



BLUE SKY ENVIRONMENTAL LLC

March 14, 2008

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

Subject: Response to HEDD Input Request

Dear Ms. Jacobs:

Blue Sky Environmental LLC (“Blue Sky”) is pleased to provide these comments regarding the Connecticut Department of Environmental Protection’s (“DEP”) specific input requested on February 27, 2008 at the High Electric Demand Day (“HEDD”) stakeholder meeting. I am responsible for the environmental permitting for EnerNOC, Waterside Power, LLC and Pinpoint Power, LLC.

First, and foremost, I would like to address what types of emission units the program should apply to.

Types of Emission Units the Program Should Apply To

It was mentioned at last week’s Connecticut Energy Advisory Board (“CEAB”) meeting that the ISO Forward Capacity Auction (“FCM”) filing indicates that the reliability must run (“RMR”) operation requirements will decrease from 3,000 MW to 330 MW. Apparently Norwalk Units 1 and 2 will not go away with the FCM. This is a huge development and will cause a significant decrease in emissions of oxides of nitrogen (“NO_x”) in Connecticut. Before the DEP finalizes regulations to address HEDD, it needs to fully understand the impact of the FCM, particularly on generation during HEDD. If in fact the RMR requirements for Norwalk Units 1 and 2 do not go away as a result of the FCM, then these are the units the DEP should first target.

At the initial HEDD stakeholder meeting, the DEP indicated that the dominant HEDD contribution in New England is from oil-fired, load-following boilers. The DEP also indicated that it would consider all possible sources for inclusion in the HEDD regulations, including engines operating in the ISO New England (“ISO-NE”) Emergency Demand Response (“DR”) Program.

I strongly urge the DEP not to target the ISO Emergency DR Program. By targeting engines participating in the DR Program, the DEP would possibly eliminate the program since it is unlikely any engines will continue to participate if controls are required. The DEP should not change the rules on a highly successful DR Program that includes 100s of MWs of both quick start engine and curtailment use in the state.

The DR Program for emergency engines is only implemented once ISO-NE declares Operating Procedure 4, Action 12 (“OP 4, Action 12”). Since the DR Program was initiated in NE in 2002, there have only been three days that the DR Program was called in Connecticut¹:

- 1) August 15, 2003; the day after the major Northeast blackout;
- 2) July 27, 2005; record electric power demands in all of New England were set; and
- 3) August 2, 2006; record electric power demands in all of New England were set.

Only two of these days (July 27, 2005 and August 2, 2006) are part of the top-ten demand days as identified by the DEP during last month’s stakeholder meeting. Therefore, if the DEP targets the DR program in the HEDD regulations, the DR Program would not have an affect for a majority of the time. Also, if the DEP targets the DR Program, it is highly likely that it would severely limit or possibly eliminate the program in Connecticut. This would then eliminate a large amount of curtailment that is part of the DR Program. A majority of EnerNOC’s customers in Connecticut that sign up for curtailment, also need the emergency engine portion for the installation to be profitable. Eliminating the emergency engine portion would greatly decrease the curtailment portion.

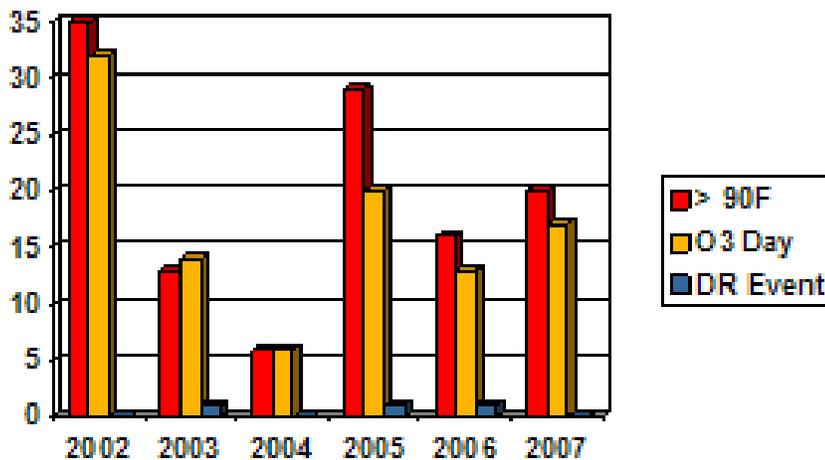
Since 2002, there have been 102 days² of ozone exceedances; yet, the DR Program has only been called on three days, and one of those days, August 15, 2003, was not an ozone exceedance day. Below is a bar chart comparing the number of Connecticut ozone exceedance days, number of days that exceed 90°F, and the number of DR events for 2002 through 2007. As the bar chart shows, even though there have been numerous ozone exceedance days and days exceeding 90°F since 2002 in Connecticut, there have been very few DR days.

¹ According to the ISO-NE OP 4 Action Archive, in addition to August 15, 2003, July 27, 2005, and August 2, 2006, there have been two other times OP 4, Action 12 or higher has been called: August 20, 2004 and June 19, 2006. Both of these were for the Boston area only and the DR Program was not called. The DR Program has been called for testing on a few non-ozone days for DR audits. These are not OP 4, Action 12 days.

² According to data provided by Paul Bodner of the CT DEP, there were 32 8-hour Ozone NAAQS exceedance days in 2002, 14 in 2003, 6 in 2004, 20 in 2005, 13 in 2006, and 17 in 2007.

