STATE OF RHODE ISLAND PUBLIC UTILITIES COMMISSION

IN RE: REVIEW OF AMENDED POWER PURCHASE AGREEMENT BETWEEN NARRAGANSETT ELECTRIC COMPANY D/B/A NATIONAL GRID AND DEEPWATER WIND BLOCK ISLAND, LLC, PURSUANT TO R.I. GEN. LAWS § 39-26.1-7

DOCKET NO. 4185

PREFILED TESTIMONY

OF

DAVID P. NICKERSON
MANAGING MEMBER
MYSTIC RIVER ENERGY GROUP, LLC

FOR

DEEPWATER WIND BLOCK ISLAND, LLC

July 15, 2010

Q. Please state your name and business address.

A. My name is David P. Nickerson and my business address is P.O. Box 9213, Noank, CT.

Q. By whom are you employed and in what capacity?

A. I am a Managing Member of Mystic River Energy Group LLC, a consulting firm that focuses on power plant and energy market related business and economic issues, primarily in the Northeast.

Q. Please describe your qualifications and experience.

A. I have a Bachelor of Science in Electrical Engineering with a minor in Engineering Management from Tufts University and a Master of Science in Industrial Administration (MBA) from Carnegie-Mellon University. For over 30 years I have worked in the electric power industry – 9 of those years were with Westinghouse Electric in Pittsburgh, PA, 9 years with New England Power Company in Westborough; MA, 5 years with El Paso Merchant Energy, a Houston-based energy trading company, and 7 years as an independent consultant. I have extensive experience over the past 20 years analyzing, evaluating and negotiating the commercial aspects of wholesale power contracts based on conventional and renewable technologies from the perspectives of a regulated utility, independent power projects in both development and operation, energy trading companies, and as a consultant to power plant owners, commercial and industrial retail customers, and a state agency. My experience as a power supply analyst includes familiarity with electric system modeling, wholesale power markets and ISO rules.

Q. Have you previously testified before the Rhode Island PUC or other state or federal regulatory commissions?

A. Yes. I testified before the Rhode Island Public Utility Commission (the "Commission") in March 2010 on behalf of Deepwater Wind in Docket 4111 and in 1994 in support of a wind power contract on which I led the negotiation of while at New England Power Company. In support of Pawtucket Power Company's permit to export natural gas from Canada, I testified before the Canadian National Energy Board in the early 1990's. In 2008 I testified before the Connecticut Department of Public Utilities on behalf of the Connecticut Clean Energy Fund in support of an analysis of the market value of Class I renewable energy projects that resulted from the Project 150 renewable energy solicitation process.

Q. What is the purpose of your testimony?

A. The purpose of this testimony is to support the request of Deepwater Wind Block Island LLC ("Deepwater Wind") that the Commission approve the power purchase agreement (the "New PPA") dated as of June 30, 2010 between The Narragansett Electric Company, d/b/a National Grid ("NGrid") and Deepwater Wind.

Q. What is your conclusion?

A. Based on a review of provisions of the Rhode Island General Laws §39-26.1-7, as amended by 2010 Senate Bill 2819 Sub A as amended, and 2010 House Bill 8083 Sub A as amended (the "New Law") and a review of the New PPA, that as an experienced power market analyst, the pricing of the New PPA and its terms and conditions are commercially reasonable as they are reasonably consistent with what I would expect to see for a project of similar size, technology and location, and meeting the policy goals of the New Law.

Q. How did you determine that the New PPA is commercially reasonable?

A. My first step was to review the New Law to understand its provisions and how "commercially reasonable" is defined.

Q. What is the standard of review for "commercially reasonable" in the New Law?

A. The New Law includes a definition of "commercially reasonable" and states that it "*shall mean terms and pricing that are reasonably consistent with what an experienced power market analyst would expect to see for a project of similar size, technology and location, and meeting the policy goals in subsection (a) of this section*". In this context, I considered the following:

- "Similar size" means a project of not more than 30 megawatts ("MW") of nameplate capacity;
- "Similar technology" means offshore wind generators on foundations capable of being installed in waters of at least 30 meters in depth and associated cabling; and,
- "Similar location" means an offshore location in water at least 30 meters deep.

