

MEMORANDUM

TO: Rhode Island Public Utilities Commission

FROM: Bruce R. Oliver, Revilo Hill Associates, Inc.
Tim Oliver, Revilo Hill Associates, Inc.
On Behalf of the Division of Public Utilities and Carriers

DATE: September 30, 2016, as Revised October 11, 2016.

SUBJECT: Review of National Grid's 2016 DAC Filing, Docket 4634.

This memorandum addresses the 2016 natural gas Distribution Adjustment Charge ("DAC") filings by National Grid (hereinafter "National Grid" or "the Company"). National Grid's proposed DAC changes in this proceeding are supported by the August 1, 2016 direct testimony of Suhila N. Nutile for National Grid and the September 1, 2016 supplemental testimonies of National Grid witnesses Nutile and William R. Richer. This review of the Company's 2016 DAC filing includes an examination of the Company's Environmental Report Filed on July 27, 2016, as well as the Company's Gas Revenue Decoupling Mechanism Reconciliation filed on June 30, 2016.

Overall the Company's DAC filings reflect significant changes from the Company's currently effective DAC charges. The amount the Company proposes to recover through DAC charges for the twelve-month period from November 1, 2016 through October 31, 2017 (i.e., the 2016-17 DAC year) is a credit of \$3,969,258. That represents a decrease of approximately \$13.6 million or 83% from the size of the credit presently being billed through the DAC. This reduction in the credit (or effective rate increase) is driven primarily by magnitude of the change in the Company's Revenue Decoupling Adjustment (RDA). The major components of National Grid's proposed DAC adjustment in this proceeding will be discussed further below.

DISCUSSION OF DAC FACTOR COMPONENTS

National Grid's DAC calculations comprise twelve (12) components. Of those twelve components five will be discussed in greater detail below. Division witness David Effron will address the Company's proposed Pension Adjustment Factor (PAF), Earnings Sharing Mechanism (ESM), and the 2016 ISR revenue requirement reconciliation. The remaining five components have little or no impact on the proposed DAC charges in this proceeding and will be addressed as a group.

Notably, our review finds that National Grid has successfully resolved an outstanding issue regarding appropriate recognition of the transfer of an additional 970 customers from Residential Non-Heating service to Residential Heating service and corresponding adjustments to the revenue per customer calculations. In our assessment National Grid's efforts to address these matters have

improved the accuracy and equity of the Company's Revenue Decoupling Adjustment (RDA) calculations.

Revenue Decoupling Adjustment (RDA)

The Company's proposed RDA represents the greatest change in magnitude from the Docket No. 4573, the 2015 DAC. The RDA has changed from (\$14,181,587) to (\$282,230). In 2015 the RDA represented 86% of the overall DAC factor, while in this proceeding the RDA represents 10% of the overall DAC factor. This is an encouraging change as it demonstrates that the Company's target revenue and actual revenues are more closely aligned than it has previously been. One contributing factor is the milder weather experienced during the most recent RDM measurement period. Another contributing factor has been the Company's ongoing efforts to properly distinguish between Residential Heating and Non-Heating customers, and reclassify customers where appropriate. Starting in Docket No. 4573 the Company transferred 2,600 Residential customers from Non-Heating to Heating rate schedules. In this proceeding the Company has transferred an additional 970 customers, and indicated that it anticipates transferring an additional 2,400 customers by July 2016, that will be reflected in the Company's next DAC filing in 2017.⁴

The transfer of these customers required the Company to adjust the target revenue-per-customer that was established in Docket No. 4323, the Company's last base rate case. Our review of these adjustments as demonstrated in the Company's June 30, 2016 RDM filing find them to be appropriate and mathematically accurate. As the Company continues to appropriately transfer customers from Non-Heating to Heating rate schedules the Company's target revenue-per-customer should more accurately reflect the costs to serve both Non-Heating and Heating classes which should result in reducing the volatility of the RDA factor in the DAC.

System Pressure (SP) Factor

In the October 31, 2012 Settlement Agreement accepted by the Commission in Docket No. 4339, the Commission approved the system pressure balancing percentage to be used in the calculation of the Company's annual DAC Reconciliation, beginning in November 2012. That percentage, of 75.77%, is applied to the NGLNG Lease Payments to arrive at the system pressure costs assignable to the DAC. The resulting dollar amount assigned to the DAC is \$1,488,789. That dollar amount, divided by the forecasted firm throughput for the 2016-2017 GCR year of 39,347,340 Dth, produces a system pressure factor of \$0.0370 per Dth, or \$0.0037 per therm. We have verified that the appropriate allocation factor was applied. Thus, the System Pressure Factor computed by the Company in this proceeding is found to be consistent with the provisions of the Settlement Agreement accepted by the Commission in Docket No. 4339.

