

# KEOUGH & SWEENEY, LTD.

ATTORNEYS AND COUNSELORS AT LAW  
100 ARMISTICE BOULEVARD  
PAWTUCKET, RHODE ISLAND 02860

JOSEPH A. KEOUGH JR.\*  
JEROME V. SWEENEY III\*

SEAN P. KEOUGH\*  
MARGARET HOGAN SWEENEY\*

JEROME V. SWEENEY II  
OF COUNSEL

\*ADMITTED TO PRACTICE IN  
RHODE ISLAND & MASSACHUSETTS

TELEPHONE  
(401) 724-3600  
FACSIMILE  
(401) 724-9909

www.keoughsweeney.com

BOSTON OFFICE:  
171 MILK STREET  
SUITE 30  
BOSTON, MA 02109  
TEL. (617) 574-0054  
FAX (617) 451-1914

January 4, 2010

Ms. Luly Massaro, Clerk  
Rhode Island Public Utilities Commission  
89 Jefferson Boulevard  
Warwick, RI 02888

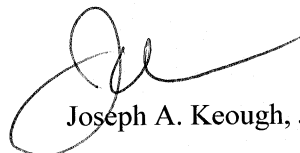
**Re: Review of Proposed Town of New Shoreham  
Project, Pursuant to R.I.G.L. § 39-26.1-7  
Docket No. 4111**

Dear Ms. Massaro:

Enclosed please find an original and nine (9) copies of Deepwater Wind Block Island, LLC's response to the Division of Public Utilities and Carrier's Second Set of Data Requests. Please note that an electronic copy has been sent to the Service List. Also, please note that due to the voluminous nature of the attachments to this response, and pursuant to an agreement with Commission Legal Counsel, an original and three copies of the attachments have been produced along with five (5) CD-ROMS, which contain the attachments as well.

Thank you for your attention to this matter.

Sincerely,



Joseph A. Keough, Jr.

JAK/kf  
Enclosure

CC: Service List (via electronic mail)

**STATE OF RHODE ISLAND PUBLIC UTILITIES COMMISSION**  
**DOCKET No. 4111**  
**Deepwater Wind Block Island, LLC**  
**Response To**  
**The Division Of Public Utilities And Carriers' Data Requests**  
**SET 2**

**Div. 2-1:** Please provide the electronic files and work papers that were used to produce Mr. Nickerson's exhibits in machine readable (such as Excel spreadsheets) form with all formulae intact.

**Response:** Deepwater Wind Block Island, LLC ("Deepwater Wind") objects to providing electronic files, including Excel spreadsheets with all formulae intact, which were used to produce Mr. Nickerson's exhibits. The functioning spreadsheets used to develop Mr. Nickerson's exhibits are commercially sensitive, commercially valuable and proprietary information. These electronic files and Excel spreadsheets with formulae intact were created at Deepwater Wind's request and were developed through proprietary methods of analysis. The analysis and the methods by which the Excel Spreadsheets were created are not publicly available and they constitute intellectual property. Production of these functioning Excel spreadsheets with formulas intact could adversely affect the competitive position of Deepwater Wind's consultants within the industry. It could also impact Deepwater Wind's ability to obtain such proprietary information in the future if a consultant's underlying analysis and intellectual property is subject to public disclosure. In addition, the request for all work papers is overly broad and calls for the production of proprietary information as set forth above. Nevertheless, and without waiving these objections, Deepwater Wind has produced printed versions Mr. Nickerson's exhibits which are attached to his testimony. In addition Deepwater Wind has produced printed versions of excel spreadsheets and work papers in response to the Division's data requests 2-4, 2-17, 2-20 and 2-21. These exhibits allow for the confirmation of specific values if desired, while at the same time maintaining the proprietary nature of the underlying analytical tools used to create these spreadsheets.

**STATE OF RHODE ISLAND PUBLIC UTILITIES COMMISSION**  
**DOCKET No. 4111**  
**Deepwater Wind Block Island, LLC**  
**Response To**  
**The Division Of Public Utilities And Carriers' Data Requests**  
**SET 2**

**Div. 2-2:** Please state whether the costs referred to in the testimony of Mr. Nickerson at page 3 at lines 13-21 include or exclude the cost of the Transmission Cable and / or the cost of interconnecting the wind turbines to the delivery point. If so, please identify how much these items add to these figures.

**Response:** The costs referred to on lines 13-21 (the implied PPA cost, the market value of the products delivered under the PPA, and the net potential PPA cost) are all calculated at the Delivery Point, which is defined in the PPA and is effectively where the project delivers power to the low voltage side of a substation located on Block Island.

To put this into context, any payments to Deepwater Wind Block Island under the PPA are its sole revenue stream for all project costs associated with developing, permitting, constructing, financing, operating, maintaining and delivering power from the offshore wind turbines to that Delivery Point on Block Island. These costs include the undersea collection system and interconnection to the Delivery Point.

Any costs related to the Transmission Cable are beyond the PPA's Delivery Point, are not presently specified in the PPA, and as such were not included as part of Mr. Nickerson's analysis of the PPA costs.

