

September 8, 2015

VIA HAND DELIVERY & ELECTRONIC MAIL

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

**RE: Docket 4568 – The Narragansett Electric Company d/b/a National Grid
Review of Electric Distribution Rate Design Pursuant to R.I. Gen. Laws § 39-26.6-24
Responses to CLF Data Requests – Set 2**

Dear Ms. Massaro:

On behalf of National Grid¹, I enclose ten (10) copies of the Company's responses to the second set of data requests issued by the Conservation Law Foundation on August 17, 2015 in the above-referenced docket.

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

Very truly yours,



Celia B. O'Brien

Enclosures

cc: Docket 4568 Service List
Leo Wold, Esq.
Karen Lyons, Esq.
Steve Scialabba, Division

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

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.

Paper 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

September 8, 2015

Date

**Docket No. 4568 National Grid's Rate Design Pursuant to R.I. Gen. Laws Sec 39-26.6-24
Service List updated 9/2/15**

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The Narragansett Electric Company
d/b/a National Grid
RIPUC Docket No. 4568
In Re: Review of Electric Distribution Rate Design
Pursuant to R.I. Gen. Laws § 39-26.6-24
Responses to Conservation Law Foundation's Second Set of Data Requests
Issued on August 17, 2015

CLF 2-1

Request:

National Grid's Schedule NG-2 [National Grid's July 31, 2015 filing, page 78] is a bar graph that depicts "Growth in Use of Solar PV in Massachusetts" for each year 2009 to 2016 (with the figures for 2015 and 2016 being designated as "Forecast"). For each year depicted in this exhibit, please state the respective incentive price paid to PV owners in Massachusetts and Rhode Island under applicable state incentive programs.

Response:

The table set forth on Attachment CLF 2-1 provides the compensation paid to PV owners in Massachusetts and Rhode Island under the various state programs. Please note that all prices are stated in dollars per kWh.

Compensation paid to PV Owners in MA and RI
(all prices are stated in \$ per kWh)

Year	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
RI NM*	\$0.030	\$0.030	\$0.040	\$0.040	\$0.040	\$0.173	\$0.146	\$0.147	\$0.120	\$0.122	\$0.132	\$0.147	\$0.156
RI RECS **					\$0.053	\$0.047	\$0.042	\$0.017	\$0.043	\$0.053	\$0.063	\$0.052	\$0.049
total RI NM and RECS	\$0.030	\$0.030	\$0.040	\$0.040	\$0.093	\$0.220	\$0.188	\$0.164	\$0.163	\$0.175	\$0.195	\$0.199	\$0.205
RI DG contracts											\$0.283	\$0.281	\$0.200
Average value RI NM/REC and DG contracts	\$0.030	\$0.030	\$0.040	\$0.040	\$0.093	\$0.220	\$0.188	\$0.164	\$0.163	\$0.175	\$0.239	\$0.240	\$0.202
MA NM*	\$0.030	\$0.030	\$0.040	\$0.040	\$0.040	\$0.050	\$0.147	\$0.138	\$0.128	\$0.123	\$0.134	\$0.147	\$0.161
MA RECs or SRECs **	\$0.030	\$0.043	\$0.048	\$0.052	\$0.053	\$0.044	\$0.033	\$0.576	\$0.539	\$0.351	\$0.200	\$0.365	\$0.306
total MA NM and REC/SRECs	\$0.060	\$0.073	\$0.088	\$0.092	\$0.093	\$0.094	\$0.180	\$0.714	\$0.667	\$0.474	\$0.334	\$0.512	\$0.467
<p>* As the value of a net metering credit varies by rate class, and most net metering customers are either under the residential or small C/I rates, the Company used the average value for net metering credits for the A16 and C06 rates for RI, and the R1 and G1 rates for MA. The years 2003 - 2008 for RI reflect the estimated hourly clearing price for the RI load zone from the ISO-NE. For MA the time period for the same information is from 2003 - 2009.</p> <p>** The Company's records for the values for RECs in RI for the years 2003-2006 are unclear so are not shown in the chart. REC and SREC values are the Company's average cost for compliance in the states of RI and MA, not any direct payment to customers.</p> <p>Note: the numbers above are the known available payments for solar projects, however, the Company has no knowledge of how much any customer actually received due to any side purchase power agreements they may have with solar developers.</p>													

CLF 2-2

Request:

National Grid's Schedule NG-4 [National Grid's July 31, 2015 filing, page 125] is a bar graph that compares the growth of solar PV in Germany (depicted in red bars) with the growth of solar PV in the United States (depicted in blue bars) for the years 2003 through 2012. For each year depicted in this exhibit, please state the respective incentive price paid to PV owners in Rhode Island under the applicable state incentive program(s) and the price paid that same year in Germany under that country's incentive program(s).

