

STATE OF RHODE ISLAND AND PROVIDENCE PLANTATIONS
ENERGY FACILITY SITING BOARD

In re The Narragansett Electric :
Company d/b/a National Grid : Docket No. SB-2012-_____
(Interstate Reliability 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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INTRODUCTION

The Narragansett Electric Company d/b/a National Grid (“National Grid” or “Applicant”) 280 Melrose Street, Providence, Rhode Island 02907 hereby submits this application to the Energy Facility Siting Board (the “Board” or “EFSB”) 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 EFSB Rules of Practice and Procedure, as amended (“EFSB Rules”). Specifically, National Grid requests the issuance by the Board of a license to construct and alter the following Rhode Island components of the Interstate Reliability Project (the “Project”):

- Construct a new 345 kV transmission line (366 Line) in North Smithfield between the Massachusetts/Rhode Island border and the West Farnum Substation (4.8 miles) in the existing right of way (“ROW”).
- Construct a new 345 kV transmission line (341 Line) in North Smithfield and Burrillville between the West Farnum Substation and the Rhode Island/Connecticut border (17.7 miles) in the existing ROW.
- Reconstruct and reconductor an existing 345 kV transmission line (328 Line) between the West Farnum Substation in North Smithfield and the Sherman Road Switching Station in Burrillville (9.2 miles) in the existing ROW.
- Reconstruct the Sherman Road Switching Station in Burrillville on property owned in fee by National Grid and retire the existing switching station.
- Reconstruct and realign 0.25 miles of an existing 345 kV transmission line (333 Line) in the existing ROW in Burrillville in the vicinity of the Sherman Road Switching Station.
- Reconstruct and realign 0.25 miles of an existing 345 kV transmission line (3361 Line) in the existing ROW in Burrillville in the vicinity of the Sherman Road Switching Station.
- Reconstruct and realign 0.25 miles of an existing 345 kV transmission line (347 Line) in the existing ROW in Burrillville in the vicinity of the Sherman Road Switching Station.
- Replace structures along an existing 115 kV transmission line (B-23 Line) between the West Farnum Substation in North Smithfield and the Sherman Road Switching Station in Burrillville in the existing ROW to accommodate the new 341 Line and the reconstructed 328 Line.

- Reconstruct and realign an existing 115 kV transmission line (T-172N Line) in North Smithfield near the West Farnum Substation to accommodate the new 345 kV line.

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

National Grid is filing herewith and incorporates herein an environmental report on the project (“Environmental Report; Interstate Reliability Project (July, 2012)) (the “ER”)¹ 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 ER consists of 3 volumes: a narrative volume, a volume containing appendices, and a volume of figures. The appendices are also contained on a CD at the back of the narrative volume.

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

The affiliates of The Narragansett Electric Company include its parent, National Grid USA and the National Grid (US) Holdings LTD companies (all subsidiaries of National Grid plc) The corporate relationships among the National Grid (US) Holdings LTD companies are 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 2-1, 2-2, and 4-1 to 4-5, in Volume 2 of the ER.

6. Total land area involved.

The right of way between the Massachusetts/Rhode Island border and the West Farnum Substation is 4.8 miles long and varies between two hundred fifty (250) and two hundred seventy (270) feet in width. The right of way between the West Farnum Substation and the Rhode Island/Connecticut border is 17.7 miles long and varies between three hundred (300) and seven hundred (700) feet in width. The existing Sherman Road Switching Station is located on a parcel of land totaling 40.7 acres and is owned in fee by National Grid. The proposed Sherman Road Switching Station will be located on the same parcel.

7. Project cost.

The estimated cost of the Project in Rhode Island is One Hundred Eighty Million Eight Hundred Thousand Dollars (\$180,800,000). This estimate is a study grade estimate ($\pm 25\%$) in 2011 dollars and includes cost of materials, labor and equipment (See § 4.8 of the ER).

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

The Project construction schedule is contained in § 4.9 and Table 4-4 of the ER. National Grid anticipates commencing construction in early 2014 and having the facilities in service by late 2015.

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.

National Grid plans to provide the funds needed to pay construction costs from internal sources and, to the extent necessary, from additional financing.

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 §§ 8.9 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 impacts of the Project are 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 “Current Status of Research on Extremely Low Frequency Electric and Magnetic Fields and Health: Interstate Reliability Project (June 10, 2011)” prepared by Exponent, Inc. (Appendix J to the ER). The studies relied upon for analysis of the impact, in addition to the ER, are listed on pages 51 through 66 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 Project is explained in § 3 of the ER. The studies and forecasts discussed in § 3 (and contained in Appendices A, B, C, D, E, and K of the ER) describe the data, methodology and assumptions on which they are based. National Grid filed its 2012 master construction plan which included the Project with the EFSB on November 30, 2011.

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 § 4.8 of the ER. Financing methods are discussed in item 10, above. “Unit costs of energy to be produced” is not applicable to a transmission line. Safety and public health issues are discussed in §§ 4.5, 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 §§ 4.5, 4.6, and 8.15 of the ER.

Plans for the handling and disposal of wastes during construction of the facility are discussed in §§ 4.4.1.4, 4.6, 8.4, 8.15, 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 typically 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 alternatives and are summarized in § 5.9 of the ER.

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 ER².