On-System Margin Credits (MC) Factor

The Commission's decision in Docket No. 4323 to apply National Grid's On-System Margin Credit determination to only Non-Firm service customers requires that the Company adjust the

⁴ Gas Revenue Decoupling Mechanism Reconciliation filed on June 30, 2016, page 9 of 14.

Non-Firm margin threshold when a customer migrates from Non-Firm to Firm service. Witness Nutile's direct testimony and response to Division Data Request 2-6 demonstrate that this adjustment has been made as required, and supports a finding that the adjustment on-system margin threshold for the 2016-17 DAC year of \$1,435,656 is appropriately computed. Based on that threshold, National Grid has determined that its on-system margin revenue for FY 2016 of \$1,499,331 exceeded the adjusted margin threshold by \$63,674. The amount in excess of the adjusted margin threshold is credited to National Grid's firm service customers resulting in a proposed On-System Margin factor of (\$0.0001).

When the mechanism for tracking On-System Margin Revenues was first established National Grid had approximately 60 non-firm service customers for whom tracking of margin revenue contributions was required. In the Company's filing in this proceeding only 11 non-firm service customers are reflected, and 9 of those customers are served under fixed transportation service rates. Only two non-firm customers utilized National Grid's Interruptible Sales Service rates during FY 2016,¹ and those two customers (as well as all the remaining nine Non-Firm Transportation Service customers) are subject to fixed distribution service charges. Thus, the only variability in non-firm margin revenue that remains is a function of variability in gas service volumes. In this context, the Division believes that consideration should be given to suspending or terminating use of the On-System Margin Credit Factor, as the costs of tracking margins on individual customers and annually adjusting margin thresholds appear to offset a substantial portion of any credits that may be generated on an annual basis.²

The On-System Margin Credit Factor is a vestige of value of service pricing that was implemented in the 1980's when the costs of fuel oil alternatives dropped sharply relative to the costs of bundled natural gas service and gas distribution utilities were threatened with loss of significant recovery of fixed distribution service costs. However, with the opening of markets for competitive gas supply service in the 1990's the need for variable pricing of distribution services was essentially eliminated. In the current market, competition between natural gas and fuel oil prices is addressed by competitive suppliers of gas supply services, thereby allowing National Grid to price its distribution services at fixed rates. As a result, the uncertainties associated with National Grid's ability to recover its fixed distribution costs are now not substantially different than those for other classes of service. Thus, the Division believes that suspension or elimination of the On-System Margin Credit Factor in future DAC proceedings may represent a reasonable step to streamline future DAC filings and avoid at best marginally productive expenditures of time and resources by the Company, the Division, and the Commission. If the On-System Margin Credit Factor is eliminated or suspended, the Company's recovery of On-System Margin Revenue would be assumed to equal the current margin threshold until the conclusion of the Company's next base rate case. As noted above, this would serve to streamline the Company's annual DAC filings.

Advanced Gas Technology Program (AGT) Factor

¹ Non-Firm Sales Service is closed to new customers and is only offered to grandfathered customers who were taking that service as of July 1, 2009.

² At present, the Company is required to perform extensive calculations for what have become comparatively small annual credit adjustments.

At the end of March 2016 National Grid had a balance of unexpended AGT program funding of \$1,601,591. The Company continues to receive \$300,000 of AGT funding annually through base rates and seeks no additional AGT funding through the DAC in this proceeding. Since July of 2005 (i.e., a period of more than ten years), the Company has distributed AGT program rebates to customers totaling \$1,617,761. To date no applicant for AGT funding has been denied a rebate after formally requesting to participate in the program. National Grid has a remaining commitment to pay additional incentives totaling \$1,300,000 to one larger customer (Toray), and \$500,000 of that amount is scheduled to be paid out within the 2016-17 DAC year. Although National Grid indicates that it has identified six potential new AGT projects,³ potential projects do not always become actual projects. National Grid has budgeted no new commitments of AGT program funds for the coming year. Thus, the current AGT funding balance plus annual base rate funding appear more than adequate to meet currently anticipated AGT program funding requirements for the 2016-17 DAC year.

