



**ENVIRONMENTAL
ADVOCATES OF NEW YORK**

YOUR GOVERNMENT WATCHDOG

April 29, 2011

VIA WEBSITE SUBMISSION

State Energy Planning Board
Energy Plan Comments
NYSERDA
17 Columbia Circle
Albany, New York 12203-6399

Re: New York State Energy Planning Board Draft Scope

Dear Energy Planning Board Members:

Environmental Advocates of New York submits these comments on the draft scope for the state energy plan. In addition to these comments, Environmental Advocates also endorses the comments submitted by Pace Energy and Climate Center.

Environmental Advocates' mission is to protect our air, land, water, and wildlife and the health of all New Yorkers. Based in Albany, we monitor state government, evaluate proposed laws, and champion policies and practices that will ensure the responsible stewardship of our shared environment. We work to support and strengthen the efforts of New York's environmental community and to make our state a national leader.

Now is the time to choose a clean, sustainable, economically-sound, and secure future for New York. The state's policies must meet the aggressive greenhouse gas reduction targets recommended by the Intergovernmental Panel on Climate Change (IPCC) and the National Academy of Sciences, including reducing climate-altering emissions by 80 percent by the year 2050, along with ambitious near- and mid-term targets. A robust State Energy Plan will serve as the roadmap New York needs to achieve the clean, sustainable, and secure future that our families deserve.

Public and Stakeholder Participation. State energy planning decisions have a direct impact on health, safety, environment, economics and quality of life. As such, the decision process should provide the public with continuous updates and opportunities to comment. In addition, the State Energy Planning Board (Board) should encourage public and stakeholder participation by providing ample time for comments when documents are made public.

Assessment Scope. A broad scope will provide the Board with the information necessary to perform a leveled comparison of fuel sources and technologies and to serve as the means for determining New York's energy future. The analysis performed in developing the energy plan must be broad to capture the impacts from extraction, generation, transportation, consumption, and disposal of energy products. The plan must

also capture all costs and benefits throughout its entire lifecycle and fully internalize its broad impacts. Such impacts include, but are by no means limited to, medical costs associated with public health impacts of the energy lifecycle; quality of life costs; environmental damage that harms other industries, such as oil spills on the seafood industry and tourism; and impacts to property values and costs of insurance. **The Board must conduct a literature review of lifecycle assessment (LCA). In addition, we recommend convening a panel of LCA experts to guide the LCA.**

Climate. Environmental Advocates believes that it would be impossible to overstate the importance of this single consideration. Any and all proposals need to be consistent with the goals of significantly reducing the state's overall greenhouse gas (GHG) emissions. There is a significant amount of research demonstrating that our continued release of GHG at the current level will have significant impacts and consequences. Reducing and eliminating GHG emissions will have a positive impact on the environment, jobs, and the economy and will allow us to enjoy the same creature comforts to which we have become accustomed. Massachusetts recently set a short-term reduction target of 25 percent by 2020. This plan should assess the feasibility of 25 percent by 2020 in New York.

Conservation, Efficiency, and Demand Management. Meeting demand with conservation, energy efficiency, and demand management should be a top priority for the Board. The cheapest, cleanest kilowatt hour is the one never generated. New York must prioritize increased energy efficiency and demand side management. Capturing all cost-effective energy efficiency savings is by far the most economical means of achieving greenhouse gas reductions, as well as providing New Yorkers with the welcome relief of lower utility bills. The state's "15x15" initiative to reduce energy use 15 percent by the year 2015 is a step in the right direction. However, New York has only begun to scratch the surface to achieve all available cost-effective energy efficiency savings.

As mentioned in the 2003 Optimal Study {complete name}, six out of every seven kilowatt hours of potential savings from efficiency efforts had yet to be realized at that time. While "15 x 15" will chip away at that untapped potential, it should be viewed as only a beginning, not an end. In addition, The New York Independent System Operator's 2010 Reliability Needs Assessment concluded that "New York's electric power resources (generation, transmission, and demand) side programs are expected to meet the state's electricity reliability needs through 2020 ...". The state has 10 years to reduce energy consumption by implementing conservation efforts and cost-effective energy efficiencies. **To move forward and explore options such as increased fossil-fuel or nuclear generating capacity without maximizing efficiency potential first would result in a sub-optimal plan.**

