State of Rhode Island and Providence Plantations

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Patrick C. Lynch, Attorney General

December 8, 2006

Via Electronic Mail

Luly Massaro, Clerk
Public Utilities Commission
89 Jefferson Boulevard
Warwick, RI 02888

Re: National Grid January 2007 Retail Rate Filing; Docket No. 3788

Dear Ms. Massaro:

Enclosed for filing on behalf of the Division of Public Utilities and Carriers are an original and nine (9) copies of the pre-filed testimony of John Stutz in the above-referenced matter.

Thank you for your attention concerning this matter.

Very truly yours,

Paul J. Roberti
Chief, Regulatory Unit

Enclosures
cc: Thomas F. Ahern, Administrator
Service List

STATE OF RHODE ISLAND AND
PROVIDENCE PLANTATIONS

BEFORE THE PUBLIC UTILITIES COMMISSION

IN RE: Narragansett Electric (d/b/a National Grid)
January 2007 Retail Rate Filing — DOCKET NO. 3788

DIRECT TESTIMONY

OF

JOHN STUTZ

On behalf of:

The Rhode Island Division of Public Utilities and Carriers

December 8, 2006

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1. INTRODUCTION AND SUMMARY

Q. PLEASE STATE YOUR NAME, BUSINESS ADDRESS, AND POSITION.

A. My name is John K. Stutz. My business address is the Tellus Institute (Tellus), 11 Arlington Street, Boston, Massachusetts 02116-3411. I am a vice president at Tellus.

Q. HAVE YOU PREPARED A SUMMARY OF YOUR EDUCATION, EMPLOYMENT AND PROFESSIONAL QUALIFICATIONS?

A. Yes, it is provided in Exhibit JS-1.

Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY?

A. The purpose is to respond to the testimony included in the January 2007 Retail Rate Filing made by the Narragansett Electric Company ("Narragansett" or "the Company") on November 16, 2006.

Q. HOW IS YOUR TESTIMONY ORGANIZED?

A. The remainder of this section provides a summary of my key points and recommendations. My detailed testimony is presented in the following section.

Q. WHAT ARE THE KEY POINTS OF YOUR TESTIMONY?

A. My key points are the following:

- The Company's proposal to reduce the rate for Standard Offer Service (SOS) from 9.4 to 8.3 cents per kWh is balanced,

reasonable and supportive of rate stability.

- There has been a significant increase in transmission expense since 2005. Based on the projects "in the pipeline," further increases appear likely in the future.
- The Company's proposal to change the allocation of transmission costs raises significant issues related to cost allocation, rate stability, and the price signal provided by the Company's rates.
- In light of the continued high cost of Standard Offer Service, the Company's proposal to extend the low-income credit is reasonable and appropriate.

Q. WHAT ARE YOUR RECOMMENDATIONS?

A. I recommend that consideration of the Company's proposal to change the allocation of transmission costs be deferred to a separate, subsequent docket. Based on this deferral, I recommend adoption of the transmission adjustment factor of 0.474 cents per kWh provided in Ms. Lloyd's response to Commission Data Request 1-4. With that one change, I recommend adoption of all the Company's proposals.

2. DETAILED TESTIMONY

Q. PLEASE BRIEFLY DESCRIBE THE COMPANY'S PROPOSALS.

A. The Company has proposed three changes in its current rates:

- an SOS rate reduction from 9.4 to 8.3 cents per kWh;
- a reduction in the transition charge from 0.575 to 0.559 cents per kWh; and
- an increase in transmission charges that, on average, raises transmission rates by 0.102 cents per kWh.

In addition, the Company proposes to reallocate transmission costs, continue the low-income credit, and make a number of other changes.

Q. DO YOU SUPPORT THE COMPANY'S PROPOSALS?

A. I support all of the proposals except the reallocation of the transmission costs.

Q. WHICH OF THE COMPANY'S PROPOSALS WILL YOU ADDRESS IN YOUR TESTIMONY?

A. I will address the proposed reduction in the SOS rate, the reallocation of the transmission costs, and continuation of low-income credit.

Q. HOW WAS THE COMPANY'S PROPOSED SOS RATE DEVELOPED?

A. The SOS Rate was developed based on an estimate of the cost of electricity obtained under a number of Standard Offer supplier contracts. That cost reflects a **Base Charge** and a **Fuel Index Adjustment** developed using publicly available

gas and oil price indices. Based on oil and gas price data reported on October 25, 26, and 27 of 2006, the Company has proposed a rate of 8.3 cents per kWh effective January 1 through December 31, 2007. This rate is a bit higher than the Company's estimate of the average cost of 7.9 cents per kWh to provide SOS during 2007. On page 8 of 29, Ms. Lloyd explains the Company's choice of the SOS rate as follows:

> "The Company is proposing to reduce the Standard Offer to a level that will provide customers with a significant reduction in monthly bills but takes into account the fact that fuel prices can change dramatically during the winter months. If prices remain stable, the Company will consider filing a request for another incremental decrease after the winter period."

