

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
Filing

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)
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Docket No. 4872

DIRECT TESTIMONY OF WITNESS
BRUCE R. OLIVER

On Behalf of

The Division of Public Utilities and Carriers

October 16, 2018

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LIST OF ATTACHMENTS

- DIV-GCR-1 Major Components of National Grid's GCR Cost Recovery Requirements
- DIV-GCR-2 Increases in National Grid's Projected Fixed Gas Costs (*Less Capacity Release Credits*)
- DIV-GCR-3 National Grid's Projected Fixed and Variable Gas Costs *including All Cost Deferrals and Adjustments*
- DIV-GCR-4 National Grid's Proposed Changes in GCR Charges and Percentage Increases by Rate Class
- DIV-GCR-5 Unjustified Fixed Costs Additions (**CONFIDENTIAL**)
- DIV-GCR-6 Incremental Costs for Replacement of Cumberland LNG Tank Supplies (**CONFIDENTIAL**)
- DIV-GCR-7 The Division's Recommended GCR Charges

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I. INTRODUCTION

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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 the preparation and presentation of economic, utility planning, and regulatory 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. HAVE YOU PARTICIPATED IN PRIOR GCR PROCEEDINGS BEFORE THIS COMMISSION?

A. Yes, I have been a participant in every Annual Gas Cost Recovery filing review before this Commission for more than two decades. I have either filed testimony or a memorandum reviewing each Annual Gas Cost Recovery filing made by National Grid (hereinafter "National Grid" or "the Company") since it acquired

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1 Rhode Island operations of Southern Union Gas Company, as well as each of the
2 GCR filings submitted by Southern Union, Providence Gas Company, Valley Gas
3 Company, and Bristol & Warren Gas Company since the mid-1990s.

4
5 **Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY IN THIS PROCEEDING?**

6 A. This testimony addresses issues relating to National Grid's Annual Gas Cost
7 Recovery (GCR) filing. This testimony examines the content of the August 31,
8 2018 direct testimony and attachments of witnesses Culliford, Arangio Leary, Poe
9 and Protano for National Grid (hereinafter "National Grid" or "the Company") as
10 well as responses to Division Data Requests in this proceeding.

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II. SUMMARY

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14 **Q. HOW IS YOUR SUMMARY OF THIS TESTIMONY PRESENTED?**

15 A. My summary of this testimony is presented in three parts. First, I provide an
16 overview of my assessment of National Grid's GCR filing in this proceeding and
17 key issues relating to that filing. Second, I present key findings from the Division's
18 review of the Company's filing. Third, I offer recommendations for Commission
19 action with respect to the costs that National Grid seeks to recover through its
20 2018-19 GCR charges, and steps the Commission can take to improve the GCR
21 review process.

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1 **A. Overview**

2

3 **Q. WHAT IS YOUR OVERALL ASSESSMENT OF NATIONAL GRID'S 2018**
4 **ANNUAL GCR FILING?**

5 A. The Company's testimony, exhibits and responses to data requests depict
6 substantial increases in National Grid's gas costs for the coming November 1,
7 2018 to October 31, 2019 GCR period ("the 2018-19 GCR Year"). A significant
8 driver of those increases is the deferral of costs from the current 2017-18 GCR
9 Year that resulted from the extreme cold weather encountered in late December
10 2017 and the first part of January 2018. However, the impacts of those substantial
11 cost deferrals are amplified by the Company's introduction of new Fixed Cost
12 commitments which add dramatically to the Company's annual GCR cost recovery
13 requirements.

14 The combination of fixed cost increases, cost deferrals and projected
15 increases in gas commodity costs will cause most National Grid customers, and
16 particularly heating customers, to experience significant GCR increases in their
17 gas costs over the 2018-19 GCR Year. For the first four months of the 2018-19
18 GCR Year (i.e., November 2018 through February 2019), heating customer's GCR
19 charges will be 37.5% above the levels they paid last year. Moreover, particularly
20 large percentage increases will be experienced by gas marketers who pay FT-2
21 demand charges and Storage and Peaking charges which would rise by more than
22 90%.

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1 When the interim adjustment to National Grid's GCR rates was approved
2 by this Commission last March, it was understood that National Grid would defer
3 substantial gas costs (approximately \$23 million¹) for recovery through GCR
4 charges for the 2018-19 GCR Year.² However, in this proceeding, the burdens of
5 large gas cost deferrals from last winter have been compounded by National Grid's
6 commitments to **\$27 million** of additional fixed cost payments to ensure its access
7 to gas supplies under design day conditions and reduce its costs of incremental
8 gas purchases under extreme cold weather conditions. Although, viewed in
9 isolation of broader cost considerations, the rationale for the Company's additional
10 fixed cost commitments appear laudable, National Grid has failed to provide
11 necessary economic justification for the levels of the additional fixed cost
12 commitments it has included in its Fixed Costs for the 2018-19 GCR Year. This
13 testimony concludes that the Company's additional fixed cost commitments
14 appear uneconomic and that the Company should be directed to seek more
15 economic means of addressing its service reliability and costs under extreme
16 weather conditions.

¹ The Company's January 29, 2018 Interim Gas Cost Recovery Filing in Docket No. 4719 projected a deferral of \$22.8 million (Transmittal Letter at page 1). Attachment AEL-1 to the Direct Testimony of Witness Leary show \$7.2 million of under-recovered Fixed Costs (page 2 of 16, line 11) and \$16.1 million of under-recovered Variable Costs (page 3 of 16, line 6) for a total projected deferred gas cost balance \$23.3 million. National Grid's most recent, September 20, 2018, Monthly GCR Deferred Balances Report projects a deferred gas cost balance at the end of October 2018 (i.e., the end of the 2017-18 GCR Year) of \$23.6 million.

² The Interim GCR proceeding did not address the reasonableness or prudence of the gas costs the Company incurred above the level anticipated when the initial GCR charges for the 2017-18 GCR Year were approved.

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1 Additionally, our review of the Company's 2018 Annual GCR Filing finds
2 that a number of other important changes in National Grid's forecasts of gas supply
3 requirements, gas procurement strategy, and gas costs for which the Company
4 seeks recovery in this proceeding. The importance of those changes should not
5 be overlooked or casually accepted. Among those changes are:

- 6
- 7 • A significant change in National Grid's projections of its Design Day
8 supply requirements for the Winter of 2018-19;
 - 9
 - 10 • Cost increases National Grid has incurred to replace the capacity of
11 the Cumberland LNG Tank since it was taken out of service;
 - 12
 - 13 • Multiple gas supply contracts for the coming winter for which National
14 Grid had not completed negotiations prior to the submission of its
15 Annual GCR Filing and the cost impacts of those contracts;
 - 16
 - 17 • The Company's proposal to not engage in Market Area Hedging for
18 the coming winter;
 - 19
 - 20 • A shift in the Company's design day planning to place greater
21 reliance on LNG and reduce its use of Underground Storage without
22 a corresponding reduction in Storage Fixed Costs; and

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- A sharp decline in the level of credits against fixed costs that the Company expects to derive from its Natural Gas Portfolio Management Program (“NGPMP”).

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National Grid’s greatly increased fixed cost commitments and the Company’s justifications for those added fixed costs warrant this Commission’s thorough review and examination. However, such an examination cannot be fully accomplished within the limited time schedule presently established for this proceeding.³ However, despite the time constraints faced by the Division in this proceeding, this testimony offers substantive observations and insights regarding the Company’s gas costs and the policy issues the Commission should consider with respect to National Grid’s current and future GCR filings.

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Still, the substantial time constraints imposed by the need to have new GCR rates in place by November 1, has not provided the Division adequate opportunity to develop recommendations regarding appropriate regulatory and ratemaking treatment of a number of important cost recovery issues. The Commission is

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³ The Division quickly recognized the magnitude of the cost increases included in the Company’s filing in this proceeding and the policy questions those cost increases engender. Immediately upon receipt of National Grid’s August 31, 2018 Annual GCR filing, the Division initiated its review of National Grid’s filing and developed and submitted its first substantive data requests to the Company regarding that filing within one business day. Within two weeks of the Company’s filing, the Division developed and submitted five sets of data requests regarding National Grid’s 2018 Annual GCR cost recovery proposals. However, with National Grid requiring three weeks or more to respond to the Division’s Data Requests, the Division’s time for review and analysis of the Company’s responses has been at best limited.

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1 asked to recognize that National Grid's 2018 Annual GCR filing involves a number
2 of policy considerations that relate to the Company's long-range gas supply
3 planning and the reasonableness and adequacy of the considerations reflected
4 within its long-term planning analyses. More thorough examination of the details
5 of that plan and the strengths and weaknesses of the analyses presented therein
6 is necessary to provide an appropriate foundation for evaluation of the Company's
7 gas costs and its gas procurement decisions.

8
9 **B. Findings**

10
11 **Q. WOULD YOU PLEASE SUMMARIZE THE KEY FINDINGS OF YOUR REVIEW**
12 **OF NATIONAL GRID'S ANNUAL GCR FILING IN THIS PROCEEDING?**

13 **A.** The following highlights some of the more important findings of this testimony:

14
15 a. National Grid has not adequately assessed the economics of its
16 decisions to engage in substantial commitments to fixed costs in the
17 form of gas supply reservation charges.

18
19 b. The prudence of National Grid's decision to undertake an incre-
20 mental **\$5 million** fixed cost commitment in the middle of the
21 December 2017 - January 2018 cold snap warrants further
22 investigation.

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c. National Grid has incurred substantial incremental gas supply costs as a result of the unplanned removal from service to the Cumberland LNG Tank.

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d. National Grid's Biennial Long-Range Gas Supply Planning reports lack relevance. That reporting process needs to be restructured to provide more useful input for evaluation of the Company's fixed cost commitments.

