

STATE OF NEW JERSEY
Board of Public Utilities
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CLEAN ENERGY

IN THE MATTER OF THE PETITION OF)	BOARD DECISION ON THE
FISHERMEN'S ATLANTIC CITY WIND FARM, LLC)	MERITS OF THE
FOR THE APPROVAL OF THE STATE WATERS)	APPLICATION
PROJECT AND AUTHORIZING OFFSHORE WIND)	
RENEWABLE ENERGY CERTIFICATES)	DOCKET NO. EO11050314V

Parties of Record:

Stefanie A. Brand, Esq., Director, Division of Rate Counsel
Stephen B. Pearlman, Esq., Pearlman & Miranda, LLC, on behalf of Fishermen's Atlantic City Windfarm, LLC
Phillip J. Passanante, Esq., on behalf of Atlantic City Electric Company
Marc B. Lasky, Esq., on behalf of Jersey Central Power & Light Company
Alexander C. Stern, Esq., on behalf of Public Service Electric and Gas Company
Susan J. Vercheak, Esq., on behalf of Rockland Electric Company

BY THE BOARD:

By Order dated May 16, 2011, in Docket No. EO11050290V, the Board of Public Utilities ("Board") opened an application window for 30 days for offshore wind ("OSW") projects in New Jersey territorial waters pursuant to N.J.S.A. 48:3-87.2.¹ The Board received one application – the Petition of Fishermen's Atlantic City Windfarm, LLC ("FACW" or the "Applicant") for an offshore wind project in New Jersey territorial waters dated May 19, 2011 (the "Project"). An amended application was filed on June 1, 2012, and supplemented on March 8, 2013. The Board did not receive any other applications in response to the May 2011 application window.

I. PROCEDURAL HISTORY

The Board adopts the procedural history as set forth in its July 29, 2013 and May 29, 2013 Orders and the prehearing scheduling orders issued by President Hanna on February 15, 2012,

¹ By Order dated January 18, 2012, the Board retained this matter for review and hearing, and as authorized by N.J.S.A. 48:2-32, designated former President Robert M. Hanna as the presiding officer to rule on all motions that arise during the proceedings and modify any schedules that may be set as necessary to secure just and expeditious determination of the issues.

August 28, 2012, October 24, 2012, November 30, 2012, March 7, 2013, April 18, 2013, August 5, 2013, August 19, 2013, and October 15, 2013 and the consent order signed by the parties and approved by President Hanna on November 8, 2013. The following procedural history summarizes and supplements those orders.

On August 19, 2010, Governor Chris Christie signed into law the Offshore Wind Economic Development Act (the "Act" or "OWEDA"), P.L. 2010, c. 57, which amends and supplements the Electric Discount and Energy Competition Act, N.J.S.A. 48:3-49 et seq. and specifically requires an applicant seeking Offshore Wind Renewable Energy Certificates ("OREC") to demonstrate a net economic benefit for New Jersey ratepayers. On February 10, 2011, the Board adopted N.J.A.C. 14:8-6.1 et seq., providing an application process and a framework under which the Board will review any application and ultimately approve, conditionally approve, or deny the application. The Board readopted N.J.A.C. 14:8-6.1 et seq. with amendments on January 23, 2013.

FACW submitted an Initial Application on May 19, 2011, in response to the Board's request for offshore wind applications pursuant to N.J.S.A. 48:3-87.1. Upon receipt of the application, the Staff of the Board ("Staff" or "Board Staff") immediately began the administrative review process pursuant to N.J.A.C. 14:8-6.4 et seq. The initial review uncovered administrative deficiencies which were outlined in letters to the applicant on June 2, 2011, and June 13, 2011. The applicant responded to the administrative deficiencies with written submissions on June 8, 2011, and June 14, 2011.

The initial application consisted of six turbines, 2.8 miles off of Atlantic City, and provided the Board with the choice of three turbine manufacturers: Siemens, GE and XEMC. Ultimately, Staff determined that the application was administratively complete as of June 14, 2011, but requested FACW designate a turbine of record. On or about June 16, 2011, FACW advised Staff that Siemens would be the turbine of record for the Board's review. On June 22, 2011, Staff provided written notice to FACW that its application was considered administratively complete as of June 14, 2011.

Staff's designation of the administrative completeness was subject to the condition that the substantive review of the project would only consider the Siemens turbine. Staff advised FACW that the use of a more technologically advanced turbine, equal to, or better than the Siemens turbine, may be submitted to the Board for consideration pursuant to N.J.A.C. 14:8-6.5(a)(2)(ii). JR-34(i).

This Act provides the Board with 180 days to conduct its review, and to approve, conditionally approve, or deny the application. N.J.S.A. 48:3-87.1(d). Pursuant to N.J.A.C. 14:8-6.3 and 6.4, the 180-day period for the Board's review began to run on June 14, 2011, when Staff determined that FACW's application was administratively complete. Pursuant to this determination, the Board's review period was initially set to expire on December 11, 2011, however, the applicant consented to extend the review period.

On June 24, 2011, FACW entered into a Participation Agreement with XEMC New Energy ("XEMC") for a majority share in the Project. By a submission dated July 12, 2011 and titled "Designation of XEMC as turbine supplier," FACW informed the Board pursuant to N.J.A.C. 14:8-6.5(a)(2)(ii), that the XEMC turbines were "the most technically advanced and are better for FACW and New Jersey than the other currently available turbines, including the two most recently evaluated turbine options from other vendors." By submission dated August 3, 2011, FACW provided the Board with a letter from FACW to the Commissioner of the Department of

Environmental Protection stating that: "On July 11, 2011, we finalized a Definitive Participation Agreement with XEMC New Energy, a subsidiary of the XEMC Group for the supply of six turbines, financing and long term warranty/operations support for 20 years for the Fisherman's Atlantic City Windfarm, LLC. (FACW)." JR-34(l), p. 1.

By submission dated August 1, 2011, FACW requested an expedited review and final determination on the application by the August 18, 2011 Board meeting. By letter dated August 12, 2011, Board Staff notified FACW that "the statutory criteria for the review and approval of an application have not been met" and therefore the request for expedited review was denied. JR-34(u), p. 1. The letter detailed the issues that needed to be fully addressed by FACW before Board Staff could make a recommendation to the Board and informed FACW that "despite the fact that Board Staff is unable to make a recommendation on your petition pursuant to your expedited timeframe, we remain dedicated to completing the task of reviewing the merits of your application within the timeframe set forth in the Act." JR-34(u), p. 4.

Following the August 12, 2011, letter Board Staff and FACW continued to work on the outstanding issues and by letter dated October 7, 2011, Board Staff provided a further update to FACW on the issues that remained outstanding.

By letter dated November 23, 2011, the Applicant consented to an additional 60 days of review, beyond the initial 180 days, which extended the review period to February 8, 2012. By letter dated December 13, 2011, the Applicant consented to an additional extension, which extended the review period to March 21, 2012. By order dated December 15, 2011, Docket No. EO11050314V, the Board ordered that the review period be extended to March 21, 2012.

By letter dated February 6, 2012, the Applicant consented to an additional extension of time. By order dated February 10, 2012, Docket No. EO11050314V, the Board ordered that the review period be extended to April 11, 2012.

On February 3, 2012, Rate Counsel's expert, Acadian Consulting Group ("Acadian"), filed testimony concerning the Project. On or about February 22, 2012, Boston Pacific Company, Inc. and OutSmart BV (collectively "Boston Pacific" or "BP"), Staff's expert, filed a report titled Evaluating the Economics of Offshore Wind Projects: Evaluation of the Application by Fishermen's Atlantic City Windfarm LLC.

By letter dated March 2, 2012, FACW requested an additional extension of the review period until October 31, 2012, and agreed to provide an amended application by April 20, 2012, to respond to the evaluation reports by Boston Pacific and Acadian, submitted on February 22, 2012 and February 3, 2012 respectively. By order dated March 12, 2012, Docket No. EO11050314V, the Board ordered that the review period be extended to October 31, 2012, and that FACW provide an amended application on or before April 20, 2012.

By letter dated April 2, 2012, FACW notified the Board that it would not be able to submit the amended application by April 20, 2012. Accordingly, FACW requested an extension of the deadline for the submission of the amended application to June 1, 2012, and for an extension of the review period to December 31, 2012. By order dated April 12, 2012, Docket No. EO11050314V, the Board ordered that the review period be extended to December 31, 2012. FACW submitted the amended application on June 1, 2012 (hereinafter "Amended Application").

EDC MOTION TO INTERVENE

By letter dated October 17, 2011, Atlantic City Electric, Jersey Central Power & Light Company, Public Service Electric and Gas Company, and Rockland Electric Company (collectively "the EDCs") filed a joint motion to intervene in this proceeding pursuant to N.J.A.C. 1:1-16.3.

By Order dated December 15, 2011, Docket No. EO11050314V, the Board granted the EDCs' motion to intervene. The Board granted the EDCs' motion to intervene subject to the requirements that the EDCs: 1) abide by the schedules for the proceeding set by the Board; 2) comply with the Board's procedures governing confidentiality including, but not limited to, the non-disclosure agreement executed by the parties regarding review of FACW's application; 3) abstain from participating in negotiations regarding OREC pricing; and 4) commit to working cooperatively, to the fullest extent possible, with the other parties. The Board denied FACW's request to require the EDCs to participate as one entity, and limit the scope of the EDCs' discovery but granted its request to protect confidential trade information and trade secrets by redacting materials not relevant to the EDCs.

REVIEW OF AMENDED APPLICATION AND PREHEARING ORDERS

On June 1, 2012, FACW submitted an Amended Application. The Project as proposed in the Amended Application is a 25-MW nameplate capacity wind farm, which includes five 5 MW Darwind/XEMC DD115 direct drive turbines, on a monopile foundation, to be located approximately 2.8 miles offshore from the Atlantic City shoreline. The projected annual electricity output of the FACW Project is 81,421 MWh based on a P-50 production estimate.

The Amended Application materially modified the initial application. In part, FACW requested the Board to consider turbines manufactured by both XEMC and Siemens. In addition the Amended Application changed the projected output from 59,853 MWh based on a P-90 production estimate to 81,421 MWh based on a P-50 production estimate.

By letter dated June 25, 2012, Board Staff notified FACW that the company had "accepted Board Staff's previous and on-going requirement that only one turbine be designated for the purposes of the review of the application," and directed FACW to "formally inform the Board and all parties to this matter of the turbine of record for the review of the amended application." JR-24, p. 2.

