

April 2, 2014

VIA HAND DELIVERY & ELECTRONIC MAIL

Luly E. Massaro, Division Clerk
Rhode Island Division of Public Utilities and Carriers
89 Jefferson Boulevard
Warwick, RI 02888

**RE: Docket D-14-20 - Town of New Shoreham Project
Transmission Facilities Purchase Agreement
Supplemental Response to Division 2-1**

Dear Ms. Massaro:

Enclosed are five (5) copies of National Grid's¹ supplemental response to Division 2-1, which was the only data request contained in the Division's Second Set of Data Requests in the above-referenced matter.

Thank you for your attention to this transmittal. If you have any questions, please contact me at 401-784-7288.

Very truly yours,



Jennifer Brooks Hutchinson

cc: Thomas Ahern, Administrator
Steve Scialabba, Division
John Spirito, Esq.
Jon Hagopian, Esq.

¹ The Narragansett Electric Company d/b/a National Grid.

Supplemental
Division 2-1

Request:

Please provide a copy of the Block Island Transmission System Briefing dated July 29, 2013, presented to the Division on the above-referenced date.

Response:

Please see Attachment DIV 2-1 for a copy of the Block Island Transmission System Briefing dated July 29, 2013. It is important to note that the attached presentation reflects the status of the project in July 2013, and certain aspects of the project have changed or evolved since that time. Examples include the landing location for the submarine cable, and the maximum purchase price and certain other contract terms, which were further negotiated between National Grid and Deepwater Wind following the July 29, 2013 presentation to the Division. All contract terms have been fully documented in the draft Transmission Facilities Purchase Agreement that the Company filed with the Division on March 13, 2014, and a summary of the current project scope, contract terms, and purchase price is included in the Company's March 13, 2014 transmittal letter.

It is also worth noting the following with respect to the July 29, 2013 presentation:

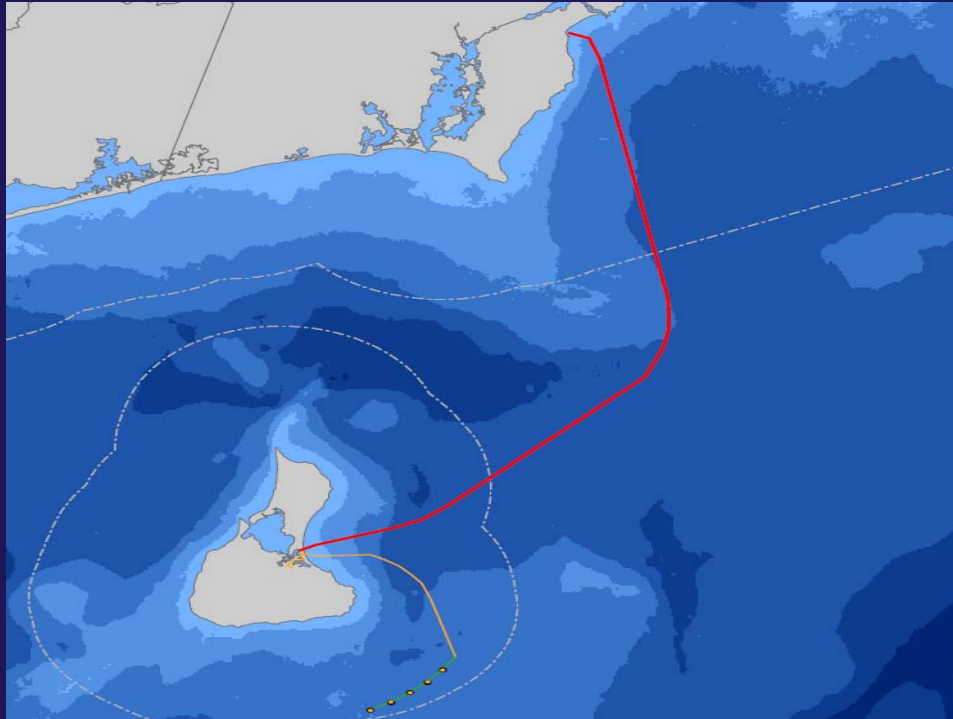
- The slide presentation was developed based on the original submarine route of 22 miles from Block Island to Narragansett and contemplated a landing location at the Narragansett Town Beach. At the time of the July 29 presentation to the Division, Deepwater Wind had begun looking at an alternate beach landing at Scarborough beach (also within the Town of Narragansett); however, this alternate cable route had not yet been fully developed at the time of the July 29 presentation. As a result, the Company included preliminary details regarding this alternative route on Slide 7 of the attached presentation, and included a graphic picture of Scarborough beach on Slide 5. The landing location at Scarborough beach was subsequently finalized following the July 29 presentation and is reflected in the draft Transmission Facilities Purchase Agreement that the Company filed with the Division on March 13, 2014.