Response:

The table set forth on Attachment CLF 2-2 includes the compensation paid to PV owners in Rhode Island under the various state programs. Please note that all prices are stated in dollars per kWh.

Compensation paid to PV Owners in RI and price paid in same year in Germany
(all prices are stated in \$ per kWh)

Year	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
RI NM*	\$0.030	\$0.030	\$0.040	\$0.040	\$0.040	\$0.173	\$0.146	\$0.147	\$0.120	\$0.122	\$0.132	\$0.147	\$0.156
RI RECS **					\$0.053	\$0.047	\$0.042	\$0.017	\$0.043	\$0.053	\$0.063	\$0.052	\$0.049
Total RINM and RECS	\$0.030	\$0.030	\$0.040	\$0.040	\$0.093	\$0.220	\$0.188	\$0.164	\$0.163	\$0.175	\$0.195	\$0.199	\$0.205
RI DG Contracts											\$0.283	\$0.281	\$0.200
Average value NM/REC and DG contracts	\$0.030	\$0.030	\$0.040	\$0.040	\$0.093	\$0.220	\$0.188	\$0.164	\$0.163	\$0.175	\$0.239	\$0.240	\$0.202
Germany ***	\$0.571	\$0.718	\$0.681	\$0.648	\$0.615	\$0.584	\$0.538	\$0.489	\$0.359	\$0.305	\$0.213	\$0.168	\$0.156

* As the value of a net metering credit varies by rate class, and most net metering customers are either under the residential or small C/I rates, the Company used the average value for net metering credits for the A16 and C06 rates. The years 2003 - 2008 for RI reflect the estimated hourly clearing price for the RI load zone from the ISO-NE.

** The Company's records for the values for RECs in RI for the years 2003-2006 are unclear so are not shown in the chart. REC and SREC values are the Company's average cost for compliance in the states of RI, not any direct payment to customers.

*** <https://www.ise.fraunhofer.de/en/publications/veroeffentlichungen-pdf-dateien-en/studien-und-konzeptpapiere/recent-facts-about-photovoltaics-in-germany.pdf>, and https://en.wikipedia.org/wiki/Solar_power_in_Germany. The values were converted from euro-cents to cents with a 80% conversion factor.

Note: The numbers above are the known available payments for solar projects; however, the Company has no knowledge of how much any customer actually received due to any side purchase power agreements they may have with solar developers.

CLF 2-3

Request:

National Grid's Schedule NG-6 [National Grid's July 31, 2015 filing, page 127] is a bar graph that depicts "Estimated Amount of Distribution [sic] Generation Installed in Rhode Island Through 2020." Blue bars depict growth by year; red bars depict cumulative installed capacity. Please state all assumptions that went into creating these estimates including, but not limited to, whether the Renewable Energy Growth Program would be fully subscribed every year and what the time lag would be between a project's enrollment and when that project would be operational.

Response:

The Company developed the forecast of DG installation in Rhode Island through 2020, which is provided as Schedule NG-5 on page 127 of the Company's July 31, 2015 filing, by first looking at actual MWs of DG installed through mid-2015 (approximately 50 MWs). The Company then assumed full annual subscription in the Renewable Energy Growth Program, but that only approximately 120 MWs of the Renewable Energy Growth Program's 160 MW allocation would be installed by the end of 2020. Many factors come into play when constructing renewable energy projects, such as the customer and the Company securing all necessary permits needed for their respective construction or the customer receiving financing, which affect the MWs installed each year. Because of these and other challenges that renewable energy projects face before becoming operational, the Company assumes that the remaining 40 MWs would be installed during the 2021 to mid-2022 timeframe.

CLF 2-4

Request:

Witnesses Zschokke and Lloyd state: "Advocates for the use of storage technologies argue in favor of demand rates because the rates provide economic value to the system and provide an economic opportunity to customers to consider use of storage technology." [National Grid's July 31, 2015 filing, page 21, lines 7-9.] Please direct us to the articles, books, statements or documents to which the witnesses are referring.

