

MEMORANDUM

DATE: MARCH 28, 2014

TO: RHODE ISLAND DIVISION OF PUBLIC UTILITIES AND CARRIERS

FROM: RICHARD HAHN, LA CAPRA ASSOCIATES, INC.

SUBJECT: TOWN OF NEW SHOREHAM PROJECT
TRANSMISSION FACILITIES PURCHASE AGREEMENT

Summary

On March 13, 2014, National Grid (“NGRID”) filed a request with the Rhode Island Division of Public Utilities and Carriers (“Division”) seeking consent to execute the Transmission Facilities Purchase Agreement (“Agreement”), pursuant to which NGRID would purchase the existing assets of Deepwater Wind Block Island Transmission, LLC (“DWBIT”), a Delaware limited liability company. The Agreement was filed pursuant to R.I.G.L 39-26.1-7(f). Under that section, the Division shall have twenty days to review the agreement to determine if the terms and pricing of the Agreement are reasonable, taking into account the intention of the legislature to advance the project as a policy making matter. The assets being purchased by NGRID at this time are studies and permits, but do not include any physical assets or plant under construction or in-service. NGRID and Deepwater Wind have previously entered into a purchased power agreement (“PPA”), approved by the Public Utilities Commission, whereby NGRID would purchase the output of a 28 MW (nameplate) off-shore wind farm. Under the PPA and the original approach agreed to by NGRID and Deepwater Wind, Deepwater Wind was to construct the cable that connects its off-shore wind farm to the Rhode Island mainland and sell the Block Island Transmission System (BITS”) to National Grid when it was completed. NGRID now seeks to acquire the DWBIT assets at this time and install BITS itself.

La Capra Associates, Inc. was retained by the Rhode Island Division of Public Utilities and Carriers (“Division”) to review this filing. This memorandum provides the results of the review.

The Transmission Facilities Purchase Agreement defines the assets to be purchased by NGRID. This agreement specifies that NGRID will pay DWBIT a maximum amount of approximately \$9.5 million for these assets.

Based upon my review, I recommend that the Division provide its consent, subject to certain conditions discussed later in this memo. These conditions include the following:

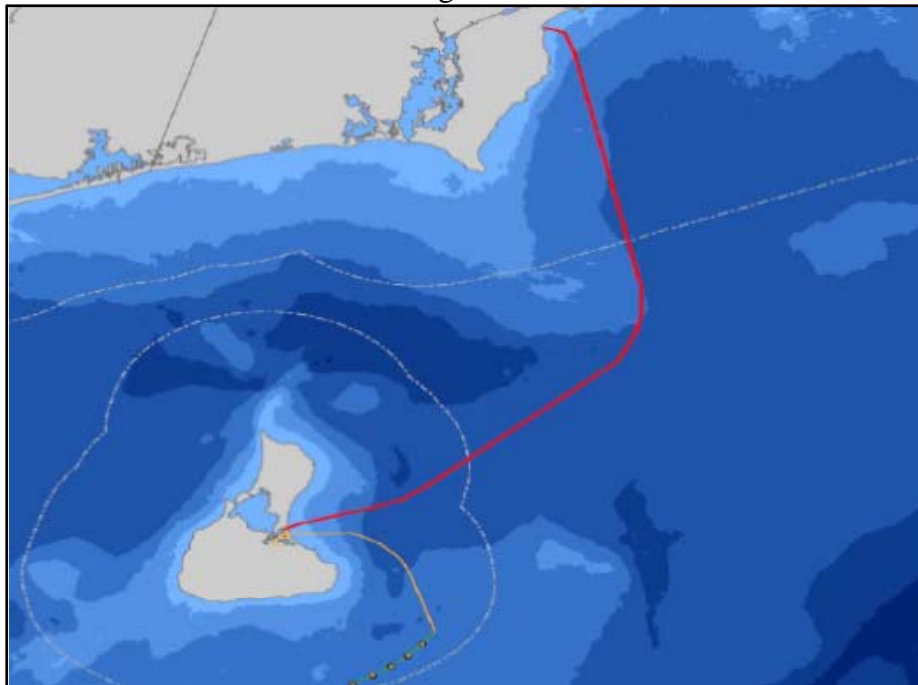
- NGRID shall not commence the physical installation of the submarine portion of the Transmission Facilities until such time as Deepwater Wind has delivered evidence, including verification from a third-party verification agent, who will report to the Coastal Resources Management Council, of the commencement of fabrication of the jacket foundation structures that will support the wind turbine generators.

