

**Governor Jon S. Corzine,  
State of New Jersey  
Testimony to the Senate Committee on Environment and Public Works  
Committee  
Chair, Senator Barbara Boxer  
Ranking Member, Senator James M. Inhofe**

**Tuesday, July 21, 2009**

Thank you to the Chair and the members of the committee for the invitation to speak to you today.

Under the leadership of President Obama, this body, your colleagues in the House, and states across this country, we are on the verge of a green revolution. This revolution will require a new way of thinking about our energy supply, energy demand and our impacts on the global environment.

It will require the creation of new jobs across virtually every sector of our economy. From financial institutions that are investing in the next innovation in solar energy technology, to the construction firms that will be modernizing our aging energy infrastructure, to the scientists at Rutgers University who are developing ways to convert algae into a renewable energy fuel - skill and ingenuity of many kinds will be needed.

We face serious challenges that need to be met with serious solutions. Some of the challenges include:

- rising energy demands
- rising peak demands for electricity
- rising and volatile energy prices
- and the rising amount of greenhouse gas emissions attributed to our current energy practices

These challenges if not met will compromise the reliability of our energy supply, burden our homes and businesses with spiraling energy prices and threaten our global environment.

Today, I am proud to say that New Jersey is at the forefront of leading this green revolution, and meeting the challenges that threaten our economic and environmental security.

Through efforts such as our Energy Master Plan, the Regional Greenhouse Gas Initiative, and our efforts under our Global Warming Response Act, we have fashioned responsible, comprehensive and aggressive strategies necessary to meet these challenges.

To address the energy challenges facing us, we have set aggressive targets for New Jersey.. These include:

- Reducing greenhouse gas emissions to 1990 levels by 2020 and 80% below 2006 levels by 2050.
- Reducing energy consumption 20% by 2020.
- Reducing peak demand for electricity by 5,700 megawatts by 2020.
- Having 30% of our electricity supply come from renewable energy by 2020, this includes:
  - 3,000 megawatts from offshore wind, and
  - 2,000 megawatts from solar energy

We have prioritized several programs that will realize these goals at the lowest cost to the consumers.

- New Jersey has one of the most aggressive Renewable Portfolio Standards in the country. We currently require our electricity suppliers to purchase a specified percentage of their electricity from renewable energy each year. Currently, they are required to have 22.5% of their electricity

come from renewable energy by 2020, but we are in the process of modifying this amount to 30% by 2020.

- New Jersey participates in the Regional Greenhouse Gas Initiative, which is the first mandatory carbon cap and trade program in the country. Here we cap carbon dioxide emissions at current levels through 2014 and then reduce emissions 10 percent by 2018. The electricity generators are required to purchase these allowances through an open auction design.

We reinvest the revenue from the auction into renewable energy, energy efficiency, and other efforts that reduce greenhouse gas emissions.

New Jersey's Energy Master Plan is our road map to meeting our State energy challenges. This includes aggressive goals in both energy efficiency and renewable energy, often grouped together under the title of "Clean Energy".

Specifically, we have set aggressive targets for both solar energy and offshore wind developments that are some of the most aggressive in the country.

New Jersey's policies, market-based Solar Renewable Certificates, and solar Renewable Portfolio Standard all help assure the solar industry that it will always be welcome in this state. This is market based solution that has helped to make New Jersey the home to more solar energy installations than every other state in the country, except California. We currently have 4,000 installations totaling more than 90 MW.

New Jersey is also on its way to citing the first offshore windmills off of the Atlantic Coast. We are not working to host one offshore wind project, but three totaling more than 1,000 megawatts by 2013. We are developing programs similar to our successful solar programs, to ensure these projects become

realities. These projects will require workers from electrical engineers to steel workers and long-shoremen.

Clean energy resources represent new industries and new jobs for New Jersey.

Over the next 11 years we will:

- Create a 21<sup>st</sup> century energy infrastructure for NJ, through projects such as smart grid modernizations to our energy infrastructure.
- Achieve estimated \$30 billion in total energy savings for consumers between 2010 and 2020
- Stimulate \$33 billion worth of investment in the State energy infrastructure
- Enhance the reliability of the system by reducing overall demand and the peak demand for electricity.

In order to implement these goals we estimate that approximately 20,000 direct jobs will be created between now and 2020. These jobs will include:

- Energy Efficiency – weatherization and retrofits
- Solar Energy – solar installations with renewed focus on manufacturing
- Wind Energy – installation, assembly and hopefully manufacturing of the wind turbines that will be located off of our shore
- Cogeneration – construction and plant management jobs
- Smart grid – construction and possible IT jobs

New Jersey's energy and clean energy policies set for the next two decades will continue to drive demand for a diverse range of temporary jobs to high-tech careers.

Other policies that provide incentives related to zero-waste, water conservation, open space, will also result in significant expansion of "green" employment in New Jersey.

In October 2008, my administration embarked on its own stimulus plan aimed at helping us to rebuild our traditional energy infrastructure, and through a

partnership with our public utilities to provide an energy efficiency program to New Jersey home and business owners. Collectively, these efforts will include over \$1.2 billion in investment and have the potential of creating over 2,000 jobs from entry-level energy auditors to traditional construction trades.

