## STATE OF RHODE ISLAND AND PROVIDENCE PLANTATIONS RHODE ISLAND ENERGY FACILITY SITING BOARD

In re:

The Narragansett Electric :

Company d/b/a National Grid : Docket No. SB-2008-002

Rhode Island Reliability Project :

## PREFILED TESTIMONY OF THE TOWN OF JOHNSTON, RHODE ISLAND

- 1. Testimony of Makram Megali, P.E. and Attachment
- 2. Testimony of Timothy Chapman, Esq. and Attachments

## STATE OF RHODE ISLAND AND PROVIDENCE PLANTATIONS RHODE ISLAND ENERGY FACILITY SITING BOARD

In re:

The Narragansett Electric

Company d/b/a National Grid : Docket No. SB-2008-002

Rhode Island Reliability Project :

PRE-FILED TESTIMONY OF TIMOTHY CHAPMAN, ESQ.

#### TESTIMONY OF TIMOTHY CHAPMAN, ESQ.

1	Introd	uction
2	Q.	Please state your full name and business address.
3	A.	My name is Timothy Chapman, Esq. My business address is 670 Willett Avenue,
4		Riverside, Rhode Island.
5	Q.	What is your position with the Town of Johnston ("Town")?
6	A.	I am the Assistant Town Solicitor for the Town's Planning Board.
7	Q.	Are you familiar with National Grid's application to the Johnston Zoning Board of
8		Review for the Rhode Island Reliability Project (the "Application")?
9	A.	Yes I am.
10	Q.	Did you attend the Town Planning Board and Zoning Board (the "Boards") hearings
11		related to the Application?
12	A.	Yes, I attended the Boards' hearings on May 19, 2009, May 27, 2009 and September 1
13		2009 (the "Hearings").
14	Q.	Are you currently involved with any pending litigation with National Grid?
15	A.	Yes, I am involved with the Town in litigation in the matter styled the Narragansett
16		Electric Company v. Michael Minardi, et al, P.C. 08-6981.
17	Q.	What is the status of this matter?
18	A.	The Town currently charges National Grid a personal property tax rate pursuant to R.I.
19		Gen. Laws § 44-5-12.1 of \$56 per \$1,000. National Grid contends that this rate of
20		taxation is illegal and that the correct rate of taxation is approximately \$19 per \$1,000.

1		The Rhode Island Superior Court ruled in favor of the Town and National Grid appealed
2		the decision to the Supreme Court where it is currently pending.
3	Repres	sentations Made Regarding Town Personal Property Tax Revenue for the Rhode Island
4	Reliab	pility Project
5	Q.	Have representations been made regarding the personal property tax revenue to the Town
6		as a result of the Rhode Island Reliability Project?
7	A.	Yes, at the Hearings, National Grid presented a power point slide as an exhibit which
8		represented that the "property taxes" to the Town would be approximately \$1,000,000 per
9		year. See excerpts of National Grid Power Point Presentation at slide 6.
10		Additionally, the Statewide Planning Program estimated in its advisory opinion that the
11		"municipal tax revenues" to the Town would be approximately \$1,267,000. See excerpts
12		of Statewide Planning Program Advisory Opinion at p. 9.
13	Q.	Did the Town attempt to obtain backup for how National Grid's property tax estimate
14		was arrived at?
15	A.	Yes, the Town's counsel issued a data request requesting a detailed account of National
16		Grid's estimate.
17	Q.	Did National Grid provide a detailed response to the Town's Data Request?
18	A.	No, National Grid responded that the estimate was "not based on a structure by structure
19		analysis" but instead was a calculation based on a pro rata estimation of the costs of the
20		Rhode Island Reliability Project in each Town using a tax rate of \$18.91 which arrived at
21		an estimated property tax of \$900,000. Additionally, National Grid referenced the
22		Statewide Planning Program "municipal tax" estimate of \$1,267,000.
23	Natio	nal Grid and Statewide Planning Tax Revenue Estimates for the Town are not Accurate

1	Q.	Based on National Grid's Data Request response is National Grid's property tax estimate
2		appropriate?
3	A.	No, in providing its estimate, National Grid utilized a personal property tax rate that the
4		Superior Court has found not to be valid. Accordingly, the \$1,000,000 estimate is not the
5		legal amount of property taxes that National Grid would owe the Town as a result of the
6		Rhode Island Reliability Project.
7	Q.	Did the Town request backup for Statewide Planning Program "municipal tax" estimate?
8	A.	Yes, the Town's counsel conferenced with the Statewide Planning Program and was
9		informed that Statewide Planning Program had used a tax rate of \$56 per \$1,000 but
10		severely depreciated the expense for reconfiguring the 115kv lines due to an apparent
11		assumption that these newly reconstructed lines and structures should not be assessed at
12		full value.
13	Q.	Is the Statewide Planning Program estimate an accurate estimate of the Town's expected
14		personal property tax revenues as a result of the Rhode Island Reliability Project?
15	A.	No, it appears that the Statewide Planning Program categorized the new 115kv lines as
16		old or prior construction and assessed them at 25% of full value and depreciated the
17		remaining 75% cost of the reconfigured lines. The reconfigured 115kv lines are brand
18		new construction and should have been assessed at full or nearly full cost.
19	Q.	What is the appropriate amount of yearly personal property tax revenue that the Town
20		should receive from the Rhode Island Reliability project?
21	A.	Using the personal property tax rate of \$56 per \$1,000 as ruled appropriate by the Rhode
22		Island Superior Court the yearly personal property tax revenue from the Rhode Island
23		Reliability Project to the Town would be approximately \$2,650,000.

1	Q.	Should National Grid's failure to present a clear future tax revenue estimate to the Town
2		impact its ability to receive approval for the Rhode Island Reliability Project before the
3		EFSB?
4	A.	Yes, pursuant to the Preliminary Decision and Order (the "Order") issued by the EFSB
5		on December 19, 2009, the EFSB, when considering the impact of the Rhode Island
6		Reliability Project on the socio-economic fabric of the State must consider "tax benefits
7		to the towns". See Order at p. 13. Additionally, the Order requires that the Statewide
8		Planning Program address "local tax benefits" of the Rhode Island Reliability Project in
9		its Advisory Opinion. See Order at p. 17.
10		At this point, an accurate estimate of the "tax benefit" to the Town has not been presented
1		by National Grid or the Statewide Planning Program. Accordingly, at this point the
12		EFSB cannot fully consider National Grid's application for the Rhode Island Reliability
13		Project. Instead, the Town would suggest that National Grid's application be remanded to
14		the Statewide Planning Program for an accurate determination as to the "tax benefit" to
15		the Town as a result of the Rhode Island Reliability Project.
16	Q.	Does this conclude your pre-filed testimony?
17	A.	Yes.

# ATTACHMENT 1

#### Rhode Island Reliability Project EFSB Public Hearing - Johnston

David Beron NEEWS Project Manager

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The power of aution.

### The Five Regional Reliability Needs

#### **New England**

 East-West power flows are limited across New England

#### Rhode Island

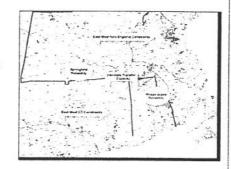
- Rhode Island's reliability is overly dependent upon limited access to the 345-kV system
- RI experiences overloads and voltage violations under certain conditions.
- Imports are limited now and more so in the near future

#### Massachusetts

 The Springfield, MA area experiences thermal overloads and voltage problems under numerous contingencies

#### Connecticut

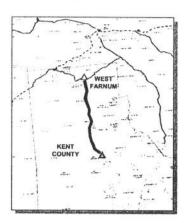
- Interstate transfer capacity is limited, affecting Connecticut reliability in the near-term and regional reliability over the long term
- East-to-west power flows in Connecticut stress the existing system



national**grid** 

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#### **Rhode Island Reliability Project**



#### Description:

- Reconfigure the existing ROW to accommodate a second 345-kV line
- Build a second 345-kV line between West Farnum (North Smithfield) and Kent County (Warwick) substations.
- Install a third 345/115-kV autotransformer at Kent County Substation.
- Reconductor various short segments of 115-kV lines and make terminal equipment upgrades.

