

STATE OF RHODE ISLAND AND PROVIDENCE PLANTATIONS  
ENERGY FACILITY SITING BOARD

In re The Narragansett Electric :  
Company (Southern Rhode Island : Docket No. SB-2005-\_\_\_\_  
Transmission Project) :

APPLICATION OF  
THE NARRAGANSETT ELECTRIC COMPANY  
d/b/a NATIONAL GRID  
FOR LICENSE TO CONSTRUCT AND ALTER  
MAJOR ENERGY FACILITIES

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November 18, 2005

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## INTRODUCTION

The Narragansett Electric Company, d/b/a National Grid (“Narragansett” or “Applicant”) 280 Melrose Street, Providence, Rhode Island 02907 hereby submits this application to the Energy Facility Siting Board (the “Board”) for a license to construct and alter major energy facilities within the State of Rhode Island, pursuant to the applicable provisions of Rhode Island General Laws §§ 42-98-1, et seq. and the Rules of Practice and Procedure, as amended (“EFSB Rules”). Specifically, Narragansett requests the issuance by the Board of a license for the following component projects (collectively the “Project”):

- Reconductor the existing L-190 115 kV transmission line from the Kent County Substation to the Old Baptist Road Tap Point (5.3 miles in Warwick, East Greenwich and North Kingstown);
- Construct new L-190 115 kV transmission line extension from the Old Baptist Road Tap Point to the West Kingston Substation on existing right of way (“ROW”) (12.3 miles in East Greenwich, North Kingstown, Exeter, and South Kingstown);
- Reconductor the existing 1870N 115 kV transmission line from the West Kingston Substation to the Kenyon Substation (4.3 miles in South Kingstown and Charlestown);
- Reconductor the existing 1870 115 kV transmission line from the Kenyon Substation to the Wood River Substation (3.9 miles in Charlestown);
- Construct two new 115 kV transmission tap lines between the existing G-185S ROW and new Tower Hill Substation (0.75 miles in North Kingstown);
- Construct a new 115-12.47 kV low-profile substation in the vicinity of Tower Hill Road in North Kingstown to be supplied by the new 115 kV transmission tap lines; and
- Upgrade existing 115 kV equipment, add new 115 kV equipment and expand the existing 115 kV switchyard at the West Kingston Substation in South Kingstown to accommodate the new L-190 115 kV transmission line extension.

See R.I.G.L. § 42-98-3 (A) (definition of major energy facility) and § 42-98-4 (license requirement).

Narragansett is filing herewith and incorporates herein an environmental report on the project (“Environmental Report; Southern Rhode Island 115 kV Transmission Project (October, 2005)) [the “ER”] in accordance with the procedures established by the Board. (In re AES/Riverside, Inc., Docket No. SB-88-1, Preliminary Decision and Order, pp. 12-14 (Order No. 8, March 13, 1989)). This application follows the organization of § 1.6(b) of the EFSB Rules.

1. The exact legal name of the applicant, if the applicant is a corporation, trust, association or other organized group, the State or territory under the laws of which the applicant was created or organized, the location of applicant's principal place of business, and the names of all states where the applicant is authorized to do business.

The Narragansett Electric Company, a Rhode Island chartered public utility.

Principal place of business:

280 Melrose Street  
Providence, Rhode Island 02907

Authorized to do business in Rhode Island.

2. The name, title and post office address of one person to whom correspondence or communication in regard to the application is to be addressed.

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3. Identification of the proposed owner(s) of the facility, including identification of all affiliates of such proposed owners, as such term is defined in R.I.G.L. § 39-3-27.

The proposed owner of the facility is The Narragansett Electric Company, a Rhode Island chartered public utility, with its principal place of business at:

280 Melrose Street  
Providence, RI 02907

and mailing address:

Post Office Box 1438  
Providence, RI 02901-1438

The affiliates of Narragansett include its parent, National Grid USA and the National Grid USA Companies (all subsidiaries of National Grid Transco plc.) The corporate relationships among the National Grid USA companies is shown on Exhibit 1, attached. A listing of non-US affiliates is available upon request.

4. A detailed description of the proposed facility, including its function and operating characteristics, and complete plans as to all structures, including where applicable, underground construction, transmission facilities, cooling systems, pollution control systems and fuel storage facilities associated with the proposed facility.

The Project is described in detail in § 4 of the ER.

5. Site plan for each proposed location for the facility.

Project site plans are contained in Figures 4-1 through 4-10 of the ER.