By letter dated July 3, 2012, FACW rejected Board Staff's determination that FACW must choose one turbine technology and stated that "limiting FACW to only one candidate turbine technology will prevent the Board from achieving the best possible result in this matter." JR-25, p. 2.

By letter dated July 13, 2012, Board Staff informed FACW that N.J.A.C. 14:8-6.5(a)(2)(i)(8) "neither requires nor encourages applicants to, in essence, ask the Board to select the turbine manufacturer for the applicant." Board Staff stated that FACW did in fact select XEMC as the turbine manufacturer in July 2011, which was reiterated in the July 3, 2012, letter and that "Board Staff has determined that XEMC is your selected technology and will proceed with reviewing the application using that technology." JR-26, p. 2.

Through correspondence dated August 13, 2012, and supplemented on August 17, 2012, FACW requested that the Board "temporarily discontinue" evaluation of FACW's Amended Application until September 17, 2012, so that it could reassess its application and consider potential modifications. Rate Counsel and Board Staff consented to the suspension of review. President Hanna granted FACW's request in the August 28, 2012 Prehearing Order ("August 28th Order") by suspending the prior procedural schedule. The August 28th Order also directed FACW to provide a written statement of its assessment along with any revisions to its application by September 17, 2012 and directed the parties to confer and provide a proposed amended schedule no later than September 21, 2012. On September 17, 2012, FACW submitted a letter advising the Board that it had completed its re-evaluation of the Amended Application and concluded that no changes to the Amended Application were necessary. JR-28.

The parties subsequently consented to and proposed a new procedural schedule. The Second Amended Prehearing Order dated October 24, 2012 acknowledged the consent of the parties to extend the application review period until April 30, 2013, and adopted the parties' proposed schedule. By Order dated November 20, 2012, Docket No. EO11050314V, the Board ordered that the review period be extended to April 30, 2013.

Following super storm Sandy in late October 2012, the parties advised that the storm and its aftermath significantly hindered their ability to comply with the October 24, 2012 prehearing schedule. The parties proposed and agreed to an amended procedural schedule which was memorialized in the Third Amended Prehearing Order issued by President Hanna on November 30, 2012.

Pursuant to the procedural schedule, on December 17, 2012, expert reports were filed with the Board by Boston Pacific. Following the submission of the expert reports, the New Jersey Department of the Treasury ("Treasury") informed Board Staff that a contract modification would be needed in order for Boston Pacific to perform services in support of remaining items listed in the procedural schedule. The contract modification process delayed the procedural schedule until Treasury approved the modified contract on January 23, 2013.

By February 12, 2013, the parties had consented to a new procedural schedule, which was memorialized in the Fourth Amended Prehearing Order issued on March 7, 2013. The procedural schedule required the parties' experts to submit their responses to FACW's discovery requests no later than Monday, March 11, 2013, and extended the review period to June 30, 2013. By order dated March 20, 2013, Docket No. EO11050314V, the Board extended the deadline for its review from April 30, 2013, to June 30, 2013.

FACW MARCH 8, 2013 FILING

On March 8, 2013 ("March 8th filing"), one business day before the expert responses to FACW's discovery were due, FACW submitted new documents to the Board including: 1) FACW Testimony Exhibit 26 of Chris Wissemann (Update to the New Jersey Expenditures from the Project); and 2) FACW Testimony Exhibit 27 of Chris Wissemann (Update to Proposed OREC Price). FACW characterized the filing as an update to its June 1, 2012, Amended Application and indicated that it would submit rebuttal testimony on March 25, 2013, consistent with the timeline set forth in the procedural schedule.

In its March 8th filing, FACW proposed a significant decrease in its OREC price contingent upon receipt of \$100 million in federal funding. Several factors led to the decrease in OREC price, including a \$4 million "Phase 1" grant from U.S. Department of Energy ("USDOE" or "DOE") an unsecured "Phase 2" grant of \$47 million requiring a competitive review and selection, and a potential federal Investment Tax Credit ("ITC") for renewable energy projects requiring threshold investments and project milestones.² The ITC and the US DOE grants ("federal grants" or "federal subsidies") have the potential to reduce the total capital costs of the Project by approximately \$100 million. The March filing also discussed additional New Jersey expenditures, guarantees, and benefits that FACW anticipated.

Considering the nature of the filing, on March 13, 2013, the parties were requested to advise the hearing officer on whether an extension of the procedural schedule was required. Staff and Rate Counsel submitted responses on March 18, 2013. FACW submitted its reply on March 20, 2013. The EDCs did not take a position.

In Staff's March 18, 2013 letter, it explained that FACW's submission contained "significant and material changes to the project" that would require additional analysis by Staff's expert. Although Staff ultimately indicated that it could comply with the procedural schedule without an extension of time, Staff asserted that FACW's delay in providing the new information contained in the March 8th filing was "substantial and unwarranted." According to Staff, FACW had indicated in early February 2013 that the Applicant needed a final Board decision by June 30, 2013, to have sufficient lead-time to begin construction by December 31, 2013, and remain eligible for the ITC. Staff observed that FACW transmitted the filing to the Board "sixty-four days following the enactment of the Fiscal Cliff bill and thirty-five days following the representations by FACW that the ITC would significantly benefit the proposed project."

Rate Counsel indicated that FACW's March 8th filing "so fundamentally alters FACW's petition that it should be considered a new application." Rate Counsel explained that the filing contained a new OREC price, new assumptions, new project costs, new expenditures, and other new information such that the amended application was fundamentally altered. As an alternative to the Board considering the filing a new application, Rate Counsel requested eight weeks to conduct additional discovery and submit a written surrebuttal.

FACW's March 20, 2013, reply to Staff and Rate Counsel contended that the filing "compleie[d] with its obligations to update the record as new information becomes available." FACW highlighted the perceived benefits of the federal grants, without addressing the delay in supplying such information. Ultimately, FACW consented to a four-week extension of the procedural schedule.

President Hanna issued a Fifth Amended Prehearing Order on April 18, 2013. The amended procedural schedule included an extension of the Board's review period from June 30, 2013 to July 31, 2013. In that order, President Hanna found that the new information contained in FACW's March 8th filing was so substantial that it could not properly be reviewed under the schedule set forth in the prior prehearing order. President Hanna further found that FACW did not provide adequate explanation for delaying its submission for sixty-four days following the enactment of the Fiscal Cliff bill and thirty-five days following the representations by FACW that

² The ITC was signed into law on January 3, 2013, as a part of the American Taxpayer Relief Act of 2012, Pub. L. No. 112-240, 126 Stat. 2313 (the "Fiscal Cliff bill").

the ITC would significantly benefit the proposed project. By order dated May 29, 2013, the Board extended the review period from June 30, 2013 to July 31, 2013.

By notice dated May 9, 2013, the hearings on this matter which were scheduled pursuant to the April 18, 2013 Fifth Amended Prehearing Order, were adjourned and the parties entered into settlement discussions.

On June 28, 2013, a stipulation signed by FACW and Rate Counsel, which further lowered the OREC to \$187 MWh with contingencies, was filed with the Board recommending that the Board issue a final Decision and Order approving the Project ("Project Stipulation"). Board Staff and the EDCs were not signatories to the Project Stipulation.

Also on June 28, 2013, a Stipulation on Joint Record of Exhibits signed by FACW, Rate Counsel and Board Staff, was filed with the Board ("Joint Record" or "Joint Record Stipulation"). The EDCs were not a signatory to the Joint Record.

POST THE JULY 29, 2013 ORDER

By order dated July 29, 2013, the Board rejected the Project Stipulation and approved the Joint Record,³ with modifications. Among other things, the July 29, 2013 Order directed FACW to clarify its OREC price and advise the Board whether the company desired hearings. In an order dated August 5th, President Hanna set dates for a hearing, unless the parties waived such right and decided to proceed on the papers. On August 9, 2013, FACW filed Updated Testimony of Chris Wissemann and Steve Gabel in support of its application and confirmed that it wanted to proceed with a hearing.

On August 15, 2013, Rate Counsel filed a motion to supplement the record with Supplemental Testimony of David E. Dismukes. Upon review of Rate Counsel's motion and supporting documents, President Hanna granted the motion to supplement the record.

By letter dated August 26, 2013, FACW informed the Board that it waived its claim of confidentiality. Subsequently, FACW waived its right to a hearing and the parties agreed to schedule oral argument.

On November 8, 2013, President Hanna approved a consent order signed by FACW, Rate Counsel and Board Staff in which FACW waived its right to a hearing; a new procedural schedule was agreed to providing for briefs by the parties and oral arguments; and the Joint Record was amended.⁴

³ There is a discrepancy between the Joint Record index and the bates numbers on the documents. Specifically Pre-Filed Direct Testimony Exhibit 5 of Chris Wissemann is omitted from the index, but is included within the documents and bates labeled JR-1(f). This appears to be an oversight and not a deliberate omission. The result is that Exhibit 6 is bates stamped JR-1(g), but is listed on the index as JR-1(f); Exhibit 7 is bates stamped JR-1(h), but is identified on the index as JR-1(g), and so forth. For citation purposes within this Order, the Board relies upon the bates label.

⁴ JR – Joint Record approved by BPU in the Order dated July 29, 2013.
RC – Supplemental Testimony of David Dismukes, PhD, dated August 15, 2013.
JR-35 – Update Testimony of Chris Wissemann, dated August 9, 2013
JR-36 – Update Testimony of Steven Gabel, dated August 9, 2013

The oral arguments took place on December 20, 2013, at the Board's offices in Trenton. The transcript of the hearing was filed with the Board on December 24, 2013. Three months later on March 13, 2014, FACW filed a motion to reopen the hearing and supplement the record. Because this motion was filed in close proximity to the Board's public agenda meeting, the parties did not have an opportunity to file objections. Notwithstanding, the Board decided this motion at the March 19, 2014, public agenda meeting.

II. MARCH 13, 2014 MOTION TO REOPEN THE HEARING

FACW's motion to reopen the hearing and supplement the record was filed pursuant to N.J.A.C. 14:1-8.4(a). The regulation allows a party to move before the Board to "reopen the hearing for the purpose of taking additional evidence. Such motion shall set forth clearly the reasons for reopening of the hearing, including any material changes of fact or of law alleged to have occurred since the last hearing." Ibid.