Renewables. New York should better focus its efforts to replace old, highly polluting generation with renewables. While we recognize that New York cannot make the switch from fossil fuels to renewables overnight, such technologies are clearly the most attractive in the long-term from an environmental, economic, and public health perspective. New Yorkers spend \$65 billion a year on primary energy. Of that, more than \$38 billion is sent out of state to import energy. Substantial in-state deployment of renewables would work to keep this money in-state. The Renewable Portfolio Standard (RPS) has been very effective at increasing the state's renewable installations, but there is much more that could be done, including revisiting and increasing RPS targets. **The scope must include an analysis of costs/benefits and feasibility, of target of 100 percent renewable generation by the year 2050. To achieve this goal, the Board should include within the assessment discussions of current barriers and potential technological developments.**

Coal. Phasing out the use of coal should be a guiding principle of the Board. New York currently generates only 11 percent of its electricity from coal. Additionally, New York does not have any coal deposits and imports all coal. The current stock of coal-fired plants are extremely inefficient, highly polluting, and uneconomical. New York should not have any new coal plant construction, because Carbon Capture & Storage (CCS) is too expensive and extremely inefficient. In addition, coal ash is extremely toxic. There are no viable solutions to handling the waste—it is usually retained at the sites. There are also numerous other environmental concerns with CCS that do not make this a viable option for energy generation in the state.

Nuclear Generation. Nuclear power plants are expensive, place the public at risk of exposure to radiation from waste materials, and are vulnerable to potentially devastating accidents. More importantly, there is currently no viable long-term solution to storage of nuclear waste. No new nuclear power plants have been built in the U.S. since 1996, and it seems extremely unlikely that any new facilities will be built. The plan should assess the costs/benefits and feasibility of phasing out nuclear generation.

Waste-to-Energy. Burning garbage or municipal solid waste to energy is not a sustainable energy practice due to its detrimental impacts to our air, land, water, wildlife, and communities. Burning garbage for energy should not be a part of any policy option in the final plan. Instead of using waste for energy, the assessment should determine the reduction in transportation fuels available as a result of eliminating waste, the principles for which are captured in Department of Environmental Conservation's *Beyond Waste: A Sustainable Material Management Strategy*.

Rate vs. Bill Impacts. While we would assume such considerations will be part of any analysis, we wish to highlight the importance of differentiating between *rate* impacts and *bill* impacts.

Energy and Water Connections. The interconnection between water and energy is paramount in the state energy planning process. Energy is required to transport, treat, and heat water. New York is heavily dependent upon water to produce electricity. Centralized facilities use millions of gallons of water in the cooling process. Biofuels require large quantities of water. And if drilling in the Marcellus Shale proceeds, the quantity of water used in state will increase significantly. The plan should assess the impacts of integrating water reduction (e.g., no-flush toilets, low-flow features, grey water systems, and green roofs as GHG mitigation techniques). Storm water management and wastewater treatment must also be considered as part of the planning process. (See the work of Dr. Michal Webber, *Assistant Professor, Mechanical Engineering, Associate Director, Center for International Energy & Environmental Policy*.)

Low Hanging Fruit. Don't forget the "low hanging fruit"—the easiest steps we can implement immediately at a cost savings. The plan's assessments must evaluate benefits of quick actions that will create major energy savings.

Biomass. Studies indicate that biomass cannot be lumped into one category and called "carbon neutral." This assumption provides for an incorrect quantification for emission reductions. The full lifecycle of biomass must be considered on a product-by-product basis.

Transportation. Across the state, rising gas prices are leading increasing numbers of New Yorkers to mass transit. *The interconnection between reducing vehicle miles traveled (VMTs), curbing motor vehicle pollution, job creation, and smart growth development is clear.* Maintaining affordability and reliability,

with needed expansion, should be a primary goal of the Metropolitan Transportation Authority. Elsewhere in the state, light rail, plug-in hybrid electric vehicles, and bio-fuels infrastructure should be a priority. In every way, reducing VMTs should be a primary goal of state policy.

Air Quality. Over 9 million New Yorker's reside in areas that do not meet minimum federal air quality standards. The lifecycle of energy is the largest contributor to poor air quality. The state energy plan must assess a road map to reach full compliance with federal air quality standards.

Public Health. A full lifecycle health analysis of the energy cycle must be performed. The impacts should not only be limited to within border but also account for New York's exportation of the public health costs. The cost benefit analysis must include medical costs associated with health impacts from energy extraction, processing, transportation, use and disposal. This analysis should cover public health impacts of both large- and small-scale energy production and consumption. The plan should, for example, include lifecycle impacts of distributed sources such as Outdoor Wood Boilers or in-home geothermal, thermal or centralized facilities such as waste to energy or wind farm.

