

Joint Comments of
PACE ENERGY AND CLIMATE CENTER
ENVIRONMENTAL ADVOCATES OF NEW YORK
and
ALLIANCE FOR CLEAN ENERGY NEW YORK, INC.
on the New York State Energy Plan

December 19, 2008

VIA EMAIL (www.NYSEnergyPlan.ny.gov)

Energy Plan Comments
NYSERDA
17 Columbia Circle
Albany, NY 12203-6399

Re: Joint Comments on New York State Energy Plan

The December 11, 2008 meeting of the New York State Energy Planning Board (“SEPB”) included presentations on Reliability and Infrastructure Needs, Renewable Energy Development, Climate Change and the State Energy Plan, and the Modeling Process. In addition, the Board was presented with a proposal for modification of the current schedule. The Pace Energy and Climate Center (formerly the Pace Energy Project) (“Pace”), Environmental Advocates of New York (“EA”), and Alliance for Clean Energy New York, Inc. (“ACE NY”) submit these joint comments on these presentations and other issues related to the Energy Planning Process. We appreciate the opportunity to express our views to the State Energy Planning Board and the Energy Coordinating Working Group (“ECWG”), and look forward to participating in subsequent phases of the process, including comments on the preliminary draft Energy Plan to be released on March 31, 2009.

Inclusion of an “80 by 50” Target Within the State Energy Plan

The presentation of Peter Iwanowicz of the Office of Climate Change, NYS Department of Environmental Conservation (DEC), included a statement that “[t]he energy plan is the venue for addressing climate change.” Pace, EA and ACE NY strongly support consideration of broader climate change issues as part of the state energy planning process.

New York State has been a leader in taking action to address climate change. The State is implementing a number of strategies to address climate change, including the adoption by the Public Service Commission (“PSC”) of a Renewable Portfolio Standard (“RPS”) in September 2004 and the PSC’s initiative in the Energy Efficiency Portfolio Standard (“EEPS”)

proceeding¹ to implement the State's "15 by 15" goal of achieving a reduction of fifteen percent below projected electricity usage by 2015. Other initiatives include the commitment to the Regional Greenhouse Gas Initiative ("RGGI"), which will gradually reduce CO₂ emissions from power plants in ten participating Northeast and mid-Atlantic states, and the creation of a Climate Change Office at DEC, which is undertaking various planning activities to identify and plan for – and offer proposals to reduce – the potential impacts of climate change in New York.

Pace, EA and ACE NY offer strong support for the recommendations of Mr. Iwanowicz to develop the State Energy Plan in a broader context that takes into account the dramatic reductions in greenhouse gas ("GHG") emissions that will be necessary to achieve the objective of the United Nations Framework Convention on Climate Change, which is to stabilize GHG in the atmosphere at a level preventing "dangerous anthropogenic interferences with the climate system." Various climate change experts, including most prominently Dr. James Hansen at the Columbia Earth Institute, have translated this objective into limiting the temperature rise to no greater than two degrees (2°) above pre-industrial levels. This goal, in turn, suggests that an eighty percent (80%) reduction in GHG emissions below 1990 levels will be necessary by 2050.

These are admittedly ambitious goals, and the challenge of achieving this level of GHG reduction is enormous. Yet the stakes are similarly enormous and critical; as noted in Mr. Iwanowicz' presentation, Governor Paterson is on the record that "[g]lobal warming is the most pressing environmental issue of our time." It is therefore essential that energy policy in New York State be developed in the context of achieving what should be a new target: "**80 by 50**," *i.e.*, an 80% reduction from 1990 levels of GHG emissions² by 2050. This change in New York's "business as usual" emissions profile must be initiated without delay, and must also include aggressive short-term and interim targets to ensure that reductions are achieved in a least cost, optimal manner. The longer New York waits to embark on such a path, the more likely it is that the necessary emissions reductions in the future will be more sweeping and much more expensive.