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e. National Grid's gas supply planning would benefit from a more dynamic approach to assessing the sensitivity of its costs to expected variations in weather and gas use.

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C. Recommendations

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Q. WHAT RECOMMENDATIONS DO YOU OFFER FOR THE COMMISSION BASED ON YOUR REVIEW OF NATIONAL GRID'S GCR FILING?

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A. The following are my recommendations for Commission action:

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1. The Commission should question the economics of National Grid's decision to commit to substantial fixed cost commitments in the form of reservation

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1 charges paid to gas suppliers as those commitments appear to be
2 uneconomic for Rhode Island's gas consumers.

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4 2. The Commission should further examine the economics and prudence of
5 National Grid's significant fixed costs payments to ENGIE during the winter
6 of 2018-19 for contracts not presented for review by the Division and the
7 Commission in the Company's 2017-18 Annual GCR filing.

8

9 3. The Commission at this time should not allow the incremental costs that the
10 Company has incurred to date, and expects to incur during the 2018-19
11 GCR year, to replace peaking supplies lost as a result of the unscheduled
12 closure of its Cumberland LNG Tank, to flow through the GCR at this time.
13 The cost recovery decision should be deferred, pending a prudency review
14 relating to the failure of the tank and a decision by the Commission whether
15 the Company should bear some or all of the incremental cost responsibility
16 for the tank failure.

17

18 4. The Commission should find the Company's filing in this proceeding
19 suggests the need for a new annual proceeding focused on the Company's
20 annual gas cost reconciliations and the reasonableness and prudence of
21 costs included in those reconciliations by National Grid due to the potential
22 that substantial information regarding its expected costs for the coming

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1 GCR Year may not be available for review by the Commission prior to its
2 approval of GCR rates.

3

4 5. The Commission should require National Grid to strengthen the ties
5 between its Annual GCR filings and its long-range gas supply planning,
6 particularly as they related to the Company's expected gas service costs.

7

8 6. The Commission should determine that a re-examination of the structures
9 of the Natural Gas Portfolio Management Program ("NGMPM") and the Gas
10 Procurement Incentive Program ("GPIP") is needed.

11

12 7. The Commission should mandate that National Grid investigate and timely
13 report its assessment of the potential for expanded use of Interruptible
14 Service offerings and Gas Demand Side Management programs to meet its
15 peak gas supply requirements.

16

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III. BACKGROUND

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19 A. Changes in National Grid's Gas Costs and GCR Charges

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21 Q. HOW HAS THE OVERALL COMPOSITION OF THE COMPANY'S GAS COSTS
22 CHANGED IN THIS PROCEEDING?

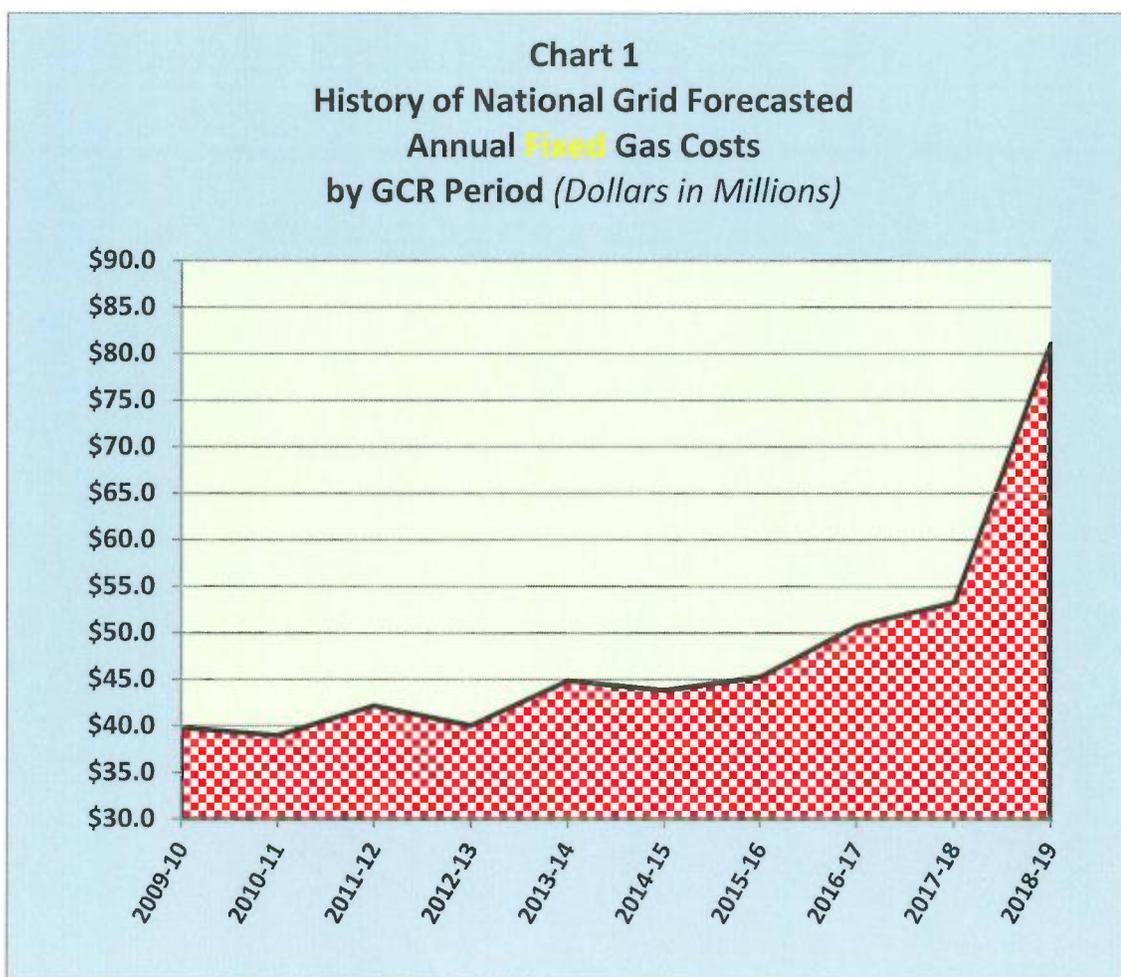
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1 A. National Grid's Supplemental Testimony in Docket 4719 projected Fixed Costs
2 (net of Capacity Release to marketers) of \$53.3 million. In this proceeding the
3 Company seeks inclusion of nearly **\$81.1 million** for Fixed Costs (net of Capacity
4 Release to marketers) in its 2018-19 GCR charges. See Attachment DIV-GCR-1.
5 A graphic depiction of the changes in National Grid's Fixed Costs (net of Capacity
6 Release) over the last decade is provided in Chart 1, below.

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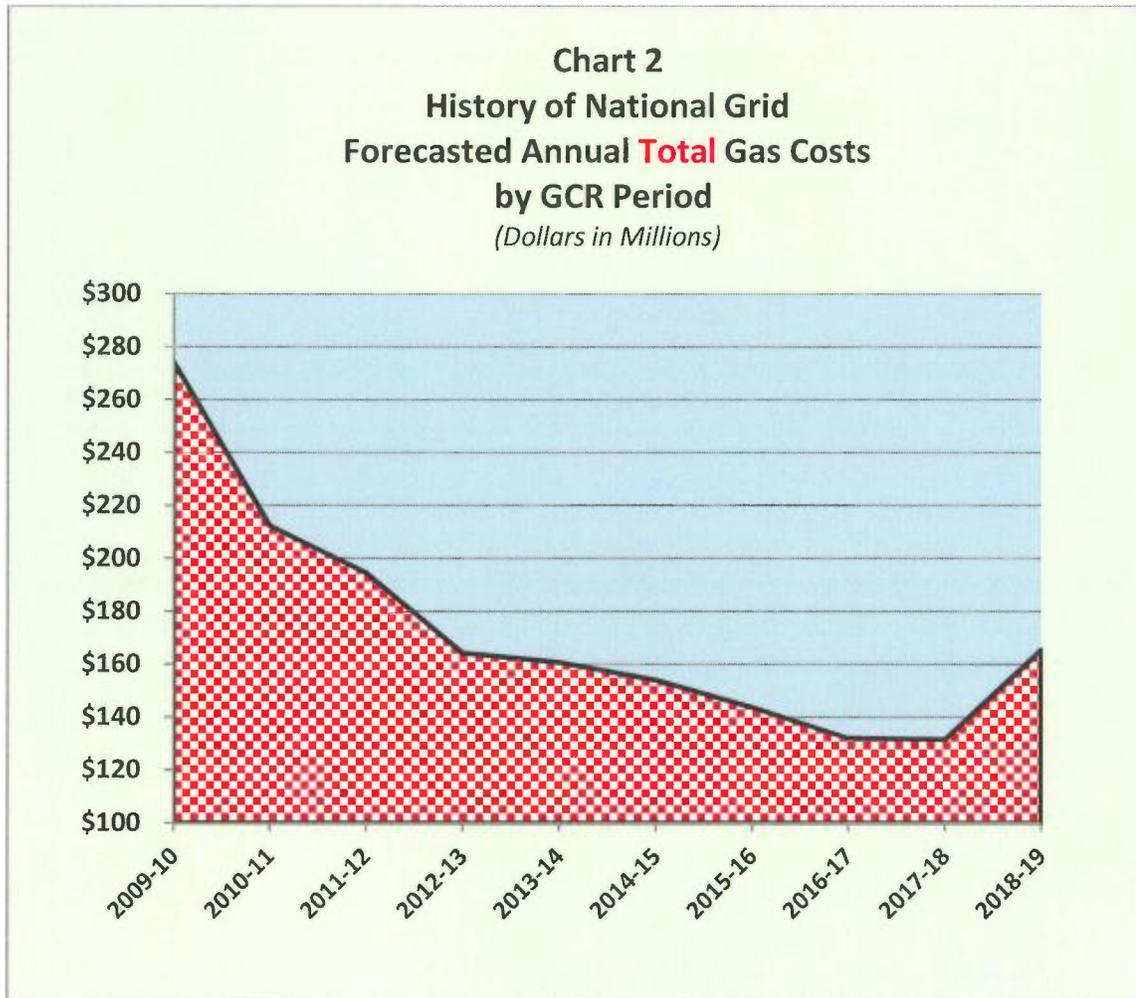
1 The change in National Grid's fixed cost recovery requirement represents a
2 year-over-year Fixed Cost increase of **\$27.8 million** or **52%**. The Company's
3 Fixed Costs now represent nearly half (i.e., 49%) of its overall annual gas supply
4 and storage costs before cost deferrals and other adjustments and 44.3% of the
5 Company annual gas cost recovery requirements. Just two years ago, the
6 Company's fixed cost commitments represented only 24.6% of its annual gas cost
7 recovery requirements.⁴

