

**BOARD OF PUBLIC UTILITIES**

Offshore Wind Renewable Energy (New Rules)

Special Adopted Amendments: N.J.A.C. 14:8-6

Adopted: February 10, 2011 by the New Jersey Board of Public Utilities, Lee A. Solomon, President; Jeanne M. Fox, Joseph L. Fiordaliso and Nicholas Asselta, Commissioners.

Filed: February \_\_ 2011 as R. 2011 d. \_\_\_\_\_

Authority: N.J.S.A. 48:2-13 and N.J.S.A. 48:3-49 et seq.

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**TAKE NOTICE** that, the Board of Public Utilities has adopted new rules at N.J.A.C. 14:8-6, to codify new statutory requirements enacted through the Offshore Wind Economic Development Act, P.L. 2010, c. 57, which amended N.J.S.A. 48:3-49 et seq. The Rules are designed to provide an application process and a framework under which the Board will consider and, if appropriate, approve applications for qualified offshore renewable facilities and Offshore Renewable Energy Certificates (ORECs). Major components of the proposed rules include application requirements, the need for an escrow account, the ability for the Board to designate the application window, and the ability for the Board to impose appropriate conditions upon any OREC grant.

This special adoption will remain in effect until August \_\_\_\_, 2012 or until amendments are proposed for public comment and adopted through standard rulemaking procedures.

## SUBCHAPTER 6 QUALIFIED OFFSHORE WIND PROJECTS

### 14:8-6.1 Definitions

“Offshore wind energy” means electric energy produced by a qualified offshore wind project.

“Offshore wind renewable energy certificate” or “OREC” means a certificate issued by the Board or its designee, representing the environmental attributes of one megawatt hour of electric generation from a qualified offshore wind project.

“Qualified offshore wind project” means a wind turbine electric generation facility in the Atlantic Ocean and connected to the electrical transmission system in this State, and includes the associated transmission-related interconnection facilities and equipment, and approved by the Board pursuant to section 3 of P.L. 1999, c.23 (C:48:3-51.)

“Wind energy zone” means property located in the South Jersey Port District established pursuant to “The South Jersey Port Corporation Act,” or as may be amended.

“Key employees” means any individual employed by the applicant in a supervisory capacity or empowered to make discretionary decisions with respect to the project.

### 14.8-6.2 Offshore Wind RPS Requirements

- (a) Each supplier/provider that sells electricity to retail customers in New Jersey shall ensure that the electricity it sells each reporting year in New Jersey includes at least the minimum percentage of OSW energy required for that energy year as set by the Board following the approval of a qualified offshore wind project.
- (b) The total OSW energy requirement for an energy year shall reflect the projected OREC production of qualified OSW projects, for the period covered by the granted ORECs, from the commercial operation start date of the qualified OSW projects.
- (c) OREC obligations are a component of Class I renewable energy requirements, and satisfaction of OREC obligations shall be counted toward Class I renewable energy requirements.
- (d) A statewide OREC target will be determined by the Board based on projected OSW production. The total will be allocated among all suppliers/providers in proportion to their retail sales.

- (e) A supplier/provider shall meet the requirements for OSW energy generation through:
  - 1. Retirement of offshore wind renewable energy certificates (ORECs) through a renewable energy trading program approved by the Board; or
  - 2. Submittal of offshore wind alternative compliance payments (OACPs).
- (f) Any offshore wind alternative compliance payments collected shall be refunded to the ratepayers.

#### 14:8-6.2 Application process

- (a) An entity seeking to receive ORECs in connection with an OSW project shall submit an application to the Board for approval as a qualified offshore wind project. The application must meet the requirements set forth in this section, as well as all applicable requirements of this chapter, and of other applicable state and Federal laws.
- (b) The Board will announce the open and close dates for the annual application period, and may, at its discretion, allow additional application periods.
- (c) The Board shall approve, conditionally approve, or deny the application within 180 days of the receipt of a completed application. The parties may consent to an extension beyond 180 days.
- (d) The applicant shall meet with Board staff and representatives of the Division of Rate Counsel no less than 30 days prior to submission of an application to discuss all aspects of the application.
- (e) All applications must be consistent with Board application standards as set forth in N.J.A.C. 14:1-1 et seq.

#### 14:8-6.3 Determination of the completeness of the application

- (a) Upon receipt of the application, Board staff will review the application for administrative completeness in accordance with the requirements set forth in 14:8-6.4 below.
- (b) Board staff will notify the applicant within 30 days of the submission if the application is administratively complete or is deficient. If the application is deficient, the applicant will be advised which items must be remedied to correct the deficiency or deficiencies.
- (c) Once Board staff notifies the applicant that the application is complete as filed, the 180 day period for the Board to approve, conditionally deny, or deny the application will commence on the date the complete application was filed.

