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: October 5, 2018 *(Revised October 18, 2018)*

SUBJECT: Review of National Grid's 2018 DAC Filing, Docket 4846.

This memorandum addresses the 2018 Annual Gas Distribution Adjustment Charge ("DAC") filings by National Grid (hereinafter "National Grid" or "the Company") in this proceeding. This memorandum discusses the drivers of the levels of the DAC rates that National Grid proposed. It also addresses changes to the DAC that have resulted from determinations in the Company's recently completed base rate proceeding, Docket No. 4770. Finally, we propose an adjustment to the Revenue Decoupling Adjustment (RDA) reconciliation amounts that National Grid has proposed.

National Grid's proposed DAC changes are supported by the August 1, 2018 Direct Testimony of Ann E. Leary and Jeffery D. Oliveira and the August 31, 2018 Supplemental Testimonies of witnesses Leary and Melissa A. Little. National Grid's DAC calculations comprise twelve (12) components. This memorandum addresses all factors except those to be addressed by Witness Effron. The factors to be addressed by Witness Effron include the Company's Pension Adjustment Factor (PAF), Earnings Sharing Mechanism (ESM), and the 2017 ISR revenue requirement reconciliation. Our review of the Company's 2018 DAC filing includes an examination of the Company's Annual Environmental Response Report that was filed on July 27, 2018.

Overall the Company's DAC proposals yield an overall **credit** to be provided to customers through the DAC of **$5,808,565**. That overall credit also translates into a net credit for each of the DAC customer classifications.[1] Moreover, for each DAC customer classification the proposed rates for the 2018-2019 DAC year are more favorable for customers than the currently effective DAC rates.

The increase in DAC credit is driven primarily by three factors: (1) a decrease in the Company's System Pressure (SP) Factor; (2) an increased credit balance for the Pension Adjustment Factor (PAF), and (3) an identified over-collection in the Revenue Decoupling Adjustment ("RDA") Reconciliation. The Pension Adjustment Factor will be addressed by another Division witness. The SP Factor and the RDA are discussed in greater detail below. Those discussions are followed by a review of other changes in National Grid's DAC factors and presentation of the Division's recommended DAC Factors.

System Pressure Factor

The role of the System Pressure (SP) Factor is to transfer costs related to the maintenance of system pressure from National Grid's GCR to the DAC to ensure that all customers, who utilize the gas delivery system and benefit from the Company's efforts to maintain system pressures, share the responsibility for costs that are incurred for that purpose. The SP factor has evolved considerably over the last decade. Through discussions between the Company and Division since the last DAC proceeding considerable progress has been made to develop a more consistent working definition of system pressure costs. The change in the **SP factor** National Grid proposes in its Supplemental Direct Testimony in this proceeding represents the product of discussions between the Division and the Company.

As explained in the Supplemental Testimony of National Grid Witness Leary at pages 6-7, the Division has agreed to eliminate the demand costs associated with deliveries to the Crary Street Gate Station from its System Pressure (SP) Factor. The

[1] The Company's DAC sets rates for three customer classifications. Those are: (1) Residential, Small C&I, and Medium C&I customers; (2) Large and Extra Large C&I customers; and (3) Residential Low-Income customers.

Division had been grappling for quite a while with questions regarding which of the Company's costs were properly classified as system pressure costs. Prior to the completion of the Crary Street Gate Station, System Pressure costs reflected in the Company's DAC filings were generally viewed as LNG related costs. When the Crary Street Gate Station was completed, National Grid found that it no longer was required to use LNG from the Providence Tank for system pressure purposes. As an alternative, the Company suggested, in Docket 4708, Crary Street Demand Charges would be used as a measure of System Pressure costs. The Division accepted that alternative based on the Company's representation that 100% of Crary Street demand costs were incurred for the maintenance of system pressure. However, as noted at page 5 of our memorandum in Docket No. 4708, the Division continued to believe that costs for LNG or other sources of supply might also provide system pressure support, particularly in areas of the Company's system not served by the Crary Street Gate Station.

