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*Via Email and Regular Mail*

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I represent the New Jersey environmental lobby (NJEL). NJEL is a statewide environmental organization representing individuals, businesses and other environmental groups. It has been advocating for New Jersey's environment since 1969. Please accept the following as NJEL's comments to the draft energy master plan.

The energy master plan has set forth five overarching goals that the state should proceed in planning its energy needs. Those goals are admirable and if truly applied in this energy master plan NJEL is confident that renewable energy and energy efficiency would provide a much greater role than the 2011 energy master plan sets forth. Specifically goal four provides that "New Jersey should continue to encourage the creation and expansion of clean energy solutions while taking full advantage of New Jersey's vast energy and intellectual infrastructure to support these technologies." This, as will be noted below, continuing with the aggressive goals of the 2008 EMP is one of the best ways to encourage the creation and expansion of NJ's sustainable economy. The 2011 energy master plans pedestrian renewable energy goals will not accomplish goal number four.

The number one goal of the energy master plan is to drive down the cost of energy. The energy master plan unfortunately will have little to no effect on the true cost of energy in New Jersey. By reducing New Jersey's renewable energy portfolio standard from the admirable goals in the 2008 energy master plan and by softening energy master plan focus on energy efficiency this EMP will not reduce costs. This EMP is doing the equivalent of tinkering with the copy paper budget of a business to drive down costs instead of the addressing the expenses that make up the bulk of the costs. This EMP

may save pennies it will do nothing to address the true costs and in fact will the long run make New Jersey's energy future less secure and more expensive.

The energy master plan provides" the goal of fulfilling 70% of the state electric need to clean energy sources by 2050 may be an aspiration, but it is one that is achievable if the definition of clean energy is broaden beyond renewables to include nuclear, natural gas and hydroelectric facilities." The New Jersey Environmental Lobby strongly objects to any definition of renewables that includes nuclear and natural gas. <sup>i</sup> These technologies are not clean technologies. They may be cleaner than some of the alternatives but they still produce emissions and other pollution related to the sources of energy. We are supportive of the EMP statement that coal is no longer a viable source of energy for new plants in New Jersey. We urge the administration to move forward with regulations and legislation to implement this policy statement.

Present Solomon at least two energy master plan hearings in which I attended asserted that this energy master plan was not a rollback New Jersey's commitment renewable energy. This assertion does not reflect the facts as laid out in the EMP. The 2011 energy master plan rolls back New Jersey's renewable energy goals from the 2008 energy master plan. We do note that the EMP's goals are consistent with current law. The role of the energy master plan is not merely to mimic legislative requirements but to set forth:

a master plan for a period of 10 years on the production, distribution, consumption and conservation of energy in the state. Such plan shall be revised and updated at least once every three years. The plan shall include long-term objectives which provides the in term implementation of measures consistent with the objectives." NJSA 52:27F -- 14 (B).

There is no requirement in the statute to mimic current law. In fact, given the timeframe to which the energy master plan is to look towards it would be illogical to require the energy master plan to merely comply with current law. It is authorized and should create new policy. The energy master plan should inform the state, its utilities and its government on how the state best proceeds towards its future. The legislature may then, in appropriate circumstances, amend laws or create new laws to help the state meet these objectives these goals. If the energy master plan statute merely required the state to figure out how to meet current law that would have been the dictates of the statute. To restrict the energy master plan to current law is lacking foresight and will in the end cause New Jersey to lose it leadership role.

Contrary to the position taken by the Governor and this EMP, a RPS of 30% by 2021 is not pie-in-the-sky. To the contrary it is achievable in New Jersey. As evidence of this other states have targeted more aggressive targets than what current law provides and similar to that which is called for in the 2011 EMP. For example, Oregon increased its RPS from 20 to 25% by 2020 and is requiring 40% of its energy from renewable sources by 2030. California has a 33% renewable coal by 2020.

Maine is an example of what a state can do with renewable energy. Maine **currently** receives 49.8% of its electricity needs from renewable sources. While Maine receives 25% of its electricity from conventional Hydro, the rest is comprised of other renewable sources. Maine already gets almost 25% of its electricity from wind, sun and other renewable sources. If Maine already received 50% of its electricity needs from renewable sources, New Jersey can certainly achieve 30% of its energy needs from renewable sources by 2020. If we set forth the right goals and back them up with the right policies there is no reason NJ cannot achieve what Maine currently doesn't.