- (d) If Board staff has notified the applicant that a deficiency or deficiencies exist, the 180 day period will not commence until all deficiencies have been remedied and the filing is deemed by Board staff to be administratively complete.
- (e) If Board staff notifies the applicant that the application with the remediation of the deficiency or deficiencies is now complete, the 180 period for the Board to approve, conditionally deny, or deny the application will commence on the last filing date of the remediation of all deficiencies.

#### 14:8-6.4 Application Requirements

- (a) Each application shall meet the following requirements set forth in subsections (b) through (q).
- (b) Full business information, including developer name, primary contact person, website, telephone numbers, email address and street address;
  - 1. The proposal must list all key employees and include resumes of employees that have an identifiable track record in construction and operation of power plants of similar size and scope;
  - 2. The applicant must describe any work done to date by the key employees in developing projects of similar scope, especially any ocean-based energy project or New Jersey large scale energy project siting work;
  - 3. If the work described was not performed by the entire team, the applicant must delineate the experience or work performed by key employees;
  - 4. The applicant shall disclose, in detail, any prior business bankruptcies, defaults, disbarments, investigations, indictments, or other actions against either the applicant or any key employees identified above;
  - 5. The applicant must commit to certifying, after award, that its proposed key employees will remain the project team for the duration of the project, subject to any changes approved by the Board. Enforcement of this provision shall be a condition of the order granting ORECs;
  - 6. The applicant is not permitted to reallocate the personnel/resources or key employees they used to obtain the OREC, without prior approval of the Board; and

7. To the extent that there is a claim, the applicant shall include, as appropriate, employment documentation, include letters of intent/commitment/contract that if an OREC award is granted, manufacturing services will be sourced from a New Jersey location.
- (c) A detailed description of the project, including maps, surveys and other visual aides. The description shall include, but need not be limited to: the type, size and number of proposed turbines and foundations; the history, to-date, of the same type, size and manufacturer of installed turbines and foundations globally; and a detailed implementation plan that highlights key milestone activities during the permitting, financing, design, equipment solicitation, manufacturing, shipping, assembly, in-field installation, testing, equipment commissioning and service start-up.
1. The project developers must:
    - i. Demonstrate applicable experience in projects of the size and scope proposed;
    - ii. Demonstrate that the wind technology is viable, cost competitive, and suitable for use in New Jersey's offshore environment under varying and expected meteorological and climate conditions;
    - iii. Indicate the areas used for all aspects of the project including the location(s), the construction staging area(s), and port usage;
    - iv. Include a map with the location of the site(s) clearly marked by longitude and latitude and Bureau of Ocean Energy Management, Regulation and Enforcement block numbers;
    - v. Describe any current uses, conflicts, or characteristics of the ocean and land areas identified pursuant to section 14:8-6.4 (C)(1)(iv);
    - vi. Specify whether the project is located at one site, or divided among several sites;
    - vii. Define the attributes which make the site(s) attractive and list any potential problems, constraints or limitations with siting an energy facility at that location or locations;
    - viii. To the fullest extent possible, indicate the major types of equipment that will be installed, and if not yet selected, indicate the candidate technologies and the characteristics specified;
    - ix. Indicate whether the project team plans to own or lease equipment;
    - x. Describe the equipment candidate(s), the specifications, warranties, how long it has been commercially available, approximately how many are currently in service, and where they are installed;



