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March 19, 2008

Ms. Wendy Jacobs
Connecticut Department of Environmental Protection
Bureau of Air Management
79 Elm Street, 5th Floor
Hartford, CT 06106-5127

Re: HEDD Stakeholder Process – “Implementing High Electric Demand Day Strategy”.

Dear Ms. Jacobs:

Enclosed are the United Illuminating Company’s written comments to the HEDD stakeholder process. We thank you for the opportunity to participate in these proceedings and look forward to working with the DEP in its development of regulations for HEDD strategy in Connecticut.

Respectfully submitted,

THE UNITED ILLUMINATING COMPANY

A handwritten signature in black ink, appearing to read 'Anthony Marone', written over a horizontal line.

BY

Anthony Marone
VP Client Services

AM/dp
Enclosure

WRITTEN COMMENTS OF THE UNITED ILLUMINATING COMPANY

March 19, 2008

1. Introduction

The United Illuminating Company (UI) submits these comments to the Department of Environmental Protection – Bureau of Air Management (DEP) as requested at the High Electricity Demand Day (HEDD) Stakeholders Process meeting held February 27, 2008 at the Phoenix Auditorium at DEP Headquarters in Hartford, CT.

New technologies have the potential for generating electricity more efficiently and with lower emissions and they can be used in combination with older technologies to meet high electricity demand. Maintaining electric system reliability and meeting compliance requirements set forth by the DEP, HEDD regulation, Clean Air Interstate Rules (CAIR) requirements and adoption of Regional Greenhouse Gas Initiative (RGGI) will be an extraordinary challenge.

As requested in the HEDD stakeholder process, UI provides comments on the following topics:

1. Short term
 - Reductions from load following boilers appear to provide a prime opportunity for HEDD reductions.
2. Next phase
 - Behind the meter and smaller units contributing to the grid also provide opportunities for HEDD reductions.
3. 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?
4. Should there be one reduction target developed or should there be decreasing reduction targets over time?

Additionally UI looks forward to participating in the follow-up meetings and review of proposed regulation based on the schedule defined:

- Stakeholder meetings: March 26 and April 23 at 9 am in Phoenix Auditorium.
- Preliminary draft HEDD regulation available for stakeholder review/discussion by June 2008.
- Accept stakeholder comments on draft HEDD regulation during June 2008.
- Draft HEDD regulation for proposal in September 2008.

2. UI Comments

1. Short term

- Reductions from load following boilers appear to provide a prime opportunity for HEDD emissions reductions.

There may be significant opportunity for HEDD reductions (i.e., emissions offsets) from load following boilers, to the extent that the use of other electric generating resources (e.g., new peaking generation or expanded use of emergency engines under DEP's General Permit) are available to operate on HED days.

In considering how best to formulate regulations regarding such resources, it is important to first understand how such resources are dispatched by ISO-NE so that the goals of the regulations can be achieved in a beneficial manner.

Customer-side emergency resources operating under the "3b exemption" should continue to be allowed to operate in the short term until new guidelines can be applied in a practical way. Such resources are "called" on an infrequent basis - when emergency conditions - as defined by ISO-NE, exist. Changes to the "3b exemption" would impact electric system reliability on HED days.

Resources operating under the DEP's "General Permit" would allow for expanded use of emergency generation. The General Permit's requirement for the addition of Selective Catalytic Reduction and Particulate Matter equipment could offset load following boilers and achieve net emissions reductions. However, this ability would end once the General Permit expires.

2. Next phase

- Behind the meter and smaller units contributing to the grid also provide opportunities for HEDD reductions.

Behind the meter and smaller units contributing to the grid include those resources that are currently defined under the DPUC's capital grant program. This program incents the installation of customer side distributed resources that use more efficient gas turbines with heat recovery boilers (Combined Heat and Power Systems) to generate electricity and heat. The total energy output of these types of systems could contribute significantly to the overall reduction of emissions and improve electric system reliability. UI recommends that the DEP consider regulation that further encourages the

development and operation of these units in a practical and cost-effective manner.