In support of the motion FACW indicated that its executives were planning a trip out of the country to meet with XEMC for the purpose of proposing material alternations to the pending application. If the in-person discussions with XEMC were productive, FACW stated that it would promptly supplement its application. In addition, FACW requested the Board to delay its decision on the application until after the U.S. Department of Energy ("USDOE") determines whether to award FACW federal subsidies, which is expected in May 2014.

Concerning the time period to supplement the record, the Board previously found that the Joint Record comprised the entire record. July 29th Order, at 18. In part, the Board relied on language in the Joint Record stating that the exhibits represent the "parties' cases-in-chief and the entire record in this matter." Ibid. The Board did not anticipate the need for significant supplements and, considering the signatories' representation, determined that ten days (expiring on August 9, 2013) to close the record was reasonable.

The July 29th Order did not foreclose any party from filing a motion after August 9, 2013, to supplement the record. In fact, Rate Counsel filed such a motion on August 15, 2013, which the hearing officer granted. Subsequently, FACW waived its right to a hearing and the parties filed briefs on the merits. Ultimately, the parties presented oral argument on December 20, 2013, before President Hanna and Commissioner Fiordaliso. FACW's instant motion to supplement the record was filed approximately three months after oral argument, six days prior to the March 19, 2014 agenda meeting at which the Board planned to issue its decision on the merits, and one day after the Board published the agenda for the March 19, 2013, meeting.

Upon review, the Board **FINDS** that FACW's motion does not pass the standard set forth in N.J.A.C. 14:1-8.4(a). Neither FACW's notice of motion nor its supporting documents provide specific reasons for reopening the hearing. In broad language, FACW indicates that it would propose material "improvements" to its application related to "financial, technical, and other terms of the current petition" after meeting with its business partner. Supplemental Affidavit of Chris Wissemann (March 13, 2014). In short, the specific content of the proposed supplemental testimony was unknown to FACW at the time it filed the motion. Likewise, specific changes to its financial plan were also unknown. See N.J.A.C. 14:8-6.5(a)(4).

Simply put, new facts do not presently exist. FACW is requesting an opportunity to negotiate new terms with XEMC upon which to amend its application. FACW has not described the new evidence that it plans to submit, FACW has not explained why such evidence was not previously available, and FACW has not indicated when it plans to provide the new evidence. The fact that FACW has actually submitted an application for federal subsidies is consistent with its litigated position and, therefore, not a material change of fact. Accordingly, FACW has not presented a material change of fact to reopen the hearing pursuant to N.J.A.C. 14:1-8.4(a).

Additionally, FACW has not presented a compelling public interest to merit reopening the hearing. If the Board granted FACW's motion, procedural fairness would require the Board to give the other parties an opportunity to conduct discovery on the new information and submit rebuttal testimony, as we did following FACW's March 8, 2013, material supplement. Alternatively, the new information could be so substantive as to constitute a new or amended application, similar to FACW's June 1, 2012, filing. Such additional delay is not in the public interest. Both the public and the parties are entitled to finality.

The potential for additional delay is quite unreasonable after nearly three years of review – including an Amended Application, material supplements and expert reports, settlement discussions, a Joint Record that represents the parties' case-in-chief, briefs on the merits, and oral arguments. Therefore, based on the facts and circumstances presented, FACW's motion for an extension of time to supplement the record is **DENIED**.

For substantially the same reasons, FACW's request for the Board to delay its decision pending action by the USDOE is also **DENIED**. The lengthy procedural history of this case does not warrant additional delay. FACW cannot predict with any certainty whether USDOE will award the federal grant to the Project. Similarly, FACW cannot guarantee that USDOE will require only two months to complete its process. Moreover, an award of federal subsidies may necessitate additional filings from Rate Counsel, Staff, and the EDCs, which would prolong the current proceeding. Because the need does not presently exist, it would be unreasonable for the Board to postpone its decision.

FACW position is fully contained in the record and the Board has sufficient information to reach a determination on the merits. Therefore, under the facts and circumstances of this case, the Board **FINDS** that additional delay is not reasonable. FACW's motion is **DENIED**.

III. DESCRIPTION OF THE APPLICATION

General Project Description: The FACW Project as proposed in the Amended Application submitted on June 1, 2012, is a 25 MW nameplate capacity wind farm, which includes five 5MW Darwind/XEMC XD115 direct drive turbines, on a monopile foundation, to be located approximately 2.8 miles offshore from the Atlantic City shoreline. The complete characteristics and scope of the project are fully described in the Joint Record established in this matter.

Project Output: The Amended Application projects the annual electricity output of the FACW Project as 85,492 MWh based on a P-50 production estimate. In the initial application, FACW projected an annual output of 59,853 MWhs, based on a P-90 production estimate. This change in production estimate helped lower the OREC price from the initially proposed \$454.78/MWh down to \$263/MWh (without federal subsidies) due to the ability to spread project costs over a greater number of MWhs. A P-50 probability level indicates that the output estimate has a 50% chance of being exceeded whereas a P-90 figure represents a 90%

likelihood it will be exceeded. Actual production will depend on the site specific conditions and the performance of the XEMC direct drive turbine, which has never been tested offshore. ORECs are only paid for actual electrical output. Likewise, PJM revenues (energy and capacity payments) are based on actual electrical output.

Turbine Selection: FACW proposes the use of five 5 MW Darwind/XEMC XD115 direct drive turbines in its Amended Application, the same turbines specified in the initial application. FACW represents that XEMC has been manufacturing and selling onshore direct drive turbines since 2006 and that at present XEMC has more than 1,000 XEMC direct drive turbines in operation onshore in China. The Darwind/XEMC XD115 – 5MW machine, designed specifically for the offshore environment, is in the prototype turbine testing and certification stage of development and has no commercial operating history. The proposed FACW project will be the first deployment of the Darwind/XEMC XD115 turbine in a commercial project.

XEMC is seeking industry-standard third-party certification of the Darwind/XEMC XD115 turbine. They received Type B Certification from Det Norske Veritas (“DNV”) on July 12, 2013. In addition, XEMC will provide a full 20-year full service warranty of performance for the turbine and is providing 100% vendor financing for the project.

Escrows: At least thirty days prior to the commencement of offshore construction, FACW has agreed to place all turbine designs and drawings in escrow and deposit \$4 million in escrow as a decommissioning fund for the Project. They have also agreed to fund a construction escrow of at least \$61 million.

Financing: The FACW Project will receive 100% of debt and equity financing from XEMC, the turbine manufacturer. XEMC will provide financing for all costs to develop, design, procure, and build the Project. Turbine selection is a critical component of the FACW project considering that the turbine costs are the largest cost component of the project, amounting to \$46.8 million or \$1,872/kW, which is approximately 28.5% of total capital costs. Changes to the selected project turbine manufacturer (XEMC) would directly impact project financing.

Capital Costs:

The total capital cost of the Project noted in the Amended Application, without federal subsidies, is approximately \$188 million. This is a decrease of about \$42 million from the initial application, which projected capital costs of \$230 million. If FACW receives 100% of the federal subsidies, FACW’s capital costs could be reduced to \$163.8 million (or by 30%, from \$9,200/kW in the Initial Application to \$6,500/kW in the latest proposal).

OREC Price Modifications: During the course of the Board’s review, FACW proposed several different OREC prices. The following table lists each of FACW’s various price proposals, along with adjustments to project output, capital costs, and assumptions related to receipt of federal subsidies.

FACW Project Output & Costs					
	Project Output	Capital Costs	Cost per kW	OREC Price /MWh	Assumptions /Contingency
Initial Application May 19, 2011	59,853 MWhs	\$230 million	\$9,200/kW	\$454.78 in 2013 with 3.5% escalator	No Federal incentives or grants assumed
Amended Application June 12, 2012	81,421 MWh	\$188 million	\$7,520/kW	\$263 in 2012 or \$287.48 in 2015 with 3.5% escalator	No Federal incentives or grants assumed
Update to Amended Application, March 8, 2013 – option 1	81,421 MWh	\$188 million	\$7,520/kW	\$263 in 2012 or \$287.48 in 2015 with 3.5% escalator	No Federal incentives or grants assumed
Update to Amended Application, March 8, 2013 – option 2	81,421 MWh	\$188 million	\$7,520/kW	\$231.60 in 2012 or \$265.77 in 2015 with 3.5% escalator	Assumes receipt of 30% ITC and \$4 Million DOE Phase I Grant
Update to Amended Application, March 8, 2013 – option 3	81,421 MWh	\$163.8 million	\$6,500/kW	\$199.17 in 2012 or \$228.55 in 2015 with 3.5% escalator	Assumes receipt of \$100 Million in Federal Funding from ITC and DOE Phase I and Phase II Grants
Supplement to Amended Application, August 9, 2013	85,492 MWh	163.8	\$6,500/kW	\$199.17 EY 2013 per MWh or \$220.82 in EY 2016 with 3.5% escalator	Assumes receipt of \$100 Million in Federal Funding from ITC and DOE Phase I and Phase II Grants

Total Ratepayer Subsidy

At an OREC price of \$199.17/MWh, FACW projects the total ratepayer subsidy at \$125.5 million Net Present Value ("NPV") over 20 years of operation. JR-21(c), Att. B.⁵ The present value of ORECs from FACW is approximately 3.3 times higher than the present value of revenues FACW would be expected to earn from its sales in the PJM Markets.

⁵ RC - Supplemental Testimony of David E. Dismukes on behalf of New Jersey Division of Rate Counsel, August 15, 2013, Schedule DED-S-1

However, at \$263/MWh the total subsidy that ratepayers would pay in the form of ORECs over twenty years of operation is an estimated \$240.3 million NPV. This amount would be offset by the total revenues received from the sale of energy and capacity into the PJM market, estimated to be \$57.4 million.

IV. PARTY POSITIONS

A. FACW

On November 18, 2013, FACW filed an initial brief in support of its application. FACW requests the Board to approve its application with an OREC price of \$199.17/MWh on the basis that it satisfies all of the criteria of OWEDA. FACW Br. at 1.

Concerning the requirement that the project demonstrate net positive economic and environmental benefits to the State, FACW claims that the petition has demonstrated commitments for "\$99 million in direct expenditures in New Jersey during construction and \$56 million during operations." Id. at 26. In support of these expenditures FACW has supplied vendor quotes and has indicated that it will include a "New Jersey content" provision in its contracts binding suppliers to make certain agreed-upon expenditures and jobs in New Jersey. Id. at 27-28.