Another good example is California. As noted above California has a goal of receiving 33% of its energy needs from renewable sources by 2020. California currently gets 24.7% of its energy from renewable sources. While 15.4% of the total is currently from conventional Hydro. Geothermal made up 3% solar made up 0.7% wind made 4% wood/wood waste made up 0.5% and other biomass made up 0.1%. California is #1 in solar installations followed by NJ.

Texas is another good example for is currently being done. Texas currently receives 10% currently of its electrical needs from renewable sources, 0.7% is from conventional Hydro. Only slightly ahead of what New Jersey's conventional Hydro production is. The remainder of the Texas energy comes from 9.1% wind, 0.2% wood waste, 0.1 municipal solid waste landfill gases. Texas receives almost no energy from solar. It's also interesting to note that Texas receives more renewable energy than we do yet is a bastion of fossil fuel production. They are number four in a country in receiving energy from renewable sources.

The state ranked fifth in renewable energy is New York. They currently receive 24.1% of their energy needs from renewable sources. While they do have 20.7% of their electricity coming from conventional Hydro they also had negligible solar. NY receives 1.7% of their energy needs from wind 0.4% from wood waste and 1.3% for municipal solid waste biogenic/landfill gas. Again New Jersey has a leg up in that it receives more energy from solar.

So, the 2008 EMP goals of 30% renewables are achievable.

NJEL is concerned by the EMP's discussion of cost-effective of renewable resources. As will be discussed further, renewable energy provides not only significant environmental benefits but economic benefits as well. Those benefits and those costs must be weighed equally between renewable energy as well as traditional fossil fuel generation. This draft EMP does not meet those requirements. We strongly urge the EMP to be revised to put the same cost benefit analysis test to all sources of energy. Further the cost-benefit analysis must take into account the true costs of all energy sources. For example coal has a significant cost to society.

As the EMP notes we get electricity from various sources: 55% from natural gas, 22% nuclear, and 11% from coal. 2011 EMP page 23. We only get 40% of our energy from in state sources. The remainder of our energy comes from out of state generators. To the extent these imports are from coal fired plants, we are importing not only unnecessary fossil fuels but dirty power. NJ is in a non-attainment area for air pollution. Depending where in the state, NJ is non-attainment for 8-Hr Ozone, PM2.5, and SO2. That is pollution we invite into our state by our energy usage. That is pollution that we will not be able to prohibit without an aggressive plan to replace the dirty fuels source with clean instate renewable energy and energy efficiency. The cost of coal can be significant. According to the Union of Concerned Scientists, one 500 megawatt coal fired plant produces enough global warming emissions to be equivalent of 600,000 cars. Research performed by Prof. Paul Epstein, M.D. suggests that the true costs of coal or cradle-to-grave that actually \$500 billion per year. These costs are comprised of \$74 billion a year in health care, deaths and injuries from coal mining and transportation to the Appalachian communities where a vast portion of our coal is sourced from. Additionally, \$187 ½ billion dollars in health costs from cancer, lung disease and respiratory illnesses arising out of the air pollution caused by the burning of this fossil fuel.<sup>ii</sup>

Further the EMP's suggestion that natural gas is a clean energy ignores the cost of extraction especially the cost of extraction related to hydrologic fracturing. The plan further assumes that hydrologic fracturing will continue in its current form without additional regulation or other restrictions. Given the environmental effects of fracking this is unlikely. Also, studies have shown that fracking is not an efficient manner to obtain natural gas.

The EMP is also devoid of any plan on how to reach the goals set forth in the EMP. The EMP statute provides that the EMP should, "provide for the interim implementation of measures consistent with said objectives." NJSA 52:27F-14(b). With the exception of

the EMPs reference LCAPP the plan does not set forth a road map to achieve its goals. The EMP fails in this goal. There is little in the plan to account for the retirement of 654 MW of capacity by 2013 or the retirement of Oyster Creek in 2018.

Further the EMP notes that New Jersey has been chronically short SREC short. This has not been, as noted below, the current situation. While solar renewable energy has been successful recently we strongly disagree that the "goal of incubating solar technology has been met." Given all the benefits of solar energy has from environmental, reduction in peak demand, and economic benefits solar technology a need to continue to be incubated. With that being said we do not disagree that the SACP should be reduced so that the differential between the SREC and SACP price is reduced.