1. Identification of equity investors, fixed income investors, and any other sources of capital;
  2. A demonstrated ability to finance construction through market sources, which may include tax exempt bond financing through the New Jersey Economic Development Authority ;
  3. A detailed financial plan including all sources of capital including but not limited to equity, long and short term debt, and other sources. Such financial plan shall include the names, functions and fees of all financial and legal advisors. The plan shall specify if and under what conditions equity or other ownership interests in the project can be transferred to other parties and consideration involved. The developer shall notify the Board in writing of any changes within 30 days and such changes will be subject to Board approval pursuant to subsection (b) above; and
  4. A commitment that audited financial statements shall be filed with the Board on a quarterly and annual basis.
- (f) Documentation to demonstrate that the developer has applied for all current eligible State and federal grants, rebates, tax credits and programs available to offset the cost of the project or provide tax advantages.
1. The developer must document all federal or state tax incentives for which it is applying or has applied or otherwise are applicable, even if such incentives have not been sought or approved.
  2. Applicants must provide in a financial pro forma all tax credits or other subsidies upon which they are relying on in their pricing proposal.
  3. The applicant must commit that the cost difference in the event that changes in the project reduces or eliminates tax benefits, or tax benefits do not materialize for any reason including changes in tax laws, will not be made up by ratepayers.
  4. A commitment to pass along tax credits or other governmental benefits to ratepayers that are greater than projected. This pass along of benefits will be effective without the need for any subsequent Board approval/confirmation following an initial Board Order approving OREC pricing, and will serve as a condition of the OREC approval.
- (g) The projected electrical output and anticipated market prices over the anticipated life of the project, including a forecast of electricity revenues from the sale of energy derived from the project and capacity, as well as revenues anticipated by the sale of any ORECs, RECs, air emission credits or offsets, or any tradable environmental attributes created by the project.
1. The applicants must submit a project revenue plan which forecasts revenues as well as identifies the strategy for offering the electricity provided in the electric market and for generating all expected revenues;
  2. The plan must link the anticipated revenues to the project time schedule and costs for the entire project lifecycle term extending to the expected life of the turbines and

eventual decommissioning;

3. Applicants must specify financial expectations and marketing strategies for securing revenue from expected capacity based payments in PJM markets, energy based payments in PJM markets, Renewable Energy Certificate (REC) revenue from Renewable Portfolio Standard (RPS) or voluntary markets, and emission credits from various air emission reduction cap and trade programs;
  4. Proposals must include the total installed capacity in megawatts for the entire project as well as expected term of OREC energy production in megawatt-hours; and
  5. The total amount of clean energy being generated over the term of the OREC program and the life of the turbines must also be provided.
- (h) An operations and maintenance plan for the initial OREC term of the project is required and must:
1. Detail routine, intermittent and emergency protocols;
  2. Demonstrate that the applicant has the financial capacity and technical expertise to perform all necessary upkeep/maintenance over the life of the project;
  3. Identify the primary risks to the built infrastructure and how the potential risks, including but not limited to hurricanes, lightning, fog, rogue wave occurrences, and exposed cabling, shall be mitigated;
  4. Describe emergency shut down provisions in the event of a need for the immediate stoppage of turbine blades;
  5. Identify specific and concrete elements to ensure both construction and operational cost controls;
  6. Proof of insurance;
  7. Be integrated into the financial analysis of the project, and must identify the projected plan for the subsequent operational term, assuming any necessary federal lease agreements are maintained and renewed; and
  8. Include a complete operation and maintenance plan for the life of the plant.
- (i) The anticipated carbon dioxide emissions impact of the project. Data must be supplied on the environmental air impacts of each proposed wind-farm.
- (j) A decommissioning plan for the project including provisions for financial assurance for decommissioning as required by the applicable State and federal governmental entities.
1. Proposals must estimate an expected useful economic life as well as specify a project decommissioning plan for the technology and installation area proposed.
  2. The decommissioning plan must include the anticipated cost of decommissioning the



project based on applicable and/or anticipated regulatory and engineering requirements and provide for the necessary future funding. Segregated decommissioning funds shall be required..

- (k) A list of all State and federal regulatory agency approvals, permits, or other authorizations required pursuant to State and federal law for the offshore wind project, and copies of all submitted permit applications and any issued approvals and permits for the offshore wind project.
1. An award to build an OSW facility is contingent upon the successful entity obtaining all required local, State and/or federal permits and/or approvals.
  2. Applicants must show that they are currently in the PJM queue or that the proposed project is PJM queue eligible.
  3. Each applicant must identify all local, State and/or federal permits and/or approvals required to build and operate the project and the expected time to obtain such permits and/or approvals. Developers must provide the Board with copies of each permit or approval within 14 days of receipt by the developer. This is a continuing obligation upon the developer and shall serve as a condition of any OREC award.
  4. Applicants must identify the nature of its ocean lease and land ownership requirements for all aspects of the project including all required interconnection areas.
  5. Progress must be demonstrated in securing leases and land required, and applicants must propose a plan for accomplishing remaining steps toward acquiring leases or land ownership. The type and number of entities securing leases or owning land must be indicated.
  6. Applicants must identify each appropriate State or Federal agencies they will be contacting for land acquisition issues and provide the Board with a summary of the required arrangements.
  7. Applicants are required to demonstrate adequate financial resources to acquire any land or leases needed to undertake this project.
  8. The books and records of the applicant shall be subject to review and audit by the Board, or any other State entity or State designee
  9. The applicant shall supply the Board with filings made to any other regulatory, governmental administrative agency. This includes, but is not limited to, any compliance filings or any inquiries by these agencies.
- (l) The cost-benefit analysis for the project, to show net benefits for the State, shall include at a minimum:
1. A detailed input-output analysis of the impact of the project on income, employment, wages, indirect business taxes, and output in the State with particular emphasis on in-State manufacturing employment;