**STATE OF RHODE ISLAND PUBLIC UTILITIES COMMISSION**  
**DOCKET No. 4111**  
**Deepwater Wind Block Island, LLC**  
**Response To**  
**The Division Of Public Utilities And Carriers' Data Requests**  
**SET 2**

**Div. 2-3:** Please provide the studies referred to in the testimony of Mr. Nickerson at page 3 lines 24-28 that indicates that the direct in-state economic benefit could be in the range of \$2.4 million per year.

**Response:** The studies referred to are the NYSERDA Main Tier Economic Benefits Report for the determination of direct benefits. This report includes a New York State IMPLAN model for an estimate of indirect benefits. The NYSERDA study is provided in full as part of the response to Data Request 2-9, and the New York IMPLAN model is described in Appendix A to the provided NYSERDA study.

**STATE OF RHODE ISLAND PUBLIC UTILITIES COMMISSION**  
**DOCKET No. 4111**  
**Deepwater Wind Block Island, LLC**  
**Response To**  
**The Division Of Public Utilities And Carriers' Data Requests**  
**SET 2**

**Div. 2-4:** Please provide the work papers for the price suppression analysis referred to in the testimony of Mr. Nickerson.

**Response:** To the extent that this request calls for the production of work papers that include spreadsheets in an electronic format with all formulae intact, Deepwater Wind Block Island, LLC (“Deepwater Wind”) objects to providing electronic files, including Excel spreadsheets with all formulae intact. The functioning spreadsheets used to develop Mr. Nickerson’s exhibits are commercially sensitive, commercially valuable and proprietary information. These electronic files and Excel spreadsheets with formulae intact were created at Deepwater Wind’s request and were developed through proprietary methods of analysis. The analysis and the methods by which the Excel Spreadsheets were created are not publicly available and they constitute intellectual property. Production of these functioning Excel spreadsheets with formulas intact could adversely affect the competitive position of Deepwater Wind’s consultants within the industry. It could also impact Deepwater Wind’s ability to obtain such proprietary information in the future if a consultant’s underlying analysis and intellectual property is subject to public disclosure. In addition, the request for all work papers is overly broad and calls for the production of proprietary information as set forth above. Without waiving these objections, see attached work paper.

**STATE OF RHODE ISLAND PUBLIC UTILITIES COMMISSION**  
**DOCKET No. 4111**  
**Deepwater Wind Block Island, LLC**  
**Response To**  
**The Division Of Public Utilities And Carriers' Data Requests**  
**SET 2**

**Div. 2-5:** Please provide a copy of the referenced ISO Scenario Analysis referred to in the testimony of Mr. Nickerson on page 4.

**Response:** Attached please find a copy of ISO-NE Draft "New England 2030 Power System Study, Report to the New England Governors, 2009 Economic Study: Scenario Analysis of Renewable Resource Development", dated September 8, 2009.

**STATE OF RHODE ISLAND PUBLIC UTILITIES COMMISSION**  
**DOCKET No. 4111**  
**Deepwater Wind Block Island, LLC**  
**Response To**  
**The Division Of Public Utilities And Carriers' Data Requests**  
**SET 2**

**Div. 2-6:** Assuming that the Rhode Island Reliability Project is constructed and placed in service, please describe any transmission constraints, as discussed on page 7, line 25 of Mr. Nickerson's testimony, that will exist in delivering power in and out of Rhode Island.

**Response:** According to the National Grid report entitled "A Background Report on Proposed Transmission Solutions for Southern New England", dated March 2008, the Rhode Island Reliability Project ("RIPP") is described as follows:

"For the Rhode Island Reliability Project, National Grid proposes to construct a new 345-kV transmission line to strengthen the transmission system in Rhode Island. The new line would mitigate the possibilities of equipment overloads, voltage problems, power outages and the need to involuntarily shut off power to customers (known as "load shedding") in response to certain events that could occur."

As such, this expansion of the 345 kV transmission system appears to be focused on reliability issues under certain contingency conditions. No particular case is made by National Grid that the project will reduce transmission constraints and therefore impact energy prices.

Without a detailed modeling of the transmission and generation system and given numerous assumptions, it is not possible to estimate whether there will be any transmission constraints to delivering power in and out of Rhode Island after implementation of the RIPP. Even if the RIPP is successfully permitted and constructed, any congestion on the transmission system, which would manifest in the form of differing nodal or zonal prices, would be the function of several factors both within and outside Rhode Island at the time including:

- The configuration and operation of the transmission system;
- Load growth and load shapes;
- Market penetration of passive and active demand side measures; and
- Generation development, retirements, and whether certain units are on-line at the time.

**STATE OF RHODE ISLAND PUBLIC UTILITIES COMMISSION**  
**DOCKET No. 4111**  
**Deepwater Wind Block Island, LLC**  
**Response To**  
**The Division Of Public Utilities And Carriers' Data Requests**  
**SET 2**

**Div. 2-7:** Please provide a copy of the ISO document referenced in the testimony of Mr. Nickerson at page 8 in footnote 1 and provide the calculations that produced the emissions savings at page 8 in lines 12-14 and 17-19 thereof.