8 The 52% or \$27.8 million increase in National Grid's Fixed Costs is the
9 largest element of the Company's cost changes in this proceeding. That fixed cost
10 increase is superimposed on the \$10 million gas costs deferral from last winter and
11 a \$6 million increase in the Company's Variable Supply and Storage Costs.
12 Although the Company's proposed GCR charges include provisions for recovery
13 of approximately \$23 million of cost deferrals, those deferrals represent only about
14 a \$10 million increase over the deferrals included in the Company's initially
15 approved 2017-18 GCR charges. The Company's total forecasted gas costs
16 (combined Fixed and Variable costs) **before consideration of cost deferrals** or
17 other adjustments are projected at their **highest level** since the 2011-12 GCR
18 Year. (See Chart 2 below). Overall the Company's combined Fixed and Variable
19 gas costs (**before consideration of cost deferrals** or other adjustments) are
20 25.7% above the level National Grid projected in its 2017 Annual GCR filing.

⁴ See Attachment DIV-GCR-2.

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Although the \$6 million or 7.7% increase in National Grid's forecasted Variable Costs appears small in comparison to National Grid's Fixed Cost increase, it is significant in that it represents the first increase in National Grid's projected Variable Gas Supply and Storage Costs in the last decade. Moreover, the Commission should note that National Grid's projected increase in Variable Costs is found in the context of the Company's reported **5.6% reduction** in the

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1 NYMEX strip prices for natural gas on which National Grid's forecast of variable
2 costs is premised.⁵ How a 5.6% reduction in NYMEX Strip prices translates into
3 a 7.7% increase in forecasted Variable Gas Supply and Storage costs is important
4 to understand.⁶

5
6 **Q. WHAT ARE THE COMPANY'S PROPOSED CHANGES IN GCR CHARGES?**

7 A. Attachment DIV-GCR-4 provides a comparison of National Grid's current and
8 proposed GCR charges by rate class and shows the increases that result for each
9 class. For Low Load Factor classes, that comparison yields 14% reduction in the
10 applicable GCR charge. If the Company's proposed GCR rates are approved, the
11 applicable charge for High Load Factor classes would decline by 6.3% from the
12 level of the currently approved GCR rate for those customers.

13 However, the Company's interim rate adjustment did not become effective
14 until March 1, 2018. As a result, most of last winter's gas use was billed at the
15 GCR charges approved by the Commission last October. For this reason,
16 Attachment DIV-GCR-4 also shows the percentage changes in GCR charges that
17 the Company's proposed rates in this proceeding will yield when compared to the
18 GCR charges Rhode Island gas customers actually paid for the months of
19 November 2017 through February 2018. The **effective increases** in GCR charges

⁵ The August 31, 2018 Direct Testimony of National Grid Witnesses Culliford and Arangio at page 7 of 28, lines 1 and 2.

⁶ The relationship between identified decrease in NYMEX Strip prices for natural Gas and the Company's projection of a noticeable increase in its Variable Gas Supply and Storage costs is examined further detail later in this testimony.

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1 for usage over the first four months of the 2018-19 GCR Year (which are the
2 months of greatest gas use) are **33.1%** for Low Load Factor rate classes and
3 **25.6%** for High Load Factor classes.

4 Page 2 of Attachment DIV-GCR-4 further shows that if the effective GCR
5 rate increases are weighted by the Company's forecasted gas use for the months
6 each percentage increase will be effective the weighted average annual increases
7 for Low Load Factor classes (including Residential Heating service) will range from
8 19.8% to 22.6%. Most High Load Factor classes will experience effective annual
9 GCR rate increases in the range of 6.5% to 7.7%. The only exception will be the
10 **Extra Large High Load Factor** class which, due to its much lower percentage of
11 annual gas use in the months of November – March, will experience a weighted
12 average **decrease** of **1.2%**. Thus, contrary to the implication of National Grid's
13 analyses, most sales service customers will experience substantial effective
14 increases in their GCR charges over the next twelve months.

15 The Division recognizes that GCR increases do not represent the increases
16 customers will see in their total charges for gas service. However, accounting for
17 the fact that GCR charges equate to roughly 60% of the average residential
18 heating customer's annual bill, the bills of a typical residential heating customer
19 can be expected to see an increase of nearly 20% in the bills for comparable levels
20 of usage for the first four months of the GCR Year when compared to the charges
21 that were effective November 1, 2017. The average residential heating customer

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1 can also expect to see approximately a 13.5% annual bill increase for the 2018-19
2 GCR Year if the Company's proposed GCR charges are approved.

3
4 **B. Changes in National Grid's Gas Supply Portfolio**

5
6 **Q. HAS NATIONAL GRID'S GAS SUPPLY PORTFOLIO CHANGED SINCE THE**
7 **CONCLUSION OF DOCKET NO. 4719?**

8 A. Yes. The most substantial change is found in the growth in National Grid's
9 commitments to the payment of Supplier Demand Charges. The Company's
10 contracted Supplier Demand Charges in this proceeding are more than **five times**
11 **greater** than those presented in its 2017 Annual GCR filing. Those Supplier
12 Demand Charges also represent more than 80% of National Grid's substantial
13 projected increase in the Fixed Costs of its gas supply portfolio.

14
15 **C. Ties between Long-Range Planning and GCR Costs**

16
17 **Q. HOW DO THE INCREASES IN NATIONAL GRID'S GCR CHARGES RELATE**
18 **TO THE LONG-RANGE GAS SUPPLY PLAN THAT WAS FILED ON MARCH**
19 **30, 2018 IN DOCKET NO. 4816?**

20 A. There is only very limited linkage between the Company's Long-Range Gas Supply
21 Plan ("2018 LRP") and the decisions and costs that are driving the levels of
22 National Grid's proposed GCR charges in this proceeding. There are several

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1 reasons for this lack of identifiable correspondence between the Company's 2018
2 LRP and its filing in this proceeding. Those reasons include, but are not
3 necessarily limited to, the following:

- 4
- 5 ➤ The Company has substantially revised its long-range forecast of
6 gas supply requirements and particularly its Design Day, Design
7 Year, and Design Winter requirements based on its experience
8 during the winter of 2017-18;

 - 9
 - 10 ➤ There are no estimates of annual gas supply costs presented in the
11 Company's 2018 LRP which would enable the Commission to
12 compare the results of the Company's Long-Range Plan for any
13 period of time to the gas supply costs that National Grid forecasts in
14 this proceeding;

 - 15
 - 16 ➤ The Company's use of the SENDOUT model to identify its "least
17 cost" gas supply is only performed within an assumed gas supply
18 portfolio configuration in which fixed costs commitments are an input.
19 No comparisons of total costs under different assumptions regarding
20 the Company's fixed cost commitments are examined.

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1 Hopefully, these and other gas supply planning and regulatory policy
2 considerations will be addressed further in Docket No. 4816. I bring focus to these
3 matters here because more understandable ties between the Company's long-
4 range planning and its GCR filings would aid the Commission's ability to assess
5 the reasonableness of changes made to the Company's gas supply portfolio and
6 gas supply costs since its most recent LRP was developed. The Division
7 recognizes that events such as last winter's cold snap in late December and early
8 January may impact the Company's planning. It is not the Division's intent to
9 suggest that the influences of such events should be ignored.

10 However, the Company's long-range planning process should provide the
11 Commission with benchmarks from which changes in costs resulting from changes
12 in gas supply requirements can be more explicitly evaluated. As previously noted,
13 the increases in National Grid's projected gas supply costs for its 2018-19 GCR
14 year are strongly influenced by increased fixed costs commitments. However, the
15 nature of the Company's incremental fixed cost commitments in this proceeding is
16 different than the fixed cost commitments in which the Company has historically
17 engaged.

18 Historically, the Company's fixed cost commitments were incurred primarily
19 for interstate pipeline capacity, underground storage capacity, or local LNG
20 storage (i.e., the facilities necessary to obtain delivery of gas supplies). Yet,
21 substantial portions of the commitments the Company introduces in this
22 proceeding are intended to ensure access to incremental gas supplies and

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1 facilitate the Company's purchase of gas at lower cost during periods of extreme
2 cold weather. They do not represent commitments to costs for facilities.

3 Although efforts to insulate customers from large increases in gas supply
4 cost under extreme weather conditions should be high on the Commission's list of
5 priorities, the incurrence of those costs can represent a form of economic hedging,
6 the economics of which must be carefully evaluated. Unfortunately, the economics
7 of National Grid's decisions to commit to substantial additional fixed Supplier
8 Demand charges are not well-developed and are not systematically examined
9 within either the Company's filing in this proceeding or within its 2018 LRP. Yet,
10 those decisions will have very significant impacts on the Company's overall gas
11 costs for National Grid's Rhode Island customers for its 2018-19 GCR Year as well
12 as future GCR periods.

