State of Rhode Island and Providence Plantations

DEPARTMENT OF ATTORNEY GENERAL

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Patrick C. Lynch, Attorney General

May 13, 2008

Via Electronic & Regular Mail

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

Re: Docket No. 3789 National Grid – Long Range Gas Supply Plan

Dear Ms. Massaro:

On behalf of the Division of Public Utilities and Carrier's ("Division"), please find a memorandum of Bruce Oliver, the Division's consultant, providing comments regarding the Company's Long Range Gas Supply Plan.

Please contact me if you have any questions.

Very truly yours,

Paul J. Roberti
Assistant Attorney General
Chief, Regulatory Unit

Enclosures

cc: Thomas F. Ahern, Administrator
Service List

MEMORANDUM

TO: Steve Scialabba

FROM: Bruce R. Oliver

DATE: May 12, 2008

SUBJECT: National Grid Long Range Gas Supply Plan

I have reviewed the National Grid Long-Range Gas Supply Plan (LRGSP) that was filed on October 26, 2007, as well as the Company's responses to data requests. As you may recall from the hearings last October in the GCR proceeding, key concerns regarding the Company's Long Range Gas Supply Plan relate to not only the reliability of future service, but also the plan's ties to (1) the amount of fixed gas supply costs included in the GCR charges and (2) the determination of Asset Management incentives.

Although the Company has expressed concerns in various forums regarding the impacts of reduced gas use per customer on its recovery of fixed costs, its long-range planning analyses reflect limited evidence of those concerns. Moreover, the Company has introduced a number of new planning considerations (not discussed in previous long range planning studies)[1] in an effort to justify the composition of the portfolio gas supply resources for which costs are included in the Company's GCR charges.

Based on that review, I offer the following observations regarding the Company's Long Range Gas Supply Plan and its impacts on Gas Cost Recovery rate considerations:

1. The Company's planning assumptions and analyses take "conservative" estimation of design day, design winter, and cold snap sendout requirements to an unnecessary and weakly supported extreme. This results in substantial inflation of the amount of capacity that the Company suggests that it must maintain to provide reliable supply under peak load conditions. It also ensures that in all but the most extremely cold winters, the Company will have extra capacity resource available to enhance the value of asset management activities and increase the likelihood that National Grid will gain the benefit of Asset Management Incentives.

2. Despite using a highly conservative 1 in 100-year criterion for establishing its design day demand requirement, the Company maintains an additional 14,000 to 18,000 Dth of supply capability in each year of its long range plan.

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[1] New planning considerations addressed for the first time in the Company's October 26, 2007 LRGSP include design hour standard, "cold snap" criteria, the influences of long-term ocean warming and cooling cycles, and the influences of high wind speeds on projected sendout requirements.

3. Although requested to do so, the Company has not provided any quantitative estimates of the dollar impacts of alternative planning assumptions on its costs of providing gas service. Rather, while prior long range planning studies did not even address "cold snap" considerations as a basis for planning, the Company now asserts that "cold snap" considerations drive its need for additional gas supply resources while variations in its design day planning criteria (which traditionally have driven capacity planning considerations) would have little impact on its Fixed Gas Supply Costs.[2]

4. The pattern of monthly requirements reflected in the Company's forecast of Design Winter Throughput for GCR allocations does not reconcile with the pattern of Design Winter Sendout requirements presented in its LRGSP. Although the Company's forecast of Annual Normal Weather Gas Supply Requirements has declined 10.5% since 2004 and its forecasted Design winter requirements have declined 9.0% over the same period, National Grid's latest forecast of design day peak requirements for 2008 is only 3.4% below the level forecasted in 2004. (See Attachment A to this memorandum.) The Company's has less than disproportionately adjusted its design winter requirements such that its peak month (January) sendout requirements are maintained at comparatively high levels while sendouts for other months are reduced by more substantial amounts.[3] That, in turn, yields higher estimates for both design peak day and "cold snap" sendout requirements since the Company's estimates of design peak day and "cold snap" requirements are influenced directly by its estimate of January (peak month) sendout under design winter conditions.

