Citizens Campaign for the Environment * National Wildlife Federation * Environmental Advocates of New York * Environment New York * Renewable Energy Long Island

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VIA EMAIL AND OVERNIGHT DELIVERY

Gil C. Quiniones
Co-Chair, Energy Highway Task Force
President and Chief Executive Officer
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Dear Mr. Quiniones:

The undersigned organizations urge the Energy Highway Task Force to adopt clear principles for its use in preparing an Energy Highway Action Plan, in issuing any requests for proposals based on the Action Plan, and in making any determinations about the energy generation and transmission projects that will improve New York's energy infrastructure.[1]

New York's current energy infrastructure is aging, inefficient, and highly polluting. Most of our transmission infrastructure is over 50 years old, and over 40% of the generating facilities in state are over 40 years old. Improving our current generation and transmission infrastructure will improve air quality, slow down the pace of climate change, provide long term price benefits, and increase the reliability of the electric system. We applaud the Governor for creating the Energy Highway Task Force to prioritize much-needed improvements that have the potential to provide substantial benefits to all New Yorkers.

The below principles are consistent with New York's comprehensive clean energy goals and programs, and will ensure that investments in New York's generation and transmission infrastructure charts a sustainable path to an economically vibrant, ecologically sound, and secure energy future.

I. Principles for a Sustainable Energy Highway:

Meet New York's Mandates to Reduce Carbon Emissions. All recommendations and decisions made by the Energy Highway Task Force should be consistent with Executive Order No. 2, Governor Cuomo's reauthorization of Governor Paterson's Executive Order No. 24 which sets a goal for New York to reduce its greenhouse gas emissions (GHG) to 80% below the 1990 level by 2050.

[1] As requested, respondent information describing the undersigned organizations and providing contact information is attached.

Transmission and generation projects prioritized by the Energy Highway Task Force must set New York on the path to achieve this critical goal. Specifically, prioritized projects should also help meet aggressive near-term target of 20 percent reductions below 1990 levels by the year 2020 and 30 percent by 2030. Decisions made today are long-term, and the vast majority of energy infrastructure that is built as a result of this process will still be in place after 2050.

Potential projects should be evaluated in light of their ability to help New York meet the targets of its Energy Efficiency Portfolio Standard ("EEPS") and Renewable Portfolio Standard ("RPS"). In addition to meeting the state's greenhouse gas reduction goals, it is critical that new projects prioritized by the Energy Highway Task Force be consistent with the state's clean energy targets and mandates. These targets provide specific near-term electricity-related methods and goals toward the longer term GHG reductions required by 2050. The EEPS established a goal of reducing electricity usage by 15% statewide by 2015 and the RPS establishes a goal of generating 30 percent of New York's electricity from renewable energy sources by 2015.

Efficiency and Demand Management. Even though the Energy Highway proposal states that the Task Force is not considering energy efficiency and demand side management projects, the Task force should analyze whether it would be more cost-effective or protective of the public health or environment to instead provide the electricity proposed by any generation project through efficiency or demand side management. If efficiency or demand side management provides greater benefits than the proposed project, then the project should not be recommended, and the efficiency or demand side management left to the appropriate organization to implement.

Emerging state and federal environmental regulations should be front and center in the Task Force's decision-making. The NYISO estimates that the Reasonably Available Control Technology for Oxides of Nitrogen (NOx RACT), Best Available Retrofit Technology (BART), Maximum Achievable Control Technology (MACT) and Best Technology Available for Cooling Water Intake Structures (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, future regulations – including a federal limit or price on carbon emissions - should be considered in making all generation and transmission decisions.

Accommodating demands that will likely be placed on the grid from greenhouse gas reductions in other industry sectors. The Energy Highway planning process must consider future impacts to the grid from achieving greenhouse gas reductions required in other industry sectors. For example, ground transportation accounted for almost 34 percent of carbon dioxide emissions in New York in 2009, and reducing this pollution

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

will place additional loads on the state's power grid due to the increased use of plug-in hybrid and electric vehicles, which make more efficient use of our overall energy resources. Thus, even as electricity demand is driven down by robust efficiency measures in industry and the built environment, it will be forced upward by electrification of parts of our economy that now burn fossil fuel directly.

Potential Projects should include climate adaptation measures. Global climate change is expected to alter both average temperatures and the frequency and intensity of extreme weather events in New York State, affecting energy demand, system efficiency, system reliability under storm conditions, and power supply potential. Weather-related stressors can damage equipment, disrupt fuel supply chains, reduce power plant output levels, or increase demand beyond the energy system's operational capacity. Additionally, climate change is expected to adversely affect system operations, increase the difficulty of ensuring supply during peak demand periods, and exacerbate problematic conditions such as the urban heat island effect. Projects that are recommended by the Energy Highway Task force must be evaluated to determine whether they will make New York's energy infrastructure more resilient to the projected impacts of climate change.

Evaluate the full environmental impact of all projects. A full lifecycle environmental and health analysis of projects must be performed, which must include not only construction through decommissioning of the project itself, but also an accounting of the full lifecycle of the fuel source. The cost-benefit analysis must include environmental, health, societal, and environmental justice impacts. For example, the Task Force must also look at medical costs associated with environmental and health impacts from energy extraction, processing, transportation, use and disposal that would occur as a result of all proposed projects.