6. Total land area involved.

The right of way between the Kent County Substation and the Wood River Substation is 25.8 miles long and varies between two hundred (200) feet and three hundred (300) feet in width. The Tower Hill Tap lines will be  $\frac{3}{4}$  of a mile long and the Tower Hill Substation will occupy approximately 50,000 square feet of a thirteen acre site. The West Kingston Substation is proposed to be expanded from 32,800 square feet to 69,100 square feet.

7. Project cost.

The estimated cost of the Project is Twenty-five Million One Hundred Thousand Dollars (\$25,100,000). This estimate is a study grade estimate (+25%) and includes capital costs, escalation and AFUDC (See § 4.7 of the ER).

8. Proposed dates for beginning of construction, completion of construction and commencement of service.

The construction schedule is contained in § 4.8 of the ER. Narragansett expects the Project to be completed in 2007.

9. Where applicable, estimated number of facility employees.

After completion of construction, the Project will not require the assignment of permanent employees on site to operate and maintain the facilities.

10. Proposed financing for construction and operation of the facility.

Narragansett plans to provide the funds needed to pay construction costs from internal sources and, to the extent necessary, from additional financing. It is expected that any such additional financing will be provided initially from short term borrowings, to be repaid either from borrowings (intercompany notes) from National Grid, the proceeds of the sale of additional permanent securities (first mortgage bonds or preferred stock sold to the public or common stock sold to National Grid) or from capital contributions made by National Grid.

11. Where applicable, required support facilities, e.g., road, gas, electric, water, telephone and an analysis of the availability of the facilities and/or resources to the project.

The construction and operation of the Project will generally not require support facilities and resources. The affected social environment is discussed in § 7 of the ER. The impact of the Project on the social environment is discussed in §§ 8.8 through 8.16 of the ER.

12. A detailed description and analysis of the impact, including cumulative impact for facilities other than transmission lines, of the proposed facility on the physical and social environment on and off site, together with a detailed description of all environmental characteristics of the proposed site and a summary of all studies prepared and relied upon in connection therewith. In the case of transmission facilities, such description and analysis shall include a review of the current independent scientific research pertaining to electromagnetic fields (EMF) and shall provide data on the anticipated levels of EMF exposure and potential health risks associated with this exposure.

The environmental characteristics of the Project site are described in §§ 6 (Natural Environment) and 7 (Social Environment) of the ER and the impact of the Project is described in § 8 of the ER. Data regarding the current and anticipated levels of EMF are presented in §§ 7.8 and 8.16 of the ER, respectively. A review of current independent scientific research pertaining to electric and magnetic fields is contained in the report entitled "Electric and Magnetic Field Assessment: Narragansett Electric Southern Rhode Island Transmission Project, October 2005" prepared by Exponent, Inc. (Appendix C to the ER). The studies relied upon for analysis of the impact, in addition to the ER, are listed on pages 27 through 32 of the Exponent report.

13. All studies and forecasts on which the applicant intends to rely regarding the need for the proposed facility, under the statewide master construction plan submitted annually including all information, data, methodology and assumptions on which such studies and forecasts are based.

The need for the facility is discussed in § 3 of the ER. The studies and forecasts discussed in § 3 (and contained in Appendices A and B of the ER) describe the data, methodology and assumptions on which they are based. Narragansett filed its 2005 master construction plan which included the Project with the EFSB on December 1, 2004.

14. Complete detail as to the estimated construction costs of the proposed facility, the projected maintenance and operation costs, the estimated unit cost of energy to be produced by the proposed facility, where applicable, and the expected methods of financing the facility. For transmission lines, the applicant shall also provide estimated costs to the community such as safety and public health issues, storm damage and power outages, and estimated costs to businesses and homeowners due to power outages.

The estimated construction cost of the Project is listed in item 7, above. The projected operation and maintenance costs are discussed in § 4.7 of the ER. Financing methods are discussed in item 10, above. Unit costs of energy to be produced are not applicable to a transmission line. Safety and public health issues are discussed in §§ 4.6 and 8.15 of the ER and the effect of the Project on service and the costs to the community are discussed in § 3 of the ER.

15. A complete life cycle management plan for the proposed facility, including measures for protecting the public health and safety and the environment during the facility's operations and plans for the handling and disposal of wastes from the facility, at the end of its useful life.