To prepare New Jersey's workforce to meet the demands for workers in the "green" economy, our Department of Labor and Workforce Development is leading the way to identify these emerging job opportunities and address the existing skill gaps in the workforce.

We intend to meet the near-term green industry workforce needs – identifying essential education, training and worker development programs that are not yet in place and creating them – and to focus our efforts on meeting the longer-term needs of key, clean-energy and clean-technology businesses.

Therefore, our Department of Labor and Workforce Development has created programs such as our Green Jobs Partnership Training Program that is teaching entry-level workers the energy efficiency skills necessary to meet our short-term energy efficiency needs. This program will graduate 300 qualified workers over the next year, and the State's largest utility company has already committed to hire 100 program graduates.

After the training, the participants will be placed in jobs with industry partners. We will then reimburse the employers for up to 50% of the minimum \$15 hourly wage paid during these three to six month internships.

We also provide customized training for incumbent workers at energy-related employers. Over the past three years, these training programs have provided matching grants to 12 employers to provide job training to their existing workforce in energy-related occupations.

Through our public policy that solidly cultivates the clean energy industry, partnerships are being built among state agencies, employers, labor unions, educational institutions, community-based organizations, and other stakeholders to ensure that New Jersey is able to respond effectively to the evolving workforce needs of the energy industry.

Whether it is training at risk-youth to become skilled in energy efficiency measures or supporting clean energy incubators at our universities - New Jersey's workforce is set to respond.

In New Jersey we are also deeply invested in cultivating the clean energy supply chain so that we're not only leading in solar installations and energy efficiency but stimulating economic development by having the parts built in New Jersey. New Jersey's Edison Innovation Clean Energy Manufacturing Fund offers financial assistance in the form of zero interest loans and grants to support Class I renewable energy or energy efficiency companies entering or expanding their manufacturing operations in New Jersey.

We recently made the first award of this incentive to a company which manufactures solar panel smart grid technology on utility poles, the kind of innovation that begins to create a niche market in New Jersey and will lead to an additional 150 new jobs in that one company alone.

These are all excellent policies and promising developments. However, I must emphasize that the aggressive actions that states like New Jersey is only the beginning. If we do not have technology innovation, we will not be able to meet the challenges we face. Current technologies do not provide us with the affordable, reliable, and environmentally neutral technologies that our economy and environment needs.

In New Jersey we are doing our part, working aggressively with our universities and the private sector to support research and development in the fields of clean energy. However, the efforts of New Jersey are a mere drop in the bucket when compared to the amount of research that needs to take place to provide us with the energy future we need.

Solar and wind are great technologies, but we must find ways to build it cheaper, and make the electricity these technologies supply less intermittent. Plug-in hybrids are promising, but we must perfect the battery and charging technologies. Biofuels such as cellulosic ethanol and algae offer great promise, but we must perfect these technologies and enable them to be commercialized.

There's great potential here. But to realize all of this potential, we need national leadership to dedicate the resources necessary to provide the United States and the world with the silver bullets necessary to fully meet the challenges we presently face.

In closing, I would like to emphasize the importance of a national approach to enable the financing of clean energy technologies.

One such mechanism could be a Green Bank. It would operate as a federally-owned, independent corporation providing low-cost financial support to private clean energy projects. It is my opinion that this concept can be part of a solution that will:

1. Spark deployment of clean energy and energy efficiency projects and shrink greenhouse gas emissions while spurring jobs and lending;
2. Drive down the costs of – and broaden support for – addressing climate change; and

3. Help us to compete with Europe and Asia which continue to increase their investments in clean energy, even during this global recession.

With the flexibility to work with the full range of private sector financing tools, and at the proper scale, with a minimum funding level of \$10 billion, and ideally \$50 billion, the Green Bank would serve as the Marshall Plan for an emerging, low-cost, low-carbon energy economy.

This needs to be part of a larger national strategy to support technology research and development, innovation, and the deployment of renewable energy resources that will provide us with solutions to our energy challenges.

I endorse concepts such as the Green Bank, also known as the Clean Energy Deployment Administration in the Waxman-Markey bill. I respectfully urge that Congress create the necessary financial mechanisms that provide the independence, flexibility, and funding necessary to support the development of clean energy, stimulate job growth, shrink harmful emissions, and spark our global competitiveness.

In 1879 New Jersey was home to Thomas Edison's discovery of the incandescent light bulb. In 1883, Roselle, New Jersey was the first village in the world to be lighted by Thomas Edison's incandescent light bulb. It was an experiment to prove that a town could be lighted by electricity from a single generating station.

Therefore, it is fitting that more than 120 years later, New Jersey is leading the way in practices and technology developments that provide our State and this nation with the revolutionary energy solutions that we so desperately need during this time.



The efforts of my administration will not wane until we can proudly say, “*We make it, We fix it, We install it, We support it, We teach it and We live green in New Jersey.*”

Thank you again for the invitation and attention to this key economic development and environmentally responsible issue.