BEFORE THE

PUBLIC UTILITIES COMMISSION
OF THE
STATE OF RHODE ISLAND
AND PROVIDENCE PLANTATIONS

IN THE MATTER OF

The National Grid Annual	)	
Gas Cost Recovery Charge	)	**Docket No. 3868**
Filing	)	

DIRECT TESTIMONY OF WITNESS BRUCE R. OLIVER

On Behalf of

The Division of Public Utilities and Carriers

October 17, 2007

TABLE OF CONTENTS

TESTIMONY OF BRUCE R. OLIVER
Docket No. 3868
October 17, 2007

I. INTRODUCTION

Q. PLEASE STATE YOUR NAME AND BUSINESS ADDRESS FOR THE RECORD.

A. My name is Bruce R. Oliver. My business address is 7103 Laketree Drive, Fairfax Station, Virginia, 22039.

Q. BY WHOM AND IN WHAT CAPACITY ARE YOU EMPLOYED?

A. I am employed by Revilo Hill Associates, Inc., and serve as President of the firm. I manage the firm's business and consulting activities, and I direct its preparation and presentation of economic, utility planning, and policy analyses for our clients.

Q. ON WHOSE BEHALF DO YOU APPEAR IN THIS PROCEEDING?

A. My testimony in this proceeding is presented on behalf of the Division of Public Utilities and Carriers (hereinafter "the Division").

Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY IN THIS PROCEEDING?

A. This testimony addresses issues relating to the National Grid (or hereinafter "the Company") Annual Gas Cost Recovery (GCR) filing. This testimony reviews and comments on the content of the September 4, 2007 direct testimony of witnesses Czekanski and Beland, as well as the attachments and schedules associated with

their pre-filed testimonies. Also included as an integral part of this presentation, is a discussion of the Company's "Long-Range Gas Supply Plan" which was filed with the Commission on August 22, 2006.

Q. WHAT EXHIBITS ARE YOU SPONSORING AS PART OF THIS TESTIMONY?

A. Attached to this testimony are five exhibits. They include:

Exhibit BRO-1	Proposed Changes in GCR Charges by Rate Classification
Exhibit BRO-2	Changes in Costs by GCR Cost Component
Exhibit BRO-3	Comparison of Changes in NYMEX Natural Gas Prices
Exhibit BRO-4	U.S. Natural Gas Storage Inventories
Exhibit BRO-5	Forecasted Weather Normal Annual Sales & Throughput
Exhibit BRO-6	Forecasted Design Winter Sales & Throughput

II. DISCUSSION OF ISSUES

Q. HOW IS YOUR DISCUSSION OF ISSUES RELATING TO THE COMPANY'S GCR FILING IN THIS PROCEEDING ORGANIZED?

A. This discussion is presented in eight parts. Part A discusses the changes in GCR charges by rate class that National Grid proposes and analyzes the changes in

costs by gas cost component that underlie those proposed rate changes. Part B examines the Natural Gas price assumptions that underlie the Company's forecasted gas costs for the 2007-2008 GCR period. Part C examines natural gas storage inventories both nationally and for the Company and assesses their influence of natural gas prices for the 2007-2008 GCR year. Part D identifies changes in the Company's forecasted sales and throughput in terms of both weather-normalized annual requirements and design winter requirements. Part D also discusses the importance of the changes identified in the Company's sales and throughput forecasts. Part E offers the findings of my review of the Company's Gas Procurement Incentive Plan (GPIP) incentive calculations for FY 2006 and the detail that supports the amount of the GPIP incentive that National Grid seeks. Part F considers the basis for the Company's requested Asset Management Incentive, and Part G reviews National Grid's reconciliation of its GCR costs and revenue for FY 2007. Finally, Part H examines the bill comparison analyses the Company provides in Attachment PCC-4 to witness Czekanski's testimony in this proceedings.

A. Changes in GCR Charges and Costs

Q. IS NATIONAL GRID PROPOSING TO INCREASE ITS GCR CHARGES?

A. No. The Company's September 4, 2007 filing proposes to decrease its GCR charges for all firm sales service rate classifications.

Q. HOW DO THE COMPANY'S PROPOSED CHANGES IN GCR CHARGES VARY BY RATE CLASSIFICATION?

A. The Company's September 4, 2007 filing proposes to decrease GCR charges for all rate classifications. For Residential and Small C&I customers, the GCR charge is reduced from $1.1048 per therm to $1.0844 per therm. That represents a decrease of $0.0204 per therm or 1.8%. **Exhibit BRO-1** details the GCR decreases by rate classification in dollars per therm and percentage terms that National Grid proposes in the September 4, 2007 testimony and exhibits of witness Peter Czekanski.

Q. WHY ARE THE PERCENTAGE DECREASES IN GCR CHARGES SHOWN IN EXHIBIT BRO-1 NOT UNIFORM ACROSS RATE CLASSES?

A. Three basic factors contribute to the differences in percentage decreases in GCR charges by rate class that National Grid proposes. Those are:

1. Differences in the rates of change in the size of the GCR cost components; and

2. Differences in the magnitude of over- or under-collections of costs by GCR component; and

3. Differences in the manner in which the five components of GCR costs are allocated among classes.

Q. HOW SIGNIFICANT ARE THE DIFFERENCES IN MAGNITUDE AND DIRECTION OF CHANGES IN COSTS BY GCR COST COMPONENT THAT NATIONAL GRID PROJECTS FOR THE 2007-08 GCR YEAR?

A. Exhibit BRO-2 page 1 compares the Company's projected GCR costs by component for the 2007-08 GCR year with the costs that it projected for the 2006-07 GCR year in its September 1, 2006 filing in Docket No. 3766. The comparison of costs by component presented on page 1 includes reconciliation amounts (i.e., adjustments for over- or under-recoveries by cost component during the prior GCR year). Page 2 of Exhibit BRO-2 depicts the changes in National Grid's projected gas costs for 2006-07 GCR year compared to prior year projections with "reconciliation amounts" excluded. The comparison on page 2 of **Exhibit BRO-2** provides a clearer picture of the actual changes in the costs of gas supply service that National Grid projects since reconciliation amounts by their very nature capture the influences of such factors as deviations from normal weather, unanticipated changes in demand, short-term effects of supply disruptions, and changes in fluctuations in market prices during the reconciliation period which may have little or no applicability to the 2007-08 GCR year.

With inclusion of reconciliation amounts, page 1 of **Exhibit BRO-2** shows a decrease of 10.8% in the Supply Variable Costs. The 10.8% percent decrease in Supply Variable Costs and the 20.3% increase for the Storage Variable Product Costs are notable changes in terms of their dollar impacts. Also notable is the Company's 28.4% decrease for the Storage Variable Non-Product Costs. Overall gas supply costs decreased 5.9% from the levels projected for the prior GCR year. However, the percentage changes shown on page 1 of Exhibit BRO-2 are influenced significantly by the magnitude of reconciliation adjustments included in the reported data.

Page 2 of **Exhibit BRO-2** provides information comparable to that contained on the prior page of **Exhibit BRO-2**, but the data on page 2 exclude reconciliation adjustments. In this context, we find that the magnitude of the reduction in Supply Variable Costs is amplified from ($25.28 million) to ($30.78 million), and the increase in Storage Variable Product costs is reduced from $6.18 million to $1.40 million. Also, the increase in Supply Fixed Costs rises from $1.71 million to $1.90 million, while the percentage reduction in Storage Variable Non-Product Costs goes from (28.4%) to (4.1%). With reconciliations excluded, the Company's overall gas costs for the 2007-08 GCR period reflect a net **decrease** of more than **$27.6 million** or **8.5%** from the levels National Grid projected in Docket No. 3766 for the 2006-07 GCR year. Moreover, that reduction in forecasted gas costs is the product

of a $29.5 million reduction in Total Variable Costs and a $1.9 million increase in Total Fixed Costs.