These are the relevant characteristics of the Block Island Wind Farm – an offshore wind project that is no more than 30 MWs in size and is located in water that is 30 meters deep.

Q. Does the Block Island Wind Farm meet the policy goals in subsection (a) of the definition of commercially reasonable?

A. Yes, it clearly meets these legislative goals:

1) The project positions the State to take advantage of the economic development benefits of the emerging offshore wind industry;

2) It promotes the development of renewable energy and its operation increases national energy independence from foreign fossil fuel such as imported natural gas, liquefied natural gas, coal and oil;

3) The Block Island Wind Farm's operation would reduce adverse environmental and health impacts by displacing the operation of traditional fossil fuel energy sources such as the diesel oil fired generators on Block Island and the traditional marginal fossil fueled generation fleet in New England; and,

4) It helps provide an electrical interconnection between Block Island and the mainland.

Q. What other projects exist that are of similar size, technology and location?

A. In the U.S. there are none. The U.S. offshore wind industry is still in its infancy, but there are several recent, existing, and financed projects in Europe that are similar in terms of size, technology and location. And with some straightforward adjustments, relevant comparisons can be made to the Block Island Wind Farm. The offshore wind industry in Europe is well established, although not fully mature when compared to onshore wind. However, over 2,000 MWs of projects are in operation there and provide some useful benchmarks if appropriate adjustments are applied. For comparison purposes, I have looked to data on recent projects that are in operation, under construction, or financed and thus reflect current industry cost structures. These three key milestones are indicative of real projects and their actual costs, and to the extent the information is available, they provide the best cost data.

Q. What projects did you focus on given the New Law and new standard of review?

A. My analysis has focused on recent European offshore wind projects since 2009 that were up to 200 MW in size and for which relevant cost information is available. I

selected these projects because in my opinion they provided a relevant sampling of projects that were close in time and size to the Block Island Wind Farm.

The data I used was derived is from a recent study conducted for the New York Energy Research and Development Authority ("NYSERDA") entitled "New York's Offshore Wind Energy Development Potential in the Great Lakes" dated April 2010.[1] An earlier draft version of this report was the basis of my installed cost analysis in Docket 4111, and the data is unchanged. These projects are summarized in the following table, along with project status information, updated based on public sources. Information on the Block Island Wind Farm is added for comparison.

Table 1.

Project Name	Country	Status	Operating Year	Project Cost ($M)	Project Capacity (MW)	No. of Turbines	Turbine Size (MW)	Turbine Model	Water Depth (m)	Distance from Shore (km)
Alpha_Ventus	Germany	Commissioned	2009	$350	60.0	12	5	Multibird&REpower	30	45
Gunfleet_Sands_I	UK	Commissioned	2009	$406	108.0	30	3.6	Siemens_3.6	2 to 15	7
Rhyl_Flats	UK	Commissioned	2009	$358	90.0	25	3.6	Siemens_3.6	8	8
Robin_Rigg	UK	Commissioned	2009	$651	180.0	60	3	Vestas_V90	>5	9.5
Gunfleet_Sands_II	UK	Commissioned	2010	$275	64.8	18	3.6	Siemens_3.6	2 to 15	7
Nordergrunde	Germany	Financing_secured	2010	$440	90.0	18	5	Repower_5M	4 to 20	30
Walney	UK	Financing_secured	2010	$746	151.2	42	3.6	Siemens_3.6	20	7
Belwind	Belgium	Under Construction	2011	$897	165.0	55	3	Vestas_V90	20 to 35	46
For Comparison										
Deepwater Wind BI	RI, USA	In Development	2013	$205	28.8	8	3.6	3.6 MW vendor TBD	27 to 32	5