The implications that flow from this target to the development of the State Energy Plan include the following:

- Scaling Up Energy Efficiency Programs. Top priority must be given to achieving all cost-effective energy efficiency savings and demand reduction programs. The "15 by 15" initiative adopted by the PSC in April 2007 is a significant effort to implement energy efficiency and conservation in New York, but it does not purport to capture the extent of cost-effective energy efficiency available in New York. As discussed below, capturing all cost-effective energy efficiency savings is by far the most economical means of achieving GHG reductions, as well as providing New Yorkers with welcome relief in minimizing their utility bills. The Energy Plan should also reflect corresponding savings from implementation of natural gas energy efficiency programs, as discussed further below.

¹ PSC Case 07-M-0548.

² It should be noted that in New York, the level of GHG emissions was roughly the same in 2005 as in 1990, so using 2005 as the baseline rather than 1990 would be immaterial.

- Investment in the Transmission Grid. Incorporation of an “80 by 50” goal in the energy planning process will require consideration of the demands that will be placed on the electricity sector in order to achieve the necessary GHG reductions in other industry sectors. As discussed briefly by Mr. Iwanowicz at the Board meeting, achieving an “80 by 50” goal may require the phasing out of (1) carbon-based fuel (natural gas and fuel oil) for space heating and water heating for residential and commercial users, and (2) the use of natural gas, No. 2 and No. 6 fuel oil in commercial and industrial processes. These GHG reductions will place additional load on the electrical system. Achieving an “80 by 50” goal will also require a reduction in the CO₂ emissions from transportation, which accounted for 39.5 percent of CO₂ emissions in New York in 2006. These GHG reductions will also place additional loads on the electrical system from the increased use of plug-in hybrid electric vehicles (“PHEV”). As discussed further below, it is essential that the state energy planning process consider the impacts on the electrical grid associated with achieving the GHG reductions in the other sectors that will be necessary to achieve an “80 by 50” target. Such an approach will involve a radical departure from the modest 1.35 percent growth in electrical demand that would be anticipated under a “business as usual” approach to energy planning. Rather, the demands placed on the electrical system due to these impacts will likely *more than double* over the next four decades when these impacts are taken into account. This highlights the importance of incorporating an “80 by 50” goal in the state energy planning process, for it has significant implications in the planning for (1) electricity supply, and (2) the necessary investment in the infrastructure for moving electricity around New York.
- Scaling Up of Renewable Energy. Given the demands that will be placed on the electric grid from the efforts to reduce GHG emissions in other sectors, there needs to be an “all hands on deck” approach to expanding the use of renewable energy in New York, and thereby displace New York’s current dependence on fossil-fuel-fired electric generation. As discussed below, New York should more aggressively pursue the deployment of wind, solar and biomass potential, and the associated upgrades necessary to the transmission system to enable the power to be transported from the generating resource to the loads.

These and related issues are discussed in further detail below.

Energy Efficiency Programs

Strictly from an energy planning perspective – without considering the GHG-reducing aspects – achieving all cost-effective energy efficiency savings should be accorded the highest priority in the energy planning process. The case for maximizing energy efficiency savings is even stronger when the GHG-reducing aspects of energy efficiency are considered. The McKinsey curves,³ which rank the emission reduction opportunities according to abatement costs, show the clear cost advantages of pursuing energy efficiency savings as the most cost-effective means of reducing CO₂ emissions. Moreover, the McKinsey Report recommends that energy efficiency

³ McKinsey & Company, “Reducing U.S. Greenhouse Gas Emissions: *How Much at What Cost?*” December 2007 (“McKinsey Report”).

and other “negative-cost” options be pursued quickly. According to the McKinsey Report, the most economically attractive abatement options are “time perishable” in that “every year we delay producing energy efficient commercial buildings, houses, motor vehicles, and so forth, the more negative cost options we lose.”⁴ We understand that NYSERDA is undertaking a New York State-based “cost curve study” building on the McKinsey work, which is expected to be available in February 2009. This study will likely confirm the importance of achieving all cost-effective energy efficiency savings as the most effective means of reducing GHG emissions.

In addition to the emphasis on electric energy efficiency savings, it is essential that attention be focused on scaling up natural gas efficiency programs. We understand from the presentation of John Williams at the December 11 SEPB meeting that extensive natural gas modeling will be conducted as part of the development of the State Energy Plan, through a contract between NYSERDA and ICF Resources. That modeling should take into account the energy efficiency savings that should be achieved upon implementation of a natural gas energy efficiency portfolio standard. A coordinated, integrated approach to energy efficiency investment, one that focuses on both electric and gas usage, is the best way to maximize efficiency achievements and to minimize ratepayer costs.