**Response:** Attached is a copy of the ISO-NE PowerPoint presentation entitled, "ISO New England Environmental Advisory Group (EAG) Teleconference, Final Draft Slides 12-02-09". The 2008 marginal emissions rates used in the calculation of the emissions savings can be found on page 69 of the ISO-NE presentation.

The calculation of the estimated emissions savings is attached as "RIPUC 2-7 Avoided Emission Calcs".



**STATE OF RHODE ISLAND PUBLIC UTILITIES COMMISSION**  
**DOCKET No. 4111**  
**Deepwater Wind Block Island, LLC**  
**Response To**  
**The Division Of Public Utilities And Carriers' Data Requests**  
**SET 2**

**Div. 2-8:** Please provide the source documentation for the EWEA statistics referred to in the testimony of Mr. Nickerson at page 9, lines 16-25 and provide a copy of the NREL report referenced in footnote 2 at page 9 thereof.

**Response:** Attached please find a copy of the European Wind Energy Association's report entitled "Oceans of Opportunity, Harnessing Europe's largest domestic energy resource", dated September 2009. The 366 MW figure for 2008 installations in Mr. Nickerson's testimony can be found in the executive summary on page 11, and although there is an estimate of "just under 2,000 MW" of cumulative installations by the end of 2009 also on page 11, a more specific value of 1901 MWs for 2009 from page 66 was the basis for the "about 1,900 MWs" in the testimony at page 9, line 17.

Also attached is the NREL report entitled "Energy from Offshore Wind, Preprint". The information on jobs creation referenced in the testimony is located on page 9.

**STATE OF RHODE ISLAND PUBLIC UTILITIES COMMISSION**  
**DOCKET No. 4111**  
**Deepwater Wind Block Island, LLC**  
**Response To**  
**The Division Of Public Utilities And Carriers' Data Requests**  
**SET 2**

**Div. 2-9:** Please provide a copy of the NYSERDA report referred to in the testimony of Mr. Nickerson in footnote 3 at page 10 and provide any information in Mr. Nickerson's or Deepwater's possession regarding the cost of each onshore wind project referenced. Also provide the calculations and supporting documentation for the \$23.92/MWh direct benefit figure referred to in the testimony of Mr. Nickerson at page 10.

**Response:** Attached please find a copy NYSERDA Main Tier Economic Benefits Report prepared by KEMA and dated November 14, 2008. The onshore wind projects referenced in this study are listed in Table 9 on page 3-4 of the NYSERDA study. There is no information in the NYSERDA report on the cost of each of these onshore projects and neither Mr. Nickerson nor Deepwater are in possession of any further cost information on these projects.

The direct benefit estimate of \$23.92/MWh associated with the wind projects in the NYSERDA study can be found in the first set of numbers in Table 2 on page 1-4 of that study. This value is related to the first three RFPs and the projects developed as a result. The slightly higher direct benefit values of \$24.48 and \$26.56/MWh in the second and third set of numbers in Table 2, respectively, are projections of future benefits related to subsequent projects. More details on the derivation of the \$23.92/MWh value can be found in Tables 11 and 12 on page 4-2.

**STATE OF RHODE ISLAND PUBLIC UTILITIES COMMISSION**  
**DOCKET No. 4111**  
**Deepwater Wind Block Island, LLC**  
**Response To**  
**The Division Of Public Utilities And Carriers' Data Requests**  
**SET 2**

**Div. 2-10:** Please provide any and all supporting documentation and calculations that show that the PPA price just meets the minimum debt service coverage ratio targets necessary to secure financing referred to in the testimony of Mr. Nickerson at page 11, line 7-10 and please provide the same in Excel spreadsheet format with all formulae intact if possible.

**Response:** Under current market conditions, commercial bank financing generally requires a minimum DSCR of 1.0 at the P99 wind case, 1.25 at the P90 wind case and 1.5 at the P50 wind case. Based on the revenue stream provided in the PPA, current wind resource, capital, and O&M costs estimates, and prevailing project debt financing terms, cash flow from the Block Island Wind Farm project can support a maximum debt to equity ratio of 50% to clear these minimum DSCR requirements.

**STATE OF RHODE ISLAND PUBLIC UTILITIES COMMISSION**  
**DOCKET No. 4111**  
**Deepwater Wind Block Island, LLC**  
**Response To**  
**The Division Of Public Utilities And Carriers' Data Requests**  
**SET 2**

**Div. 2-11:** Please provide a copy of the NYSERDA report referred to in the testimony of Mr. Nickerson at page 11 in footnote 4.