- The maximum amount to be paid by NGRID for the assets at closing shall be \$9,486,289.
- NGRID shall not change the use of the Integrated Facilities Agreement as the proposed methodology for cost recovery without approval of the Division.
- Any material changes in the closing documents that occur after the Division has granted its consent should be also consented to by the Division.

Overview of BITS

The Block Island Transmission System (BITS”) is the undersea cable that will connect Block Island Power Company in New Shoreham to the Rhode Island mainland. This cable will be used to deliver electricity generated by Deepwater Wind from its offshore wind farm to ISO New England markets. This cable will also allow Block Island Power Company to purchase capacity and energy from ISO New England markets, and reduce reliance on local diesel-fired generation. Figure 1 below shows the proposed path of BITS.

Figure 1



The Deepwater Wind offshore wind project (“Project”) is being constructed pursuant to RIGL39-26.1-7 of the Rhode Island general laws. The Project includes the BITS. Specifically, chapter 39-26.1-7(f) states that *“the Project shall include a transmission cable between the Town of New Shoreham and the mainland of the state. The electric distribution company, at its option, may elect to own, operate, or otherwise participate in such transmission cable project. The electric distribution company, however, has the option to decline to own, operate, or otherwise participate in the transmission cable project. The electric distribution company may elect to purchase the transmission cable and related facilities from the developer or an affiliate of the developer, pursuant to the terms of a transmission facilities purchase agreement negotiated between the electric distribution company and the developer or its affiliate, an unexecuted copy of which shall be provided to the division of public utilities and carriers for the division's consent to execution. The division shall have twenty (20) days to review the agreement.”*

The cost of BITS is currently estimated to be \$75 million. This is substantially above the \$42.5 million estimate that was provided in docket 4111. Actual costs may be even higher. Final costs for BITS will be paid for by customers of Narragansett Electric and Block Island Power Company. National Grid proposes to include BITS under the Integrated Facilities Agreement (“IFA”) as a mechanism for cost recovery.

BITS is a 34.5 KV cable that will interconnect to existing 34.5 KV Narragansett Electric distribution facilities at the Wakefield substation. In order for Deepwater Wind generation to reach ISO New England markets, that electric output must reach National Grid’s transmission system. In purchasing from ISO New England’s markets, Block Island Power Company must receive power at National Grid’s transmission system. The nearest 115 KV substation is West Kingston. Thus, both Deepwater Wind and Block Island Power Company will utilize some portion of the existing 34.5 KV Narragansett Electric distribution facilities. Because Deepwater Wind is a generator, and National Grid does not charge generators for wheeling power across its distribution system, Deepwater Wind will not pay for the use of any of the existing distribution facilities between West Kingston and Wakefield substations. Because Block Island Power Company’s purchases from ISO New England markets will be transmitted over the existing distribution facilities, Block Island Power Company should pay for the use of those facilities. National Grid has stated that because the purchases by Block Island Power Company represent a wholesale transaction for resale, the use of and cost paid by Block Island Power Company is subject to FERC jurisdiction. Thus National Grid proposes to include under the IFA the portion of the existing distribution assets that Block Island Power Company will use.

Chronology of Events

NGRID approached the Division in the summer of 2013, seeking to discuss the possibility of acquiring the DWBIT assets prior to the commencement of construction. At that time, NGRID provided at that time preliminary terms and conditions for the proposed asset acquisition. In January 2014, NGRID again approached the Division, this time with modified terms and conditions. I was asked to participate in those past discussions, which ultimately lead to the March 13, 2014 filing. NGRID has responded to issues raised in the discussion, and has reduced the cost of the assets and addressed the issue of ratepayer risk raised by the Division. These changes are discussed more fully later in this memorandum. In my opinion, the current proposal is a significant improvement from a ratepayers’ point of view over what was initially proposed by NGRID. By securing these changes, the Division has reduced the cost of the transaction and reduced ratepayer risk while still allowing the project to proceed, consistent with the legislative intent.