Q. DO YOU SUPPORT THE COMPANY'S SOS RATE PROPOSAL?

A. Yes, I do. The Company has proposed reducing the SOS rate by 1.1 cents per kWh, roughly a 12 percent reduction. Lowering the rate to "cost" (i.e., 7.9 cents per kWh) would provide a larger decrease, roughly 16 percent. However, it would also make it more difficult to achieve rate stability. Rate stability has long been recognized as one of the appropriate and important goals for ratemaking. Bonbright's *Criteria of a Sound Rate Structure* reproduced as Exhibit JS-2, include as Criterion No. 5 the following:

> 5. Stability of the rates themselves, with minimum of unexpected changes seriously adverse to existing customers. (Compare "The best tax is an old tax.")

In past decisions the Commission has recognized the importance of stability. For example, in its decision in Docket No. 3706 the Commission stated:

> "The goal of ratemaking is to balance the need for revenues sufficient to cover costs with the desire for rate stability over time."

In my view the Company's proposal strikes the balance that the Commission has described as desirable.

Q. IS STABILITY OF PARTICULAR CONCERN IN SETTING SOS RATES?

A. Yes, it is of particular concern because one of the costs recovered by the SOS rate—the Fuel Index Payments—has proved to be very difficult to estimate. Over the period from July 2005 to July 2006 the Company produced five estimates of the monthly Fuel Index Payments for the period October 2005 to September 2006. As shown in Exhibit JS-3, the estimates for the full period varied from $154.7 to $262.5 million, a difference of $107.8 million. For the last month in the period alone, the estimates varied by $14.5 million. The Company estimates the over-collection for 2007 produced by a 7.9 cent cost and an 8.3 cent rate, at $27.4 million. In light of the volatility in the Fuel Index Payments shown in Exhibit JS-3, having a projected "cushion" of $27.4 million to offset potential increases in costs without raising rates during 2007 is quite reasonable.

Q. ISN'T IT BETTER FOR CONSUMERS TO PROVIDE THE LOWEST RATE NOW, EVEN IF THAT INCREASES THE RISK OF AN INCREASE DURING 2007?

A. No. It has long been accepted that ratepayers have a preference for stable rates. In

recognition of this, Bonbright includes the maxim "The best tax is an old tax" as part of his criterion for rate stability. Consumers' preference for stability as well as their strong aversion to rate increases supports the course of action proposed by the Company—limiting decreases in the short run so that they can likely be followed by further decreases not increases in the longer run.

The strength of consumers' aversion to "losses" such as electric rate increases has been an important focus of recent research in economics. The research shows that, in general, the adverse reaction to a loss is 2.5 times greater than the positive reaction to an equal gain. Prospect theory—the formal structure which embodies this and other related insights concerning consumer preferences—was central to the work which earned Daniel Kahneman a share of the Nobel Prize in Economics in 2003. These points support the course of action proposed by the Company—limiting decreases in the short run so that they can likely be followed by further decreases not increases in the future.

Q. DOES REGULATORY POLICY ALSO SUPPORT THE PURSUIT OF STABILITY IN SOS RATES?

A. Yes. In that regard I would draw the Commission's attention to the role of rate stability in the promotion of efficiency. The usage of electricity depends in large part on the stock of electrical equipment ratepayers purchase. Stable rates allow ratepayers to evaluate their electricity costs with greater confidence, make purchases based on their evaluation, and realize the benefits from investments in efficiency—such as the choice of high efficiency home appliances—that they choose to make. Instability in rates undermines this process.

Fostering efficiency is an important aspect of current regulatory policy. NARUC has endorsed a National Action Plan for Energy Efficiency. In Rhode Island, recently passed legislation refers directly to the benefits of stable rates and requires Narragansett to procure cost-effective efficiency as part of the portfolio of resources used to serve Standard Offer load after 2009. These developments make clear the importance and appropriateness of the Company's choice to emphasize stability of the SOS rate, thereby fostering efficiency.

Q. TURNING TO YOUR SECOND TOPIC, PLEASE BRIEFLY DISCUSS THE TRANSMISSION COSTS THAT THE COMPANY PROPOSES TO RECOVER.

A. The costs that the Company proposes to recover are shown in Ms. Haines' Schedule MPH-1. As indicated there, the costs are divided into NEP local charges, ISO charges for services and Pool Transmission Facilities (PTF), and ISO/RTO administrative charges. The Company has included tables similar to Schedule MPH-1 in its filings since at least 2001. Exhibit JS-4 provides a compilation of cost estimates for 2002 to 2007 based on these submissions. As the data in the exhibit show, costs were roughly stable from 2002 to 2005. However, over the last two years, they grow rapidly. It is the ISO charges that drive the increase.