13
14 **Q. ARE THERE IMPORTANT DIFFERENCES BETWEEN THE COMPANY'S**
15 **COMMITMENTS FOR PHYSICAL PIPELINE CAPACITY AND ITS COMMIT-**
16 **MENTS TO FIXED DELIVERY CHARGES FOR THE RESERVATION OF GAS**
17 **PURCHASES?**

18 **A.** Yes. When National Grid finds that it expects to have pipeline capacity in excess
19 of its requirements for a period of time, it has the ability to re-market that capacity
20 for use by other parties during the periods it is not required to serve Rhode Island
21 gas customers. This has been accomplished over the last decade through the
22 Company's NGPMP. Through that program, National Grid has been able to

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1 mitigate the impact of uncertainties regarding pipeline capacity requirements and
2 limit the cost impacts of those uncertainties on its Rhode Island gas customers.
3 However, fixed cost commitments for access to gas supplies during peak periods
4 are not likely to be marketable when not needed for Rhode Island gas supply
5 requirements.

6
7 **Q. WHAT ARE THE LONG-TERM PLANNING ISSUES AFFECTING THE GCR**
8 **THAT THIS COMMISSION NEEDS TO ADDRESS?**

9 A. As I noted in testimony that I submitted two years ago in Docket 4647, the current
10 LRP process lacks relevance. As in the case of the Company's most recent 2018
11 LRP, the plan the Company presents to the Commission in its biennial filings is
12 essentially out of date within days of when it is provided to the Commission.⁷ Any
13 decisions that the Company may have considered on the basis of the forecasts
14 presented in its 2018 LRP were already made before the plan was presented to
15 the Commission for review. This is highlighted by the fact that the design day
16 forecast, on which the Company's gas supply decisions in this proceeding are
17 premised, is not the same forecast that is utilized in National Grid's 2018 LRP.⁸

⁷ National Grid's 2018 LRP was provided to the Commission on March 30, 2018. The Company starts a new planning cycle at the beginning of April of each year. National Grid's response to Division Data Request 1-3 verifies that the forecast of Design Peak Day requirements presented in Company's March 30, 2018 LRP has been superseded by a more recent forecast.

⁸ National Grid's 2018 LRP projected Design Day requirements under two scenarios: a Base Design Day scenario and a High Design Day scenario. The Company's forecasted Design Day requirements under those two scenarios for the winter of 2018-19 were 374,000 Dth (Chart IV-C-1, page 1 of 18) and 376,000 Dth (Chart IV-C-1, page 8 of 18), respectively. Those forecasts contrast with the forecast presented in Attachment AEL-1, page 1, page 13 of 16, in this proceeding which reflects a total projected Design Day requirement for 2018-19 of 390,227 Dth. Yet, this roughly 4% increase in the Company's projected Design

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1 This denies the Commission insight to questions regarding whether different
2 portfolio configurations might yield lower overall gas costs for Rhode Island
3 consumers.

4 Likewise, the Company's gas supply planning lacks necessary sensitivity to
5 the uncertain weather conditions in which it must operate. As a result, during the
6 winter of 2017-18 the Company basically found itself without a plan for dealing with
7 a cold snap that occurred earlier in the winter than it had modeled. The result was
8 a decision by National Grid to enter into a new contract in early January 2018 for
9 additional citygate supplies. That contract which was apparently negotiated under
10 adverse market conditions, and resulted in the Company paying ***** BEGIN**

11 **CONFIDENTIAL INFORMATION ***** [REDACTED]
12 [REDACTED]
13 [REDACTED]
14 [REDACTED]
15 [REDACTED]
16 [REDACTED]
17 [REDACTED]
18 [REDACTED]
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22 [REDACTED] ***** END CONFIDENTIAL INFORMATION *****

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IV. DISCUSSION OF ISSUES

Q. WHAT ISSUES ARE DISCUSSED IN THIS SECTION AND IN WHAT ORDER DO YOU PRESENT THEM?

A. In this section I address 5 issues. These issues include: National Grid’s fixed cost commitments; the cost of replacing Cumberland LNG tank supplies; National Grid’s GCR reconciliations for FY 2018; the calculation of National Grid’s NGPMP and GPIIP Incentives; and market area hedging. I address these issues in the above order.

A. National Grid’s Fixed Cost Commitments

Q. ARE THE COMPANY’S COMMITMENTS TO SUBSTANTIAL RESERVATION CHARGES BENEFICIAL TO RHODE ISLAND RATEPAYERS?

A. No. National Grid’s commitment to substantial fixed cost payments appear more beneficial to the Company than its Rhode Island gas customers. Those commitments place substantial additional cost burdens on ratepayer while insulating the Company from potential criticism for purchasing of incremental gas supplies during period of extreme weather at greatly elevated prices. Although avoiding incremental purchases at high prices during periods of extreme weather would appear to be a benefit for ratepayers, the benefits for ratepayers are only

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1 experienced under extreme weather events which by their very nature tend to have
2 a low probability of occurrence in any given year. When actual weather conditions
3 are closer to normal levels, the effective costs of this arrangement rise
4 dramatically. If the Company experiences a noticeably warmer than normal winter,
5 ratepayers carry the burden of substantial unnecessary fixed costs. In other
6 words, the fixed cost commitments National Grid has negotiated are the equivalent
7 of very expensive and uneconomic insurance policies under which the annual
8 premiums quickly exceed the expected cost avoidance benefits.

9 The Company also benefits by essentially eliminating its responsibility for
10 economically planning its gas supply resources. Errors in planning are disguised
11 by the Company's ability to purchase incremental supplies at prices indexed to
12 NYMEX natural gas prices. The downside of these arrangements, however, is that
13 ratepayers continue to bear the burden of substantial fixed cost commitments even
14 when weather is warmer than normal.

15 National Grid's March 30, 2018 Gas Long-Range Resource and Require-
16 ments Plan (i.e., the Company's "2018 LRP") uses a Design Year that has an
17 expected frequency of occurrence of about once in every 37.5 years. Its chosen
18 Design Day conditions are expected to occur only about once in every 59 years.
19 Yet, even if we assumed that the system could derive the maximum benefit from
20 these fixed cost commitments as frequently as once every five years, the costs
21 avoided by having these arrangements in place would have to produce more than
22 \$120 million of benefit over that five-year period to justify the fixed cost premiums

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1 to which the Company has committed.¹⁰ This implies that Rhode Island would
2 have to encounter weather extremes such as those experienced during the
3 December-January cold spell this last winter three times in the next five years for
4 ratepayers to breakeven on this arrangement.

5
6 **Q. IS IT REASONABLE TO DRAW COMPARISONS BETWEEN THE FIXED COST**
7 **COMMITMENTS THAT NATIONAL GRID HAS NEGOTIATED AND ITS PAST**
8 **MARKET AREA HEDGING ACTIVITIES?**

9 A. Yes. Both represent means of reducing exposure to high prices for incremental
10 gas purchases during periods of colder than normal weather, and both become
11 increasingly uneconomic when weather is more mild than normal. The key
12 difference between these options is found in the expected load factor at which
13 supply commitments would be utilized. In National Grid's evaluation of Market
14 Area Hedging opportunities, it specifically sought to identify situations where the
15 utilization of supplies was expected to be at relatively high levels even under
16 normal weather conditions. That criteria reduced the potential that commitments
17 would be under-utilized, driving up the Company's overall gas supply costs, in the
18 event of warmer than normal weather.

19 By contrast, the contracts that now added dramatically to the Company's
20 fixed gas supply costs, focus on very low probability, low load factor, requirements

¹⁰ The referenced \$120 million equates to five years of incremental winter period Supplier Demand Charges at cost of approximately \$24 million per year. See the Fixed Cost Increase for the months of Dec – Mar in Attachment DIV-GCR-3, pg. 2 of 2.

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1 for which the likelihood of full utilization is low.¹¹ This implies that customers will
2 bear substantial increased fixed costs and noticeably higher overall gas supply
3 costs under all weather conditions. As I will discuss further below, National Grid’s
4 focus on having adequate supply under extreme weather conditions is appropriate,
5 but its examination of the cost impacts of commitments to increased Supplier
6 Demand charges must be evaluated in a broader context which includes the
7 impacts of those charges on the expected on-going levels of gas costs that will be
8 billed to its customers. Although weather variations (as represented in measures
9 of Heating Degree Days (“HDD”) are generally perceived to be normally distributed
10 around a long-term average (i.e., normal) level, National Grid’s planning appears
11 inappropriately focused on only normal weather and design (i.e., extreme cold
12 conditions). No explicit weight is given to either a probability weighted average of
13 expected outcomes under warmer than normal as well as colder than normal
14 conditions. Thus, the added costs to which customers will be exposed under
15 warmer than normal conditions are not directly reflected in the quantitative
16 analyses upon which the Company’s gas procurement planning decisions are
17 premised.

18

¹¹ The Commission should recognize, however, that the fixed costs associated with these transactions will be viewed as “sunk costs,” and in that context, incremental costs for gas supply purchases under contracts involving reservation charges may be less than costs of incremental purchases under alternative supply arrangements, even though the total delivered costs of gas under alternative supply arrangements may be lower. Thus, it is possible that the Company will achieve higher annual utilization rates for contracts involving reservations charges, but those utilization rates will only be achieved at the expense of foregoing what would otherwise be lower cost purchases. In some ways, this produces a result that is similar to the effect of infamous Take-or-Pay contracts that drove up costs to consumers in many states in the 1980s.

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1 **B. National Grid's GCR Reconciliations for FY 2018**

2
3 **Q. HAVE YOU REVIEWED THE COMPANY'S RECONCILIATION OF GAS COSTS**
4 **FOR FY 2018?**

5 A. Yes, I have. The Company's gas cost reconciliation calculations are presented in
6 the Company's "Annual Gas Cost Recovery Reconciliation Report." That report
7 is provided in this docket as Attachment AEL-2 to the Direct Testimony of National
8 Grid Witness Ann E. Leary that was filed on August 31, 2018. The Company's
9 GCR reconciliation report details the Company's actual costs and revenue
10 collections by month for each of the major components of its Gas Supply Costs for
11 the twelve months ended March 31, 2018. I was also provided an electronic
12 version of the Company's gas cost reconciliation analyses. With the aid of National
13 Grid's electronic spreadsheet files, the full detail of the Company's FY 2018 GCR
14 reconciliations has been examined.

