

May 27, 2008

Ms. Jeanne Fox
President,
New Jersey Board of Utilities
2 Gateway Center
8th Floor
Newark, N.J. 07102

Dear President Fox:

It has been a privilege to have read the Energy Master Plan Draft. As a collegiate Environmental Studies Class focused specifically on Energy and Society, we have spent the past semester studying energy policies- specifically those in New Jersey. We heard from first class guest lecturers, including those from the BPU and its critics; heard competing views and perspectives; watched videos of sustainability visionaries; debated issues amongst ourselves; read many articles on new approaches to energy problems; and role-played an actual BPU decision-making situation. We, therefore, believe we have a unique contribution to offer at this time.

The Plan offers a comprehensive analysis of the prevailing energy policies and provides a thorough description of the strategies proposed to help New Jersey meet its energy goals. In the following sections, we have proposed a few additions to the plan, which we believe will help New Jersey take the next steps in pioneering sustainable energy sources, and ultimately seek to attain carbon neutrality—a goal we suggest the state formally adopt.

Carbon Tax

The draft made no mention of a ‘Carbon Tax’. Carbon taxation is undoubtedly a controversial subject, both economically and politically. However, it is imperative that the draft provides, at the very least, a basic framework for any future implementation of a carbon tax. Lester Brown, an influential thinker and author of numerous environmental books, suggests that, “eliminating environmentally destructive subsidies reduces both the burden on taxpayers and the destructive activities themselves.” By also taxing environmentally detrimental activities, it will be possible to reflect the real cost to society of certain activities, such as power generation from non-renewables, and thereby reduce the pollution generated. Taxing fossil fuel-intensive technologies will admittedly be met with opposition, but will also stimulate investment in environmentally friendly technologies. This would be a great aid to New Jersey’s opportunity to become a forerunner in establishing a prototype eco-friendly economy.

Incentives

The plan to expand incentives as outlined in the Master Energy Plan is undeniably well intentioned but it lacks a definitive outline and timeframe for the implementation of

the incentives. This may discourage the necessary aggressive action steps.

Page 59 of the EMP draft simply states that the BPU is responsible for the establishment of incentive programs and for working with stakeholders and utilities. While it is necessary to obtain input from the concerned parties themselves, there is clearly a need for a government-specified outline. Furthermore, the plan should list a set of primary objectives in order of priority; establish deadlines or a tentative timeframe.

Incentive programs are watched closely by investors and New Jersey should recognize the urgent need to ratchet up practices that favor investment in 'Green Technology. The previous \$200 million incentive package was a great start and helped establish solar power in the state. Similar measures and vigorous implementation are required to catalyze further state-wide investment in renewable energy sources and meet the energy and greenhouse gas reduction goals.

Marketing

Introduction and Overview

The key to making New Jersey into a carbon neutral state is to inform its citizens of the hazards of environmentally destructive lifestyles. A substantial number of people remain unaware of, or are indifferent towards, environmental issues. Innovative marketing strategies and public relations are vital to inform the public of the energy crisis and ways in which they can help.

A series of creative television advertisements would be a very effective way to inform the public of the impending energy disaster. In addition, advertisements in local newspapers, billboards, sports venues, and concerts will further supplement and foster public opinion in favor of 'greening' the economy. The Internet can also become an incredible marketing tool. The Internet remains the cheapest, fastest, and most direct method of reaching out to the population. It also has an exceptional advantage over other 'conventional' sources because it is far more popular among the youth. Websites can be developed to specifically target the younger generations and to inform them of the hazards of a wasteful lifestyle.

The sections that follow provide further detail on some ideas to market more energy-conserving lifestyles. These ideas include movie theater previews, the "Green Stamp or Logo," funding, and the use of volunteers.