The EMP further notes that "the Christie ministrations does not support the unreasonable transference of wealth from ratepayers at large to solar developers as well as residential, commercial and industrial participants. To avoid the creation of a financial albatross." This statement shows a lack of understanding of the benefits renewable energy. Further given the energy master plan's desire to support combined heat and power similar statements can be made as to combined heat and power. Statements may actually be more applicable to combined heat and power as a much smaller subsection of New Jersey's residents and businesses could benefit from the grants for combined heat and power. Further given that utilities are able to charge stranded costs to recoup their investment in those stranded costs are a large portion of New Jersey's ratepayers bills a financial albatross is not renewable energy. The energy master plan should remove the language in the biases against renewable energy.

The EMP notes the New Jersey's retail electric rates remain among the most expensive in the nation without fully analyzing the reasons for those costs. The suggestion in the EMP either implicitly or directly assist those costs are the result of the state support for renewable energy given that the cost of renewable energy is but a miniscule fraction of the overall cost paid by New Jersey ratepayers that implication is false and misleading.

Reduce support a mix of large as well as small scale renewable energy systems and we support the EMP's recognition of the importance of both kinds assistance to the energy future of New Jersey.

EMP notes that cost-effective conservation and energy efficiencies goals of 20% must be modified. EMP notes "changes since the 2008 EMP require" this modification. We strongly urge the board to reconsider this position. Energy efficiency is the most cost effective method of reducing the overall cost of energy New Jersey. The cheapest energy

is the energy we do not use. Further as noted by the New Jersey Business Industry Association in their December 28, 2010 newsletter as well as in multiple testimonies throughout the years "the return on investment for commercial and industrial projects is \$11 for every one dollar invested."<sup>iii</sup> That \$11 but is saved by businesses in New Jersey from their utility bills could then be re-spent in New Jersey to improve facilities, expand product lines, expand the workforce and otherwise reinvest into their businesses. This would have a dramatic economic impact on the economy New Jersey.

We also strongly support the EMPs statement that "New Jersey will lead by example and continue to improve EE of state owned and operated buildings." This will also have the added benefit of reducing the cost of government.

In general NJEL supports the development of innovated technologies; but we do so with caution. We have learned the lessons of unbridled support without a full look at the impacts. For example, ethanol was touted as a benefit. Subsequent research has shown that ethanol may actually be more harmful than beneficial. We support the use of plug-in electric and electric hybrids and we believe that the EMP should set forth policies to encourage the growth of plug-in electric and electric vehicles. The EMP should clearly state support for creating tax incentives for the installation of electric charging stations, sales tax reduction for the purchase of hybrid, plug-in hybrids, and electric vehicles. The EMP should also lay out the State's plan to purchase these vehicles for their own use and the installation of charging stations to encourage the adoption of these vehicles. As the EMP notes under energy efficiency, the State should lead by example. This is absent from the energy master plan. In fact there is no real road map for reducing NJ's energy usage in the transportation sector. This is a large oversight and should be addressed in the final plan.

It is not reasonable for the plan to assume that traditional generation will step in to fill the void. As noted in the EMP, new generation in New Jersey has not been forthcoming as would have been expected. Therefore it is not reasonable to assume that new generation will be coming into the state especially from traditional generation plants. The EMP also does not account for the time it takes from a plants proposal, design, permitting, construction and full operation. Distributed generation in particular renewable energy is much cheaper and can be put up in a more rapid timeframe. Thus meeting NJ's short term energy needs. As noted by the EMP on page 27 the cost of energy New Jersey is high, in part, because of constraints on transmission. Distributed generation, including renewable energy, does not have to deal with constrained distribution lines because they are being sited close to the source of the need.

The EMP notes that New Jersey's RPS is one of the most aggressive in the US. Why this at one time may have been true New Jersey is falling behind. As noted above several states have a higher RPS requirement than New Jersey. Given that the EMP is backing off of the 2008 goals for renewable energy we have abdicated our leadership role in the country. This will have environmental as well as economic impacts.

Given the recent experience with the reduction in SREC prices the EMP statement that the Solar Advancement Act insulates the solar industry from market conditions is inaccurate. Further the statement that the SDAFCA guarantees high and expensive subsidies for solar in good and bad economic times is also accurate. As the SREC prices have dramatically reduced from a high of over \$600 to around \$250 this statement is inaccurate. Solar Advancement Act sets the stage for increasing the demand for solar energy thus helping to drive the market and to continue to grow the industry. This growth will provide significant environmental and economic benefits.