15
16 **Q. WHAT ARE THE RESULTS OF NATIONAL GRID'S FY 2018 GAS COST**
17 **RECONCILIATION ANALYSES?**

18 A. The Company's gas cost reconciliations show an aggregate deferred gas cost
19 balance as of March 31, 2018 of \$43,080,683. That aggregate balance represents
20 the net of a \$45,495,738 under-recovery of Variable Costs and a \$2,415,056 over-
21 recovery of Fixed Costs.¹²

¹² See Attachment AEL-2, page 1 of 7, in this proceeding.

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Q. DO YOU FIND ANY REASON TO QUESTION THE MATHEMATICAL ACCURACY OF NATIONAL GRID’S GCR RECONCILIATIONS?

A. No. I do not. Our review of National Grid’s gas costs reconciliations has identified no errors in calculation or application of the Company’s GCR-related tariff provisions.

Q. SHOULD THE COMMISSION ACCEPT WITHOUT FURTHER EXAMINATION THE COMPANY’S GCR RECONCILIATIONS AS PRESENTED?

A. No. The Company has included in its proposed GCR charges in this proceeding actual fixed cost payments made to ENGIE during the winter of 2017-2018 that were not presented for Commission review when National Grid’s GCR charges for 2017-2018 were initially approved. Witness Culliford’s January 29, 2018 testimony in the Company’s Interim GCR proceeding discussed additional commitments the Company entered into in January 2018 but that testimony offered no economic justification for the levels of fixed cost payments made under those arrangements. Moreover, the Commission offered no explicit recognition or acceptance of those costs in its interim rate determinations.

In the absence of greater support for those expenditures, I recommend that the Commission direct National Grid to remove the fixed costs associated with the ENGIE agreement from the costs it will recover through its proposed GCR charges pending further review of the economic justification for this contract.

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C. Costs of Replacing Cumberland LNG Tank Supplies

Q. HOW DID NATIONAL GRID ADJUST ITS GAS SUPPLY PLANS TO ACCOUNT FOR THE CLOSING OF ITS CUMBERLAND LNG TANK?

A. In Docket No. 4647 Witness Arangio explained that the Company undertook two strategies to replace the Cumberland LNG Tank capacity. Based on the Company's representation that the Cumberland LNG Tank had "*historically provided up to 30,000 Dth per day and 80,000 Dth per season,*" National Grid:

- (1) Contracted for 24,000 Dth per day of additional Tennessee Gas Pipeline capacity at Dracut;¹³ and
- (2) Secured arrangements for the delivery of up to 6,000 Dth per day or up to seven truckloads of LNG liquid service and up to 22 truckloads for the winter season to support the use portable LNG operations at the Cumberland site.

¹³ The fact that the incremental capacity at Dracut that National Grid has arranged as part of its plan to replace Cumberland LNG Tank capacity equals the amount of capacity it had planned to add at Dracut as part of the now cancelled NED project may suggest that National Grid has greater plans for that capacity.

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1 **Q. DOES NATIONAL GRID INCLUDE COSTS IN ITS 2018-19 GCR COSTS FOR**
2 **THE REPLACEMENT OF PEAKING SUPPLIES FORMERLY PROVIDED BY**
3 **THE CUMBERLAND LNG TANK?**

4 A. Yes, it does. National Grid’s projected costs for replacing Cumberland Tank
5 supplies for the winter of 2018-19 are set forth in the Company’s **CONFIDENTIAL**
6 response to Division Data Request 3-2.

7

8 **Q. ARE ANY OF THE COSTS FOR THE REPLACEMENT OF CUMBERLAND LNG**
9 **TANK PEAKING SUPPLIES INCREMENTAL TO THE COSTS THE COMPANY**
10 **WOULD HAVE INCURRED IF THAT TANK REMAINED IN SERVICE?**

11 A. Yes. The Company’s **CONFIDENTIAL** response to Division Data Request 3-1 in
12 this proceeding provides National Grid’s estimate of the gas supply costs it would
13 have incurred in connection with the Cumberland Tank if that facility remained in
14 service and was operated during the 2018-19 GCR Year. Subtracting that
15 estimate from the Company’s projected replacement costs for Cumberland Tank
16 supplies produces a measure of the incremental costs National Grid has incurred
17 to replace Cumberland Tank supplies. From the information provided in National
18 Grid’s responses to Division Data Requests 3-1 and 3-2, I compute that
19 incremental costs incurred by National Grid to replace Cumberland Tank supplies
20 over the last two GCR Years (i.e., 2016-17 and 2017-18) and the incremental costs
21 the Company projects for its 2018-19 GCR Year total ***** BEGIN CONFIDENTIAL**

22 **INFORMATION ***** [REDACTED] ***** END CONFIDENTIAL INFORMATION *****

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1 The derivation of this amount from is documented in **CONFIDENTIAL** Attachment
2 DIV-GCR-3 to this testimony.

3

4 **Q. SHOULD THE COMMISSION CONSIDER ADJUSTING THE COMPANY'S GCR**
5 **RATES TO REMOVE THE INCREMENTAL COSTS NATIONAL GRID HAS**
6 **INCURRED TO REPLACE PEAKING SUPPLY FROM THE CUMBERLAND**
7 **TANK?**

8 A. Yes. This GCR proceeding does not present ample time for the Division or the
9 Commission to address how the Company maintained the Cumberland LNG tank
10 and why it failed. However, the Division's position is that, to the extent the
11 Company was not prudent in maintaining the tank, these incremental costs should
12 be borne by shareholders. For that reason, the Commission should remove the
13 incremental costs associated with the closing of the Cumberland Tank from the
14 GCR at this time and open a prudency investigation into the Company's
15 maintenance of the tank and the cause of the tank failure.

16

17 **D. NGPMP and GPIIP Incentive Mechanisms**

18

19 *1. National Grid's Gas Procurement Incentive Plan (GPIP)*

20

21 **Q. DOES THE COMPANY SEEK APPROVAL OF A GAS PROCUREMENT INCEN-**
22 **TIVE FOR THE 12 MONTH PERIOD ENDED MARCH 2018?**

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1 A. Yes. The Direct Testimony of Witness Protano at page 5, lines 5-11, indicates that
2 National Grid made 1,770,000 Dth of discretionary purchases for FY 2018 and
3 earned a net incentive of \$17,789. According to the analysis presented in
4 Attachment JMP-2, the average costs of discretionary hedges made by National
5 Grid was \$0.15 per Dth below the average cost of mandatory hedges.

6

7 **Q. DO YOU FIND ANY REASON TO QUESTION THE ACCURACY OF THE**
8 **COMPANY'S GPIIP INCENTIVE CALCULATIONS?**

9 A. No, I do not. The incentive calculations Witness Protano presents for FY 2018
10 appears to be compliant with the terms of the Gas Procurement Incentive Plan
11 (GPIIP).

12

13 **Q. SHOULD THE COMMISSION APPROVE NATIONAL GRID'S REQUESTED**
14 **GPIIP INCENTIVE PAYMENT FOR FY 2018?**

15 A. I find no reason for denial of the incentive **\$17,789** GPIIP incentive the Company
16 computes that it has earned under the current terms of the GPIIP. However, the
17 continuing decline of activity with respect to discretionary gas purchases and the
18 very small level of the incentive National Grid has earned for FY 2018 raise
19 questions regarding the on-going effectiveness of the existing incentive structure.
20 In addition, I have concerns regarding the manner in which National Grid's
21 increased use of contracts that involve reservation charges will impact its gas

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1 purchasing decisions and its incentives for more cost-effective procurement of gas
2 supplies.

Table 2
Historical GPIIP Incentives

| <u>Year</u> | <u>GPIIP Incentive</u> | <u>Discretionary Volumes (Dth)</u> | <u>Avg Price Differential</u> |
|-------------|------------------------|------------------------------------|-------------------------------|
| 2010 | \$1,606,937 | 4,381,000 | \$2.494 |
| 2011 | \$226,102 | 5,109,000 | \$0.420 |
| 2012 | \$355,884 | 3,725,000 | \$0.810 |
| 2013 | \$453,345 | 4,720,000 | \$0.568 |
| 2014 | \$60,078 | 4,075,000 | \$0.152 |
| 2015 | \$84,340 | 4,151,000 | \$0.251 |
| 2016 | \$167,963 | 4,043,000 | \$0.415 |
| 2017 | \$54,616 | 2,100,000 | \$0.026 |
| 2018 | \$17,789 | 1,770,000 | \$0.150 |

21 *2. Natural Gas Portfolio Management Plan (NGPMP)*

22
23 **Q. HAS NATIONAL GRID ALSO EARNED AN INCENTIVE PAYMENT UNDER THE**
24 **PROVISIONS OF THE NGPMP FOR FY 2018?**

25 A. Yes. Witness Protano presents calculations that suggest the Company has earned
26 a NGPMP incentive of \$499,017.91 for FY 2018, and in Attachment JMP-3, he
27 provides extensive data to support that determination.

28
29 **Q. HOW DOES THE LEVEL OF THE COMPANY'S REQUESTED NGPMP INCEN-**
30 **TIVE COMPARE WITH THE ASSET MANAGEMENT BENEFITS THAT FLOW**

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1 **TO RHODE ISLAND GAS USERS THROUGH THE NGPMP MECHANISM FOR**
2 **FY 2018?**

3 A. In this proceeding, the Company shows net asset management revenue under the
4 NGPMP mechanism of more than \$4,495,090 for the Company's 2018 fiscal year.
5 Of that amount, **\$3,996,071** (or 88.9% of the total) accrues to the benefit of the
6 Company's ratepayers. This is the third smallest ratepayer benefit derived from
7 the NGPMP program to date.