Q. Which of these projects is most similar in size, technology and location to the Block Island Wind Farm?

A. The most similar project in this group is a German project called Alpha Ventus that reached full commercial operation in April 2010. It is a demonstration project consisting of twelve, 5 MW wind turbines from two different turbine vendors. Six of the twelve turbine foundations are the jacket type that are likely to be used for the Block Island

[1] See http://www.nyserda.org/publications/10-04_offshore_wind.pdf

Wind Farm. I consider this to be similar in "technology", with one necessary adjustment, which is described later. The project is located in water 30 meters deep – effectively the same "location" as the Block Island Wind Farm. Only the "size" at 60 MW is different. However, it is the closest project in size in the data set.

Q. How does the cost of the Alpha Ventus project compare to the Block Island Wind Farm?

A. Based on the analysis more fully described below, the Alpha Ventus project's installed cost is similar to that of the Block Island Wind Farm. In my opinion, if the size of the Alpha Ventus project was similar to the Block Island Wind Farm (30 MW), its installed costs would have been higher.

Q. What pricing or cost metric do you consider is most appropriate in determining whether the New PPA's price is commercially reasonable per the New Law?

A. The primary focus of my analysis is on installed cost, expressed in dollars per kilowatt ($/kW) of nameplate capacity[2]. As I discussed in Docket 4111, a review of the key cost elements that impact the price and price structure in a long term PPA indicate whether the PPA pricing is reasonable and consistent with expectations. For offshore wind, the key cost elements are installed costs, ongoing operations and maintenance costs, and cost of capital (rate of return). If each of these underlying elements is reasonable, then it is consistent to conclude that the PPA pricing and the associated payment stream over time is reasonable, particularly in the context of the New PPA and its "open-book pricing" structure.

[2] For example, the installed cost of the Block Island Wind Farm is expected to be $205,403,512 divided by 28,800 kilowatts of nameplate capacity, or $7,132/kW.

Q. In your opinion are the Block Island Wind Farm's operations and maintenance cost estimates are reasonable?

A. Yes. The operations and maintenance cost assumptions for the Block Island Wind Farm that were reviewed in Docket 4111 remain unchanged. They remain reasonable.

Q. In your opinion is the Block Island Wind Farm's estimated rate of return reasonable?

A. Yes.

Q. Why?

A. Deepwater Wind has estimated that the project's estimated unlevered rate of return will be approximately 10.5% under the New PPA. The return is effectively capped at this value due to the allocation of risks between the project and ratepayers with respect to the final verified Total Facility Cost. If the Total Facility Cost is less than $205,403,512, the New PPA price is reduced by an amount designed to result in a 10.5% unlevered rate of return to Deepwater Wind. If Total Facility Cost turns out to be more than $205,403,512, Deepwater Wind is at risk. The New PPA price does not get adjusted upward and the Deepwater Wind unlevered rate of return will fall below 10.5%. I consider this unlevered rate of return, although on the low side of commercial returns for independent power projects - particularly considering the risks involved, to be reasonable.

Q. Aren't prices expressed in dollars per megawatt-hour ("$/MWh") a common basis for comparison?

A. They can be, but such prices are only useful if good data is available – that is not the case here. Actual pricing for operating projects is difficult to find based on publicly available information. Calculating equivalent price levels for European projects is very difficult since these projects benefit from a wide array of different national economic,

financing, tax and policy mechanisms. Examples include feed-in tariffs, minimum renewable energy credit ("REC") values, REC multipliers, varying renewable portfolio requirements and eligibility criteria that impact REC value, carbon tax benefits paid to wind generators, and various production and investment tax credits. Additional variables by country include exchange rates, escalation, market price projection, and so on. The same is true in the United States, such as the REC multiplier for the Bluewater Project in Delaware. For these reasons, I do not believe that an analysis based on price would lead to a meaningful conclusion.

