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VIA EMAIL: sepcomments@nyserda.org

State Energy Plan Comments
NYSERDA
17 Columbia Circle
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Re: 2013 New York State Energy Plan Draft Scope

To the New York State Energy Planning Board:

The Pace Energy and Climate Center (Pace) appreciates this opportunity to comment on the Draft Scope, and looks forward to engaging in this process to ensure New York's 2013 State Energy Plan is as useful and well-crafted as possible.

Previous New York State Energy Plans have provided extremely useful analyses of current and prospective energy trends and policies. Although the previous plans, like this one, have not been "binding" upon state decision making, they have provided excellent data that has led directly to improved policies. It is our hope and expectation that this plan will do likewise. Furthermore, as this current process is now codified in state law rather than merely via Executive Order, a thoughtful and technically sound State Energy Plan (Plan) should carry more weight in shaping policies and decisions made by the Governor, legislature and all state agencies and authorities. This is a critical opportunity to examine the effectiveness of existing programs and policies and to explore improvements and alternatives in a comprehensive fashion.

Our initial comments fall into the following categories:

- 1. Advanced carbon accounting**, including full carbon lifecycle analyses and time valuation for carbon avoidance. Very few climate planning efforts anywhere even attempt a full lifecycle analysis of fuels as the basis for their planning effort. This is fundamentally wrong; everyone knows it; and it is time to do something about it. New York will improve the quality of its own energy planning enormously if it deals explicitly with these carbon accounting issues, and makes progress towards resolving them. At the

same time, New York will make a major national and international contribution by developing and making available to others an improved planning methodology.

The areas that seem most in need of improved accounting include:

- Coal, oil and petroleum extraction, transport, storage and waste treatment involve sizeable greenhouse gas (GHG) emissions in addition to the CO₂ emitted during combustion. We need to start to estimate the upstream and downstream GHG impacts each carries with it.
- Biomass with its unintuitive, but significant, net carbon complexities.¹
- All other energy technologies, including energy efficiency, wind, and solar should also be the subject of lifecycle carbon accounting.
- Time value issues, including not just issues relating to the discount rate and the interests of future generations, but also concerns about the triggering of disastrous and critical “threshold” climate stages and extreme weather events—avoiding the probability of such major disasters greatly increases the value of reducing GHG emissions in the next several decades. If such concerns are real, we need to take into account that a ton of carbon emitted now will do far more damage in the next 40 years than one emitted three decades from now. Prevailing climate science has identified the “climate forcing potential” of various GHG emissions at various levels, as well as estimated tipping points when certain atmospheric ppm thresholds are reached. Compounding this is the extremely long residency time of many GHGs. These temporal aspects of climate pollution—and any other relevant science-based considerations—should be fully accounted for when assessing the global warming implications of any and all energy options for New York.

- 2. Encouraging the federal government to adopt a responsible carbon** policy should be one of the single most important objectives of the Plan. The Governor should personally be involved up front in pressing, publicly and privately, for more effective regulation by the U.S. Environmental Protection Agency (EPA) and for new comprehensive energy and climate legislation. The “inconvenient truth” has shifted from being about the reality of climate change to the reality of U.S. unwillingness to pay even small prices now to do anything about it. The Governor, senior state officials and our legislators should be

¹ See, for example, Searchinger et al, “Fixing a Critical Climate Accounting Error,” *Science*, Vol. 326, October 23, 2009, DOI:10.1126/Science.1178797, <http://www.princeton.edu/~tsearchi/writings/Fixing%20a%20Critical%20Climate%20Accounting%20ErrorEDITE D-tim.pdf>.

Also, Thomas Walker et al., “Biomass Sustainability and Carbon Policy Study”, Manomet Center for Conservation Studies, June 2010, http://www.manomet.org/sites/manomet.org/files/Manomet_Biomass_Report_Full_LoRez.pdf

working with colleagues from other states to press for a beginning of responsible action. As the birthplace of the Northeast Regional Greenhouse Gas Initiative (RGGI) and other ambitious efforts to reduce global warming pollution, combined with New York's status as having one of the largest economies in the world, New York has a strong platform to enable Governor Cuomo to be a global leader and drive the national dialogue on one of the most critical policy challenges of our time.