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### **Rhode Island Reliability Project Facts**

- Length of Project 21.4 miles
  - + Length in Johnston 5.5 miles
- Cost of Project \$ 250 Million ±
  - \* Cost in Johnston \$ 47 Million
  - Property taxes to Johnston \$ 1 Million ± per year

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# ATTACHMENT 2

## RI Reliability Project

Socioeconomic Impact and State Guide Plan Consistency Opinion

Prepared for the:

Energy Facility Siting Board (Docket No. 4029)

By the:

Statewide Planning Program
Rhode Island Department of Administration
One Capitol Hill
Providence, RI, 02908

June 11, 2009

project will have positive, albeit temporary, employment and economic impacts within the region.

Since detailed employee count and salary data are not available, the Program also could not complete the income tax based state revenue assessment generally conducted in reviewing these projects. Once again, it can be assumed however that the project will have positive, albeit temporary, revenue impacts to the State given the large number of workers that will be needed to construct the project and the likelihood that a portion of them will pay Rhode Island income taxes.

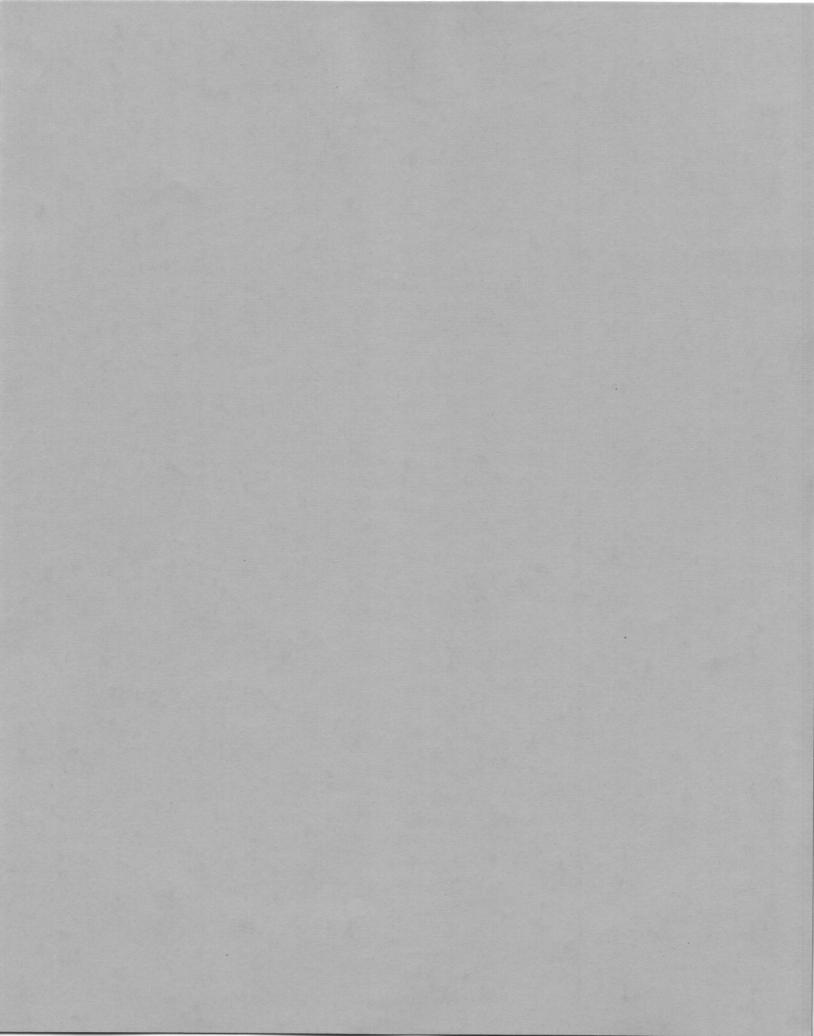
Significant long-term costs are not expected to accrue to the State as a result of the project. Likewise, significant costs are not expected to accrue to the pertinent municipalities as a result of the project. The project will be constructed within an existing ROW. Additional property acquisitions are not proposed and therefore the existing tax base will not be diminished. The project will not alter population demographics or existing building stock and therefore will not directly impact public education or safety provision costs. The project will not permanently alter municipal transportation infrastructure and the costs of police details needed to supervise temporary roadway restrictions will be borne by the applicant.

The Program's economic evaluation does indicate that the affected municipalities can expect meaningful tax revenue gains from the construction of the project (see Table 1). It is also presumed that the assessed value of abutting properties will not depreciate appreciably since they already abut an active utility ROW that contains significant transmission infrastructure.

Estimated Tax Revenue Gains **Existing Facilities New Construction** Total Tax Assessed Municipality Asmnt Assessed Asmnt Project Cost Assessed Revenue Project Cost Rate/1000 Value Rate Value Value \$53,931,807 \$41.00 \$2 211 204 \$46,023,300 95% \$43 722 135 N. Smithfield \$15,469.200 66% \$10,209,672 95% \$14.583.640 \$15,171.690 \$21,750.840 \$50.13 \$1,090,370 \$7.167.200 \$15.351.200 \$28,668,800 25% Smithfield 95% \$22,627,890 \$56.00 \$1 267 162 Johnston \$29.824.800 25% \$7,456,200 \$15,970,200 \$5,664,400 \$12,132,400 95% \$11,525,780 \$17,190,180 \$23.01 \$395 546 \$22,657,600 25% Cranston \$4,333,000 95% \$31.71 \$6,139,350 \$8,092,000 25% \$2,023,000 \$4.116.350 \$194.679 W Warwick \$18,287,600 25% \$4.571.900 \$30.189,900 95% \$28,680,405 \$33,252,305 \$26.82 \$891.827 Warwick \$6,050,787 \$37.092.372 \$124.000.000 \$117,800,000 \$154,892,372 Total \$123,000,000

Table 1 - Projected Municipal Tax Revenues

This evaluation was conducted under the guidance of the Department of Revenue, Division of Municipal Finance. The assessment and tax rates utilized were confirmed with appropriate municipal officials. Of special note is the different rates used in assessing the value of "new construction" (359 transmission line and associated substation improvements) vs. those applied to improvements to otherwise "existing facilities" (all other relocation and reconductoring components). The S-171, T-172 and 359 project costs were apportioned based upon the percentage of total ROW located within the respective municipalities. All other project costs were directly attributed to specific municipalities and distributed accordingly. Project costs utilized in the evaluation were those as updated by National Grid's response to Statewide Planning Data Request No. 1 dated February 9, 2009. The results of the evaluation are provided as an indicator of potential municipal revenue gains only. They are not intended to be definitive statements on future taxing.



# STATE OF RHODE ISLAND AND PROVIDENCE PLANTATIONS RHODE ISLAND ENERGY FACILITY SITING BOARD

In re:

The Narragansett Electric :

Company d/b/a National Grid : Docket No. SB-2008-002

Rhode Island Reliability Project

PRE-FILED TESTIMONY OF MAKRAM H. MEGALI, P.E.

The Narragansett Electric company d/b/a National Grid Rhode Island Reliability Project EFSB Docket No. SB-2008-02 Witness: Makram H. Megali, P.E.

