Celia B. O'Brien
Assistant General Counsel and Director

May 15, 2015

VIA HAND DELIVERY AND ELECTRONIC MAIL

Luly E. Massaro, Commission Clerk
Rhode Island Public Utilities Commission
89 Jefferson Boulevard
Warwick, RI 02888

RE: Docket 4549 - Tariff Advice Filing to Amend RIPUC No. 2099, Net Metering Provision
Responses to Record Requests

Dear Ms. Massaro:

On behalf of National Grid[1], I enclose ten (10) copies of the Company's responses to the Record Requests that were issued at the Commission's Technical Session on April 14, 2015 in the above-referenced proceeding.

Thank you for your attention to this matter. If you have any questions regarding this filing, please contact me at 781-907-2153.

Very truly yours,

Celia B. O'Brien

Enclosures

cc: Docket 4549 Service List
Jon Hagopian, Esq.
Steve Scialabba, Division

[1]The Narragansett Electric Company d/b/a National Grid (National Grid or the Company).

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Certificate of Service

I hereby certify that a copy of the cover letter and any materials accompanying this certificate was electronically transmitted to the individuals listed below.

Copies of this filing are being hand delivered to the Rhode Island Public Utilities Commission and to the Rhode Island Division of Public Utilities and Carriers.

Joanne M. Scanlon

May 15, 2015
Date

Docket No. 4549 National Grid – Net Metering Tariff Advice
Service List updated 2/26/15

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The Narragansett Electric Company
d/b/a National Grid
RIPUC Docket No. 4549
In Re: Tariff Advice to Amend RIPUC No. 2099 Net Metering Provision
Responses to the Record Requests
Issued at the Commission's Technical Session on
April 14, 2015

Record Request No. 1

Request:

Please provide the calculation of the Renewable Net Metering Credit by rate class.

Response:

The Renewable Net Metering Credit is calculated as specified in the Net Metering Provision as the sum of the Distribution, Transmission, Transition, and Standard Offer charges applicable to the customer's retail delivery service class. A table showing rates for Distribution, Transmission, Transition and Standard Offer charges for rate classes A-16, A-60, C-06, G-02, G-32 and G-62 is provided in Attachment RR-1.

Prepared by or under the supervision of: Timothy R. Roughan

Renewable Net Metering Credit
Calculation by Rate Class
Rates as of: 4/1/2015 per RIPUC #'s 2095 & 2096

		RATE CLASS*					
		A-16	A-60	C-06**	G-02**	G-32	G-62
1	Distribution Charge, per kWh	$0.03664	$0.02317	$0.03253	$0.00468	$0.00551	$0.00000
2	O&M Exp Charge	$0.00178	$0.00178	$0.00195	$0.00143	$0.00085	($0.00005)
3	CapEx Factor Charge	$0.00132	$0.00132	$0.00129	($0.00015)	($0.00009)	($0.00009)
4	RDM Factor	($0.00001)	($0.00001)	($0.00001)	($0.00001)	($0.00001)	($0.00001)
5	Pension Adj Factor	$0.00000	$0.00000	$0.00000	$0.00000	$0.00000	$0.00000
6	**Distribution Charge**	**$0.03973**	**$0.02626**	**$0.03576**	**$0.00595**	**$0.00626**	**($0.00015)**
7							
8	Base Transmission	$0.02253	$0.02253	$0.02263	$0.00919	$0.00825	$0.00913
9	Transmission Uncollectible Factor	$0.00030	$0.00030	$0.00027	$0.00026	$0.00025	$0.00025
10	Transmision Adjustment	$0.00065	$0.00065	($0.00218)	($0.00051)	$0.00080	$0.00309
11	**Transmission Charge**	**$0.02348**	**$0.02348**	**$0.02072**	**$0.00894**	**$0.00930**	**$0.01247**
12							
13	Base Transition	($0.00187)	($0.00187)	($0.00187)	($0.00187)	($0.00187)	($0.00187)
14	Transition Charge Adjustment	($0.00014)	($0.00014)	($0.00014)	($0.00014)	($0.00014)	($0.00014)
15	**Transition Charge**	**($0.00201)**	**($0.00201)**	**($0.00201)**	**($0.00201)**	**($0.00201)**	**($0.00201)**
16							
17	Base Supply Charge	$0.09922	$0.09922	$0.11127	$0.11127	$0.05631	$0.05631
18	SOS Admin Factor	$0.00134	$0.00134	$0.00159	$0.00159	$0.00174	$0.00174
19	Standard Offer Adjustment	$0.00055	$0.00055	$0.00282	$0.00282	$0.00059	$0.00059
20	**Standard Offer Service Charge**	**$0.10111**	**$0.10111**	**$0.11568**	**$0.11568**	**$0.05864**	**$0.05864**
21							
22	**Total**	**$0.16231**	**$0.14884**	**$0.17015**	**$0.12856**	**$0.07219**	**$0.06895**