Response:

See:

1. National Renewable Energy Laboratories report, "Deployment of Behind-the-Meter Energy Storage for Demand Charge Reduction" Technical Report NREL/TP -5400-63162, published January 2015.
2. "Rate Design for the Distribution Edge: Electricity Pricing for a Distributed Resource Future" by Rocky Mountain Institute eLab, published August 2014. Rocky Mountain Institute has produced an additional study entitled "The Economics of Demand Flexibility: How 'Flexiwatts' Create Quantifiable Value for Customers and the Grid." This report provides examples of demand response and potential for savings. In their review, customers with demand charges had the greatest potential to save among various rate designs.
3. In Case 14-M-0101, the New York Department of Public Service published a "Staff White Paper on Ratemaking and Utility Business Models", dated July 28, 2015, in the Public Service Commission's Reforming the Energy Vision (REV) docket. On pages 98-99, Staff proposes movement towards demand charges to allow customers to manage their individual peak demands through use of distributed resources, energy efficiency, or distributed generation.
4. On July 18, 2014, New York Battery and Energy Storage Technology Consortium, Inc. filed responses to questions raised in the NY Public Service Commission's REV docket, Case 14-M-0101.

CLF 2-5

Request:

Witnesses Zschokke and Lloyd state: "Given this modest shift, transitioning more recovery of revenue requirement through the customer and demand charges would occur over several years." [National Grid's July 31, 2015 filing, page 23, lines 8-10.] Please amplify this statement. Specifically what future shifts does National Grid contemplate (in Rhode Island electricity distribution rates) toward customer and demand charges?

Response:

The Company contemplates a gradual shift towards recovering 100% of its revenue requirement through customer and demand charges in future proceedings. Future proposals for changes in rates would need to consider bill impacts to customers, which may lengthen the period of time necessary to move to greater amounts of recovery of distribution costs through customer and demand charges. Implementation of demand charges for the A-16 and C-06 rate classes would require new metering and communications technology as well as changes to the Company's billing system and meter data management systems. Any changes in rates would require review and approval by the PUC. Thus, the Company does intend to continue proposing these shifts but cannot forecast how and when more recovery would occur through these types of charges.

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CLF 2-6

Request:

Witnesses Zschokke and Lloyd state [at National Grid's July 31, 2015 filing, at page 36, lines 12-13] "Page 2 of Schedule NG-9 [referring to page 137] shows savings realized by the same customer who reduces monthly use to 500 kWh from 1,000 kWh . . ." This hypothetical customer would be moving from National Grid's proposed Tier 3 to Proposed Tier 2. Please provide similar illustrative examples of the bill-impact results for customers who reduce monthly use but stay within the same proposed tier:

Customer A reduces from 1100 kWh/mo. to 900 kWh/mo.
Customer B reduces from 700 kWh/mo. to 500 kWh/mo.

Response:

Please see Attachment CLF 2-6.

The Narragansett Electric Company
Typical Bill - Basic Residential Rate A-16 Customer
Savings based on Current Rates

Monthly Usage :

1100

900

	Current Rates	Bill Charges	Current Rates	Bill Charges	Difference	% Difference
1 Customer Charge	\$5.00	\$5.00	\$5.00	\$5.00	\$0.00	0.0%
2 Distribution Energy Charge	\$0.04065	\$44.72	\$0.04065	\$36.59	(\$8.13)	-18.2%
3 Subtotal Distribution		\$49.72		\$41.59	(\$8.13)	-16.4%
4						
5						
6 LIHEAP Charge	\$0.73	\$0.73	\$0.73	\$0.73	\$0.00	0.0%
7 Transmission Energy Charge	\$0.02348	\$25.83	\$0.02348	\$21.13	(\$4.70)	-18.2%
8 Transition Energy Charge	(\$0.00201)	(\$2.21)	(\$0.00201)	(\$1.81)	\$0.40	-18.1%
9 Energy Efficiency Program Charge	\$0.00983	\$10.81	\$0.00983	\$8.85	(\$1.96)	-18.1%
10 Renewable Energy Distribution Charge	\$0.00232	\$2.55	\$0.00232	\$2.09	(\$0.46)	-18.0%
11 RE Growth Program	\$0.17	\$0.17	\$0.17	\$0.17	\$0.00	0.0%
12 Subtotal Other Delivery Service		\$37.88		\$31.16	(\$6.72)	-17.7%
13						
14 Standard Offer Charge	\$0.10111	\$111.22	\$0.10111	\$91.00	(\$20.22)	-18.2%
15 Renewable Ege Std Charge	\$0.00294	\$3.23	\$0.00294	\$2.65	(\$0.58)	-18.0%
16 Subtotal Supply Service		\$114.45		\$93.65	(\$20.80)	-18.2%
17						
18 Subtotal before GET		\$202.05		\$166.40	(\$35.65)	-17.6%
19						
20 Gross Earnings Tax	4%	\$8.42	4%	\$6.93	(\$1.49)	-17.7%
21						
22 Total Bill including GET		\$210.47		\$173.33	(\$37.14)	-17.6%