On July 30, 2018, National Grid submitted a letter to the Division in which the Company stated,

> *"National Grid has determined from hydraulic analysis that the Company requires 17,120 dekatherms from its Exeter liquefied natural gas (LNG) facility to maintain system pressure in a normal winter. This results in an annual cost of approximately $100,000."*

This triggered a new round of discussions between the Division and the Company which explored differences between the criteria used to identify system pressure costs for the Exeter area and those used to classify Crary Street demand costs as System Pressure related expenditure. Through those discussions, the Division and the Company agreed that all pipeline capacity generally provides a measure of pressure support. However, such costs are not incremental to the generally operation of the Company's distribution system unless they are associated with supply utilized out of normal economic dispatch order. In that context, it was agreed that the Exeter LNG cost the Company identified were more appropriately considered System Pressure costs than demand charges paid for deliveries to the Crary Street Gate Station. Further, we recognized that while there may be greater requirements in the future for resources that would be appropriately classified as System Pressure costs, the Exeter costs quantified by the Company at this time, were not sufficient in themselves to warrant the computation of a System Pressure Factor at this time. Thus, we agreed with the Company that it made sense continue to maintain a System Pressure Factor, but for now that factor would be set at zero.[2] By maintaining the factor in the DAC, the use of LNG or other supplies for system pressure will be reviewed on an annual basis, and thus, possible future increases in the Company's use of LNG or other resources for system pressure purposes could be quickly recognized and appropriate recovered.

Elimination of the Crary Street demand charges from the System Pressure Factor removes **$3,153,600** of costs from the DAC. It also lowers the DAC cost recovery requirement by $0.0079 per therm.[3]

Revenue Decoupling Adjustment

For the Revenue Decoupling reconciliation period (i.e., National Grid's fiscal year ended March 31, 2018), the Company's base rate revenue was over-collected by **$5,661,116**. National Grid's computed over-collections by rate class are as follows:

Residential Non-Heat (incl. Low Income)	$	535.269
Residential Heat (incl. Low Income)	$	(6,879,336)
Small C&I	$	(139,560)
Medium C&I	$	822,510
Total	$	(5,661,116)

2 It was agreed that as long as the identifiable system pressure costs remained in the range of those computed for Exeter, the costs to be recovered are too small to justify use of a positive System Pressure factor.

3 The Division recognizes that this reduction in DAC costs is directly offset by an equal dollar increase in GCR cost recovery requirements.

The data show that the overall net over-collection is primarily attributable to the Residential Heating class. As explained by Witness Leary, this over-collection is observed despite the fact that the reconciliation period overall was warmer than normal. The general expectation is that warmer than normal weather will reduce sales and produce under-recoveries of revenue. However, due to adjustments to the Targeted Revenue Per Customer ("RPC") to reflect customer transfers from Residential Non-Heating service to Residential Heating service, the Residential Heating class noticeably over-recovered its targeted revenue. Yet, under the current structure of the RDA, the benefit of the Residential Heating class over-collection is spread proportionally over the therm use of all customers in the RDM classes. There is an inherent inequity in the distribution of the benefits of the identified revenue over-collection, but this appears to be a one-time problem. The resetting of revenue targets as a result of the rate determinations in Docket No. 4770 should help to mitigate such inequities in future DAC proceedings.

Witness Leary's Schedule AEL-7, page 1 of 19, computes that the identified over-collection would yield a **credit of $0.0200 per them** when spread over the Company's forecasted throughput for Nov 2018 – Oct 2019 for the RDM rate classes. We have verified the amount of the over-collection and the Company's calculated credit per therm. However, we believe that due to the discounting of service to low-income customers, the proposed credit will fall short of distributing the entire over-collection balance for the reconciliation period. By our calculations the 25% discount[4] for Residential Low-Income customers will result in an under-distribution of credits of approximately $77,000. That under-distribution of credits can be remedied through a slight increase in the RDA credit from $0.0200 per therm to $0.0203 per therm.[5]

Other Changes in DAC Factors

[4] We recognize that some Low-Income Residential customers may receive a 30% discount, rather than the referenced 25% discount, but we are not able at this time to assess the amount of service to which the 30% discount will apply or the dollar impact of such additional discounts.

[5] See Attachment DIV-DAC-1 for our calculation of the adjusted RDA credit and Tables 1, 2, 3 & 4 at the end of this memorandum for the impacts of that adjustment on the proposed DAC rates.

The DAC filings additionally reflect changes that are the result of the Amended Settlement Agreement ("ASA") from Docket Nos. 4770 and 4780 that was approved by this Commission on August 16, 2018. Those changes include the newly established Low Income Discount Recovery Factor ("LIDRF") and an Arrearage Management Adjustment Factor ("AMAF"). The changes, along with the considerations relating to other components of National Grid's proposed DAC rates are discussed further below.

In our assessment, the Company's Supplemental Testimony and Schedules appropriately reflect the alterations to the DAC that were stipulated in the ASA. In that settlement the Commission accepted several items that impact the DAC components. These include the establishment of the LIDRF that provides a 25% to 30% discount for qualifying residential customers and a reduction to the Company's uncollectible percentage.