Timing of the Asset Purchase

According to the statute, National Grid has the option to own and operate this cable. National Grid is exercising this option now, rather than waiting until Deepwater Wind has constructed the cable and then purchasing a finished asset. By exercising this option now, National Grid seeks to acquire certain studies, permits, and other work products, deemed to be assets, that Deepwater Wind has already performed and/or acquired. There are certain advantages and disadvantages in NGRID’s acquisition the DWBIT asset at this time, as opposed to waiting until BITS has been placed in service. NGRID is in the business of building, owning, and operating electric

transmission systems and has experience with undersea cables. DWBIT is a sole-purpose entity whose only asset is intended to be the BITS. NGRID should be able to secure funding for the installation of the facilities at a lower cost of capital than DWBIT. By acquiring the pre-construction assets now and installing the physical assets itself, NGRID will be the sole entity responsible for physical construction activities. If DWBIT constructed the BITS and then sold the finished assets to NGRID, it would be very difficult for NGRID, or the Division to assess the condition of the completed asset and whether it was properly installed.

The main disadvantage to NGRID acquiring the assets now is that NGRID will need to commit a significant sum of money to procure materials and supplies for the BITS prior to the completion of the Deepwater Wind Farm. Construction of the BITS and the wind farm will need to occur simultaneously in order for the combined project to meet its expected in-service date. If NGRID acquires the assets now, makes such commitments, and the wind farm is cancelled, then NGRID will surely seek to recover these costs from Rhode Island ratepayers through FERC proceedings. If NGRID waits until both the BITS and the wind farm are constructed by Deepwater Wind, then Rhode Island ratepayers will not be exposed to the risk of paying for transmission assets if the wind farm is not constructed.

In our discussion with NGRID, we raised this risk issue. Specifically, we discussed construction milestones, and attempted to identify certain construction activities for the wind farm that should occur before the commencement of the installation of the BITS. NGRID was responsive to this concern. In the filing, NGRID has agreed not to commence the physical installation of the submarine portion of the Transmission Facilities until such time as Deepwater Wind has delivered evidence, including verification from a third-party verification agent, who will report to the Coastal Resources Management Council, of the commencement of fabrication of the jacket foundation structures that will support the wind turbine generators. The commencement of the jacket fabrication represents a significant commitment by Deepwater Wind. By waiting until after this milestone has occurred before commencing the installation of the BITS cable, the risk to ratepayers will be mitigated, but not completely eliminated. I believe that this condition represents a reasonable compromise, as it offers protection to ratepayers while allowing the wind farm project to go forward. This should be a formal condition of the Division's approval of NGRID's request.

Cost of Acquired Assets

Figure 2 below provides a summary of the price that NGRID will pay to DWBTI for the assets to be acquired. The maximum amount that National Grid has negotiated to pay Deepwater Wind for these assets is \$9,486,289. This includes a development fee of \$766,592 which is calculated by applying a 3.85% rate to the Deepwater Wind annual invoiced expenditures of \$6.5 million.

Figure 2

Comparison of Cost Estimates			
Item	July 2013	March 2014	Difference
Permitting	\$3,420,880	\$3,420,880	\$0
Surveys	\$2,217,617	\$2,217,617	\$0
Engineering	\$800,994	\$800,994	\$0
Regulatory	\$53,699	\$53,699	\$0
Site Control	\$25,000	\$25,000	\$0
3rd Party - Sub Total	\$6,518,190	\$6,518,190	\$0
DeepWatter Internal Staff	\$1,050,000	\$1,050,000	\$0
Development Fee	\$2,280,819	\$766,592	\$1,514,227
Real estate		\$374,838	(\$374,838)
Subtotal through 2/1/2013	\$9,849,010	\$8,709,620	\$1,139,389
cap 2/1/2013 thru closing	\$852,005	\$776,669	\$75,336
Total	\$10,701,015	\$9,486,289	\$1,214,725
			11%

In July 2013, the total purchase price proposed to be paid was \$10,701,015 million. This estimate included a development fee based upon a 10.5% rate applied to the Deepwater Wind annual invoiced expenditures of \$6.5 million. In my discussion with NGRID (and Deepwater Wind), I opined that the 10.5% rate, which was applied as if it was an AFUDC (allowance for funds used during construction) rate, was unreasonably high. In the March 2014 filing, NGRID used a 3.85% rate, which I believe is more reasonable.

In negotiating the price to be paid for Deepwater Wind assets developed by third parties, National Grid examined each invoice and made a determination regarding the portion of that value should be included in the acquisition price. The current price for these assets is the same as in July 2013. National Grid provided a spreadsheet file summarizing the results of the review. To assist in our review, National Grid explained how they arrived at the accepted percentage of each invoice. I have reviewed this process and the results of the negotiation. While I have not reviewed every invoice, nor have I conducted an independent detailed audit of these costs, I did confirm that the process used by National Grid was reasonable. Attachment 1 to this memo provides a more detailed summary of the costs negotiated by National Grid. Given that these costs are typical development costs associated with the construction of a transmission project, the review and negotiation by National Grid, and their small magnitude relative to the total currently anticipated cost of the BITS, I find the \$6.5 million acquisition price for work already performed by third parties is reasonable.