Line 22 = Line 6 + Line 11 + Line 15 + Line 20
*Note: Currently there are no renewable net metering customers under rate codes B-32, B-62, X-01 or M-1
**SOS Charges shown for these rate codes are fixed price option

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Record Request No. 2

Request:

Using a hypothetical virtual net metering customer with three accounts, please demonstrate how Renewable Net Metering Credits would be calculated assuming no Excess Renewable Net Metering Credits at the end of the billing period under the following methods:

a. Credits are applied in accordance with the current Net Metering Provision in terms of dollars.

b. Credits are applied in terms of kilowatt hours (kWh).

Please use accounts with different rate classes and, if possible, please give an example of the type of building that would be served under the "account" (i.e. high school, town hall, fire department, municipal garage).

Response:

Attachment RR-2 presents the calculation of the Renewable Net Metering Credit for a hypothetical net metered public entity customer (Host Customer) and the application of that credit to the associated retail delivery service accounts, for the two scenarios requested in parts a and b above. For both calculations, the following assumptions were made:

1. A Host Customer on Rate C-06 is assumed to generate 50,000 kWh (column A) for the billing month.

2. A Fire Station on Rate C-06 is assumed to have used 5,000 kWh (column B) during the billing month.

3. A Municipal Office on Rate G-02 is assumed to have used 10,000 kWh with a billing demand of 20 kW (column C) during the billing month.

4. A School on Rate G-32 is assumed to have used 85,000 kWh with a billing demand of 300 kW during the billing month.

5. The Host Customer has designated an allocation of Renewable Net Metering Credits as 5% to the Fire Station, 10% to the Municipal Office, and the remaining 85% to the School.

Prepared by or under the supervision of: Timothy R. Roughan

Record Request No. 2, page 2

a. Page 1 of Attachment RR-2 shows the calculation of the Renewable Net Metering Credit and the allocation of the resulting dollar credit to the associated billing accounts. In this scenario, the Host Customer receives a Renewable Net Metering Credit of $8,496.32 (line 87, column A) based on its 50,000 kWh of generation. The monthly bills for the three associated accounts are shown on line 87. The Fire Station is billed $951.65 for its monthly usage of 5,000 kWh, the Municipal Office is billed $1,595.63 for its monthly usage of 10,000 kWh, and the School is billed $8,242.90 for its monthly usage of 85,000 kWh. The Renewable Net Metering Credits allocated to each account from the Host Customer appear on line 89. The Fire Station receives 5% of the Host Customer Net Metering Credit ($424.82), the Municipal Office receives 10% ($849.63), and the School receives 85% ($7,221.87). The net monthly bill for each customer is shown on line 91. The total of all net charges for the four accounts for the billing month (sum of line 91) is $2,293.85 as shown on line 93.

b. The scenario presented on Page 2 assumes that, rather than transferring a Renewable Net Metering Credit in the form of a dollar value to each associated account, the kWh generated are transferred to each account prior to calculating the associated accounts' monthly electric service bill. In this scenario, the Host Customer has 50,000 kWh of generation (line 4, column A) with the generated kWh being spread across the three associated delivery service accounts using the same allocations percentages that were used in part a above to allocate the Renewable Net Metering Credit dollar amount. The monthly bill for each of the three associated accounts is based upon the net kWh shown on line 7 for each account. As shown on lines 4 through 7, the Fire Station uses 5,000 kWh of electricity and is assigned 2,500 kWh of generated kWh, resulting in net usage of 2,500 kWh; the Municipal Office uses 10,000 kWh of electricity and is assigned 5,000 kWh of generated kWh, resulting in net usage of 5,000 kWh; and the School uses 85,000 kWh of electricity and is assigned 42,500 kWh of generated kWh, resulting in net usage of 42,500 kWh. The Host Customer receives a bill for the fixed monthly charges (the Customer Charge and LIHEAP Enhancement Charge, plus applicable taxes); however, no Renewable Net Metering Credit is calculated on this account because the generated kWh have been transferred to the associated accounts. The Host Customer's total monthly bill is $11.18 (line 89, column A). The monthly bills for the three associated accounts are shown on line 89. The monthly bills for the Fire Station, the Municipal Office and the School are $180.16, $269.28 and $4,585.68, respectively. When the

total charges are combined (sum of line 89), the resulting total monthly charge for all four accounts is $5,046.30 as shown on line 91.

