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Dear EMP Committee,

Attached are ANJEC's written comments on the Draft Energy Master Plan. Since presenting verbal comments at the hearing on July 15, we have expanded on a couple of points and added references as President Fox suggested. Therefore, these comments should replace the hard copy supplied to the committee at the time of my testimony.

Thank you for the opportunity to comment on this important document. Please don't hesitate to contact us if there are any questions regarding these comments.

Respectfully,

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## **Testimony of the Association of New Jersey Environmental Commissions (ANJEC) Draft Energy Master Plan**

Wednesday, July 16, 2008

My name is Julie Lange Groth and I represent the Association of NJ Environmental Commissions (ANJEC). ANJEC works to establish and support the municipal environmental commissions, educate public officials and concerned citizens and advocate for sustainable environmental action at the local level. Our 2,500 members represent approximately 380 municipalities and all 21 counties of New Jersey. In addition to protecting natural resources and fostering sustainable land use, environmental commissions are very engaged in conducting energy audits and developing sustainability plans for their towns, implementing green municipal initiatives and educating members of their communities about how to save energy and reduce their carbon footprint.

The draft Energy Master Plan does a commendable job of laying out the complexity of New Jersey's energy challenges as well as the dire consequences of a business-as-usual scenario. It makes a strong case for the need to take immediate and definitive action to address our state's energy needs while reducing greenhouse gas emissions.

In the spirit of making the Plan as strong as possible, ANJEC offers the following comments.

- 1) The plan includes a long list of renewable energy technologies that should be fostered in order to meet 22.5% of the state's electricity needs. It also sets a goal of reducing energy consumption by 20% by 2020. We join with other environmental organizations in urging Governor Corzine to set more aggressive goals for both renewable energy generation and energy conservation.
- 2) In describing renewable energy generation goals, the plan only includes strategies for solar, wind, biofuel and biomass, and should be expanded to also include specific goals and strategies to develop other renewable technologies, such as geothermal<sup>1</sup>, wave or tidal power, and hydropower under 30 MW.

- 3) To promote energy efficiency and ensure that rebate funds are allocated where they will do the most good, the plan should stipulate that before receiving financial incentives for installing renewable energy systems or CHP/CCHP, building owners must first satisfy minimum energy efficiency requirements, including an energy assessment.
  - 4) The plan appropriately lays out a number of measures to reduce peak demand, which will hopefully reduce the need to build new transmission lines. But to the extent that new lines are necessary, the plan should discourage construction in environmentally sensitive lands.
  - 5) We strongly urge that New Jersey abandon any plans to activate unused farmland to grow energy crops, particularly corn and soybeans. We believe diverting farmland to energy production is poor environmental policy<sup>2, 4</sup> and raises serious ethical concerns in an increasingly hungry world, where the food-to-fuel movement has already spurred dramatic spikes in global food prices. Instead, unused farmland should be reactivated for food production, enabling more NJ consumers to eat locally grown food, so that less energy is consumed in the transport of food.<sup>5, 6</sup>
  - 6) Echoing the comments of other environmental organizations, ANJEC agrees that New Jersey should be working harder to:
    - a. Adopt strong green building construction codes for new construction, redevelopment and major renovations.
    - b. Expand and promote use of combined heat and power.
    - c. Use funds generated by the existing societal benefits charge and part of the proceeds from the sale of carbon credits to actively promote research and development of new renewable technologies.
    - d. Provide incentives to grow the in-state renewable industry and create thousands of green collar jobs.
    - e. Support national proposals to transition to large-scale renewable energy projects, such as concentrated solar arrays and wind farms, to reduce the state's importation of dirty coal-generated electricity.
    - f. Ban any new diesel or coal-fired power plants, which are the dirtiest in the state, and will hamper the state's ability to meet the mandated greenhouse gas reduction levels.
    - g. Retire Oyster Creek nuclear power plant.
    - h. Oppose construction of new nuclear power plants in New Jersey.
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<sup>1</sup> See case study at Richard Stockton College at <http://www.njheps.org/case-studies/energy/Stockton.htm>

<sup>2</sup> According to Princeton researcher Tim Searchinger, converting idle farmland, pastures and forests in order to produce corn-based ethanol will release sequestered carbon and actually increase carbon emissions in the long run. "Corn-based ethanol, instead of producing a 20% savings, nearly doubles greenhouse emissions over 30 years and increases greenhouse gases for 167 years."