Q. HAVE THE COMPONENTS OF THE COMPANY'S GCR COSTS EXHIBITED CHANGES THAT ARE PROPORTIONAL TO THE PROPOSED CHANGE IN THE COMPANY'S OVERALL GAS COSTS?

A. Clearly they have not. The primary driver of the reductions in GCR charges that National Grid has proposes in this proceeding is clearly the projected reduction in Supply Variable Costs. The Commission should also note that despite significant actual and forecasted **reductions** in Annual sales volumes and in Design Winter Sales, the Company's Total Fixed Costs have **increased**.

Q. ARE THE GCR CHARGES THAT NATIONAL GRID PROPOSES THROUGH WITNESS CZEKANSKI'S SEPTEMBER 4, 2007 TESTIMONY PROPERLY COMPUTED?

A. The methods that National Grid uses in its September 4, 2007 filing to compute its proposed GCR charges are consistent with those the Company has used, and the Commission has accepted, in past GCR filings. Furthermore, the computations relied upon to derive the specific charges set forth in Mr. Czekanski's testimony and exhibits appear to be mathematically accurate. However, as I will discuss in more

detail later in this testimony, the basis for the Company's Supply Fixed Costs and Storage Fixed Costs has not been well established, and the Commission may need to alter the levels of such costs that are included in the Company's GCR rate computations.

B. Natural Gas Price Considerations

Q. HAVE THERE BEEN SIGNIFICANT DEVELOPMENTS RELATING TO THE COMPANY'S PROJECTED COSTS OF GAS FOR ITS 2007-08 GCR YEAR SINCE NATIONAL GRID SUBMITTED ITS TESTIMONY AND EXHIBITS IN THIS PROCEEDING ON SEPTEMBER 4, 2007?

A. No. Schedule GLB-1, page 3 of 18, attached to witness Beland's September 4, 2007 testimony in this proceeding indicates that the natural gas commodity prices upon which Company's filing is premised reflect NYMEX pricing as of August 17, 2007. Since that time NYMEX natural gas commodity prices for the period from November 2007 through October 2008 declined and then rose again rendering only a small net change the Company's projected gas costs when compared to the most recent data available at the time of the preparation of this testimony. Thus, as of this time, I find no need to alter the NYMEX prices used in the Company's gas cost projections for this proceeding.

Exhibit BRO-3 pages 1 and 2 illustrate the magnitude of the changes in natural gas commodity prices that have been observed in recent months and compares those recent natural gas price measures with the NYMEX natural gas commodity prices that upon which National Grid relies to estimate its variable costs for gas supply volumes for which no price locks have been established to date. Page 1 of **Exhibit BRO-3** focuses on data for the months of the 2007-2008 GCR period (i.e., November 2007 through October 2008. Page 2 of **Exhibit BRO-3** places those near-term price measures in the context of changes in longer-term NYMEX prices (i.e., monthly NYMEX natural gas commodity prices through the end of calendar year 2012) reported over the last year.

Page 1 of **Exhibit BRO-3** provides a graphic depiction of changes observed in NYMEX natural gas commodity prices since August 17, 2007. Between August 17 and August 29, 2007, NYMEX natural gas commodity prices fell. But, during late September and early October of this year most of the decline in prices for the coming winter months has been more than offset by subsequent price increases. As of October 15, 2007, NYMEX prices for all months of the forecasted 2007-2008 GCR period from November through April have prices above the levels assumed in the Company's development of its forecasted gas costs. Although prices for the summer months of 2008 remain somewhat lower than they were on August 17, 2007, the prices for those months have recovered noticeably August 29, 2007.

Furthermore, those off-peak gas use months do not carry substantial weight in the computation of National Grid's overall average commodity cost of gas.

Q. WHAT DO YOU OBSERVE FROM THE RECENT NATURAL GAS PRICE DATA REGARDING LONG-TERM NATURAL GAS PRICE EXPECTATIONS FOR THE FORECASTED GCR PERIOD AND BEYOND?

A. Exhibit BRO-3, page 2 of 2, graphs NYMEX natural gas commodity prices by month through the end of 2012 as they were reported at the close of business on each of eight separate trading days starting over roughly the last year. Based on the information graphed in Exhibit BRO-3, page 2 of 2, I offer the following observations:

- The volatility in natural gas futures prices over the past year has not been as substantial as in the prior year.

- Price for periods beyond the 2007 – 2008 GCR period have been comparatively stable over the last several months.

- For the gas to be supplied during the forecasted GCR period, the lowest NYMEX natural gas commodity prices observed within the last

year were recorded since the Company made its filing in this proceeding.

- For periods prior to the 2007-2008 GCR year, the lowest NYMEX natural gas commodity prices experienced over the last year were reported in September 2006 and January 2007.

- Over most of the post-hurricane period, natural gas prices have displayed a somewhat unusual pattern with gas prices for the coming winter at lower levels than those for one or more subsequent winters.

Based on this and other analyses of futures prices for natural gas that I have performed, I find that current natural gas prices for the twelve months ended October 2007 are at atypically low levels that are not likely to be sustainable on a long-term basis. On the other hand, I note that warmer than normal weather during the coming winter could prolong the period of atypically low near-term natural gas prices.

Q. ARE THERE OTHER CONSIDERATIONS THAT SUPPORT YOUR ASSESSMENT OF CURRENT NATURAL GAS PRICES?

A. Yes. The current differentials between natural gas and oil prices are unusually large. As of the close of NYMEX trading on October 15, 2007, the November 2007 price for Crude Oil had climbed above $86.00 per barrel and prices for all future periods through December 2015 were at or above $75.45 per barrel. Those prices, restated in terms of dollars per MMBtus, are equivalent to $13.70 and $12.00 per Dth, respectively, for natural gas. With NYMEX natural gas commodity prices now averaging under $8.00 per MMBtu, crude oil prices are now 1.5 to 1.75 times the equivalent costs for natural gas. Furthermore, as I have explained in my testimony in Docket No. 3859 relating to the Company's DAC filing, current differentials between NYMEX prices for natural gas and NYMEX prices for No. 2 heating oil are even larger than those between prices for natural gas and crude oil. Furthermore, average winter season differentials between NYMEX natural gas prices and No. 2 heating oil prices have grown steadily over the last several years rising from about $0.24 per MMBtu for the winter of 2003-04 to nearly $6.00 per MMBtu for the coming 2007-08 winter season.

These differentials between natural gas and oil prices are important for two reasons. First, the current size of the differentials between natural gas and oil prices will tend to pull natural gas prices upward despite what might otherwise be perceived as an adequate current balance in the U.S. supply and demand for natural gas. Second, large price differentials between natural gas and oil products

for end-users are likely to encourage increased shifting of demands between those fuels wherever possible, and that, in turn, may at least slow forecasted declines in overall gas use.

Q. WOULD RECOGNITION OF RECENT CHANGES IN NYMEX COMMODITY PRICES FOR NATURAL GAS IMPACT THE COMPANY'S PROJECTED GAS COSTS FOR 2007-08 GCR PERIOD?

