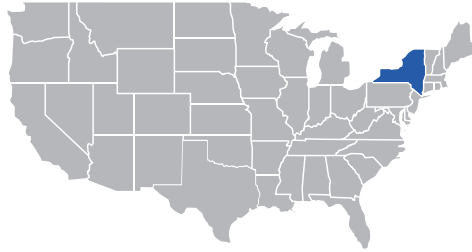


A close-up, low-angle shot of the Statue of Liberty's right arm holding the torch. The torch is the central focus, with the flame at the top. The background is a clear, bright blue sky. The statue's arm and hand are visible, showing the texture of the copper. The crown of the statue is partially visible on the right side of the frame.

Planning an ecologically-sound future for the Empire State

Wind power, one of the fastest-growing sources of energy around the world, is popular, not least because of its obvious abundance and because it provides many communities with a clean, local source of electricity, as opposed to imported fossil fuels. In the US – which recently passed Germany to become the country producing the most wind power – the Department of Energy recently estimated that wind power could account for 20 per cent of the nation's electricity supply by 2030.



Currently wind accounts for just one per cent of the US's electricity use. This figure is disappointingly low because there are two major obstacles: the wind simply does not blow all the time, (so backup power plants – often fueled by natural gas – are needed) and secondly, the wind sometimes blows the hardest in remote plains, far from cities that actually need the energy. That's a geographical difficulty that may well be beaten by New York State soon however. The state's Atlantic coastline is battered by winds which are just crying out to be harnessed and subsequently utilised by New York City and other nearby conurbations.

The state's legislators, headed by Governor David A Paterson – a firm advocate of renewable energy – have recently published a draft energy plan which includes five major strategies:

- Produce, deliver and use energy more efficiently
- Support the development of in-State energy supplies
- Invest in energy and transportation infrastructure to support policy objectives
- Stimulate innovation in energy technologies to support the transition to a clean energy economy
- Engage communities, local governments, neighboring states, and the federal government in energy-related activities

The plan paints a generally optimistic picture of the potential of wind to be a more meaningful and significant part of the Empire State's energy mix, at a time when the notion of constructing wind farms in the sea is gaining significant momentum around the world. Placing turbines in the water is costly, but the advantage is that the wind blows much harder off the coasts and, unlike wind over the continent which often blows hardest at night, offshore breezes can be strong in the afternoon – commensurate with the time when people are actually using the most electricity.

New Yorkers are currently facing numerous serious energy and environmental challenges that impact on all facets of their lives. Issues of concern include high energy costs, continued reliance on imported fuels, aging energy infrastructure, and climate change. Realizing this only too well, in March 2008 Governor Paterson issued Executive Order 2, directing the creation of a State Energy Plan. At the time he said: "The development, implementation, and periodic review of a sensible comprehensive energy plan will enable the state to determine its future energy needs and facilitate a deliberate, efficient, and cost-effective means of meeting those needs."

To create this new State Energy Plan, the governor convened the State Energy Planning Board to carry out a comprehensive planning process, which will ultimately culminate in recommendations that should keep New York at the forefront among the US in providing its residents with reliable, economical, and clean energy resources. Europe has already ventured into offshore territory with a wind farm in Denmark, while closer to home in the US, Texas and several Eastern states (apart from NY) are gearing up for an offshore wind farm revolution, with the biggest fight being in MS over the proposed Cape Wind Farm, near Cape Cod.

As the recent banking crisis hit the world, the booming wind power sector was dealt a blow because wind projects obviously need a lot of money to build and had been especially reliant on banks to supply financing (induced by federal tax credits). But with the financial sector in crisis, the number of those banks able to invest in wind projects fell sharply and turbine manufacturers – a small but growing industry in the US — began laying off dedicated staff.

So how does Governor Paterson plan to buck that trend with his draft plan, ensuring the state and its 19m people can look forward to an ecologically-sound future? The plan singles out a number of specific policy initiatives which set forth a vision for a robust and innovative clean-energy economy that should stimulate investment, create jobs and meet the energy needs of residents and businesses over the next decade.