Q. Please explain how you compared installed costs.

A. I analyzed the European projects and their associated cost data referenced above. Using straight-forward adjustments to account for their size, technology, and location differences, these projects can be compared to the Block Island Wind Farm. After adjusting installed costs to occur in the same year as the Block Island Wind Farm (2013), three adjustments were made to address the project criteria in the New Law:

Technology - Key cost elements that were known to be missing were added so that the technology scope is equivalent;

Location- Project costs were adjusted to estimate what they would be if located in ocean waters 30 meters deep; and,

Size - Project costs were estimated as if they were constructed at a size of 30 MW.

Q. Can you describe the project cost adjustments you made in more detail?

A. Yes. The initial adjustment was to put all costs on an equivalent basis in time. Installed costs in the NYSERDA study were associated with an "Operating Year" which is assumed to be essentially the same as commercial operation. The installed costs for each project were escalated at a nominal 1.5% annually[3] to 2013, the expected date of the Block Island Wind Farm's commercial operation.

Q. How did you make the technology scope similar?

A. Two projects in Germany, Alpha Ventus and Nordergrunde, do not include the costs of cables and associated equipment to deliver power from the project in the ocean to the delivery point on land. Under German law[4], for projects built prior to 2012, these costs are paid by the transmission system operator, rather than the project as is the case for the Block Island Wind Farm. Deepwater Wind's estimate of equipment costs to deliver power from the wind farm in the ocean to the delivery point on Block Island is approximately $20.75 million.[5] This amount was used to then estimate the cost to add to the two German projects to make the technology scope similar.

Q. How did you calculate the additional equipment costs to add to the two German projects?

A. I scaled the $20.75 million estimated cost of equipment necessary to deliver power from the Wind Farm to Block Island in proportion to the other projects' distance to shore relative to the Block Island Wind Farm. To be conservative, the longer cable length from the Block Island Wind Farm to Block Island (10.6 km) was used instead of

[3] Energy Information Administration, *Annual Energy Outlook 2010*, Macro Economic Indicators - GDP Chain-type Price Index average for 2009 through 2013.

[4] Albers, H. (2007), German Wind Energy Association. *German offshore wind development - Final "Go!" in 2009?* Proceedings of the European Offshore Wind Conference & Exhibition, Berlin, Germany

[5] The costs of the transmission line from Block Island to the mainland are not included this adjustment.

the shorter distance to shore (5 km). Alpha Ventus is about 45 km from shore and Nordegrunde is located about 30 km out. This adjusted amount was then scaled in proportion to the relative size of the projects in nameplate MWs. Alpha Ventus is 60 MW and Nordergrunde is 90 MW, compared to the Block Island Wind Farm at 28.8 MW. The incremental cost above the Block Island Wind Farm's $20.75million cost estimate was then multiplied by 0.25 to assure that the estimates were conservative,[6] and to reflect that undersea equipment costs have scale economies. As a result an estimated $46 million was added to each German project to express them on a similar basis with respect to technology scope.

Q. How did you adjust for water depths shallower than 30 meters to make the locations similar?

A. While Alpha Ventus is located in the same water depth as the Block Island Wind Farm, the seven other projects are in shallower water. An accepted cost relationship in offshore wind projects is that installations in deeper water[7] are more expensive while allowing access to better wind resources. I adjusted for different depths using data from a recent report by the European Environmental Agency.[8] It includes the results of a study on cost as a function of depth and its historic impact on installed project cost. This relationship, expressed as scale factors, as follows:

[6] Although this adjustment is not a rigorous engineering analysis, informal discussions with internal and external experts make me comfortable that this ballpark estimate is unlikely to overstate the applicable costs.
[7] See Figure 10.3 in the NYSERA report.
[8] EEA Technical Report No 6/2009. "Europe's onshore and offshore wind energy potential", Table 6.4

Table 2. Increase in offshore installed costs as a function of water depth

Depth (m)	Factor
10-20	1.000
20-30	1.067
30-40	1.237
40-50	1.396

Using linear interpolation, a specific scale factor was developed for each project based on the depth at its location. The following formula was used to calculate an adjusted installed cost for each project so that location is similar:

installed cost $_{project}$ *times (*scale factor $_{Block\ Island\ Wind\ Farm}$ *divided by* scale factor $_{project}$.)