### TESTIMONY OF MAKRAM H. MEGALI, P.E.

1	Introd	<u>uction</u>
2	Q.	Please state your full name and business address.
3	A.	My name is Makram H. Megali, P.E. My business address is 100 Irons Avenue,
4		Johnston, Rhode Island.
5	Q.	By whom are you employed and in what position?
6	A.	I am employed by the Town of Johnston (the "Town") as the Department of Public
7		Works Director.
8	Q.	Are you familiar with National Grid's application to the Johnston Zoning Board of
9		Review for the Rhode Island Reliability Project (the "Application")?
10	A.	Yes, I am.
11	Conce	erns Expressed by Town Related to Building Along National Grid's Right of Way
12	Q.	Did you attend the Town of Johnston Planning Board and Zoning Board (the "Boards")
13		hearings related to the Application?
14	A.	Yes, I attended the Boards' hearings on May 19, 2009, May 27, 2009 and September 1,
15		2009 (the "Hearings").
16	Q.	Are you aware that during the Hearings, there was significant concern expressed about
17		whether it was safe to build structures right up to the edge of National Grid's Right of
18		Way in the Town (the "ROW")?

1	A.	Yes, in fact, this issue has concerned me for some time. The issue is whether it is safe to
2		build right up to the edge of the ROW as a result of the 115kV line being approximately
3		25 feet at the edge of the ROW.
4	Q.	Had you or the Town expressed your concerns regarding this issue to National Grid prior
5		to the Hearings?
6	A.	Yes.
7	Q.	How has the Town expressed its concerns regarding the safety of building structures right
8		up to the edge of the ROW?
9	A.	In late 2008 and early 2009, at my direction, Ben Nascenzi, a Town Building Official had
10		discussions regarding what the Town's position should be upon the application for a
11		building permit along or near the edge of the ROW. Subsequent to these discussions, Mr.
12		Nascenzi contacted National Grid to determine National Grid's standards and/or
13		recommendations regarding placing structures along or near the edge of the ROW.
14	Q.	Did National Grid respond to Mr. Nascenzi's inquiry?
15	A.	Yes, by e-mail on January 14, 2009. See Tumidajski email attached to David Beron's
16		Supplemental Pre—Filed Testimony.
17	Q.	Did this e-mail response satisfy the Town's concerns?
18	A.	No, the response did not contain a clear answer.
19	Q.	What was unclear about the response?
20	A.	The e-mail only stated that the Town should require that developers obtain National
21		Grid's approval "in the event there are transmission lines in the vicinity of the proposed
22		building".

#### The Narragansett Electric company d/b/a National Grid Rhode Island Reliability Project EFSB Docket No. SB-2008-02 Witness: Makram H. Megali, P.E.

1	Q.	Did the Town follow-up on National Grid's suggestion to contact them "in the event there
2		are transmission lines in the vicinity of the proposed building"?
3	A.	Yes, on or about March 31, 2009, at my direction, Mr. Nascenzi sent National Grid's
4		principal engineer correspondence requesting that National Grid review a submitted site
5		plan for a building application where the building envelope would be within twenty (20')
6		feet of the edge of ROW. See Nascenzi correspondence attached to David Beron's
7		Supplemental Pre—Fled Testimony.
8	Q.	Did National Grid respond to the Town's March 2009 request?
9	A.	Yes by correspondence dated April 7, 2009. See DiNezza correspondence attached to
10		David Beron's Supplemental Pre—Filed Testimony.
11	Q.	Was this April 7, 2009 response of assistance to the Town?
12	A.	No.
13	Q.	Why not?
14	A.	The response stated that since the structures would be located outside the ROW, "it will
15		have no impact on the rights of" National Grid. Therefore, National Grid did not have
16		any "issues with the proposed development".
17	Q.	Why was this response unhelpful?
18	A.	This response only stated that National Grid was not concerned with the development
19		because the proposed project would be outside of the ROW. The Town was obviously
20		already aware of this, but the Town's concern, which it has attempted to address with
21		National Grid, is whether there are any safety concerns with placing the structures along
22		or in the vicinity of the edge of the ROW.

1	Q.	Prior to the Hearings, did National Grid provide the Town with a clear response to
2		whether it was safe to build along or near the edge of the ROW, or even what safety
3		concerns should be considered?
4	A.	No.
5	Q.	Are you aware of other locales that restrict construction activities along or near the edge
6		of an electric company's right of way?
7	A.	Yes, I am aware of a number of locales with such restrictions, including: the Government
8		of South Australia which has mandated that structures be placed at least 65 feet from 132
9		kV lines and 82 feet from 275 kV lines, the Bonneville Power Administration of Portland
10		Oregon recommends grounding metal fences within 150 feet of a power line and
11		grounding buildings within 100 feet of a power line, and the Minnesota Power company
12		and Wisconsin Public Services Commission agreed to relocate homes and structures
13		higher than 15 feet within 50 feet of a proposed 345 kV line and within 30 feet of 115 kV
14		lines in connection with a power transmission project.
15	Q.	Do restrictions such as these detailed in other locales concern the Town?
16	A.	Yes, the Town is extremely concerned that it will allow a building or structure to be built
17		along or near the edge of the ROW, and then during the construction process, or
18		thereafter, harm or damage could result to either citizens or the structures as a result of
19		the structure's location in the vicinity of the ROW.
20	Natio	onal Grid's Testimony at the Hearings Related to Building Along the ROW
21	Q.	Did National Grid's testimony at the Hearings clarify for the Town whether it was safe to
22		build along or near the edge of the ROW?
23	A.	No, in fact the testimony was conflicting and only served to further confuse the Town.

1	Q.	How was National Grid's testimony conflicting regarding the safety of building along or
2		in the vicinity of the edge of the ROW?
3	A.	National Grid's first expert Dave Beron, P.E. testified that National Grid had designed
4		the Rhode Island Reliability Project so that it would be safe to build structures "right up
5		to the edge of the ROW." Subsequently, National Grid expert Dr. William Bailey
6		testified that before buildings are placed along or near the edge of the ROW "it would be
7		prudent to check with National Grid to see if they had any specific recommendations
8		based upon their experiences and practices." Hearing transcript dated May 27, 2009,
9		P.69 (L21-24) (rough draft).
10		Accordingly, as with National Grid's correspondence to the Town, National Grid's
11		expert testimony provided conflicting opinions as to whether it is safe to build along the
12		edge of the ROW or, whether some precautions and/or restrictions are necessary if
13		buildings are to be placed along or in the vicinity of the ROW. The Town is merely
14		looking for a simple answer as to whether it is safe to place structures and/or buildings
15		along the edge of the ROW and its vicinity, and if it is not, the necessary restrictions that
16		National Grid believes the EFSB should impose.
17	The 7	Town's Expert Opinion Related to Building Along the ROW
18	Q.	Did the Town take any actions subsequent to National Grid's testimony to clarify
19		whether it is safe to build along the edge of the ROW?
20	A.	Yes, we requested that counsel for the Town locate and engage an expert to provide an
21		opinion as to this matter.
22	Q.	Did the Town engage an expert?

1	A.	Yes, the Town engaged Edward McGavran of McGavran Engineering located in
2		Charlotte, North Carolina.
3	Q.	What was Mr. McGavran engaged by the Town to do?
4	A.	Mr. McGavran was engaged to review National Grid's contention that it is safe to build
5		any structure up to the edge of the ROW.
6	Q.	What did Mr. McGavran find regarding National Grid's contention that it is safe to build
7		any structure up to the edge of the ROW.
8	A.	He found this contention not to be "completely accurate."
9	Q.	What concerns did Mr. McGavran express related to building structures along the edge of
10		the ROW?
11	A.	First, Mr. McGavran expressed concern regarding free standing accessory structures that
12		are in close proximity to the ROW including flag poles, radio antennas and signs that
13		could contact the power lines in the event of structure failure.
14		Second, Mr. McGavran expressed concern regarding vertical elements on top of
15		structures located along the ROW including towers, chimneys, satellite dishes and
16		television antennas as these vertical elements also present risks of contact with the power
17		line and potential loss of electrical service or worse, property damage and human injury.
18		Third, Mr. McGavran expressed concerns relating to metal buildings and/or structures
19		along the edge of the ROW due to the fact that metal buildings can incur significant static
20		buildup which can, in some situations, result in dangerous discharges.
21		Fourth, Mr. McGavran expressed concern relating to swimming pools due to the fact that
22		water in the vicinity of power lines is a cause for concern.