Some concrete examples include:

- Implement Governor Paterson’s 45 by 15 initiative to both reduce electricity use by 15 per cent below 2015 forecasts and increase the proportion of renewable generation to 30 per cent of electricity demand by 2015
- Develop a Climate Action Plan to identify strategies, actions and infrastructure needs to reduce greenhouse gas emissions by 80 per cent by 2050
- Foster collaboration among academia, research and development organizations, national laboratories, and private businesses and industry to accelerate the commercialization of emerging clean energy technologies by New York-based firms
- Ensure energy-efficiency programs reach low-income customers who are particularly vulnerable to rising energy prices
- Increase the efficiency of New York’s electric system through expanded demand response programs, deployment of “smart grid” technologies and real-time pricing rate structures
- Encourage development and use of sustainably-produced biomass as a source for liquid fuels to displace heating oil and gasoline
- Provide and enhance mechanisms for early, fair and meaningful public involvement in energy-related decisions
- Encourage development of the Marcellus Shale natural gas formation with environmental safeguards that are protective of water supplies and natural resources

The governor said: “We need to make energy more affordable for New Yorkers, and we need to do it in a way that recognizes that the country is moving towards a carbon-constrained economy. The draft plan is a good step toward this goal and we will ensure that New York leads the nation in advancing clean energy, that we put New Yorkers to work and that we keep more of our energy dollars in-State.”

Thomas Congdon, Deputy Secretary for Energy and Chair of the State Energy Planning Board, added: “Because of Governor Paterson’s leadership, New York is on a path to lead the nation in the clean energy economy. The draft Plan is the product of over 18 months of analysis and critical review,

several dozen meetings with interested parties and stakeholders, four Planning Board meetings and review of written comments. The Board is looking forward to hearing from the public on the work to date, and we will consider their input as we develop the final plan.”

So how, specifically, does the governor think energy generated by wind will fit into his ambitious plans? Back in February he announced a joint-agency pilot project to test the use of urban wind technology on top of the 41-storey Corning Tower at the Empire State Plaza in Albany. The project will test the viability of capturing the power of wind through equipment installed on rooftops to provide supplemental electricity for the state’s ongoing energy needs. Under the project, the governor asked the New York State Office of General Services (OGS) and the New York State Energy

resulting impact on efficiency. Paul DeCotis, Deputy Secretary for Energy, a keen proponent of cleaner energy, said: “Governor Paterson is positioning New York to be a national leader in a clean-energy economy. New York is aggressively moving forward to create a ‘best in class’ clean-energy agenda by promoting the research and development, deployment and commercialization of energy efficiency and cutting-edge renewable technologies. This, coupled with investment in energy generation, transmission and distribution systems, will enable businesses to grow in New York, and also create the innovation economy of the future.”

Speaking about the Albany-based project, OGS Commissioner John Egan added: “The 588-foot Corning Tower is the tallest building between New York

New York State is working on demonstrating the feasibility of urban wind projects for generating clean energy at its own facilities, which could reduce energy purchases and reduce New York’s carbon footprint

Research and Development Authority (NYSERDA) to install a 1.5-kilowatt wind turbine on the roof of the tower.

Speaking at the time, the ecologically-minded governor said: “New York State has long been a leader in the development and use of renewable energy technologies. The advancement of new, innovative projects such as this wind demonstration pilot project could help New York move towards cleaner energy solutions. New York State is working on demonstrating the feasibility of urban wind projects for generating clean energy at its own facilities, which could reduce energy purchases and reduce New York’s carbon footprint.” Throughout the pioneering project, NYSERDA will be gathering real-time performance data involving micro-turbines in an urban environment. This research will focus on studying the impact of venue-specific variables such as turbulence and ground-drag and their

City and the Adirondack Mountains. It has unique physical properties and thermal currents that are conducive to capturing the clean, sustainable power of the wind. Once the wheel starts to whirl, we will begin producing our own energy.”

That metaphorical wheel is already turning big time in certain parts of the world. It surely cannot be long before those wheels – in the form of ecologically-sound wind farms – are literally turning throughout the US, with New York State at the forefront of developments. ▀

For more information about New York’s draft energy plan, please visit: www.nysenergyplan.com