The EMP in several locations discusses the unfair costs associated with renewable energy but the costs as reflected in table 3 on page 48 of the EMP reflects that even assuming all of the societal benefits charges go to renewable energy at the cost of renewable energy and energy efficiency programs is 3.8% have an average residential monthly bill. There have been those have suggested that the costs associated with renewable energy has been inflating given current conditions. Additionally, there no discussion on how the raiding of the funds to pay the State's debt has impacted the growth of renewable energy and artificially increased its costs. Further is no discussion that the DGS subtotal comprises almost 61% of the average residential monthly bill. The energy master plan and its goal of reducing the cost of energy to everyone should be addressing how to reduce those components of electrical generation that has the most impact on rate payers, not the least.

NJEL supports the EMP's acknowledgment that programs lower prices to all ratepayers. But the EMP has gone to great lengths to discuss the cost of renewable energy and energy efficiency that the EMP should set forth the benefits of renewable energy and energy efficiency programs including its impact to reducing peak demand generation costs as well as the health benefits of reducing air pollution. We also strongly support the recognition in the EMP that US energy policy has long subsidized conventional energy technologies. We do note the complete lack of the discussion in the in EMP that these subsidies is albatross are right financial transfer of wealth. We also note that the EMP does not require conventional fossil fuel generation to undergo a net benefits analysis.

The EMP statement, "the Christie administration's pursuit of environmental goals does not subordinate other worthwhile resource clinical Center reliability economics," reflects a misunderstanding of the benefits of renewable energy and environmental protection. Further the statement in EMP that "encouraging employment numbers environmental stewardship are laudable but often competing objectives" given renewable and energy efficiencies higher employment rates per megawatt that traditional fossil fuels and given the states reliance on porous him as one of the top and issues in New Jersey in the state protecting the environment is in the economic benefit of the state.

We are somewhat confused by this statement that "over the EMP planning cycle, New Jersey should craft a vision of the state's long-term clean energy goals through a stakeholder process." Pursuant to the statute the EMP should be the state's long term goals for energy. Any stakeholder process that occurred prior to distract EMP was wholly deficient as acknowledged by this document. We also note that while the EMP has gone to great lengths to talk about the unfair high price of energy New Jersey he does very little to discuss on how it will reduce those costs.

While it is recognized that natural gas generated electricity is less polluting than other fossil fuels, and not taking into consideration the methods of extraction, the energy master plans reliance on 1945 MW of state-of-the-art cc plants by 2016 is overly optimistic. Given FERC rejection of the LCAPP Statute and the fact that plants are currently in the permitting phase is highly unlikely this additional capacity will be brought online by 2016. The energy master plan does not acknowledge this possibility and plans to deal with it.

NJEL strongly disagree with EMP statement that the state cannot achieve its 2050 greenhouse gas reduction goals without nuclear technology. Germany in March of 2011 announced the goal to receive 100% of its energy needs from renewable sources. Additionally Germany announced its directive to move away from nuclear power. Germany currently receives 16% of its energy needs from renewable energy.

The EMP's discussion on distributed generation in combined heat and power does not acknowledge that renewable energy is a source of distributed generation. That being said NJEL is supportive of increasing distributed generation which will help reduce congestion as well as increasing use of combined heat and power especially from clean energy sources. We do note that while the EMP disagrees with "wealth transfer" for renewable systems it seems to support the same wealth transfer for cogeneration combined heat and power. If alleged wealth transfer to support renewable energy is bad than wealth transfer to support a mature industry is equally bad.



The energy master plan while discussing wind energy sets forth no plan on how to achieve even the modest goals presented by this energy master plan. Other than note the New Jersey's OW the DEA will do the job. Unlike the 2008 energy master plan the 2011 draft plan has no discussion on shore wind development. According to the national renewable energy laboratory New Jersey has the potential for hundred and 31.8 MW onshore wind with an annual generation of 373 GW.<sup>iv</sup>

While it is accurate to that the 2008 energy master plan called 4000 MW offshore wind generation by the end of 2012 and we will not be meeting that goal. It is less important that the time frame be met than that the goal is acknowledged and plans are set forth to help the State ultimately reach that goal.

Biomass potential in New Jersey.