Note that emergency engines that have been historically allowed to operate on HED Days would only operate when there are significant electric system level reliability issues. In addition, behind the meter activity must take into account the value of various demand reduction strategies of end use customers. Historically this has represented significant value to the electric system and resulted in no emissions related to reduction of energy use by a customer when asked to do so.

Energy efficiency and demand response have the desirable attribute of being zero emission technologies. There are new regulations, either recently promulgated (CAIR) or in development (RGGI) to control NOx and CO2 that provide emission allowances for these types of installations. If HED regulations were to include an allowance trading mechanism, there should also be a provision to value the zero emission attributes of demand side management and energy conservation activities.

It is important to note the difference between electric generating resources that operate when there are significant/critical electric system operational issues and when they operate otherwise. Emergency generators (defined as Real-Time Emergency Generator (RTEG)) are called to operate during ISO-NE OP4 action 12 events, deemed to be an emergency situation impacting system reliability. The frequency of emergency events where these units are called to run is not anticipated to increase in the Forward Capacity Markets. An HEDD regulation that restricts the operation of emergency generation beyond what exists today would be in conflict with ISO-NE's use of these units during emergency conditions.

Emergency generators that can be used in an expanded fashion under a General Permit also provides an opportunity to utilize these resources in the Locational Forward Reserve Market (LFRM), both as a demand resource to reduce peak demand on HED days and in emergency situations. The General Permit allows these resources to operate in expanded fashion. However, the 2MW limitation of the permit is not consistent with the operating requirements of the LFRM.

Overall, the development of HEDD regulations should balance the need for electric system reliability and the importance of managing environmental emissions through an integrated process that takes into account how industry participants are enrolled, managed and dispatched in the ISO-NE markets.

3. 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?

Energy market changes are driven by the increase in demand for energy matched to the system's capability of supporting and supplying that demand. Public policy (federal & state), economic conditions, and technology drive the definition of short and long term electric system and environmental goals.

The DPUC has defined a variety of programs that help to maintain electric system reliability in the short term as well as strategies to meet Connecticut's future demand. It seems imperative for the DEP to work in concert with the DPUC, and the Connecticut Siting Council, as necessary, to create programs (and update regulations, as needed) in a way that meets the overall electric and environmental objectives of the state.

The current market for Renewable Energy Credits and various other markets in other states, for example cap & trade, provide a basis for the DEP and DPUC to consider what has worked and what has not. In an effort to identify what structure is appropriate for the state, it would be appropriate to convene a working group that has stakeholders and other parties who can evaluate the options and recommend a market structure that balances the needs of the electric system and environmental goals set forth by the Renewable Portfolio Standards and the Regional Greenhouse Gas Initiative.

In the short term the goals should include extending the applicability of permits (3b exemption and General Permit) for emergency engines so that short term electric system reliability can be achieved. Changes to DEP permits also must take into account that there is a three year time lag between capacity resources being bid into ISO's Forward Capacity Market and when those resources are required to actually operate. Accordingly, if DEP permit rules change during this "lag period, the use of these resources (and the ability of them to fulfill their capacity obligations) in the Forward Capacity market is at risk.

For the longer term, policy makers should consider a focused effort to develop a market system for environmental attributes. A working group can be formed to analyze and recommend to the DEP the structure that would be most appropriate for the state.

4. Should there be one reduction target developed or should there be decreasing reduction targets over time?

Reduction targets should match the goals of policy makers in their definition of the Renewable Portfolio Standards and RGGI. All reduction amounts

should be considered only if they are supported by an analysis that indicates what can be economically achieved over time, considering technology availability, economic conditions and balancing electric system reliability versus environmental impact. In addition, reduction targets should take into account the existing and expected generation mix at any each point in time in order for such targets to have any benefit.