****Based on Rates in effect as of July 1, 2015

The Narragansett Electric Company
Typical Bill - Basic Residential Rate A-16 Customer
Savings based on Proposed Rates

		Savings - Next 11 months				Savings - After 11 months			
Monthly Usage:		1100		900		900			
Rate A-16 - Regular Residential		Proposed	Bill	Proposed	Bill	%	Proposed	Bill	%
		<u>Rates</u>	<u>Charges</u>	<u>Rates</u>	<u>Charges</u>	<u>Difference</u>	<u>Rates</u>	<u>Charges</u>	<u>Difference</u>
1	Customer Charge	\$13.00	\$13.00	\$13.00	\$13.00	\$0.00	\$13.00	\$13.00	\$0.00
2	Distribution Energy Charge	\$0.03026	\$33.29	\$0.03026	\$27.23	(\$6.06)	\$0.03026	\$27.23	(\$6.06)
3	Subtotal Distribution		\$46.29		\$40.23	(\$6.06)		\$40.23	(\$6.06)
4									
5	LIHEAP Charge	\$0.73	\$0.73	\$0.73	\$0.73	\$0.00	\$0.73	\$0.73	\$0.00
6	Transmission Energy Charge	\$0.02348	\$25.83	\$0.02348	\$21.13	(\$4.70)	\$0.02348	\$21.13	(\$4.70)
7	Transition Energy Charge	(\$0.00201)	(\$2.21)	(\$0.00201)	(\$1.81)	\$0.40	(\$0.00201)	(\$1.81)	\$0.40
8	Energy Efficiency Program Charge	\$0.00983	\$10.81	\$0.00983	\$8.85	(\$1.96)	\$0.00983	\$8.85	(\$1.96)
9	Renewable Energy Distribution Charge	\$0.00232	\$2.55	\$0.00232	\$2.09	(\$0.46)	\$0.00232	\$2.09	(\$0.46)
10	RE Growth Program	\$0.17	\$0.17	\$0.17	\$0.17	\$0.00	\$0.17	\$0.17	\$0.00
11	Subtotal Other Delivery Service		\$37.88		\$31.16	(\$6.72)		\$31.16	(\$6.72)
12									
13	Standard Offer Charge	\$0.10111	\$111.22	\$0.10111	\$91.00	(\$20.22)	\$0.10111	\$91.00	(\$20.22)
14	Renewable Ege Std Charge	\$0.00294	\$3.23	\$0.00294	\$2.65	(\$0.58)	\$0.00294	\$2.65	(\$0.58)
15	Subtotal Supply Service		\$114.45		\$93.65	(\$20.80)		\$93.65	(\$20.80)
16									
17	Subtotal before GET		\$198.62		\$165.04	(\$33.58)		\$165.04	(\$33.58)
18									
19	Gross Earnings Tax	4%	\$8.28	4%	\$6.88	(\$1.40)	4%	\$6.88	(\$1.40)
20									
21	Total Bill including GET		\$206.90		\$171.92	(\$34.98)		\$171.92	(\$34.98)

****Based on Rates in effect as of July 1, 2015

The Narragansett Electric Company
Typical Bill - Basic Residential Rate A-16 Customer
Savings based on Current Rates

Monthly Usage :