A. Yes, but not materially. Replacing the NYMEX price data in the Company's gas cost calculations with the NYMEX natural gas prices for November 2007 through October 2008 as of the close of trading on October 15, 2007 would raise the Company's Total Gas Supply Costs for the 2007-08 GCR year, but given the substantial volumes of gas for which prices have been locked, that increase would be small.

Q. ARE YOU RECOMMENDING THAT THE COMMISSION REQUIRE NATIONAL GRID TO UPDATE IS 2007-08 GCR COSTS TO REFLECT MORE CURRENT NYMEX NATURAL GAS PRICING DATA?

A. No. Although the most recent NYMEX data could support an small increase in the Company's projected gas costs for the 2007-08 GCR period, the pricing of natural gas remains highly volatile. Although it is not possible to reliably predict the severity

of the coming winter, it appears that we would have to experience either an extreme cold winter and/or further upward movement in oil prices before significant adverse increases in natural gas costs would result. It appears more likely that the strength of storage inventories coming into the winter period coupled with (1) expectations of further reductions in gas use per customer (due to energy efficiency programs and lagged price elasticity response due to increased natural gas costs in prior periods) and (2) an expected slowing of new customer additions due to current weakness in housing markets, will help to maintain natural gas prices at levels closer to current expectations during the coming winter. Furthermore, it is possible that a mild early winter combined with the influences of conservation and further reductions in gas use per customer could yield lower than expected natural gas demand and lower NYMEX natural gas prices as we progress through the 2007-08 GCR year. Thus, raising the proposed GCR charges above the levels that National Grid has proposed would not necessarily provide for either a more accurate assessment of gas costs for the 2007-2008 GCR year or greater rate stability for National Grid's Rhode Island gas customers.

C. Natural Gas Storage

Q. WILL THE U.S. HAVE ADEQUATE NATURAL GAS IN STORAGE PRIOR TO THE START OF THE WINTER SEASON?

A. It is reasonable to expect that the U.S. will enter into the winter heating season with full storage inventories. Natural gas storage inventories are presently well above average levels for the past five years. As a result, full storage inventories should be achieved prior to the start of the coming winter season.

Exhibit BRO-4 depicts patterns in U.S. natural gas storage inventories over the last two years. The red line toward the top of the graph reflects actual storage inventory levels by week. The gray lines represent 5-year high and 5-year low natural gas inventory levels during calendar year 2007 to date. As shown in **Exhibit BRO-4**, current natural gas storage inventory levels are near the five-year high levels. Based on current natural gas storage inventories, the likelihood of attaining full storage inventories before the start of the coming winter season appears high.

As the end of the storage injection season approaches the differences between storage inventories for 2007 and those for prior years will necessarily narrow since further injections to storage this year are likely to be constrained by available storage capacity. U.S. natural gas storage capacity is presently about 3,450 Bcf. As of September 28, 2007, the U.S. had 3,263 Bcf of natural gas in

storage. Thus, attainment of full storage capacity levels requires less than 40 Bcf per week of injections over the remainder of the injection season. Over the most recent four week period for which storage injection data is presently available the U.S. has averaged injections of more than 64 Bcf per week.

However, I must caution that growth in weather sensitive gas use (primarily due to increased use of natural gas for weather-sensitive electric generation requirements) has greatly exceeded the growth in natural gas storage capacity in recent years. As a result, some concerns arise regarding the adequacy of storage inventories in the event of an extreme cold winter.

Q. DO YOU EXPECT THAT NATIONAL GRID WILL ENTER THE WINTER OF 2007-08 WITH FULL STORAGE INVENTORIES?

A. Yes, I do. The materials I have reviewed for this proceeding suggest that the Company should have no problem achieving full storage capacity levels prior to the start of the coming winter season. The objective of the Company, and the industry, every year is to enter the winter with essentially full natural gas storage, and that objective should be achieved this year. The key question is how rapidly natural gas storage inventories will be drawn down as we enter the winter season.

D. Forecasted Sales and Throughput

Q. IN LAST YEAR'S GCR PROCEEDING YOU EXPRESSED SOME RESERVATIONS REGARDING THE MEASURES OF FORECASTED GAS USE UPON WHICH THE COMPANY HAD RELIED. DO YOU HAVE SIMILAR CONCERNS IN THIS PROCEEDING?

A. No, I do not. The Company provided the detail of its forecast, as well as tests of the sensitivity of the forecast to key input assumptions prior to the filing of its testimony and exhibits in this proceeding. Based on my review of that data, I assess the Company's forecasts of sales and throughput for the 2007-2008 GCR period to be reasonable.

Q. HOW DO THE COMPANY FORECASTS OF FIRM SALES AND THROUGHPUT IN THIS PROCEEDING COMPARE WITH THOSE NATIONAL GRID PRESENTED IN DOCKET NO. 3766?

A. **Exhibit BRO-5**, page 1 of 2, compares National Grid's forecasted weather normal sales levels and FT-2 throughput by month for the 2007-08 GCR year with those that the Company forecasted a year ago for the 2006-07 GCR year. Page 2 of **Exhibit BRO-5** presents National Grid's forecasted changes in annual firm sales and FT-2 throughput by service classification. Overall the data in **Exhibit BRO-5**

depict 2.0% lower annual sales for the 2007-08 GCR year than the Company had forecasted for the prior year. They also portray a significant increase in annual throughput for FT-2 customers.

The Company's forecasted reduction in annual firm sales is a less dramatic reduction than the 5% reduction in annual sales that National Grid forecasted in Docket 3766 for the 2006-07 GCR year, but it is still a significant change for a company that had been projecting 0.5% per year growth. In addition, the Commission should note the Company's projection of a continuation of greater reductions in Winter sales than Non-Winter sales. (This pattern of reductions in forecasted weather-normalized winter sales may have significant implications for the Company's gas supply planning, both near-term and long-term.) On the other hand, the Company forecasts comparatively large **19.6%** increase in forecasted throughput for its FT-2 for the 2007-08 GCR year. That follows the 18.7% increase in FT-2 throughput that the Company forecasted in Docket No. 3766.

Despite the forecasted increase in FT-2 annual volumes, the Company's overall annual throughput for FT-2 and sales service customers is expected to decrease by 1.4% in the upcoming GCR year. The Commission should also be sensitive to the fact that the forecasted increase in National Grid's FT-2 throughput is heavily influenced by customer migration from other service classifications and **does not** reflect a strong overall increase in combined annual service volumes for

Medium, Large and Extra-Large C&I customers. To the contrary, National Grid's overall forecast of gas use for the combined Medium, Large and Extra-Large C&I sales and transportation service classifications foresees a slight decrease in their total annual throughput.

Q. HAVE YOU ALSO ANALYZED THE COMPANY FORECASTED CHANGES IN ITS DESIGN WINTER SERVICE REQUIREMENTS?

A. Yes, I have. **Exhibit BRO-6**, page 1 of 2, offers comparisons of the Company's forecasted Design Winter Sales and Throughput by month. **Exhibit BRO-6**, page 2 of 2, compares forecasted Design Winter Sales and Throughput by month for the 2006-07 and 2007-08 GCR years by rate classification. These analyses portray a rather dramatic **13.8%** forecasted **reduction in Design Winter Sales** volumes. They also show a **12.9% overall reduction** in Design Winter Total Sales and FT-2 throughput requirements.