The program appears to be garnering a rather niche interest. All the identified potential participants are proposing to utilize Combined Heat and Power (CHP) technology. CHP technology has been around for decades and therefore its classification as an Advanced Technology may be questioned. Still, CHP offers many benefits that may warrant continued support through a rebate or incentive program. The EPA lists four categories of CHP benefits. Those categories are: Efficiency, Environmental, Economic, and Reliability. The Commission may wish to consider refocusing, and perhaps renaming, the current AGT program to encourage greater realization of benefits, including environmental benefits, associated with the deployment of CHP.

For Rhode Island to realize more fully the non-economic benefits of CHP, the Company may need to alter some of the criteria currently employed for qualification for program rebates. For example, the Company currently requires that a potential AGT project must have at least **31%** of its projected usage in the summer months (May-October).⁴ This is a modest requirement. Many of the Company's Large and Extra Large High Load Factor C&I customers already operate at load factors well in excess of that standard and receive no incentives from the Company. National Grid's forecasted normal weather throughput for the twelve months ended October 2017 project summer gas use as a percent of total annual gas use for Large High Load Factor C&I and Extra Large High Load Factor C&I customers of **41%** and **47%** respectively.⁵ An increase in the current summer usage requirement for the AGT program would improve efficiency gains realized through the program while also enhancing environmental, efficiency, and reliability benefits. Furthermore, additional benefits would be realized if the program attracted a greater number of participants. The Commission should direct the Company to propose changes to its current AGT program in its next DAC filing that are designed to increase program participation and enhance the program's benefits.

³ National Grid's Response to Commission Data Request 1-1.

⁴ National Grid's Response to Division Data Request 2-3, part e.

⁵ Calculated from Docket No. 4647, Attachment AEL-6.

Environmental Response Cost (ERC) Factor

The ERC Factor provides the Company a means of recovering “reasonable and prudently incurred” environmental response costs while limiting impacts on customers’ bills. Over the last decade approximately \$6.3 million of environment response expenditures have been recovered by National Grid through this mechanism. That amount is incremental to the \$1,310,000 of environment response costs the Commission has authorized the Company to recover annually through its base rates. Any amount of required annual environment response cost recovery above or below \$1,310,000 per year recovered through base rates is reflected in the ERC factor. For the 2016-17 DAC year, National Grid computes that the Company requires \$1,898,061 of amortized environment expense cost recovery. After deducting the \$1,310,000 recovered through base rates, the Company seeks recovery of \$588,061 through the ERC Factor for the 2016-17 DAC year.

We have reviewed the calculations supporting National Grid’s computed ERC Factor in this proceeding. Our review has included examination of the full detail of the Company’s July 27, 2016 Annual Environmental Report, as well as extensive materials (i.e., reports, contractor invoices, receipts, etc.) that National Grid has provided in response to Division data requests as further support of the Company’s claimed Fiscal Year 2016 (“FY 2016”)⁶ environmental expenditures. Witness Nutile’s Direct Testimony, filed on August 1, 2016 proposes an ERC Factor of \$0.0014 per therm. The Company’s proposed ERC Factor represents a minor adjustment to the currently effective ERC Factor of \$0.0013 per therm that was approved in Docket No. 4573. Although the Division’s review of this material does not constitute a full audit of those expenditures, the Company’s expenditures appear to be well-documented in its responses to Division data requests. No costs were identified for which recovery through the ERC factor would be inappropriate. Moreover, no computational errors were found in the support for National Grid’s claimed environment response costs. We also reviewed the nature of the activities, services and materials for which cost claims were included in the Company’s 2016 Annual Environmental Report, and performed comparisons to the costs claimed for similar activities and services in the Company’s 2015 Annual Environmental Report. Nothing observed was obviously out-of-line with the Company’s prior cost experience. Therefore, we support the Company’s ERC Factor as proposed.

Additional DAC Components

The remaining DAC factors that have been reviewed either remained unchanged or contain no identified issues. The uncollectible percentage from Docket 4323 remains unchanged and is appropriately applied. National Grid seeks no additional Low Income Assistance Program (LIAP) funding at this time.⁷ The Service Quality Performance (SQP) Factor is \$0 and has remained at zero for seven years and we hope the Company will continue avoid penalties for performance. The proposed Reconciliation (R) Factor (applicable to Residential, Small C&I, and Medium C&I customers) is a credit of (\$0.0010) per therm. The change in the R factor was driven by a decrease

⁶ National Grid’s 2016 fiscal year represents the twelve month period ended March 31, 2016.