Theater Previews and the "Green Stamp/Logo"

Encouraging local New Jersey movie theaters to participate in marketing energy and global warming messages would be an effective way to get the message out to a captive audience. The audience usually expects a short preview before the movie begins and, as such, this time can be used to inform them about the issues our planet faces today. Because an average of five previews is aired before the movie, airing a 'green infomercial' would not be an incredibly expensive prospect, especially if it was done by independent movie theaters and not through the movie producers. By participating in this program, the movie theater will get to receive a coveted "green" stamp or logo (yet to be designed), much like the ISO 9001 certification program. With enough groundswell

and momentum, the green stamp can be made into a badge of honor that the movie theater can proudly display in its facility.

The state can also consider offering monetary incentives such as tax relief to businesses that choose to go 'Green'. The incentives would vary as per the size and scale of the business. In due time, however, we believe that as more people are informed about the necessity of eco-friendly practices, the green logo could become a deciding factor and offer businesses an edge over their competitors, lessening the drain on the state budget from tax credits (particularly if combined with the carbon tax).

Funding and Volunteers

Funding an intense and well organized marketing campaign is the easiest way for New Jersey to cut down on its energy consumption. Given the current state fiscal situation, complete funding is an issue. To help lower costs, it would be helpful to find organizations to volunteer to do infomercials and even design the Green Stamp/Logo. Volunteering would be a way for these groups to market themselves while contributing towards the cause. With enough writers, artists and actors willing to contribute, a competition could be organized with the contract as the prize for the winning team.

Education

Education is, and should be, an integral part of any conservation scheme. As the next generation will be expected to contribute to the reduction of carbon emissions, they must be taught from an early age to conserve and protect our environment. This is as much a responsibility of the parents as it is of the school system. A government regulated curriculum that mandates environmentally oriented subjects would do much to ensure the success of New Jersey's program.

The current draft makes a brief and vague description of the BPU's intention to evaluate the current curriculum. The draft lacks any mention of concrete goals with regard to what is to be expected from the curriculum. The BPU must make an effort to do this by working with its sister agency, the Department of Education (DOE). The latter already has a curriculum that integrates education on natural resources, waste management, the production and use of energy, and the interdependence of ecosystems. The department provides a timeline for grade levels, but with vague requirements that must be met under a category of 'Human Interactions and Impact'.

The current science curriculum used in New Jersey for grades K through 12 was adopted in 2002. While we feel that this was a great start, we also feel that the Energy Master Plan should provide a more aggressive outline for educating students on current environmental and energy issues. It is imperative that these programs are introduced at a young age and continually reinforced. The curriculum must be continuously updated to provide for the growing issues of global warming and energy production.

This focus on environmental studies should continue on to high school as a topic integrated with all others. Many high schools already offer Environmental Studies and Environmental Science courses but most lack any classes that focus on sustainability and

sustainable development. Incorporating sustainable concepts in business and vocational courses are examples of what could be done to show that these issues are not exclusive of other aspects of life. Before graduating from high school, students should be able to grasp the concept of sustainability and have an idea of how to apply it to their future ventures, and will serve as a reminder of their responsibilities as adults.

A strong and focused educational program in New Jersey will lay the groundwork for a sustainable future, but this needs to be outlined more clearly in the Energy Master Plan.

Additionally, schools can take action to reinforce lessons of sustainability. Some suggestions include:

- Permanent recycling programs in schools.
- Studies on carbon dioxide in our atmosphere can be linked with the planting of trees in the neighborhood.
- Studies on energy conservation can be linked with a demonstration of compact fluorescent light bulbs.
- Alternative energy studies can include trips to locally solar-powered houses or buildings, or even a wind farm.

It is also important to educate those outside the school system. While children may be the hope for the future, change needs to begin now. The only way that this will come about is to spread public awareness throughout New Jersey communities about the state of the Earth and what we need to do to restore it. This can be accomplished by holding "Green fests," a growing trend throughout some areas. At such events, there are stands promoting green technology, lectures that discuss the many different areas and benefits of going green, pamphlets and useful websites that spread knowledge, documentary videos which have a phenomenal impact on the audience, and games for children that also educate.

Individuals need to understand that there are ways to conserve energy without it taking a drastic toll on their lifestyle. When they realize that they can do this, and often save money, they will be much more amicable to the idea of conservation. The citizenry needs to be educated about how this can be accomplished.