8

9 **Q. HOW DOES THE LEVEL OF NET ASSET MANAGEMENT BENEFITS FOR**
10 **RATEPAYERS IN FY 2018 COMPARE WITH THOSE FOR PRIOR YEARS?**

11 A. Table 1 depicts a steep decline in the NGPMP benefits that National Grid has
12 achieved for its customers. Since 2016 NGPMP benefits for ratepayers have
13 plummeted. From a peak of nearly \$12.3 million for FY 2016, National Grid's
14 Rhode Island ratepayers have seen their NGPMP credits fall 67.5% in two years.

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Table 3
Historical Sharing of NGPMP Benefits

| Year | Total Net Asset Mgmt Revenue | Ratepayer Benefits | | Company Incentives | |
|------|------------------------------------|--------------------|---------------|--------------------|---------------|
| | | \$ | % of Total | \$ | % of Total |
| 2010 | \$ 2,876,378 | \$2,501,102 | 87.0% | \$ 375,276 | 13.0% |
| 2011 | \$ 4,655,474 | \$3,924,380 | 84.3% | \$ 731,094 | 15.7% |
| 2012 | \$ 5,498,991 | \$4,599,192 | 83.6% | \$ 899,798 | 16.4% |
| 2013 | \$ 8,412,857 | \$6,930,285 | 82.4% | \$1,482,571 | 17.6% |
| 2014 | \$ 8,370,836 | \$6,896,669 | 82.4% | \$1,474,167 | 17.6% |
| 2015 | \$11,547,657 | \$9,468,125 | 82.0% | \$2,079,531 | 18.0% |
| 2016 | \$15,113,164 | \$12,290,532 | 81.3% | \$2,822,633 | 18.7% |
| 2017 | \$12,088,685 | \$10,863,364 | 89.9% | \$1,225,321 | 10.1% |
| 2018 | \$ 4,495,090 | \$ 3,996,071 | 88.9% | \$ 499,019 | 11.1% |

Q. IS NATIONAL GRID'S REQUESTED NGPMP INCENTIVE PROPERLY COMPUTED UNDER THE PROVISIONS OF THE NATURAL GAS PORTFOLIO MANAGEMENT PLAN (NGPMP)?

A. Yes. Again, the information that National Grid presents in support of its computed incentive is extensive. The methods employed to determine the amount of the requested incentive conform to the provisions of the NGPMP, and the mathematical accuracy of the calculations used has been verified.

Q. DO YOU FIND ANY REASON TO CHALLENGE THE LEVEL OF THE NGPMP INCENTIVE THAT NATIONAL GRID REQUESTS FOR FY 2018?

A. No, I do not.

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1 **Q. WHAT LEVEL OF NET ASSET MANAGEMENT REVENUE FROM THE NGPMP**
2 **DOES THE COMPANY ASSUME IN THE DEVELOPMENT OF ITS PROPOSED**
3 **2018-19 GCR RATES?**

4 A. National Grid assumes that net asset management credits to ratepayers over the
5 2018-19 GCR year will equal \$4.0 million.

6
7 **Q. IS THE LEVEL OF NGPMP CREDITS THAT THE COMPANY ASSUMES IN THE**
8 **DEVELOPMENT OF ITS PROPOSED 2018-19 GCR CHARGES REASONABLE?**

9 A. There is no guarantee that any specific level of net asset management revenue
10 will be achieved in any given year. However, the information National Grid has
11 presented regarding its NGPMP activity is backward looking and focuses
12 exclusively on past achievements. No information regarding forward expectations
13 for the program is presented. Absent any indication of future expectations
14 regarding capacity market conditions and expected levels of capacity release
15 revenue, we are confined to reliance on strictly historical results to guide the level
16 of credits that should be applicable during the GCR year.

17 In the past, the peak winter months (e.g., December through March) have
18 often been the source of substantial NGPMP benefits. Those months all fall within
19 the Company's current fiscal years, as well as the 2018-19 GCR Year. In that
20 context, an argument can be made that efforts to reflect at least a partially
21 forecasted assessment of GCR Year benefits in current GCR rate determinations
22 is appropriate. But, that can only be achieved with greater insight regarding the

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1 Company's expectations for capacity release activity in the coming months. For
2 these reasons, both: (1) the factors contributing to the recent decline in NGPMP
3 benefits and (2) the Company's near-term forward looking market expectations
4 need to be better understood.

5 The Commission should look to the Company to go beyond the primarily
6 mechanical assessments of benefits and incentive levels found in its recent GCR
7 filings and offer more insightful perspectives regarding the actual drivers of past
8 results and future expectations. Substantial losses of ratepayer benefits at a time
9 when the Company has increased its fixed cost commitments will further
10 exacerbate the rate impacts of the Company's fixed cost commitments.

11

12 **Q. WHY SHOULD THE COMMISSION RE-EXAMINE THE STRUCTURES OF THE**
13 **COMPANY'S NGMPM AND GPIIP?**

14 A. The information provided herein depicts recent declines in activity, ratepayer
15 benefits, and Company incentive payments under both programs. Some of these
16 declines may be attributable to changes in market conditions. For example, with
17 comparatively flat pricing for natural gas in recent periods, opportunities for
18 discretionary hedges may be more difficult to identify. Yet, the testimony of
19 Witnesses Culliford and Arangio suggests that NYMEX natural gas prices have
20 turned upward this year, and such an upward turn in natural gas prices should be
21 expected to expand opportunities discretionary hedges. Still, no increase in
22 hedging activity has been identified. In addition, the Company's expanded use of

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1 reservation charges adds to its annual fixed costs but is not expected to increase
2 the Company's opportunities for capacity release. In this context, the Commission
3 should encourage efforts to assess what, if anything, can be done to re-invigorate
4 activity under these incentive mechanisms and enhance the ratepayer benefits that
5 each mechanism provides.

6
7 **E. Market Area Hedging**

8
9 **Q. DOES NATIONAL GRID PROPOSE TO ENGAGE IN MARKET AREA HEDGING**
10 **FOR THE WINTER OF 2018-19?**

11 A. No, it does not.

12
13 **Q. SHOULD THE COMMISSION SUPPORT NATIONAL GRID'S DECISION NOT**
14 **TO ENGAGE IN MARKET AREA HEDGING FOR THE WINTER OF 2018-19?**

15 A. In the absence of substantial commitments to Supplier Demand (or reservation)
16 charges, carefully evaluated Market Area Hedging proposal had some merit.
17 However, in the context, of the Company's commitments to substantial gas supply
18 reservation charges, the merits of additional expenditures for market area hedging
19 must be questioned. It is unclear whether, or to what extent, the supply
20 requirements and cost exposures addressed through the Company's commit-
21 ments to the payment of Supplier Demand charges might overlap with the supplies
22 and risks targeted by Market Area Hedging activities. They could be redundant

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1 risk mitigation efforts. For this reason, I do not recommend that the Commission
2 entertain additional market area hedging proposals until issues relating to the
3 Company's incremental fixed cost commitments to Supplier Demand charges have
4 been resolved, and the potential for overlaps between such activities have been
5 carefully examined.

6
7 **F. Costs for Portsmouth LNG Vaporization**

8
9 **Q. WHAT IS THE STATUS OF THE COMPANY'S LNG VAPORIZATION FACIL-**
10 **ITIES ON AQUIDNECK ISLAND?**

11 A. The status of those facilities is unclear. It appears that there has been no
12 vaporization of LNG on Aquidneck Island since 2010 when the Algonquin AIM
13 Project was placed in service and the Company's pipeline connection to Aquidneck
14 Island was significantly expanded. In response to Division Data Request 1-10.f. in
15 Docket No. 4816, National Grid stated: "*The existing LNG equipment at the Naval*
16 *Base is not operational due to the condition of the equipment.*" The Company also
17 indicated in that response, "*... the Company has started the process of*
18 *establishing a permanent portable LNG site at the Old Mill Lane Gas Station in*
19 *Portsmouth.*" Yet, in response to Division Data Requests 5-3.d. and 5-3.e. in this
20 proceeding, National Grid submits that, "The existing LNG equipment at the
21 Newport Naval Base is operational," and that the Company has no plans at this
22 point to remove that equipment from rate base.

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2 **Q. IS THERE ANY FURTHER EVIDENCE OF NATIONAL GRID'S PLANS TO RE-**
3 **INITIATE LNG VAPORIZATION ACTIVITIES IN THE AQUIDNECK**
4 **ISLAND/PORTSMOUTH AREA?**

5 A. Yes. National Grid has indicated in response to Division Data Request 5-3.b. in
6 this docket that, *"In calendar year 2018, the Company spent \$708,490 in*
7 *operations and maintenance (O&M) costs and \$256,952 in capital costs to install*
8 *and operate temporary LNG equipment at Old Mill Lane in Portsmouth."* The
9 Company also indicates that it expects to incur another \$653,915 for LNG
10 equipment and operations at Portsmouth. However, in part c. of the same
11 response National Grid states, *"At this time, the Company has no plans to use*
12 *portable LNG in Portsmouth during the winter of 2018-19."*

13

14 **Q. DOES NATIONAL GRID SEEK RECOVERY OF ANY OF THOSE O&M OR**
15 **CAPITAL COSTS THROUGH THE GCR CHARGES IT PROPOSES IN THIS**
16 **PROCEEDING?**

17 A. That is not entirely clear for several reasons. National Grid's response to Division
18 Data Requests 5-1 and 5-2 indicate that the Company has not planned for any
19 LNG Deliveries to the Portsmouth/Aquidneck Island area at any time under either
20 Normal Weather or Design Weather conditions for its 2018-19 GCR Year. On
21 the other hand, as noted above, the Company has incurred costs during 2018 and
22 expects to incur O&M and costs during 2019 to operate LNG equipment. How the

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1 Company can operate such facilities without LNG supply is unclear. It is also
2 unclear to what extent the LNG-related O&M costs for 2019 referenced in National
3 Grid's response to Division Data Request 5-3b were included in the Company's
4 rate year LNG Supply-Related O&M costs and may thereby be included both in
5 the Fixed and Variable GCR factors computed by Witness Leary.