⁷ National Grid has not requested any additional LIAP funding through the DAC in over seven years. This suggests that the LIAP factor may no longer be require as part of the DAC. Elimination of the LIAP factor from the Company’s annual DAC filings would help to further streamline the DAC.

in the ending balances for Pensions and PBOP. Similarly, the Revenue Decoupling Reconciliation (RD-R) is proposed to be a credit, this is due to the remaining balance from the large RDA credit from the previous DAC period as discussed above. Lastly, a review of the Company's proposed bill impacts, Schedule SLN-13S, is reasonable and accurate, with no customers expected to receive an increase in their bills of greater than 5.6%. No Residential customer will see a monthly bill increase of greater than 4.7%.

National Grid's Current and Proposed DAC Factors

The following tables present the Company's current and proposed charges for each DAC component, exclusive of the ISR and ISR reconciliation. Table 1 below shows the factors for the Residential, Small C&I, and Medium C&I classes. Table 2 shows the DAC factors for the Company's Large and Extra Large C&I classes. Table 3 provides the November 1, 2016 DAC Rates, including ISR Charges that will be billed to customers.

**Table 1
Residential, Small and Medium C&I Customers**

DAC Component	Symbol	Current Factor	Proposed Factor	Difference
System Pressure	SP	\$0.0037	\$0.0037	\$0.0000
Advanced Gas Technology	AGT	\$0.0000	\$0.0000	\$0.0000
Low Income Assistance Program	LIAP	\$0.0000	\$0.0000	\$0.0000
Environment Response Cost	ERC	\$0.0013	\$0.0014	\$0.0001
Pension Adjustment	PAF	(\$0.0094)	(\$0.0054)	\$0.0040
On-System Margin Credit	MC	\$0.0003	(\$0.0001)	(\$0.0004)
Reconciliation Factor	R	\$0.0008	(\$0.0007)	(\$0.0015)
Service Quality	SQP	\$0.0000	\$0.0000	\$0.0000
Earnings Sharing Mechanism	ESM	(\$0.0008)	\$0.0000	\$0.0008
Allowance for Uncollectibles	AFU	3.18%	3.18%	3.18%
Revenue Decoupling Adjustment	RDA	(\$0.0500)	(\$0.0010)	\$0.0490
Revenue Decoupling Reconciliation	RD-R	\$0.0013	(\$0.0072)	(\$0.0085)
Distribution Adjustment Charge	DAC	(\$0.0529)	(\$0.0093)	\$0.0435

Table 2
Large and X-Large Customers

DAC Component	Symbol	Current Factor	Proposed Factor	Difference
System Pressure	SP	\$0.0037	\$0.0037	\$0.0000
Advanced Gas Technology	AGT	\$0.0000	\$0.0000	\$0.0000
Low Income Assistance Program	LIAP	\$0.0000	\$0.0000	\$0.0000
Environment Response Cost	ERC	\$0.0013	\$0.0014	\$0.0001
Pension Adjustment	PAF	(\$0.0094)	(\$0.0054)	\$0.0040
On-System Margin Credit	MC	\$0.0003	(\$0.0001)	(\$0.0004)
Reconciliation Factor	R	(\$0.0007)	(\$0.0019)	(\$0.0012)
Service Quality	SQP	\$0.0000	\$0.0000	\$0.0000
Earnings Sharing Mechanism	ESM	(\$0.0008)	\$0.0000	\$0.0008
Allowance for Uncollectibles	AFU	3.18%	3.18%	3.18%
Revenue Decoupling Adjustment	RDA	\$0.0000	\$0.0000	\$0.0000
Revenue Decoupling Reconciliation	RD-R	\$0.0000	\$0.0000	\$0.0000
Distribution Adjustment Charge	DAC	(\$0.0057)	(\$0.0023)	\$0.0034

Table 3
DAC Rates Including ISR

Rate Schedule	Symbol	Proposed Rates
Residential Non-Heating	Res-NH	\$0.1964
Residential Non-Heating Low Income	Res-NH-LI	\$0.1964
Residential Heating	Res-H	\$0.1106
Residential Heating Low Income	Res-H-LI	\$0.1106
Small Commercial	Small	\$0.1096
Medium Commercial	Medium	\$0.0699
Large Commercial Low Load Factor	Large LL	\$0.0759
Large Commercial Low High Factor	Large HL	\$0.0689
X-Large Commercial Low Load Factor	XL-LL	\$0.0170
X-Large Commercial High Load Factor	XL-HL	\$0.0165