#### The Narragansett Electric company d/b/a National Grid Rhode Island Reliability Project EFSB Docket No. SB-2008-02 Witness: Makram H. Megali, P.E.

1		Finally, Mr. McGavran expressed concern regarding the use of heavy machinery and
2		construction materials that could potentially impact the transmission lines or transmission
3		lines structures.
4	Q.	What were Mr. McGavran's recommendations to alleviate his concerns?
5	A.	Mr. McGavran recommended that National Grid provide the Town with appropriate
6		grounding specifications for metal buildings and swimming pools, and that National Grid
7		be available to review said specifications or grounding methods at no cost to the Town or
8		the property owners.
9		Additionally, Mr. McGavran suggested that there should be regulations restricting the
10		types of machinery and construction that could take place along the edge of the ROW.
11		Finally, Mr. McGavran recommended that counsel for the Town review the Town's
12		zoning dimensional specifications to determine the impact of his recommendations on the
13		Town.
14	Q.	Did Mr. McGavran make any recommendations related to general safety of placing
15		structures along the edge of the ROW?
16	A.	Yes, Mr. McGavran stated that the National Electrical Safety Code was a minimum
17		standard and that he would instead recommend a 50-foot distance from the center line of
18		the 115 kv structure to the edge of the ROW as recommended by the Rural Utility
19		Service Bulletin 1724E-200 (2005 ed.)
20	Q.	Did counsel utilize Mr. McGavran's findings to determine the impact on the Town's
21		zoning dimensional specifications?
22	A.	Yes.
23	Q.	What were those findings?

1	A.	Counsel addressed a number of zones within the Town and its subsequent impact of his
2		recommendations to the zone.
3		For instance, the B-3 Zone is intended to encourage the development of large scale
4		retail/commercial, office or light manufacturing projects within the Town. The
5		maximum height allowance is in the B-3 district are 50 feet for retail stores, 65 feet for
6		theatres, 40 feet for accessory buildings and 90 feet for hotels or offices including
7		parapets and roof mounted equipment. Accordingly, if a building were to be constructed
8		in the B-3 Zone, along the edge of the ROW and up to the maximum allowable height,
9		there would be safety issues as detailed by Mr. McGavran related to roof mounted
10		vertical elements being placed at a height where they could come into contact with the
11		transmission lines, the proper grounding of buildings and swimming pools, as well as
12		issues related to construction machinery and construction materials impacting the
13		transmission lines and/or transmission lines structures.
14		Next, the R-40, R-20, B-2 and I-L zones were addressed. These zones have maximum
15		heights for main structures and accessory structures ranging from 35 feet to 40 feet.
16		Accordingly, since there is only an approximately 25 foot transmission line clearance
17		from the edge of the ROW, concerns in these Zones would include: the failure of
18		accessory structures along the edge of the ROW, the proper grounding of buildings along
19		the edge of the ROW, proper grounding of swimming pools along the edge of the ROW,
20		impacts on the transmission lines from vertical elements, and any construction related
21		impacts on the transmission lines and/or transmission lines structures.
22		Lastly, counsel addressed vertical elements in the B-2 and I-L zones. In these zones,
23		vertical elements can be added to buildings that exceed the maximum building height

1		limit for each district as long as the element is set back from any lot line one additional
2		foot for each foot by which it exceeds the maximum height limit. Accordingly, if Mr.
3		McGavran's recommendations are taken into account, this provision in the zoning
4		ordinance will need to be addressed as it potentially provides for the construction of
5		vertical elements which could easily come into contact with transmission lines and/or
6		transmission line structures as the set back rules do not appear to take into account a set
7		back from the ROW.
8	Q.	Does the Town still have safety concerns related to the Rhode Island Reliability Project?
9	A.	Yes, this project will result in 115 kV lines within approximately 25 feet of the edge of
10		the ROW in areas where, for example, there could be hotels with additional roof
11		structures built at 90 feet high and theaters with additional roof structures built at 65 feet
12		high. Structures at these heights in such close vicinity to transmission lines are obviously
13		a safety concern to the Town both during the construction process and thereafter.
14	Q.	What position is the Town taking relative to its safety concerns related to the Rhode
15		Island Reliability Project?
16	A.	The Town is requesting that this process fund a truly independent expert to review the
17		Town portion of the Rhode Island Reliability Project and compile a report as to what
18		activities can safely take place along the edge of the ROW and its vicinity and what
19		restrictions are necessary to ensure the safety off all involved.
20	Q.	Are you aware of the Boards' decision at the Hearings?
21	A.	Yes, the Boards' issued a Joint Advisory Opinion denying National Grid's Application.
22		See Joint Advisory Opinion dated September 4, 2009 attached hereto as Attachment 1.
23	Q.	Does this conclude your pre-filed testimony?

The Narragansett Electric company d/b/a National Grid Rhode Island Reliability Project EFSB Docket No. SB-2008-02 Witness: Makram H. Megali, P.E.

1 A. Yes.

# ATTACHMENT 1

# Town of Johnston Zoning Board of Review Planning Board of Review

1385 Hartford Avenue Johnston, Rhode Island 02919 401-351-6618

APPLICANT/OWNER:

The Narragansett Electric Company d/b/a National Grid

DATE:

September 4, 2009

FILE NO .:

SB-2008-002

# JOINT ADVISORY OPINION TO THE STATE OF RHODE ISLAND PROVIDENCE PLANTATIONS ENERGY FACILITY SITING BOARD AND JOINT DENIAL OF THE NARRAGANSETT ELECTRIC COMPANY D/B/A NATIONAL GRID'S ZONING PETITION

WHEREAS, joint meetings of the Johnston Zoning Board of Review and Planning Board of Review were held on May 19 2009, May 25, 2009 and September 1, 2009, wherein the instant application was considered;

WHEREAS, The Narragansett Electric Company d/b/a National Grid, (hereinafter "National Grid"), as applicant and owner of a utility right of way that is approximately 5.5 miles long running through the Town of Johnston, filed an application with the Johnston Zoning Board of Review seeking a Dimensional and Use Variances as well as a Special Use Permit in order to relocate two existing 115kV transmission lines and to construct a new 345kV transmission line within the existing right of way;

WHEREAS, the Energy Facility Siting Board ordered that the Zoning Board of Review and the Planning Board render an Advisory Opinion as to whether the Reliability Project would meet the requirements of the respective zoning ordinances and whether any required special use permits or variances should be granted;

WHEREAS, public hearings on the instant application and Advisory Opinion Order were held by the Johnston Zoning Board of Review and Planning Board of Review on May 19 2009, May 25, 2009 and September 1, 2009, after due and public notice as provided under the Johnston Zoning Ordinances and the Rhode Island General Laws;

WHEREAS, at said hearings all those who desired to be heard were heard and their testimony recorded:

### WHEREAS, the Boards have heard National Grid's representations that:

- 1. National Grid's right of way is located west of I-295 and generally east of Route 5. It encompasses the following parcels: Assessor's Plat 29, lots 30, 15 and 33; Assessor's Plat 30, lots 133, 14, 15, 17, 30, 41, 42 and 76; Assessor's Plat 31, lots 10, 11, 27 and 8; Assessor's Plat 43, lot 2; Assessor's Plat 44, lots 176, 22, 23, 293, 296, 351, 414, 415, 419, 420, 421, 481, 167, 168, 169, 170, 173, 174, 198, 24, 307 and 353; Assessor's Plat 44, lots 37 and 71; Assessor's Plats 50, lot 45; Assessor's Plat 51, lots 16, 17, 9, 10, 11, 15, 4 and 55; Assessor's Plat 53, lots 16, 17, 18, 19, and 25; Assessor's Plat 54, lots 25, 26, 3, 5, 28, 36, 55, 204, 27, 30 and 96; Assessor's Plat 541, lots 336, 341, 371; Assessor's Plat 55, lots 79, 171, 172, 36, 37 and 43.
- 2. National Grid's right of way is located in the following zoning districts: R-40, R-20, B-2, B-3, and I-L.
- 3. The proposed project in Johnston involves the relocation within the existing right of way of two 115kV transmission lines and the construction of a new 345kV transmission line. The new transmission line will be constructed primarily with steel pole davit arm structures with heights varying approximately 80' and 135'. The reconfigured 115kV lines will each be constructed primarily with steel pole davit arm structures with heights between approximately 60' and 125'.
- 4. The proposed construction in Johnston is part of National Grid's Rhode Island Reliability Project which involves the upgrade of approximately 21.4 miles of transmission line that pass through North Smithfield, Smithfield, Johnston, Cranston, West Warwick and Warwick. The overall project must be approved by the Rhode Island Energy Facility Siting Board.
- National grid seeks a Special Use Permit to construct the new and relocated transmission lines in R-40, R-20, B-2 and I-L districts under Ordinance, art. III, Table III, § 5 and art. III, § P.
- 6. National Grid seeks a use variance to construct the new and relocated transmission lines in the B-3 district. See Ordinance No. 999 and Ordinance, art. III, § O and R.I. Gen. Laws § 45-24-41.
- 7. National Grid seeks a dimensional variance from the height restrictions of the Ordinance F, Table III F-1 for the new and relocated transmission lines.

WHEREAS, at the hearings:

- The Boards heard the testimony of National Grid experts William H. Bailey, PhD, National Grid expert David Beron, P.E., Susan Molberg, PWS and Webster A. Collins, MAI., CRE FRICS.
- The Boards expressed safety concerns relative to construction of various types of buildings, antennas, swimming pools, and other various structures along the edge of the right of way.
- Mr. Beron testified that it is safe to build any structure right up to the edge of the right of way.
- 4. Dr. Bailey testified that before a resident built structures up to the edge of the right of way "it would be prudent to check with National Grid and see if they had any specific recommendations based upon their experience and practices." See Transcript dated May 27, 2009, page 69; L21-24 (rough draft).
- 5. The Boards were provided exhibits which demonstrate that Town Officials, as far back as January of 2009, attempted to get guidance from National Grid as to the issue of building structures within twenty (20) feet of the edge of the right-of-way in light of the pending Rhode Island Reliability Project. National Grid failed to provide any response.
- 6. As a result of this concern, the Boards engaged Edward G. McGavran III, P.E. as an expert to determine whether it would be safe and/or advisable to build structures as allowed in R-40, R-20, B-2 and I-L Districts right up to the edge of the right-of-way in light of the proposed 115 kV high voltage transmission lines being anywhere from twenty-eight (28) feet to thirty-five (35) feet from the edge of the right-of-way.
- 7. Mr. McGavarn provided written testimony that it is advisable that the EFSB not approve the Project without the EFSB imposing a setback from the edge of the right of way in the Town of 20' for any new construction. See Testimony attached hereto as Exhibit A.
- 8. National Grid represented that the Project would provide the Town with approximately \$1,000,000.00 in additional property taxes per year ("Additional Tax Revenue Estimate").
- 9. The Town requested detailed support of the Additional Tax Revenue Estimate.
- National Grid failed to provide detailed support of the Additional Tax Revenue Estimate.
- 11. The Board was informed by Timothy J. Chapman. attorney for the Town of Johnston, that the Town is currently involved in litigation with National Grid in which National Grid is attempting to reduce the amount of annual, tangible, personal property taxes it pays to the Town by contesting the tax rate which is currently \$56.00 per \$1,000.00.

- 12. Research was then done by interviewing the Statewide Planning Program to determine that \$47 million in new construction would be attributed within the borders of the Town of Johnston, if the Rhode Island Reliability Project were to go forward.
- 13. If that new construction were depreciated pursuant to R.I. Gen. Laws § 44-5-12.1, and assessed at 95% of cost and the resulting assessed value were taxed at \$56.00 per \$1,000.00, resulting tax revenue to the Town of Johnston would be approximately \$2.5 million. Accordingly, there is a significant gap in the economic benefits that the Town may experience as a result of the project which must be resolved.
- 14. Counsel for the Town of Johnston submitted nineteen (19) proposed limiting conditions on the project which are attached hereto as Exhibit B. A twentieth (20) condition was added by the Building Official after the last hearings. Said additional condition is likewise incorporated into Exhibit B. National Grid stipulated to Conditions Nos. 1, 3, 4, 5, 6, (with 3 business days notice), 7 (absent public input), 8 (limited to e-mail notice), 9, 1, 12, and 13 (but for required roadway lighting).

WHEREAS, the standards for granting a special use permit in the Town of Johnston as provided in Article III, § P of the Ordinance are as follows:

- That granting of the special use permit will be compatible with the neighboring uses and will not adversely effect the surrounding neighbors' use and enjoyment of their property;
- That granting of the special use permit will be environmentally compatible with the neighboring properties and the protection of property values;
- That granting of the special use permit will be compatible with the orderly growth and development of the Town of Johnston, and will not be environmentally detrimental therewith:
- 4. That the best practices and procedures to minimize the possibility of any adverse effects on neighboring property, the Town of Johnston, and the environment have been considered and will be employed, including but not limited to, considerations of soil erosion, water supply protection, septic disposal, wetland protection, traffic limitation, safety and circulation;
- That the purposes of this Ordinance, and as set forth in the Comprehensive Plan shall be served by said special use permit;
- That granting of the special use permit will substantially serve public convenience and welfare; and

 That granting of the special use permit will not result in or create conditions that will be inimical to the public health, safety, morals and general welfare of the community.

WHEREAS, the standards for a grant of a dimensional and use variance by the Johnston Zoning Board of Review are as follows:

- a) That the hardship from which the applicant seeks relief is due to the unique characteristics of the subject land or structure and not to the general characteristics of the surrounding area; and is not due to a physical or economic disability of the applicant;
- b) That the hardship is not the result of any prior action of the applicant and does not result primarily from the desire of the applicant to realize greater financial gain;
- c) That the granting of the requested variance will not alter the general character of the surrounding area or impair the intent or purpose of Ordinance of the Comprehensive Plan upon which this Ordinance is based; and
- d) That the relief granted is the least necessary.

WHEREAS, in addition to the above variance standards the Zoning Board must be provided with evidence that;

- In granting a use variance the subject land or structure cannot yield any beneficial
  use if it is required to conform to the provisions of the Johnston Zoning
  Ordinance. Nonconforming use of the neighboring land or structures in the same
  district and permitted use of lands or structures in an adjacent district shall not be
  considered in granting a use variance; and
- 2. In granting a dimensional variance, that the hardship that will be suffered by the owner of the subject property if the dimensional variance is not granted shall amount to no more than a mere inconvenience, which shall mean that there is no other reasonable alternative to enjoy a legally permitted beneficial use of one's property. The fact that a use may be more profitable or that a structure may be more valuable after the relief is granted shall not be grounds for relief.

WHEREAS, in addition the Planning Board must be provided with evidence that the Project would be a land use consistent with the municipality's comprehensive plan approved pursuant to the Comprehensive Planning and Use Act, R.I. Gen. Laws § 45-22.2-1.

