



Draft 2009 New York State Energy Plan
Comments of the Natural Resources Defense Council
September 10, 2009

Good afternoon members of the State Energy Planning Board. My name is Donna De Costanzo, and I am a Senior Attorney at the Natural Resources Defense Council (NRDC), a national nonprofit environmental organization based in New York City. The NRDC commends Governor Paterson for issuing Executive Order No. 2, which established the process for developing the 2009 New York State Energy Plan (the "Plan"), as well as for the Governor's recently announced goal to meet 45% of New York's energy needs through increased energy efficiency and clean, renewable sources by 2015 and Executive Order No. 24, which established a goal of reducing statewide greenhouse gas emissions 80% by 2050.

The NRDC urges the Governor to take all of the necessary steps to ensure that these goals are achieved, including the adoption of a final Plan that includes a "blueprint" for each of the recommendations, with associated, specific implementation measures and a timeframe for their achievement, similar to New York City's "PlaNYC". It is also critical that the Plan include an effective means by which to measure the State's progress in implementing the Plan, including annual reporting on whether objectives have been met and, if not, specific steps that are being taken to move towards compliance. Such information should be available to the public via a centralized website to provide full transparency and accountability. In addition, in order to ensure that the State's energy needs and goals are met in the long-term and that State energy plans are developed and most effectively implemented by all successive administrations, we believe that the State energy planning process should once again be institutionalized in law. Similarly, it is critical that the State's Climate Action Plan, required pursuant to Executive Order No. 24, include specific, concrete measures for which the State's progress is easily tracked and reported, and that the process for its development include frequent opportunities for meaningful stakeholder engagement.

NRDC appreciates the opportunity to testify here today regarding the draft Plan and offers the following specific comments.

Energy Efficiency

Energy efficiency is an important resource and is the cheapest, easiest and fastest way to meet the State's energy needs while reducing global warming pollution. According to a 2007 analysis by McKinsey & Company, which looked at the cost and potential of different approaches to reduce greenhouse gas emissions in the United States, there is enormous potential for energy efficiency in buildings.¹ In addition, the economic benefits of investing in energy efficiency roughly cover the cost of reducing such emissions on the scale and timeframe needed to avert potentially catastrophic warming. Furthermore, energy efficiency is not only a critical part of the solution to address climate change, but will also result in significant job creation, lower energy costs for consumers, fewer emissions of harmful pollutants, increased reliability of our electric grid and greater energy security. The State should:

- **Adopt a policy of acquiring all cost-effective energy efficiency.** Given the multiple and significant benefits of energy efficiency and the critical role it must play in the fight to address climate change, the State should institute a policy to acquire all cost-effective energy efficiency before looking to other resources to meet electricity demand.
- **Move expeditiously towards achieving the State's Energy Efficiency Portfolio Standard (EEPS) to reduce electricity consumption 15% below forecasted levels by 2015 and provide full funding for the EEPS.** Achievement of the 15 by '15 goal will produce innumerable benefits for the State of New York. The slow pace at which the Public Service Commission (PSC) has acted to approve NYSERDA and utility programs in the EEPS proceeding, however, has unfortunately put New York in danger of falling far short of this goal. Though 2½ years have passed since former Governor Spitzer announced the goal and one year has passed since utilities and NYSERDA submitted their "90-day plans" to the PSC, the only programs that have been approved and for which funding has been authorized thus far are Fast Track programs and several multifamily programs, one of which has been modified to an extent that may result in even further delay.² The State's slow progress on this issue is reflected in the New York Independent System Operator's 2009 Reliability Needs Assessment, referred to in the draft Plan, which assumes only 27% achievement of the 15% goal, given the level of funding approved at the time the forecast was developed. The State's full funding of the EEPS is also needed to guarantee achievement of the 15 by '15 goal and to send a clear signal to the marketplace regarding the State's commitment to greatly scale up energy efficiency. The exact level of funding will depend on how aggressive the State is with respect to adopting more stringent codes and standards and on successful utilization of energy efficiency financing mechanisms (see *Financing*, below).

¹ McKinsey and Company (2007). "Reducing U.S. Greenhouse Gas Emissions: How Much at What Cost?", sponsored by DTE Energy, Environmental Defense, Honeywell, National Grid, NRDC, PG&E, and Shell and available for download at <http://www.mckinsey.com/client-service/ccsi/greenhousegas.asp>.