5. The Company suggests in response to Division Data Request 2-8 that altering the design day or design winter criteria would not result in savings without a significant restructuring of the Company's portfolio because the "cold snap" is the design condition which is causing the need for additional capacity. This argument is not well supported by analysis or data. Moreover, the parameters of the "cold snap" that National Grid analyzes are at best arbitrary. Also, knowledge of the duration of loads during a

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[2] If National Grid is correct in this assertion, it is due to the fact that it already carries more than ample capacity to meet its forecasted design day peaks.

[3] As shown in Attachment A to this memorandum, since the preparation of the Company's 2004 Long Range Gas Supply Plan, estimated gas supply requirements for the **January** design winter peak month for the winter of 2007-2008 have been **reduced by only 1.2%** while February gas supply requirements were lowered 6.1%, March requirements were slashed by 14.6%, and December requirements were cut by 14.8%. Similar patterns of change in the relative levels of monthly gas supply requirements are also observed for subsequent years within the Company's planning period.

"cold snap" would appear to be important for modeling gas supply requirements during periods of extended cold, but National Grid's response to Division Data Request 2-5 indicates, "*The Company does not have a load duration curve for the cold snap.*"

6. The gas marginal use per degree day relationships that National Grid offers in response to Division Data Request 2-17 suggests that the sensitivity of usage to degree days increases as the number of degree days recorded for a given day increases. That relationship is inconsistent with the assumptions underlying the Company's weather-normalization adjustment within the Distribution Adjustment Clause ("DAC"). It suggests that the current Weather Normalization calculations within the DAC (which apply a uniform dollar adjustment to all degree day variations) is substantially biased in favor of the Company. In other words, given the marginal relationships between degree days and gas use National Grid cites in this proceeding, the value of revenue adjustments applied when actual degree days are below the established normal level are likely to be overstated, and revenue adjustment applied when actual degree day measures are above normal are biased toward understating the value of revenue adjustments. Both results favor the Company and its share-holders at the expense of Rhode Island ratepayers.

7. National Grid's response to Division Data Request 2-12 indicates that its assessment of the influence of wind speed and design day demands is premised on an observation made "*a number of years ago at a different utility*" when "*winds were consistently above 30 MPH.*" However, the information supporting that purported relationship is **unavailable**. The Company offers no evidence that the National Grid service territory in Rhode Island, or any substantial portion thereof, has ever experienced winds consistently above 30 MPH on a day with exceptionally cold weather. It also provides no basis for assessing the comparability of the climatic conditions for the referenced (unnamed) other utility to those in Rhode Island.[4]

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[4] The Company's response to Division Data Request 2-15 notes that over the last seven years (i.e., 2001-2007) the average wind speed during the month of January was 9.2 MPH (although no data were provided to support the calculation of that alleged average wind speed). In addition, the Company's response to Division Data Request 2-14 provides wind speeds and degree days for recent periods of *"severe cold weather,"* and none of the reported wind speeds approximates a 30 MPH rate. The Company also notes that "*in some instances the winds were significantly above average for only a portion of the day.*" Regression analyses performed on the heating degree day (HDD), wind speed and sendout data provided in response to Division Data Request 2-14 shows a strong correlation between HDDs and sendout, but no significant correlations between wind speed and sendout.

8. National Grid states in response to Division Data Request 2-13, "*There is no way to assess expected wind speeds on a design day.*" That response further suggests that "*the Company has not traditionally incorporated any allowance for wind in design conditions.*" That representation does not reconcile with the statement on page 14 of the LRGSP which suggests, "*If climate change is causing the higher wind speeds recently observed during cold conditions, the* [Company's 9 MPH] *wind speed assumption would need to be increased accordingly.*"

9. For estimation of heating degree days associated with a design day peak, National Grid uses a 1-in-100-year criterion. However, for design winter considerations it applies a 1-in-30-year criterion (with results rounded to the nearest 100 HDDs. For its "cold snap" criteria the Company starts with the coldest 10-day period in the last 60 years. It then also examines "cold snap" data for 14-day and 16-day periods associated with the identified coldest 10-day period which occurred in 1979. On the basis of those analyses, National Grid recommends expansion of its "cold snap" criteria to reflect the 14-day period from February 6 through February 19, 1979 which included 777 HDDs. The selection of each of these criteria is arbitrary.

