

FOR PUBLIC COMMENT

REVISED Straw Proposal: New Jersey's Offshore Wind Renewable Energy Certificate (OREC)

Prepared by
New Jersey Board of Public Utilities
Office of Clean Energy

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Executive Summary

On October 23, 2008, Governor Corzine released the Energy Master Plan (EMP) which establishes the goals and strategies to place New Jersey at the forefront of a growing clean energy economy with aggressive energy efficiency and renewable energy goals and action items. Under current New Jersey's Renewable Portfolio Standards (RPS), The Board of Public Utilities (BPU) requires that renewable energy sources generate 22.5% of the State's electricity consumption by 2020 and to achieve this goal it requires electric power suppliers and basic generation service providers (referred to as "supplier/providers," defined in N.J.A.C. 14:8-1.2) to include minimum percentages of qualified renewable energy in the electricity they sell; those minimum percentages increase over time. However, the Energy Master Plan recognizes that continuing improvement in renewable energy technologies make it possible to exceed this goal, and calls for a 30% goal by 2020.

The EMP also specifically calls for a minimum of 1000 Megawatts of offshore wind capacity to be developed by 2012 and a minimum of 3000 MW of offshore wind by 2020. It is staff's proposal to meet this target by amending the Renewable Portfolio Standards for Class I resources by incorporating an offshore wind carve out that calls for 1000 MW by 2012 and 3000 MW by 2020.

OCE Staff offers the following Straw Proposal for structuring an offshore wind set-aside, or "carve-out", within New Jersey's Renewable Portfolio Standard (RPS). This Straw Proposal is based on the BPU Staff's recommendations which consider the unique challenges in developing offshore wind farms as well as the input of industry stakeholders and other interested parties who have participated in the Offshore Wind Working Group.

Guiding Principles

The following principles have been established to guide the development of an effective offshore wind carve-out. Properly structured, a New Jersey offshore wind carve out can be an effective stimulus for 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 EMP:

- Support the Governor's EMP goals and other policy goals
- Spur economic development in New Jersey including the creation of local jobs
- Ensure consistency with New Jersey's RPS
- Provide adequate incentive for the development of offshore wind
- Minimize ratepayer impacts
- Foster sustained, orderly development of a competitive marketplace
- Reduce transaction costs for market participants

Challenges

- Planning for and accommodating the uncertainty in the offshore wind development process originating from such sources as new permitting processes, construction vagaries, or weather related impediments which may impact the timing and amount of new capacity commencement
- Structuring the incentive delivery mechanics to be consistent with scale of logical project capacity and market development
- The need to signal or communicate accurate, transparent, and timely cost and OREC price information to market participants
- Does the RPS regulatory mandate provide enough security to the potential OREC revenue stream to enable developers to secure financing

General Approach

- *How should the Offshore Wind Renewable Energy Certificate (OREC) be structured to provide adequate incentive for development of OSW to meet the Governor's EMP goals while minimizing cost to ratepayers?*

On October 23, 2008 the Board approved a public stakeholder process, including a public hearing, on how to best achieve the EMP offshore wind goals. This process will provide staff and the Board with valuable input from stakeholders and interested members of the public. A set of questions on how best to structure an OSW carve-out were included in the Order and discussed at stakeholder meetings held December 11, 2008, January 13, 2009 and February 19, 2009.

Staff developed the following proposal for an OREC incentive consistent with New Jersey's Renewable Portfolio Standard based in part on the valuable input received from stakeholders. This proposed incentive structure will be subject to further comment and subsequent adoption through rulemaking by the Board. The following elements reflect the overall structure of the proposed OSW carve-out:

- A target amount of offshore wind capacity and a schedule for meeting those targets consistent with the EMP will be established within the NJ RPS regulations;