- 3. New comprehensive cost-benefit measures need to be developed** for measuring the performance of energy efficiency and renewable energy programs, and their total costs and benefits and macroeconomic effects for all New Yorkers. These benefits include price suppression effects in New York (*i.e.*, reduced statewide demand for electricity due to efficiency investments results in a lower clearing price on the wholesale electricity markets at the New York Independent System Operator (NYISO)—a savings realized by *all* New Yorkers, not just those who actually invest in such projects at their home or business) and New York employment and gross state product (GSP) effects. The benefit-cost tests and criteria utilized by the New York Public Service Commission (PSC), the New York State Energy Research and Development Authority (NYSERDA), and the utilities have failed to fully account for the price suppression effect and the jobs effects driven by efficiency and renewable energy programs.

The last State Energy Plan demonstrated through modeling that the benefits to New York consumers and residents of reduced electric prices resulting from efficiency programs can exceed \$1 billion per year. The New York Climate Action Plan is beginning to look at employment and other macroeconomic impacts of different energy policies, including ones for energy efficiency and renewable energy. The new Plan should develop a new total resource cost (societal?) test that incorporates these benefits to New Yorkers.

In our view, the most important test is: **Will New Yorkers benefit from paying for a particular energy efficiency or renewable energy project over the long-run, all things considered?** Current formulas fail to produce an accurate answer to this question, thereby leaving substantial cost-effective economic and energy benefits untapped. This problem looms much larger as we exhaust the more cost-effective investments and begin to pursue options that offer more traditional returns.

- 4. Avoid hopping aboard the “cheap natural gas forever” bandwagon** that has gained a great deal of traction lately. Price projections for natural gas may be the single-most important variable influencing the modeling outcomes (and ultimate cost-effectiveness determinations) of various energy policies, whether it be renewables, energy efficiency,

or overall fuel mix. As the past few decades have demonstrated, gas prices are subject to a very high degree of volatility, even relative to other fuels. Recent shale gas projections have led some analysts to project cheap gas for the foreseeable future. We strongly urge NYSERDA and all those involved in this process to avoid locking this assumption in to analyses, as doing so will result in outcomes and conclusions that may be undermined the next time—and history has shown it is not a matter of “if” but “when”—gas prices spike.

5. **Health impacts** have always been studied and included as a separate chapter of previous energy plans. Now is the time to more fully include the best available health cost and health benefit monetary estimates in this Plan’s modeling work and in its comparison of alternatives. Tapping the State’s wealth of educational institutions (*e.g.*, Cornell’s Resource Economics Department is engaged in an in depth assessment of the benefit-cost of various air quality regulations) for such analyses will result in a superior product.
6. **Coal plant closings’ costs and benefits**, especially with regard to cost-effectiveness as a strategy for reducing CO₂, SO₂, NO_x, Particulate Matter (PM) and mercury. Obviously, the plants’ owners must be treated fairly, and reliability concerns would have to be addressed particularly with regard to advance warning. But New York’s coal plants generate a little less than 10 percent of its electricity while emitting upwards of 35 percent of its power sector CO₂, and the bulk of the SO₂ and mercury. Market-based programs such as RGGI work essentially by making coal more expensive than gas, causing increasing substitution of gas for coal as the carbon price rises. The new Plan should explore whether it would be less expensive to buy the plants and close them—especially at a time when these plants are not especially valuable given the low cost of natural gas, and prospective new emissions and water cooling requirements by EPA.
7. **Estimates of long-term technology development rates for energy efficiency and renewable energy** so that we can improve the quality of long-term forecasts for the role these technologies will play twenty, thirty and forty years into the future. Current projections in New York and nationally seem to be based upon studies by groups such as Optimal and ACEEE, and these studies use estimates of the currently available “pool” of cost-effective measures or renewable energy options. This is fine for short-term projections, but drastically understates the true opportunities for efficiency and renewable energy the further out into the future we go—especially when we look, as we must, twenty to forty years out. Obviously, new, more cost-effective technologies and approaches are being developed every year, and the prices of existing efficiency and renewable energy options are declining through time. The Plan could make a major contribution by developing a methodology for estimating this future technology or

productivity development—and using it in the Plan. A 2 percent per year productivity increase would have dramatic impacts over the long haul.