<sup>3</sup> According to Walter William, professor of economics at George Mason University, in “Ethanol Is a Cruel Hoax on the American Consumer,” (March 12, 2008) ethanol is a very inefficient energy source and requires an enormous amount of water:

*“Ethanol is 20 to 30 percent less efficient than gasoline, making it more expensive per highway mile. It takes 450 pounds of corn to produce the ethanol to fill one sport utility vehicle tank. That's enough corn to feed one person for a year. Plus, it takes more than one gallon of fossil fuel -- oil and natural gas -- to produce one gallon of ethanol. Corn must be grown, fertilized, harvested and trucked to ethanol producers -- all of which are fuel-using activities. And it takes 1,700 gallons of water to produce one gallon of ethanol. On top of all this, if our total annual corn output were put to ethanol production, it would reduce gasoline consumption by 10 or 12 percent.”*

<sup>4</sup> Expanded monoculture farming of corn and soybean production in New Jersey is likely to increase the amount of pesticides, nitrogen and phosphorous as well as soil erosion polluting our rivers and bays.

In “The Ecological and Social Tragedy of Crop-Based Biofuel Production in the Americas,” Miguel A Altieri, Professor of Agroecology at the University of California Berkeley, writes that lack of crop rotation increases vulnerability to pests, and therefore necessitates higher inputs of pesticides than most crops. *“Corn cultivation generally involves use of the herbicide atrazine, a known endocrine disruptor. Low doses of endocrine disruptors can cause developmental harm by interfering with hormonal triggers at key points in the development of an organism. Studies show that atrazine can result in sexual abnormalities in frog populations, including hermaphroditism (Hayes et al 2002).*

*“Corn requires large amounts of chemical nitrogen fertilizer, a major contributor to the ground and river water pollution responsible for the “dead zone” in the Gulf of Mexico. Median rates of nitrate application on US farmland range from 120 to 550 kg of N per hectare. Inefficient use of nitrogen fertilizers by crops leads to nitrogen-laden runoff, mostly in surface water or in groundwater. Aquifer contamination by nitrate is widespread and at dangerously high levels in many rural regions. In the U.S., it is estimated that more than 25% of drinking water wells contain nitrate levels above the 45 parts per million safety standard (Conway and Pretty, 1991). High nitrate levels are hazardous to human health, and studies have linked nitrate intake to methemoglobinemia in children and gastric, and bladder and esophageal cancer in adults.”*  
<http://www.foodfirst.org/node/1662>

In a separate paper on “Water Use and Impacts Due to Ethanol Production in Brazil” Jose Roberto Moreira describes a higher incidence of pests requiring increased use of chemicals in fields converted to sugar cane production for ethanol as a result of a change in the agro-ecosystem to monoculture farming.  
[www.iwmi.cgiar.org/EWMA/files/papers/Jose\\_Moreira.pdf](http://www.iwmi.cgiar.org/EWMA/files/papers/Jose_Moreira.pdf)

<sup>5</sup> According to the U.S. Environmental Protection Agency, food travels an average of 1,500 miles from producer to end-user. Using locally grown products reduces the carbon dioxide emissions and shipping costs associated with transporting food over long distances.

<sup>6</sup> At a time when the public is just beginning to understand the energy efficiency and environmental necessity of eating locally produced food, production of vegetable crops, milk, eggs, poultry and livestock in New Jersey all decreased significantly between 2000 and 2005, according to the New Jersey Agriculture 2006 Annual Report.