- All load-serving entities that supply BGS service to Electric Distribution Companies (EDCs) and third party suppliers of retail electricity (together “Suppliers”) will be required to obtain a certain number of Offshore Renewable Energy Certificates (ORECs) from offshore wind, based on their percentage of retail sales in NJ. This OSW carve-out will be set in MWhs and each Supplier will be required to buy a percentage of ORECs derived from its percentage of retail sales in NJ;
- The number of ORECS required to be obtained by Suppliers will increase over time as new offshore wind facilities are installed and placed into service;
- Suppliers must demonstrate compliance with this requirement by purchasing and retiring ORECs for load served from June 1st through May 31st of each reporting year;
- In the absence of sufficient ORECs to meet the RPS obligation, suppliers will pay an alternative compliance payment equal to the price of the OREC for each vintage year;
- A annual Request for Pricing Proposals (RPP) process will be established to formally solicit OREC needs from developers to allow the Board to set a fixed OREC price for the established time period;
- A 20-year OREC term will be used to help reduce the upfront costs to ratepayers by spreading OREC payments over a longer period of time;
- Developers of proposed projects will have the opportunity to agree to accept that OREC price and be approved by the Board to receive ORECs from the production of electricity at the “vintage year” OREC price established in the RPP process;
- The OREC Supplier Obligation will be administered by the BPU. At least 30 days prior to a BGS auction that includes a load serving period covering an OREC obligation period, the BPU will establish: (1) the quantity of ORECs to be purchased, (2) the price of the ORECs; (3) the vintage of ORECs to be purchased and (4) the load serving period for the OREC obligation;
- All ORECs will be created, tracked and verified through the PJM Generator Attributes Tracking System (“GATS”). ORECs are not anticipated to be a tradeable certificate for compliance market use similar to SRECs or Class I RECs. Only ORECs produced in excess of the RPS OSW requirement for any given year will be eligible for Class I RECs in the compliance and voluntary markets.

Through the annual Request for Pricing Proposals (RPP) process, the Board will establish a fixed, long-term (20 year) OREC price to help ensure a predictable revenue stream that will enable the construction of enough offshore wind generation to meet the State’s Energy Master Plan goals. Offshore wind farms require a large upfront investment and involve considerable commercial and regulatory risk. Consequently, financing this type of project is challenging. Considering the uncertainty in revenues from Class 1 RECs, the volatility in energy markets and the recent difficulties in the credit markets, staff believes that offshore wind development will not occur if the projects cannot demonstrate a predictable source of revenue beyond the expected sale of electricity. The BPU will help minimize these inherent risks and enable project financing by establishing an OREC requirement and long-term, fixed OREC price based on an approved methodology, thereby creating a timely and predictable revenue stream.

Staff further believes it is in the best interest of New Jersey Ratepayers to incentivize offshore wind farms in a competitive manner to help ensure the lowest possible cost of development to

the ratepayer. By using a Request for Pricing Proposal, staff believes the State can establish OREC prices in a market-driven manner that minimizes risks to ratepayers. OREC pricing will be set through this process and only those facilities that meet all requirements and agree to the OREC price may generate ORECs in a given year for sale to Suppliers. (*See Request for Pricing Proposals below*)

OREC Requirement & Schedule

- *What type of schedule and requirement will be set to stimulate offshore wind project development and investment?*

Staff proposes that the Board establish an OSW schedule and RPS requirements for the total MWs of offshore wind to be brought online and the annual volumetric MWhs and ORECs the State expects to be generated from those projects for energy years¹ 2013 to 2020. OREC volumetric compliance levels will be set upfront equal to the projected MWhs of energy produced by Designated Facilities.

The OSW target will be established as a production requirement expressed in MWhs versus a percentage of total load served, recognizing that such load is likely to decline per the State's energy efficiency goals. The OSW Schedule will be set in tranches so that the OSW target for energy year 2013 is set at 1000 MW and increases by at least the levels identified in Table 1 below, not to exceed 3000 MW by 2021. The increments are designed to provide a strong mandate to stimulate project development while allowing flexibility in the development process consistent with the scale and pace of OSW project development. Also a flexible goal that can accommodate shifts in project development is more likely to reduce risks and thereby result in a more competitive outcome in terms of project development costs.

In case of insufficient ORECs to meet the compliance requirements, suppliers can pay an alternative compliance payment equal to the price of the OREC for each vintage year.