Demand Response in Connecticut

No. of Days



OP 4, Action 12 is the start of brownouts with the next step being involuntary interruptions of load. This declaration is taken very seriously by ISO-NE. In fact, even under the extreme weather conditions which occurred during the summer of 2002 (see the bar chart above) and the extreme weather conditions coupled with record demand for electricity that occurred on two occasions in 2006, ISO-NE did not declare OP 4, Action 12. This Action is truly reserved for emergency situations. This declaration should not be confused with other ISO-NE programs that are enacted for economic reasons (such as the ISO-NE's Real-Time Price Response program).

The DR Program is more than just turning on emergency diesel generators. It also includes curtailment (e.g., companies turning down their air conditioners and lights, manufacturing facilities turning off their machines, etc.) to reduce power demand. This curtailment results in a reduction of air pollutants during DR events.

A report prepared by Synapse Energy Economics, Inc. for the Environmental Protection Agency ("EPA") entitled "Results of Demand Response Emissions Modeling" by Geoff Keith, Bruce Biewald, David White and Mike Drunscic dated August, 2003 and revised September 4, 2003,

assesses the impacts of DR and energy efficiency programs in New England using an electric system dispatch model.³ As the report states, “when the DR resource is used to meet reserve requirements, the result is more efficient unit commitment, reduced operation of oil- and gas-fired steam units and increased operation of combined-cycle units in New England.” Even assuming all DR is from diesel-fired generators, the report showed a net benefit in air quality. As noted in the Synapse report, “New England has a small amount of quick-start capacity relative to the regional peak load compared to most other control areas. Many analysts have noted that this requires large power plants to operate more than they would otherwise have to in order to maintain sufficient operating reserves – capacity that can be provided quickly in response to unplanned losses of capacity. A key goal of this work for EPA was to verify that large units were indeed being operated more than necessary in New England to meet reserve requirements, to gauge the probable emission impacts of this dynamic, and to estimate potential emission reductions that additional DR could provide if it were used to meet operating reserve requirements.”

DR is currently playing an important role in stabilizing the electric system in Connecticut. There is no reason to believe that ISO-NE plans to use DR more frequently. DR is needed for worst-case scenarios. For example, with the addition of the new transmission lines to Southwest Connecticut, DR will be needed more as a back up since the worst-case contingency that will need to be covered will be the transmission lines going out of service. There is no reason why DR should not be allowed to cover this worst-case contingency. Requiring new, greenfield power plants to be built for operation on only one or two days every four years does not make economic or environmental sense.

The Connecticut Energy Advisory Board (“CEAB”) in its April 2006 Report indicates that “demand response programs, particularly those that can qualify for operating reserve, have an opportunity to play an important role in meeting the capacity requirements identified.” The Connecticut Siting Council’s Review of the Ten-Year Forecast of Connecticut Electric Loads and Resources 2005-2014 noted that emergency generators and DR programs were critical elements to address the capacity shortfalls in Southwest Connecticut.

Allowing emergency engines to operate when the imminent threat of a power outage is likely is important because these resources have the potential to prevent power failures, which are injurious for health and safety and the environment. When the grid fails, every emergency

³ A hypothetical near-term year in New England using projected 2006 fuel prices and loads was modeled. The modeling included 500 MW of DR capability: 60 percent load response and 40 percent generation. The emissions impacts when DR is used for reserves results in significant decreases of criteria pollutant emissions, even when it is assumed that the DR used to meet reserves is all diesel (e.g., summer air impacts include: NO_x decreases 23 tons, sulfur dioxide decreases 216 tons, carbon dioxide decreases 31,400 tons, particulate matter 2.5 microns or less decreases 12.5 tons, particulate matter decreases 21.2 tons and mercury decreases 0.29 tons).

generator that has an automatic transfer switch fires up (or attempts to), and others that do not automatically start up are manually started by their owners/operators. This existing fleet includes many poorly maintained, non-permitted generators that burn dirty fuels. It can take a long time, even days, to restore conditions to normal operating levels, so these emergency generators will likely run for extended periods of time after a power failure. In addition, public health and safety are directly affected by blackouts, as people can be stuck in elevators, traffic lights can malfunction, emergency response systems can become overloaded, and failures can occur at mission critical environmental facilities such as wastewater treatment plants. For instance, during the August 2003 blackout, approximately 490 million gallons of untreated sewage were dumped into New York City's rivers because of the power failure.

In summary, the DEP should not target engines currently operating in the ISO DR Program. The DEP needs to first identify and quantify the affects of the FCM and energy efficiency programs. Once these items are quantified, the DEP should then target, if necessary, the remaining sources (e.g., oil-fired, load-following boilers) that contribute to HEDD.

The remaining input requests are addressed as follows:

Reduction Targets

As with any new regulatory program, it is always best to develop decreasing reduction targets over time.

Limits to be Applied

The DEP first needs to identify what reductions are needed and from what sources. This is not an easy task and must account for the FCM and energy efficiency programs.

Pollutants to be Addressed

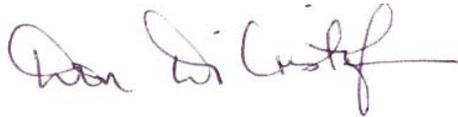
The DEP should only address NO_x in the proposed HEDD regulations. Trying to address any other pollutants will make an already complicated process even more complicated. The DEP should parallel the development of the HEDD regulations with the modifications to RCSA §22a-174-22, the NO_x RACT Regulations.

Ms. Wendy Jacobs
CT DEP
March 14, 2008

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Thank you for giving me an opportunity to provide comments during the HEDD stakeholder process.

Sincerely,
Blue Sky Environmental LLC

A handwritten signature in dark ink, appearing to read "Don C. DiCristofaro". The signature is fluid and cursive, with a long horizontal stroke extending to the right.

Don C. DiCristofaro, CCM
President