Supplemental
Division 2-1, page 2

- On Slide 8, as a result of the change in the beach landing from Narragansett beach to Scarborough beach, as discussed above, there is no longer any impact on the 3302 line. The total overall conceptual project estimate is still \$75 million (+50%/-25%), as further described in the Company's March 13, 2014 transmittal letter.
- The Property Rights/Options reflected on Slide 13 also now include, in addition to those listed on Slide 13, easements to be acquired from the State of Rhode Island in connection with the Scarborough beach landing, as indicated in the Company's March 13, 2014 transmittal letter.
- The purchase price shown on Slides 16 and 17 has been reduced by the reduction in the development fee to Deepwater Wind, as set forth in the Company's March 13, 2014 transmittal letter.
- The cost allocation to Block Island Power Company ("BIPCO") detailed on Slides 20 and 21 is for illustrative purposes, and assumes that BIPCO will (i) enter in a local network service agreement ("LNS") with New England Power Company ("NEP") and (ii) become a new wholesale customer of NEP. It is also worth noting that the data that was used to calculate BIPCO's annual cable surcharge, shown on Slide 21, was based on 2010 data. The actual numbers will be based on the final project costs and the applicable rate at that time.

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Block Island Transmission System Briefing July 29, 2013



Agenda

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- Project Overview
- Contract Terms
- Block Island Power Co Allocation
- Next Steps

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Block Island Transmission System Briefing:

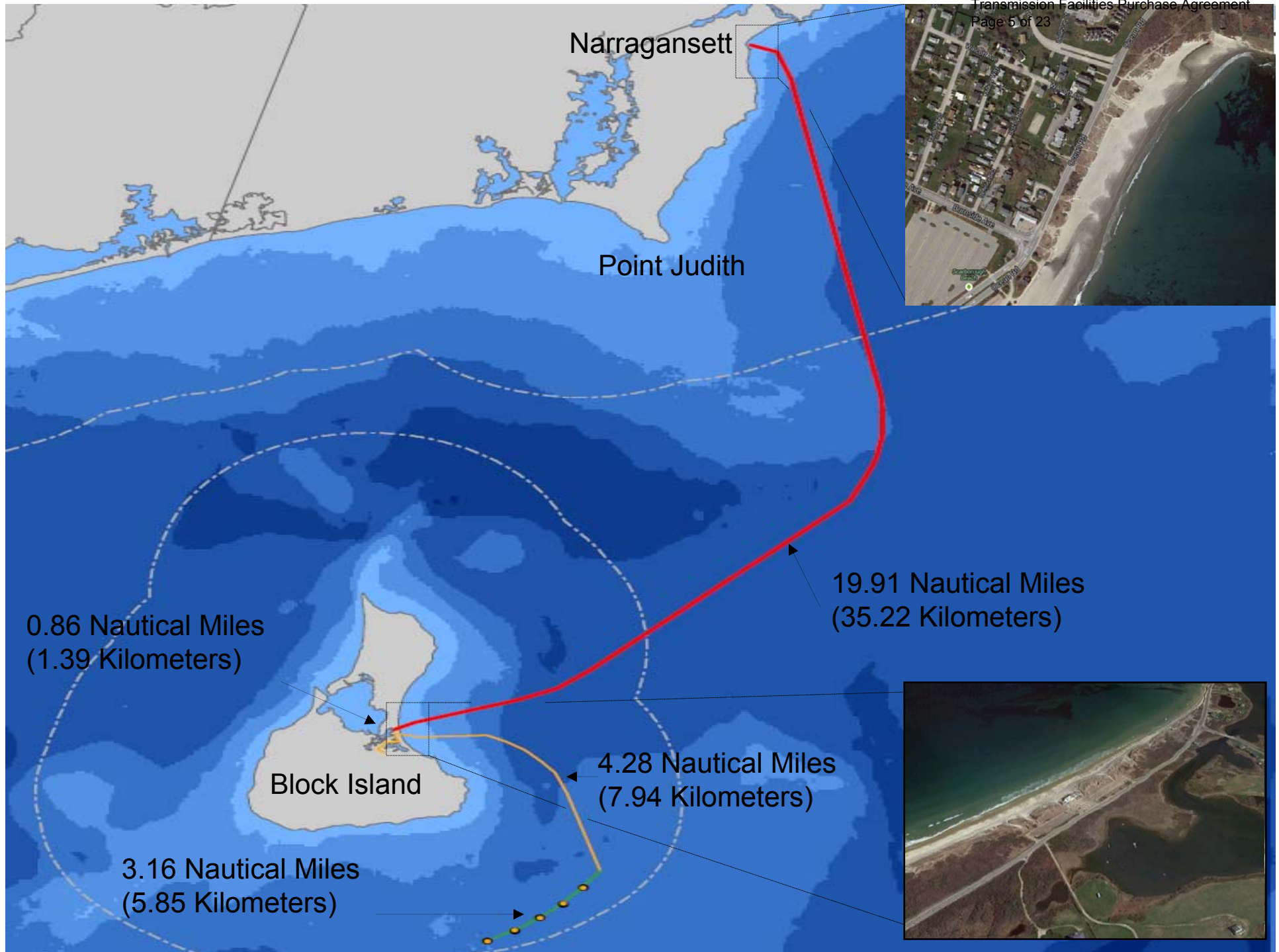
Project Overview



Scope

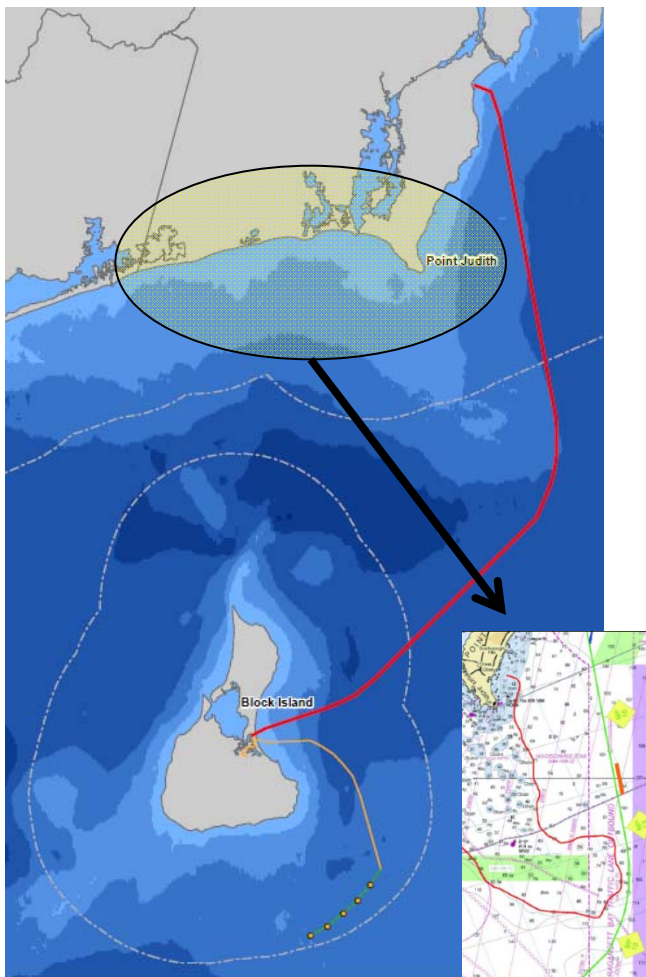


- Transmission Submarine Cable
 - 22 mile 34.5kV submarine cable with fiber optics from Narragansett to Block Island
- On Block Island
 - New 34.5KV substation that will interconnect the submarine transmission cable and Block Island Power Company (BIPCo)
 - Approx 0.86-miles of combined overhead and underground infrastructure on Block Island
- On Mainland
 - New 34.5KV substation that will interconnect the submarine transmission cable with National Grid's existing network
 - Approx 3 - 4 miles of underground infrastructure
 - Landing location will determine exact mileage



Why land in the Narragansett area?