- 8. Review the performance of competitive wholesale electric markets**, similar to the evaluation that occurs with respect to all public programs. Ten plus years of experience since the restructuring was effected provides a sound basis for a thorough review of what works well and what might be improved upon to provide New York consumers with electric service and reliability at a lower cost or with less risk. Aside from a recent legislative hearing limited to a discussion of the market-clearing price, there have been no public forums for discussion and review of the record to date as well as the opportunities for possible improvement. In the meantime, there surely have been plenty of only partially informed criticisms and endorsements of the NYISO performance. A thorough, public, on-the-record review would help stabilize the market and might well lead to useful ideas on how to improve it. Such a forum could prove salutary in allowing the airing of concerns, with a chance to act upon them or put them behind us.
- 9. Large new Eastern Interconnect transmission alternatives** should be examined with respect to their advantages and disadvantages for New York businesses and consumers with regard to both long-term price and long-term macroeconomic effects, including employment in particular. We are concerned that new transmission lines not have the consequence of encouraging more coal to be burned in the Midwest or more expensive (transmission costs included) wind to be built in the Midwest. The Plan should review some of the more salient scenarios being considered by the Eastern Interconnection Planning Collaborative (EIPC), and be prepared to conduct its own analyses if it finds the EIPC results wanting. When doing so, the Plan should include land-ecology-environmental impacts-damages-costs in the form of monetary estimates.
- 10. Analyses of hydraulic fracturing for natural gas** should be conducted to examine full life-cycle GHG emissions analyses (including levels of pipeline and wellhead leakage) as well as water quality impacts. Likewise, an estimated forecast of in-state demand for natural gas (both at power plants and distribution utilities) should be completed. Cross-referencing these two assessments, along with other relevant factors, will allow for the State to make informed decisions regarding how to most responsibly meet future energy demands.

11. Emerging state and federal environmental regulations, and their implications for New York’s energy infrastructure, should be front and center in the Plan’s analyses. The NYISO estimates that the NO_x Reasonably Available Control Technology (RACT), Best Available Retrofit Technology (BART), Maximum Achievable Control Technology (MACT) and “best technology available” (BTA) regulations will potentially impact 23,957 MW—representing more than half the State’s installed generating capacity.² While some of these proposals are still under development, a robust assessment of how they will drive retirements—and shape the nature of replacement capacity, transmission, or “non-wires” solutions such as demand response and energy efficiency—is essential. While the existing NYISO reliability and economic planning processes are a good starting point for this discussion, the Plan provides an opportunity to more proactively assess “at risk” generation, thereby allowing for increased lead time for the most cost-effective solutions.

12. Acknowledge, and analyze, the 800 pound gorilla: Indian Point and its possible futures should be extensively modeled. No other single facility in New York State has such important implications for the State’s electrical grid. The process of developing the Plan provides a unique opportunity to objectively look at the four possible scenarios: (1) relicensing both units; (2) retirement of one unit and the relicensing of the other; (3) retirement of both units; or (4) sudden emergency shutdown for a year or more due to unanticipated operational failure or overriding safety concerns.

For far too long the public discourse has been dominated by posturing and rhetoric from both sides of the issue. The process for developing the Plan allows for all relevant stakeholders and technical experts (including staff from the NYISO, utilities, Transmission Owners, and independent energy consultants) to move past the question of relicensing, and take a purely technical and objective look at what would need to happen *if* one or both units were taken off line, and what options are on the table for maintaining system reliability—including the cost and environmental implications of any such alternative solutions. This effort could be conducted in a manner that does not favor one outcome over another, but simply provides a transparent and well-informed template of options to inform policy makers and the general public.

² *Power and Trends 2011*. NYISO. Available at:
http://www.nyiso.com/public/webdocs/newsroom/power_trends/Power_Trends_2011.pdf

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Thank you for the opportunity to comment. Pace looks forward to a continued productive dialogue throughout the planning process.

Very truly yours,

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