**Response:** The requested report is not in the possession of Mr. Nickerson or Deepwater Wind. As indicated in the referenced footnote, the data is from extracted pages of a pre-release draft of upcoming study prepared by AWS Truewind LLC for New York State Energy Research and Development Authority (NYSERDA), entitled "NY's Offshore Wind Energy Development Potential in the Great Lakes", dated December 2009. With permission from the author and NYSERDA's contract manager, only the relevant pages (pp. 145 to 150 of a Confidential Review Draft) were relayed to Mr. Nickerson and Deepwater Wind, for the limited purpose of supporting Mr. Nickerson's analysis. The data provided and used in the analysis underlying the testimony was a compilation of publically available data on offshore wind project costs. The authors describe the data sources as follows: "Sources of project cost information for this analysis include a variety of trade publications and industry websites (such as [ww.offshorewindenergy.org](http://ww.offshorewindenergy.org)), a clean energy financial research database (New Energy Finance), expert opinions expressed in recent reports and conference presentations, and personal communications." Only the specified pages were provided to Deepwater Wind due to the review status of the draft document (labeled: Confidential, may be shared within client's organization). However, all of the data used from this report was produced in its entirety in Exhibit B (first 25 rows, and all but last 4 columns). According to NYSERDA's contract manager, a public draft of the report is anticipated shortly, and Deepwater Wind will file such a draft as soon as it is made available.

**STATE OF RHODE ISLAND PUBLIC UTILITIES COMMISSION**  
**DOCKET No. 4111**  
**Deepwater Wind Block Island, LLC**  
**Response To**  
**The Division Of Public Utilities And Carriers' Data Requests**  
**SET 2**

**Div. 2-12:** Please provide a copy of the UK department of Energy and Climate Change Study referred to in the testimony of Mr. Nickerson at page 12, lines 17-18.

**Response:** Attached is a copy of the UK Department of Energy and Climate Change study entitled "Cost and financial support of offshore wind", dated 27 April 2009. The referenced project installed cost information can be found in Section 3.1.1, Total Capital Costs on page 5 of the study.

**STATE OF RHODE ISLAND PUBLIC UTILITIES COMMISSION**  
**DOCKET No. 4111**  
**Deepwater Wind Block Island, LLC**  
**Response To**  
**The Division Of Public Utilities And Carriers' Data Requests**  
**SET 2**

**Div. 2-13:** Please provide the study references for the 10% to 20% learning curve values referred to in the testimony of Mr. Nickerson at page 13, lines 3-5.

**Response:** Attached please find a copy of “Learning Curves and Changing Product Attributes: the Case of Wind Turbines, Louis Coulomb and Karsten Neuhoff, February 2006”. In this study learning curves of 10.9% and 12.7% are cited – see page 15.

In addition, attached is a paper published by the New Energy Externalities Developments for Sustainability (NEEDS) Integrated Project entitled “Cost development – an analysis based on experience curves” dated August 31, 2006. On page 42 in the section on cost development of wind turbines is an expected “progress ratio” of 80% of off shore wind turbines. As used in this paper, and described on page 8, “A progress ratio of 80%, for example, means that costs are reduced by 20% each time the cumulative production is doubled.”

Also see the European Environmental Agency’s Technical Report No 6/2009, entitled “Europe’s onshore and offshore wind energy potential, An assessment of environmental and economic constraints” attached in response to Data Request 2-15. In this study on page 36, cost reductions of 5% to 20% are discussed for every doubling of installed turbine capacity.

**STATE OF RHODE ISLAND PUBLIC UTILITIES COMMISSION**  
**DOCKET No. 4111**  
**Deepwater Wind Block Island, LLC**  
**Response To**  
**The Division Of Public Utilities And Carriers' Data Requests**  
**SET 2**

**Div. 2-14:** Please provide an estimate of the referenced mobilization payments for the project referred to in the testimony of Mr. Nickerson at page 15, ln19-25.

**Response:** Mobilization payments for the project depend on the choice of installation vessel, which in turn depends on the choice of turbine and installation method. Deepwater Wind has not yet selected a turbine supplier. Even if the engineering parameters were known, vessel charter cost varies according to level of offshore construction activities in Gulf of Mexico, making it highly volatile. The mobilization cost includes both the cost of moving the vessel and equipments from its location, probably the Gulf of Mexico, to Rhode Island, and the cost of transporting jackets and piles. This mobilization cost is estimated to account for 1/3 of the total offshore transportation and installation costs. The mobilization cost is spread out over more turbines with a bigger project, and so significant economies of scale can be achieved.

**STATE OF RHODE ISLAND PUBLIC UTILITIES COMMISSION**  
**DOCKET No. 4111**  
**Deepwater Wind Block Island, LLC**  
**Response To**  
**The Division Of Public Utilities And Carriers' Data Requests**  
**SET 2**

**Div. 2-15:** Please provide a copy of the EEA Technical Report referred to in the testimony of Mr. Nickerson at page 17 in footnote 6. Also provide the calculations for the lineal interpolation that produced the table on page 18 referred to in the testimony of Mr. Nickerson.

**Response:** Attached please find a copy of the European Environmental Agency's Technical Report No. 6/2009, entitled "Europe's onshore and offshore wind energy potential, An assessment of environmental and economic constraints". The information on scaling factors related to water depth that are used from this report can be found in Table 6.4 on page 39. These values were shown in the table on page 18 of Mr. Nickerson's testimony directly and without any interpolation.

The term "lineal" interpolation was a typographical error. It should have read "linear" interpolation, which was the simple technique utilized in the calculations in Exhibit B attached to Mr. Nickerson's direct testimony.