Public health and environmental justice concerns regarding energy generation and transmission should be part of the Task Force's analysis. The Task Force must look at the best available data on the costs and benefits of different options for New Yorkers' health and environmental justice.

II. The Energy Highway Task Force should meet the above criteria by embracing renewable and clean energy technologies such as wind solar, geothermal, and tidal, etc. and encouraging the continued development of such technologies

The following renewable energy sources should be advanced by the New York Energy Highway Task Force:

Offshore wind. It has been estimated that New York's coast has 15,000 megawatts of offshore wind capacity close to its largest demand pocket — New York City and Long Island. It is time to finally tap this massive, local clean energy source. Projects that advance offshore wind will provide significant environmental and economic

benefits, as well as reduce grid congestion. Given that New York's existing electricity supply amply meets projected demand for the foreseeable future, major new clean energy facilities harnessing offshore wind could help phase out the state's dirtiest plants. It could also make New York State a national clean energy leader.

The Energy Highway Task Force must support development of offshore wind projects, as well as the transmission infrastructure required to fully develop our vast offshore wind resources. **Infrastructure required for the development of offshore wind must be a priority, in order to allow New Yorkers to reap the many benefits of offshore wind energy generation, including:**

- Improved air quality;
- Reduced climate pollution;
- Reduced congestion on the electric grid;
- Strong capacity during times of peak demand;
- Improved grid reliability;
- Downward pressure on wholesale prices;
- Economic development opportunities; and
- Job creation.

Onshore wind. The New York Independent System Operator (NYISO) has studied the addition of significant wind energy (8,000 MW) and found it can be accommodated. However, making use of our excellent wind resources will require transmission upgrades that address the "bottling" of output in certain locations upstate in order to facilitate flows to downstate demand pockets. In other words, *New York must move ahead with transmission projects that accommodate full output of numerous wind projects upstate.* This process should incorporate generation and transmission projects that will integrate 8,000 MWs of onshore wind, providing New Yorkers with the following substantial benefits:

- Improved air quality;
- Reduced climate pollution;
- Improved grid reliability;
- Downward pressure on wholesale prices;
- Economic development opportunities; and
- Job creation.

Solar. New York must have a goal of 5,000 megawatts (MWs) of installed solar photovoltaic (PV) capacity by the year 2025, and must pursue an aggressive solar strategy to achieve that goal. And since the state's peak demand correlates well with solar output, an investment in increased solar generation will save ratepayers money by reducing the most expensive wholesale electricity purchases. Further, distributed solar

projects in high demand areas do not require significant investment in transmission construction, and can reduce the need for upgrading distribution lines in those areas.

Solar has substantial benefits for all New Yorkers including:

- Improved air quality;
- Reduced climate pollution;
- Reduced congestion on the electric grid;
- Strong capacity during times of peak demand;
- Improved grid reliability;
- Downward pressure on wholesale prices;
- Economic development opportunities; and
- Job and local business creation.

Energy storage. The Energy Highway must incorporate environmentally friendly energy storage into its plans for New York's energy future. Centrally located energy storage systems such as flywheel batteries, and other technologies, will make it possible for variable renewable energy resources to meet system needs around the clock and will promote system reliability by helping to meet load-following, reserve capacity, and frequency response needs. Small scale storage located either close to non-dispatchable wind generation or in concentrated load pockets should be considered now to better match varying production and demand with the limitations of the existing transmission grid. Energy storage has substantial benefits for all New Yorkers including:

- Improved air quality;
- Reduced climate pollution;
- Reduced congestion on the electric grid;
- Improved grid reliability;
- Downward pressure on wholesale prices;
- Economic development opportunities; and
- Job creation.

III. The Energy Highway should reject any new coal plants and support efforts to retire New York's remaining dirty and inefficient plants. Consistent with the principles outlined above, no new coal plants should be sited as a result of this process. Together the state's 10 remaining coal-fired plants account for 2,771 MWs of capacity and roughly 7 percent of New York's climate pollution. In addition, these plants spew harmful air pollutants whose effects include asthma attacks, premature deaths, increased mercury contamination, destruction of forests by acid rain, and dangerous climate change. Fortunately, we have the technology now to replace the power from these polluting facilities with energy efficiency and renewable energy sources. Between 1999 and 2009, New York removed over 2,000 MWs of coal from its generation inventory,

demonstrating a shift to cleaner sources of power is both feasible. This process of removing coal plants from the generating fleet is almost halfway complete, and should be vigorously continued.

Conclusion

It is time for New York to move forward swiftly and boldly in building a sustainable, clean energy future. It is critical that the Energy Highway Task Force put plans in place today for transmission and generation projects that will put New York on track toward powering our homes and businesses with job-producing clean energy. New York's generation and transmission infrastructure is aging, inefficient, and highly polluting. Replacing our old dirty generation with renewable energy sources will serve to clean up the environment, protect public health, and provide quality economic development opportunities. New York's transmission infrastructure is currently incapable of efficiently meeting our energy delivery needs, and transmission bottlenecks result in higher electricity costs for New Yorkers. Increasing transmission capacity by upgrading and improving our aging infrastructure is key to unlocking New York's renewable resource potential and reducing the state's greenhouse gas emissions. Delivering clean energy in particular will require investment in transmission at both the high-voltage and distribution-line levels.

We look forward to working with the Energy Highway Task Force to ensure a vibrant, sustainable clean energy future for New York.

Sincerely,

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