The bottom line is that the current capped price to be paid for the assets being acquired is \$1,214,725 lower than proposed in July 2013, as shown above. I believe that this figure is reasonable, and that it should be a formal condition of the Division’s approval of the proposed transaction.

Use of the IFA

It is my understanding that, according to Rhode Island statute, Narragansett Electric is required to own electric transmission facilities located in the state. National Grid also operates transmission facilities in Massachusetts and New Hampshire and National Grid desires to have one integrated transmission system and one set of integrated transmission rates. To achieve this outcome, Narragansett Electric owns Rhode Island transmission assets and records them on its books. Narragansett Electric then “sells” the right to use these assets to New England Power Company (“NEP”), also an affiliate of National Grid. Narragansett Electric receives a credit from NEP that is the equivalent of a payment by NEP for the use of Narragansett Electric’s transmission assets. NEP combines the transmission assets of all National Grid affiliates and determines transmission rates for regional network service and local network service to be charged to all transmission customers of NEP, including Narragansett Electric. Figure 4 below shows 2012 transmission costs for Narragansett Electric, as taken from its annual FERC form 1 report. Narragansett Electric paid ISO New England \$98.6 million for regional network service. Narragansett Electric also paid NEP \$24.7 million for local network service, and received a credit of \$78.3 million. It is my understanding that at least some if not all of that credit is associated with the payment by NEP for the use of Narragansett Electric transmission assets.

Figure 4
Narragansett Electric 2012 Transmission Costs

ISO-NE	\$98,628,278
NEP	\$24,655,193
subtotal	\$123,283,471
facility credits	(\$78,347,178)
net cost	\$44,936,293

As noted previously, Narragansett Electric proposes to own the BITS and record this asset on its books, but will sell the right of use to NEP under the IFA. Narragansett Electric will also include in the IFA the portion of the distribution assets to be used by Block Island Power Company

In discussions with National Grid, the Company indicated that it has other wholesale customers that utilize distribution facilities for the delivery of wholesale power for resale. These customers are Georgetown Municipal Light Dept., Ipswich Municipal Light Dept., Princeton Electric Light Dept., Hull Municipal Lighting Plant, Granite State Electric, Green Mountain Power Corp., Groveland Municipal Light Dept., Merrimac Municipal Light Dept., and Rowley Municipal Light Dept. The portion of the costs of the distribution facilities used by these wholesale customers is included in NEP’s local network service rate. In addition to paying the local network service rate, these wholesale customers also pay a negotiated surcharge that purports to cover their share of the cost of the distribution facilities that they use.

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The proposed treatment for the use of Narragansett Electric's distribution assets by Block Island Power Company is similar but not identical. It is my understanding that the costs of the existing distribution facilities that will be included under the IFA will not be included in NEP's rates for local network service. Rather, it is my understanding that NEP will develop a separate surcharge to be paid by Block Island Power Company. The portion of the existing distribution assets to be used by Narragansett Electric is now and will remain in Narragansett Electric's retail distribution rates.

By placing the BITS under the IFA and under FERC jurisdiction, it will be much more difficult for the Division to challenge any cost overruns on the undersea cable. FERC has generally allowed higher returns on equity than the Rhode Island commission. Therefore, placing the BITS under the IFA could result in higher rates than if Narragansett Electric established these rates before the Rhode Island Commission. For example, in docket 4323, Narragansett Electric's pre-tax weighted average cost of capital was 9.68% under the Commission's jurisdiction. NEP's pre-tax weighted average cost of capital for its regional network service rates was 12.63%, or nearly 300 basis points higher.

I also note Title 39 of the Rhode Island general laws appears to have intended the BITS to earn the FERC rate of return for NGRID. Specifically, chapter 39-26.1-7(f) states as follows:

"If the division independently determines that the terms and pricing of the agreement are reasonable, taking into account the intention of the legislature to advance the project as a policy-making matter, the division shall provide its written consent to the execution of the transmission facilities purchase agreement. Once written consent is provided, the electric distribution company and its transmission affiliate are authorized to make a filing with the federal energy regulatory commission to put into effect transmission rates to recover all of the costs associated with the purchase of the transmission cable and related facilities and the annual operation and maintenance. The revenue requirement for the annual cable costs shall be calculated in the same manner that the revenue requirement is calculated for other transmission facilities in Rhode Island for local network service under the jurisdiction of the federal energy regulatory commission."