Environmental Justice. Any proposals put forth in the plan should address environmental justice concerns by providing greater protections for communities that already bear a disproportionate burden of pollution—particularly low-income and minority communities—by ensuring no net increase in pollution in these neighborhoods. Many studies have shown that air pollution, largely from the generation of electricity and the transportation sector, disproportionately impacts such communities. Also, when considering environmental justice, the Board should expand considerations beyond traditional urban communities and note that rural areas also contain environmental justice communities.

Environmental Advocates has attached a list resources and references for the State Energy Planning Board to review in performing its analysis.

Conclusion

Laying out a roadmap for how New York will meet its energy needs in a socially and environmentally sustainable manner presents an enormous challenge. However, we are confident that with the hard work and expertise of Board members, in conjunction with the input the many relevant stakeholders, the process will yield a sound State Energy Plan.

We look forward to collaborating with you throughout the planning process. Please don't hesitate to contact me if you have any questions regarding our comments.

Sincerely,



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Additional Resources

- Al Armendariz, Ph.D., *Emissions from Natural Gas Production in the Barnett Shale Area and Opportunities for Cost-Effective Improvements*
- American Lung Association “Emissions of Hazardous Air Pollutants From Coal Fired Power Plants.”
- Attorney General of New York State Environmental Protection Bureau, *Smoke Gets in Your Lungs: Outdoor Wood Boilers in New York State*, Revised March 2008
- *The Clean Air Association of the Northeastern States*, Fact Sheet
<http://www.nescaum.org/documents/assessment-of-outdoor-wood-fired-boilers>
- Deutsche Bank Advisors: Economic Stimulus: The Case for “Green” Infrastructure, Energy Security and “Green” Jobs, November 2008
- Environment and Human Health Inc., *The Dangers to Health from Outdoor Wood Furnaces*
http://www.ehhi.org/reports/woodsmoke/woodsmoke_report_ehhi_1010.pdf
- Friedrich Katherine et al. “Saving Energy Cost-Effectively: A National Review of the Cost of Energy Saved through Utility-Sector Energy Efficiency Programs” September 2009, Report Number U092 ACCEE.
- Government Office of Accountability, *FEDERAL ELECTRICITY SUBSIDIES Information on Research Funding, Tax Expenditures, and Other Activities That Support Electricity Production*, 2008
- Jacobson, Mark. *Review of Sources Review of solutions to global warming, air pollution, and energy security*, Energy Environ. Sci., 2009, 2, 148–173. Professor Jacobson studies lifecycle impacts of fuels.
- Jacobson, M.Z., Delucchi, M.A., Providing all global energy with wind, water, and solar power, Part I: Technologies, energy resources, quantities and areas of infrastructure, and materials. Energy Policy (2010), doi:10.1016/j.enpol.2010.11.040
- Lazard, *Levelized Cost of Energy Analysis Version 2.0*, 2008. Certain alternative energy generation technologies are already cost competitive with conventional generation technologies under some scenarios, even before factoring in environmental and other externalities.

- McKinsey & Company, 2007, *Reducing U.S. Greenhouse Gas Emissions: How Much at What Cost?: U.S Greenhouse Abatement Mapping Initiative Executive Report 2007*. McKinsey makes it clear that 40 percent of the reductions necessary to reduce ghg emissions can be made at a cost savings. In addition, the report provides important information on energy efficiency and mitigation policy options.
- National Oceanic and Atmospheric Administration, *First Wintertime Observations Find Ozone Soaring near Natural Gas Field*, Press Release July 18, 2009
- National Research Council, *Hidden Cost of Energy: Unpriced Consequences of Energy Production and Energy Use*
- Synapse Energy Economics, *Beyond Business as Usual Investigating a Future without Coal and Nuclear Power in the U.S.*,
- Union of Concerned Scientists, *Climate Change in the United States: The Prohibitive Cost of Inaction*, 2009
- University of Massachusetts, Political Economy Research Institute, *NEW JOBS ! CLEANER AIR: Employment Effects Under Planned Changes to the EPA's, Air Pollution Rules* February 2011
- Wise et al. Tracking the Sun II: The Installed Cost of Photovoltaics in the U.S. from 1998-2008, Oct. 2009, Lawrence Berkley National Laboratory.