The PSC’s June 2008 order in the EEPS proceeding dedicated \$13 million to natural gas efficiency programs, which is only a preliminary step to development and implementation of a comprehensive plan to obtain all cost-effective reductions in natural gas end use. As part of the EEPS proceeding, the PSC also convened a Natural Gas Efficiency Working Group for the purpose of recommending statewide and utility-specific natural gas efficiency goals and targets.⁵ As co-convenor of this Working Group, Pace played a leading role in the developing the recommendations.

In Pace’s briefing to the PSC on this issue, Pace will be advocating an eighteen percent (18%) natural gas energy efficiency portfolio standard, which is supported by a comprehensive analysis performed by Optimal Energy on the potential for increased efficiency in natural gas usage. This study (the “Optimal Study”) is the best reliable data that exist on what the potential is for gas efficiency in New York, and concludes that New York could reduce its natural gas consumption by 28.3% below forecasted load for 2016 if the total potential cost-effective natural gas energy efficiency savings is realized. This estimate is referred to as the “maximum economic potential” for investment in natural gas efficiency programs. The Optimal Study also recognizes that “maximum economic potential” is not necessarily synonymous with “maximum achievable potential.” Based on past experience and professional judgment regarding typical penetration rates and other studies that explicitly estimate both maximum achievable and maximum economic potential, the Optimal Study estimates an 18% “maximum achievable potential” by 2016 for investment in natural gas efficiency.

Pace, EA and ACE NY urge the SEPB to endorse the adoption of a natural gas energy efficiency portfolio standard, and to include in its natural gas modeling a level of savings reflecting the “maximum achievable potential.” For the reasons stated above, Pace will be recommending to

⁴ McKinsey Report, Executive Summary, p. XVI.

⁵ Id. Procedural Ruling Concerning EEPS Design Issues (issued July 3, 2008).

the PSC that the 18% standard be adopted. The ECWG and the SEPB will need to determine for planning purposes what level of savings to assume, but Pace respectfully submits that the record in the EEPS proceeding provides strong support for an 18% standard for natural gas energy efficiency.

Electricity Grid Infrastructure Investments

Jeff Cohen's presentation on December 11 highlighted the need to increase transmission capacity, which he described as the key to unlocking the State's renewable resource potential and reducing the State's GHG emissions. As discussed below, additional transmission investment will be necessary to integrate the substantial new wind resources that will be necessary to reduce the State's dependence on fossil-fuel based generation, and to transport that generation from the upstate generating sites to the downstate loads. The slide from Mr. Williams' presentation on Modeling indicates the limited transfer capability which currently exists in New York State, which results in disparities in electric prices and inefficiencies in the allocation of electricity resources. These transfer capabilities need to be increased to eliminate or reduce the transmission bottlenecks, which should result in reductions in the overall average cost of electricity in the State. Moreover, additional investment in the transmission grid should reduce transmission line losses, which currently represent a costly and unnecessary erosion of about 10 percent in the effective capability of New York's generating resources due to the losses that occur simply in the wheeling of power over long distances.

In the short term, achieving the "15 by 15" goal in energy efficiency savings has the effect of reducing the load on the electrical grid and the transmission system. Thus, it is not surprising that the New York Independent System Operator ("NYISO") issued a Reliability Needs Assessment for 2009 that indicates no statewide bulk system reliability need for new generation capacity over the 10-year study period beyond what is currently being developed. Of course, this is a "business as usual" approach to energy planning that fails to consider the impacts on the electric grid infrastructure needs associated with the increasing demands that will be imposed on electric generation to accommodate efforts to reduce GHG emissions in other industry sectors (e.g., PHEVs in the transportation sector), as discussed above.

