

**Planning for New York City and New York State's Energy Future**  
**Recommendations from the New York City Energy Planning Board**

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National Grid and the New York Power Authority  
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**Background**

PlaNYC, introduced by Mayor Bloomberg in April 2007, is an aggressive and promising plan addressing the future sustainability of New York City. Serious municipal challenges such as population growth, aging physical infrastructure, unchecked growth in energy use, decreasing air quality, management of water and land resources, and ultimately, the threat of global climate change are a central focus of the 127 initiatives emerging from the Plan. It concludes that the cumulative impact of such challenges, if left unaddressed, would inevitably undermine New York City's economy and fundamental quality of life. While PlaNYC identifies a number of goals intended to address the overall sustainability of the City, the focus of the recommendations here are specific to the energy and air quality related goals outlined in the Plan. These goals include:

- Ensuring clean and reliable energy for every New Yorker
- Achieving the best air quality of any large city, and
- Reducing citywide greenhouse gas emissions (GHG) by 30% by 203 (and by 2017 for municipal buildings and operations)

The principal energy initiatives, and the means by which the City would achieve the above goals, are focused on:

- Reducing New York City's energy consumption
- Improving New York City's energy planning
- Expanding New York City's clean power supplies, and
- Modernizing New York City's electricity delivery infrastructure

An April 2008 PlaNYC progress report, which details the significant accomplishments the City has made since the initial release of the Plan, also sets specific priorities for meeting the Plan's 2009 milestones. The Plan's principal achievements to date include:

- Developing a long-term plan to reduce energy consumption and GHG emissions of municipal buildings and operations by 30% by 2017. The City allocated \$80 million in 2008 toward energy efficiency projects and has committed \$900 million over nine years on additional efficiency projects and capital improvements.
- Negotiating and completing an agreement with the New York Power Authority (NYPA) that will lead to the construction of a highly efficient 500 MW combined cycle power plant at an existing generation site in Astoria, Queens.

- Establishing a New York City Energy Planning Board, with a primary objective of working closely with State energy planning officials to develop optimal approaches to deal with the City's energy challenges, while ensuring New York City's often unique interests and needs are given full consideration.
- Moving expeditiously to "Green our Codes", by developing a series of legislative and regulatory changes intended to require the energy "benchmarking" of larger buildings, building audits, improved lighting systems and developing a New York City energy code that exceeds State standards, and
- Releasing a Request for Expressions of Interest to identify and develop new renewable energy opportunities in New York City. Responses to this request include proposals for building sited wind, solar photovoltaic projects, and off-shore wind projects that offer the potential to satisfy a large portion of the City's long-term energy needs.

Speaking at the release of PlaNYC's April 2008 progress report, Mayor Bloomberg noted that the year ahead would present New York City with great challenges, especially given the downturn in the global economy. He referenced the mistakes made during the 1970's, when short-sighted budgetary decisions led to disinvestments in critical infrastructure, and emphasized that New York City cannot afford to make the same mistakes in 2008.

Today, New York City, New York State, and the entire country face significant economic, environmental and energy challenges that have the potential to fundamentally change the way we live for generations to come. The global economic decline of 2008 is unprecedented, and of a magnitude no one anticipated. Recent events truly underscore that New York and the United States are part of a fully integrated global economy where events affecting the economic health of one major country can quickly send shock waves through economies around the world. It is increasingly recognized that an economic recovery requires bold steps, unprecedented political will, innovative thinking, and in many cases, sacrifices that citizens haven't previously been asked to endure. As these problems are addressed, cities and states must ensure that efforts to address economic and financial problems do not divert resources from important energy and environmental issues. In fact, it is imperative and within reach to seek out solutions that address these challenges simultaneously. New York State and New York City in particular, are well positioned to lead the country in this effort to redefine our economy, and provide the energy and environmental stewardship necessary for the welfare of our children and future generations.

The New York City Energy Planning Board, Chaired by the New York City Economic Development Corporation, whose members include the Mayor's Office of Long-Term Planning and Sustainability, the Office of the Governor, Con Edison, National Grid and the New York Power Authority, have identified a number of opportunities to improve the effectiveness of ongoing City and State

energy planning initiatives, and we respectfully request that the following recommendations be considered, where appropriate, by the New York State Energy Planning Board.