² PSC Case No. 08-E-1132, In the Matter of the Petition of New York State Energy Research and Development Authority (NYSERDA) for Approval of an Energy Efficiency Portfolio Standard (EEPS) NYSERDA-Administered Electric Energy Efficiency, Petition for Rehearing (August 27, 2009).

- **Increase natural gas efficiency and ensure full funding for efficiency programs.** The State should move expeditiously toward meeting the natural gas target included in the PSC's May 19, 2009 Order,³ which is expected to result in a nearly 15% reduction in natural gas usage by 2020, and build upon such target, as natural gas efficiency should be emphasized over new natural gas production (see *Natural Gas Production*, below). As with the EEPS for electric efficiency, to ensure achievement of the natural gas target, it is critical that the State provide full funding for it. In addition to programs that are geared towards reducing end-use consumption, gains should also be made through improvements in State building codes and appliance and equipment efficiency standards.
- **Establish a plan of action, including a timetable, for repowering all older natural gas-fired power plants.** The State should develop and implement a plan to repower all of the older, inefficient natural gas-fired power plants throughout the State, as typically half of the gas used to generate power is wasted by such facilities. Such repowering would need to be accomplished through greater use of power purchase agreements,
- **Ensure that all New York electric and natural gas utilities adopt and implement revenue decoupling mechanisms (RDMs) as soon as possible.** Revenue decoupling is essential to removing the disincentive for utilities to promote energy efficiency and clean, distributed generation, as it aligns shareholder interests with those of consumers by breaking the link between energy throughput and utility profit. The PSC's April 20, 2007 Order⁴ which required utilities to develop and implement such mechanisms was an important step forward, but to date still only a few of the State's utilities have been decoupled. In addition to RDMs, it is also critical that utility incentives are provided, as well (as established in the PSC's August 22, 2008 Order Concerning Utility Financial Incentives), as a RDM will *remove* the disincentive for a utility to promote energy efficiency, but does not provide an incentive for a utility to implement such programs. Thus, a RDM must be "coupled" with regulatory incentives in order to scale up energy efficiency to the necessary levels.
- **Establish an incentive and education program to promote the adoption of energy efficiency leases to help address the "split incentive" issue.** The "split incentive" issue is a pervasive market barrier to increased efficiency, particularly with respect to commercial buildings, where standard leasing practices typically result in the capital expense responsibility of implementing energy efficiency measures and the benefit of accrued efficiency savings residing with different entities. NYSERDA should develop a program for landlords and tenants to encourage the adoption of energy efficiency leases, which could include extensive outreach and training to increase awareness of and

³ PSC Case No. 07-M-0548, Proceeding on Motion of the Commission Regarding an Energy Efficiency Portfolio Standard, Order Establishing Targets and Standards for Natural Gas Efficiency Programs (May 19, 2009).

⁴ PSC Case No. 03-E-0640, Proceeding on Motion of the Commission to Investigate Potential Electric Delivery Rate Disincentives Against the Promotion of Energy Efficiency, Renewable Technologies and Distributed Generation and PSC Case No. 06-G-0746, In the Matter of the Investigation of Potential Gas Delivery Rate Disincentives Against the Promotion of Energy Efficiency, Renewable Technologies and Distributed Generation, Order Requiring Proposals for Revenue Decoupling Mechanisms (issued April 20, 2007).

knowledge regarding such leases, as well as the development of model State efficiency lease provisions that are required to be distributed to landlords and tenants at an appropriate point in the lease transaction process. In addition, NYSERDA should create an incentive program that provides additional energy efficiency assistance to buildings for which efficiency lease provisions have been adopted.

- **Implement the building efficiency recommendations that were developed by the Governor's Renewable Energy Task Force.** Although the State has moved forward in implementing some of the building efficiency recommendations issued by the Renewable Energy Task Force (RETF) in February 2008, such as those pertaining to the State Energy Code, more progress is needed regarding other recommendations. For example, we are very encouraged by the inclusion of the recommendation in the draft Plan regarding the State working in cooperation with large municipalities to implement benchmarking programs, and, as New York City is currently considering, New York State should also require annual benchmarking of buildings above a certain size. Furthermore, to facilitate benchmarking and help ensure greater accuracy of the process, the PSC should require that utilities provide for automatic uploading of energy consumption data, similar to California.⁵ In addition, to ensure that cost-effective energy efficiency opportunities are identified and savings are realized, the State should develop a program to require periodic energy audits and retro-commissioning of buildings, as well as the implementation of energy efficiency measures.
- **Increase the deployment of clean Combined Heat and Power (CHP).** The increased deployment of clean CHP could provide New York with many benefits, including reduced greenhouse gas emissions, increased grid reliability and energy security, and avoided T&D investments. An October 2002 NYSERDA study indicated a technical potential for 8,500 MW of new CHP in New York over the next decade.⁶ The State should establish a goal to install 2,200 MW of clean CHP statewide by 2020 and adopt other specific measures, such as those developed by the RETF CHP Working Group, to further increase the deployment of CHP, including encouraging utility involvement in CHP development and further streamlining and promoting existing NYSERDA programs.
- **Promote green infrastructure statewide to reduce energy consumption.** Increased energy savings could be achieved in the State through certain steps to promote green infrastructure, which will also result in additional environmental benefits, including stormwater mitigation and improved water quality. The state should:
 - Promote elements of green infrastructure to reduce cooling costs, such as the use of green roofs and urban trees and other vegetation to counter the urban heat island effect;