Advanced Gas Technology ("AGT") Factor

Commission Order No. 23265 from Docket No. 4708 (the previous DAC proceeding), directed the Company and the Division to continue collaboration to improve the Advanced Gas Technology ("AGT") program and resolve issues pertaining to the Company's calculation of the SP factor.[6] Improvement to the AGT program is still being developed and the Company's DAC filings in this proceeding request no additional funding. Discussion related to the nature of costs included in the calculation of the SP

[6] As previously discussed, substantial agreement on issues relating to the SP factor has been achieved. However, interactions on matters relating to the AGT program to date have been more limited than anticipated. Our hope is that more substantial progress on revisions to that program will be accomplished in the coming months.

factor represent further progress on previous settlement form Docket No. 4232 and should be noted by this Commission.

At the end of March 2018 National Grid had a balance of unexpended AGT program funding of $974,131 plus $300,000 to be paid to Toray Plastics (America) Inc.[7] Interest earned on the accumulated balance of AGT funds was $23,792,[8] and that interest has been properly credited to customers through the reconciliation factor.[9] The Company seeks no additional AGT funding through the DAC in this proceeding.

Environmental Response Costs

The Environmental Response Cost Factor ("ERCF") provides the Company a means of recovering "reasonable and prudently incurred" environmental response costs while limiting impacts on customers' bills**.** The environment response expenditures recovered by National Grid through this mechanism are incremental to the $1,310,000 of environment response costs the Commission has authorized the Company to recover annually through 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 2018-19 DAC year, National Grid computes that the Company requires $2,398,331 of amortized environment expense cost recovery. After deducting the $1,310,000 recovered through base rates, the Company seeks recovery of $1,086,606 through the ERCF for the 2018-19 DAC year. Witness Leary's Direct Testimony, filed on August 1, 2018 proposes an ERC Factor of $0.0027 per therm. The Company's proposed ERC Factor represents an adjustment of $0.0003 per therm to the currently effective ERC Factor of $0.0024 per therm that was approved in the Company's last DAC proceeding, Docket No. 4708.

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7 Schedule AEL-3, page 2.

8 The August 1, 2018 Direct Testimony of National Grid Witness Leary at page 22, line 6, and Schedule AEL-3, page 2 of 2, line 16.

9 Schedule AEL-10, page 1 of 8, line 10.

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, 2018 Annual Environmental Report for FY 2018, as well as information provided in response to Division data requests in this proceeding. The Division's review of the Company's Environmental Response costs does not constitute a full audit of those expenditures. However, our examination of the information the Company has provided concludes that the Company's claimed ERCF costs for FY 2018 are well-documented and explained in reasonable detail. No costs were identified for which recovery through the ERC factor at appear to be inappropriate or excessive. Moreover, no computational errors were found in National Grid's computation of its ERCF. We also reviewed the nature of the activities, services and materials for which cost claims were included in the Company's 2018 Annual Environmental Report, and we performed comparisons to the costs claimed for similar activities and services in the Company's prior Annual Environmental Reports. Nothing observed was obviously out-of-line with the Company's prior cost experience. In consideration of these observations, the Company's ERC Factor appears appropriate for acceptance by the Commission as proposed.

Low Income Assistance

Commission Order No. 23265 from Docket No. 4708 approved the elimination of the Low-Income Heating Assistance Program ("LIAP") as Low Income Heating Assistance Funding will no longer be collected through the DAC. In its place, the ASA established the LIDRF stating:

> For customers receiving delivery service on Rates 11 and 13, a total bill discount shall be applied. Specifically, (a) the percentage discount off of the total amount billed shall be 25 percent, and (b) customers receiving benefits through Medicaid, General Public Assistance, and/or the Family Independence Program, an additional discount of 5 percent off the total amount billed. The Settling Parties agree that Narragansett Gas shall implement the LIDRF calculated in Attachment 20. Customers billed on Rates 11 or 13 shall not be assessed the LIDRF.

Our review of the Company's Supplemental Testimony and its computation of the Low Income Discount Recovery Factor find that the Company's LIDRF is developed in a manner consistent with the language of the ASA. Furthermore, the Company's development of its DAC factors for this proceeding includes the presentation of a separate DAC rate for qualifying low-income customers.

Allowance for Uncollectibles

The resolution of Docket No. 4770 has also produced a reduction in the Company's allowance for uncollectible accounts (i.e., the "Uncollectible Percentage" which impacts the levels of all of the Company DAC rates. The uncollectable percentage established in the ASA is 1.91%. That percentage represents a reduction from the 3.18% allowance previously established in Docket No. 4323. We also observe that this reduction in the Uncollectible Percentage substantially outweighs the additional revenue that the Company seeks to recover for Arrearage Management costs through AMAF. The Commission should accept the proposed AMAF as proposed. Still, in future proceedings the Commission should be concerned if costs recovery through the AMAF increases significantly, as that would erode of the benefits of the reduction in the uncollectibles percentage.