Hypothetical Virtual Net Metering Customer

Method a: Current Net Metering Provision Calculation
Assumed per Customer allocation of Credit at 5% to account 1, 10% to account 2, 85% to account 3

		A	B	C	D
1	Type of Customer:	Generation	Fire Station Account 1	Muni Office Bldg Account 2	School Account 3
2	Rate Class:	C-06	C-06	G-02	G-32
3	Total usage/(generation) (kWh):	(50,000)	5,000	10,000	85,000
4	Total usage kW			20.0	300.0
5	**Rates**				
6	Customer Charge	$10.00	$10.00	$135.00	$825.00
7	RI LIHEAP Charge	$0.73	$0.73	$0.73	$0.73
8	Distribution Delivery Charge, per kWh	$0.03253	$0.03253	$0.00468	$0.00551
9	O&M Exp Charge	$0.00195	$0.00195	$0.00143	$0.00085
10	CapEx Factor Charge	$0.00129	$0.00129	($0.00015)	($0.00009)
11	Revenue Decoupling	($0.00001)	($0.00001)	($0.00001)	($0.00001)
12	Pension Adj Factor	$0.00000	$0.00000	$0.00000	$0.00000
13	Distribution Charges	$0.03576	$0.03576	$0.00595	$0.00626
14	Renewable Energy Distribution Charge		$0.00059	$0.00059	$0.00059
15	Distribution Delivery Charge, per kW (>10, 200 respectively)			$4.85	$3.70
16	O&M Exp Charge-demand, per kW (>10, 200 respectively)			$0.00	$0.00
17	CapEx Factor Charge-demand, per kW (>10, 200 respectively)			$0.38	$0.40
18	Distribution Delivery kW Charges			$5.23	$4.10
19	Delivery Transmission, per kWh	$0.02263	$0.02263	$0.00919	$0.00825
20	Transmission uncollectible Factor	$0.00027	$0.00027	$0.00026	$0.00025
21	Transmision Service Cost Adjustment	($0.00218)	($0.00218)	($0.00051)	$0.00080
22	Transmission Charges	$0.02072	$0.02072	$0.00894	$0.00930
23	Delivery Transmission, per kW (ALL)			$5.23	$4.10
24	Base	($0.00187)	($0.00187)	($0.00187)	($0.00187)
25	Transition Charge Adjustment Factor	($0.00014)	($0.00014)	($0.00014)	($0.00014)
26	Transition Charges	($0.00201)	($0.00201)	($0.00201)	($0.00201)
27	Energy Efficiency		$0.00983	$0.00983	$0.00983
28	Base Supply Charge	$0.11127	$0.11127	$0.11127	$0.05631
29	SOS Admin Factor	$0.00159	$0.00159	$0.00159	$0.00174
30	Standard Offer Adj	$0.00282	$0.00282	$0.00282	$0.00059
31	Standard Offer Service	$0.11568	$0.11568	$0.11568	$0.05864
32					
33	GET	4%	4%	4%	4%
34	**Billed Charges**				
35	Customer Charge	$10.00	$10.00	$135.00	$825.00
36	RI LIHEAP Charge	$0.73	$0.73	$0.73	$0.73
37	Distribution Delivery Charge, per kWh	($1,626.50)	$162.65	$46.80	$468.35
38	O&M Exp Charge	($97.50)	$9.75	$14.30	$72.25
39	CapEx Factor Charge	($64.50)	$6.45	($1.50)	($7.65)
40	Revenue Decoupling	$0.50	($0.05)	($0.10)	($0.85)
41	Pension Adj Factor	$0.00	$0.00	$0.00	$0.00
42	Distribution Charges	($1,788.00)	$178.80	$59.50	$532.10
43	Renewable Energy Distribution Charge		$2.95	$5.90	$50.15
44	Distribution Delivery Charge, per kW (>10)			$48.50	$370.00
45	O&M Exp Charge-demand, per kW (>10)			$0.00	$0.00
46	CapEx Factor Charge-demand, per kW (>10)			$3.80	$40.00
47	Distribution Delivery kw Charges			$52.30	$410.00
48	Delivery Transmission, per kWh	($1,131.50)	$113.15	$91.90	$701.25
49	Transmission uncollectible Factor	($13.50)	$1.35	$2.60	$21.25
50	Transmision Service Cost Adjustment	$109.00	($10.90)	($5.10)	$68.00
51	Transmission Charges	($1,036.00)	$103.60	$89.40	$790.50
52	Delivery Transmission, per kW (ALL)			$104.60	$1,230.00
53	Base	$93.50	($9.35)	($18.70)	($158.95)
54	Transition Charge Adjustment Factor	$7.00	($0.70)	($1.40)	($11.90)
55	Transition Charges	$100.50	($10.05)	($20.10)	($170.85)
56	Energy Efficiency		$49.15	$98.30	$835.55
57	Base Supply Charge	($5,563.50)	$556.35	$1,112.70	$4,786.35
58	SOS Admin Factor	($79.50)	$7.95	$15.90	$147.90
59	Standard Offer Adj	($141.00)	$14.10	$28.20	$50.15
60	Standard Offer Service	($5,784.00)	$578.40	$1,156.80	$4,984.40
61	GET	$0.45	$38.07	$70.10	$395.32
62	Total Charge / (Credit)	($8,496.32)	$951.65	$1,595.63	$8,242.90
63	Credit Applied to Accounts		($424.82)	($849.63)	($7,221.87)
64	Balance Due (Credit)		$526.83	$746.00	$1,021.02
65	Total Balance Due (Credit) for all Accounts	$2,293.85			

