



**Environment
Northeast**

28 Grand Street
Hartford, CT 06106
860-246-7121
www.env-ne.org

Rockport, ME
Portland, ME
New Haven, CT
Boston, MA

MEMORANDUM

March 19, 2008

To: Wendy Jacobs and Rick Rodrigue, Connecticut DEP
From: Jessie Stratton, Director – Government Relations
Derek Murrow, Director – Policy Analysis
RE: Comments on CT DEP HEDD Materials and Questions

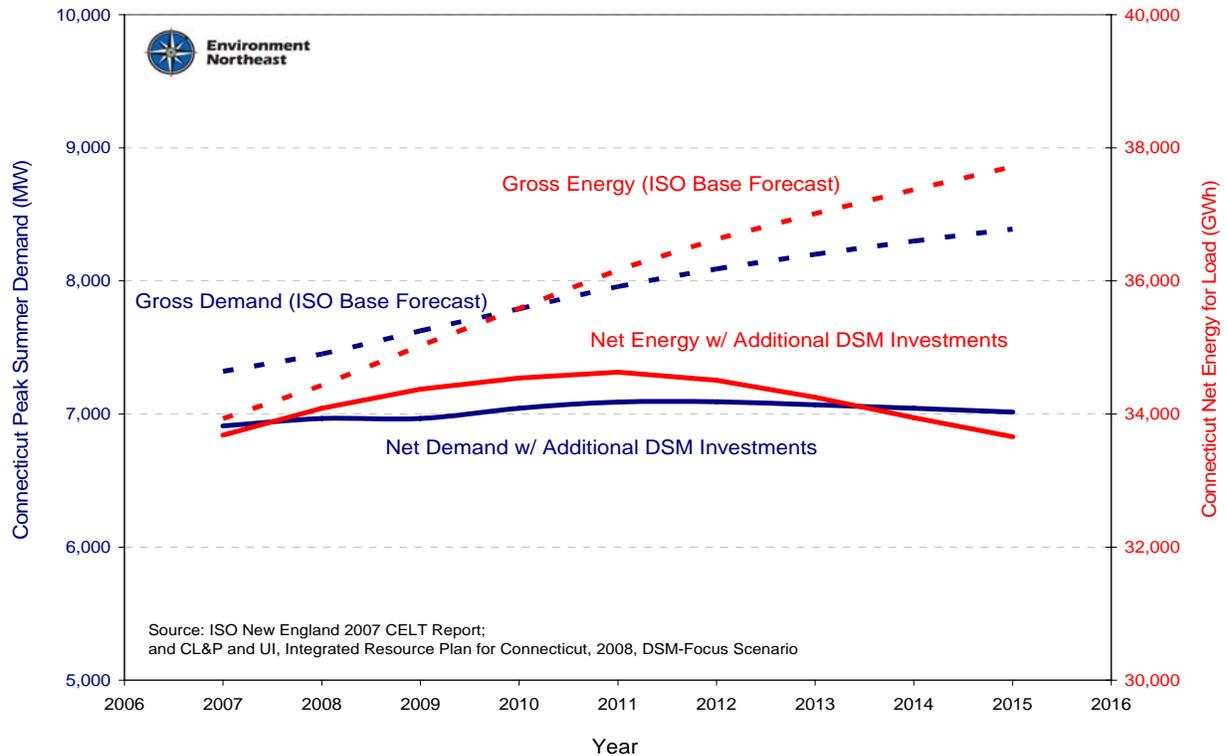
Environment Northeast (ENE) is a non-profit research and advocacy organization that focuses on energy, air quality and climate change solutions for New England and Eastern Canada. ENE appreciates the opportunity to provide comments in response to the Department of Environmental Protection's questions regarding reducing NO_x emissions on High Energy Demand Days (HEDD) by 25% in accordance with the OTC HEDD Memorandum of Understanding.

Before addressing DEP's specific questions, we want to offer comment on how energy efficiency investments should be assessed. While we concur that the DEP should be engaging with EPA to come to an understanding on how to account for the impact and benefit of energy efficiency and demand response programs, DEP should first engage with the Energy Conservation and Management Board (ECMB) and the utilities to fully understand the benefits of current programs and their recommended expansion in the draft Integrated Resource Plan (IRP).

If the Department of Public Utility Control (DPUC) approves the efficiency ramp-up envisioned in the IRP plan, energy efficiency may offset additional peak demand growth, but it will be unlikely to reduce emissions on peak days as seen in Figure 1 below.

Figure 1: Energy Efficiency and Demand Response Investments Could Offset Energy and Demand Growth

This example from the Connecticut utility IRP shows the benefits associated with increasing efficiency spending from \$90 million per year to over \$300 million in 2013 and beyond (new utility proposal based on last years energy bill) – this cost-effective investment would eliminate peak demand growth in the summer and stabilize and begin to reduce total electric energy consumption on an annual basis.