FACW also asserts that it has demonstrated that benefits would flow to the State from environmental benefits, merit order effect, tourism, and lessons learned. FACW asserts that their benefits would result in economic net benefits several times greater than the estimates calculated by Boston Pacific and Rate Counsel; and, Boston Pacific and Rate Counsel should have afforded these benefits greater economic value. Id. at 29-30.

FACW asserts that they have sufficiently demonstrated the viability of the turbine technology chosen, the XEMC Darwind XD115-5MW direct drive turbine. Id. at 37. In addition, FACW has agreed to comply with Boston Pacific's recommendation to place the turbine designs and drawings into escrow. Finally, FACW has agreed that OREC payments shall be conditioned upon its receipt of Type A Certification from DNV.

Concerning financial integrity, FACW asserts that it has satisfied the burden of demonstrating sufficient access to capital by agreeing to fund a construction escrow and decommissioning escrow. Id. at 35-36. The company also states that the cost competitiveness of the project is less costly than both the anticipated Rhode Island and Maine demonstration-scale projects. Id. at 41.

Concerning the financing mechanism, FACW asserts that their application is consistent with OWEDA because: 1) no ORECs are to be paid until electricity is produced and payment is based on the actual electrical output of the project; 2) ratepayers and the State are held harmless for any cost overruns associated with the project; 3) FACW will pass along tax credits or other governmental benefits to ratepayers; 4) the financing mechanism fairly balances the risks and rewards of the project between ratepayers and shareholders; and 5) it ensures that any costs of non-performance, in either the construction or operational phase of the project, shall be borne by shareholders. Id. at 21-26.

Finally, FACW submitted a reply brief on December 13, 2013 reiterating its position that the application complies with all requirements of OWEDA and rejecting Board Staff's analysis of the project.

B. Board Staff

On December 4, 2013, Board Staff submitted an opposition brief in response to FACW's Initial Brief. Upon review of the complete record, Staff recommended the Board reject the application because the Project 1) does not demonstrate positive economic net benefits because it has not credibly shown it will receive the federal subsidies needed to do so; and 2) the XEMC X115 Direct Drive Turbine technology poses an unnecessary technical risk to the success of the project, due to the pre-commercial stage of the proposed XEMC technology. Staff Br. at 1-2. Staff disputed the validity of FACW's revised OREC price of \$199.17/MWh because FACW has failed to credibly demonstrate that it will actually receive all the federal subsidies needed to achieve that price. Id. at 8-9. In addition, Staff contended that ratepayers will never pay the lower OREC price, but will begin paying at a rate of \$220.82 and asserted that the OREC price provided by FACW lacks transparency. Id. at 10-12. Staff found that the lack of transparency and the lack of sufficient federal funding created an unacceptable risk for Board approval of FACW's Amended Application. Id. at 10.

With respect to the total level of subsidies to be paid by ratepayers over the life of the project, Staff reasoned that an OREC price of \$199.17/MWh that is approximately 3.3 times the market price is unreasonably high. Ibid.

Last, Staff disputed FACW's contention that the turbine technology satisfied the requirements of OWEDA. In part, Staff criticizes FACW because the turbine has not been commercially tested, and FACW has repeatedly noted that it has the right to switch turbine brands pursuant to N.J.A.C.14:8-6.5(a)(2)(ii). Additionally Staff had concerns about the role of XEMC's multi-faceted role in the project, which makes it difficult to switch to a turbine with a more demonstrated track record of performance in an offshore wind setting. Id. at 13-14.

C. Rate Counsel

Rate Counsel did not submit a brief, but instead relied on its position which is contained within the record. On December 17, 2012, the Division of Rate Counsel submitted testimony from its expert David Dismukes, PH.D., which recommended that the Board reject the application. The testimony stated that the project, at an OREC price of \$263/MWh, did not comply with OWEDA, did not produce a positive economic impact to the state and could lead to job losses. At the time of the testimony, the net cost to the state constituted \$132 million in net economic output in NPV. JR-20, p. 5.

On May 8, 2013, Rate Counsel filed surrebuttal testimony from Mr. Dismukes in response to FACW's March 8, 2013 filings and March 25, 2013 rebuttal testimony. This testimony did not change Mr. Dismukes' primary recommendation from the previous testimony, but did modify his economic net benefit estimates. JR-22(b), p. 2. The testimony, which utilized an OREC price of \$231.60 pursuant to FACW's testimony, found that the rate impacts of the revised project would lead to a contraction of \$290.5 million NPV in New Jersey economic output. Id. at 70.

On June 28, 2013, Rate Counsel entered into a Project Stipulation with FACW for approval of the project, which lowered the OREC price to \$187 MWH with contingencies. This Project Stipulation was rejected by the Board on July 19, 2013.

At the December 20, 2013, oral argument on this matter, Rate Counsel stated their goal was to obtain the best deal possible for the ratepayers, and they believe that they did so with the stipulation rejected by the Board. Rate Counsel believes the record is complete allowing for a final determination on the application.

D. Intervenor

The EDCs jointly filed their response to FACW's brief on December 4, 2013. The EDCs did not take a position on the merits of FACW's application; but, they questioned the reasonableness of FACW's proposed 3.5% annual escalator. They also requested that "the Board establish conditions to ensure that no risks or undue costs are placed on the electric customers of New Jersey, that the project not impair the integrity of the BGS auction, and that no implementation burdens be placed on the EDCs." Intervenor Br. at 2.

V. ANALYSIS

An applicant seeking to develop a qualified OSW facility must demonstrate that it has satisfied the criteria outlined in N.J.S.A. 48:3-87.1 and N.J.A.C. 14:8-6.1 et seq. Pursuant to N.J.S.A. 48:3-87.1, the applicant must provide fourteen different categories of information for the Board's review:

- (1) a detailed description of the project . . . ;
- (2) a completed financial analysis of the project . . . ;
- (3) the proposed method of financing the project, including identification of equity investors, fixed income investors, and any other sources of capital;
- (4) documentation that the entity has applied for all eligible federal funds and programs available to offset the cost of the project or provide tax advantages;
- (5) the projected electrical output and anticipated market prices over the anticipated life of the project . . . ;
- (6) an operations and maintenance plan for the initial 20-year operation of the project . . . ;
- (7) the anticipated carbon dioxide emissions impact of the project;
- (8) a decommissioning plan for the project including provisions for financial assurance for decommissioning as required by the applicable State and federal governmental entities;
- (9) 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;
- (10) a cost-benefit analysis for the project . . . ;
- (11) a proposed OREC pricing method and schedule for the board to consider;
- (12) a timeline for the permitting, licensing and construction of the proposed offshore wind project;
- (13) a plan for interconnection, including engineering specifications and costs; and
- (14) any other information deemed necessary by the board in order to conduct a thorough evaluation of the proposal. . . .

These requirements are applicable to all OSW applicants, as OWEDA does not distinguish between applications filed pursuant to N.J.S.A. 48:3-87.1 and pursuant to N.J.S.A. 48:3-87.2.⁶ In addition, the regulations, codified at N.J.A.C. 14:8-6.1 et seq., provide specific detail on the type of information that must be included in an application.

FACW provided information responsive to each of the categories noted above and its application was considered administratively complete pursuant to N.J.A.C. 14:6-6.4 on June 14, 2011. Subsequently, FACW amended its application on June 1, 2012, and supplemented the application on March 8, 2013, and August 9, 2013. The parties conducted extensive discovery on each iteration of the FACW application, which is part of the Joint Record.

After review and consideration of the application and the testimony and positions of the parties, the Board must find that the following conditions are satisfied in order to approve a project as a qualified OSW project:

(a) the filing is 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 is considering the application;

(b) the cost-benefit analysis, submitted pursuant to paragraph (10) of subsection a. of this section, demonstrates positive economic and environmental net benefits to the State;

(c) the financing mechanism is based upon the actual electrical output of the project, fairly balances the risks and rewards of the project between ratepayers and shareholders, and ensures that any costs of non-performance, in either the construction or operational phase of the project, shall be borne by shareholders; and

(d) the entity proposing the project demonstrates financial integrity and sufficient access to capital to allow for a reasonable expectation of completion of construction of the project.

[N.J.S.A. 48:3-87.1(b)(1).]

The Board also must consider "the total level of subsidies to be paid by ratepayers for qualified offshore wind projects over the life of the project" and "any other elements the Board deems appropriate." N.J.S.A. 48:3-87.1(b)(2).

If a project is approved as a qualified OSW facility, the Board must issue an order that specifies "the value of the OREC and the term of the order. An order issued by the board pursuant to this subsection shall not be modified by subsequent board orders, unless the modifications are jointly agreed to by the parties." N.J.S.A. 48:3-87.1(c). In addition, the order must include conditions to ensure the following:

⁶FACW applied for approval of a 25 MW "wind energy project located in territorial waters offshore of a municipality in which casino gaming is authorized[,]" as provided in N.J.S.A. 48:3-87.2.

- (1) no OREC shall be paid until electricity is produced by the qualified offshore wind project;
- (2) ORECs shall be paid on the actual electrical output of the project that is delivered into the transmission system of the State;
- (3) ratepayers and the State shall be held harmless for any cost overruns associated with the project; and
- (4) the applicant will reimburse the board and the State for all reasonable costs incurred for regulatory review of the project, including but not limited to consulting services, oversight, inspections, and audits.

[N.J.S.A. 48:3-87.1(c).]

The following analysis weighs each of the criteria set forth in N.J.S.A. 48:3-87.1(b) and balances policy considerations with other information that is part of the record in this matter. In so doing, the Board notes that the statute sets a high bar for approval. Because the four criteria in N.J.S.A. 48:3-87.1(b)(1) are joined by the conjunction “and,” all of the elements are required for the Board to issue an approval. State v. Duvo, 192 N.J. Super. 418, 421-22 (1983). A project that fails even one element cannot be approved. Even a project that meets all four elements is subject to further review and may fail for reasons “deemed appropriate” by the Board. See N.J.S.A. 48:3-87.1(b)(2).

a. Energy Master Plan

The 2011 Energy Master Plan (“EMP”) describes the State’s interest in achieving the goal set out in OWEDA of obtaining at least 1,100 MW of OSW capacity. OSW is supported as part of a diverse resource portfolio because it is a zero-carbon, clean energy source that “has the potential to develop manufacturing and support industry within the State, thereby creating direct, indirect, and induced economic benefits for many years to come.” EMP at 101.