For 2007 Narragansett expects an increase of $8.8 million in transmission expenses. Of this amount, $8.5 million is due to increased PTF-related expenses. The projects and expected capital costs driving the increase are shown in Schedule MPH-7. They total $352.1 million for 2007. Looking ahead, the totals are $416

million for 2008 and $1,450.6 million for 2009. As these figures make clear, additional increases are "in the pipeline."

Transmission is a small component of the costs recovered through the Company's rates. However, as the preceding discussion shows, Transmission costs are significant in the aggregate. They have been growing since 2005 and are likely to continue to grow over the next two years.

Q. PLEASE DESCRIBE THE COMPANY'S PROPOSED CHANGES IN THE ALLOCATION OF TRANSMISSION COSTS TO RATE CLASSES.

A. Transmission charges are billed to customers through base charges which differ by rate class and through a uniform transmission adjustment factor. The Company is proposing to revise its base transmission charges to collect approximately 75 percent, or $46.4 million, of the forecasted expense. The remainder will be collected through the transmission adjustment factor. The determination of the class-specific allocation is to be based on each rate class' contribution to the coincident peak.

Q. DO YOU HAVE ANY CONCERNS ABOUT THE PROPOSED CHANGE IN THE ALLOCATION OF TRANSMISSION COSTS?

A. Yes, I have three concerns:

- **Cost Allocation.** Because transmission and distribution costs are incurred to deliver electricity throughout the year and to provide a system that can meet peak demands, these costs should, in my view, be allocated on the basis of both energy

usage and class peak demands. The issues here are similar to those addressed in the most recent case involving electric utility cost allocation. (Pascoag Utility District, Consolidated Docket Nos. 3546 and 3580).

- **Rate Stability.** As the data provided in Attachment 1 to Commission Data Request 1-3 show, the Company's proposed allocation produces a significantly different pattern of increases by rate class than the current approach.
- **Price Signal.** As shown in Ms. Lloyd's Schedule JAL-1, for those rates with demand charges, the proposed allocation produces abrupt changes, with demand (i.e., per kW) charges increasing significantly and energy (i.e., per-kWh charges) falling. The price signal such a shift would send is potentially confusing and may undercut customer efforts to increase their efficiency of energy use.

Q. HOW SHOULD THESE CONCERNS BE ADDRESSED?

A. To provide the time necessary to fully address these concerns, the Commission should establish a separate docket. For now, an adjustment factor of 0.474 cents per kWh, as calculated by the Company in Commission Data Request 1-3, Attachment 1, page 2, should be approved.

Q. TURNING TO YOUR LAST TOPIC, PLEASE EXPLAIN WHY YOU SUPPORT CONTINUATION OF THE LOW-INCOME CREDIT.

A. As I pointed out in my testimony in Dockets No. 3706 and 3710, the magnitude of SOS costs is a particular concern to the low-income customers. While this docket will see a reduction in the SOS rate, the rate remains far above its historic level. Thus, the basis for the low-income credit proposed by the Company remains. The Company's response to Commission Data Request 1-5 shows that, compared to an across-the-board distribution of the $2 million to all customers, the Company's proposed low-income credit saves a typical low-income customer $6 and costs a typical residential customer $.13 per month. In last year's filing, the Division supported the proposal of utilizing $8 million of the $16.5 million settlement credit to support the low-income class. Applying $2 million in 2007 is consistent with that.

Q. DOES THIS COMPLETE YOUR TESTIMONY?

A. Yes, it does.

BACKGROUND AND QUALIFICATIONS

Education and Employment

Dr. Stutz received a B.S. from the State University of New York at Stonybrook in 1965 and a Ph.D. from Princeton University in 1969. Both degrees are in mathematics. After completing his Ph.D., he taught and did research at the Massachusetts Institute of Technology, the State University of New York at Albany where he received tenure, and Fordham University where he held the position of associate professor of mathematics and was co-director of the program in mathematics and economics. He left Fordham to help found Tellus where he has been employed since 1976.

Tellus is a non-profit organization. It provides research and consulting services to clients in the public and private sectors in the areas of energy, environmental policy, solid waste management, water resource planning, and sustainable development.

Professional Qualifications

Dr. Stutz has extensive experience in the utility industry, particularly as an expert witness. Since 1977 he has appeared before the Federal Energy Regulatory Commission (FERC) as well as Public Utility Commissions in 39 states, the District of Columbia, and three provinces in Canada. In total, he has appeared in 197 proceedings as shown in the attached table. Most of his appearances have been in electric utility proceedings. However, he has also testified on gas and telecommunications matters. Much of Dr. Stutz's testimony has addressed ratemaking issues. Since 1979, he has appeared as a witness on ratemaking in 138 proceedings. His testimony has addressed a variety of topics, including marginal costs, embedded cost-of-service studies (COSS), service quality standards, and numerous aspects of rate design.