### **Energy Planning Recommendations**

Planning for power and natural gas supply and demand at the regional level is essential for addressing basic system reliability, energy costs, aging electric and gas infrastructure, environmental improvements, and fuel diversity within the framework of a competitive electric market. Each region of New York State has its own specific challenges and relationship with adjoining markets, which a regional energy plan should address directly. Planning with regional concerns in mind will complement but not replace the existing planning functions at the utilities for local delivery and the New York Independent System Operator's (NYISO) planning process, which examines bulk transmission, reliability and economic issues. The regional plan will also be used to inform the State Energy Plan.

In 2009, the New York City Energy Planning Board intends to implement a process to develop a long-term energy plan for our region. The plan will provide a roadmap to guide the development of the electric and gas sectors with measurable targets for demand and supply improvements. In some case the statewide targets may be inputs to the regional planning process, such as the statewide Renewable Portfolio Standard (RPS) and Energy Efficiency Portfolio Standard (EEPS). If, over time, market-based solutions are insufficient to meet the targets established in the plan, other mechanisms will be recommended to achieve the proper balance outlined in the plan.

The following initiatives and recommendations will improve long-term planning at regional and state levels:

- 1) The New York City Energy Planning Board intends to establish and implement a planning process to identify regional goals for new generation, repowering, transmission, renewable and demand-side resources and competitive market improvements. The initiative will include a comprehensive process to obtain input from key stakeholder groups.
- 2) Decision criteria must be clearly established at the outset of all planning initiatives and should incorporate the impact on reliability, the environment, the economy, energy customers, competitive markets and regulated utilities.
- 3) The New York City Energy Planning Board will closely monitor efforts to achieve the goals over time to determine if ongoing City, State, utility and public power programs and market response to price signals are adequate to meet the goals of the plan. The State should also provide regular updates on statewide

initiatives to achieve long-term energy goals such as progress being made in the implementation of critical energy efficiency and renewable energy programs. If and when needed, the Board will recommend new mechanisms, policies, programs and structural changes to meet the goals established in the plan. Any identified need for “non-market” solutions will be carefully balanced against the need to preserve competitive markets.

4) Establish a concerted regional, statewide or multi-state approach, as appropriate, to address barriers to project development for particularly challenging energy infrastructure projects including inter-regional transmission, Indian Point re-licensing, liquefied natural gas, and off-shore wind.

5) While the Regional Energy Brief, as described in the State Energy Plan Final Scope of Work, focuses on energy issues between New York and its neighboring states and Canadian provinces, it should also take into account the City’s plans for addressing in-City and intra-state regional energy concerns.

6) Conduct special review of the structure and performance of the New York City power market and provide recommendations for any needed market changes to encourage new investment.

### **Power and Natural Gas Supply and Infrastructure Recommendations**

Meeting the challenge of providing reliable, least-cost and environmentally responsible electric and gas service to customers may require upgrading, expanding, and replacing energy infrastructure. It may be beneficial for the City to have investment in cost-effective repowering of older plants, constructing new ones when justified by the economic and environmental benefits, capturing renewable energy opportunities and building economic transmission lines. The power authorities, utilities, generation owners and City and State agencies all have a role in supporting needed investment. Regional and national policies should be formulated that reward developers of clean resources and penalize dirtier resources.

In the current financial climate, starting major infrastructure projects may require long-term financial commitments and appropriate mechanisms for cost recovery. Financing and other costs may be lower for utility projects and private projects with long-term purchased power agreements versus merchant investments. At the same time, long-term contracts may have greater price risk for customers because of the difficulty of forecasting future energy prices. Moreover, it will be important to preserve pricing signals for merchant development, and the Federal Energy Regulatory Commission, which has jurisdiction over New York’s wholesale energy market, to look closely at any proposed intervention in the wholesale energy market. A flexible approach that compares all potential

solutions can be used to determine the most effective means to achieve the goals of the regional plan.

The following initiatives and recommendations will help to encourage more investment in energy infrastructure:

- 1) Asses the feasibility of expanding the ability of the City, utilities, power authorities (including NYPA) and others to drive regional power market improvements, for example by buying or building resources called for in the regional plan, or by providing financing for strategic projects that benefit the region and the State. Potential institutional structures need to explore cost recovery and incentives for utilities, ratepayer backing for downside risk, to the extent appropriate, or a portion of the upside benefits for ratepayers.
- 2) The City of New York, along with Con Edison and National Grid, support the continued operation of the Indian Point power plant, given its critical role in maintaining reliability, achieving environmental objectives and meeting the energy service needs of New York City. There is no practical short-term alternative to the operation of the plant and its loss would result in severe negative impacts to reliability, safety, the environment and energy costs downstate. At the same time, we support a long-term study to consider alternatives to Indian Point should a decision be made that eliminates the plant from the regional power system.
- 3) Explore whether it would be beneficial for utilities to provide more extensive information on a timely basis to project developers about interconnection and deliverability constraints for the grid system. Any such arrangement will need to:
  - a) protect the confidentiality of customer information, and
  - b) recognize the cost to the utility of implementing new information processes.
- 4) Use the results of New York City's Master Transmission Plan, now under development, to help reach a consensus on whether new investment in inter-regional transmission lines will benefit the City, region and the State as a whole and move forward accordingly.
- 5) Support the development of beneficial transmission projects during the Article VII process, and assist utilities and project developers in obtaining other approval by streamlining the processes used by relevant City and State agencies.
- 6) Work with Con Edison, the New York State Energy Research and Development Authority (NYSERDA) and developers to identify and analyze opportunities for district energy at major redevelopment projects within the City.
- 7) Adopt a flexible approach for Con Edison to build or buy steam from third-party producers as the means to incent district energy and cogeneration at appropriate locations within the City consistent with the needs of the steam system.

8) Support strategic natural gas infrastructure projects, such as new natural gas gate stations in both the Con Edison and the National Grid service territories and the expansion of the interstate pipeline system, in order to access new sources of gas and natural gas storage facilities, and adopt specific action plans and responsibilities to further these projects and address potential project opposition.

9) Conduct specific studies to address the Poletti shutdown, including any short-term demand or supply side steps that may need to be taken if the Astoria Energy 2 project is not placed in services as scheduled, and/or planned electricity demand reductions through energy efficiency fail to materialize.

10) Explore the role of City government in facilitating strategic projects, such as the use of Industrial Development Authority (IDA) benefits for new supply and demand-side resources that meet public policy objectives.

### **Energy Efficiency Recommendations**

The value of enhanced energy efficiency programs has been explicitly recognized in New York City's PlaNYC, New York State's 15 by 15 plan, and in the ongoing EEPS proceeding at the Public Service Commission (PSC). There is now virtually universal agreement that significant efficiency program expansion will require not only a wider and diverse range of programs and incentives, but also active program participation by NYSERDA, the State's regulated utilities, and other key stakeholders such as New York City, which has pledged to spend \$100 million annually on efficiency measures among City-owned building, operations and vehicles. Achievement of the full potential of energy efficiency to realize benefits across the entire energy spectrum will require a concerted and sustained effort by all parties.

While numerous efforts undertaken at the State and City level to meet these ambitious targets have increased momentum and focus on energy efficiency efforts, there are still several important obstacles to achieving the 15% and 30% reductions sought by State and City government. The recommendations below are intended to address those obstacles in a constructive and effective manner.

1) Continue the effort toward creating more transparency and accountability regarding the State's progress in meeting its 15 by 15 goals. Because of the assumed long-term impact of planned energy efficiency programs on reducing the State's projected future resource needs (i.e., essentially eliminating the need for new reliability related capacity additional over the next 10 years), it is crucial that the State conduct regular objective assessments of the State's energy efficiency programs, including the quantitative verification of their electric system impacts. The State should inform the various organizations conducting energy planning in New York by reporting annually on the progress made in

implementing energy efficiency programs across the State. This annual report should provide a status update on the regulated utility and NYSERDA energy efficiency programs overseen by the PSC, and also programs run by State authorities, such as the Long Island Power Authority (LIPA) and NYPA; results from changes to codes and standards and enhanced code and standard enforcement; and achievements of other State agencies and municipalities. The annual energy efficiency progress report should identify programs and geographic areas where targets are not being met, and identify specific steps to improve performance in order to meet the State's ultimate 15 by 15 objective.

2) Facilitate a whole building approach to efficiency measures by establishing aggressive yet realistic efficiency targets for gas and oil and by identifying funding sources, such as the Regional Greenhouse Gas Initiative (RGGI) program revenues, that can be used to supplement existing System Benefit Charges (SBC) and EEPS funds to achieve such targets.

3) On a transitional basis, allow the use of SBC/EEPS funds for electric and gas customers that are responding to municipal energy efficiency mandates that exceed State requirements. The widely recognized value of statutory and regulatory mandates in achieving the widest compliance with efficiency goals can best be realized by complementary financial incentives. Failure to provide such incentives to customers subject to mandates would make it substantially more difficult to establish such mandates, and it could result in inequities (because such customers will still be paying for the efficiency programs through rates).

4) Establish a coordinated process, involving the City, State, utilities and other affected stakeholders, to explore the feasibility and cost of automatically aggregating utility consumption by building and uploading that data to the Environmental Protection Agency (EPA) Portfolio Manager to support and encourage the benchmarking of existing buildings for energy efficiency purposes. Such a process should assess any potential issues related to customer data confidentiality.