Q. How did you adjust the size and cost of these larger European projects to make them similar to the Block Island Wind Farm?

A. The European project costs were then adjusted to estimate what their installed cost would be if they had been built as smaller 30 MW projects, instead of their actual sizes.

Q. How was the size adjustment calculated?

A. To understand the relationship between installed cost and nameplate capacity, the installed costs of the European projects (including prior adjustments) were analyzed. Using a linear regression derived from the cost information from the European projects[9] a formula can be written that estimates installed cost as a function of project size in MWs.[10] Reviewing a plot of this regression line shows the cost trend that one would

[9] Note that the data points used did not include the Block Island Wind Farm estimated costs.
[10] Based on the data, the formula is: Installed Cost = -13.309 x Nameplate MW + 7320.8

expect.[11] Economies of scale are common in the power generation industry more generally, and this relationship is useful in describing the scale economy functions.

Q. Please summarize the results of these adjustments for size, technology and location.

A. A summary of the installed costs of these eight European projects after adjustments to make them similar to the Block Island Wind Farm in terms is size, technology and location is as follows[12]:

Table 3.

Project Name	Adjusted Installed Cost at 30 MW ($/kW)
Rhyl Flats	$5,662
Robin Rigg	$6,418
Gunfleet Sands I and II	$6,690
Block Island Wind Farm	**$7,132**
Nordergrunde	$7,302
Walney	$7,364
Alpha Ventus	$7,402
Belwind	$7,612

Q. In Table 3, it appears that you combined the Gunfleet Sands I and II projects. Can you explain why you did this?

A. Yes. These two projects are really one project in the same location. Construction started on both phases at the same time and they were completed in succession. Both