Since the early 1980s Dr. Stutz has testified regularly on behalf of the Staff of the Rhode Island Division of Public Utilities and Carriers on ratemaking matters. Since the mid 1990s he has also testified regularly on behalf of the Staff of the Nova Scotia Utility and Review Board. In addition, Dr. Stutz is currently working for the New Jersey Division of the Ratepayer Advocate.

Dr. Stutz's articles and comments on utility-related subjects have appeared in the *Public Utilities Fortnightly, The Electricity Journal*, and elsewhere. His paper with Thomas Austin is cited, in the second edition of Bonbright's *Principles of Public Utility Rates*, as a source of information on electric ratemaking in general and COSS in particular. He was the lead author of *Aligning Rate Design Policies with Integrated Resource Planning*, a report commissioned and published by the National Association of Regulatory Utility Commissioners (NARUC). As NARUC's preface states, Tellus was selected to prepare this report largely because of Dr. Stutz's expertise. In 2004 Dr. Stutz was an invited speaker on electricity markets at the annual CAMPUT conference, and at the Delaware PSC Conference on Standard Offer Supply.

In addition to his utility-related activities, since 1988 Dr. Stutz has worked for the United States Environmental Protection Agency (EPA), the Organisation for Economic Cooperation and Development (OECD), and various state and local agencies, on issues related to solid waste management and its impact on the environment. Over the past 3 years he has also begun to work on issues related to well-being and sustainability.

Dr. Stutz's Testimony Before Regulatory Commissions

STATE	APPEARANCES		STATE	APPEARANCES	
	Ratemaking	Planning		Ratemaking	Planning
Alabama	1		Minnesota	2	
Arizona	5		Mississippi	1	
Arkansas	1		Nevada	4	3
Canada	14		New Jersey	8	
Colorado	6	4	New York		5
Connecticut	3	3	New Mexico	6	
Delaware	3		New Hampshire	2	
District of Columbia	1		North Carolina	3	
FERC		3	Ohio	5	1
Florida	1	3	Oregon	1	
Georgia		1	Pennsylvania	2	4
Hawaii		1	Rhode Island	28	3
Illinois	1	3	South Carolina	1	
Iowa	1		Tennessee	1	
Kansas	1		Texas	7	1
Kentucky	1		Utah	2	
Louisiana	2		Vermont	3	1
Maine	11	5	Virginia	1	
Maryland	2		Washington		1
Massachusetts	1	5	West Virginia	3	
Michigan	2	12	Wisconsin	1	
				Total Ratemaking	Total Planning
				138	59

CRITERIA OF A SOUND RATE STRUCTURE

1. The related, "practical" attributes of simplicity, understandability, public acceptability, and feasibility of application.

2. Freedom from controversies as to proper interpretation.

3. Effectiveness in yielding total revenue requirements under the fair-return standard.

4. Revenue stability from year to year.

5. Stability of the rates themselves, with minimum of unexpected changes seriously adverse to existing customers. (Compare "The best tax is an old tax.")

6. Fairness of the specific rates in the appointment of total costs of service among the different customers.

7. Avoidance of "undue discrimination" in rate relationships.

8. Efficiency of the rate classes and rate blocks in discouraging wasteful use of service while promoting all justified types and amounts of use:

   (a) in the control of the total amounts of service supplied by the company;

   (b) in the control of the relative uses of alternative types of service (on-peak versus off-peak electricity, Pullman travel versus coach travel, single-party telephone service versus service from a multi-party line, etc.)

Source: James Bonbright, *Principles of Public Utility Rates*, Columbia University Press, 1961, page 291.

Exhibit JS-3

ESTIMATED FUEL INDEX PAYMENTS
($ Million)

Company Filing	Total – October 05 to September 06	September 06 Only
July 2005:		
Initial	154.7	15.2
Updated	236.8	25.3
October 2005:		
Initial	262.5	29.7
Revised	239.6	26.2
July 2006	205.4	19.7
Range of Estimates (Highest – Lowest)	107.8	14.5

Exhibit JS-4

ESTIMATES OF ANNUAL TRANSMISSION EXPENSES
($ Million)

Year	NEP Charges	ISO Charges	ISO/RTO Admin.	Total
2002	11.6	29.5	1.6	42.8
2003	11.8	25.2	1.5	38.6
2004	11.9	24.7	2.1	38.7
2005	13.9	28.3	2.1	44.2
2006	14.7	36.3	1.8	52.8
2007	16.0	44.1	1.4	61.6