**STATE OF RHODE ISLAND PUBLIC UTILITIES COMMISSION**  
**DOCKET No. 4111**  
**Deepwater Wind Block Island, LLC**  
**Response To**  
**The Division Of Public Utilities And Carriers' Data Requests**  
**SET 2**

**Div. 2-16:** Please provide a copy of the KEMA report referenced referred to in the testimony of Mr. Nickerson at page 18 in footnote 7.

**Response:** Attached please find a copy of “Renewable Energy Cost of Generation Update” prepared for the California Energy Commission by KEMA, Inc., dated August 2009. The information used from this report can be found on the unnumbered pages of Appendix A entitled: “Technology Name: Offshore Wind – Class 5”. In the pdf version of this report, this information can be found on pdf pages 251 and 252.

**STATE OF RHODE ISLAND PUBLIC UTILITIES COMMISSION**  
**DOCKET No. 4111**  
**Deepwater Wind Block Island, LLC**  
**Response To**  
**The Division Of Public Utilities And Carriers' Data Requests**  
**SET 2**

**Div. 2-17:** Please provide the work papers including spreadsheets for the PPA value calculations referred to in the testimony of Mr. Nickerson at pages 20-25.

**Response:** To the extent that this request calls for the production of the work papers and spreadsheets in an electronic format with all formulae intact, Deepwater Wind Block Island, LLC ("Deepwater Wind") objects to providing electronic files, including Excel spreadsheets with all formulae intact. The functioning spreadsheets used to develop Mr. Nickerson's calculations are commercially sensitive, commercially valuable and proprietary information. These Excel spreadsheets with formulae intact were created at Deepwater Wind's request and were developed through proprietary methods of analysis. The analysis and the methods by which the Excel Spreadsheets were created are not publicly available and they constitute intellectual property. Production of these functioning Excel spreadsheets with formulas intact could adversely affect the competitive position of Deepwater Wind's consultants within the industry. It could also impact Deepwater Wind's ability to obtain such proprietary information in the future if a consultant's underlying analysis and intellectual property is subject to public disclosure. In addition, the request for all work papers is overly broad and calls for the production of proprietary information as set forth above.

Nevertheless, and without waiving these objections, most of the supporting work papers for the PPA value calculations can be found in Mr. Nickerson's Exhibit C and Exhibit G. In addition, a 74 page work paper showing the calculation of the project's capacity value in the forward capacity market is attached hereto.

**STATE OF RHODE ISLAND PUBLIC UTILITIES COMMISSION**  
**DOCKET No. 4111**  
**Deepwater Wind Block Island, LLC**  
**Response To**  
**The Division Of Public Utilities And Carriers' Data Requests**  
**SET 2**

**Div. 2-18:** Please provide a citation or reference to the specific provision to the PPA that states that escalation stops during a delay referred to in the testimony of Mr. Nickerson at page 20, in 20-21.

**Response:** Appendix X of Exhibit E of the PPA describes the Bundled Price:

**“Bundled Price per MWH**

The Bundled Price per MWH shall be \$235.75/MWh, commencing in 2012. Subject to Section 5.1(b), the Bundled Price per MWH shall escalate by a factor of 3.5% on each Escalation Date.”

This language references Section 5.1(b) which includes the provisions that delay the escalation in the event that Deepwater Wind elects to delay the project (*emphasis added*):

“Escalation of Price. Consistent with Appendix X of Exhibit E, the Price shall escalate by a factor of three and one-half percent (3.5%) on each Escalation Date. For purposes of this Agreement, the “Escalation Date” shall initially be January 1, 2013 and each January 1 thereafter; *provided, however, that if Seller elects (i) to extend the Commercial Operation Date pursuant to Section 3.1(b), (ii) to extend the Services Term pursuant to Section 4.4(b), or (iii) to extend the Services Term pursuant to Section 10.3, then each Escalation Date occurring after Seller notifies Buyer in writing of its extension election shall be delayed by the period of that extension.* All delays in the Escalation Date occurring under this Section 5.1(b) shall be cumulative (i.e., shall also take into account all prior extensions), such that the period of time between January 1 of a year and the Escalation Date corresponding to that year shall be equal to the total number of days of all extensions elected by Seller under Sections 3.1(b), 4.4(b) and 10.3 collectively. Notwithstanding any provision of this Agreement to the contrary, in no event will there be more than twenty (20) Escalation Dates during the Term. Upon the election of any extension of the Commercial Operation Date under Section 3.1(b) or the extension of the Services Term under Section 4.4(b) or Section 10.3, Seller shall deliver a certification in the form of Exhibit F setting forth the total number of days of such extension and establishing the new annual Escalation Date and (if the extension is elected under Section 4.4(b) or Section 10.3) the start date and end date for each remaining Contract Year, going forward from the date such certification is delivered. Buyer shall approve such certification in its sole discretion, and any dispute regarding such certification shall be resolved in accordance with Section 11.”