ENE Responses to DEP’s questions at Stakeholder Meeting on February 27, 2008

- *Given multiple pollutants and energy market changes, are there critical timing issues we should be aware of in establishing shorter term and longer term objectives?*
 - We do not believe that changes in the energy markets or efforts to reduce additional pollutant emissions should prevent DEP from moving forward now with new regulations to aggressively reduce NOx emissions from the state’s power plants during HEDD.
- *Should there be one reduction target developed or should there be decreasing reduction targets over time?*
 - Since emissions control technologies are well understood, DEP should establish new control requirements or emissions limits that become effective at the same time. The effective date of such requirements should allow for a reasonable time to install controls, while aggressively moving to reduce emissions as soon as feasible.
 - In order to determine what requirements or emissions limits to set, ENE believes the DEP should quickly examine and discuss the benefits and potential drawbacks of a suite of policies that could be used to address this problem, including but not limited to:
 - Requiring BACT on all units;
 - Requiring an output based maximum emissions level for all units at all times or on all HEDD;

- Requiring all units in the state to participate in a one day NO_x cap and trade program with allowances auctioned the day before a HEDD is forecast by ISO – this would provide the most certainty that emissions would have to decline.

The benefits associated with increased investments in energy efficiency should be included in the analysis and supported by DEP as complimentary to this new program, but not as a substitute.

➤ *What types of emission units should the program apply to?*

- ENE believes that any program should apply uniformly to all units in the state. Either an output based emissions standard or a one day cap could be fairly applied to all technologies and both new and existing units.
- The program must address those facilities in the state with the highest emissions rates, regardless of their size.

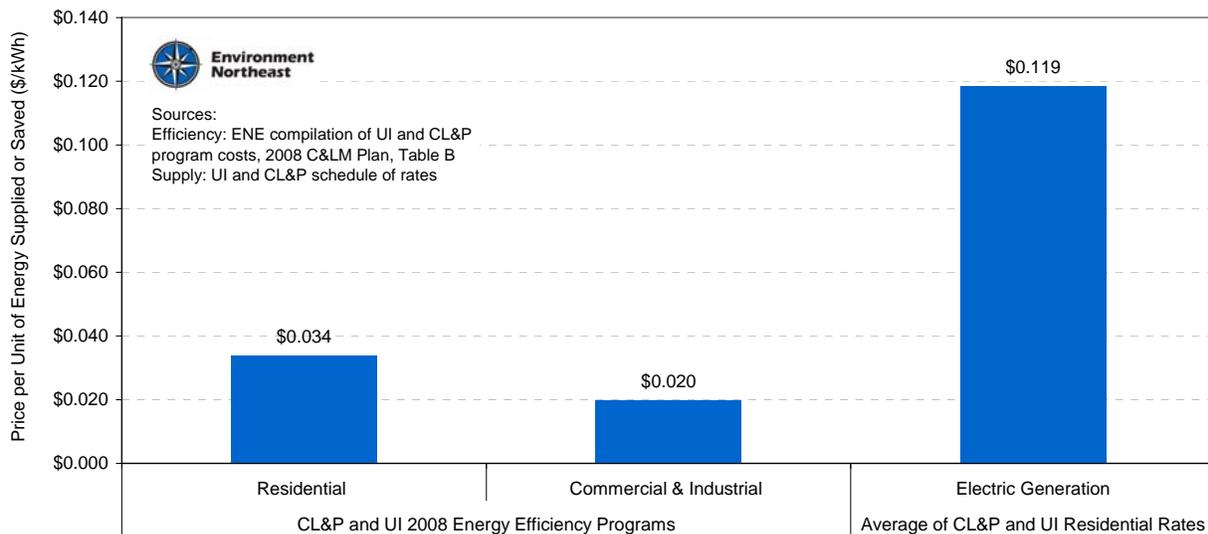
➤ *For assuring the HEDD emission reductions occur and are maintained, what limits should be applied?*

- Since setting emissions limits needs to be considered in the context of growing peak demand, DPE should have modeling completed that assesses potential scenarios and the reductions in emissions required to meet or exceed the state targets.
- Since different policy options will require different emissions limits and structures, specific limits can not be determined before the policy approach has been decided.

Figure 2 illustrates the benefits of increasing investments in energy efficiency; this kind of scenario should be built into the modeling effort to quantify the benefits of energy efficiency and identify how strict the new emissions program would have to be with and without additional energy efficiency investments.

Figure 2: Electric Efficiency vs. Energy Supply Costs

This example from Connecticut illustrates how much it costs to assist customers save a unit of energy versus supply them with more electric generation – efficiency is the low-cost choice



➤ *Which pollutants should be addressed?*

- In considering different policy options, DEP should examine co-benefits for all pollutants and not just limit its analysis to reductions in NO_x.
- Final policy design(s) should then be chosen that achieves both the NO_x reduction targets and the greatest reduction in other pollutants emissions.

➤ *What is the most cost-effective approach?*

- The most cost-effective approach is likely to combine increased investments in energy efficiency and a market based approach such as a one day cap on NO_x emissions in the state.
- Energy efficiency investments are significantly lower cost than supply investments, and could allow the state to eliminate growth in peak demand. Such investments are therefore the most cost effective way to reduce or eliminate an increase in NO_x emissions, but they are not likely to reduce emissions from current levels. Without new emission requirements on the state's power plants the NO_x picture will remain constant – energy efficiency's the potential is to reduce growth in NO_x emissions – implementation of policy choices referenced earlier in conjunction with increased energy efficiency investments will needed to achieve the 25% reduction in NO_x emissions.