6
7 **V. CONCLUSION**

8
9 **Q. WHAT ARE THE DIVISION'S RECOMMENDED GCR CHARGES?**

10 A. As explained herein, the Division has identified two adjustments to the Company's
11 proposed GCR costs. One removes the fixed costs associated with the ENGIE
12 agreement executed by the Company last winter for fixed costs commitments that
13 have not been economically justified, pending further review of the economic
14 justification for this contract. The second adjustment removes the incremental
15 portion of costs incurred by the Company to replace supplies from the Cumberland
16 LNG Tank that was prematurely taken out-of-service, pending a prudence review
17 of the Company's maintenance of the tank. In the context of the large effective
18 increases that will be faced by ratepayers under the Company's proposed GCR
19 rates, removing these two costs from the Company's GCR rates pending further
20 examination of the issues associated with the National Grid's recovery of those
21 costs is appropriate. Attachment DIV-GCR-7 computes revised GCR charges that
22 reflect the GCR adjustments that would be required if the Commission elects to

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1 withhold recovery of the costs of these potential adjustments pending further
2 investigation of these matters.

3 The changes in GCR charges presented in Attachment DIV-GCR-7 do not
4 include any adjustment to the Company's costs for Supplier Demand Charges that
5 are incorporated in National Grid's proposed GCR charges. These charges
6 represent a particularly thorny problem for the Commission. Acceptance of these
7 very expensive arrangements and their questionable economics will place
8 substantial rate burdens on Rhode Island heating customers, not just for the 2018-
9 19 GCR Year, but possibly well into the future. It also could negatively impact
10 efforts to encourage greater numbers of customers to shift from fuel oil to natural
11 gas and create dislocations in gas transportation service markets. However, if the
12 Commission acts to deny the Company recovery of those costs, the Company will
13 likely argue that it cannot assure reliable service to its customers under extreme
14 weather conditions. These are matters that require greater interaction between
15 the Company and its regulators before decisions to commit to such costs are
16 made. Yet, these are matters that are at best difficult to address properly within
17 the confines of this annual GCR review process.

18 From the Division's perspective there are important shortcomings in the
19 Company's planning and communications relating to decisions that yield fixed cost
20 increase. These shortcomings need to be remedied. Moreover, the focus of the
21 Company's planning needs to be enlarged to identify viable and more cost effective
22 alternatives to the payment of high Supplier Demand charges. Such alternatives

TESTIMONY OF BRUCE R. OLIVER

Docket No. 4872

October 16, 2018

1 should include, but need not be limited to, more in depth consideration of: (1)
2 expanded local LNG storage capabilities; (2) opportunities for the timely
3 development and implementation of Gas Demand Side Management programs
4 targeted to the reduction of costs incurred to address low frequency extreme peak
5 demand requirements; (3) opportunities for expansion of interruptible service
6 offerings; and (4) updating and publication of service curtailment priorities. In
7 addition, the Company's planning needs to more systematically address the
8 weather uncertainties under which its system must operate and more appropriately
9 weight all potential outcomes, not just Normal Weather and Design Weather
10 conditions.

11

12 **Q. DOES THIS CONCLUDE YOUR TESTIMONY?**

13 A. Yes, it does.

14

National Grid- RI Gas

Docket No. 4872 - 2018 Annual GRC Review

Major Components of National Grid's Increased GCR Cost Recovery Requirements

| Ln No | Cost Component | Dkt No. 4719 | Dkt No. 4872 | Cost Increase | % of Total Increase |
|----------------|---|-----------------|-----------------|---------------|---------------------|
| 1 | Fixed Costs (before deferrals and adjustments) | \$ 53,292,284 | \$ 81,074,625 | \$ 27,782,341 | 55.4% |
| 2 | Variable Costs (before deferrals and adjustments) | \$ 78,329,673 | \$ 84,383,359 | \$ 6,053,686 | 12.1% |
| Cost Deferrals | | | | | |
| 3 | Fixed Cost Deferrals | \$ 1,169,851 | \$ 7,218,742 | \$ 6,048,891 | |
| 4 | Variable Cost Deferrals | \$ 12,377,603 | \$ 16,134,580 | \$ 3,756,977 | |
| 5 | Total Cost Deferrals | \$ 13,547,454 | \$ 23,353,322 | \$ 9,805,868 | 19.6% |
| 6 | NGPMP Credits | \$ (10,900,000) | \$ (4,000,000) | \$ 6,900,000 | 13.8% |
| 7 | Other Adjustments | \$ (861,255) | \$ (1,285,648) | \$ (424,393) | -0.8% |
| 8 | Total | \$ 133,408,156 | \$ 183,525,658 | \$ 50,117,502 | 100.0% |

National Grid- RI Gas

Docket No. 4872 - 2018 Annual GRC

National Grid's Projected Fixed and Variable Gas Costs

Including All Cost Deferrals and Adjustments

| Ln No | Docket No | GCR Year | Fixed Costs | Variable Costs | Total Costs | Fixed Cost % of Total Costs |
|----------------------------|-------------|------------------------|---------------|----------------|----------------|-----------------------------|
| 1 | 4872 | Nov 2018 - Oct 2019 | \$ 81,314,463 | \$ 102,211,195 | \$ 183,525,658 | 44.3% |
| 2 | 4719 | Nov 2017 - Oct 2018 | \$ 40,863,173 | \$ 92,544,983 | \$ 133,408,156 | 30.6% |
| 3 | 4647 | Nov 2016 - Oct 2017 | \$ 29,336,921 | \$ 90,077,675 | \$ 119,414,596 | 24.6% |
| 4 | 4576 | Nov 2015 - Oct 2016 | \$ 30,539,461 | \$ 113,794,863 | \$ 144,334,324 | 21.2% |
| 5 | 4520 | Nov 2014 - Oct 2015 | \$ 27,606,777 | \$ 148,700,716 | \$ 176,307,493 | 15.7% |
| 6 | 4436 | Nov 2013 - Oct 2014 | \$ 31,530,147 | \$ 135,102,948 | \$ 166,633,095 | 18.9% |
| Percentage Increase | | | | | | |
| 7 | 1-Year Incr | Dkt 4872 over Dkt 4719 | 99.0% | 10.4% | 37.6% | |
| 8 | 2-Year Incr | Dkt 4872 over Dkt 4647 | 177.2% | 13.5% | 53.7% | |
| 9 | 3-Year Incr | Dkt 4872 over Dkt 4576 | 166.3% | -10.2% | 27.2% | |
| 10 | 5-Year Incr | Dkt 4872 over Dkt 4336 | 157.9% | -24.3% | 10.1% | |

National Grid - RI Gas

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Comparison of Fixed Costs Less Capacity Release Credits

Docket No. 4872 versus Docket No. 4719

| Ln No | | November | December | January | February | March | April | May | June | July | August | September | October | Annual Total |
|---------------------------|-------------------------------------|--------------|---------------|---------------|---------------|---------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|---------------|
| Docket No. 4782 1/ | | | | | | | | | | | | | | |
| 1 | Total All Fixed Costs | \$ 5,601,990 | \$ 11,344,658 | \$ 11,343,324 | \$ 11,274,492 | \$ 11,343,324 | \$ 5,759,838 | \$ 5,762,782 | \$ 5,806,103 | \$ 5,829,047 | \$ 5,829,047 | \$ 5,806,103 | \$ 5,829,047 | \$ 91,549,755 |
| 2 | Capacity Release Credits | \$ 872,928 | \$ 872,928 | \$ 872,928 | \$ 872,928 | \$ 872,928 | \$ 872,928 | \$ 872,928 | \$ 872,928 | \$ 872,928 | \$ 872,928 | \$ 872,928 | \$ 872,928 | \$ 10,475,136 |
| 3 | Fixed Costs Net of Capacity Release | \$ 4,729,062 | \$ 10,471,730 | \$ 10,470,396 | \$ 10,401,564 | \$ 10,470,396 | \$ 4,886,910 | \$ 4,909,854 | \$ 4,933,175 | \$ 4,956,119 | \$ 4,956,119 | \$ 4,933,175 | \$ 4,956,119 | \$ 81,074,619 |
| Docket No. 4719 2/ | | | | | | | | | | | | | | |
| 4 | Total All Fixed Costs | \$ 5,107,123 | \$ 5,141,113 | \$ 5,139,780 | \$ 5,137,644 | \$ 5,139,780 | \$ 5,223,774 | \$ 5,224,486 | \$ 5,223,774 | \$ 5,224,483 | \$ 5,224,486 | \$ 5,223,370 | \$ 5,224,082 | \$ 62,233,895 |
| 5 | Capacity Release Credits | \$ 745,134 | \$ 745,134 | \$ 745,134 | \$ 745,134 | \$ 745,134 | \$ 745,134 | \$ 745,134 | \$ 745,134 | \$ 745,134 | \$ 745,134 | \$ 745,134 | \$ 745,134 | \$ 8,941,608 |
| 6 | Fixed Costs Net of Capacity Release | \$ 4,361,989 | \$ 4,395,979 | \$ 4,394,646 | \$ 4,392,510 | \$ 4,394,646 | \$ 4,478,640 | \$ 4,479,352 | \$ 4,478,640 | \$ 4,479,349 | \$ 4,479,352 | \$ 4,478,236 | \$ 4,478,948 | \$ 53,292,287 |
| 7 | Increase in Fixed Costs | \$ 367,073 | \$ 6,075,751 | \$ 6,075,750 | \$ 6,009,054 | \$ 6,075,750 | \$ 408,270 | \$ 430,502 | \$ 454,535 | \$ 476,770 | \$ 476,767 | \$ 454,939 | \$ 477,171 | \$ 27,782,332 |

1/ From Docket No. 4872, Attachment NGC/EDA-1, page 1.

