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January 5, 2009

Mr. Lance R. Miller - Chief of Policy and Planning  
Mr. Michael Winka - Director, Office of Clean Energy  
New Jersey Board of Public Utilities  
Two Gateway Center  
Newark, NJ 07102

Gentlemen:

Thank you for the opportunity to introduce some ideas that we hope will contribute to the design and implementation of the proposed Offshore REC ("OREC") program.

Properly structured, a New Jersey OREC can be an effective stimulus to the entire offshore wind supply chain – helping to provide green manufacturing and service jobs and long-term certainty about energy prices to electricity ratepayers in New Jersey while directly supporting the goals outlined in the new Energy Master Plan. We appreciate the care that the BPU and staff have taken in summarizing key issues in the October 23 order, and in creating the stakeholders process including the most recent December 11 meeting which gives rise to this letter.

The purpose of this letter is to summarize what we consider to be principal areas of opportunity and concern. Please accept this letter as general input requested by January 5<sup>th</sup>, which we expect will be further elaborated during the course of discussion at the January 13<sup>th</sup> meeting and additional subsequent written input. We plan to approach this process based upon:

- Our experience with renewable energy project development tempered by an appreciation of the difficulty involved in deploying a new technology in a new market;
- Familiarizing ourselves with the initial views of other stakeholders starting with the December 11 meeting
- Engaging recognized energy economics and banking advisors to assist us in integrating those views with priorities of our proposed project, to arrive at a specific set of recommendations encompassing the areas of concern identified below;
- Discussing those recommendations openly, with a view towards participating in the BPU staff's process towards formulating a recommendation for the BPU commissioners.

We believe that the OREC program should be analyzed and planned with at least the following four areas of opportunity and concern in mind:

1. ***Price and volume structure of the OREC itself*** – i.e., the “trading range” of the OREC instrument over time, how many ORECs would be created and how, and the mechanism by which they would be purchased.
2. ***Price-determination mechanism*** – i.e., the mechanism by which components of the price that are not “market-driven” would be determined or negotiated.
3. ***Key dollar numbers*** – i.e., the “absolute dollar levels” that are required in order to make offshore wind energy a feasible, long-term, near-fixed-cost/price energy alternative for New Jersey.
4. ***Financeability and “revenue certainty”*** - i.e., the elements of structure that are needed to make the OREC instrument “bankable” and thus reduce project costs and ultimately, electricity prices themselves.

The challenge for all stakeholders who want to see offshore wind developed at the risk of private actors (and the finance-providers needed to support them) is to achieve these goals within the framework of existing New Jersey statutory authority.

### **1) Price and volume structure of the OREC itself**

Every renewables generation modality – solar, geothermal, wind, offshore wind – has a steep cost road to climb. The principal competitor – generation by fossil fuels like coal or natural gas – benefits from years of mastering the learning curve and developing economies of scale, as well as heavy direct and indirect public subsidies that are beyond the scope of this letter to enumerate but are well known and are easily documented. Any *new* renewables modality faces a particularly steep road, because it not only has to overcome the economics of the subsidies to the traditional energy generators, but also has to capitalize and create an entirely new supply chain and develop sufficient build-out volumes to generate economies of scale, not currently available to renewables in New Jersey, such as offshore wind.

Despite the fact that “offshore wind” contains the word “wind” in its name, in fundamental ways it is an entirely new generation modality – and thus faces this particularly steep road. Its construction and foundation requirements differ radically from onshore wind and will require mobilization by parties not currently “at the table” of specialized marine vessels and tens of millions of dollars of other construction capabilities that do not exist today. Its interconnection methods differ, it “scales” differently, and the turbines themselves are different.

Over time, offshore wind can offer particular benefits of scale due to proximity to a densely populated, high load, but renewables-poor state like New Jersey.

*Acting in offshore wind at the current early stage can give first-movers – like the State of New Jersey – an opportunity to seize a leading position in the supply chain, and thus in local job creation. Given this potential, and given the potential that offshore wind can provide for large amounts of renewable electricity offering relatively high price stability over long periods of time, it is appropriate and can be beneficial for New Jersey electricity customers and ratepayers to help “jumpstart” the industry – provided that potential benefits are appropriately shared with those customers and ratepayers.*

As discussed in point 4 below, revenue certainty is one of the key attributes of the OREC program that will be necessary to commit bank financing. A minimum price floor is one tool to use to help achieve this goal. A fixed OREC price would be another.

As for volume structures – from the developer’s point of view, commissioning timetables are subject to numerous external factors – e.g., development of a permitting regime, construction seasonality, weather, finance market conditions, delivery of hardware, availability of key construction assets such as jack-up vessels, and so on. For the OREC program to work and to contribute to financeability by lenders and tax-oriented investors, a developer would need certainty that it could sell all the ORECs that its New Jersey project generates, while not being financially liable for shortages of ORECs arising from commissioning delays, wind shortfalls, or other factors.

At present, we believe that a 1,000 – 1,200 MW OREC set aside commencing in 2011-2012 is appropriate. To develop and maintain a competitive market, no one company should qualify for more than 350 MW of this initial set aside.

OREC quantity targets should be nominally above the annual minimums in the BPU conceptual handout. We believe that the state and the developers will greatly benefit from the experience of building the first three projects totaling about 1000 MW. We believe the second phase of development should be a second carve out to cover the 1000 MW to 3000 MW tranche of construction, scheduled to be built by 2020.