⁵ California Public Resources Code, Chapter 533, § 25402.10.

⁶ NYSERDA, Combined Heat and Power Market Potential in New York State (2002).

- Reduce energy demand for water supply infrastructure, through promoting rainwater harvesting, which reduces the demand for potable water supply; and
- Reduce energy demand for wastewater treatment -- by promoting the use of green infrastructure approaches that reduce potable water use and, in combined sewer areas, divert stormwater flow from treatment plants and reduce the need to pump overflow volumes from storage tanks to the treatment plants.

Renewable Energy

Driven primarily by the statewide Renewable Portfolio Standard (RPS) program and funding aiming to achieve 25% renewable electricity by 2013, New York State has made good gains in increasing the amount of renewable energy in its energy supply and we expect that further progress will be made in light of Governor Paterson's recent proposal to increase the RPS to 30% by 2015. However, much more could and should be done to scale up the deployment of renewable energy in the State. In addition to the critical climate change and air quality benefits of doing so, working towards a robust in-state renewable energy industry offers numerous economic benefits and re-positions New York State as a clean energy technology leader, which is vitally important in an increasingly competitive international market for innovative green enterprise. The State should:

- **Set a long-term goal of achieving 2,000 MW capacity of solar energy by 2020.** The State is falling behind other states, namely its closest neighbor, New Jersey,⁷ in making a long-term commitment toward building an in-state, well-established solar energy industry. From the companies that manufacture, assemble and install solar energy systems to the financiers that provide the investment capital, all maintain that a long-term "hard" target of at least 2,000 MW of solar power will drive the necessary private investment to build a sustainable solar industry in New York State. The Downstate New York metropolitan region, which has the most expensive peak electricity prices among all major U.S. cities,⁸ stands to benefit greatly from more solar energy installations.
- **Allow distribution utilities to own and operate a limited amount of clean DG resources to head off potential transmission and distribution (T&D) upgrades.** Transmission and distribution upgrades are costly for utilities, especially in dense urban areas such as New York City. Targeted clean distributed generation and efficiency give utilities and their customers more options to avoid having to make more expensive T&D investments.
- **Ensure continued, full funding and agency permitting coordination for the RPS program.** Progress in meeting the State's clean energy goals has stalled, with a lack of funding a significant cause. The customer-sited tier program for solar installations has

⁷ N.J.A.C. 14:8-1.1 *et seq.* (2009). Available online: <http://www.dsireusa.org/documents/Incentives/NJ05Rb.htm>.

⁸ Lazard (2009). Levelized Cost of Energy Analysis Version 3.0. Available for download at <http://www.solarelectricpower.org/docs/Levelized%20Cost%20of%20Energy%20-%20v3%200.pdf>.

endured boom-bust cycles and a lack of main tier funding has resulted in companies focusing their development efforts out of state. New York needs to show that its rhetorical commitment to the RPS program will be matched by sufficient funds with clearly defined dates for future RPS solicitation releases. In addition, agency coordination and support for the permits necessary for project development is crucial.

- **Enact legislation to ensure commercial class customers can net meter on-site renewable energy systems sized to meet their annual average energy use up to 2 MW.** As the draft Plan accurately points out, the 2008 law to expand net metering to commercial class customers is not able to function as originally intended and a legislative “fix” is necessary. The Governor’s continued support for this endeavor is extremely important.
- **Set the stage to eventually shift RPS procurement responsibility to Load-Serving Entities.** The PSC should take steps to explore shifting the current RPS program via NYSERDA-procurement into a self-sustaining market. Doing so would open up the market to many new potential investors, which would enhance market liquidity and drive cost-effective renewable energy investments. This action would move New York State to be in-line with neighboring RPS LSE-market-driven states such as Connecticut, Massachusetts, New Jersey and Pennsylvania.
- **Encourage investment in transmission infrastructure that supports the use of renewable energy.** New York’s transmission infrastructure will need new additions to support full development of the State’s renewable resources. The State should encourage properly sited transmission that supports the increased deployment of clean renewables.

