The Energy and Technology Committee

Public Hearing, March 5, 2013

Connecticut Energy Advisory Board

Testimony of Board Chair,

Consumer Counsel, Elin Swanson Katz

Proposed S.B. 250,
An Act Requiring Applicants of Electric Generation, Transmission and Distribution Facilities to Perform Energy Analyses.

The Connecticut Energy Advisory Board (CEAB) has reviewed Proposed Senate Bill (S.B) No. 250, *An Act Requiring Applicants of Electric Generation, Transmission and Distribution Facilities to Perform Net Energy Analyses.* The CEAB would like to bring to the attention of the Committee that Connecticut General Statutes (C.G.S.) section 16a-7c(g) contains a similar provision tasking the CEAB with performing a net energy analysis for each electric generating facility proposal with a capacity in excess of sixty-five megawatts submitted pursuant to the CEAB's request for proposal process for non-transmission alternatives delineated in C.G.S. section 16a-7c(b) – (f). Specifically, C.G.S. section 16a-7c(g) provides:

> When evaluating [requests for proposal] pursuant to [issuing a report evaluating each proposal to be forwarded to the Connecticut Siting Council] for [an electric] generation facility described in subdivision (3) of subsection (a) of *section 16-50i* that are in excess of sixty-five megawatts, the [CEAB] 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.

The CEAB appreciates the Committee's attention to this issue.