Electricity Supply Issues

Renewable Energy

As stated above, renewable generation needs to be scaled up considerably if New York hopes to achieve an "80 by 50" target of GHG emissions reduction. The PSC is currently considering a proposal to increase the RPS requirement to 30 percent by 2015.⁶ This represents an inadequate increase compared to the ramping up that will be necessary if New York is to pursue energy policies intended to achieve an "80 by 50" target. As stated in Pace's comments to the PSC in the RPS proceeding, the proposed increase from 25 percent by 2013 to 30 percent by 2015 is the *minimum* increase that should be considered. The procurement obligation imposed under the RPS is the most visible means whereby New York expresses its commitment to renewable

⁶ PSC Case 03-E-1088

energy resources; according to the February 2008 Report of the Renewable Energy Task Force, “New York’s RPS is the State’s largest and most significant policy for supporting increased renewable energy.”⁷

Although the increase being considered by the PSC would be consistent with actions taken by other states to revisit – and increase – their RPS obligations, it would be very modest compared to more aggressive actions taken by other states. Eleven states made substantial modifications to their RPS programs in 2007, and these changes have generally been to strengthen pre-existing RPS requirements. In March 2007, Colorado doubled the ultimate RPS target – from 10 percent in 2015 to 20 percent in 2020 – and thereby doubled as well the effective size of the solar set-aside. Connecticut increased its RPS requirement in June 2007 to 23 percent by 2020, with at least 20 percent from Class I resources. In July 2007, Delaware doubled its RPS from 10 percent to 20 percent in 2019, and created a solar PV set-aside that reaches 2.005 percent by 2019. New Mexico also doubled its RPS requirement in March 2007 to 20 percent by 2020, up from 10 percent by 2011. The increase under consideration by the PSC – to 30 percent by 2015 – looks somewhat modest in comparison to the more aggressive actions taken by these states. The February 2008 Report of the Renewable Energy Task Force acknowledged that “New York must keep pace” as other states across the nation enact their own renewable portfolio programs and “energy independence” incentives.⁸ It is not clear that the increase from 25 percent to 30 percent would accomplish this objective.

New York’s commitment to renewable resources should also be examined by reference to the amount of renewable resource development that will be stimulated by compliance with the RPS requirement. While New York’s current obligation of 25 percent by 2013 had the appearance of being aggressive when adopted in 2004, in fact it was not; by counting the *existing* large-scale hydroelectric projects toward meeting the obligation, New York started at 19.3 percent, and thus the 25 percent goal represented an increment of less than 6 percent of *new* renewable resources stimulated by the RPS requirement. (By contrast, the state with the greatest number of MWh of hydro generation – Washington – does not count this existing large hydro toward meeting its RPS requirement of 15 percent by 2020; its 15 percent requirement, while seemingly more modest is, in fact, much more aggressive in stimulating new renewable resource development.)

In terms of capacity *growth* requirements necessary to achieve full compliance with RPS requirements, New York is not even in the top ten states of all the states with RPS requirements. The largest markets, in terms of capacity growth requirements, are projected to be California, Illinois, Minnesota, Texas, New Jersey, and Arizona, each of which would require over 3000 MW of new renewable energy by 2025 to achieve full compliance.⁹ New York ranks eleventh, when measured by new renewable capacity (nameplate MW) needed by 2025. As a proportion of expected statewide retail sales in 2025 to be met by *new* renewable generation, the standing of

⁷ “Clean, Secure Energy and Economic Growth: A Commitment to Renewable Energy and Enhanced Energy Independence,” THE FIRST REPORT OF THE RENEWABLE ENERGY TASK FORCE TO LIEUTENANT GOVERNOR DAVID A. PATERSON, February 2008, (“RENEWABLE ENERGY TASK FORCE REPORT”), p. iii.

⁸ Id. at 4.

⁹ Lawrence Berkeley National Laboratory, RENEWABLE PORTFOLIO STANDARDS IN THE UNITED STATES: A STATUS REPORT WITH DATA THROUGH 2007 (April 2008), p. 15.

New York is *even lower*: an uninspired – and uninspiring – *twentieth*.¹⁰ In short, 25 percent as an RPS standard may look good on the surface as an absolute standard, but when it is calculated in a manner that requires only an incremental increase of less than 6 percent in *new* renewable generation, the lack of a meaningful commitment to *new* renewable generation is quite apparent, particularly when compared to the nineteen other states with more aggressive standards. New York should strive to be a leader as measured by standards that are meaningful: how much *new* renewable generation will the RPS requirement stimulate? *At a minimum*, the 25 percent requirement should be increased to 30 percent by 2015, as is being considered by the PSC. Compared to the efforts of other states in recent years to double requirements that were already more aggressive than New York’s in terms of stimulating *new* renewable generation, however, New York will have to do much better if the state wants to assume a leadership role.