NOW THEREFORE BE IT RESOLVED by a unanimous vote by the Johnston Zoning Board of Review and Johnston Planning Board that the application as filed by National Grid is hereby DENIED for the following reasons:

- The Boards find that based on expert testimony, that it is not safe to build any structures right up to the edge or along the right of way.
- 2. The project is not consistent with the Town's Comprehensive Plan, nor with R.I. Gen. Laws § 45-22.2-1 through 14.
- The application for special use permit is denied as the Boards find that the surrounding neighbors may be adversely effected by the Project because citizens who own property abutting the right of way will lose use of their property to the extent that it is not safe to build any structures to the edge or along the right of way;
- 4. The Boards deny National Grid's Application for a special use permit as National Grid has not shown that granting the permit would be compatible with the orderly growth and development of the Town due to the fact that National Grid has not provided adequate assurances as to the additional property tax revenues that the Project will generate for the Town.
- The Boards deny National Grid's application for a dimensional and use variance
  as the requested variance will alter the general character of the surrounding area
  as the Project may make it unsafe to build structures up to the edge of the right of
  way.
- 6. The Boards recommend that the EFSB Order that National Grid re-file it's application with the Town in a manner that: resolves the conflicting testimony as to whether it is safe to build all structures along the edge of the right of way, provides the Town with adequate assurances that National Grid will work with the Town to ensure that building to the edge or along the right of way will be safe, and provides a more definite statement as to the amount of tax revenue that the Town will receive as a result of the Project.

If the EFSB is inclined to grant the application of National Grid, the Boards respectfully request that the EFSB impose the limited conditions referenced in Paragraph 14 above and incorporated herein as Exhibit B.

Town of Johnston Zoning Board

Kenneth Aurecchia, Chairperson

Town of Johnston Planning Board

Anthony Werardo, Chairperson

Dated: September 4, 2009

## SB-2008-2 Narragansett Electric Co. – RI Reliability Project Application Service List as of 7/20/09

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Eric J. Krathwohl, Esq. (for ISO) Rich May, a Professional Corporation 176 Federal Street Boston, MA 02110-2223	ekrathwohl@richmaylaw.com  Ebigelow@richmaylaw.com	617-556-3857
Kevin Flynn, Esq. ISO New England Inc. One Sullivan Road Holyoke, MA 01040-2841	kflynn@iso-ne.com	T (413) 535-4177 F (413) 535-4379
W. Michael Sullivan, Ph.D., Director Dept. of Environmental Management 235 Promenade Street Providence, RI 02908	Michael.sullivan@DEM.RI.Gov  Rayna.santoro@dem.ri.gov	401-222-4700 ext. 2409
Kevin Flynn, Associate Director for Division of Planning Department of Administration One Capitol Hill, 3 <sup>rd</sup> Floor Providence, RI 02903	KFlynn@doa.ri.gov  mcosta@doa.ri.gov	401-222-6496
Timothy A. Williamson, Esq., Town Solicitor for West Warwick Inman, Tourgee & Williamson 1193 Tiogue Avenue Coventry, RI 02816	twilliamson@itwlaw.com	
Mr. Albert A. DiFiore, Esq. Town of West Warwick Legal Counsel, Planning & Zoning	aadf711@aol.com	401-886-4601
Richard Nadeau, Jr., Esquire Nadeau & Simmons, P.C. 56 Pine Street Providence, Rhode Island 02903	rnadeau@nadeausimmons.com	401-272-5800

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2 2 2	olucarelli@puc.state.ri.us

# Exhibit A



July 22, 2009

Chairman of the Town of Johnston Zoning Board Chairman of the Town of Johnston Planning Board 100 Irons Avenue Johnston, Rhode Island 02919

RE: The Narragansett Electric Company d/b/a National Grid Rhode Island Reliability Project SB-2008-002

#### Dear Chairmen:

I have been retained by the Town of Johnston, Rhode Island ("Town") by and through Ferrucci Russo P.C. to provide a study of the local environmental effects of Narragansett Electric Company d/b/a National Grid's ("National Grid") proposed Rhode Island Reliability Project (the "Project") to the Town's Designated Agencies pursuant to the State of Rhode Island Energy Facility Siting Act. Said effects of the Project on the Town include potential health, safety and welfare effects.

I am a registered professional engineer in the States of North Carolina, South Carolina, Virginia, Georgia, West Virginia and Maryland with over 20 years of experience managing and designing projects for electrical transmissions lines, substations and underground and overhead distribution projects. Please review my resume attached hereto as Exhibit A for further details of my experience.

I was engaged to provide an opinion, assuming that the project involved placing 115 kV lines approximately 28' to 35' from the edge of the right of way. In preparing my findings, I reviewed:

- National Grid's Zoning Board Application dated November 7, 2008
- The Environmental Report --Volume I for the Project
- Exhibits D, L, K and M introduced by National Grid before these Boards
- The report compiled by Power Engineers dated June 10, 2009

My review of the Project was limited by the fact that there is no existing plan or profile drawing detailing exact pole locations and conductor clearances. Accordingly, I have focused my review on National Grid's contention that it is safe to build any structure up until the edge of the right of way. I do not believe that this statement is completely accurate.

The following is a list of safety restrictions along the edge of the right of way that should be imposed as a result of the Project:

1. Consideration must be given for free standing accessory structures that are in close proximity to the right of way. These can include flag poles, radio antennas, signs or any other structure that reaches a height where it could contact the power line in the event of structure failure. These types of structures tend to fail in snowstorms, ice storms, severe thunderstorms hurricanes or other extreme weather conditions which are common in the Johnston area.

Obviously, any object that could potentially come into contact with the power line is of great concern as a contact event could lead to the loss of electrical service or worse, property damage and human injury. Of further concern would be any metal accessory structure contacting the transmission line as this would result in an increased risk of electrocution.

- 2. Another primary concern is vertical elements on top of structures that are constructed along the right of way. These include towers, chimneys, satellite dish antennas, free standing television antennas, as well as any other roof mounted vertical elements. These vertical elements pose similar risks as the structures detailed in paragraph 1. Accordingly, the use of these devices on structures on the right of way should be carefully regulated.
- In connection with recommendations 1 and 2, I asked that Counsel review the Town zoning dimensional specifications to determine the practical impact of these recommendations as it relates to the Town. See Correspondence of Counsel attached hereto as exhibit B.
- 4. Metal buildings and/or structures along the edge of the right of way can be of concern. Since metal is conductive it can have an effect around high voltage lines. There are two major issues related to this. One is the potential difference that can occur which causes a significant static buildup around any metal building which will discharge under certain conditions. Generally, these static discharges are not dangerous but under certain conditions can be. The best way to prevent dangerous discharges is to require that the line and building be properly grounded.

The second concern is lightning protection. It is recommend that any metal building located around the line (or for that matter any building) have lightning protection on it such as a rod that is grounded directly into the earth via a copper ground rod.

I would recommend that National Grid provide the Town with appropriate grounding specifications for metal buildings, and that National Grid be available to review said specifications or grounding methods at no cost to the Town or the property owners.

- Swimming pools are another area of concern. Any time open bodies of water are located in the vicinity of power lines there is the potential for problems. In this instance if a pool is to be placed adjacent to the right of way, there must be regulation requiring the proper grounding be maintained, and further periodic inspections must be performed to ensure that the grounding mechanisms maintains their integrity.
  - Again, I would recommend that National Grid provide the Town with appropriate grounding specifications for swimming pools, and that National Grid be available to review said specifications or grounding methods at no cost to the Town or the property owners.
- 6. Construction along the edge of the right of way can also cause serious problems. Most construction requires the use of heavy machinery and materials that could potentially impact the transmission lines or transmission line structures. Accordingly, there must be regulations restricting the types of machinery that can be used and construction that can take place along the edge of the right of way.