Hypothetical Virtual Net Metering Customer

Method b: Credits applied as kWh
Assumed per Customer allocation of Credit at 5% to account 1, 10% to account 2, 85% to account 3

		A	B	C	D
1	Type of Customer:	Generation	Fire Station Account 1	Muni Office Bldg Account 2	School Account 3
2	Rate Class:	C-06	C-06	G-02	G-32
3	Total usage/(generation) (kWh):	(50,000)	5,000	10,000	85,000
4	Total usage kW			20.0	300.0
5	kWh Credit:	50,000	(2,500)	(5,000)	(42,500)
6	Net kWh:	-	2,500	5,000	42,500
7					
8	**Rates**				
9					
10	Customer Charge	$10.00	$10.00	$135.00	$825.00
11					
12	RI LIHEAP Charge	$0.73	$0.73	$0.73	$0.73
13					
14	Distribution Delivery Charge, per kWh	$0.03253	$0.03253	$0.00468	$0.00551
15	O&M Exp Charge	$0.00195	$0.00195	$0.00143	$0.00085
16	CapEx Factor Charge	$0.00129	$0.00129	($0.00015)	($0.00009)
17	Revenue Decoupling	($0.00001)	($0.00001)	($0.00001)	($0.00001)
18	Pension Adj Factor	$0.00000	$0.00000	$0.00000	$0.00000
19	Distribution Charges	$0.03576	$0.03576	$0.00595	$0.00626
20					
21	Renewable Energy Distribution Charge		$0.00059	$0.00059	$0.00059
22					
23	Distribution Delivery Charge, per kW (>10, 200 respectively)			$4.85	$3.70
24	O&M Exp Charge-demand, per kW (>10, 200 respectively)			$0.00	$0.00
25	CapEx Factor Charge-demand, per kW (>10, 200 respectively)			$0.38	$0.40
26	Distribution Delivery kW Charges			$5.23	$4.10
27					
28	Delivery Transmission, per kWh	$0.02263	$0.02263	$0.00919	$0.00825
29	Transmission uncollectible Factor	$0.00027	$0.00027	$0.00026	$0.00025
30	Transmision Service Cost Adjustment	($0.00218)	($0.00218)	($0.00051)	$0.00080
31	Transmission Charges	$0.02072	$0.02072	$0.00894	$0.00930
32					
33	Delivery Transmission, per kW (ALL)			$5.23	$4.10
34					
35	Base	($0.00187)	($0.00187)	($0.00187)	($0.00187)
36	Transition Charge Adjustment Factor	($0.00014)	($0.00014)	($0.00014)	($0.00014)
37	Transition Charges	($0.00201)	($0.00201)	($0.00201)	($0.00201)
38					
39	Energy Efficiency		$0.00983	$0.00983	$0.00983
40					
41	Base Supply Charge	$0.11127	$0.11127	$0.11127	$0.05631
42	SOS Admin Factor	$0.00159	$0.00159	$0.00159	$0.00174
43	Standard Offer Adj	$0.00282	$0.00282	$0.00282	$0.00059
44	Standard Offer Service	$0.11568	$0.11568	$0.11568	$0.05864
45					
46	GET	4%	4%	4%	4%
47					
48	**Billed Charges**				
49					
50	Customer Charge	$10.00	$10.00	$135.00	$825.00
51					
52	RI LIHEAP Charge	$0.73	$0.73	$0.73	$0.73
53					
54	Distribution Delivery Charge, per kWh	$0.00	$81.33	$23.40	$234.18
55	O&M Exp Charge	$0.00	$4.88	$7.15	$36.13
56	CapEx Factor Charge	$0.00	$3.23	($0.75)	($3.83)
57	Revenue Decoupling	$0.00	($0.03)	($0.05)	($0.43)