With forecasted design winter sales declining by a greater percentage than annual sales, the Company's annual load factor should improve noticeably. The Commission should also question the impacts of such large reductions in design winter sales on the Company's design peak day demand requirements. Its seems hard to conceive that National Grid's design winter throughput requirements could fall so sharply without a noticeable impact on the Company's forecasted design

winter peak demands. Yet, nothing in the Company's filing in this proceeding addresses the relationship between National Grid's available resources for meeting forecasted design day peak requirements, changes in its forecasted peak day and design winter demands, and the costs of maintaining excess capacity resources.

Q. HAVE THE COMPANY'S FORECASTED CHANGES IN ANNUAL AND DESIGN WINTER SALES IMPACTED ITS FORECASTED GAS SUPPLY REQUIREMENTS AND LONG RANGE GAS SUPPLY PLANNING?

A. This cannot be fully assessed at this point. Following the completion of hearings in last year's GCR proceeding (Docket No. 3766), the Commission established Docket No. 3789 to pursue further concerns the Division had raised regarding the adequacy and appropriateness of the "Long Range Gas Supply Plan" that the Company had filed on August 22, 2006. After the Division filed its assessment of the Company's August 22, 2006 "Long Range Gas Supply Plan", National Grid filed a letter with the Commission on February 15, 2007, committing to the preparation and filing of a new Long-Term Gas Supply Plan by August 15, 2007. However, due to resource constraints, National Grid was unable to make its August 15, 2007 filing date for a new Long-term Gas Supply Plan, and requested a few additional weeks to complete that plan. The plan has not been filed yet, and the Commission is confronted with the question of how to establish appropriate baseline costs for the Company's Asset

Management Incentive Plan for the 2007-2008 GCR year without detailed justification for the amount of gas supply resources, as well as Fixed Gas Supply Costs and Fixed Storage Costs, to which the Company has committed.

Q. IN DOCKET 3766 YOU RAISED CONCERNS REGARDING THE COMPANY'S AUGUST 22, 2006 LONG RANGE GAS SUPPLY PLAN AND RECOMMENDED THAT THE COMMISSION UNDERTAKE A MORE IN-DEPTH EXAMINATION OF THAT PLAN. HAVE YOUR CONCERNS BEEN ADEQUATELY ADDRESSED TO DATE?

A. The Company has addressed concerns relating to its forecasts of annual sales and throughput requirements, but it has not addressed the relationship between forecasted changes in annual and design winter throughput requirements and either (1) changes in its design day peak demands or (2) the need for changes in its portfolio of resources to serve forecasted design winter and design peak day requirements.

E. GPIP Incentive Calculations

Q. HAS THE COMPANY COMPUTED GAS PROCUREMENT INCENTIVE AMOUNTS FOR THE 12 MONTH PERIOD ENDED JUNE 2006?

A. Yes. The testimony of witness Gary Beland discusses those computations and presents supporting detail for its proposed incentive amounts in Schedule GLB-9.

Q. WHAT AMOUNT OF GAS PROCUREMENT INCENTIVE IS SUPPORTED BY THE COMPUTATIONS THAT NATIONAL GRID PRESENTS IN SCHEDULE GLB-9?

A. The Company's computations in Schedule GLB-9 support a **net incentive** to be credited to National Grid in the amount of **$361,083.66**.

Q. DO YOU FIND ANY REASON TO QUESTION THE ACCURACY OR APPROPRIATENESS OF THE COMPANY'S INCENTIVE COMPUTATIONS?

A. I have reviewed the supporting detail for the Company's mandatory and discretionary gas purchases for FY 2007, and I find that the Company has understated its achieved savings for the month of June 2007. Schedule GLB-9 reflects a net gain of $50,735.06 for that month, but my review of the supporting detail for the Company's calculations finds that one discretionary purchase of 2,000 Dth per day was left out of the data for the month of June 2007 on page 8 of Schedule GLB-9. As a result, the volume of discretionary purchases is understated, and the weighted average NYMEX price for those purchases for that month is overstated. The total discretionary purchase volume for June 2007 should be 174,630 Dth, and the weighted average NYMEX price for June 2007 should be

$7.936 per Dth. Thus, the net gain for June 2007 increases by $33,055.81 to $83,790.87. These adjustments yield $3,305.58 of additional GPIP Incentives for National Grid for June 2007, and a revised Total GPIP Incentive payment for the Company for FY 2007 of **$364,389.24.**

Overall my analysis of National Grid's procurement activity finds that the Company has acted within the provisions of the plan to produce noticeable cost savings for Rhode Island customers. In total, the Company's discretionary purchases produced roughly $1.5 million of documented gas cost savings for FY 2007. Finally, I note that the additional $3,305.58 of GPIP Incentive payments for National Grid has no meaningful impact on the Company's overall costs of gas or its proposed GCR charges. Thus, I recommend Commission approval of the amended GPIP incentive amount that I have calculated herein.

Q. HAVE YOU REVIEWED THE CHANGES NATIONAL GRID WITNESS BELAND PROPOSES IN THE GPIP IN THIS PROCEEDING?

A. Yes, I have.

Q. SHOULD THE COMMISSION APPROVE THE CHANGES IN THE GPIP THAT WITNESS BELAND PRESENTS ON BEHALF OF NATIONAL GRID?

A. I recommend that the Commission should make two changes to the revised GPIP tariff pages that are provided in Schedule GLB-8 before accepting those revised tariff pages for implementation.

First, throughout the provision of the GPIP, the Company proposes to replace the words "purchase" and "purchases" with the "hedge" and "hedges." Although I understand that the Company plans to make greater use of financial hedges in the future, I do not believe that it is necessary or appropriate to limit the Company's options solely to the use of "hedges." At some point in the future, it is possible that "purchases" could once again become the preferred alternative, yet removal of all references to purchases in the GPIP provisions of the tariff could unnecessarily impede the use of that option. Thus, I suggest that the Commission replace the words "hedge" and "hedges" in the Company's proposed tariff language with "purchase and/or hedge" and "purchases and/or hedges."

Second, National Grid proposes to ad a paragraph "e" under Section III.A.1. of the GPIP which states:

> "The Company will make the financial hedges in increments of one contract, 10,000 Dth. The Company will adjust the schedule of hedging to achieve the required mandatory level."

I have no problem with the basic intent of this provision. However, I believe that, to ensure consistency with the structure of the current mandatory

purchase/hedge provisions of the plan, the Commission should add language to this provision which requires:

> *"Within the constraints of 10,000 Dth contract increments, the Company should seek to maximize the uniformity of monthly mandatory purchase/hedge volumes over the 20 months period specified in paragraph III.A.1.c."*

I have discussed both of these proposed changes with witness Beland for National Grid, and he indicated that he had no problem with either of them.

F. Asset Management Incentive

Q. DOES NATIONAL GRID SEEK APPROVAL IN THIS PROCEEDING OF AN INCENTIVE PAYMENT FOR THE COMPANY UNDER THE PROVISIONS OF ITS ASSET MANAGEMENT INCENTIVE PLAN?

A. Yes. Schedule GLB-11 provides support for the Company's asset management incentive determination. As shown in that schedule, National Grid's calculations support an incentive payment of **$52,181**.

Q. IS THE AMOUNT OF THE ASSET MANAGEMENT INCENTIVE PROPERLY COMPUTED?

A. Yes. Accepting *arguendo* the appropriateness of the level of Fixed Gas Supply presently included in the Company's GCR charges, I find the Company's calculations to be mathematically correct and in compliance with the terms of the Commission's approved asset management incentive structure.

Q. DO YOU RECOMMEND THAT THE COMMISSION ACCEPT NATIONAL GRID'S ASSET MANAGEMENT INCENTIVE CALCULATIONS FOR FY 2007 AS PRESENTED?