The EMP recognizes that while “[o]ffshore wind [has] great economic potential, [its] implementation must not create an undue economic burden for retail customers. Therefore, . . . offshore wind applicants must demonstrate that the net economic benefits of their projects are of sufficient ‘quality’ to offset the costs.” EMP at 6 (emphasis added); EMP at 35 (“The BPU has released rules to implement OWEDA that balance the cost-benefit and the overall impact upon the State. These impacts must include economic and environmental costs and benefits, and job creation, among other things.”)

It cannot be understated that positive economic benefits are essential to the EMP and essential to the Board’s review. The phrase “sufficient quality” gives the Board insight as to the nature of economic benefits that an applicant must demonstrate. The Board interprets the phrase to require more than marginal economic benefits, but to require OSW projects to produce economic benefits of such a “quality” to justify ratepayer’s investment. The EMP cautions the Board against rushing headlong into long-term OREC orders with developers where net economic benefits are lacking. EMP at 7. “In addition, cost-effectiveness must be calculated from both the perspective of program participants and non-participants. . . .” EMP at 75; see also JR-22(b) at 10 (testimony of Rate Counsel’s expert that “rejection of the FACW OREC proposal would be consistent with the EMP’s increased emphasis on promoting renewable energy resources that pass relatively strict, ‘rational,’ and ‘rigorous’ cost-benefit analysis.”).

Following the EMP, the Board will consider whether the FACW project creates economic benefits for the State and, if so, whether such benefits are of sufficient quality to justify ratepayer investment. It is possible for a project to pass the net benefits test pursuant to N.J.S.A. 48:3-87.1(b)(1)(a) and be inconsistent with the EMP if the Board determines that the projected economic benefits are outweighed by the costs, both to ratepayers and to the State.

We do not reach the question of whether FACW's purported economic benefits are sufficient. As discussed, infra, the Board concludes that the FACW Project does not produce a net economic benefit. Accordingly, the project is inconsistent with the EMP because it produces a net cost to New Jersey ratepayers.

b. Cost Benefit Analysis

A project's ability to demonstrate "positive economic and environmental net benefits to the State" is a core requirement of N.J.S.A. 48:3-87.1(b)(1)(b) and the EMP. To demonstrate such benefits N.J.S.A. 48:3-87.1(a)(10) and N.J.A.C. 14:8-6.5(a)(11) requires the applicant to use input-output models that have the ability to capture New Jersey economic benefits. FACW selected the Rutgers R/ECON model, which is among the list of potential economic models approved for this use and included at N.J.A.C. 14:8-6.5(a)(11)(i)(1).

The cost benefit analysis includes inputs and outputs related to in-State spending levels, manufacturing, employment, wages, and indirect business taxes, among other items. N.J.A.C. 14:8-6.5(a)(11)(v). "The Board will evaluate the credibility of asserted economic benefits" and may rerun the economic model using other inputs and assumptions provide by BPU Staff. N.J.A.C. 14:8-6.5(a)(11)(vii), (xi).

After all of the various inputs and outputs are factored, the net benefits test boils down to a simple formula:

$$\text{Net Benefits} = \text{Economic Benefits} - \text{Economic Cost}^7$$

We now turn to review the credibility of FACW's assumed costs and benefits. Within this analysis the Board will determine whether federal subsidies, which FACW has not yet received, should be applied to reduce the OREC price.

i. Economic Costs: The OREC Price

FACW's application listed three different economic costs: the OREC cost, environmental costs, and economic costs due to higher electricity prices. The environmental costs are estimated at \$1.5 million; and FACW estimates the economic costs due to higher electricity prices at \$9.2 million. These figures are relatively small in proportion to the OREC cost. The Board's analysis will focus on the OREC cost, as that is the largest driver of economic costs in the cost benefits analysis and the primary area of dispute among the parties.

During the course of the Board's review of the Project, FACW proffered several different OREC prices. The initial application filed on May 19, 2011, listed an OREC price of \$454.78/MWh. The Amended application filed on June 1, 2012, listed an OREC price of \$263/MWh. "Two key changes were made in order to achieve a lower OREC price. . . . First, the Project's capital

⁷ JR-22(b), 49-15.

costs were decreased from \$230 million (\$9,200/kW) to \$188 million (\$7,520/kW). Second, a higher electricity output was assumed for the project, which resulted in a lower cost per OREC[.]” JR-19, p. 5.

Subsequently, on March 8, 2013, FACW adjusted the OREC price for the third time – creating a sliding scale – explaining that “[r]ecent actions at the federal level have presented the opportunity for additional cost reductions.” JR-21(a), 10-20 to 21.

Namely, that on December 12, 2012, the Project was awarded a DOE grant of \$4 million; this grant qualifies the project as one of only seven candidates for a potential of up to \$50 million in Federal funding over time. Additionally, Congress enacted the “Fiscal Cliff” legislation which included an extension of the applicability of the 30% Investment Tax Credit for any wind project that begins construction in 2013.

[JR-21(a), 10-22 to 11-4; see JR-1(aa) Exhibit 27, 3-12 to 6-16.]

FACW is eligible to receive up to \$100 million dollars in federal subsidies. Relying on the potential receipt of unsecured federal monies, FACW filed supplemental testimony that set an OREC at \$263/MWh if no federal subsidies were received, “\$231.60 (due to the \$4 million DOE Grant and the ITC extension) and . . . \$199.17 (upon the award of the full DOE Grant of \$50 million and the ITC).”⁸ JR-21(a) at 11-11 to 13; JR-1(aa) Exhibit 27, 6-17 to 7-2.

The Project Stipulation between FACW and Rate Counsel, which the Board rejected in July 2013, proposed an OREC price of \$187/MWh. In response to Staff’s opposition to the Project Stipulation, however, FACW proposed the following modified OREC price in its reply brief -- \$251 with no federal funding, \$220 with the ITC price adjustment, \$214 with the DOE Phase 2 Grant and no ITC price adjustment, and \$187 with the ITC price adjustment and the DOE Phase 2 Grant.⁹ Considering the multiple variations of the OREC price, the Board requested FACW to confirm the OREC price that it wanted the Board to approve.

As of August 9, 2013, FACW asked the Board to evaluate the Project using an OREC Price Plan that sets an OREC price of \$199.17/MWh in Energy Year (“EY”) 2013 and escalates the price by 3.5% annually. JR-36, Schedule B – C. The OREC price in EY 2016, the date commercial operations begin, and the initial price that ratepayers would pay, is \$220.82/MWh.¹⁰ JR-36, Schedule B – C. When the OREC term expires in Energy Year 2036, the OREC price would be \$439.39/MWh. If the commercial date of operation is delayed beyond EY 2016, FACW proposes to increase the price by 2.8% annually after EY 2036. JR-36, Schedule B.

⁸The 3.5% annual escalator contained within the March 8, 2013 testimony schedule of OREC prices began in 2012 (preceding both the date of the testimony and the commercial operation date).

⁹This price schedule is provided to explain the basis for the Board’s request that the applicant confirm the OREC price. The price schedule was not part of the Project Stipulation, was not testimony, and is not part of the Joint Record in this matter.

¹⁰According to the testimony of Steve Gabel, “[t]he OREC Price proposed in this and Chris Wissemann’s testimony is . . . \$199.17/MWh. It is calculated starting from Energy Year 2013 and then is restated to commence concurrent with the commercial operation date in Energy Year 2016.” JR-36, p. B-4. In other words, \$199.17 is the 2013 net present value of the 2016 OREC price, assuming a 3.5% interest rate compounded annually. Likewise, the 2036 OREC price of \$439.39/MWh is the future value of \$199.17/MWh when 3.5% is compounded over twenty-three years.

The rate of return for the Project is 9.78%, which FACW describes as below market rates. JR-21(a), Att. A, p. R-7.

The OREC price of \$199.17/MWh represents more than a 50% decrease from the price proposed in the initial application. JR-22(a), 10-16 to 19. The Board acknowledges FACW's explanation and Boston Pacific's testimony that "[s]everal factors have led to the decrease in OREC price, including a reduction in estimated capital cost, the assumed receipt of U.S. Department of Energy (DOE) grant funding, and the assumed receipt of the federal investment tax credit (ITC) for renewable energy projects." JR-22(a), 10-16 to 19; JR-21(a), 10-18 to 11-4.

The OREC price of \$199.17/MWh is consistent with the OREC Price Proposal that FACW proposed on March 8, 2013, to the extent that it "includes the benefits of passing through both the Investment Tax Credit ("ITC") and Department of Energy subsidies to lower ratepayer costs[.]" JR-35, 7-9 to 13; JR-1(aa) Exhibit 27, 6-14 to 7-2. FACW's August 9, 2013, testimony of Messrs. Wissemann and Gable, however, makes no mention of the March 2013 sliding scale.

Since then, FACW stated, in its brief, that it would take a lower return on investment if 100% of the federal funds are not received. FACW Br. at 20. Mr. Wisseman's March 25, 2013 testimony stands in conflict with the notion that the Project could take a lower return on investment. Mr. Wissemann testified that the Project could not reduce its return on investment any further because "XEMC has reduced its return on investment to the lowest possible amount in order to enter the US market to place and 'showcase' their turbines." JR-21(b), B-14, lines 4-6.

Despite the suggestion in FACW's briefing papers that it could take a lower return on investment and remain economically sound, the Board **FINDS** that Wissemann's testimony does not support such a conclusion. The Board **FINDS** that the March 8, 2013, OREC price proposal, including the sliding scale, represents the costs that the Project needs to be viable. In addition, the Board **ACCEPTS** FACW's testimony that an OREC price of \$199.17/ MWh is viable only if the Project receives the ITC and full \$50 million USDOE Grant. See JR-1 (aa) Exhibit 27, 6-17 to 7-2; JR-21(a), 11-12 to 13.

ii. Federal Subsidies

To the extent that FACW applied for certain federal subsidies and has committed to pass along the benefits to ratepayers, the company has complied with N.J.A.C. 14:8-6.5(a)(5) and N.J.A.C. 14:8-6.5(a)(11)(viii). The Board, however, is not required to assume that FACW will receive such subsidies when computing the cost-benefit analysis. Pursuant to N.J.A.C. 14:8-6.5(a)(11)(vii) and (xi), the Board may evaluate the credibility of FACW's economic assumptions and may "rerun the model with other assumptions and inputs to be provided by the Board staff." N.J.A.C. 14:8-6.5(a)(11)(vii) and (xi).