The Division's Proposed DAC Factors

This section provides the Division's proposed DAC Factors, as well as the changes in DAC Factor components that result from a comparison of the Division's proposals with the DAC Factors currently in effect. Table 1 compares the DAC Factor components applicable to Residential, Small C&I, and Medium C&I customers. Table 2 provides a similar comparison for the DAC Factor components applicable to C&I Large and Extra Large customers. Table 3 compares DAC Factor components for the Residential Low-Income customer classes for which a separate set of DAC Factors is now applicable. The comparisons presented in Table 1, 2, and 3 exclude consideration the ISR and ISR reconciliation. Table 4 presents the Division's proposed DAC Factors with the ISR and ISR reconciliation included.

Table 1

Division Proposed DAC Factors
For Residential, Small C&I, and Medium C&I Customers
(Dollars per Therm)

DAC Component	**Symbol**	**Current Factor**	**Division Proposed Factor**	**Difference**
System Pressure	SP	$0.0079	$0.0000	($0.0079)
Advanced Gas Technology	AGT	$0.0000	$0.0000	$0.0000
Environment Response Cost	ERC	$0.0024	$0.0027	$0.0003
Pension Adjustment	PAF	($0.0118)	($0.0157)	($0.0039)
Arrearage Management	AMAF	$0.0000	$0.0002	$0.0002
Reconciliation Factor	R	($0.0011)	($0.0007)	($0.0007)
Service Quality	SQP	$0.0000	$0.0000	$0.0000
Earnings Sharing Mechanism	ESM	$0.0000	$0.0000	$0.0000
Low Income Discount	LIDRF	$0.0000	$0.0138	$0.0138
Subtotal		($0.0026)	$0.0003	$0.0029
Adjustment for Uncollectibles*		$0.0000	$0.0000	$0.0000
Revenue Decoupling Adjustment	RDA	$0.0006	($0.0203)	($0.0209)
Revenue Decoupling Reconciliation	RD-R	$0.0010	$0.0003	($0.0007)
Distribution Adjustment Charge	**DAC**	**$0.0010**	**($0.0197)**	**($0.0187)**

* Adjustments for Uncollectibles truncated after fourth decimal place.

Table 2

Division Proposed DAC Factors
Large and X-Large C&I Customers
(Dollars per Therm)

DAC Component	**Symbol**	**Current Factor**	**Division Proposed Factor**	**Difference**
System Pressure	SP	$0.0079	$0.0000	($0.0079)
Advanced Gas Technology	AGT	$0.0000	$0.0000	$0.0000
Environment Response Cost	ERC	$0.0024	$0.0027	$0.0003
Pension Adjustment	PAF	($0.0118)	($0.0118)	($0.0064)
Arrearage Management	AMAF	$0.0000	$0.0002	$0.0002
Reconciliation Factor	R	($0.0011)	($0.0022)	($0.0011)
Service Quality	SQP	$0.0000	$0.0000	$0.0000
Earnings Sharing Mechanism	ESM	$0.0000	$0.0000	$0.0000
Low Income Discount	LIDRF	$0.0000	$0.0138	$0.0138
Subtotal		($0.0026)	($0.0012)	$0.0014
Adjustment for Uncollectibles*		$0.0000	$0.0000	$0.0000
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**	**($0.0026)**	**($0.0012)**	**$0.0014**

* Adjustments for Uncollectibles truncated after fourth decimal place.

Table 3

Division Proposed DAC Factors
For Residential Low Income Customers
(Dollars per Therm)

DAC Component	Symbol	Current Factor	Division Proposed Factor	Difference
System Pressure	SP	$0.0079	$0.0000	($0.0079)
Advanced Gas Technology	AGT	$0.0000	$0.0000	$0.0000
Environment Response Cost	ERC	$0.0024	$0.0027	$0.0003
Pension Adjustment	PAF	($0.0118)	($0.0157)	($0.0039)
Arrearage Management	AMAF	$0.0000	$0.0002	$0.0002
Reconciliation Factor	R	($0.0011)	($0.0007)	($0.0007)
Service Quality	SQP	$0.0000	$0.0000	$0.0000
Earnings Sharing Mechanism	ESM	$0.0000	$0.0000	$0.0000
Low Income Discount	LIDRF	$0.0000	$0.0000	$0.0000
Subtotal		($0.0026)	($0.0135)	($0.0109)
Adjustment for Uncollectibles*		$0.0000	($0.0002)	($0.0002)
Revenue Decoupling Adjustment	RDA	$0.0006	($0.0203)	($0.0209)
Revenue Decoupling Reconciliation	RD-R	$0.0010	$0.0003	($0.0007)
Distribution Adjustment Charge	**DAC**	**$0.0010**	**($0.0337)**	**($0.0327)**

* Adjustments for Uncollectibles truncated after fourth decimal place.

