New Jersey's Energy Master Plan: 21st Century Solutions to Our Energy Challenges

The 2008 Energy Master Plan is part of the Corzine Administration's response to the imperatives of a new era. The old economic order is passing and a new one is emerging. At the same time, it is clear that the old assumptions about energy no longer serve us. Gov. Corzine recognizes that new approaches to energy provide the new pathways to economic prosperity.

By offering solutions to our energy challenges through investment in energy savings, job creation, building a 21st century energy structure and committing to innovation and further research into new technologies, the EMP aligns with that new economic order and captures the momentum of the gathering green revolution.

Energy Challenges

New Jerseyans use electricity in more ways than ever, and the cost of it --- as with all energy --- is increasing because of economic and jurisdictional factors beyond our State's borders. In addition, our ability to shoulder our share of the responsibility to combat global warming is thwarted by the State's aging generation and distribution infrastructure. Unfortunately, because of deregulation, the State has limited authority to procure clean, 21st century power generation.

Solutions in the EMP

Through the EMP, New Jersey rejects policies of the past that promise no relief from these energy challenges. Instead, New Jersey is choosing a better future, in which we use energy more efficiently, cut costly peak energy demand, and produce more clean energy right here in New Jersey. This better future means jobs, lower energy costs and a healthier environment.

The policies of the EMP will enable New Jersey to assert greater control over its energy destiny and become less subject to uncertainties we face now. The 2008 EMP proposals shift and reorder the way NJ manages energy and which energy sources we rely on to ensure a safe, reliable supply of energy for electricity and heating that is produced in an environmentally responsible manner and is priced competitively.

Maximizing Energy Savings

The Plan will close the gap between supply and demand, reduce energy costs, increase reliability and reduce the harmful greenhouse gas emissions produced by NJ through a sustained and multi-faceted effort to make New Jersey more energy efficient.

These goals and action items will effectively result in approximately $30 billion in total energy savings between 2010 and 2020 for its consumers, while stimulating $33 billion worth of investment into the State's energy infrastructure and creating 20,000 jobs.

Energy efficiency goals:

- Save electricity equivalent to the amount of power to run 2.2 million homes for a year (20,000 GWh).
- Save heating energy equivalent to the amount of energy needed to warm 1.1 million homes in one year (110 trillion BTUs).

Working with the utilities and by retooling our current energy efficiency programs, building by building, we plan to enhance energy performance both structurally, in the equipment, and by educating the people who interact within the building.

We aim to undertake a systematic effort to give our 3.7 million buildings--homes, commercial and government structures -- an energy check-up that will uncover the best ways to improve the building's performance. We have already improved the energy performance of 500,000 homes, businesses and other structures in New Jersey. Now, we undertake the task of accomplishing more – to improve the energy performance of 300,000 buildings each year between now and 2020.

In addition, we will promote new laws, regulations and incentive/rebate programs that will make new buildings 30 percent more efficient and require more energy efficient appliances.

We will educate the public to understand the value they get from energy conservation and energy efficiency and the value it provides our society as well. As part of that education effort, we will work with the utilities and commercial and industrial users of electricity to curtail their use of electricity use at peak demand times.

Fostering Green Job Creation

The efforts we put toward achieving the EMP goals will result in the creation of New Jersey-based jobs. Through an investment of approximately $33 billion by 2020 into our energy infrastructure, we will create more than 20,000 jobs by 2015, including energy auditors, energy service contractors, appliance manufacturers and installers, electricians, insulation installers, window installers, EnergyStar home developers and builders, and engineers.

To ensure that New Jersey residents are ready to enter this career field, the state will develop timely and industry recognized job training programs to ensure that sufficient numbers of New Jersey workers have the skills demanded by industry to fill the jobs that are created from the action items in this Energy Master Plan.

Establishing a 21st Century Energy Infrastructure

New Jersey's new economy and approach to energy require an energy delivery system less dependent on "older generation" fuels such as fossil fuels and more dependent on "new generation" fuel sources and which is more local and thus more reliable.

New Jersey actually began to make that shift to "new generation" energy sources in 2001. Incentives from the New Jersey Clean Energy Program helped make the State home to the first on-shore wind farm on the East Coast as well as to a highly successful solar program that is second only to California in the number of installations. The 2008 EMP will accelerate that shift by increasing the portion of the electric supply that come from renewable sources including offshore wind, solar, onshore wind, biomass and new and emerging technologies.

Renewable Energy goal:

- Strive to surpass the current Renewable Portfolio Standard goals with a goal of achieving 30% of the State's electricity needs from renewable sources by 2020.

By 2020, New Jersey aims to generate 121 percent of its electricity from in-state generation sources. Of that, offshore wind would account for 13 percent, biomass 7 percent, and solar 2 percent.

Fossil fuel-based generation would decrease from 50 percent in 2004 to 43 percent of the State's total electricity generation under the EMP. Combined heat and power, a more efficient form of generation that uses natural gas would account for 30 percent of the fossil fuel based generation.

There is unlimited potential for jobs, for clean sources of generation and for economic prosperity waiting to be exploited when it comes to new and emerging clean energy technologies. For this reason we have projected a 50 MW carve-out for as-yet unperfected RE technologies. And for this reason the State plans to invest substantially in emerging technologies to nurture this potential.

Committing to furthering research and innovation in New Jersey

New Jersey will rely on its backbone of more than 500 environmental, energy and engineering companies, a long history of innovation and a world-class workforce, to position itself to become a major participant in the clean energy technology sector.

We will fortify our efforts to encourage development of clean energy technologies by expanding the Edison Innovation Fund to nurture clean energy technologies and business incubators. We will train a new generation of New Jersey workers to satisfy the demand that the developing cleantech industry will generate.

And New Jersey will establish the Energy Institute of New Jersey to support the basic and applied energy research efforts at its colleges and universities.

Changing New Jersey's Energy Future

If we do not get our energy house in order we will lose in two ways. We will miss out on the enormous potential of the green economy with thousands of new jobs and we will spend billions more than we have to on energy instead of on other worthy needs. The proposals of the EMP will save consumers $6.4 billion in 2020 and $30 billion between 2010 and 2020.

In addition, this plan will result in reducing carbon dioxide emissions to 56.1 million metric tons in 2020, compared to the 84 million metric tons that we would emit if we did nothing. This reduction goes beyond the requirements in the Global Warming Response Act to reduce greenhouse gas emissions to 1990 levels by 2020.

The Plan offers aggressive policies that create an energy system that is responsible and will establish the clean energy industry as a major part of New Jersey's economy. It will strengthen New Jersey's economy by reducing consumers overall energy expenditures, while creating jobs, improving the current energy infrastructure and meeting our environmental goals.