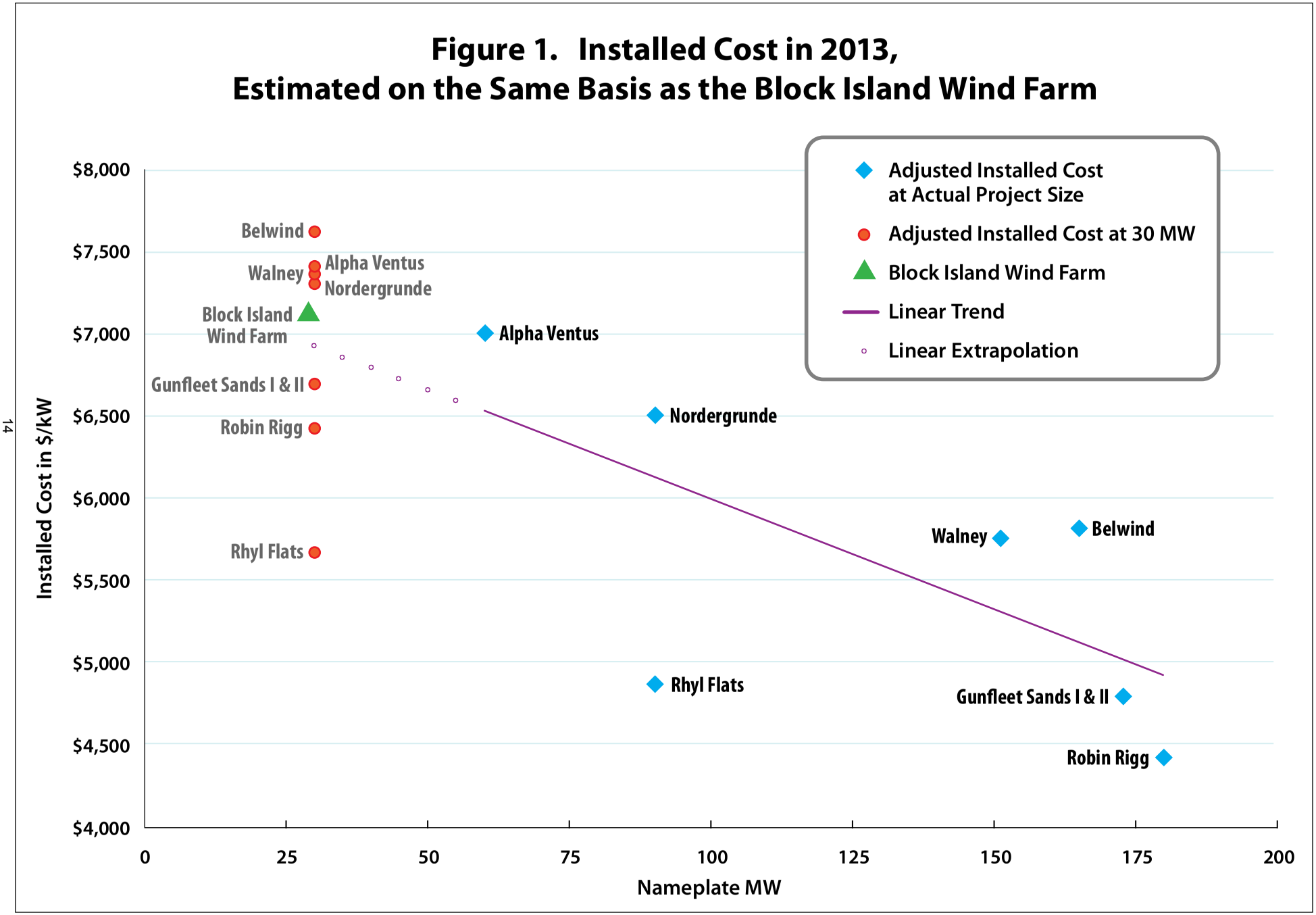
[11] See Figure 1.

[12] The size of the Block Island Wind Farm remains at 28.8 MW for the purposes of this analysis. If the project's installed cost were to be estimated at 30MW, using the same methodology it would be $7,116/kW.

projects use the same offshore substation and cable that connect to shore. Due to the shared infrastructure it is more appropriate to model this Gunfleet Sands as a single project.

A plot of these results follows in Figure 1.

Figure 1. Installed Cost in 2013, Estimated on the Same Basis as the Block Island Wind Farm



As shown in Figure 1, the blue diamonds show project installed costs at their actual project size in nameplate MW, a similar location (30 meters of water), similar technology (equivalent technology scope), and in 2013 dollars. The black line is the statistical cost vs. size relationship between the blue diamonds, which can be projected as the dotted extrapolation. The red circles are the costs of the eight European projects if scaled to 30 MW to be similar in size. The installed cost of the Block Island Wind Farm is the green triangle. Table 4, which is attached to my testimony, includes the numerical values of the data in this plot.

Q. Are there other factors that can account for differences between the Block Island Wind Farm and the European project costs?

A. Yes.

Q. What are they?

A. There are several factors that could be a reason for differences in cost between the Block Island Wind Farm and the European projects. I would expect a cost gap between European and U.S. projects until the U.S. develops an equivalent level of experience developing, permitting, constructing and operating offshore wind projects. As I discussed in Docket 4111, the comparable domestic supply chain and experience base to support a U.S. project simply does not exist. For example, consider issues such as construction techniques and training, sufficient port infrastructure, heavy lift vessels for foundation installation and turbine placement, maintenance techniques and training, and maintenance vessels. In the U.S., we are starting from scratch – it all needs to be developed.

Q. Have you attempted to quantity or adjust any costs for these supply chain and other factors that can account for differences between the Block Island Wind Farm the European projects?