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- Deepwater Wind spent three years analyzing the best options to bring the cable ashore
- Narragansett area is the best choice:
 - Provides the most direct route to connect to National Grid's system on the mainland
 - Avoids rocky shoal off the Charlestown and South Kingstown

Key Elements of New Route Scarborough Beach

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- Interconnect inside National Grid's existing Wakefield Substation
- Single-circuit duct bank in **1A** from Wakefield sub to new Switchyard
 - 0.75 mi
- New, open-air switchyard in DOT's Dillon's Corner salt yard (relocate Cap. Bank #1 from Wakefield to here)
- Single-circuit duct bank in **108** from new switchyard to Burnside Rd.
 - 2.7 mi
- Single-circuit duct bank east on Burnside Rd to Scarborough beach
 - 0.7 mi
- Long HDD for cable landfall at Scarborough Beach



Overall Project Costs



Total Conceptual Project Estimate is \$75M. This includes all projects required to connect the wind farm and Block Island to the mainland system including the development work we would purchase from Deepwater

- 34.5kV Submarine Cable - \$59.0M
- Block Island Substation - \$7.50M
- Mainland Substation - \$6.50M
- 3302 Line Upgrade - \$1.0M
- Wakefield Substation Upgrades - \$1.0M

National Grid's internal costs to date as of 7/24/13 are \$890,746



Cost Estimate Comparison: Docket 4111 (2009) vs. Today



- Docket 4111 (2009) budgetary estimate of the transmission cable project developed by Deepwater was \$44.8M. National Grid's testimony identified a budgetary range of \$35M - \$50M.
- Current (2012) conceptual estimate associated with the interconnection from the mainland to Block Island is \$75M
 - Submarine cable conceptual estimate is \$59M
 - RFP issued by Deepwater in March 2010 and updated in February 2012
 - Copper prices have increased by 33% between the 2009 and 2012 estimates
 - 4111 budget explicitly excluded contingency, included in current estimate
 - The compliance with new regulations for permitting offshore renewables which were not in place in 2009 required more surveys and studies to be completed
 - System Impact studies have determined the need for additional protection equipment and reactors for voltage support. These requirements increased the overall costs of the substations / switchyards on both the mainland and Block Island

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Block Island Transmission System Briefing:

Contract Terms



Agreements



For Division consent:

- Purchase & Sale Agreement

Other Agreements requiring FERC Approval:

- Cooperation Agreement
- Interconnection Agreement
- Amendment to the Narragansett Integrated Facilities Agreement
- Amendment to NEP Local Network Service Agreement with Narragansett Electric
- Local Network Service Agreement with Block Island Power Company (to include cost allocation with BIPCo)

Purchase & Sale Agreement



- What is National Grid buying from Deepwater Wind?
 - Property Options and Rights (including ocean ROW)
 - Major Permits
 - Engineering Documents
 - Environmental and Archaeological Reports
 - Procurement (RFP) Results

Property Rights / Options



- Property rights for the switchyard on the mainland where the transmission cable interconnects
- Land Option Agreement with town of New Shoreham for beach landing
- Land Option Agreement in the town of New Shoreham for the substation which interconnects the wind farm and BIPCo
- Bureau of Ocean Energy Management - ROW on the Ocean Floor in Federal waters
- Rhode Island Coastal Resources Management Council – Submerged Land Lease for ROW in State waters

Major Permits



- Special Use Permits – New Shoreham and Narragansett (if required)
- Development Plan Review – Town of New Shoreham
- Rhode Island Department of Environmental Management
 - Coastal and Freshwater Wetlands Permit - BIPCO parcel
 - Section 401 of the Clean Water Act and Dredge Permit
- State Assent and Federal Consistency Certification (Rhode Island Coastal Resources Management (CRMC))
- Army Corps of Engineers - Section 404 Clean Water Act Individual Permit
- NOAA – Incidental Take Authorization (IHA) under the Marine Mammal Protection Act
- NEPA Review and Findings of no significant impacts by Army Corp and BOEM

Engineering and other documents



- Ocean Surveys and Route analyses
- Archaeological Surveys
- Cable Study analyses (sizing determination)
- Navigational Risk assessments
- Environmental studies and investigations
- Landfall analysis
- Flicker Analysis
- Switchyards conceptual designs (civil and electric)
- Underground cables conceptual design
- RFP Results