Many of the above listed concerns are a result of National Grid's decision to utilize the National Electrical Safety Code which is a minimum standard for the citing of transmission lines. Instead, I would recommend a 50' distance from the centerline of the 115kV structure to the edge of the right of way as recommended by the Rural Utility Service<sup>1</sup> at RUS Bulletin 1724E-200 (2005 ed.). Further, many of the concerns that I have detailed above would be alleviated or greatly reduced with a 50' clearance distance.

In conclusion, I strongly urge that the EFSB not approve the Project without imposing a setback from the edge of the right of way of 20' for any new construction. The practical result of this setback can be obtained by reviewing the applicable zoning dimensional specifications which would potentially allow accessory structures, and vertical elements to come into contact with transmission lines if an additional setback is not required by the EFSB.

Very truly yours,

Edward G. McGavran III, P.E.

President/Owner

McGavran Engineering, PC

Elmel D. Wed

<sup>&</sup>lt;sup>1</sup> The Rural Utility Service is an agency of the United States Department of Agriculture, and is one of the federal executive departments of the United States government charged with providing public utilities to rural areas in the United States.

## Exhibit A

### Edward G. (Ted) McGavran III, P.E.

### Contact Information:

Business:

McGavran Engineering, P.C. 801 Baxter Street, Suite 410 Charlotte, North Carolina 28202

Fax:

Phone: 704.347.4906 704.347.4906

Email: ted@mcgavran.com

#### Personal:

422 Ashworth Road

Charlotte, North Carolina 28211

Phone: 704.442.9815 Mobile: 704.517.0704

### Personal Information:

Date of Birth:

December 3, 1959

Place of Birth: Citizenship:

Charleston, West Virginia United States of America

Sex:

Marital Status:

Married (Wife, Melanie McGavran)

Children:

One (Son, Edward McGavran)

### Professional History:

April, 1991 to Present: President & Owner

McGavran Engineering, P.C.

Consulting engineering practice started in 1991 to work with rural power systems in the Southeastern United States, Clients include municipally owned power systems, investor owned utilities, industrial power systems, electrical testing contractors, and other professional firms. Projects and tasks include, but are not limited to the following:

- Engineering and operations management reviews and operational plans for rural electric cooperatives
- System planning for long and short range plans including distribution and transmission system analysis, design, least cost planning, economic analysis, and alternative plans.
- Studied reliability as a critical component of electric system planning criteria. Rank order projects on an objective criteria based on resources available and long term financial models to determine outcomes.
- Manage and design projects for up to 115 kv transmission lines, substations, and underground and overhead distribution projects. In conjunction with the management of these projects have prepared detailed construction contracts for bidding, evaluate and award bids, oversee the construction process, closeout the contracts, and settle any issues regarding damages to property by the contractor as well as final acceptance certification and testing.

- Oversee system mapping projects and gather GPS data
- Write and submit Environmental Assessments for power system capital projects including transmission lines, substations, and distribution lines.
- Prepare Spill Prevention and Countermeasure Control Plans for electric substations and operational headquarters facilities. Also prepare and rehearse Emergency Action Plans in conjunction with SPCC regulations.
- Prepare coordination and sectionalizing studies for rural power systems. Studies include relay coordination analysis for transmission lines, substations, and distribution breakers, and down to the distribution line level. Perform system fault current studies for transmission, distribution, and industrial systems.
- Prepare system load flow studies for electric transmission and distribution systems. Analysis
  has included contingency planning and power factor impact on system voltage levels and
  losses.
- Work with FERC re-licensing of Catawba River Watershed by locating, surveying, and certifying distribution line crossings over the watershed. Have brought substandard crossings up to NESC and Corps of Engineers requirements based on survey and engineering analysis of the sag and tension of the electric line crossing as determined in the analysis.
- Design and perform feasibility studies for standby generator projects for industrial clients on rural and municipal electric systems including PURPA certifications.
- Select routes and sites for substation and transmission line projects. Work with right of way
  acquisition to attain The best routes and sites possible for these projects in an Imminent
  Domain environment.
- Provide expert witness testimony and litigation support in Civil cases including electrical contacts with electric power lines, industrial faults leading to damaged facilities and/or loss of product, and condition of electrical equipment.
- Perform system work order inspections for rural electric systems to certify that work has been done to the standards required by the Rural Utility Service.
- Perform pole attachment and joint use rate analysis, contract negotiation, attachment and NESC violation audits. Set up and manage compliance programs, joint trench projects, as well as run client joint use programs on an outsource basis. Clients include electric coops and municipal electric systems throughout the Carolinas.

2005 to Present: Board Member and Partner Facility Planning and Siting, LLC

421 Penman Street, Suite 100

Charlotte, NC 28203 Phone: 704.926.3781 Fax: 704.926.3799

Email: Dwight@fps-grp.com

Board member and partner interest in Landscape Architecture firm that had been a business unit of Framatome AMP and Duke Engineering Services. Company performs detailed siting analysis for major electric transmission lines, substations, generation stations including fossil and nuclear plants, site design for substations, litigation support for utility right of way acquisition including conditional use permits, environmental permitting services, NPDES permits, as well as the same services for private commercial projects.

- Company was established as an independent business in February, 2006.
- Clients include Duke Energy and SCANA Corp. along with numerous electric cooperatives in the Carolinas. Major Generation projects in clued the Duke W.S. Lee Nuclear Plant and the Cliffside Coal fired power plant.

June 1984 to April 1991: Electrical Engineer Electrical Consulting Engineers, Inc.

2407 North Tryon Street Charlotte, North Carolina 28206

Phone: 704.372.6673
Fax: 704.334.2607
Email: <u>jkuhn@e-c-e.net</u>
Web: www.e-c-e.net

 Performed design calculations, spot structures, prepare bid documents and manage 115 KV and 69 KV Transmission Line Projects;

 Prepared two year work plans and system planning reports for rural Electric Cooperatives in North Carolina and Virginia;

Performed sectionalizing and coordination studies for Cooperatives in North Carolina;

Assisted with field relay tests and substation start-ups;

Performed design, bid and closeout for 115, 44 & 69 - 12.5 kV substation projects;

o Prepared borrower's environmental reports; and

Performed work order inspections.

May 1982 to December 1983:

**Power Supply Technician** 

North Carolina Electric Membership Corporation

3400 Sumner Blvd. Raleigh, NC 27616

Phone: 919.872.0800 or 800.662.8835

919.645.3410 Fax: E-mail: info@ncemcs.com www.ncemcs.com Web:

Worked as a power supply technician while I was an engineering student at NC State University and was heavily involved in the following projects:

- Analyzed RTU deployment for statewide load management and SCADA system. Used SAS statistical analysis to deploy RTUs throughout the State of North Carolina to minimize total deployment costs;
- Worked with staff to analyze NCEMC financial models for the Catawba Nuclear plant purchase from Duke Energy;
- Developed model to analyze lease-purchase decisions for leased delivery points for coops with leased deliveries on the Duke Energy system; and
- Worked to develop statewide transmission system asset base and map for all North Carolina Electric Cooperatives.