A. No. The impact of all of these supply chain diseconomies and lack of actual experience would reasonably be expected to increase the cost of a U.S. project. However there is no readily publicly available and verifiable data available to make specific adjustments.

Q. What conclusion do you draw from this installed cost analysis?

A. I conclude that the installed cost of the Block Island Wind Farm is reasonably consistent with what an experienced power market analyst would expect to see for a project of similar size, technology and location.

Q. How do you reach that conclusion?

A. The installed costs of the European offshore wind projects that I analyzed support this conclusion. After adjustments to make them similar in size, technology and location to the Block Island Wind Farm, their installed costs range from $7,612/kW to $5,662/kW. The Block Island Wind Farm is in the middle of this group with estimated installed cost of $7,132/kW. Four projects have installed costs greater than the Block Island Wind Farm and three are lower.

In addition, the regression line based on these European projects, if extrapolated to 30 MWs, would show an expected installed cost of $6,922/kW. Though lower than the cost of the Block Island Wind Farm, it is very close. The $210/kW difference could be a proxy for part of the cost impact of other factors that are not readily quantifiable, like lack of an existing U.S. supply chain.

Q. What conclusion can you then make about the pricing in the New PPA?

A. As discussed earlier, I consider that the Block Island Wind Farm's estimated operations and maintenance costs and return on investment are reasonable. And as shown in the analysis and discussion above, I consider the project's installed costs to be reasonable. As these underlying key project cost elements are reasonable, I conclude that the New PPA pricing and the associated payment stream over time is commercially reasonable.

Q. Why doesn't the installed data presented include the Cape Wind and Bluewater Wind projects?

A. Cape Wind and Bluewater Wind have not publicly released their installed cost data or return on investment data.

Q. How would you compare the pricing in the New PPA to the Cape Wind PPA filed for regulatory approval in Massachusetts or the approved Bluewater Wind PPA in Delaware?

A. These projects are likely to be compared, as they are the only PPA prices for offshore wind projects publicly-available in the U.S., but direct comparisons are difficult. Of course Cape Wind (468 MW) and Bluewater Wind[13] (between 200 MW and 600 MW) are much larger projects than the Block Island Wind Farm. As such, they can expect to benefit from the economies of scale that their larger sizes should allow. In addition, Bluewater Wind benefits from a 350% REC multiplier structure that allows it to retain ownership of all revenues associated with 71.5% of the RECs produced from the 200 MW under contract. These structural differences between the projects make direct comparisons on price generally uninformative.

[13] The Bluewater Wind PPA is for 200 MW from a project that could be as large as 600 MW. Power Purchase Agreement between Delmarva Power & Light Company and Bluewater Wind Delaware LLC, June 23, 2008. Appendix 1.

In contrasting the Block Island Wind Farm and Cape Wind, it is interesting to note that although the Cape Wind project is 16.25 times the size of Deepwater Wind on an installed MW basis the PPA prices are relatively close, and depending on assumptions about certain events, the Block Island Wind Farm can have a lower price.

Q. Are potential ratepayer risks and benefits allocated differently in the Deepwater Wind, Cape Wind and Bluewater PPAs?

A. Yes.

Q. How so?

There are three examples of different allocations of ratepayer risks and benefits that are readily apparent:

1) Under the New PPA, if the Federal production tax credit ("PTC") or investment tax credit ("ITC") benefits are not available, the initial price in 2013 of $243.95/MWh does not change. In the case of the Cape Wind PPA, the 2013 PPA price can increase from $207/MWh to $228/MWh if the project does not qualify for ITC and increases to $235/MWh if it also does not qualify for PTC.

2) Under the New PPA, there are potential savings to NGrid ratepayers if the Block Island Wind Farm's verified costs are lower than the $205.4 million Base Amount. For a 10% saving in costs, the initial New PPA price in 2013 would become approximately $225/MWh, and at a 20% savings would be about $206/MWh. Neither the Cape Wind nor Bluewater Wind PPAs include this structure.