² The Interstate Reliability Project is a three state project, including Massachusetts, Rhode Island and Connecticut. Section 10 of the ER lists Rhode Island state and local permits required for the Rhode Island portions of the Project.

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 Rhode Island DEM freshwater wetlands application was filed on July 12, 2012. The Army Corps of Engineers application was filed on May 25, 2012. The DEM freshwater wetlands permit and the Corps of Engineers permit are outside of EFSB jurisdiction. National Grid anticipates decisions on these applications in 2013.

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 d/b/a National Grid requests that the Energy Facility Siting Board grant to it, pursuant to R.I.G.L. § 42-98-1, et seq., a license to construct the Project including the following components:

- Construct a new 345 kV transmission line (366 Line) in North Smithfield between the Massachusetts/Rhode Island border and the West Farnum Substation (4.8 miles) in the existing ROW.

- Construct a new 345 kV transmission line (341 Line) in North Smithfield and Burrillville between the West Farnum Substation and the Rhode Island/Connecticut border (17.7 miles) in the existing ROW.
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- Reconstruct and realign an existing 115 kV transmission line (T-172N Line) in North Smithfield near the West Farnum Substation to accommodate the new 345 kV line.

Respectfully submitted,

The Narragansett Electric Company
d/b/a National Grid



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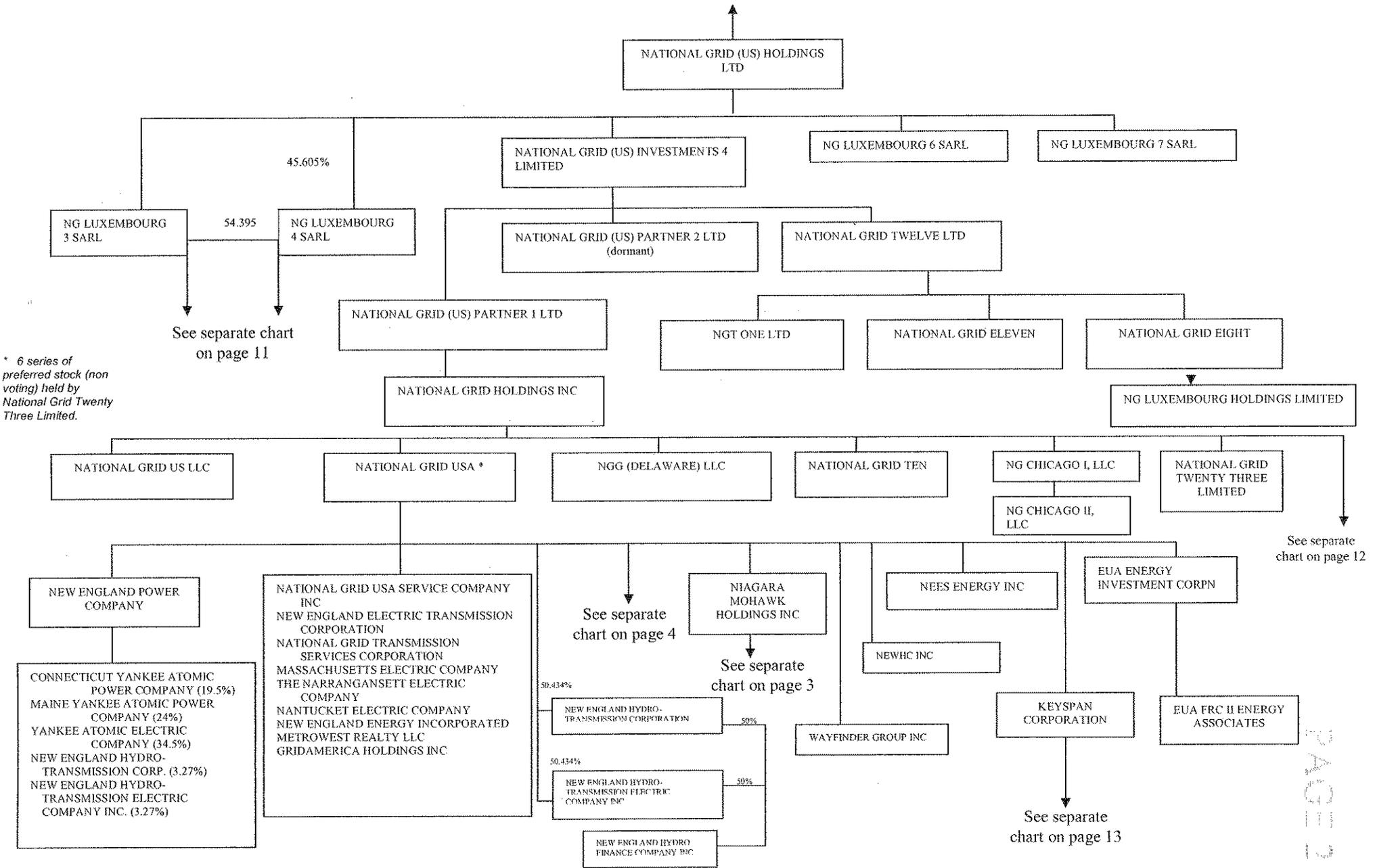
By its Attorneys,



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* 6 series of preferred stock (non voting) held by National Grid Twenty Three Limited.

Exhibit 1