5) Energy efficiency policies and programs should place increased emphasis on educating, informing and motivating tenants, and thereby address the persistent split incentive issue that has limited efficiency program penetration in the rental sector. Given the prevalence of multi-tenanted residential and commercial buildings in the City, such an approach is vitally needed.

6) Use an experienced New York City entity to reach City energy consumers via public education and outreach efforts to inform New Yorkers about the need for increased energy efficiency. SBC charges and RPS funds, intended for these purposes, could be managed in collaboration with PSC, NYSERDA and the local utilities.

7) Improve the effectiveness of energy efficiency services by creating a process whereby qualified energy efficiency service providers can partner with utilities to better target their marketing efforts to those customers offering the best potential for energy savings opportunities (e.g., identifying high usage, poor load profile customers). Such a process should assess any potential issues related to customer data confidentiality.

8) Ensure that energy efficiency shareholder incentives offered to utilities reflect overall performance rather than only the delivery of specific programs. Given the many small ways in which utilities might influence energy consumption (data hookups, policies, cooperation with local governments, etc) too high a burden of proof for a utility to claim a role in a given reduction would be counterproductive, focusing the utilities too narrowly rather than participating collaboratively towards overall program success and system-wide energy reductions, regardless of who helps to deliver the program.

9) The NYISO should lead a stakeholder process to examine the future potential for clean distributed generation and demand-side participation in capacity markets, recognizing in particular the long-lived nature of energy efficiency measures.

### **Renewable Energy and Distributed Generation**

While promoting wind development statewide is important, the City needs a more robust renewable energy portfolio to balance the need for increased power supply, GHG reductions, and limited transmission capacity. However, New York State's existing renewable energy programs often include regional equity imbalances and generic programs that do not address particular regional challenges.

To significantly increase renewable energy production in New York City and State, planning for utility-scale and distributed generation renewable energy, as well as mechanisms to link public economic development initiatives with a local clean technology business sector should be part of the comprehensive, long-term energy plan. This plan should also consider the need for renewable energy and energy efficiency in an integrated manner to achieve environmental sustainability goals cost-effectively. The City and State will have to continue to lead by example, and at times provide the difficult initial investments to spur market demand as well as demonstrate deployment of clean energy installations at public facilities. The City will also need to jointly explore with other entities new renewable energy opportunities such as the wind potential off the coast of New York City and New York State. The following mechanisms will enable the City and State to procure a greater level of renewable energy resources.



- 1) The City, State and utilities should work together on a comprehensive regional feasibility study for capturing New York's off-shore wind potential. The joint effort now being undertaken by LIPA and Con Edison should be viewed as an initial step. Following the completion of the study, the City, State and utilities should expeditiously develop and implement a strategic plan to guide the use of off-shore wind resources for helping to meet the City and State's future energy needs.
- 2) New York City and NYPA should work together to set long-term goals for renewable energy procurements for public customers and to map out strategies for successful public procurements. Renewable energy should include marine-based sources including wind and tidal power.
- 3) As part of the 2009 review of the RPS, the State should consider if such a change can be justified by the expected benefits of increasing the renewable energy target from 25% of electricity consumption to 30% by 2015. If such a change is determined appropriate, sufficient funding should be provided to achieve the revised target.
- 4) The State should correct the substantial regional inequities in the distribution of RPS program funds by ensuring that all regions receive their fair benefits from the RPS program. This is a particular concern in New York City.
- 5) The State should consider alternative delivery mechanisms for RPS funds that take advantage of existing regional entities that are positioned to tailor programs to local needs.
- 6) The State should consider adjusting program incentive levels to reflect the relative costs of doing business in various parts of the State, and to recognize that initially, as an example, offshore wind resource may not be cost-competitive with available land-based wind, but also offer greater benefits in highly constrained areas of the state.
- 7) The State should reconsider the inclusion of non-combustion and other emerging, clean waste-to-energy technologies on the list of eligible technologies for the RPS if they can be demonstrated to meet the State environmental standards.
- 8) The State should support a collaborative effort among New York City, utilities and NYSERDA to foster urban-specific, emerging renewable energy technologies (e.g., building-sited wind).
- 9) The State should explore legislation that lifts current restrictions on municipal procurements as they relate to higher premiums for clean energy goods and services, and establish preferences for companies providing clean energy goods

and services that offer the greatest economic development potential for New York State.

For Questions or further explanation of these recommendations, please contact:

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