Measures for protecting the public health, safety and the environment during operation of the facility are discussed in §§ 4.6 and 8.15 of the ER.

Plans for the handling and disposal of wastes during construction of the facility are discussed in §§ 8.4 and 9.2 of the ER.

Transmission lines and substations typically are not "decommissioned." When their capacity or the end of their useful life is reached, the facility is supplemented with another line or substation, upgraded or replaced.

16. A study of alternatives to the proposed facility, including alternatives as to energy sources, methods of energy production and transmission and sites for the facility, together with reasons for the applicant's rejection of such alternatives. The study shall include estimates of facility costs and unit energy costs of each alternative considered.

Alternatives to the Project are discussed in § 5 of the ER.

Reasons for rejecting the alternatives are discussed in the same sections as the proposed alternatives.

Estimates of facility costs for the various alternatives are contained in § 5 of the ER. Unit energy costs are not relevant to transmission lines or substations.

17. Identification of Federal agencies which may exercise licensing authority over any aspect of the facility.

U.S. Army Corps of Engineers - See § 10 of the ER.

18. Identification of state and local governmental agencies which may exercise licensing authority over any aspect of the facility or which could exercise licensing authority over any aspect of the facility absent the Act.

State and local agencies having licensing authority over the Project are identified in § 10 of the ER.

19. Identification of foreign governmental agencies which must issue licenses that may affect any aspect of the facility.

There are no foreign licenses required for the Project.

20. All pertinent information regarding filings for licenses made with federal, state, local and foreign governmental agencies including the nature of the license sought, copies of the applicable statutes or regulations, and copies of all documents filed in compliance with the National Environmental Policy Act, the date of filing and the expected date of decision.

The applicable statutes and regulations (including local zoning ordinances) are voluminous and will be provided to the EFSB upon request. Local zoning applications will be filed shortly after this Application. The DEM freshwater wetlands and stormwater discharge applications and Corps of Engineers application will be filed within the next several months. Only the DEM freshwater wetlands and stormwater discharge permits and the Corps of Engineers permits are outside of EFSB jurisdiction. Narragansett anticipates decisions on these applications by mid-2006.

21. Where applicable, the applicant must provide evidence to show that the project conforms with the Rhode Island Energy Coordinating Council's policy statement entitled Rhode Island's Options for Electric Generation dated August, 1989, including any revisions or any successor to that document which may replace it as state policy.

Not applicable.

## CONCLUSION

This application, the Environmental Report which is filed herewith and incorporated herein, and the other supporting material clearly demonstrate that, as required by R.I.G.L. § 42-98-11(B),

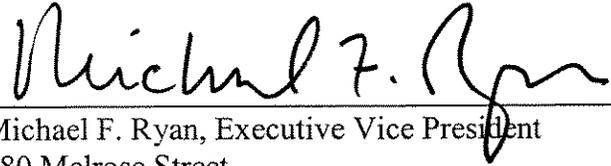
- The construction of the Project is necessary to meet the needs of the state and/or region for electric energy,
- The construction of the Project is cost justified and can be expected to transmit energy at the lowest reasonable cost to the consumer consistent with the objective of ensuring construction and operation of the Project in compliance with applicable laws and regulations, and
- The construction of the Project will not cause unacceptable harm to the environment and will enhance the socio-economic fabric of the state.

For the reasons stated herein, The Narragansett Electric Company requests that the Energy Facility Siting Board grant to Narragansett, pursuant to R.I.G.L. § 42-98-1, et seq., a license to construct the Project including the following components:

- Reconnector the existing L-190 115 kV transmission line from the Kent County Substation to the Old Baptist Road Tap Point;
- Construct new L-190 115 kV transmission line extension from the Old Baptist Road Tap Point to the West Kingston Substation on existing ROW;
- Reconnector the existing 1870N 115 kV transmission line from the West Kingston Substation to the Kenyon Substation;
- Reconnector the existing 1870 115 kV transmission line from the Kenyon Substation to the Wood River Substation;
- Construct two new 115 kV transmission tap lines between the existing G-185S ROW and new Tower Hill Substation;
- Construct a new 115-12.47 kV low-profile substation in the vicinity of Tower Hill Road to be supplied by the new 115 kV transmission tap lines; and
- Upgrade existing 115 kV equipment, add new 115 kV equipment and expand the existing 115 kV switchyard at the West Kingston Substation to accommodate the new L-190 115 kV transmission line extension.

Respectfully submitted,

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