2. The Board will not specify what input-output models are acceptable, and will allow applicants to use any model that successfully captures New Jersey economic benefits. Suggested models include, but are not limited to:
  - i. Rutgers R/ECON model;
  - ii. Regional Economic Models, Inc. (REMI);
  - iii. MIG Inc. IMPLAN model; and
  - iv. The Bureau of Economic Analysis RIMS II model.
3. Ratepayer net costs with explicit listing of foundations, assumptions and conditions;
4. Environmental net benefits with explicit listing of foundations, assumptions and conditions;
5. Other benefits, such as increased in-state activity from construction, operations and maintenance, and equipment purchases;
6. In-state impacts or benefits that need to be included in the cost-benefit analysis-income include but are not limited to:
  - i. Employment;
  - ii. Wages;
  - iii. Indirect business taxes; and
  - iv. Output-with a "particular emphasis" on manufacturing employment. Output refers to the sales of sectors or industries that would be supplying the offshore wind project with materials (such as turbines, steel and cement for support structures, wire for transmission cables,) and services (such as construction and installation services as well as engineering, legal, finance, and other professional services).
7. Detailed information, including location, type or occupation, and salary for assumed employment impacts within New Jersey. Confirmation of employment impacts must be provided.
8. The Board will evaluate the credibility of asserted economic benefits. The applicants must propose consequences if claimed benefits do not materialize, and the employment impact may become conditions of any OREC award.
9. Applicants must provide information on any state grants or other subsidies from the New Jersey Economic Development Authority or other agencies associated with the proposed wind project and include the subsidy as part of the project cost-benefit analysis.

10. Direct, indirect and induced effects will be considered in the evaluation, as such effects should be considered as part of the evaluation associated with construction and operation of the project.
11. The major assumptions and inputs used in the modeling must be specified by the applicant.
12. The Board staff may ask the applicant to rerun the model with other assumptions and inputs to be provided by the Board staff.
13. The Board staff may test an applicant's cost benefit analysis on its own model, which, preferably, would be the same one used by an applicant but it could be a different one, by replicating the analysis using model inputs supplied by the applicant.
14. Applicants must also submit an explanation of the location, type and salary of employment opportunities to be created by the project with job totals expressed as full-time equivalent positions assuming 1,820 hours per year.
15. Applicants must provide an analysis of the anticipated environmental benefits and environmental impacts of the project.
  - i. Each project must document all associated impacts from pre-construction activities through decommissioning including but not limited to environmental, water use, water quality, avian, marine mammals, sea turtle, noise, aesthetics, tourism, navigation and endangered species. This includes sea-bed disruption of marine life, morbidity or mortality among avian, mammal or benthic populations, emissions of combustion by-products to the air or oil or other toxic releases to the ocean, or solid waste generation.
  - ii. Applicants should specifically describe how their activities will be coordinated with the New Jersey Department of Environmental Protection (NJDEP) Ecological Baseline Studies. Indicate how each resource issue, if impacted, will be addressed.
  - iii. The applicant should provide information regarding the direct emissions impacts of the project, including carbon dioxide, sulfur dioxide, particulate emissions, as well as other relevant environmental impacts, such as impacts on the marine environment.
  - iv. The applicant should provide an assessment of environmental impacts from the project compared to other similar Class I renewable energy projects.
  - v. Environmental impacts (direct and comparative) must be quantified to the extent they are significant and it is possible to quantify them.

- vi. The comparative environmental impacts should be monetized, to the extent possible, for evaluation as part of the overall cost-benefit analysis.

16. Applicants must submit an analysis of the potential positive and negative impacts on residential and industrial ratepayers of electricity rates over the life of the project that may be caused by OREC requests.

(m) A proposed OREC pricing method and schedule for the Board to consider.