Financing

The draft Plan appropriately recognizes the need to implement financing programs to remove the current barrier to the adoption of energy efficiency measures regarding the difficulty in attaining upfront capital. We strongly support the State’s recommendation to “identify and implement alternative financing programs to fund energy efficiency projects . . .” and urge it to take the following specific steps:

- **Provide multi-year energy efficiency loan guarantees for all fuels, as it is clear that banks are looking for scale and risk mitigation.** The State should provide \$25 million per year for 5 years from each of SBC electric, natural gas and RGGI - for a total of \$375M, which could leverage a significant amount of private financing, up to approximately 10 times the amount of loan guarantee funds allocated.
- **Pass legislation enabling local governments in the State to establish “property assessed clean energy” (PACE) finance programs that allow the use of their local taxation powers to finance renewable energy and energy efficiency projects on privately-held real property via a property owner’s tax bill.** Such legislation should allow the use of either private or public sources of capital and should specify that no “due

upon sale” or acceleration provision regarding the assessment or tax lien is permitted. Private financing includes both bond issuance and bank or other privately funded programs.

- **Pass legislation that gives utilities an irrevocable right to bill, collect, and adjust customer charges in respect of qualifying energy efficiency investments, and the ability to use the charges and the related legislative/regulatory authority to support debt issuance to finance/refinance energy efficiency investments.** Utilities in many states have been able to finance similar charges imposed upon their customers for various purposes, including demand-side management. To reduce the cost of financing, legislation exists in over a dozen states (including neighboring states CT, MA, NJ, PA) that guarantees the right to bill charges in respect of certain investments to customers as part of normal monthly bills. Although the risk of customer non-payment is borne by investors, if properly structured, these financings can provide a significant proportion of highly-rated debt financing for utility investments in energy efficiency measures, deliver a low financing cost, and minimize costs borne by consumers. This type of utility financing has the potential to attract significant private capital to the energy efficiency sector on favorable terms.
- **Recognize the positive impact of NYSERDA financing initiatives and increase their impact by improving program certainty and longevity.** With respect to NYSERDA programs that are designed to promote access to affordable financing for energy efficiency projects by “buying down” interest rates on qualifying projects:
 - increase the funding level available for such programs;
 - establish greater certainty of funding and program longevity;
 - encourage more participation from bank partners; and
 - seek to streamline application procedures for property owners to the greatest extent possible, remaining consistent with good quality control in efficiency measure implementation.

Leading by Example

In order to achieve the State’s climate and clean energy goals, it is critical that State government “lead by example” and implement aggressive energy efficiency and renewable energy measures to reduce the carbon footprint of its own operations. Doing so is not only an important part of achieving statewide goals, but also helps to create a market for clean energy products and services and demonstrates the State’s strong commitment to a clean energy future. As the draft Plan points out, the requirements of Executive Order No. 111 (EO 111) have not consistently been met across State agencies. We therefore strongly support the adoption of measures to ensure greater agency transparency and accountability, and believe that the requirements of the Order should be significantly strengthened. The State should:

- **Amend EO 111 to require that State government operations be carbon neutral within ten years.** In order to achieve this goal, agencies should be required to implement

all cost-effective energy efficiency measures and meet their remaining energy needs through the installation of on-site renewable energy or the purchase of renewable energy.

- **Adopt a transparent reporting process to help ensure agency compliance with EO 111.** Ensure that each agency's progress towards meeting each element of the Order is fully transparent by requiring semi-annual reporting to NYSERDA regarding compliance status. Such information should be posted on a centralized web site that is available to the public.