A. No, I do not. As I explained in Docket No. 3766, the Company's asset management incentive mechanism is dependent upon the Commission approving levels of Fixed Supply Costs and Fixed Storage Costs, as well as a portfolio of pipeline, storage and peaking resources that is reasonably consistent with meeting the Company's design winter and design peak day supply requirements. With the significant declines in forecasted weather normal throughput requirements that have been reflected in the Company's filing in this proceeding, as well as in Docket No. 3766, the appropriateness of the Company's gas supply capacity planning and the Fixed Gas Supply Costs and Fixed Storage Costs need to be carefully examined.

Before the Commission can conclude that the level of fixed costs included in the Company's GCR costs is reasonable, the base of costs from which asset management incentives is computed must be determined to be consistent with the

Company's capacity requirements. The importance of appropriate long range gas supply planning was discussed in a report that the Division filed with this Commission on February 5, 2007 in Docket No. 3789. The conclusion of those comments summarized the Division's concerns regarding National Grid's gas supply planning as follows:

> *Recent events, including a significant downward adjustment to the Company's forecasted normal weather and design winter gas supply requirements in its 2007 GCR filing, require renewed focus on the Company's long-term gas supply planning. The Division's review of the Company's 2006 Plan finds that it does not provide the Commission with the information needed to understand and appreciate either: (a) the costs and risks associated with increased uncertainties regarding future gas supply requirements or (b) the premises upon which the Company undertakes it's planning. Although the Division finds that the Company's fixed gas costs for the 2006-07 GCR year provide a reasonable basis for computing Asset Management Incentives for that period, the Division cannot confidently conclude that the Company's 2006 Plan reasonably or appropriately depicts Rhode Island's the long-term gas supply requirements. Rather, the Division finds indications that National Grid's estimates of long-range gas supply requirements may be overstated, and that the configuration of the Company's gas supply portfolio that is less than optimal. Thus, the Division recommends that the Commission require more frequent preparation of gas supply planning studies, as well as expansion of the content of such long-range gas supply planning reports.*[1]

[1] See page 11 of the "Division of Public Utilities and Carriers Evaluation of National Grid Long Range Gas Supply Plan," filed February 5, 2007, in Docket No. 3789. (A copy of which is provided as **Appendix A** to this testimony.)

The concerns expressed above become even more critical in the context of (1) the further reductions in forecasted annual and design winter requirements that the Company has presented in this proceeding and (2) the absence of a new long-range gas supply plan that addresses the Division's stated concerns.

At this time, I am not in a position to provide the Commission an opinion on either the appropriateness of the Company's Fixed Supply Costs and Fixed Storage Costs. Nor, do I have appropriate basis upon which to offer recommendations regarding the reasonableness of the Fixed Gas Supply Costs and Fixed Storage Costs that would underlie any determination of Asset Management Incentives for National Grid for the 2007-2008 GCR period. In this context, I must recommend that the Commission suspend National Grid's Asset Management Incentive Plan and deny any increase in the Company's Supply Fixed Costs and Storage Fixed Costs until such time that the Company has demonstrated the appropriateness of those costs to the Commission's satisfaction in the context of a well-conceived and properly developed Long Range Gas Supply Plan for Rhode Island.

Q. ARE THERE OTHER REASONS FOR THE COMMISSION TO BE PARTICULARLY SENSITIVE TO THE COMPANY'S LONG-RANGE GAS SUPPLY PLANNING ACTIVITIES AT THIS TIME?

A. Yes. With the completion of the merger between National Grid and Keyspan, it appears the primary responsibility for gas procurement and gas supply planning for Rhode Island may be shifted to persons located outside of Rhode Island who may have little familiarity with, or focus on, the needs of Rhode Island consumers. Thus, the establishment of a sound planning base for the Company's gas supply provides this Commission a key tool for ensuring that adequate and appropriate levels of gas supply resources are provided for Rhode Island and ensure the continuation of reliable gas supply for consumers in the State.

G. Gas Cost Reconciliations

Q. HAVE YOU REVIEWED THE COMPANY'S RECONCILIATION OF GAS COSTS FOR THE TWELVE MONTHS ENDED JUNE 30, 2007?

A. Yes, I have. Schedule PPC-2 to witness Czekanski's August 1, 2007 testimony provides a copy of the Company's "Annual Gas Cost Recovery Reconciliation." In that reconciliation report, the Company presents its costs and revenue collections by month for each of the major components of its Gas Supply Costs for the twelve months ended June 30, 2007. I have reviewed that document in detail. However, I have not had the opportunity to review the source data from which those reconciliations were developed.

Q. SHOULD THE COMMISSION ACCEPT THE COMPANY'S ANNUAL GAS COST RECOVERY RECONCILIATION AS FILED?

A. In general, the Company's Annual Gas Cost Recovery Reconciliations appear to reasonable and appropriately computed.

H. Bill Impact Analyses

Q. YOU HAVE PREVIOUSLY RAISED CONCERNS REGARDING THE REPRESENTATIVENESS OF THE "TYPICAL" CUSTOMER USAGE LEVELS THAT THE COMPANY PRESENTS IN ITS BILL COMPARISONS. HAVE THOSE CONCERNS BEEN BY THE COMPANY IN THIS PROCEEDING?

A. National Grid has adjusted the usage data used in Schedule PCC-4 in this proceeding when compared to the usage levels used in similar bill comparisons that it presented in the prior GCR Docket No. 3766. . In doing so, the Company has also replaced measures of "typical" use with measures of "average customer" use for all rate classes. As shown below, the ranges of usage reflected in the Company's bill comparisons now clearly capture average usage levels for all classes of customers. However, the measures of "average" customer use that National Grid uses in Schedule PCC-4 reflect significant reductions from the

average use per customer figures the Company provided in Docket No. 3766.[2] Forecasted average use per customer for the Residential Non-Heating class reflects a decline of 53 therms per year or nearly 22%. Likewise, average annual use per customer for the other classes shown below declines between 21% and 23%.

	Bill Comparison Usage Ranges		WN Annual Use/Customer	
			Actual	Forecasted
	Dkt. 3766	Dkt. 3868	FY 2006[3]	2008 GCR Yr
Res Non-Heating	115 - 191	**123 - 256**	242	**189**
Res Heating	776 - 1,294	**600 - 1,247**	1,164	**922**
C&I Small	932 - 1,553	**824 - 1,715**	1,608	**1,269**
C&I Medium	7,761 - 12,935	**7,117 - 14,783**	14,304	**10,950**

Q. DOES THIS CONCLUDE YOUR TESTIMONY?

A. Yes, it does.

[2] See page 29 of the Direct Testimony of Division witness Bruce R. Oliver filed October 12, 2006 in Docket No. 3766.

[3] Average weather normalized annual gas use per customer for FY 2006 as indicated in National Grid's response to Division Data Request 1-3 in Docket No. 3760.