### **Educational Background:**

Northwest Cabarrus High School, Concord, North Carolina 1974 - 1978

Graduated - 1978, College preparatory study track

North Carolina State University, Raleigh, North Carolina 1978 - 1984

Graduated - 1984

Bachelor of Science in Electrical Engineering

### Professional Qualifications and Affiliations:

### Registered Professional Engineer:

North Carolina:

PE#15443

South Carolina:

PE#12784

Virginia:

PE#022245

Georgia:

PE#032052

Member, Institute of Electrical and Electronics Engineers

1828 L Street, N.W., Suite 1202 Washington, D.C. 20036-5104 USA

Phone: 202.785.0017

Fax:

202.785.0835

Web:

www.ieee.org

### References:

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Phone: 704.572.9207

Email: malascara@carolina.rr.com

Mr. John T. Boyt, P.E. Vice President, Engineering & Operations New Horizon Electric Cooperative PO Box 929 1776 Highway N. Laurens, SC 29360

Phone: 864.682.3159
Mobile: 864.871.0077
Email: iboyt@nhe.coop

Mr. R.B. Sloan Jr., P.E. Director of Electric Utilities City of Vero Beach 1053 20th Place Vero Beach, FL 32960 Phone: 772.978.4710 E-Mail: rsloan@covb.org

Mr. Gregg Welch
Manager of Marketing and Member Services
Electricities of North Carolina, Inc.
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Raleigh, NC 27626-0513
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Mr. Thomas Black Vice President of Engineering Fairfield Electric Cooperative, Inc. P.O. Box 2500 Blythewood, SC 29016 Phone: 803.635.4621

Email: tblack@fairfield.coop

Central Electric Power Cooperative 121 Greystone Blvd. Columbia, SC 29210 Phone: 803.779.4975 Mr. Tony Herrin Executive Vice President and General Manager Union Power Cooperative PO Box 5014 Monroe, NC 28111-5014

Phone: 704.289.3145 x13241

Fmail: tony.herrin@union-power.com

Mr. Dale Lambert Executive Vice President and General Manager Randolph Electric Membership Corporation PO Box 40 Asheboro, NC 27204 Phone: 336.625.5177

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Phone: 919.872.0800 or 800.662.8835

E-mail: info@ncemcs.com

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# Exhibit B

### FERRUCCI RUSSO P.C.

COUNSELLORS AT LAW

W. Mark Russo mrusso@frlawri.com

July 22, 2009

Chairman of the Town of Johnston Zoning Board Chairman of the Town of Johnston Planning Board 100 Irons Avenue Johnston, Rhode Island 02919

RE: The Narragansett Electric Company d/b/a National Grid Rhode Island Reliability Project, SB-2008-002

Dear Chairmen:

At the request of the Town's expert Mr. Ted McGavran, we reviewed the Town's zoning dimensional specifications to determine what impact his recommendations would have on future construction in the Town.

In accord with its application to your respective Boards, the Narragansett Electric Company d/b/a National Grid's ("National Grid") right of way, on which the Rhode Island Reliability Project (the "Project") will be built, passes through the following zoning districts in the Town: R-40, R-20, B-2, B-3 and I-L.

Based on our review of the Town's zoning dimension specifications we determined the following impacts as a result of implementing Mr. McGavran's recommendations:

### B-3 Zone

The Project passes through numerous lots zoned B-3. The B-3 district is intended to encourage the development of large scale retail/commercial, office or light manufacturing projects within the Town. The maximum height allowances in the B-3 district are 50' for retail stores, 65' for theaters, 40' for accessory buildings and 90' for hotels or offices included parapets and roof mounted equipment.

If a building were to be constructed in the B-3 district along the edge of the right of way up to the maximum allowable height, there would be safety issues as detailed by Mr. McGavran. For instance, there would be issues related to: roof mounted vertical elements being placed at a height where they could come into contact with the transmission lines, the proper grounding of buildings and swimming pools, as well as issues related to construction machinery and construction materials impacting the transmissions lines and/or transmission line structures.

### R-40, R-20, B-2, and I-L Zones

The Project passes through at numerous lots zoned R-40, R-20 and B-2. The maximum height for main structures and accessory structures in the R-40, R-20 and B-2 zone are 35' while the I-L has a maximum height limit of 40'.

The concerns in these zones relate to construction along the edge of the right of way were there is only an approximately 30' transmission line clearance. Concerns in these zones include: the failure of accessory structures along the edge of the right of way, the proper grounding of buildings along the edge of the right of way, the proper grounding of swimming pools along the edge of the right of way, impacts on the transmission lines from vertical elements, and any construction related impacts on the transmission lines and/or transmission line structures.

### Vertical Elements in the B-2 and I-L Zones

Additionally, The B-2 and I-L districts allow vertical elements to be added to buildings that exceed the maximum building height limit for the district as long as the element is set back from any lot line one additional foot for each foot by which it exceeds that maximum height limit. If Mr. McGavran's recommendations are taken into account, this provision in the zoning ordinance will need to be addressed. It potentially provides for the construction of vertical elements which could easily come into contact with a transmission line as the set back rules do not appear to take into account a set back from the right of way.

It appears that National Grid did not take into account many of the above detailed safety issues, when it developed the Project, or when it made the contention that any structure could be built right up to the edge of the right of way.

Further, as illustrated above, it appears that, under the Town's zoning dimension specifications, construction would not be safe up until the edge of the right of way. Therefore, as recommended by Mr. McGavran, the EFSB should impose a 20' construction setback from the edge of the right of way.

Sincerely,

W. MARK RUSSO

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## Exhibit B

#### Exhibit B

### STATE OF RHODE ISLAND AND PROVIDENCE PLANTATIONS RHODE ISLAND ENERGY FACILITY SITING BOARD

In re:

The Narragansett Electric Company d/b/a National Grid

Docket No. SB-2008-002

Rhode Island Reliability Project

e Island Renability Project .

## The Town of Johnston Zoning Board of Review/Town of Johnston Planning Board Advisory Opinion Proposed Limiting Conditions

- National Grid shall reimburse the Town pursuant to R.I. Gen. Laws § 42-98-9.1 and EFSB Rules of Practice and Procedure 1.21.
- The EFSB should consider imposing a setback from the edge of the right of way of 20' for any new construction. See Expert Findings of Ted McGavran, P.E. attached hereto as exhibit A.
- 3. National Grid shall designate an employee to be contacted by Town Residents with any questions/concerns regarding the project.
- 4. All necessary permits from Federal and State agencies shall be acquired prior to construction.
- 5. National Grid shall provide Town with copies of all applications for any permits associated with the project within five (5) days of application submittal.
- Upon reasonable notice to National Grid, the Town's designated representatives shall
  have the right to inspect the project site for conformance with permits issued by
  regulating agencies.
- 7. National Grid shall work with RIDOT to come up with a traffic mitigation plan during construction of the Project. National Grid shall be required to notify and include the Town in approving the traffic mitigation plan. Furthermore, there will be Town input and public notice in advance of finalizing the plan, so that abutting neighbors can have meaningful input.
- National Grid shall email/mail construction schedules on a two (2) week cycle during the duration of the project to Town and abutters.
- National Grid shall provide a Spill Prevention Plan detailing how it will control any oil, lubricants and/or other contaminants which might escape from any equipment at the site during construction or after construction.
- National Grid shall provide funding for the engagement of an independent environmental consultant to monitor construction impacts.
- 11. Noise during construction shall be mitigated.

- 12. National Grid shall provide for solid waste disposal at a regulated and licensed landfill for any debris resulting from the construction.
- 13. Any outdoor lighting, during construction or after construction, shall be hooded and directed so as not to shine directly upon the abutting property or public roads.
- 14. National Grid shall provide an employee who can be contacted by the Town with any information that the Town requires regarding the status and location of the ROW.
- 15. National Grid shall provide, prior to construction, copies of easements granting the ROW to National Grid in the Town as well as the plans referenced in said easements.
- 16. National Grid shall review the ROW abutters' electrical grounding plans for buildings and/or swimming pools and/or structures at no cost to the Town or the abutters.
- 17. National Grid shall identify all existing structures including structures in the ROW and all proposed structures that it owns in the Town along with the cost of each structure.
- 18. National Grid shall commit to paying the Town at least \$2.5 million in additional, annual personal property tax revenue as a result of the new construction on the Project.
- 19. National Grid shall agree to a personal property tax rate in the Town, employed pursuant to R.I. Gen. Laws §44-5-12.1, of at least the current rate of \$56.00 per \$1,000.00.
- Per Building Official at September 1 2009 hearing; The Town should inspect and permit foundations for any structures.