2/ From Docket No. 4719, Attachment NGC-1, page 1.

National Grid - RI Gas
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Comparison of Fixed Costs Less Capacity Release Credits

Docket No. 4872 versus Docket No. 4719

| Ln No | | Dec - Mar | All Other Months |
|---------------------------|-------------------------------------|----------------------|---------------------|
| Docket No. 4872 1/ | | | |
| 1 | Total All Fixed Costs | \$ 45,305,798 | \$ 46,243,957 |
| 2 | Capacity Release Credits | \$ 3,491,712 | \$ 6,983,424 |
| 3 | Fixed Costs Net of Capacity Release | \$ 41,814,086 | \$ 39,260,533 |
| Docket No. 4719 2/ | | | |
| 4 | Total All Fixed Costs | \$ 20,558,317 | \$ 41,675,578 |
| 5 | Capacity Release Credits | \$ 2,980,536 | \$ 5,961,072 |
| 6 | Fixed Costs Net of Capacity Release | \$ 17,577,781 | \$ 35,714,506 |
| 7 | Increase in Fixed Costs | \$ 24,236,305 | \$ 3,546,027 |
| 8 | Percent Increase | 137.9% | 9.9% |

1/ From Docket No. 4872, Attachment NGC/EDA-1, page 1.

2/ From Docket No. 4719, Attachment NGC-1, page 1.

National Grid-RI Gas

Docket No. 4872 - 2018 Annual GRC

National Grid's Proposed Changes in GCR Charges by Rate Class

| Rate Classification | Initial PUC Approved GCR Rate Dkt 4719 1/ (\$/Therm) | Current GCR Rate 2/ (\$/Therm) | NGrid Proposed GCR Rate 3/ (\$/Therm) | Change from Initial PUC Approved Rate Dkt 4719 \$ (\$/Therm) | Change from Current Rates \$ (\$/Therm) | % |
|--|--|---|---|---|---|--------|
| | | | | | | |
| Residential | | | | | | |
| Non-Heating | \$ 0.4859 | \$ 0.7090 | \$ 0.6101 | \$0.1242 | (\$0.0989) | -14.0% |
| Low Income- Non Heating | \$ 0.4859 | \$ 0.7090 | \$ 0.6101 | \$0.1242 | (\$0.0989) | -14.0% |
| Heating | \$ 0.5291 | \$ 0.7516 | \$ 0.7042 | \$0.1751 | (\$0.0474) | -6.3% |
| Low income- Heating | \$ 0.5291 | \$ 0.7516 | \$ 0.7042 | \$0.1751 | (\$0.0474) | -6.3% |
| Commercial & Industrial | | | | | | |
| Small | \$ 0.5291 | \$ 0.7516 | \$ 0.7042 | \$0.1751 | (\$0.0474) | -6.3% |
| Medium | \$ 0.5291 | \$ 0.7516 | \$ 0.7042 | \$0.1751 | (\$0.0474) | -6.3% |
| Large Low Load Factor | \$ 0.5291 | \$ 0.7516 | \$ 0.7042 | \$0.1751 | (\$0.0474) | -6.3% |
| Large High Load Factor | \$ 0.4859 | \$ 0.7090 | \$ 0.6101 | \$0.1242 | (\$0.0989) | -14.0% |
| Extra Large Low Load Factor | \$ 0.5291 | \$ 0.7516 | \$ 0.7042 | \$0.1751 | (\$0.0474) | -6.3% |
| Extra Large High Load Factor | \$ 0.4859 | \$ 0.7090 | \$ 0.6101 | \$0.1242 | (\$0.0989) | -14.0% |
| FT-2 Marketer Demand Rate | \$ 8.8520 | \$ 8.8520 | \$ 17.0642 | \$8.2122 | \$8.2122 | 92.8% |
| Storage and Peaking Charge | \$ 0.6831 | \$ 0.6831 | \$ 1.6478 | \$0.9647 | \$0.9647 | 141.2% |
| Wtd Avg Upstream Pipeline Transportation Charge | \$ 0.6168 | \$ 0.6168 | \$ 0.7693 | \$0.1525 | \$0.1525 | 24.7% |

1/ National Grid website, Rates for Effect 11/01/17.

2/ National Grid website, Rates for Effect 09/01/18.

3/ Docket 4872, Attachments AEL-1, page 1 of 15 and AEL-5, page 1 of 3.

National Grid- RI Gas

Docket No. 4872 - 2018 Annual GRC Review

**Weighted Average Annual GCR Rate Increase by Rate Class
Under National Grid's Proposed GCR Charges**

| Rate Classification | A | | B | | C | | D | | E |
|------------------------------------|---|-----------------------------------|-----------------------------|-----------------------------|--|--|---|--|---|
| | % Increase From Initially Approved Dkt 4719 GCR Rates | % Increase From Current GCR Rates | % of Annual Sales Nov - Mar | % of Annual Sales Apr - Oct | Weighted Annual Percentage Increase 1/ | | | | |
| Residential | | | | | | | | | |
| Non-Heating | 25.6% | -14.0% | 54.7% | 45.3% | 7.7% | | | | |
| Low Income - Non Heating | 25.6% | -14.0% | 54.7% | 45.3% | 7.7% | | | | |
| Heating | 33.1% | -6.3% | 73.5% | 29.4% | 22.5% | | | | |
| Low Income - Heating | 33.1% | -6.3% | 73.5% | 29.4% | 22.5% | | | | |
| Commercial & Industrial | | | | | | | | | |
| Small | 33.1% | -6.3% | 73.5% | 26.5% | 22.6% | | | | |
| Medium | 33.1% | -6.3% | 66.3% | 33.7% | 19.8% | | | | |
| Large Low Load Factor | 33.1% | -6.3% | 71.1% | 28.9% | 21.7% | | | | |
| Large High Load Factor | 25.6% | -14.0% | 51.8% | 48.2% | 6.5% | | | | |
| Extra Large Low Load Factor | 33.1% | -6.3% | 73.0% | 27.0% | 22.4% | | | | |
| Extra Large High Load Factor | 25.6% | -14.0% | 32.3% | 67.7% | -1.2% | | | | |

1/ Column E = (Column A * Column C) + (Column B * Column D)

National Grid - RI Gas
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Total Supplier Demand Charges

Docket No. 4719 Annual Filing, Docket No. 4719 1/29/18 Interim Filing, and Docket No. 4872 8/31/18 Filing

CONFIDENTIAL

| Ln No | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | TOTAL |
|--------------------------------|----------------------------|------|------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-------|
| Supplier Demand Charges | | | | | | | | | | | | | |
| 1 | Docket No. 4719 1/ | | | | | | | | | | | | |
| 2 | Docket No. 4719 Interim 2/ | | | | | | | | | | | | |
| 3 | Docket No. 4872 3/ | | | | | | | | | | | | |
| Difference | | | | | | | | | | | | | |
| 4 | 4719 Interim - 4719 | \$ - | \$ - | | | | | | | | | | |
| 5 | 4872 - 4719 | \$ - | | | | | | | | | | | |
| 6 | 4872 - 4719 Interim | \$ - | | | | | | | | | | | |

1/ From Docket No. 4719, September 29, 2017 Supplemental Filing, Attachment NGC-1, CONFIDENTIAL Electronic Workpapers
2/ From Docket No. 4719 January 29, 2018 Interim Filing, Attachment NGC-1, CONFIDENTIAL Electronic Workpapers
3/ From Docket No. 4872, August 31, 2018 Filing, Attachment NGC-EDA-1, CONFIDENTIAL Electronic Workpapers

National Grid- RI Gas

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Division Proposed Gas Cost Recovery (GCR) Factors

Factors Effective November 1, 2018

| Ln No | Description (a) | Source | | High Load 1/ (d) | Low Load 2/ (e) |
|-------|---|------------------|----------------|---------------------|--------------------|
| | | Reference (b) | Line No (c) | | |
| 1 | Fixed Cost Factor - \$/Dth | AEL-1, pg 2 | Line (18) | \$1.8926 | \$2.7056 |
| 2 | Variable Cost Factor -\$/Dth | AEL-1, pg 3 | Line (13) | \$3.8346 | \$3.8346 |
| 3 | Total Gas Cost Recovery Charge - \$/Dth | (1) + (2) | | \$5.7272 | \$6.5402 |
| 4 | Uncollectible % | Docket 4770 | | 1.91% | 1.91% |
| 5 | Total GCR Charge Adjusted for Uncollectibles - \$/Dth | (3) + [1 - (4)] | | \$5.8387 | \$6.6675 |
| 6 | GCR Charge on a per therm basis | (5) ÷ 10 | | \$0.5838 | \$0.6667 |
| 7 | Current rate effective 09/01/18* - \$/therm | | | \$0.7090 | \$0.7516 |
| 8 | Increase / (Decrease) - \$/therm | (6) - (7) | | (\$0.1252) | (\$0.0849) |
| 9 | Percent Decrease | (8) ÷ (7) | | -17.7% | -11.3% |

* Docket No.4770, Revised Compliance Attachment 18

1/ Includes: Residential Non Heating, Large High Load Factor C&I and Extra Large High Load Factor C&I

2/ Includes: Residential Heating, Small C&I, Medium C&I, Large Low Load Factor C&I, Extra Large Low Load Factor C&I