Table 4

The Division's Proposed
DAC Rates with ISR Included
(Dollars per Therm)

Rate Schedule	**Abbreviation**	**Proposed Charges (Credits)**
Residential Non-Heating	Res-NH	($0.0333)
Residential Non-Heating Low Income	Res-NH-LI	($0.0473)
Residential Heating	Res-H	($0.0254)
Residential Heating Low Income	Res-H-LI	($0.0394)
Small Commercial	C&I Small	($0.0340)
Medium Commercial	C&I Medium	($0.0250)
Large Commercial Low Load Factor	C&I Large LL	($0.0095)
Large Commercial Low High Factor	C&I Large HL	($0.0079)
X-Large Commercial Low Load Factor	C&I XL-LL	($0.0022)
X-Large Commercial High Load Factor	C&I XL-HL	($0.0018)

National Grid - RI Gas

Docket No. 4846, 2018 Annual DAC Filing

Division Adjustment to RDA Factor for Low Income Discount

Ln No	Description	Reference		Amount
(1)	Residential Non-Heat (incl Low Income)	Schedule AEL-7S, Page 15, Col (I), Line (36)	$	535,269
(2)	Residential Heat (incl Low Income)	Schedule AEL-7S, Page 16, Col (I), Line (72)	$	(6,879,336)
(3)	Under-Distribution due to 25% Low-Income Discount	From page 2	$	(76,946)
(4)	Small C&I	Schedule AEL-7S, Page 17, Col (I), Line (84)	$	(139,560)
(5)	Medium C&I	Schedule AEL-7S, Page 17, Col (I), Line (96)	$	822,510
(6)	Net Over Recovery of Target Recovery	Sum [Lines (1):(4)]	$	(5,738,062)
(7)	Firm Throughput Forecast for RDM Rate Classes (Dth)	From 2018 Annual GCR Filing		28,203,795
(8)	Proposed RDA Factor per Dth	Line (5) ÷ Line (6)		($0.2035)
(9)	**Proposed RDA Factor per Therm**	Line (7) ÷ 10, rounded to 4 decimal places		**($0.0203)**
(10)	25% Low Income Discount per Therm	Line (8) * 25%		($0.0051)
(11)	**Effective Low Income RDA Factor per Therm**	Line (9) - Line 10		**($0.0152)**

National Grid - RI Gas

Docket No. 4846, 2018 Annual DAC Filing

Division Adjustment to RDA Factor for Recognition of Low Income Discount

Ln No		RDA Factor Per Therm	Annual Therm Use 1/	Annual RDA Revenue	25% Discount
		(A)	(B)	(C)	(D)
	Initial Calculation *(Company's Proposal without Adjustment)*				
1	Average Residential Non-Heat Low Income	$ (0.0200)	100,640	(2,012.80)	$ (503.20)
2	Average Residential Heating Low Income	$ (0.0200)	15,061,170	(301,223.40)	$ (75,305.85)
3	Total Residential Low Income		15,161,810	(303,236.20)	$ (75,809.05)
	Division Adjusted RDA Factor				
4	Average Residential Non-Heat Low Income	$ (0.0203)	100,640	(2,042.99)	$ (510.75)
5	Average Residential Heating Low Income	$ (0.0203)	15,061,170	(305,741.75)	$ (76,435.44)
6	Total Residential Low Income		15,161,810	(307,784.74)	$ (76,946.19)
7	Difference *(Line 6 - Line 3)*				$ (1,137.14)
	Second Iteration				
8	Average Residential Non-Heat Low Income	$ (0.0203)	100,640	(2,042.99)	$ (510.75)
9	Average Residential Heating Low Income	$ (0.0203)	15,061,170	(305,741.75)	$ (76,435.44)
10	Total Residential Low Income		15,161,810	(307,784.74)	$ (76,946.19)
11	Difference *(Line 10 - Line 6)*				$ -

1/ Source: Docket No. 4872, Attachment AEL-2, page 8, lines 3 and 5, Column (m), Actual Sales (in Dth) for the twelve months ended March 31, 2018 multiplied by 10 to convert to therms.