Table 1: Proposed OREC Schedule & Requirements

| Energy Year ¹ | 2013 | | 2017 | | 2021 |
|---|---------------|--|------------------|--|---------------|
| OSW Carve-Out by Capacity MW | Total 1000 MW | | At Least 2000 MW | | Total 3000 MW |
| OSW Carve-Out by Production @ 34% Capacity (MWh) ² | 2,978,400 | | 5,956,800 | | 8,935,200 |

¹ An energy year runs from June 1 through May 31st as defined by the RPS rules roughly consistent with the BGS Auction (the RPS classifies an EY by the year in which it ends, the BGS auction calls an EY by the year it begins.)

²The OSW Carve-out by Production has been established using a 34% capacity factor and is only used above for example purposes. The BPU will determine, using subject experts, the appropriate capacity factor to be used for determination of the carve-out.

OREC Obligated Entities & Payments

- *Who should be obligated to meet the Offshore Wind RPS obligation through the purchase of ORECs?*

All load-serving entities that supply BGS service to EDCs and third parties suppliers of retail load (together "Suppliers") will be required to meet the OSW RPS by obtaining, from the BPU, the required number of ORECs of a specified vintage year. Each supplier's OREC obligation will be determined based on the total MWh of OSW required in that year, adjusted to their share or percentage of the total load served. In other words, each Supplier's OREC compliance obligation will be weighted by their share of NJ load from that energy year. BGS auction winners will determine the percentage of state load served based on the tranches won for that year, and multiply it by the total MWhs of OSW requirement for that energy year. Third party suppliers can similarly determine their percentage of total load served and multiply it by the total OSW requirement.

Vintage year designation will be established in the annual RPP process and Designated Facilities will be authorized to produce ORECs for a set vintage year. Unique vintage year OREC prices for these designated facilities will be established in the annual RPP process. Suppliers will be matched so that all ORECs identified in Table 1 are assigned. Suppliers will pay the BPU for all ORECs assigned to them at a price determined by the BPU. OSW Designated Facilities will receive recovery of the ORECs actually provided equivalent to one OREC per Mwh of energy produced and delivered set at the OREC price for their vintage year facility but not to exceed the OREC levels associated with the approved carve-out production identified in Table 1². Designated Facilities that produce and deliver energy in excess of its projected OSW Carve-Out Production will (1) not receive compensation on the excess through the OREC pricing structure and (2) maintain ownership of all Renewable Energy Credits (RECs) associated with the excess production. The excess RECs will be classified as Class I RECs.

If there are not enough ORECs in any given compliance year, the Supplier will be required to pay an Offshore wind Alternative Compliance Payment (OACP) equal to the price of the OREC. All of a Designated Facility's revenue received from PJM associated with energy produced and delivered (OSW Revenues) will be the property of the BPU. OSW Designated Facilities are required to submit the OSW Revenues to the BPU within 30 days of receipt of these funds from PJM. The BPU will develop provisions to ensure that the OSW Designated Facilities maximize the sale of electricity to PJM. Staff recommends that any excess OREC funds and the OSW Energy Revenues be used to offset other costs incurred by all retail customers such as the Clean Energy portion of the Societal Benefits Charge or the Universal Services Fund.

The BGS Auction scheduled to occur in February 2010 is the first year Suppliers would be obligated to purchase ORECs for EY 2013. Bidders will know the MWh requirement and OREC pricing methodology by September 2009. The OREC price for EY 2013 will be set

² Table 1 will be further delineated to identify each Designated Facility's portion of the OSW Carve-Out once such Designated Facility is identified.

by the Board as soon as possible with the intent to have the price set no later than 30 days prior to the February 2010 BGS auction. In the event that OREC pricing is not established in advance of the 2010 BGS Auction, Suppliers will be able to pass through or recover any additional costs for ORECs similar to the manner in which suppliers recovered their costs of increased SACP payments.

