secure the state’s energy security for years to come.

Section III of the paper discussed the potential candidate sites for repowering or reuse, the technology and fuel supply considerations involved in selecting repowering and reuse configurations for each site, and the environmental challenges facing the state’s power industry in meeting statewide and federal objectives. This section also includes a discussion of the potential opportunities for combined heat and power installations in Connecticut.

The sections of the paper pose a vital question: What is the projected Energy Return On Energy Invested and the Green House Gases produced for the repowering compared to maintaining the status quo based on life cycle analysis established in Public Act 07-242, An Act Concerning Electricity and Energy Efficiency), Section 54g<sup>1</sup>?

Cordially,



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Robert Fromer  
Environmental and Public Interest Consultant

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<sup>1</sup> When evaluating submissions pursuant to subsection (f) of this section for a facility described in subdivision (3) of subsection (a) of section 16-50i that are in excess of sixty-five megawatts, the board shall perform a net energy analysis for each proposal. Such analysis shall include calculations of all embodied energy requirements used in the materials for initial construction of the facility over its projected useful lifetime. The analysis shall be expressed in a dimensionless unit as an energy profit ratio of energy generated by the facility to the calculated net energy expended in plant construction, maintenance and total fuel cycle energy requirements over the projected useful lifetime of the facility. The boundary for both the net energy calculations of the fuel cycle and materials for the facility construction and maintenance shall both be at the point of primary material extraction and include the energy consumed through the entire supply chain to final, but not be limited to, such subsequent steps as transportation, refinement and energy for delivery to the end consumer. The results of said net energy analysis shall be included in the results forwarded to the Connecticut Siting Council pursuant to subsection (f) of this section. For purposes of this subsection, "facility net energy" means the heat energy delivered by the facility contained in a fuel minus the life cycle energy used to produce the facility. "Fuel net energy" means the heat energy contained in a fuel minus the energy used to extract the fuel from the environment, refine it to a socially useful state and deliver it to consumers, and "embodied energy" means the total energy used to build and maintain a process, expressed in calorie equivalents of one type of energy.