National Grid

Docket No. 3868

Proposed Changes in GCR Charges by Rate Classification

Based on NG's September 4, 2007 Filing

Rate Classification	Current GCR Rate ($/Therm)	NEG Proposed GCR Rate ($/Therm)	Increase (Decrease) $ ($/Therm)	Increase (Decrease) %
Residential				
Non-Heating	$1.1304	$1.0844	($0.0460)	-4.1%
Heating	$1.1304	$1.0844	($0.0460)	-4.1%
Commercial & Industrial				
Small	$1.1304	$1.0844	($0.0460)	-4.1%
Medium	$1.1239	$1.0835	($0.0404)	-3.6%
Large Low Load Factor	$1.1384	$1.0875	($0.0509)	-4.5%
Large High Load Factor	$1.0913	$1.0614	($0.0299)	-2.7%
Extra Large Low Load Factor	$1.1313	$1.0844	($0.0469)	-4.1%
Extra Large High Load Factor	$1.0767	$1.0513	($0.0254)	-2.4%
Natual Gas Vehicles	$0.8680	$0.7901	($0.0779)	-9.0%
FT-2 Storage Service Charge	$0.0469	$0.0501	$0.0032	6.7%

National Grid

Docket No. 3868

Changes in Costs by GCR Cost Component (Including Reconciliation Amounts)

Based on NG's September 4, 2007 Filing

GCR Cost Component	Forecasted Annual Cost 2006-07 1/	Forecasted Annual Cost 2007-08 2/	Change $	Change %
Supply Fixed Costs	$ 26,584,502	$ 28,296,550	$ 1,712,048	6.4%
Storage Fixed Costs	$ 10,169,127	$ 10,666,605	$ 497,478	4.9%
Supply Variable Costs	$ 233,992,774	$ 208,714,393	$ (25,278,381)	-10.8%
Storage Variable Product Costs	$ 30,463,207	$ 36,643,678	$ 6,180,471	20.3%
Storage Variable Non-Product Costs	$ 3,306,953	$ 2,368,744	$ (938,209)	-28.4%
TOTAL	$ 304,516,563	$ 286,689,970	$ (17,826,593)	**-5.9%**
Total Fixed Costs	$ 36,753,629	$ 38,963,155	$ 2,209,526	6.0%
Total Variable Costs	$ 267,762,934	$ 247,726,815	$ (20,036,119)	**-7.5%**

1/ Source: Docket No. 3766, Schedule PCC-1, September 1, 2006, pages 2-5.

2/ Source: Docket No. 3868, Schedule PCC-1, September 4, 2007, pages 2-5.

National Grid

Docket No. 3868

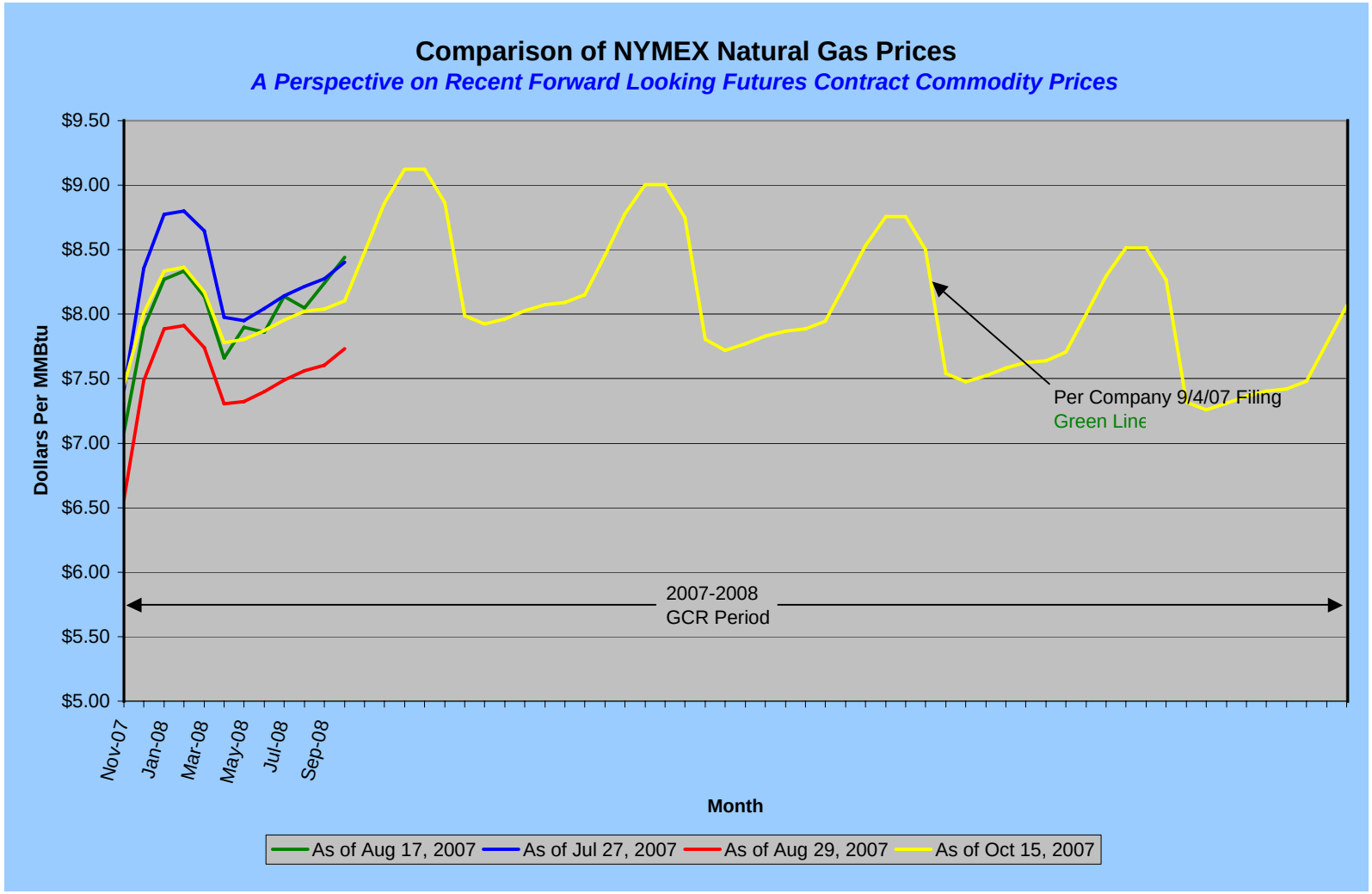
Changes in Costs by GCR Cost Component (Excluding Reconciliation Amounts)