Monthly estimated payments will be required as shown in Table 2 to ensure a revenue stream and cash flow to the OSW developer and the BPU with an annual true up of OREC requirements and an audit of OSW Revenues at the end of each energy year to ensure the suppliers have purchased the correct amount of ORECs and BPU has received the full value of the electricity delivered to the PJM.

Table 2: Proposed OREC Monthly Payment Schedule

| Proposed OREC Monthly Payment Schedule & Annual OSW Audit | |
|--|---|
| <i>EY Month</i> | <i>Payment</i> |
| June 1 – June 31 | 1 st OREC Payment – July 31 |
| July 1 – July 30 | 2 nd OREC Payment– August 31 |
| August 1 – August 31 | 3 rd OREC Payment– September 30 |
| Sept 1 – September 30... | 4 th OREC Payment– October 31 |
| May 1 – May 31 | 12 th OREC Payment– June 30 |
| | Annual true up and OSW Revenue Audit – September 30 |

Request for Pricing Proposals

- *What type of competitive solicitation or request for qualifications will be used to qualify projects to receive ORECs and determine the appropriate OREC Price?*

Annually (at least for the first few years), between energy year 2013 and 2020, the State will set targets for the total MWhs of offshore wind it wants to bring online and the annual MWhs the State expects to be generated from those projects. The State will then solicit pre qualifications and pricing proposals from developers to meet those MWh production targets through a competitive Request for Pricing Proposals. The first RPP is expected to begin in August 2009.

Pre-Qualification Requirements to Participate in the RPP Process

Prior to issuing the annual Request for Pricing Proposals, a pre qualification of OSW Developers will take place to obtain proposals which, if selected, have a high chance of realization. Developers will be required to provide reasonable assurances on issues such as permitting status, availability of equity capital, availability of wind turbines, steel foundations, a grid connection, a viable offshore construction concept and a solid operations and maintenance concept.

Additional criteria will be established which will include:

- Delivery into New Jersey's Distribution System –Participation in the OREC set-aside program will thus be limited to those offshore wind projects that deliver energy into New Jersey's transmission and distribution system.
- Capacity to Deliver an Operational Project
- Satisfactory progress toward securing all relevant permits and leases; i.e. non-competitive interest designation by USDOJ MMS
- Met station leasing application finalized at MMS and construction started

All requirements will be specified as part of the Pre Qualifications, Request for Pricing Proposals and Project Registration process.

Request for Pricing Proposals

The BPU will specify a common offshore wind capacity factor for all developers to assume so that the proposals can be uniformly compared with each other. Developers will then be required to submit: a) the expected installed capacity of the project, b) the annual megawatt hours expected to be produced by that project, given a capacity factor specified by the BPU, and c) the project's "revenue requirement," which is the combined revenue per megawatt hour the project would need from energy and ORECs. While OREC price will be a central consideration in evaluating developer proposals, BPU will also consider other factors such as the potential that a developer can actually complete the project and the range of economic benefits to New Jersey presented by each project.

Based on the Request for Pricing Proposals the Board will set a single fixed 20-year price for the ORECs from all projects for that "Vintage Year." OSW generators would then submit to be registered to generate ORECs at that fixed price. All developers will have to decide if they want to proceed based on the established OREC price. If a developer decides not to proceed, those MWhs can be awarded to another developer or carried forward into a subsequent year. If a developer decides to proceed, they will register the project as a Designated Facility with a set MWh allocation. The RPS rules will require that Suppliers purchase ORECs of a specified vintage year at the fixed price from Designated Facilities.

**NJ Offshore Wind
OREC PRICING PROPOSAL PROCESS**

- 1. BPU ESTABLISHES OSW PREQUALIFICATIONS / CRITERIA
for offshore wind developers to participate in Request for Pricing Proposal**
- 2. REQUEST for OREC PRICING PROPOSAL
to include total system cost and OREC pricing requirement**
- 3. BPU ESTABLISHES OREC PRICE
Based on review of pricing proposals.**
- 4. QUALIFIED OSW PROJECTS SUBMIT REGISTRATION TO BPU
To build project eligible for ORECs at the price set in step 3.**
- 5. BPU APPROVES PROJECT REGISTRATION**

Designated Facilities

- *How will facilities or projects be designated to be eligible to generate ORECs?*

The State will designate offshore wind facilities to be eligible for OREC generation (Designated Facilities) based on Project Registration process. Designated Facilities will be those facilities that submitted a response to the RPP and agree to accept the OREC long term fixed price set by the Board and who complete Project Registration. BPU will establish a fixed number of annual ORECs ("annual OREC target") that each designated facility is guaranteed that it can sell if it produces them. The annual OREC target for each designated facility will be valid as long as the project is eligible to generate ORECs.