FACW urges the Board to include the full ITC and \$50 million federal grant as part of the cost benefit analysis, without regard to whether the Project has qualified for or received such monies. Essentially, FACW assumes that 100% of the federal subsidies will materialize and commits that the Project will pass such benefits along to ratepayers in a reduced OREC price of \$199.17/MWh. The Board must determine whether this is a credible assumption.

The position of Rate Counsel, Staff, and FACW, differ on this issue. Rate Counsel opposes including the federal subsidies in the cost benefit analysis. Specifically, Rate Counsel refused to evaluate the \$199.17/MWh OREC price because the price "is speculative and based upon

the award of a 'Phase 2' grant from the U.S. Department of Energy that cannot be guaranteed and is not known or measurable with any degree of certainty." JR-22(b), 74-13 to 17.

On the other hand, Staff's expert testified that it is appropriate to set a price assuming DOE support. Boston Pacific testified, "[t]he Project is eligible for the ITC as long as construction begins in 2013. With the price of \$199.17/MWh, the risk of securing the federal assistance falls on FACW, rather than New Jersey Ratepayers." JR-22(a), 11-1 to 7. Notably, Boston Pacific's opinion relied on the Project beginning construction in 2013.

In support of an OREC price of \$199.17/MWh FACW emphasized that BPU approval of the Project in early 2013 would be necessary for the Project to begin construction, qualify for the federal funds and, thus, reduce the OREC price. "To qualify for the ITC a project must begin construction prior to December 31, 2013." JR-1(aa) Exhibit 27, 4-16 to 17. FACW also testified that "BPU approval of the Project in early 2013 is required." JR-21(a), 11-5 to 13.

BPU approval of the Project early in 2013 is required for the project to successfully compete for full DOE funding. BPU approval of the Project early in 2013 is also required for the Project to initiate construction to qualify for the ITC and then use these benefits to reduce the OREC price significantly. FACW has proposed to reduce the currently proposed OREC price to \$231.60 (due to the \$4 million DOE Grant and the ITC extension) and . . . \$199.17/MWh (upon the award of the full DOE Grant of \$50 million and the ITC).

[JR-21(a), 11-5 to 13.]

The record does not support FACW's position that it is well-positioned to receive the federal subsidies. As quoted above, FACW testified that "BPU approval of the Project early in 2013 is required for the project to successfully compete for full DOE funding. BPU approval of the Project early in 2013 is also required for the Project to initiate construction to qualify for the ITC and then use these benefits to reduce the OREC price significantly." JR-21(a), 11-5 to 13 (emphasis added). As of the date of this Order in 2014, we are well beyond the time period that FACW indicated was "required" for the company to successfully qualify for the federal subsidies.

Even if the Board accepted FACW's current argument that it is ahead of the competition for the federal subsidies and a possibility still exists that it could be awarded the funds (FACW Reply Br. at 14-15), for policy reasons, the Board agrees with Rate Counsel's approach. Namely, subsidies that are not known or measurable with any degree of certainty should be excluded from the OREC price. Although an applicant has an obligation to apply for such funds and pass the benefit along to ratepayers, and an applicant may advise the Board of the economic impact if such subsidies are received, a qualified wind facility must be able to survive scrutiny and pass the net benefits test even if such funds never materialize.

Equally important, an applicant's failure to receive subsidies should not undermine the project's integrity. To this end, the Board is persuaded by FACW's testimony that "XEMC has [already] reduced its return on investment to the lowest possible amount[.]" JR-21(b), p. B-14, lines 4-6. If the Board were to approve an OREC price based on an applicant's optimism that it will successfully compete, qualify, and receive federal subsidies, the Board runs the risk of approving a project that is artificially inflated and underfunded. OWEDA does not require the Board to approve such a project.

For the above reasons, the Board **FINDS** that the Phase 2 DOE Grant of \$50 million and the ITC are not credible assumptions to include in the OREC price. Therefore, based on FACW's March 8, 2013, price schedule, the Board **FINDS** that the OREC price for purpose of calculating the economic net benefit is \$263/MWh, not \$199.17/MWh as proposed by FACW.¹¹

iii. Economic and Environmental Benefits

FACW provided testimony that the Project would yield net benefits to New Jersey between \$541 million and \$894 million over the lifetime of the Project at an OREC price of \$263/MWh. JR-21(c), Att. D. The calculation attributes economic benefits to: 1) construction, operation, and maintenance; 2) Class 1 REC savings; 3) tourism; 4) energy and capacity value; 5) environmental benefits from pollution reduction; 6) the merit order effect; and 7) lessons learned. JR-21(c), Att. B.

Staff and Rate Counsel dispute that net benefits exist with an OREC price of \$263 MWh and assert that the Project produces a net cost. Boston Pacific estimates a net cost of at least \$187 million. Rate Counsel estimates a net cost of approximately \$132 million. JR-20, 7-20 to 8-5. In fact, the only OREC price that Boston Pacific found to pass the test was \$199.17/MWh (anticipated net benefits of \$33 million). The only OREC price that Rate Counsel supported was the price of \$187/MWh proposed in the Project Stipulation that we rejected. Both parties reached their conclusions by discounting benefits that FACW attributed to tourism, pollution reduction, the merit order effect and lessons learned because the economic benefits were either not measurable or not substantiated.

Although the Board recognizes that tourism, pollution reduction, and the merit order effect may (in theory) have some economic benefit, it is the burden of the applicant to reasonably, and justifiably quantify such value.

1. Construction Operation and Maintenance

FACW has proposed to make \$99 million in direct expenditures in New Jersey during construction (including 216 jobs) and \$56 million during operations (including 12 jobs over 20 years). JR-1(z) Exhibit 26, Att. 1. Specifically, FACW has agreed to contract with New Jersey companies for turbine fabrication and installation, turbine transport and lift, cable installation, and substation installation. The direct expenditures do not include developing a manufacturing plant in New Jersey.

To assure such expenditures, FACW has offered to include a "New Jersey content" provision in its contracts with suppliers. JR-1(z) Exhibit 26, 4-23 to 5-14. FACW has also proposed to provide annual reports to the BPU documenting actual New Jersey jobs and expenditures.

Upon review of FACW's in-state expenditure proposal, Boston Pacific concluded, "FACW's guarantee of direct jobs and direct expenditures in New Jersey, and its substantiation with vendor quotes, provides documentation of economic benefits of \$156.5 million (net present value)." JR-22(a), 18-7 to 10.

¹¹ The Board does not rely on the lower amount of \$251/MWh found in FACW's brief dated July 12, 2013, because it is not testimony.

Considering the evidence in the record, the Board **FINDS** that the Project has demonstrated construction, operation, and maintenance benefits of \$156.5 million.¹²

2. Class I REC Savings and PJM Revenues

Benefits to ratepayers from the receipt of revenues for the Project's sale of energy and capacity in the PJM market together with the sale of Class I RECs total \$64.2 million.

FACW anticipates approximately \$6.8 million in benefits from Class I REC savings and approximately \$57.4 million in energy and capacity payments ("PJM Revenues"). Boston Pacific found that FACW adequately demonstrated such benefits within its Amended Application. JR-19, p. 20. However, Rate Counsel disagreed. Rate Counsel found FACW's assumptions to be unreasonable and calculated the impact analysis using revised factors.

FACW used a capacity factor of 20% annually. Rate Counsel found this value to be speculative because PJM has not fixed a capacity factor for OSW facilities. PJM will apply a capacity factor of 13% until at least three years of actual operational data is captured and supplied to PJM. JR-20, Att. B, p. 97.

Concerning Class I REC prices, FACW's economic model presumes that Class I REC prices will increase from \$3/MWh in 2013 to \$15/MWh in 2017. Rate Counsel determined that the pricing was artificially inflated because, in part, FACW's proposal represents an increase of 400% from 2013 to 2017. JR-20, Att. B, p. 100. Rate Counsel's revised analysis presumed a flat \$2/MWh over the entire life of the Project, resulting in an 80% reduction of FACW's estimate.

Considering the parties' positions, the Board **FINDS** sufficient credible evidence in the record to support FACW's estimates of Class I REC savings and PJM revenues.

3. Tourism

Concerning tourism, FACW estimated a tourism benefit of between \$138 million and \$410 million (NPV), assuming that 35,000 tourists (on the low end) and 4.4 million tourists (on the high end) will travel to Atlantic City annually just to visit the Project and that each tourist will spend approximately \$773 per visit.

FACW's low-end estimate is equal to the number of visitors to the Scroby Sands OSW Farm in England. FACW's high-end estimates exceed the annual visitors to popular tourist attractions such as the Washington Monument, the Smithsonian Art Museum, the Statute of Liberty, and the Grand Canyon, for example. JR-20, Att. B, p 134.

Rate Counsel's expert testified that "there are no statistically significant increases in tourism that should be included in the net economic benefits analysis of the FACW proposal." JR-22(b), 48-13 to 15, 68-3 to 11. Rate Counsel's expert explained that even if some tourism benefits exist, FACW did not account for "any offsetting negative impacts that could reduce these tourism benefits." JR-22(b), 47-8 to 9. For example, "[i]f a tourist were to spend one hour visiting the FACW facility, rather than an Atlantic City casino, and the tourist dollars spent per hour at

¹² The Board does not have jurisdiction over contracts between private parties and, thus, does not take a position on FACW's representation that it will include a "New Jersey content" provision in its contracts.

FACW were lower than the tourist dollars spent per hour at an Atlantic City casino, there would be a net economic loss associated with the tourist visiting the OSW project rather than the casino." JR-22(b), 47-14 to 19.

Boston Pacific's main concern with the value attributed by FACW is that it assumes "tourists will travel to New Jersey [and spend \$773 per day] just to visit the Project." JR-19, p. 25. The flaw in this calculation is that FACW's estimate is high and FACW does not support its assumption that tourists will extend their stay or increase their spending due to the Project. JR-19, p. 24; see JR-20, Att. B, p.136-140 (Rate Counsel noting that FACW did not provide any empirical data that OSW facilities increase tourism).