Distributed Generation

Mr. Iwanowicz’ presentation included a slide on “stakeholder thoughts on technology solutions,” which included a reference to “[c]lean distributed generation and demand side management to cut consumption and emissions at peak times.” Pace, EA and ACE NY support increased deployment of clean distributed generation (“DG”), such as high efficiency Combined Heat and Power (“CHP”), as part of the State Energy Plan. The benefits offered by CHP in meeting the state’s energy needs – including increased total fuel conversion efficiency, reduced emissions, contributions to disaster resilience, reliability improvements, and avoided T&D investments – are already substantial, and will grow as a substantial price is put on carbon, given the reduction in CO₂ emissions associated with installation of CHP facilities. As stated in our July 8 Scoping Comments, Pace urges the SEPB to include a stated goal for development of clean DG and high-efficiency CHP in New York. The New Jersey Energy Master Plan, for example, includes an objective to foster the development of 1500 MW of new CHP capacity by 2020, through economic and regulatory incentives.¹¹

Increased deployment of DG also addresses the issues raised with respect to transmission infrastructure investment. By encouraging generating resources to be placed closer to the loads, New York can avoid some of the additional investment in transmission infrastructure, and can avoid as well the “erosion” in electric system capabilities attributable to transmission line losses, which amount to about 10 percent in New York State. Moreover, strategic placement of DG facilities in capacity constrained areas can effectively minimize investment in local distribution networks, producing further savings for electric utility customers.

Carbon Capture and Sequestration

The slide in Mr. Iwanowicz’ presentation on “stakeholder thoughts on technology solutions” also included a reference to carbon capture and sequestration (“CCS”). Environmental stakeholders are aware of Governor Paterson’s interest in exploring CCS technology in New York, as evidenced by a commitment of Empire State Development Corporation (“ESDC”) funds to a

¹⁰ Id.

¹¹ New Jersey Energy Master Plan, Issued October 2008, p. 78.

demonstration CCS project at a coal plant proposed to be built by the Jamestown Board of Public Utilities. In that regard, environmental stakeholders received the benefit of a briefing on these issues at a DEC workshop on October 10. The workshop provided an excellent opportunity for members of the State's coal sequestration task force to brief the environmental community on these efforts and the policies behind them. The environmental stakeholders appreciate the opportunity to participate in that workshop and in subsequent briefings on these issues.

Given the absence of significant reliance on coal-fired electric generation in New York – about 13 percent of the state's electric generation, in MWh, in 2006 – and the absence of dependence on coal mining operations as a source of economic activity in New York, there is considerable skepticism in the environmental community about the wisdom of pursuing of a CCS demonstration project at the Jamestown coal project in western New York. At the same time, we understand from the October 10 briefing that the geological formations in western New York may be well-suited for underground storage of CO₂. Moreover, given the potential involvement of New York-based businesses in the demonstration project, and the availability of substantial federal dollars from the Department of Energy, the Jamestown CCS project may provide an opportunity to leverage a modest investment of Empire State Development funds to capture a significant federal investment in New York State and stimulate economic activity. There is also the Executive's argument that New York should play a role as a potential national leader in addressing the issue of long-term underground storage of CO₂ emissions, given that the nation still depends on coal-fired generation for one half of its electricity supply, a situation that is not like to change in the foreseeable future.

The environmental community is unlikely to embrace a role for CCS in New York State, however, given the strong opposition to coal-fired generation due to its harmful environmental impacts, from mining to transport to the emissions produced by its combustion for the generation of electricity. Moreover, there is a valid concern that a CCS strategy would not simply “bridge” a current need – due to the heavy dependence on coal to supply half of the nation's electricity – until such time as new, cleaner technologies can be implemented, but rather would act as a “crutch,” enabling continued dependence on ecologically unsustainable coal-fired generation well into the future.