**STATE OF RHODE ISLAND PUBLIC UTILITIES COMMISSION**  
**DOCKET No. 4111**  
**Deepwater Wind Block Island, LLC**  
**Response To**  
**The Division Of Public Utilities And Carriers' Data Requests**  
**SET 2**

The emphasized text in the clause above refers to Section 3.1(b), which reads as follows:

“Seller has a one-time right to extend the Commercial Operation Date for a period of up to five (5) years by providing at least sixty (60) days’ written notice to Buyer of Seller’s exercise of its right to extend. Seller’s right to extend the Commercial Operation Date under this Section 3.1(b) is in addition to all permitted extensions of the Commercial Operation Date due to Force Majeure pursuant to Section 10.3. Any extension of the Commercial Operation Date under this Section 3.1(b) will result in an adjustment of the Escalation Date as set forth in Section 5.1(b).”

**STATE OF RHODE ISLAND PUBLIC UTILITIES COMMISSION**  
**DOCKET No. 4111**  
**Deepwater Wind Block Island, LLC**  
**Response To**  
**The Division Of Public Utilities And Carriers' Data Requests**  
**SET 2**

**Div. 2-19:** Please explain in detail why Deepwater decided to retain the capacity from the project and provide a financial settlement to National Grid, while transferring title to the energy and RECs to National Grid referred to in the testimony of Mr. Nickerson.

**Response:** The contract structure regarding capacity payments was proposed by National Grid and preferred by National Grid to Deepwater Wind's proposal that National Grid purchase the capacity from Deepwater Wind. The selected contract structure transfers most of the risk associated with qualifying and participating as capacity in the ISO-NE forward capacity market from ratepayers to Deepwater Wind.

**STATE OF RHODE ISLAND PUBLIC UTILITIES COMMISSION**  
**DOCKET No. 4111**  
**Deepwater Wind Block Island, LLC**  
**Response To**  
**The Division Of Public Utilities And Carriers' Data Requests**  
**SET 2**

**Div. 2-20:** Please provide the hourly profile and all supporting calculations in Excel spreadsheet format that determined the capacity value of 13 MW for the project referred to in the testimony of Mr. Nickerson at pages 22-23.

**Response:** To the extent that this request calls for the production of Excel spreadsheets in an electronic format with all formulae intact, Deepwater Wind Block Island, LLC (“Deepwater Wind”) objects to providing electronic files, including Excel spreadsheets with all formulae intact. The functioning spreadsheets used to develop Mr. Nickerson’s calculations are commercially sensitive, commercially valuable and proprietary information. These electronic files and Excel spreadsheets with formulae intact were created at Deepwater Wind’s request and were developed through proprietary methods of analysis. The analysis and the methods by which the Excel Spreadsheets were created are not publicly available and they constitute intellectual property. Production of these functioning Excel’ spreadsheets with formulas intact could adversely affect the competitive position of Deepwater Wind’s consultants within the industry. It could also impact Deepwater Wind’s ability to obtain such proprietary information in the future if a consultant’s underlying analysis and intellectual property is subject to public disclosure.

Nevertheless, and without waiving these objections, please see the work paper provided as part of the response to Data Request 2-17, which shows the derivation of the 36.1% summer and 50.0% winter FCM capacity values as a percent of the project’s nameplate rating of 28.8 MW. The 13 MW is simply the quantity:  $28.8 \text{ MW} \times .361 \times 4$  summer months (ISO-NE FCM definition)/12 months in a year, plus  $28.8 \text{ MW} \times .500 \times 8$  winter months/12 months in a year.

The hourly production estimates were provided by Deepwater’s meteorological consultant, AWS Truewind, a leading wind energy consultancy based in Albany, NY. Since Deepwater has not yet been able to collect any wind data from the proposed wind farm site, AWS’s production estimates should be considered to be highly preliminary, as they are based on meso-scale models that predict wind speeds and directions by simulating regional weather patterns, along with the effects of local topography and surface roughness.

Prepared by: David Nickerson, William Moore and Attorney Joseph A. Keough, Jr. (as to objection)

**STATE OF RHODE ISLAND PUBLIC UTILITIES COMMISSION**  
**DOCKET No. 4111**  
**Deepwater Wind Block Island, LLC**  
**Response To**  
**The Division Of Public Utilities And Carriers' Data Requests**  
**SET 2**

**Div. 2-21:** Please provide the work papers including working spreadsheets for the PPA value calculations referred to in the testimony of Mr. Nickerson at pages 25-31.

**Response:** To the extent that this request calls for the production of the work papers and working spreadsheets in an electronic format with all formulae intact, Deepwater Wind Block Island, LLC ("Deepwater Wind") objects to providing electronic files, including Excel spreadsheets with all formulae intact. The functioning spreadsheets used to develop Mr. Nickerson's calculations are commercially sensitive, commercially valuable and proprietary information. These electronic files and Excel spreadsheets with formulae intact were created at Deepwater Wind's request and were developed through proprietary methods of analysis. The analysis and the methods by which the Excel Spreadsheets were created are not publicly available and they constitute intellectual property. Production of these functioning Excel spreadsheets with formulas intact could adversely affect the competitive position of Deepwater Wind's consultants within the industry. It could also impact Deepwater Wind's ability to obtain such proprietary information in the future if a consultant's underlying analysis and intellectual property is subject to public disclosure. In addition, the request for all work papers is overly broad and calls for the production of proprietary information as set forth above.