On balance, the Board is persuaded by the testimony of Rate Counsel and Boston Pacific. The Project not only should substantiate the tourism estimates, but it also should assume mitigating factors. Therefore, the Board **FINDS** that FACW's tourism estimates were not adequately substantiated.

4. Emissions Reduction

FACW asserts that the environmental benefit from emissions reduction is approximately \$178.7 million. JR-1(dd), p. 5. This value is quantified based on the potential "social gains" of emissions reduction, rather than the market value of such reductions. JR-21(c), 6-17 to 21, FACW Br. at 32.

For the social gains estimates, FACW relied on an inter-agency federal government report "that estimates the monetized damages associated with an incremental increase in carbon emissions in a given year. The report acknowledges the many uncertainties involved in determining these costs. The report provides several projections for the social cost of CO₂ on a \$/ton basis based on different discount rates." JR-19, p. 26. FACW asserts that their methodology is reasonable because the market based approach preferred by Rate Counsel and Staff would result in many projects being deemed to have no environmental value, absent a market to buy and trade emissions credits. FACW Br. at 33.

Both Rate Counsel and Staff discourage the use of a social gains valuation because the value is subjective and not tied to market prices. See JR-22(a), 28-20 to 29-9 (Boston Pacific finding that "sufficient documentation was not provided to support FACW's assertions"). Accordingly, Boston Pacific found that FACW's estimate was not supported and, therefore, declined to apply any value in its analysis.

Environmental benefits were not demonstrated because they are based on an estimate of the social benefits of displacing CO₂, SO₂, and NO_x emissions from fossil-fuel generation, rather than a market price for the emission. The calculation of environmental benefits should be tied directly to the market prices because offshore wind is just one alternative to cutting emissions and its 'benefit' occurs if, and only if, it is less expensive than the alternative ways.

[JR-19, p. 25.]

Boston Pacific also opined that the emissions reduction has value only if it is the least available option. Again, they link value to the economics of market competition. JR-22(a), 25-11 to 16. "If other ways of achieving these benefits are not accounted for, then New Jersey ratepayers would have to pay more than necessary to achieve these benefits. . . . Even if looking back over 10 years, the market clearing price has never gone above \$1,000/ton. In comparison, FACW says that the value for reducing a ton of SO₂ emissions is over \$43,000/ton." JR-22(a), 22-13 to 23-9.

Rate Counsel also rejected FACW's emission reduction benefits on the basis that it was not tied to market value. JR-22(b), 33-12 to 34-5. "From a regulatory policy perspective, the Board should focus on those environmental benefits that are 'known and measurable,' based on market prices, and likely to lead to fair, just and reasonable rates for ratepayers." JR-22(b), 34-2 to 5. Further, Rate Counsel asserted that FACW's reliance on the federal interagency report was irrelevant to the Board's analysis because "BPU is an economic regulator, not an environmental regulator, and as such, has responsibilities that differ from those of the EPA: primarily, to ensure that rates are fair, just, and reasonable for New Jersey ratepayers." JR-22(b), 37-7 to 38-2; see also JR-22(b), pp. 38-40. Last, Rate Counsel indicated that the environmental costs were already included in its rate impact analysis and "there is no need to include any additional subjective externality benefits in the evaluation of the FACW project." JR-22(b), 40-13 to 15.

The Board agrees with Rate Counsel and Staff - environmental benefits should be tied to market prices because that is a reasonable manner to ensure fair, just and reasonable ratepayer impact. This approach is also consistent with the EMP, which focuses on quantifiable, market-based gains that can be measured. As such, the Board **FINDS** that this presumed benefit was not demonstrated.

5. Merit Order Effect

The merit order effect is the savings that ratepayers realize due to increased capacity entering the energy market. FACW attributes \$14.3 million in benefits due to the merit order effect.

Conceptually, Boston Pacific indicated that the merit order effect could be a reasonable factor to consider in the net benefits test. JR-22(a), Att. 3, p. 19. However, Boston Pacific discredited FACW's value because it was not substantiated.

While the application of the Renewable Energy Merit Order Effect is conceptually reasonable for developing an energy price forecast, as with the carbon price adder, we cannot determine the reasonableness of these forecasts. These values are sourced from the Applicant's rate impact model and the corresponding assumptions and calculations for the Renewable Energy Merit Order and carbon price adder cannot be substantiated.

[JR-22a, Att. 3, p. 19.]

In contrast to Staff, Rate Counsel accepted FACW's method of calculating the merit order effect. However, Rate Counsel's adjustments to FACW's PJM revenue assumptions impacted its analysis. Accounting for changes in capacity factor and wholesale energy prices, Rate Counsel estimated a merit order effect value of \$8.9 million. JR-20, Att. B, p. 105.

Upon review of the record, the Board agrees with Staff's expert and **FINDS** no basis to support the merit order estimates proffered by FACW. The fact that Rate Counsel relied on FACW's methodology, but not their assumptions, further demonstrates that the values were not properly supported.

6. Lessons Learned

Lessons learned, also known as "learning by doing," embodies the theory that there is an economic value attributed to FACW being the first OSW project approved under OWEDA. FACW included an estimate of \$324.5 million in benefits associated with "lessons learned." This amount accounted for nearly 28.5% of all estimated economic benefits. JR-21(c), Att. D; JR-22(b), 41-1 to 3.

Rate Counsel opined that neither ratepayers, nor the State, nor potential OSW developers, would gain any economically measurable lessons learned from the FACW project because future OSW projects are more likely to be in federal waters and the risk associated with financing OSW projects depends on the results of the Board's OREC finance rulemaking process. JR-22(b), 43-17 to 20. In essence, the funding mechanism rules are more important to future projects than the success of FACW's project. JR-22(b), 44-6 to 45-2.

Boston Pacific also surmised that lessons learned could not be quantified because future OSW projects are likely to be quite different than the FACW proposal, larger in scale, located in federal waters, and funded by more traditional financing – making it difficult to attribute benefit to lessons learned. JR-19, pp. 27-28.

Again, the Board agrees with Staff and Rate Counsel. FACW has not sufficiently demonstrated the value of lessons learned to the ratepayers from the project. The Board acknowledges that some benefit would enure to FACW and XEMC as the company would be able to test its turbine offshore and measure its performance in its efforts to test and commercialize the turbine. However, the success of the Project does not impact whether the Board will open an application window for future OSW projects, nor does it impact the content of the Board's pending OSW funding mechanism regulations. See JR-22(b), 43-19 to 45-11. As such, the Board **FINDS** no economic value for lessons learned based on the facts in this matter.

iv. Net Benefits

For the reasons described above, the Board **FINDS** that FACW's assumptions for construction and operations benefits, class I REC savings, and PJM revenues were properly demonstrated. The Board also **FINDS** that FACW's assumptions for tourism, merit order effect, emissions reduction, and lessons learned were not adequately demonstrated and therefore are not credible. Accordingly, the Board will not rely on FACW's assumptions related to tourism, merit order effect, emissions reduction, and lessons learned when calculating the total net benefits.

In FACW's rebuttal testimony and in its brief, the company challenges the notion of assigning zero value to economic assumptions that are found to be not credible. It asserts that the Board should assign a positive value to categories that the Board recognizes will produce some economic benefit. In other words, if the Board believes that there will be some tourism benefit, we should not "zero-out" that factor simply because we find FACW's assumption to be unsubstantiated. We disagree. The applicant has the burden to prove that its economic assumptions are reasonable and supported by the record.

In sum, and for the reasons articulated by Rate Counsel and Staff, the Board **FINDS** that the Project does not provide a net economic and environmental benefit to New Jersey ratepayers.

c. Financial Integrity

OWEDA requires “the entity proposing the project [to] demonstrate[] financial integrity and sufficient access to capital to allow for a reasonable expectation of completion of construction of the project.” N.J.S.A. 48:3-87.1(b)(1)(d). This standard requires the applicant to demonstrate two elements: 1) financial integrity; and 2) “sufficient access to capital to allow for a reasonable expectation of completion of construction of the project.” Ibid. To this end, FACW provided financial information about the Project and its financial structure.

FACW entered into a contractual agreement with XEMC New Energy to construct, operate, and provide maintenance to the Project. XEMC New Energy will own 70% of the project and provide all of the funds needed to construct the wind farm, except for the funds that FACW will provide.¹³ FACW will own 30% of the Project.

Through contractual agreements with XEMC New Energy, the wind turbine will be designed and manufactured by XEMC Manufacturing and its subsidiaries – XEMC Windpower and XEMC Darwind. XEMC Manufacturing also will provide technical support and ongoing service to the Project.

Both XEMC New Energy and XEMC Manufacturing are subsidiaries of Xiangtan Electric Manufacturing Company Group Co., Ltd (XEMC Group).¹⁴ Collectively, we refer to XEMC Group, XEMC New Energy, and XEMC Manufacturing as the “XEMC entities.”

FACW represents that in 2011, the XEMC entities had annual revenues of more than \$1.6 billion, almost the size of a Fortune 1000 company. To assist the Board’s review of the financial integrity of the XEMC entities, FACW provided several documents: 1) a letter from the Chairman of the Board of Directors of XEMC Group; 2) a letter from the auditors of XEMC New Energy; 3) a letter from the auditors for the XEMC Group; 4) a letter from the auditors of XEMC Manufacturing; 5) a report that describes high level difference between Chinese Accounting Standards and International Financial Reporting Standards (IFRS); and 6) the financial audits and statements relied upon during the audits of the XEMC entities. JR-1(y) Exhibit 24, 4-5 to 5-10. The audits of the XEMC entities were performed under Chinese Accounting Standards, not U.S. GAAP standards or IFRS. In addition, although FACW provided financial statements and audit reports, the vast majority of the documents were in Mandarin. JR-1(y) Exhibit 24, Att. 6-9.

Upon receipt of the XEMC entities’ financial information Boston Pacific criticized FACW because the company did not present financial statements under U.S. GAAP standards. JR-19, pp. 35-36. Moreover, the letters from the XEMC auditors did not attest to the financial strength of the companies. Rather, they indicated that audits were performed under Chinese accounting standards, and provided general information about revenues and assets. JR-1(y) Exhibit 24, Att. 2-4. Simply put, FACW did not provide financial information in a manner to allow for an independent assessment and due diligence review by the Board.

¹³ XEMC New Energy is the “captive” finance – and project-development ‘arm’ of XEMC Group and its energy subsidiaries.” JR-1(y) Exhibit 24, Att. 1, p. 2.