As noted in the EMP, there is 8.2 million dry tons of biomass annually available for energy generation. NJEL supports the use of biogas and methane from landfills. Further the use of food scraps and agricultural waste for energy generation will likely be a net benefit. Given New Jersey's tight land resources and land resources valuable use for carbon sequestration as well as for food production the conversion of farmland or land to produce biomass. Therefore, NJEL supports the EMP's statement to this effect. NJEL is not convinced that adding additional waste to energy generation from residential and industrial waste is a sound practice. Given that this practice will release into the atmosphere and our land toxic pollutants and heavy metals this is not a generation source that should be encouraged. Further by treating these materials as a commodity to be used in waste energy there will be a competition for recycling and reusing these materials which is a much better use of resources.

The energy master plan sets the goal that renewable energy must meet a cost-benefit analysis. The problem with the 2011 draft energy master plan is that it does not apply the cost-benefit analysis to all of New Jersey's fuel sources just a select few. Further it uses outdated and inaccurate data as to the costs of renewable energy. It does not take into the consideration the cradle-to-grave costs of fossil fuels. As noted by Dr. Paul Epstein the full lifecycle cost of coal is a partially \$500 billion per year. Renewable energy does not have that impact.

It should also be clear that a renewable portfolio standard cannot be a true renewable portfolio standard natural gas or nuclear powers are included as a Tier 1 source. Neither one are renewable. Both sources of energy have significant emission issues.

The energy master plan mentions Hydro kinetic renewable energy sources. In fact the EMP notes that the use of just 1% of shoreline can support roughly 500 MW of clean renewable energy. Thus replacing one 500 MW coal-fired plant and its roughly 600,000 cars of global warming emissions and other health-related costs. The plan does not set forth any goals for Hydro kinetic energy. New Jersey is home to Ocean Power and Pennington, NJ Company that is in the forefront of the systems. This is an ideal situation in which we can help meet our energy needs as well as encourage economic development in New Jersey. Researchers believe that up to 10% of America's electric power needs to be met from Hydro kinetic power. Unlike the alleged drawbacks to wind and solar Hydro kinetic energy is predictable and constant. According to a 2010 article Canada was investing \$75 million for three pilot projects. There's no discussion of the energy master plan of the Maurice River tidal energy project which is plotted to provide 3 MW of power. Further there is no discussion of Natural Current Energy Services LLC's February 2011 report "developing in New Jersey statewide title energy system: preliminary assessment of sites and site factors" this report sponsored by the New Jersey Department of transportation and UTRC. The report indicates that title energy provides ideal base load capabilities and would therefore be a good supplement to a robust solar and wind platform. The energy master plan should set forth a goal which New Jersey should strive to meet. Further the energy master plan, as required by statute, should set forth steps that New Jersey will undertake to help achieve these goals. New Jersey should set forth how it is going to spur development of Hydro kinetic energy.

Wind power is not newfangled or unachievable. In particular offshore wind is a well-established technology in Europe is being aggressively pursued in China. In New Jersey wishes to continue to be a leader in renewable energy in my step up to the plate by setting a goal of offshore wind to be reused by New Jersey and then set forth steps the New Jersey's going to undertake in order to help achieve this goal. Merely indicating that the offshore wind energy development act has been passed is not a sufficient in terms plan.

The EMP is supposed to be revisited and revised every three years to account for the changes since the last EMP. The EMP's are supposed to look out for a ten year period. This EMP is not a revision but a brand new one. This 180 degree reversal on some issues is detrimental to achieving the goals of the EMP or from NJ achieving the goals in current law. In recent years NJ has, intentionally or unintentionally, has made policy signals that discourage investment in renewable energy and energy efficiency in NJ. NJ has raided the Clean Energy Fund. NJ has disbanded the Climate Change Division from within the Department of Environmental Protection. NJ has declared it's withdraw from RGGI. This EMP declares solar pv's as too expensive.<sup>v</sup> The renewable energy markets do not respond well to uncertainty. For example, when the Production

Tax Credit was about to expire for wind energy the market showed a dramatic response. The wind energy market undergoes a boom and bust cycle. According to the American wind energy Association the frequent on-again off-again cycle involving the production tax credits has led to uncertainty and discouraged long-term investment in wind power manufacturing and development.<sup>vi</sup> The constant shifts in the PTC from expired to renew as in fact decrease the effectiveness of investment in renewable energy causing increasing cost of materials and services. Some commentators have suggested this has also impacted the domestic manufacturing facilities. More long-term policy signals will have a stronger and less detrimental effect is inconsistent and contrary signals that the state of New Jersey has given over the recent years. The industry and its customers ramp up to install systems before the PTC expires and then there is a large lull while either the uncertainty is resolved or the industry can plan again for future installations. This is not good for the industry and it is not good for the market.