Without waiving these objections, most of the supporting work papers for the PPA value calculations can be found in Mr. Nickerson's Exhibits E, F and G. In addition attached are:

- A work paper showing development of the EIA AEO gas price;
- A work paper showing the derivation of the gas basis differential ratios;
- A work paper showing the NYMEX Henry Hub gas prices used;
- A work paper showing the NYMEX New England energy prices used;
- A work paper showing the summary calculations of the adjustments for the project's production profile and differences between the NE and RI average LMP prices; and
- A 100 page work paper with the supporting details for the production profile and LMP calculations just above.

**STATE OF RHODE ISLAND PUBLIC UTILITIES COMMISSION**  
**DOCKET No. 4111**  
**Deepwater Wind Block Island, LLC**  
**Response To**  
**The Division Of Public Utilities And Carriers' Data Requests**  
**SET 2**

**Div. 2-22:** Please provide the calculations for the market's marginal heat rate referred to in the testimony of Mr. Nickerson at page 26.

**Response:** Attached please find the ISO-NE "2007 New England Marginal Emission Rate Analysis", dated July 2009. In this report on page 15 is the marginal heat rate from 2007 that was used in the testimony and analysis.



**STATE OF RHODE ISLAND PUBLIC UTILITIES COMMISSION**  
**DOCKET No. 4111**  
**Deepwater Wind Block Island, LLC**  
**Response To**  
**The Division Of Public Utilities And Carriers' Data Requests**  
**SET 2**

**Div. 2-23:** Please provide the AESC 2009 report referred to in the testimony of Mr. Nickerson at page33, ln16.

**Response:** Attached please find the Synapse report entitled “Avoided Energy Supply Costs in New England: 2009 Report”, Revised October 23, 2009.

**STATE OF RHODE ISLAND PUBLIC UTILITIES COMMISSION**  
**DOCKET No. 4111**  
**Deepwater Wind Block Island, LLC**  
**Response To**  
**The Division Of Public Utilities And Carriers' Data Requests**  
**SET 2**

**Div. 2-24:** Please provide the basis and all supporting documentation and calculations for the probabilities assigned to each trajectory referred to in the testimony of Mr. Nickerson at page 41, ln 1-14.

**Response:** As indicated on page 41 (line 6) of Mr. Nickerson's testimony, the probabilities represent subjective assessments of the market conditions as they evolve. The probability figures are necessarily subjective, and as such, are inputs rather than calculated figures. The rationale for these probabilities is described in the text on pages 40 and 41 of Mr. Nickerson's testimony.

**STATE OF RHODE ISLAND PUBLIC UTILITIES COMMISSION**

**DOCKET No. 4111**

**Deepwater Wind Block Island, LLC**

**Response To**

**The Division Of Public Utilities And Carriers' Data Requests**

**SET 2**

**CERTIFICATION**

I hereby certify that on January 4, 2010, I sent a copy of the within to all parties set forth on the attached Service List by electronic mail and copies to Luly Massaro, Commission Clerk, by electronic mail and regular mail.

<b>Name/Address</b>	<b>E-mail Distribution</b>	<b>Phone/FAX</b>
Thomas R. Teehan, Esq. National Grid. 280 Melrose St. Providence, RI 02907	<a href="mailto:Thomas.teehan@us.ngrid.com">Thomas.teehan@us.ngrid.com</a>	401-784-7667
	<a href="mailto:Joanne.scanlon@us.ngrid.com">Joanne.scanlon@us.ngrid.com</a>	401-784-4321
Ronald T. Gerwatowski, Esq. National Grid 40 Sylvan Rd. Waltham, MA 02451	<a href="mailto:Ronald.gerwatowski@us.ngrid.com">Ronald.gerwatowski@us.ngrid.com</a>	
	<a href="mailto:Celia.obrien@us.ngrid.com">Celia.obrien@us.ngrid.com</a>	
	<a href="mailto:Jennifer.brooks@us.ngrid.com">Jennifer.brooks@us.ngrid.com</a>	
Michael McElroy, Esq. Schacht & McElroy PO Box 6721 Providence RI 02940-6721	<a href="mailto:McElroyMik@aol.com">McElroyMik@aol.com</a>	401-351-4100
	<a href="mailto:iftruck35@mac.com">iftruck35@mac.com</a>	401-421-5696
	<a href="mailto:albertre@optimum.net">albertre@optimum.net</a>	
Alan Mandl, Esq. Smith & Duggan LLP Lincoln North 55 Old Bedford Road Lincoln, MA 01773	<a href="mailto:amandl@smithduggan.com">amandl@smithduggan.com</a>	617-228-4464 781-259-1112
Jerry Elmer, Esq. Conservation Law Foundation 55 Dorrance Street Providence, RI 02903	<a href="mailto:Jelmer@clf.org">Jelmer@clf.org</a>	401-351-1102 401-351-1130
Katherine A. Merolla, Esq., Merolla & Accetturo 469 Centerville Road Suite 206 Warwick, RI 02886	<a href="mailto:KAMLAW2344@aol.com">KAMLAW2344@aol.com</a>	401-739-2900 401-739-2906
Richard A. Sinapi, Esq. Sinapi Formisano & Company, Ltd. 100 Midway Place, Suite 1 Cranston, RI 02920-5707	<a href="mailto:dicks@sfclaw.com">dicks@sfclaw.com</a>	401-944-9690 401-943-9040
Alan Shoer, Esq. Adler Pollock & Sheehan One Citizens Plaza, 8 <sup>th</sup> Floor Providence, RI 02903-1345	<a href="mailto:Ashoer@apslaw.com">Ashoer@apslaw.com</a>	401-274-7200 401-751-0604