Designated Facilities will be required to be wind-generating facilities located off the coast of NJ at a minimum not to exceed 1,000 MW for energy year 2013 and 3,000 for energy year 2021. Designated Facilities must supply the BPU with ORECs for which they are compensated. OREC volumetric compliance levels will be set annually equal to the MWhs of energy projected to be produced by the Designated Facilities up to the maximum established in the RPS regulations.

The BPU will set reasonable milestones to ensure that Designated Facilities are making every effort to bring the project online in the prescribed time frame. However, if a designated facility encounters permitting or construction delays and does not come online during the anticipated energy year, that project should still be guaranteed its vintage year OREC price for the full 20-year timeframe.

The BPU will notify the federal Minerals Management Service of all Designated Facilities in order to expedite project permitting.

OREC Pricing Methodology

- *What methodology and formula will be used to determine the price of an OREC?*

Consistent with the establishment of a competitive market, the OREC Price should be transparent and as competitively determined as possible. The Board will establish the long-term OREC pricing upfront based on the responses to the Request for Pricing Proposal process.

Staff proposes a methodology that will set the final OREC Price based on the total revenue requirements necessary to make projects viable. However, all revenues generated by sale of electricity to PJM by the designated facility will be recovered by the BPU so that Designated Facilities are only receiving the costs needed to make the project viable. The price will be established based on the information provided in the RPP regarding the total revenues necessary for project development and operation over 20 yrs.

The Board will establish an RPS requirement and OREC Price for EY 2013 and set the price for 20yrs. The approved OREC pricing methodology will be established by the Board by

September 2009 and the OREC price will be established by the end of December 2009 so that developers know how the price will be set and what the contract will entail vis a vis the off takers of the ORECs and so that BGS auction bidders can anticipate requirements for the BGS Auction.

The BPU may rely on an Independent Consultant to provide input as to reasonableness of pricing per the information provided in the solicitation process and per benchmarks to similar projects such as the Blue Water Wind project in Delaware. Also note that the price of ORECs may vary between Vintage Years based upon the results of different Requests for Proposals, which would reflect changing market dynamics from year to year. If the schedule contained in this straw proposal for establishing an OREC price for Vintage Year 2013 projects is not met, staff recommends that the BPU administratively establish a placeholder OREC value that Suppliers can use for their BGS auction requirements, anticipated for February 2010 which will serve EY11, 12 and 13, until the actual, first vintage year OREC price is determined.

OREC Life

ORECs will have a life of 2years. If there is an oversupply of ORECs in a given year the excess can be held to the next year or sold as a Class I REC or sold into the voluntary market. If there is an undersupply of ORECs, the LSEs will make up the shortfall by paying the OACP.

Proposed Timeline & Milestones

Schedule for the OSW rulemaking and public stakeholder process:

| | |
|--------------------|---|
| February 9, 2009 | DRAFT Straw Proposal to be circulated to OSW Working Group |
| February 19, 2009 | Third OSW Working Group stakeholder meeting |
| March 10, 2009 | Revised Straw Proposal recirculated to OSW Working Group |
| March 26 2009 | Public hearing presided by President Fox to solicit comments on Straw Proposal from interested parties. |
| April 27 2009 | Rule Proposal considered by the Board |
| June 1, 2009 | Rule Proposal published in the NJSR |
| July 22, 2009 | Public hearing on rule proposal |
| July 31, 2009 | Close of comment period. |
| September 16, 2009 | Rule adoption considered by the Board |