The use of the IFA seems to be consistent with this portion of the statute. Therefore, while the use of the IFA will likely result in slightly higher costs to Rhode Island ratepayers because of a higher return on equity, I do not oppose the use of the IFA as a vehicle for cost recovery of the BITS or the existing distribution assets to be used by Block Island power Company, as it seems consistent with, and required, by the statute. NGRID should not change the proposed methodology for cost recovery without approval of the Division.

Corporate Guaranty

Exhibit E to the Transmission Facilities Purchase Agreement is a form of a corporate guarantee, pursuant to which Deepwater Wind, LLC (the "Guarantor") unconditionally and absolutely guarantees to NGRID the prompt and complete performance and payment when due, of all obligations and liabilities (the "Guaranteed Obligations"), whether now in existence or hereafter arising, of Deepwater Wind Block Island, LLC and Deepwater Wind Block Island Transmission,

LLC. This Guaranty is to be effective on and after the closing of the transactions contemplated in the Purchase Agreement.

Draft Agreements

I did review the draft agreements provided by National Grid. While I am not an attorney, it appears that these proposed agreements appropriately capture the business intent of the transaction. Any material changes in the closing documents that occur after the Division has granted its approval should be also approved by the Division.

Attachment 1

NGRID Purchase of DWW Assets

Vendor ^[1]	Category	Invoice Balance	P&S Costs	% of invoice balance
	Surveys	\$1,928,913	\$1,882,329	98%
	Permitting	\$3,200,000	\$1,600,000	50%
	Permitting	\$915,875	\$888,439	97%
	Permitting	\$615,436	\$353,616	57%
	Engineering	\$387,152	\$323,071	83%
	Permitting	\$548,613	\$286,100	52%
	Surveys	\$337,911	\$207,296	61%
	Engineering	\$408,151	\$200,253	49%
	Engineering	\$320,767	\$160,383	50%
	Permitting	\$203,103	\$99,302	49%
	Engineering	\$92,579	\$92,578	100%
	Surveys	\$140,659	\$82,534	59%
	Regulatory	\$198,536	\$53,700	27%
	Permitting	\$54,765	\$34,378	63%
	Permitting	\$67,800	\$33,900	50%
	Surveys	\$35,627	\$25,651	72%
	Surveys	\$43,166	\$19,807	46%
	Permitting	\$39,000	\$19,500	50%
	Engineering	\$38,597	\$19,298	50%
	Permitting	\$54,213	\$16,250	30%
	Permitting	\$15,906	\$15,906	100%
	Permitting	\$30,854	\$15,427	50%
	Permitting	\$13,939	\$13,063	94%
	Site Control	\$13,000	\$13,000	100%
	Permitting	\$23,802	\$12,384	52%
	Permitting	\$15,402	\$7,701	50%
	Site Control	\$6,000	\$6,000	100%
	Site Control	\$6,000	\$6,000	100%
	Engineering	\$10,820	\$5,410	50%
	Permitting	\$8,745	\$5,247	60%
	Permitting	\$9,705	\$4,853	50%
	Permitting	\$6,397	\$3,199	50%
	Permitting	\$14,190	\$2,607	18%
	Permitting	\$5,000	\$2,500	50%
	Permitting	\$3,462	\$2,494	72%
	Permitting	\$1,780	\$890	50%
	Permitting	\$2,250	\$750	33%
	Permitting	\$1,125	\$562	50%
	Permitting	\$982	\$491	50%
	Permitting	\$952	\$476	50%
	Permitting	\$800	\$400	50%
	Permitting	\$600	\$250	42%
	Permitting	\$390	\$195	50%
	Permitting	\$66,500	\$0	0%
	Engineering	\$33,918	\$0	0%
	Permitting	\$900	\$0	0%
	Permitting	\$6,167	\$0	0%
	Engineering	\$220,000	\$0	0%
	Permitting	\$1,070	\$0	0%
	Permitting	\$12,376	\$0	0%
	Site Control	\$660,000	\$0	0%
Grand Total		\$10,823,895	\$6,518,191	60%

^[1] Names of individual vendors have been redacted due to confidentiality requirements