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January 18, 2008

VIA OVERNIGHT MAIL & ELECTRONIC MAIL

Luly E. Massaro, Clerk Rhode Island Division of Public Utilities and Carriers 89 Jefferson Boulevard Warwick, RI 02888

RE: National Grid Tariff Advice Filing to Amend RIPUC No. 1078-A, **Docket No. 3904- Responses to Division Data Requests**

Dear Ms. Massaro:

On behalf of National Grid,¹ please find attached the Company's responses to the Division of Public Utilities and Carriers' First Set of Data Requests in the above referenced docket.

Thank you for your attention to this matter. If you have any questions regarding this filing, please feel free to contact me at (617) 951-1400.

Very truly yours,

John K. Halib

John K. Habib

Enclosures

cc: Service List, Docket No. 3904

The Narragansett Electric Company d/b/a National Grid ("National Grid" or the "Company").

National Grid Docket 3904 – Tariff Advice Filing to Amend RIPUC No. 1078-A Responses to Division Data Requests – Set 1 Issued January 9, 2008

Division Data Request 1-1

Request:

Referring to the uniform per kwh surcharge that will be applied, as allowed by state law, to compensate National Grid for displaced delivery charges resulting from net metering, please provide an estimate of the annual amount that would be recovered from customers through the surcharge assuming net metering is at the 5 MW level proposed in the tariff.

Response:

Attachment 1 to this request details the calculation of the estimated surcharge that will be applied to all kilowatt-hours ("kWhs") delivered by the Company to its customers to recover the distribution charges avoided by customers who install generating units and net metering pursuant to Section III.B of proposed R.I.P.U.C. 2006 ("Eligible Customers"). The kilowatt ("kW") and kWhs generated by Eligible Customers who have installed an aggregate 5 megawatts ("MWs") of generating capacity depends upon the number of and type of generating units installed.

The estimated units and charges calculated on Attachment 1 are based on the following assumptions:

- 2 MWs of solar powered generation are installed with a capacity factor of 15 percent (1 MW installed by residential customers and 1 MW installed by commercial customers)
- 2 MWs of wind generation are installed with a capacity factor of 25 percent (300 kW installed by residential customers and 1.7 MWs installed by commercial customers)
- 1 MW of bio-mass or other generation are installed with a capacity factor of 80 percent (1 MW installed by commercial customers)
- For purposes of calculating avoided distribution charges, residential customers are assumed to be taking service on Residential Rate A-16 and commercial customers are assumed to be taking service on 200 Demand Rate G-32.

Based on the above assumptions, the estimated distribution kW and kWh charges avoided by Eligible Customers would be approximately \$206,641. The per kWh surcharge assessed to all customers beginning in January 2009 is calculated to be

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\$0.00002, resulting in a monthly bill impact to a 500 kWh residential customer using 500 kWh per month of \$0.01 per month.

Please note that this analysis does not take into account that some of the Eligible Customers may be subject to the Company's Back-up Service rates. For these customers, only the excess generation would be included in the charges collected from other customers. Therefore, the \$206,641 estimate would be reduced by any Back-up charges paid by these customers. This analysis also does not account for the customer impact resulting from the lower contribution to transmission and transition revenue from Eligible Customers.

National Grid R.I.P.U.C. Docket No. 3904 - Tariff Advice Filing Division Data Request 1-1 Attachment 1 Page 1 of 1

National Grid Rhode Island Estimation of kW/kWhs Generated by Aggregate 5MW of Installed Renewable Generation

Section 1. Detail of Distribution Charges

<u>Detail of Charges - Rate G-32 (Commercial)</u>

Detail of Charges - Rate A-16 (Residential)

00 1000 0.8 0.15 00 1,314,000	1700 0.25	3700	Aggregate Generator Capacity	1000	300	
0.0 150.0	3,723,000 425.0	12,045,000 1375.0	Capacity Factor Estimated Annual kWhs Generated.	0.15 1,314,000	0.25 657,000	1,971,000
12,045,000	Charges n/a \$33,000.00 \$107,080.05		Customer Charge Distribution kWhs	Rates n/a \$0.03377	<u>Units</u> n/a 1,971,000	Charges n/a \$66,560.67
8	n/a 16,500.0	n/a n/a 00 16,500.0 \$33,000.00 89 12,045,000 \$107,080.05	n/a	n/a n/a Customer Charge 00 16,500.0 \$33,000.00 Distribution kWhs 89 12,045,000 \$107,080.05 S107,080.05	n/a n/a Customer Charge n/a 00 16,500.0 \$33,000.00 Distribution kWhs \$0.03377 89 12,045,000 \$107,080.05 \$0.03377	n/a n/a Customer Charge n/a n/a n/a 00 16,500.0 \$33,000.00 Distribution kWhs \$0.03377 1,971,000 89 12,045,000 \$107,080.05 \$107,080.05 \$107,080.05 \$107,080.05

Section 2. Estimated Surcharge

1. Total Commercial Charges 2. Total Residential Charges	\$140,080.05 \$66,560.67
3. Total Estimated Charges to be Collected (Line 1 + Line 2)	\$206,640.72
4. Forecasted kWhs for 2009 (per Company forecast)	8,030,000,000
5. Surcharge for 2009 (Line 3 \div Line 4, truncated to five places)	\$0.00002
6. Impact on Monthly Bill for 500 kWh Residential Customer (Line 5 x 500 kWhs)	\$0.01