Purchase & Sale Agreement – Price

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	2008	2009	2010	2011	2012	2013	Total Current
1 Permitting	\$2,911	\$1,857,247	\$357,776	\$218,691	\$970,383	\$13,872	\$3,420,880
2 Surveys	\$0	\$236,578	\$175,735	\$730,089	\$1,066,477	\$8,738	\$2,217,617
3 Engineering	\$0	\$136,631	\$169,864	\$38,977	\$455,522	\$0	\$800,994
4 Regulatory	\$0	\$19,400	\$15,081	\$0	\$19,219	\$0	\$53,699
5 Site Control	\$0	\$0	\$0	\$0	\$25,000	\$0	\$25,000
6 3rd Party - Sub Total	\$2,911	\$2,249,856	\$718,456	\$987,757	\$2,536,600	\$22,610	\$6,518,190
7 Internal Staff	\$143,277	\$190,862	\$190,862	\$190,862	\$191,384	\$142,754	\$1,050,000
8 Development Fee	\$153	\$118,439	\$286,712	\$406,393	\$634,093	\$835,031	\$2,280,819
9 Capital Account Balance	\$0	\$3,064	\$2,371,359	\$3,376,526	\$4,770,676	\$7,941,369	
						TOTAL	\$9,849,010

Development Fee Rate: 10.50%

- Reviewed all 3rd party invoices (Over 800 invoices).
- The agreed internal labor costs are based upon a formula with 7% project management rate and a 25% project completion rate times the cost of the cable. The agreed costs are significantly lower then Deepwater Wind's actual internal labor costs.
- Development fee was calculated on the outstanding capital balance associated with 3rd party costs only; internal labor costs were not included.
- Total Price: \$9.8M + Verified costs incurred prior to closing (capped budget \$852k)

Purchase & Sale Agreement – Price (true up)



- Total Purchase Price: \$10.7M (not to exceed price)
 - \$9.8M in verified costs + Capped budget of \$852K prior to closing
 - Permitting - \$529,500 (includes CRMC permit fee)
 - Surveys - \$37,500
 - Engineering - \$195,000
 - Development Fee - \$40,005
 - Legal fees for CRMC permit appeal (if required) - \$50,000



Purchase & Sale - Closing Conditions



- Over 20 Closing Conditions which need to be met prior to National Grid closing on the purchase
- Examples:
 - Division consent
 - FERC approval of agreements
 - Transfer of permits
 - All major permits must be issued and not appealable prior to closing except for the NOAA IHA and Army Corps permit.
 - Submission of NOAA permit application
 - Transfer of property rights and options
 - No pending suits or injunctions against the project



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Block Island Transmission System Briefing:

Cost Allocation and Recovery



Cost Recovery and Allocation



- Cost Recovery
 - Costs for the project will be recovered under FERC filed agreements
 - Integrated Facilities Agreement
 - NEP / NECO Local Network Service Agreement
 - BIPCo Local Network Service Agreement
- BIPCo Allocation
 - Per the legislation the allocation to BIPCo is capped
 - Cable Surcharge will be approx. \$25K per year
 - The total Transmission charges assessed to BIPCo will be approx. \$350K per year



BIPCo Cost Allocation



Cable Surcharge

BIPCo Peak Load (kW) =	3,604
NECo Peak Load (kW) =	1,843,989
Total (kW) =	1,847,593
BIPCo Annual Peak Load Share =	0.19508%
NECO Annual Peak Load Share =	99.80492%

Estimated Gross Plant Investment: \$75,000,000

NECO 2010 Carrying Charge: 16.68%

BIPCo Share Percentage = 0.19508%

Estimated Annual Cable Surcharge:	\$24,405
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Note: 2010 data was used in the calculation.

FERC Recovery



- The project costs will be treated in a similar way as all transmission projects constructed by NECO
 - The Integrated Facilities Agreement (IFA) will allow NECO to charge New England Power for the use of transmission facilities and NEP to pass back revenue collected from BIPCo for using the facilities to NECO
 - The Local Network Service agreements between NEP and BIPCo will allow NEP to charge BIPCo for use of the NECO assets included in the IFA.

Next Steps



- Submit Purchase and Sale Agreement to the Division
 - Target: August 2013
- File Agreements with FERC for approval
 - Target: September 2013
- Close on Purchase and Sale Agreement
 - Target: 2014

