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RE: CASE # 07-M-0548: NYSDEC's Responses to Department of Public Service Staff's Inquiries Regarding the Energy Efficiency Portfolio Standard Program.

DATE: July 27, 2007

The Department of Environmental Conservation's ("Department" or "DEC") enthusiastically supports this proceeding and the focused effort to develop and implement realistic, environmentally sound energy efficiency programs. Increasing energy efficiency substantially is an essential part of any strategy to address climate change, which is the Department's top environmental priority. New York State rightly takes a leadership role in this arena and Department Staff are ready and able to contribute in whatever way possible to in order to complete this proceeding successfully.

The following comprises the Department's responses to questions recently posed by Department of Public Service ("DPS") Staff in the Energy Efficiency Portfolio Standard proceeding. Department Staff appreciate DPS Staff's extending a brief extension of the July 11, 2007 deadline for this response; the added period has allowed Department Staff to consult with DPS Staff and further review its own role in this proceeding.

The following responses are numbered according to the questions in DPS Staff's inquiry:

Questions 1 and 3.

Accomplishing New York's target of 15% reduction in electricity consumption by 2015 ("15 by 15") will require that, in addition to new programs, available efficiency programs be identified and prioritized by how feasible they are and how quickly they can be accomplished. A number of programs, such as an incandescent - fluorescent bulb change program, can be readily identified to contribute to this goal and the Department will support the effort to thoroughly identify additional programs. A significant component of that effort will be identifying the appropriate recipients for programs designed to reach the 15 by 15 target, *e.g.*, commercial, industrial and residential users. The Department recommends that this proceeding reach a balance to fairly distribute the efficiency programs and their benefits among these recipients.

Effective implementation is an essential component of any program design, including one aimed at promoting energy efficiency. Among other things, an energy efficiency program should identify and consider the appropriate activities or steps needed to ensure that energy efficiency gains are sustainable over the long term. This may, for example, entail developing programs to educate end users on how to maintain appliances or other emitting sources, in order to ensure that such sources continue to operate at maximum efficiency, or how to apply methods to periodically test the performance of a residential emission source or appliance to ensure it operates at peak efficiency.

One of the cornerstones of the Department's air regulatory and permitting program is the requirement to monitor and record emissions, maintain records, and submit periodic reports of facility operations to the Department. These concepts can provide a template for assessing the effectiveness of energy efficiency programs. As specific proposals are developed during the course of this proceeding, Department Staff will work with participants and stakeholders to foster such an analysis and ensure that these goals are met in a manner that creates substantial environmental benefits.

The Department also recommends that a comprehensive assessment of potential environmental impacts, both positive and adverse, be included in the design of energy efficiency programs. An example of the need for such an assessment would be evaluating the appropriate responses to high energy demand days. Because peak generation units may be called on to meet such demand, there is a need to assess any risk associated with emissions of high levels of pollutants, and when and where it would have the greatest adverse impact on air quality. Furthermore, responses to high energy demand days should take into account the risk aspects that pertain to low income and minority communities impacted by such generation.

Questions 8, 10, 18 and 19.

The Department believes that DPS should implement the program in accordance with environmental justice precepts. Environmental justice is defined as the fair treatment and meaningful involvement of all people, regardless of race, color, national origin or income, with respect to the development, implementation, and enforcement of environmental laws, regulations and policies. Environmental justice principles recognize that some communities, especially minority and low-income communities, are disproportionately exposed to negative environmental impacts, have been historically absent from environmental decision-making affecting their community, and may not receive equitable benefits of environmental programs. The design of the energy efficiency program should favor environmental justice communities and should reduce the impacts and environmental burden on these communities from power generation activities.

The Department supports energy efficiency programs that incorporate equitable measures to protect and assist communities most affected by climate change, including minority and low-income communities and subsistence fishing communities. These communities host a disproportionate number of power plants and often have an increased vulnerability to related mercury contamination of fish supplies on which they depend for subsistence. As energy demands increase, inefficient energy technologies add to the need for and siting of new power

plants to meet the increased demand, further burdening these communities with the negative impacts of our regional energy production system. Therefore, the Department supports carefully assessing energy efficiency programs, technologies, or operation programs in order to maximize the benefits to these communities.

Various methods should be employed to ensure that these communities have access to efficiency programs. Methods may include, but are not limited to, community grants to assist in the implementation of local efficiency programs, tax incentives to integrate energy efficiency programs in low-income housing and public housing, rebates to low-income customers for residential efficiency efforts, and free or subsidized retrofits for income-eligible single and multiple family housing units.

Targeted education and outreach should play a key roll in the energy efficiency effort. Networks of environmental justice advocates and community groups should be relied upon as a resource to help influence the development of the energy efficiency programs. These groups may also serve as messengers to educate and mobilize community implementation of energy efficiency programs. Language barriers as well as educational barriers should be considered in education and outreach efforts.

Question 9.

Question number 9 concerns whether the inclusion of energy efficiency design in new buildings should be encouraged by energy tariffs. Energy tariff configuration may be a worthy consideration in both new and older buildings, albeit perhaps more comprehensively in the design and construction of new buildings.

The Department respectfully recommends that energy efficiency programs be encouraged in new as well as older buildings, and in residential as well as commercial/industrial structures. DPS can encourage that new commercial/industrial buildings be designed to meet the rgeen building program standards. Energy efficient building retrofits and rehabilitations should also be included in the design of energy efficiency programs because a majority of the State's commercial, industrial and residential buildings are not new. In addition, both new residential construction and residential unit rehabilitation belong as significant parts of the energy efficient building mix. Significant efficiency values could be harnessed by promoting improved design, construction and operation requirements at the high rate of construction/rehabilitation represented by the residential field. Associated with this is the need to ensure that low income and minority communities share in the advantages offered by these residential efficiency values.