NJ needs to send a consistent, long term message that it is not only supportive of renewable energy but that it is committed to be a leader in renewable energy. If NJ sends the right message NJ will benefit from a cleaner generation portfolio, cheaper electricity prices, a cleaner environment and a growing, robust green economy. "The extraordinary worldwide growth in clean energy investment over the past five years has been defined by simple fact: we're supportive clean energy policies are adopted, investment follows. Time and again, it has been shown the nations with the strongest policy frameworks have attracted the most capital and enjoy the associated economic benefits, including job creation."<sup>vii</sup> Global clean power: a 2.3 trillion opportunity, P. 33 The economic benefits of renewable energy and energy efficiency are also very important. While the energy master plan does not discuss the goal of creating a sustainable economy or improve New Jersey current economy renewable energy and energy efficiency is poised to help the state recover from the recession at the same time as it helps reduce energy costs. "Renewable energy creates more jobs per unit of energy and coal and natural gas; aggressive development renewable projects could yield over 4 million full-time equivalent jobs years by 2030"<sup>viii</sup>

We see what aggressive solar renewable energy policy can do. Even though New Jersey as transition from a rebate program a number of installations in New Jersey has increased in part in large part due to the solar renewable energy credit values. New Jersey must ensure that it once again reemphasizes its commitment to solar photovoltaic and put in place the market mechanisms to once again attract large-scale investment in the industry. According to the middle and make solar energy industry Association and its submissions to the board, "the current construction is substantially higher than is called for in the RPS law and with current rate of acceleration proposal generation installed will blow past the RPS requirements and less than 10 months." The solution to the problems posed by supply stripping demand is to create more demand.

The demand in this case created by the renewable portfolio standard. And instead of creating additional demand this energy master plan is reducing demand. Is reducing the demand from the proposed 30% found in the 2000 and 2008 energy master plan two is currently required by law. This current requirement has been and will be exceeded. The solution is not to keep static their requirement but as in the 2008 energy master plan sends policy signals that demand will increase.

Lastly we note that President Solomon on at least two of the EMP hearings noted it was not BPU's authority to set policy by encouraging additional RPS over what current statute provides. We strongly disagree with his position and JS a 48:3 -- 87 (D.) provides that it is within the power of the board to set RPS goals. Further the energy master plan is to create the policy for the states future and therefore under EMP statutes is in fact the EMP commission job to create policy.

We strongly urge the BPU to revise the 2011 EMP to maintain the goals found in the 2008 EMP. The 2011 EMP should not abandon those goals but should revise them to account for the delay in some of its implementation and should set forth a plan to encourage the State to meet those goals.

Very truly yours,



Michael L. PISAURO, JR.

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<sup>i</sup> 2011 Draft EMP at 3.

<sup>ii</sup> Paul Epstein, M.D. "Full Cost Accounting for the Life Cycle of Coal, *Annals of the New York Academy of Sciences*, Feb. 17, 2011.

<sup>iii</sup> NJBIA's Weekly Newsletter dated December 28, 2010, downloaded on July 26, 2011.

<sup>iv</sup> energy efficiency and renewable energy, US department of energy, New Jersey when mapping resource potential downloaded from [http://www.windpoweringamerica.gov/wind\\_resource\\_maps.asp?stateab=nj](http://www.windpoweringamerica.gov/wind_resource_maps.asp?stateab=nj), August 24, 2011.

<sup>v</sup> 2011 Draft EMP at page 74.

<sup>vi</sup> Erin Dewey, "some down and you better take care: why sunset provisions on the renewable energy industry and violate tax principles", *Boston College Law review* by and 5201 105, 1127 (2011) citing American wind energy Association, wind energy for new error: an agenda for the new president and Congress to "2009), available at [HTTP: \www.newwindagenda.org\documents\Wind\\_Agenda\\_Report.pdf](http://www.newwindagenda.org/documents/Wind_Agenda_Report.pdf)

<sup>vii</sup> Global clean power: a 2.3 trillion opportunity, P. 33

<sup>viii</sup> Erin Dewey, "some down and you better take care: why sunset provisions on the renewable energy industry and violate tax principles", *Boston College Law review* by and 5201 105, 1110 -- 1111 (2011)