¹⁴ As of December 31, 2011, XEMC Group owned 60.71% of XEMC New Energy and 34.57% of XEMC Manufacturing.

In response to such criticism, and instead of supplying financial statements in English and under U.S. GAAP standards, FACW agreed to fund a construction escrow and decommissioning escrow. Boston Pacific concluded that absent an ability to evaluate the Applicant's financial strength, a construction escrow demonstrated financial wherewithal to construct the project.¹⁵ JR-22(a), 13-20 to 14-2.

FACW asserts that its agreement to fund a construction escrow and decommissioning escrow demonstrate the Project's financial integrity. In support of this proposition FACW relies, in part, on the testimony of Boston Pacific that the Project has financial wherewithal to construct. JR-22(a), 13-14 to 14-5. The Board disagrees with FACW's interpretation of Boston Pacific's testimony. Boston Pacific's testimony only supports the notion that FACW has sufficient access to capital to complete construction.

Under the facts and circumstances of this case, the Board construes the escrow accounts as an attempt to avoid a reasonable due diligence inquiry. The escrows do not on their own substantiate the company's financial strength. To the contrary, FACW offered the escrows in lieu of compliance with reasonable due diligence. It is the equivalent of paying cash to avoid a credit check. This fact reflects adversely on FACW's willingness to submit to BPU authority over the course of a 20-year agreement.

Moreover, the Board is unwilling to ignore FACW's lack of transparency on this issue. It would be bad policy, not to mention unjustified, for the Board to overlook that the Applicant submitted financial statements in Mandarin; did not submit a translation; did not conduct an audit under U.S. GAAP standards; and did not submit a statement from a global accounting firm attesting to the financial strength of the company.¹⁶ Ratepayers deserve more candor, more transparency and more cooperation from an entity that seeks a 20-year relationship and \$240.3 million dollars in ratepayer subsidies.

Accordingly, the Board **FINDS** that even if FACW has demonstrated "sufficient access to capital" as required by the second prong of N.J.S.A. 48:3-87.1(b)(1)(d), it has not demonstrated financial integrity.¹⁷

d. Financing Mechanism

Although OWEDA left the design of the financing mechanism to the discretion of the Board, the Act sets forth several prongs: 1) payment of the OREC is based upon the actual electrical output of the project; 2) the OREC price "fairly balances the risks and rewards of the project between ratepayers and shareholders"; and 3) "costs of non-performance, in either the construction or operational phase of the project, shall [not] be borne by shareholders[.]" N.J.S.A. 48:3-87.1(b)(1)(c).

¹⁵ Notably, Boston Pacific's assessment was based on the March 8, 2013 testimony – meaning, a construction escrow would have to be funded at \$199.17, \$231, and \$263, whichever price was approved.

¹⁶ Although FACW submitted correspondence from PricewaterhouseCoopers LLP, the accounting firm did not specifically attest to the financial strength of the XEMC entities.

¹⁷ Based on evidence in the Joint Record it also appears that if FACW determines at some future date that it wants to change turbine manufacturers pursuant to N.J.A.C. 14:8-6.5(a)(2)(ii), the economics of the project would also drastically change because the Project's current financing is strongly tied to its use of the XEMC entities' turbine.

As described above FACW's Price Plan presumed an OREC price scale ranging from \$263/MWh to \$199.17/MWh for EY 2013 and increased the OREC annually by 3.5% until EY 2036. The EDCs¹⁸ criticize the 3.5% escalation rate because it causes the OREC price to double over a twenty-year period from \$220.82 MWh in 2016 to \$439.39 MWh in 2036. Yet, the project has no fuel costs and "most project costs are expended before the project enters service." EDC Br. at 20.

FACW indicates that this OREC price schedule "includes the benefits of passing through both the Investment Tax Credit and Department of Energy subsidies to lower ratepayer costs, and FACW assumes all risk in obtaining these subsidies." JR-35, p.7.

The Pricing Plan also includes procedures for OREC invoicing and administration. The parties did not take a position on the details of the invoicing and administration process. Because the Project fails to satisfy the other elements of OWEDA, it is not necessary for the Board to issue findings and conclusions on the administrative aspects of the pricing plan.

e. Ratepayer Subsidy

At an OREC price of \$263/MWh, the presumed level of ratepayer OREC payments over a 20-year period is approximately \$240.3 million (NPV). JR-20, p. 6, lines 5-11. During that time Rate Counsel estimates that rates will increase between \$16 million to \$31 million annually – an aggregate amount of approximately \$208 million. JR-20, p. 7, lines 13-19. The total Project cost, which roughly equals \$7,520/kW, is significantly higher than project costs for commercial scale offshore wind farms that have been constructed in Europe. JR-19, pp. 5-6. Rate Counsel's expert testified, "[t]he FACW project, if developed, will be one of the world's most expensive OSW projects." JR-20, Att. B, p. 56, 57-61.

Such a significant amount of ratepayer subsidy requires the Board to examine whether the Project, when considered in its totality, is worth the investment. Boston Pacific framed the question as this, "what are ratepayers getting in return for such subsidy?" JR-19, p. 17.

A key question that must be asked when assessing the size of the subsidy is what are ratepayers getting in return for such subsidy? The overarching concern is that ratepayers will be paying for a project with significant technical risks, that is – a 25 MW project that uses a turbine with no commercial operating history and which employs a technology that has not been used for this particular class of turbine. A key policy question is whether ratepayers would be better off subsidizing a less risky project that uses commercially proven wind turbines that are readily available in the market, rather than subsidizing a small scale pilot project using new technology. In contrast, for example, the proposed Cape Wind offshore wind project in Massachusetts will require ratepayers to subsidize a full-scale project (468 MW) that uses commercially proven turbines.

[JR-19, pp. 17-18.]

¹⁸ The EDCs did not take a position on the merits of FACW's application.

Boston Pacific highlights a significant policy issue for the Board, namely, whether ratepayers should subsidize a 25 MW project that is more expensive than utility-scale projects, and which aims to use New Jersey as the testing waters for a turbine with no offshore commercial history. JR-19, p. 17. The answer is no. Ratepayers should not be asked to pay for a project that costs significantly more per kilowatt than commercial projects, yet produces only a fraction of the output.

Use of wind turbines that have not been commercially proven by a manufacturer new to the offshore wind market also presents significant risk. Type B certification and the other guarantees offered by FACW are a step in the right direction but do not fully mitigate the inherent risks, especially considering that the turbine manufacturer is also financing the project. Moreover, the Board is not inclined to approve use of new technology if the economics of the project do not bear in favor of ratepayers.

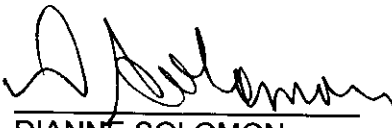
In sum, based on the facts and circumstances of this matter, the Board **FINDS** that the ratepayer subsidy is too expensive and should not be imposed.

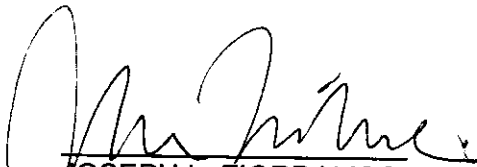
VI. CONCLUSION

For the reasons stated above the Board **FINDS** that the FACW Project does not pass the standard for a qualified offshore wind facility as set forth in N.J.S.A. 48:3-87.1 et seq. and N.J.A.C. 14:8-6.5 et seq. FACW's request for approval is **HEREBY DENIED**.

DATED: 3/28/2014

BOARD OF PUBLIC UTILITIES
BY:


DIANNE SOLOMON
PRESIDENT


JOSEPH L. FIORDALISO
COMMISSIONER


MARY-ANNA HOLDEN
COMMISSIONER

CONCURRENCE BY COMMISSIONER JEANNE M. FOX

I, like my fellow Commissioners, strongly support renewable energy, including offshore wind energy. Although I agree with the Board's ultimate finding that the FACW project, as proposed, does not pass the standard for a qualified offshore wind facility as set forth in N.J.S.A. 48:3-87.1 et seq. and N.J.A.C. 14:8-6.5 et seq., I do not agree with the totality of the Board's reasoning in coming to this conclusion. Therefore, I concur with this Board decision separately.

The standard of review for qualified offshore wind facilities is set forth in N.J.S.A. 48:3-87.1. N.J.S.A. 48:3-87.2 makes clear that projects not exceeding 25 MW in nameplate capacity may be built in state waters and that a project of this size could be eligible for ORECs. However, neither N.J.S.A. 48:3-87.1 nor N.J.S.A. 48:3-87.1 create different standards for small projects. Therefore the Board conducts the cost benefit analysis without regard to scale, and treats small projects, like FACW's, the same as commercial scale projects.


Concerning the economic benefits claimed by FACW, I believe that a project located in state waters outside of Atlantic City would produce benefits related to tourism and carbon emissions reduction. However, I am persuaded by the Boston Pacific report that FACW's proposal did not adequately demonstrate tourism benefits. JR-19, JR-22(a). Further, I believe that the reduction in carbon emissions resulting from the project would lead to health and environmental benefits, which may be quantified absent a carbon market. However, FACW would need to adequately demonstrate the monetization of such health and environmental benefits, which it did not do.

Last, concerns raised by my fellow commissioners as to the financial integrity of the project appear to be valid. Despite FACW's commitment to establish construction and decommissioning escrow accounts, the financial information provided to the Board has been inadequate. I agree with my fellow Commissioners that the burden is on FACW to substantiate their claims and they have failed to do so. This is vital to establishing a uniform standard for the review of multiple competitive applications under OWEDA and which I strongly believe is necessary to reach the ultimate goal of large offshore projects in federal waters.



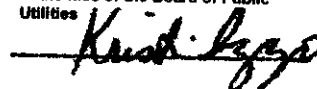
JEANNE M. FOX
COMMISSIONER

ATTEST:



KRISTI IZZO
SECRETARY

I HEREBY CERTIFY that the within document is a true copy of the original in the files of the Board of Public Utilities



IN THE MATTER OF THE PETITION OF FISHERMEN'S ATLANTIC CITY WIND FARM, LLC
FOR THE APPROVAL OF THE STATE WATERS PROJECT AND AUTHORIZING OFFSHORE
WIND RENEWABLE ENERGY CERTIFICATES
DOCKET NO. EO11050314V

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