The Department recommends that energy efficiency program design take into consideration those aspects of green building design that directly promote energy efficient design, construction and operation (as distinguished from the broader characterization of reduction of adverse impacts to the environment). Drafting and funding of energy efficiency building design programs should be carefully orchestrated to avoid subsidizing energy efficient building designs, construction and operation components that would ordinarily be adopted by developers and owners in the course of regular cost-reduction practices.

In addition, open space and smart growth programs should be considered as aspects of energy efficiency program design. In contrast to more technology-based solutions, urban greening, green infrastructure, and green architecture often get ignored as energy efficiency options. Projects to design and create green architecture elements for buildings, such as green roofs and/or green walls, particularly in urban areas, can save energy, improve air quality, reduce urban heat island effect and reduce atmospheric CO₂. A variety of roof structures and configurations offer a wide range of possibilities for rooftop vegetation. In addition, projects to shade buildings and provide green infrastructure (e.g. new and expanded parks, greenways, tree planting and community gardens) can have energy efficiency implications and are increasingly being used to foster re-development in community centers that is attractive, transit friendly, mixed-use and walkable. These types of natural amenities in community centers can simultaneously address energy demand, economic vitality, environmental quality, and quality of life policy goals.

Question 12.

Distributed generation, demand response and combined heat and power have the potential to play a role in meeting the 15 by15 target if designed properly to minimize the use of fossil fuels. Each program offers unique features that, individually or in combination, can be utilized to reduce energy consumption while helping to provide support to the electricity infrastructure of the state. To accomplish this, each program type implemented under the 15 by15 program will need to be analyzed to make sure that it meets both the energy and environmental goals of the state.

Question 15.

The key stakeholders in this proceeding have the capacity to design a program that will manage and guide enhanced energy efficiency programs in numerous ways, whether acting as conduits for program funding, supplying effectiveness monitoring guidance, or actively monitoring the short and long term effectiveness of energy efficiency enhancements. Furthermore, the agency representatives have the capacity, where appropriate, to create, enhance or focus regulatory programs toward fostering these programs. However, exact roles and responsibilities will depend on the design of a particular energy efficiency program and the subject of the targeted activity. Furthermore, legislation may be required to authorize or direct how certain stakeholders can create or implement certain energy efficiency programs. For example, statutory direction may be needed so that participating entities may legally share critical but sensitive program information (such as meter information on energy usage) in a competition-neutral, security-conscious manner.

In addition, consideration should be given to whether special loan programs can be made available as a mechanism to support qualified energy efficiency programs. For instance, through the Environmental Facilities Corporation, municipalities presently may receive loans to construct qualified waste water treatment systems, which may provide a template for enhancing energy efficiency at municipal facilities. In addition, with appropriate support, enhanced energy efficiency programs identified by this proceeding may be available to the New York Power Authority's municipal customers.

The Department encourages the Public Service Commission to establish procedures by which efficiency program implementation data can be collected and openly shared between the appropriate participants in a competition-neutral and public security conscious manner. Department staff will be glad to assist in this effort. Please also see the Department response to Questions 1 and 3.

Questions 21 and 22.

DEC recommends that measurement and comparison of various design options should include environmental externalities, including avoided emissions of oxides of nitrogen (NO_x), sulfur dioxide (SO₂), carbon dioxide (CO₂), and particulate matter (PM). The problems that these pollutants lead to (e.g., smog, acid rain, and global warming) have significant public health and welfare implications. DEC also recommends that the timing and location of these avoided pollution loads be considered.

For example, DEC is developing programs to lower emissions on the high electric demand days (HEDD), which is also when it is most likely that exceedances of health-based ground level ozone and PM_{2.5} standards will occur. DEC has entered into an Memorandum of Understanding with the other Ozone Transport Commission states to reduce emissions on HEDD, establishing a target NO_x reduction of 50 tons per day for the greater New York City area. To assist in meeting this target, DEC recommends that measures that reduce energy demand at peak periods should be favored in any comparison of options, since this would meet DEC's HEDD policy goals and avoid emissions on days with the high potential to exceed air quality criteria.

In terms of program location criteria, DEC recommends that additional consideration be given to those design options that would reduce emissions in potential environmental justice areas or in non-attainment areas (i.e. areas not meeting air quality standards). In this way, the energy efficiency options can contribute to the 15 by15 goal, and also help DEC meet the goals of environmental justice and achieving air quality standards. This location criteria also provides support for natural gas efficiency improvements, because the air pollution source is co-located with end use.

A comparison of various design options should consider the ability to guarantee pollution reduction. Various state and federal regulatory regimes create pollution cap-and-trade programs. As a result, a reduction in emissions at one facility (due to reduced electricity demand) that is covered by a cap may provide a trading opportunity that will allow additional emissions at another location. Therefore, the extent to which pollution reductions will occur at sources not covered by a pollutant cap (e.g., residential natural gas use) should be considered in weighing different design options. Finally, DEC also recommends that, to the extent practical, energy efficiency initiatives be designed to integrate with and complement the relevant pollution control programs for NO_x, CO₂, and SO₂. DEC would welcome the opportunity to work with the PSC and active parties in this regard.

DEC Staff appreciate the opportunity to respond to DPS Staff's inquiries and look forward to working with DPS Staff, as well as other participants, to further the goals of this proceeding.

Respectfully submitted,
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cc.: Active Parties via listserve (Case 07-M-0548)