700

500

	Current Rates	Bill Charges	Current Rates	Bill Charges	Difference	% Difference
1 Customer Charge	\$5.00	\$5.00	\$5.00	\$5.00	\$0.00	0.0%
2 Distribution Energy Charge	\$0.04065	\$28.46	\$0.04065	\$20.33	(\$8.13)	-28.6%
3 Subtotal Distribution		\$33.46		\$25.33	(\$8.13)	-24.3%
4						
5						
6 LIHEAP Charge	\$0.73	\$0.73	\$0.73	\$0.73	\$0.00	0.0%
7 Transmission Energy Charge	\$0.02348	\$16.44	\$0.02348	\$11.74	(\$4.70)	-28.6%
8 Transition Energy Charge	(\$0.00201)	(\$1.41)	(\$0.00201)	(\$1.01)	\$0.40	-28.4%
9 Energy Efficiency Program Charge	\$0.00983	\$6.88	\$0.00983	\$4.92	(\$1.96)	-28.5%
10 Renewable Energy Distribution Charge	\$0.00232	\$1.62	\$0.00232	\$1.16	(\$0.46)	-28.4%
11 RE Growth Program	\$0.17	\$0.17	\$0.17	\$0.17	\$0.00	0.0%
12 Subtotal Other Delivery Service		\$24.43		\$17.71	(\$6.72)	-27.5%
13						
14 Standard Offer Charge	\$0.10111	\$70.78	\$0.10111	\$50.56	(\$20.22)	-28.6%
15 Renewable Ege Std Charge	\$0.00294	\$2.06	\$0.00294	\$1.47	(\$0.59)	-28.6%
16 Subtotal Supply Service		\$72.84		\$52.03	(\$20.81)	-28.6%
17						
18 Subtotal before GET		\$130.73		\$95.07	(\$35.66)	-27.3%
19						
20 Gross Earnings Tax	4%	\$5.45	4%	\$3.96	(\$1.49)	-27.3%
21						
22 Total Bill including GET		\$136.18		\$99.03	(\$37.15)	-27.3%

****Based on Rates in effect as of July 1, 2015

The Narragansett Electric Company
Typical Bill - Basic Residential Rate A-16 Customer
Savings based on Proposed Rates

		Savings - Next 11 months				Savings - After 11 months			
Monthly Usage:		700		500		500			
Rate A-16 - Regular Residential		Proposed	Bill	Proposed	Bill	%	Proposed	Bill	%
		<u>Rates</u>	<u>Charges</u>	<u>Rates</u>	<u>Charges</u>	<u>Difference</u>	<u>Rates</u>	<u>Charges</u>	<u>Difference</u>
1	Customer Charge	\$8.50	\$8.50	\$8.50	\$8.50	\$0.00	\$8.50	\$8.50	\$0.00
2	Distribution Energy Charge	\$0.03026	\$21.18	\$0.03026	\$15.13	(\$6.05)	\$0.03026	\$15.13	(\$6.05)
3	Subtotal Distribution		\$29.68		\$23.63	(\$6.05)		\$23.63	(\$6.05)
4									
5	LIHEAP Charge	\$0.73	\$0.73	\$0.73	\$0.73	\$0.00	\$0.73	\$0.73	\$0.00
6	Transmission Energy Charge	\$0.02348	\$16.44	\$0.02348	\$11.74	(\$4.70)	\$0.02348	\$11.74	(\$4.70)
7	Transition Energy Charge	(\$0.00201)	(\$1.41)	(\$0.00201)	(\$1.01)	\$0.40	(\$0.00201)	(\$1.01)	\$0.40
8	Energy Efficiency Program Charge	\$0.00983	\$6.88	\$0.00983	\$4.92	(\$1.96)	\$0.00983	\$4.92	(\$1.96)
9	Renewable Energy Distribution Charge	\$0.00232	\$1.62	\$0.00232	\$1.16	(\$0.46)	\$0.00232	\$1.16	(\$0.46)
10	RE Growth Program	\$0.17	\$0.17	\$0.17	\$0.17	\$0.00	\$0.17	\$0.17	\$0.00
11	Subtotal Other Delivery Service		\$24.43		\$17.71	(\$6.72)		\$17.71	(\$6.72)
12									
13	Standard Offer Charge	\$0.10111	\$70.78	\$0.10111	\$50.56	(\$20.22)	\$0.10111	\$50.56	(\$20.22)
14	Renewable Ege Std Charge	\$0.00294	\$2.06	\$0.00294	\$1.47	(\$0.59)	\$0.00294	\$1.47	(\$0.59)
15	Subtotal Supply Service		\$72.84		\$52.03	(\$20.81)		\$52.03	(\$20.81)
16									
17	Subtotal before GET		\$126.95		\$93.37	(\$33.58)		\$93.37	(\$33.58)
18									
19	Gross Earnings Tax	4%	\$5.29	4%	\$3.89	(\$1.40)	4%	\$3.89	(\$1.40)
20									
21	Total Bill including GET		\$132.24		\$97.26	(\$34.98)		\$97.26	(\$34.98)