1. An electric power supplier or basic generation service provider shall comply with the OREC program through the purchase of ORECs at a price and for the time period required by the Board.
2. Payment will not occur until electricity is produced by a qualified offshore wind project.
3. The burden remains on the applicant to propose a reasonable OREC price. The Board will then accept, modify or reject the proposed price of the OREC and the associated term. The Board requires a fixed, flat OREC price for the proposed term or a fixed price for every contract year. All proposals must include a total price that reflects capacity, energy and other elements of generation.
4. OREC pricing will be on a pay for performance basis, with payments to be on a \$/MWh basis, subject to any quantity caps, with the offshore wind developer responsible for any cost overruns. Ratepayers will not be responsible for any cost overruns and for costs associated with non-performance.
5. If the pricing proposal satisfies the cost-benefit standards set forth in the statute and the Board's regulations, the Board may approve the application subject to the application satisfying other required conditions.
6. The Board may conditionally approve an application at a lower OREC price if that OREC price would allow an applicant to satisfy the cost-benefit standards. The applicant may then accept or reject the lower OREC price.
7. OREC pricing on an actual renewable premium basis would represent a project's revenue requirement, taking into consideration tax credits and other subsidies, minus the actual value of spot energy market prices and/or capacity prices.

(n) A timeline for the permitting, licensing and construction of the proposed offshore wind project. The proposal must specify the expected project time requirements in the aggregate from start to finish as well as the time required to accomplish each specific activity related to project design, resource monitoring, impact studies, permitting, construction, and de-commissioning activities with associated milestones delineated for each category of activity.

(o) A plan for interconnection, including engineering specifications and costs.

1. Applicants must document tasks required and discuss issues associated with electri-

cal interconnection, including the distance between the project and a suitable point to interconnect with the electrical grid. Each proposed point of interconnection should be discussed.

2. Land acquisition requirements, new equipment to be installed, upgrades to existing equipment required, and any feasibility studies required and the time frame for review must be identified.
  3. A detailed description of how the proposed project will address and mitigate load constraints in the electric distribution and PJM transmission system must be included for each site.
  4. The proposal must demonstrate to the greatest extent possible how the project will address current or potential future load pocket or constraint problems with the electric distribution system and the PJM transmission system.
  5. The applicant must indicate the location of transmission lines and all points of interconnection to the PJM system serving New Jersey.
  6. Applicants must provide information to the Board for costs associated with network upgrades that flow from the project even if not directly caused by the interconnection.
- (p) All applicants must establish a \$100,000 escrow account and submit proof of that escrow account with the application to pay for consultants and other costs associated with the review of the application.
1. The applicant shall immediately notify Board Staff in the event the escrow drops below 25% of the initial escrow value.
  2. Board Staff will direct the applicant, if appropriate, to place an additional amount into escrow, based upon the current and expected costs associated with the application review.
  3. Failure to replenish the escrow account to the level required by Board Staff with 10 days of notification will serve to render the application incomplete and toll the time for review.
- (q) Any other information deemed necessary by the Board in order to conduct a thorough evaluation of the proposal. The Board may hire consultants or other experts if the Board determines that obtaining such outside expertise would be beneficial to the review of the proposal. In considering an application for a qualified offshore wind project, submitted pursuant to subsection a. of this section, the Board shall determine that the application satisfies, at a minimum, the following conditions:
1. The filing must be consistent with the New Jersey Energy Master Plan, adopted pursuant to section 12 of P.L.1977, c.146 (C.52:27F-14), in effect at the time the Board deems the application complete.

2. The cost-benefit analysis must demonstrate positive economic and environmental net benefits to the State because it is a key component of the legislation.
3. Comparing purchases of Class I RECs to out-of-state wind projects is the most reasonable comparison since the OREC purchase obligation is an offset to the RPS Class I purchase obligations. To make this comparison, the proposed OREC prices must be compared to a projection of RPS Class I REC prices.
4. An applicant's cost-benefit analysis must provide three basic types of information:
  - i. Impacts on New Jersey ratepayers: an analysis of the potential impacts on residential and industrial ratepayers of electricity rates over the life of the project that may be caused by incorporating any State subsidy into rates;
  - ii. net benefits to the New Jersey economy through impacts on income, employment, wages, indirect business taxes, and output, with particular emphasis on in-state manufacturing employment; and
  - iii. net environmental effects of the project.
5. Applicants must show that the financing mechanism is based upon the actual electrical output of the project, and fairly balances the risks and rewards of the project between ratepayers and shareholders. Applicants must ensure that any costs of non-performance, in either the construction or operational phase of the project, shall be borne by shareholders.
6. Applicants must demonstrate financial integrity and sufficient access to capital to allow for a reasonable expectation of completion of construction of the project.
  - i. Applicants must prove that they have the financial resources to perform the proposed work, appropriate technical expertise, access to adequate facilities or the ability to get them, a good performance record and be qualified under all applicable laws and regulations.
  - ii. Applicants will be required to demonstrate to the State, through the submission of audited financial statements or other evidence of adequate financial capacity to ensure that the project can be successfully completed as proposed.

#### 14:8-6.5. Funding Mechanism (RESERVED)