A lag in time between the initial 1,000 MW OREC carve out program and a second escalation to the 3,000 MW target may be constructive, for a number of reasons. First the state will need to monitor and evaluate the environmental performance and impacts of the first installations. Second, the state will need to confirm that ocean zoning and planning processes are fully implemented. Third and perhaps most importantly, the financial experience and changes in energy price environment and/or evolution of and scale efficiencies in the emerging offshore wind supply chain may mean that the second tranche of OREC carve out, 1000MW to 3000MW, could potentially be at lower prices and could bring savings – presently of unknown and unknowable magnitude -- to the ratepayers.

It is essential that New Jersey ORECs are attributed only to NJ projects, which could be defined as projects that have their electrical interconnection in New Jersey.

## **2) Price-determination mechanism**

We believe that a variety of potential directly negotiated or “bid” mechanisms could potentially work. For the purpose of the preliminary discussion in this letter, would note two concerns that should be taken into account when developing the mechanism:

- It is important that actual implementation of this price determination process occur soon enough so that developers are not exposed to millions of dollars of development costs if the numbers that result from the price-determination process are too low, but also late enough in the development process that project engineering and procurement costs can be as specific as possible.

- We have an overriding concern about the impact that the price-determination mechanism can have on the schedule of the proposed three respective projects, and in turn on their respective cost and feasibility. We heard suggestions at the recent December stakeholders meeting of a bidding process that engages projects intended to be commissioned at roughly the same time, to determine OREC price. In principle, we have no objection to competitive mechanisms anywhere in our business. In the case where no one has successfully built an offshore wind farm in the US, care should be exercised in creation of any price-determination mechanism based on “low bid” auction process, as a ‘low bid’ system likely will assure that no bank will finance construction. In general, we would recommend instead a ‘calculated’ OREC program based on a formula of costs so that all parties will be assured of the viability of the projects. Moreover a calculated OREC program would encourage the cooperation of all parties – the state and the developers. In this new industry, where infrastructure and supply chain need to be created from scratch, cooperation may well lower costs more than competition. We would consider discussing with the BPU and other stakeholders, the possibility that the New Jersey public, New Jersey green employment, and ultimately New Jersey tax revenues would benefit by fostering specific arrangements that maximize the ability of – and indeed induce -- the respective developers to coordinate their requirements and thus offer a rational and long-term unfolding of investment opportunities in New Jersey-based offshore wind supply chain.

### **3) Key dollar numbers**

It is of paramount importance that the total revenue stack (including the OREC price) will be finalized on schedule in 2009 and will be high enough for us and other developers to justify the about \$30 million of up-front development, engineering, wind-resource, and permitting risk in which we are currently engaged. Moreover the OREC price and total revenue stack must be high enough to provide sufficient rates of returns to all levels of capital investing in the project including the risk of building and operating a facility and – most importantly – enable lenders to provide the \$billion-plus amounts of capital that will be needed to construct the project.

### **4) Financeability and “Revenue Certainty”**

We are identifying this issue as #4 in the list, but in fact, in our view, this is by far the most important of the four issues. Resolution of this matter is difficult due to that fact that the parties needed to achieve resolution (the banks) are not at the table, the projects are not yet developed and ready for financing, and the financing community is currently in disarray. Therefore the OREC program must be structured with limited knowledge of what the banking community may ultimately require.

When stakeholders discuss the “cost” of offshore wind projects, what they usually have in mind is the “left side” of the project’s balance sheet – i.e., the cost of turbines, foundations, grid interconnections, and other physical assets. Of course, the total dollar magnitude of these items has a direct impact on the cost of the electricity that the project will produce.

The impact of the “right side” of the balance sheet (including financing) is often overlooked in these discussions. Yet the structure of the “right side” can have an even more direct impact on the cost of electricity that the project produces. Very simply, the more expensive the financing, the higher the price of electricity will have to be in order to cover the operating costs of the project and then compensate the providers of the financing. This is an inescapable fact of

financial life no matter who the developer is or who its owners are, who the customer is, or what the nature of the project is. For this reason, it is in the interests of all stakeholders that the “right side” of the balance sheets of these projects be based on financing that is as low-cost as possible.

If the overall revenue structure of the projects requires that the “right side” of the balance sheet consist primarily of “straight equity” capital, the electricity is going to have to be very expensive. If, on the other hand, the overall revenue structure of the projects can be constrained to conform to the requirements of investors whom we might generally classify as “fixed-income investors” – principally commercial lenders and PTC investors -- then the cost of financing will be significantly lower (perhaps by half) and thus the cost of electricity produced by the project will be significantly lower. Since the proposed OREC needs to be a significant part of project revenue stream, it is critical that its structure contribute to attracting fixed-income investors – an attribute that we call simply “revenue certainty”. In general, providing for “revenue certainty” would tend to mean that items such as the “floor price” of the OREC, its predictability, its tenor, the guarantee that it will not be withdrawn, and therefore also its legal stature (certainty) all together comprise the most important OREC attribute of a 1000 MW OREC carve out program.

In keeping with the revenue certainty objective, clear long-term price establishment will be key to the financiability of the offshore wind industry. Annual reviews of price targets or RPS allocations would be deal killers.

We thank you again for the opportunity to share these preliminary thoughts with you prior to the January stakeholders meeting and look forward to working together to make a workable program.

Sincerely,

A handwritten signature in black ink, appearing to read 'Daniel Cohen', with a long horizontal flourish extending to the right.

Daniel Cohen  
President