****Based on Rates in effect as of July 1, 2015

CLF 2-7

Request:

This question addresses the proposed “Access Fee applicable to stand-alone generators” that is described in National Grid’s July 31, 2015 filing, beginning at page 59, line 17. The question accepts the definition used by National Grid that stand-alone generators are “DG facilities that are directly connected to the distribution system and have no associated on-site load . . .” [Id., at lines 18-19.]

(a) On July 31, 2015, how many stand-alone Qualifying Facilities were located in Rhode Island; and for each one, state the type of renewable technology it used, its nameplate capacity, and how much National Grid paid to the owner for energy, capacity and RECs during the preceding 12 consecutive months.

(b) On July 31, 2015, how many stand-alone net metered facilities were located in Rhode Island; and for each one, state the type of renewable technology it used, its nameplate capacity, and how much National Grid paid to the owner for energy, capacity and RECs during the preceding 12 consecutive months.

(c) On July 31, 2015, how many stand-alone DG Standard Contract projects were located in Rhode Island; and for each one, state the type of renewable technology it used, its nameplate capacity, and how much National Grid paid to the owner for energy, capacity and RECs during the preceding 12 consecutive months.

Response:

The payments made to projects by the Company during the preceding 12 months are provided below. However, as each answer points out, these generators can receive revenues from other sources and the Company is not informed by the generators regarding other revenues received by the generator.

(a) On July 31, 2015, there were three stand-alone Qualifying Facilities (QFs) located in Rhode Island. The Company only purchases energy from QFs.

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d/b/a National Grid
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<u>Facility</u>	<u>Type of Technology</u>	<u>Nameplate Capacity (kW-AC)</u>	<u>Payments</u>
1	Hydro	1,200	\$448,816
2	Hydro	1,800	\$94,822
3	Hydro	1,200	\$454,341

(b) On July 31, 2015, there was one stand-alone net-metered facility located in Rhode Island. The Company purchases energy only from net metered customers.

<u>Facility</u>	<u>Type of Technology</u>	<u>Nameplate Capacity (kW-AC)</u>	<u>Payments</u>
1	Wind	275	\$31,762

(c) On July 31, 2015, there were 20 stand-alone DG Standard Contract projects located in Rhode Island that have achieved commercial operation under the standard contracts and have begun to receive payments from the Company.¹ The Company purchases energy, capacity and RECs under the standard contracts.²

¹ Projects executed pursuant to R.I. Gen. Laws Chapter 39-26.1, Long-Term Contracting Standard for Renewable Energy, are not included on this list.

² R.I. Gen. Laws § 39-26.2-3(14).

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<u>Facility</u>	<u>Type of Technology</u>	<u>Nameplate Capacity (kW-AC)</u>	<u>Payments</u>
1	Wind	1,500	\$375,408
2	Solar	2,000	\$802,687
3	Solar	500	\$206,662
4	Solar	500	\$189,430
5	Solar	500	\$203,069
6	Solar	2,000	\$657,531
7	Solar	3,000	\$972,054
8	Solar	135	\$61,514
9	Solar	1,833	\$335,721
10	Solar	320	\$109,094
11	Solar	500	\$178,542
12	Solar	500	\$174,732
13	Solar	300	\$126,196
14	Solar	300	\$89,176
15	Solar	850	\$138,140
16	Solar	128	\$28,249
17	Solar	50	\$10,686
18	Solar	56	\$9,776
19	Solar	72	\$18,395
20	Solar	499	\$66,957

CLF 2-8

Request:

Assume for this hypothetical a stand-alone generator that is a single wind turbine with a nameplate capacity of 1.65 MW and a capacity factor of 21% that is compensated at the rate approved by the PUC in Docket 4536-B. Show the monthly net and gross revenue flow for the owner under the current rate design and what the monthly gross and net revenue would be under National Grid's proposed new rate design.