58	Pension Adj Factor	$0.00	$0.00	$0.00	$0.00
59	Distribution Charges	$0.00	$89.40	$29.75	$266.05
60					
61	Renewable Energy Distribution Charge		$1.48	$2.95	$25.08
62					
63	Distribution Delivery Charge, per kW (>10)			$48.50	$370.00
64	O&M Exp Charge-demand, per kW (>10)			$0.00	$0.00
65	CapEx Factor Charge-demand, per kW (>10)			$3.80	$40.00
66	Distribution Delivery kW Charges			$52.30	$410.00
67					
68	Delivery Transmission, per kWh	$0.00	$56.58	$45.95	$350.63
69	Transmission uncollectible Factor	$0.00	$0.68	$1.30	$10.63
70	Transmision Service Cost Adjustment	$0.00	($5.45)	($2.55)	$34.00
71	Transmission Charges	$0.00	$51.80	$44.70	$395.25
72					
73	Delivery Transmission, per kW (ALL)			$104.60	$1,230.00
74					
75	Base	$0.00	($4.68)	($9.35)	($79.48)
76	Transition Charge Adjustment Factor	$0.00	($0.35)	($0.70)	($5.95)
77	Transition Charges	$0.00	($5.03)	($10.05)	($85.43)
78					
79	Energy Efficiency		$24.58	$49.15	$417.78
80					
81	Base Supply Charge	$0.00	$0.00	$0.00	$2,393.18
82	SOS Admin Factor	$0.00	$0.00	$0.00	$73.95
83	Standard Offer Adj	$0.00	$0.00	$0.00	$25.08
84	Standard Offer Service	$0.00	$0.00	$0.00	$2,492.20
85					
86	GET	$0.45	$7.21	$17.05	$249.03
87					
88	Balance Due (Credit)	$11.18	$180.16	$269.28	$4,585.68
89					
90	Total Balance Due (Credit) for all Accounts	$5,046.30			

Record Request No. 3

Request:

Please provide the costs of the various types of meters that the Company currently uses for customers in each rate case, including cost of installation and other relevant costs.

Response:

Please see table below for the requested information:

Rate Class	Installed Cost	Notes
A16, A60	$48.66	N/A
C06, G02	$238.95	Self-contained (up to 400 amps)
	$286.69	Instrument rated (> 400 amps)
G32, B32, G62, B62	$395.82	With Phone Modem
	$1,175.93	Wireless Modem

Prepared by or under the supervision of: Timothy R. Roughan

Record Request No. 4

Request:

What is the Company's understanding of the genesis of the C-06 rate classification for stand-alone wind turbines?

Response:

Pursuant to the Company's currently effective tariffs, the assignment of an account to a rate class is based on the quantity of electricity used at the account's location. Assigning stand-alone wind turbines or any other distributed generation facility on Rate C-06 is based on an estimate of the delivery service requirements of the site (an estimate of on-site load). Stand-alone wind turbines' (1.5 MW) average demand for parasitic or station service load is less than 10 kWs per month, which results in the only eligible rate class as Rate C-06.

Prepared by or under the supervision of: Timothy R. Roughan