3) The Bluewater PPA has a lower annual price escalator of 2.5%. While at first glance this might seem to benefit ratepayers, it actually front-end loads the stream of PPA

payments by ratepayers. To the extent that the project experiences operational difficulties in later years, did ratepayers "overpay" in the early years? In contrast the, New PPA and the Cape Wind PPAs have a 3.5% price escalator. This has the effect of back-loading the payment stream to the later years. This is when projects typically begin to earn their return on investment. If there are operational problems, the project's return is at risk. If power is not delivered, ratepayers pay nothing.

Q. The costs of a smaller demonstration project like the Block Island Wind Farm is clearly higher than these much larger projects. Are there other reasons to proceed with and support a demonstration project?

A. There are. In Europe, the offshore wind industry did not sprint out of the starting blocks with multi-hundred MW projects. As one would expect in a new industry, things started small. The first commercial offshore wind farm in Denmark called Vindeby was 4.95 MW, and in the UK the Blyth project was 4 MW. An entire supply chain has to be developed and manufacturing, construction, operation and maintenance experience and expertise developed. Concepts were proven and subsequent projects successfully developed. Prudent smaller initial steps can and should lead to more successful and lower cost larger projects in the future.

Q. Are the non-price terms and conditions of the New PPA commercially reasonable?

A. Yes. There are actually few material changes to the terms in the New PPA relative to the Docket 4111 PPA. The Docket 4111 PPA was found to be what an experienced power market analyst would expect to see - with one exception, the assignment clause. That assignment clause has been modified to provide more protections to NGrid and its ratepayers. From my perspective, the terms and conditions of the New PPA are commercially reasonable.

Q. Does this conclude your testimony?

A. Yes. Aside from reviewing testimony from any other party in this Docket, yes it does.

Table 4. Installed Cost Data and Adjustments to Express on the Same Basis as the Block Island Wind Farm

	Project Name	Nameplate MW	Installed Cost ($M)	Installed Cost in 2013 ($M)	Installed Cost ($/kW)	Ocean Depth (m)	Ocean Depth Scale Factor	Depth Adjusted Installed Cost ($/kW)	Depth Adjusted Installed Cost Adjusted to 30 MW Scale ($/kW)
1	Rhyl_Flats	90.0	$358.0	$380.0	$4,222	8.0	1.000	**$4,864**	**$5,662**
2	Robin_Rigg	180.0	$690.9	$690.9	$3,839	6.0	1.000	**$4,422**	**$6,418**
3	Gunfleet_Sands_I_and_II	172.8	$681.0	$718.5	$4,158	12.0	1.000	**$4,790**	**$6,690**
4	Nordergrunde	90.0	$440.0	$508.1	$5,645	8.5	1.000	**$6,503**	**$7,302**
5	Walney	151.2	$746.0	$780.1	$5,159	20.0	1.034	**$5,751**	**$7,364**
6	Alpha_Ventus	60.0	$350.0	$420.2	$7,003	30.0	1.152	**$7,003**	**$7,402**
7	Belwind	165.0	$897.0	$924.1	$5,601	27.5	1.110	**$5,815**	**$7,612**
	Block Island Wind Farm	**28.8**	**$205.4**	**$205.4**	$7,132	**30.0**	1.152	**$7,132**	**$7,132**

Notes:

Nordegrunde & Alpha Ventus include estimated additional $46 M of interconnection costs.

Regression Line	**$6,922**
Price Assuming 30 MW Project Size	
Y = -$13.309/MW*(nameplate MW)+$7320.8/kW	

CERTIFICATION

I hereby certify that on July 15, 2010, a copy of the within was sent to all parties set forth on the attached Service List by electronic mail and copies were sent to Luly Massaro, Commission Clerk, by electronic mail and hand delivery.

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