Response:

Please see Attachment CLF 2-8. Please note the Company has assumed a capacity availability factor of 40% for the purposes of calculating the Access Fee demand for this response. As indicated in the Company's response to PUC 1-18, the Company has not yet completed the review necessary to determine non-solar capacity availability factors.

Billing Determinants:

	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)
		Estimated Unit Capacity	Unit Availability / Capacity	Estimated Twelve-Month	Estimated Monthly	Demand for Access Fee				
	Unit	(kW)	Factor	Output (kWh)	Output (kWh)	(kW)				
1	Wind	1,650.0	21%	3,035,340	252,945					
2	Wind	1,650.0	40%			660				

Bill Calculation for Commercial Re-Growth Customer

					Current	Proposed	
3	Service Bill for On-site Load						
4	Customer Charge				\$10.00	\$10.50	
5	Access Fee			660.00		\$5.00	\$3,300.00
6	Distribution Energy Charge		- kWh		\$0.00000	\$0.00000	\$0.00
7	Subtotal Distribution				\$10.00	\$3,310.50	
8	LIHEAP Charge				\$0.73	\$0.73	\$0.73
9	Transmission Energy Charge		- kWh		\$0.00000	\$0.00000	\$0.00
10	Transition Energy Charge		- kWh		\$0.00000	\$0.00000	\$0.00
11	Energy Efficiency Program Charge		- kWh		\$0.00000	\$0.00000	\$0.00
12	Renewable Energy Distribution Charge		- kWh		\$0.00000	\$0.00000	\$0.00
13	RE Growth Program				\$0.26	\$0.26	\$0.26
14	Subtotal Other Delivery Service				\$0.99	\$0.99	
15	Standard Offer Charge		- kWh		\$0.00000	\$0.00000	\$0.00
16	Renewable Ege Std Charge		- kWh		\$0.00000	\$0.00000	\$0.00
17	Subtotal Supply Service				\$0.00	\$0.00	
18	Subtotal before GET				\$10.99	\$3,311.49	
19							
20	Gross Earnings Tax			4%	\$0.46	4%	\$137.98
21							
22	Total Bill including GET				\$11.45	\$3,449.47	
23							
24	Performance Based Incentive Payment		252,945 kWh		\$0.18400	\$0.18400	\$46,541.88
25							
26	Bill Summary						Difference
27	Electric Service Bill				\$11.45	\$3,449.47	
28				Total Electric Service Bill	\$11.45	\$3,449.47	\$3,438.02
29							
30	PBI Payment				\$46,541.88	\$46,541.88	
31				Recipient Cash Payment	\$46,541.88	\$46,541.88	\$0.00

Line Notes:

Line (1), Column (d): Line (1), Column (b) x Line (1), Column (c) x 8,760 (hours)
Line (1), Column (e): Line (1), Column (d) ÷ 12
Line (2), Column (f): Line (2), Column (b) x Line (2), Column (c)
Line (28), Column (g): Current calculated bill from Line (22), Column (g)
Line (28), Column (i): Proposed calculated bill from Line (22), Column (i)
Line (28), Column (j): Line (28), Column (i) - Line (28), Column (g)
Line (31), Column (g): Current calculated PBI Payment from Line (24), Column (g)
Line (31), Column (i): Proposed calculated PBI Payment from Line (24), Column (i)
Line (31), Column (j): Line (31), Column (i) - Line (31), Column (g)

CLF 2-9

Request:

Witnesses Zschokke and Lloyd refer [at National Grid's July 31, 2015 filing, at page 63, lines 12-14] to: "The advent of allowing net metered customers to allocate excess credits to other accounts also causes changes in our customer service and billing needs." On July 31, 2015, how many net metered customers in Rhode Island allocated excess credits to other accounts? For each of those customers, what was the eligible renewable energy technology of the facility, and what was the dollar value of the excess credits so assigned during the preceding 12 consecutive months?

Response:

As of July 31, 2015, there were seven net-metered customers that allocate excess credits to other accounts. All seven accounts that allocate excess credits are solar facilities. The total dollar amount of the excess credits over the preceding 12 months was \$20,187. (Please note, not all customers have been transferring credits for all of the preceding 12 months.)