For example, green building simulations using computers can be extremely effective in informing the general public about the amount of energy a structure uses all year round, and existing options to reduce energy consumption. These simulations integrate a live building design with a 3-D model that analyzes and assesses solar, thermal, shadows, energy design, lighting, energy/building regulations, acoustics, airflow, and cost and resource performance.

As has often been said, we need to think globally and act locally. By spreading awareness and education in numerous areas, more communities will begin their quest for change through their own actions, armed with a greater knowledge of what will work best in their areas. The Energy Master Plan must outline a way to educate *all* citizens,

regardless of age.

Additional Roles of Government

The EMP draft states, “New Jersey residents will be provided with clean, affordable and reliable energy sources.” Selling and promoting renewable energy is a challenging process. The government can play essential roles by contributing to the above education efforts, goal setting, coordination and providing a focus, and setting an example by its own actions. The result will be a general public increasingly confident in using clean technologies.

Matt Elliott, Energy Advocate for EnvironmentNewJersey, has said that “in order to promote highly efficient homes, buildings and appliances we need to cut our energy demand by 10% below today’s levels.” This is beyond the current State goal, and is not an easy task. But it certainly is feasible and its achievement would lessen the difficulties of many other challenges.

Besides the ambitious and noteworthy plan to retrofit the State’s existing buildings, the proposed revision to the state’s existing building codes for homes and commercial buildings should stretch beyond the specified 30%.

The State should have an interdepartmental Renewable Energy Integration Committee to focus government’s efforts and promote the use of renewable energy in all major localities of the state such as Trenton, Camden, Atlantic City, Newark, Jersey City, and Hoboken. The Energy Master Plan should discuss the need and the importance of a coordination effort of this sort to do what they can to ramp up demand, and ensure supply bottlenecks are overcome. Their overall mission should include seeking to get the price of renewables down. Once established, the group should meet regularly to discuss progress and quickly resolve issues.

A main message of the Committee’s communications should be that renewables will become more affordable, and probably cheaper in the long run, and far less volatile than the fossil fuels once used universally in the state.

The state should take the initiative and demonstrate their own use of renewable energy sources such as building-integrated photovoltaics. The EMP states that the Regional Operations Intelligence Center receives one-third of its electricity needs from photovoltaics. This fact should be asserted and publicized to serve as proof of solar’s capabilities. The state should lead by example and install photovoltaics on at least one-quarter of the 4000 buildings that it owns.

Conclusions

Industrialization has ushered in an era of prosperity and comfort. Understandably, it will not be easy to make the switch from an economy that revolves around fossil fuels to one that is eco friendly. It must be stressed, however, that this is a necessary and

inevitable change. Fossil fuels prices are held hostage and are vulnerable to the ever present threat of violence in politically volatile regions. Global warming is the issue of our times. The NJBPU must successfully implement the measures recommended in the EMP, as well as take into consideration the above-mentioned suggestions.

Michael Maniates, professor of political science and environmental science at *Allegheny College*, wrote in, *Going Green? Easy Doesn't Do It*, "Never has so little been asked of so many at such a critical moment." He also asks: "Why do we treat people like children?" We need to realize that actions, and not just the little ones, must be taken before it is too late. It is time for New Jersey to take its leadership on renewable energy to the next level, regardless of the initial opposition by political and other actors.

Given our ambitious, but necessary goals, the urgency of meeting them, and our responsibilities to future generations, we have a daunting journey. Let's not fool ourselves. But perhaps it will make the challenges towards sustainability more bearable if we remember that it could also be economically beneficial as we build up attractive green technologies, enhance the State's pride as we help show New Jersey's critics that we're more than a Turnpike joke, and set a contagious example for others. And perhaps the journey will prove personally rewarding to many New Jerseyans as we discover our roles in meeting the challenge.

Your time and consideration of our ideas and comments are much appreciated.

If you wish to contact us for further clarification, you can reach us through our professor, Matt Polsky.

Regards,

Ramapo College of New Jersey's *Energy and Society* Class (Spring 2008).