**STATE OF RHODE ISLAND PUBLIC UTILITIES COMMISSION**

**DOCKET No. 4111**

**Deepwater Wind Block Island, LLC**

**Response To**

**The Division Of Public Utilities And Carriers' Data Requests**

**SET 2**

Joseph J. McGair, Esq. Petrarca & McGair, Inc. 797 Bald Hill Rd. Warwick RI 02886	<a href="mailto:jjm@petrarcamegair.com">jjm@petrarcamegair.com</a>	401-821-1330
	<a href="mailto:mikdelia@biaero.com">mikdelia@biaero.com</a>	401-823-0970
	<a href="mailto:maggie@biaero.com">maggie@biaero.com</a>	
	<a href="mailto:w.shortiii@verizon.net">w.shortiii@verizon.net</a>	
Leo Wold, Esq. Dept. of Attorney General 150 South Main St. Providence, RI 02903	<a href="mailto:lwold@riag.ri.gov">lwold@riag.ri.gov</a>	401-222-2424
	<a href="mailto:Steve.scialabba@ripuc.state.ri.us">Steve.scialabba@ripuc.state.ri.us</a>	401-222-3016
	<a href="mailto:Al.contente@ripuc.state.ri.us">Al.contente@ripuc.state.ri.us</a>	
Jon Hagopian, Esq. Dept. of Attorney General 150 South Main St. Providence, RI 02903	<a href="mailto:jhagopian@riag.ri.gov">jhagopian@riag.ri.gov</a>	
	<a href="mailto:Dmacrae@riag.ri.gov">Dmacrae@riag.ri.gov</a>	
	<a href="mailto:Mtobin@riag.ri.gov">Mtobin@riag.ri.gov</a>	
Paul Rich, Deepwater Wind	<a href="mailto:Prich@dwwind.com">Prich@dwwind.com</a>	401-648-0604
Bill Moore, Deepwater Wind	<a href="mailto:Wmoore@dwwind.com">Wmoore@dwwind.com</a>	401-648-0604
Susan Demacedo, Deepwater Wind	<a href="mailto:susan@dwwind.com">susan@dwwind.com</a>	401-648-0606
David Schwartz, Deepwater Wind	<a href="mailto:dschwartz@dwwind.com">dschwartz@dwwind.com</a>	
David Nickerson from Mystic River Energy Group, LLC	<a href="mailto:dave@nickersons.org">dave@nickersons.org</a>	
Richard LaCapra, LaCapra Associates	<a href="mailto:Rlacapra@lacapra.com">Rlacapra@lacapra.com</a>	212-675-8123
Richard Hahn Mary Neal Lacapra Associates 1 Washington Mall, 9th floor Boston, MA 02108	<a href="mailto:rhahn@lacapra.com">rhahn@lacapra.com</a>	
	<a href="mailto:mneal@lacapra.com">mneal@lacapra.com</a>	
<b>Original &amp; nine (9) copies w/:</b> Luly E. Massaro, Commission Clerk Public Utilities Commission 89 Jefferson Blvd. Warwick RI 02889	<a href="mailto:Lmassaro@puc.state.ri.us">Lmassaro@puc.state.ri.us</a>	401-780-2017
	<a href="mailto:Cwilson@puc.state.ri.us">Cwilson@puc.state.ri.us</a>	401-941-1691
	<a href="mailto:Nucci@puc.state.ri.us">Nucci@puc.state.ri.us</a>	
	<a href="mailto:Anaault@puc.state.ri.us">Anaault@puc.state.ri.us</a>	
	<a href="mailto:Sccamara@puc.state.ri.us">Sccamara@puc.state.ri.us</a>	
Thomas Kogut, DPU	<a href="mailto:tkogut@ripuc.state.ri.us">tkogut@ripuc.state.ri.us</a>	
Matt Auten, Office of Lt. Governor	<a href="mailto:mauten@ltgov.state.ri.us">mauten@ltgov.state.ri.us</a>	
Julian Dash, RIEDC	<a href="mailto:jdash@riedc.com">jdash@riedc.com</a>	
Rep. Ehrhardt	<a href="mailto:rep-ehrhhardt@rilin.state.ri.us">rep-ehrhhardt@rilin.state.ri.us</a>	

**STATE OF RHODE ISLAND PUBLIC UTILITIES COMMISSION**  
**DOCKET No. 4111**  
**Deepwater Wind Block Island, LLC**  
**Response To**  
**The Division Of Public Utilities And Carriers' Data Requests**  
**SET 2**



---

Joseph A. Keough, Jr., Esquire # 4925  
KEOUGH & SWEENEY, LTD.  
100 Armistice Boulevard  
Pawtucket, RI 02860  
(401) 724-3600