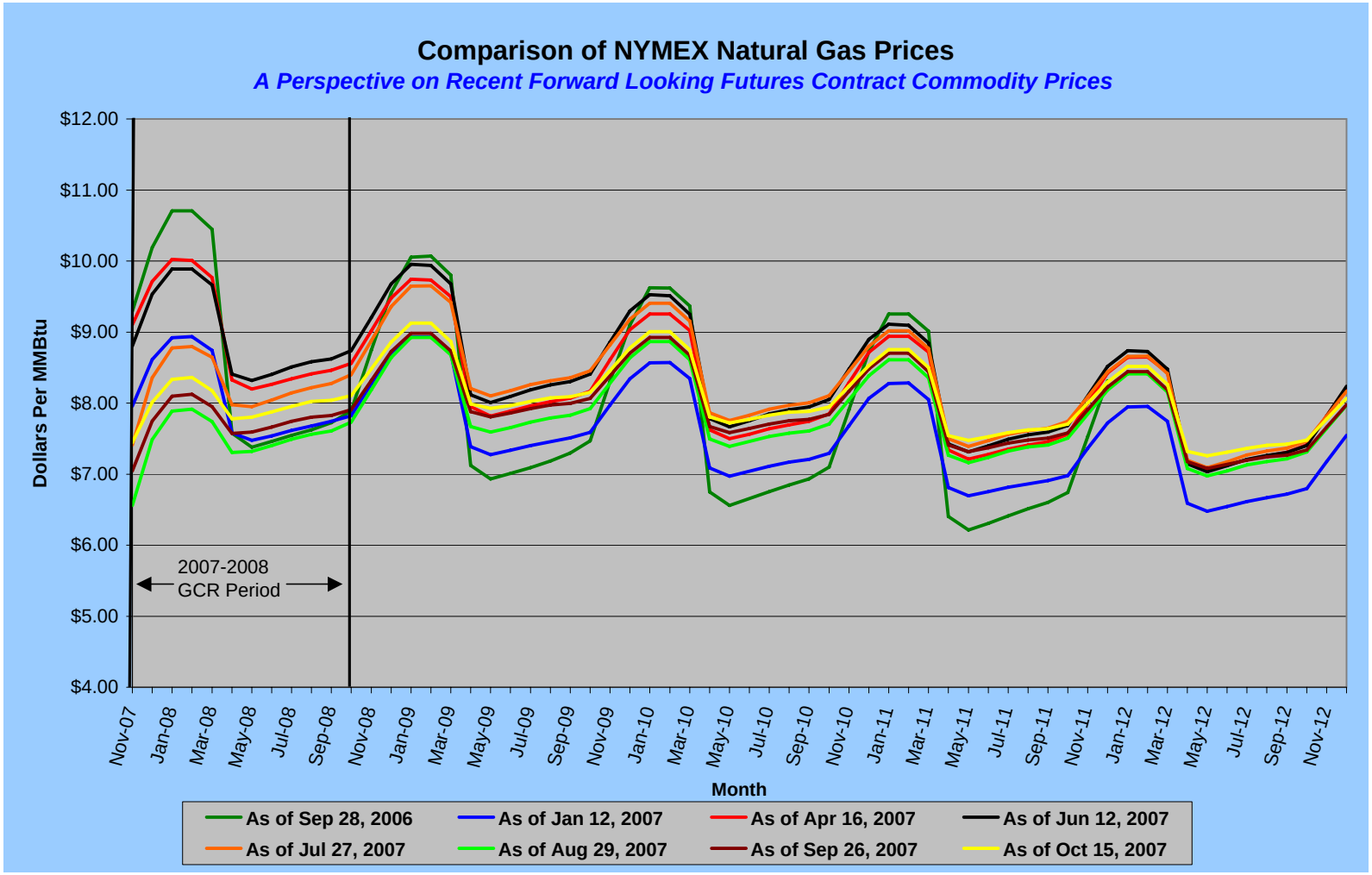
Based on NEG's September 4, 2007 Filing

GCR Cost Component	Forecasted Annual Cost 2006-07 1/	Forecasted Annual Cost 2007-08 2/	Change $	Change %
Supply Fixed Costs	$ 26,157,117	$ 28,059,650	$ 1,902,533	7.3%
Storage Fixed Costs	$ 10,350,168	$ 10,353,518	$ 3,350	0.0%
Supply Variable Costs	$ 248,987,539	$ 218,204,251	$ (30,783,288)	-12.4%
Storage Variable Product Costs	$ 33,925,885	$ 35,329,933	$ 1,404,048	4.1%
Storage Variable Non-Product Costs	$ 3,730,919	$ 3,576,236	$ (154,683)	-4.1%
TOTAL	$ 323,151,628	$ 295,523,588	$ (27,628,040)	-8.5%
Total Fixed Costs	$ 36,507,285	$ 38,413,168	$ 1,905,883	5.2%
Total Variable Costs	$ 286,644,343	$ 257,110,420	$ (29,533,923)	-10.3%

1/ Source: Docket No. 3766 Schedule PCC-1, September 1, 2006, pages 2-5.

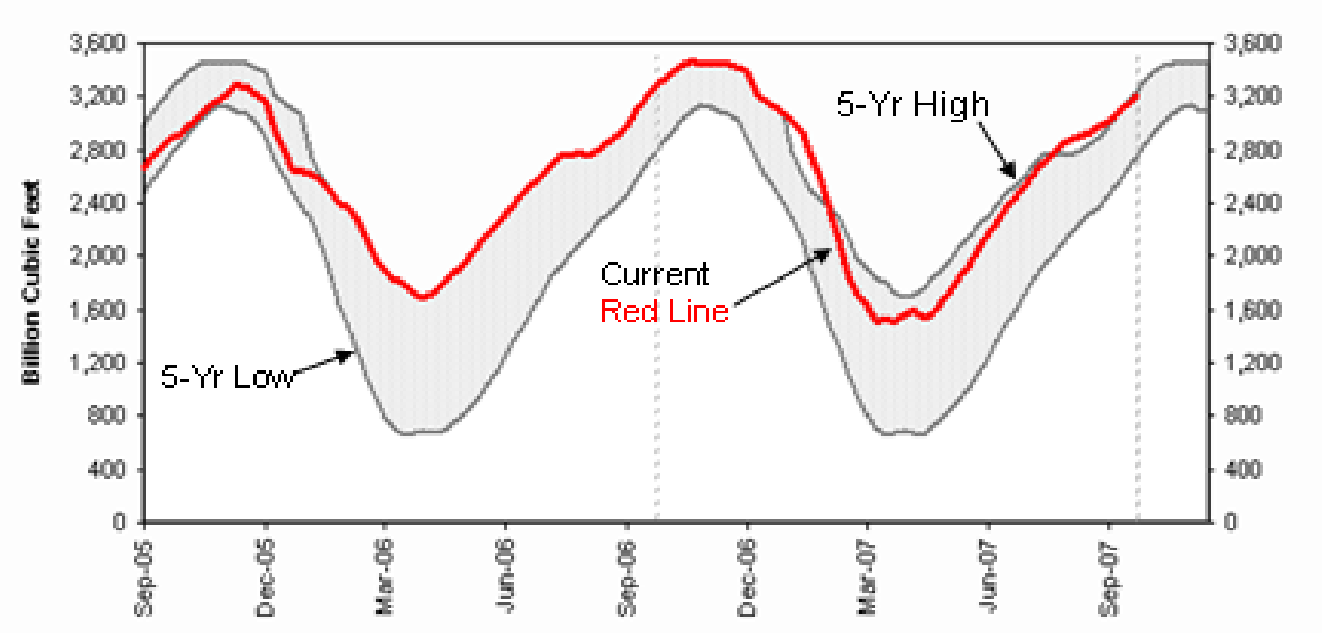
2/ Source: Docket No. 3868 Schedule PCC-1, September 4, 2007, pages 2-5.