This raises an additional very important detail to consider: CCS technology has yet to be successfully demonstrated on a commercial scale. Providing economic incentives for the construction of a plant that would burn carbon-intensive fossil fuel – potentially for decades – before it has been proven that the carbon can in fact be effectively controlled, is a risky endeavor. Furthermore, there is a well-founded concern by many environmental stakeholders that *any* funds directed to experimental CCS projects is money that could be more effectively invested in truly clean and renewable sources of generation and efficiency. Until it can be proven that gains from those two areas have been exhausted, funding any form of coal generation with public monies is likely to encounter stiff resistance from the environmental community.

If the Executive or the Legislature insists on pursuing such a policy, however, environmental stakeholders can be expected to play a constructive role in ensuring that New York is a leader in demonstrating the proper environmental safeguards for deployment of CCS technology. This

would include adoption of appropriate legislative and regulatory enactments which require sequestration of not less than 90 percent of CO₂ emissions in connection with the construction of any new coal-fired facilities. We expect to play a role in shaping these environmental safeguards in the event federal money is secured for a demonstration project, and New York policymakers decide to proceed with further investigation of CCS technologies.

Other Issues

Modification of Procedural Schedule

At the conclusion of the SEPB hearing on December 11, Tom Congdon presented a proposed modification to the schedule for development of the State Energy Plan that would slip the date for the final plan from June 30, 2009 to October 15, 2009. Under the proposal described by Mr. Congdon, an additional step would be provided for stakeholder input on the development of the plan, by issuing a “preliminary draft” on March 31, 2009, followed by a comment period for public reaction to the findings in the preliminary draft. The draft scheduled to be released on March 31, 2009 under the current schedule would be slipped to July 15, 2009, followed by the six public hearings contemplated under the existing schedule. The final plan would be issued on October 15, 2009, after consideration of the comments received during the six public hearings.

Pace, EA and ACE NY support the proposed schedule modification. First, as Mr. Congdon noted in his remarks at the December 11 SEPB meeting, releasing a preliminary draft on March 31 would allow stakeholders an opportunity to have meaningful input as the plan is being developed. While the current process technically allows “comments at any time, about any issue,” as a practical matter comments are more focused and effective when they are directed at a specific proposal. Release of a preliminary draft will allow stakeholders to get an idea of the findings under development at an earlier stage in the process, and an opportunity to inform that process with their views at a stage that is likely to have more impact.

Second, the slip in the schedule would permit the State Energy Plan to have the benefit of developments from related initiatives currently underway. As mentioned by Mr. Congdon, NYSERDA, DEC and the NYS Department of Agriculture and Markets are jointly sponsoring the development of a New York State biofuels roadmap, which will result in a renewable fuels roadmap and sustainable biomass feedstock study for New York. The use of biomass-based liquid fuels, or biofuels, can potentially play a large role in reducing New York’s GHG emissions from the burning of fossil fuels for transportation, space heating and electric generation. The roadmap is not expected to be completed until late in 2009, but preliminary findings should be available mid-year that could inform the State Energy Plan. Another initiative currently underway is the transmission planning effort being undertaken by the NYISO transmission owners, which also could be integral to the energy planning process.

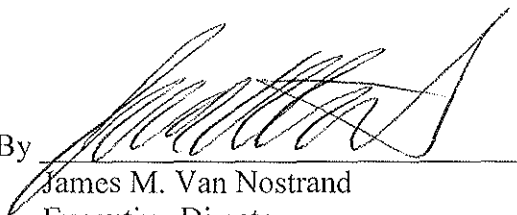
Conclusion

The Pace Energy and Climate Center, Environmental Advocates of New York and Alliance for Clean Energy New York, Inc. appreciate the opportunity to submit these joint comments


regarding the issues raised at the December 11 SEPB meeting. We look forward to working with the ECWG and the SEPB in the remaining steps to develop the State Energy Plan.

Very truly yours,

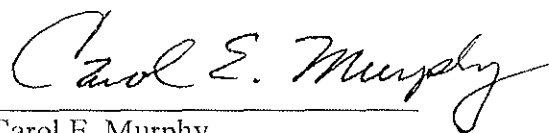
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