Natural Gas Production

As the cleanest-burning of all fossil fuels, natural gas can result in substantially lower emissions of global warming pollution when compared with fuels such as oil and coal. In addition, the increasingly efficient use of natural gas can serve an important role in meeting America's energy needs while transitioning to a truly clean energy economy. But, while generating electricity with efficient natural gas combined cycle units produces 60 percent less carbon dioxide per kilowatt-hour than conventional coal-fired power plants, even these emission levels will need to be reduced if we are to achieve emissions reductions of 80 percent or more by mid-century in order to prevent the most catastrophic impacts of climate change. Moreover, the environmental impacts of producing natural gas can be substantial. Current regulations are not sufficient to protect New Yorkers from the environmental degradation associated with natural gas development, as natural gas production involves dozens of toxic substances that are emitted into our air, contaminate water sources, and threaten human health, livestock and wildlife and emits a considerable amount of greenhouse gases. In addition, surface disturbance can destroy wildlife habitat and community infrastructure and result in other impacts, such as noise pollution. Cost-effective solutions are available to allow natural gas production to become much cleaner, but these solutions are not yet being sufficiently adopted. The State should:

- **Emphasize energy efficiency in lieu of supporting new natural gas production (see *Energy Efficiency*, above).**
- **Await the completion of the environmental review process and promulgation of improved environmental standards for natural gas production before advancing development of the Marcellus Shale or additional natural gas pipeline expansions.** The processes proposed to be utilized in producing natural gas from the Marcellus Shale are still new and inadequately studied. Until those processes have been fully examined and all necessary best practices to avoid adverse environmental impacts have been identified *and* embodied in enhanced regulations, no new drilling should proceed. Moreover, it is critical that the impacts of any proposed new natural gas pipeline expansions be considered cumulatively with the other impacts of natural gas production rather than segmented off for separate consideration.
- **Refrain from encouraging natural gas production on State-owned lands.** Given the potential significant environmental impact of natural gas production, State-owned lands should not be opened up for natural gas development.

Smart Growth and Transportation

A broad-based transportation policy that incorporates the comprehensive advancement of smart growth principles is critical if we are to achieve our climate goals. In addition, promoting and facilitating smart growth and transit-oriented development in New York would result in more sustainable, livable communities and a multitude of environmental benefits spanning from improved air quality to open space preservation. We are encouraged that the draft Plan includes some recommendations regarding this issue, and specifically recommend that the State do the following to help it meet the statewide goal of reducing vehicle miles traveled (VMT) 10 percent below projected levels by 2020:

- **Adopt a package of policies to encourage smart growth and reduce VMT statewide, including legislation modeled after California's recently enacted SB 375.** SB 375 aims to reduce greenhouse gas emissions by providing financial and environmental review incentives to reduce sprawl and promote development patterns that give people transportation options that allow them to drive less. The State should enact a similar law, as SB 375 has become a national model of how state legislation can practically and effectively influence the local land use planning decisions necessary to further smart growth principles. In addition, the State should provide incentives for projects that meet higher level LEED-ND⁹ requirements; require insurance companies to offer policies that tie annual premiums to VMT; and adopt policies to advance the use of location efficient mortgages (i.e., mortgages that increase the amount of money homebuyers in more environmentally sustainable, transit-oriented areas are able to borrow by taking into account the money they save by living in less car-dependent communities).

Low Carbon Fuel Standard

At the intersection of transportation, renewable energy, and fighting climate change lies transportation fuels. New York has to make a choice. On the one hand, there is continued dependence on oil, all of which is imported into the region, with the trend towards tar sands and oil shale, which cause more greenhouse gas pollution than traditional oil. On the other hand, there are truly low-carbon fuels, such as electrification and biofuels done right. In December of last year, New York joined ten other Northeast and Mid-Atlantic states in committing to developing a low-carbon fuel standard (LCFS), and we are encouraged that the draft Plan calls for advancing such a standard. We recommend that New York more aggressively pursue a regional agreement on the implementation of a LCFS. Specifically, we recommend the following:

- **Adopt a set of guiding principles for a regional LCFS and a timeline for finalizing a MOU regarding implementation by December 31, 2009.** NESCAUM has developed a set of draft principles that provide a good working model. To ensure that a MOU is finalized by December 31, 2009, a first draft of a full MOU should be completed by

⁹ LEED-ND [Leadership in Energy and Environmental Design for Neighborhood Development] is the first national rating system for sustainable neighborhood design.

November 15, 2009, and a final draft of the full MOU should be completed by December 15, 2009.

- **Ensure that the full lifecycle emissions from all fuels are included.** The LCFS should include as a criterion a lifecycle evaluation that considers the carbon and environmental impacts of biofuels, electricity, and all other fuels. These evaluations must include both direct and indirect impacts, as well as potential impacts on agricultural, forest, and other land use, both locally and on a global basis, and environmental justice impacts.
- **Ensure that the LCFS includes a criterion qualifying biofuels are sustainably harvested and that preserves our region's ecological health and habitats.**

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