Comparison of NYMEX Natural Gas Prices
A Perspective on Recent Forward Looking Futures Contract Commodity Prices
$9.50
$9.00
$8.50
$8.00
$7.50
$7.00
$6.50
$6.00
$5.50
$5.00
Dollars Per MMBtu
Per Company 9/4/07 Filing
Green Line
2007-2008
GCR Period
Nov-07
Jan-08
Mar-08
May-08
Jul-08
Sep-08
Month
As of Aug 17, 2007
As of Jul 27, 2007
As of Aug 29, 2007
As of Oct 15, 2007


Comparison of NYMEX Natural Gas Prices
A Perspective on Recent Forward Looking Futures Contract Commodity Prices
Dollars Per MMBtu
$12.00
$11.00
$10.00
$9.00
$8.00
$7.00
$6.00
$5.00
$4.00
2007-2008
GCR Period
Nov-07
Jan-08
Mar-08
May-08
Jul-08
Sep-08
Nov-08
Jan-09
Mar-09
May-09
Jul-09
Sep-09
Nov-09
Jan-10
Mar-10
May-10
Jul-10
Sep-10
Nov-10
Jan-11
Mar-11
May-11
Jul-11
Sep-11
Nov-11
Jan-12
Mar-12
May-12
Jul-12
Sep-12
Nov-12
Month
As of Sep 28, 2006
As of Jan 12, 2007
As of Apr 16, 2007
As of Jun 12, 2007
As of Jul 27, 2007
As of Aug 29, 2007
As of Sep 26, 2007
As of Oct 15, 2007

Natural Gas Storage Once Again Approaches Full Inventory Levels

As We Near the Start of the Winter Season



National Grid

Docket No. 3868

Forecasted Weather Normal Annual Sales & Throughput by Month

	Forecasted 2006-07 Sales 1/ (MMBtu)	Forecasted 2007-08 Sales 2/ (MMBtu)	2007-08 Forecasted Sales vs. 2006-07 (MMBtu)	% Sales Increase (%)
Sales				
November	1,897,136	1,811,972	(85,164)	-4.5%
December	3,196,190	3,192,544	(3,646)	-0.1%
January	4,593,118	4,375,567	(217,551)	-4.7%
February	4,549,366	4,481,087	(68,279)	-1.5%
March	4,138,755	4,082,503	(56,252)	-1.4%
April	3,194,894	3,158,996	(35,898)	-1.1%
May	1,759,724	1,812,913	53,189	3.0%
June	1,086,981	966,677	(120,304)	-11.1%
July	775,174	758,007	(17,167)	-2.2%
August	654,879	643,729	(11,150)	-1.7%
September	727,728	752,909	25,181	3.5%
October	962,067	946,793	(15,274)	-1.6%
Total Sales	27,536,013	26,983,697	(552,315)	-2.0%
Winter Sales	18,374,565	17,943,673	(430,892)	-2.3%
Non-Winter Sales	9,161,447	9,040,024	(121,423)	-1.3%
FT-2 Throughput				
November	54,736	63,112	8,376	15.3%
December	83,395	102,155	18,760	22.5%
January	108,695	137,225	28,530	26.2%
February	108,598	135,423	26,825	24.7%
March	103,308	126,755	23,447	22.7%
April	81,832	98,798	16,966	20.7%
May	52,833	64,043	11,210	21.2%
June	36,546	40,468	3,922	10.7%
July	32,698	34,363	1,665	5.1%
August	28,298	28,499	201	0.7%
September	27,895	30,961	3,066	11.0%
October	35,558	40,522	4,964	14.0%
Total FT-2 Throughput	754,391	902,323	147,932	19.6%
Winter Throughput	458,732	564,670	105,938	23.1%
Non-Winter Throughput	295,660	337,654	41,994	14.2%
Total Throughput	28,290,403	27,886,020	(404,383)	-1.4%

1/ Source: Schedule PCC-1, page 12, filed September 1, 2006.

2/ Source: Schedule PCC-1, page 12, filed September 4, 2007.

National Grid

Docket No. 3868

Forecasted Normal Weather Annual Sales & Throughput by Rate Class

	Forecasted 2006-07 Sales 1/ (MMBtu)	Forecasted 2007-08 Sales 2/ (MMBtu)	Forecasted Sales Increase (MMBtu)	% Increase
Sales				
Residential Non-Heat	617,594	596,281	(21,313)	-3.5%
Residential Heat	18,144,431	17,730,700	(413,731)	-2.3%
Small C&I	2,315,913	2,344,809	28,896	1.2%
Medium C&I	4,067,641	3,965,500	(102,141)	-2.5%
Large LLF	1,431,111	1,362,298	(68,813)	-4.8%
Large HLF	417,103	438,284	21,181	5.1%
Extra Large LLF	158,520	102,977	(55,543)	-35.0%
Extra Large HLF	383,700	442,848	59,148	15.4%
Total Sales	27,536,014	26,983,696	(552,316)	-2.0%
FT-2 Throughput				
Medium C&I	470,979	516,012	45,033	9.6%
Large LLF	161,492	272,807	111,315	68.9%
Large HLF	80,540	76,258	(4,282)	-5.3%
Extra Large LLF	20,031	15,995	(4,036)	-20.1%
Extra Large HLF	21,350	21,252	(98)	NM
Total FT-2 Throughput	754,392	902,324	147,932	19.6%
Total Throughput	28,290,406	27,886,020	(404,386)	-1.4%

1/ Source: Schedule PCC-1, page 13, filed September 1, 2006.

2/ Source: Schedule PCC-1, page 12, filed September 4, 2007.

NM indicates Not Meaningful

National Grid

Docket No. 3766

Forecasted Design Winter Sales & Throughput by Month

	Forecasted 2006-07 Sales 1/ (MMBtu)	Forecasted 2007-08 Sales 2/ (MMBtu)	Forecasted Sales Increase (MMBtu)	% Increase
Sales				
November	1,896,755	1,811,973	(84,782)	-4.5%
December	3,602,863	3,245,865	(356,998)	-9.9%
January	5,390,637	4,549,570	(841,067)	-15.6%
February	5,416,008	4,610,492	(805,516)	-14.9%
March	5,133,206	4,267,309	(865,897)	-16.9%
Total Sales	21,439,469	18,485,209	(2,954,260)	-13.8%
FT-2 Throughput				
November	54,728	63,113	8,385	15.3%
December	91,820	109,221	17,401	19.0%
January	124,303	161,698	37,395	30.1%
February	126,141	152,695	26,554	21.1%
March	124,353	151,544	27,191	21.9%
Total FT-2 Throughput	521,344	638,271	116,927	22.4%
Total Throughput	21,960,813	19,123,480	(2,837,333)	-12.9%

1/ Source: Schedule PCC-1, page 13, filed September 1, 2006.

2/ Source: Schedule PCC-1, page 13, filed September 4, 2007.

National Grid

Docket No. 3868

Forecasted Design Winter Sales & Throughput by Rate Class

	Forecasted 2006-07 Sales 1/ (MMBtu)	Forecasted 2007-08 Sales 2/ (MMBtu)	Forecasted Sales Increase (MMBtu)	% Increase
Sales				
Residential Non-Heat	332,140	298,081	(34,059)	-10.3%
Residential Heat	14,364,142	11,943,772	(2,420,370)	-16.9%
Small C&I	1,928,268	1,640,408	(287,860)	-14.9%
Medium C&I	3,071,414	2,947,241	(124,173)	-4.0%
Large LLF	1,195,784	1,117,140	(78,644)	-6.6%
Large HLF	237,162	244,027	6,865	2.9%
Extra Large LLF	126,113	79,618	(46,495)	-36.9%
Extra Large HLF	184,446	214,922	30,476	16.5%
Total Sales	21,439,469	18,485,209	(2,954,260)	-13.8%
FT-2 Throughput				
Medium C&I	316,151	346,216	30,065	9.5%
Large LLF	138,136	228,055	89,919	65.1%
Large HLF	40,349	38,943	(1,406)	-3.5%
Extra Large LLF	15,782	13,457	(2,325)	-14.7%
Extra Large HLF	10,926	11,600	674	6.2%
Total FT-2 Throughput	521,344	638,270	116,926	22.4%
Total Throughput	21,960,813	19,123,479	(2,837,334)	-12.9%

1/ Source: Schedule PCC-1, page 13, filed September 1, 2006.

2/ Source: Schedule PCC-1, page 13, filed September 4, 2007.