CONCLUSION

The Company employs a combination of (a) highly conservative planning criteria, (b) significant capacity reserves above extreme design day peak requirements, and (c) a disproportionately small adjustment of peak month volumes within the Company's estimates of design winter gas supply requirements. Those planning assumptions and methods serve to inflate the size of the gas supply resource portfolio that National Grid maintains to serve Rhode Island customers. The Division remains unable to verify the appropriateness and cost-effectiveness of the portfolio of capacity resources that National Grid presently maintains for its Rhode Island gas service territory. In the absence of the ability to make such determinations, the Commission should suspend the applicability of National Grid's present Asset Management incentive mechanism effective with the start of the present GCR period (i.e., November 1, 2007). The Division also recommends that the Commission require the Company to provide, as part of each subsequent GCR filing, detailed justifications for the levels of the fixed gas supply costs and fixed storage costs that it includes in its projected gas supply costs for the next GCR period. That filing should include, but not be limited to, sensitivity analyses that assess the costs to ratepayers of maintaining (1) the Company's current 1 in 100-year design day planning criterion and (2) reserves in excess of estimated design day peak requirements. The Company should be required to provide further justification

for its assumed distribution of design winter gas supply requirements by month which has substantial influence on the results of the Company's planning analyses.

National Grid - Gas

Docket No. 3789

Comparison of Forecasted Design Weather Gas Supply Requirements For November 2007 Through October 2008

Month	2004 Long-Range Gas Supply Plan Dth	2006 Long-Range Gas Supply Plan Dth	2007 Long-Range Gas Supply Plan Dth	Change 2004 to 2006 Dth	Change 2006 to 2007 Dth	Change 2004 to 2007 Dth	Change 2004 to 2006 %	Change 2006 to 2007 %	Change 2004 to 2007 %
Nov	3,299,218	3,174,803	3,031,928	(124,415)	(142,875)	(267,290)	-3.8%	-4.5%	-8.1%
Dec	6,495,824	6,289,986	5,532,765	(205,838)	(757,221)	(963,059)	-3.2%	-12.0%	-14.8%
Jan	6,394,797	6,448,641	6,320,844	53,844	(127,797)	(73,953)	**0.8%**	**-2.0%**	**-1.2%**
Feb	6,223,530	6,411,443	5,843,774	187,913	(567,669)	(379,756)	3.0%	-8.9%	-6.1%
Mar	5,215,206	5,238,332	4,452,734	23,126	(785,598)	(762,472)	0.4%	-15.0%	-14.6%
Apr	2,828,967	2,578,947	2,369,397	(250,020)	(209,550)	(459,570)	-8.8%	-8.1%	-16.2%
May	1,593,538	1,399,361	1,450,786	(194,177)	51,425	(142,752)	-12.2%	3.7%	-9.0%
Jun	1,074,800	959,960	931,643	(114,840)	(28,317)	(143,157)	-10.7%	-2.9%	-13.3%
Jul	1,020,959	883,909	830,242	(137,050)	(53,667)	(190,717)	-13.4%	-6.1%	-18.7%
Aug	1,030,558	884,126	847,405	(146,432)	(36,721)	(183,153)	-14.2%	-4.2%	-17.8%
Sep	1,125,937	971,165	971,397	(154,772)	232	(154,540)	-13.7%	0.0%	-13.7%
Oct	2,110,018	1,884,555	1,781,466	(225,463)	(103,089)	(328,552)	-10.7%	-5.5%	-15.6%
Total	38,413,352	37,125,228	34,364,381	(1,288,124)	(2,760,847)	(4,048,971)	**-3.4%**	**-7.4%**	**-10.5%**
Design Winter									
Dec - Mar	24,329,357	24,388,402	22,150,117	59,045	(2,238,285)	(2,179,240)	**0.2%**	**-9.2%**	**-9.0%**
Design Day									
Jan 8, 2008	342,655	344,179	330,871	1,524	(13,308)	(11,784)	**0.4%**	**-3.9%**	**-3.4%**