

Docket 14-49-7



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DELAWARE P.S.C.

July 24, 2014

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**Via E-mail and Overnight Delivery**

Ms. Alisa C. Bentley, Secretary  
Delaware Public Service Commission  
861 Silver Lake Boulevard  
Cannon Building, Suite 100  
Dover, DE 19904

**RE: MONTHLY FILING - IN THE MATTER OF THE APPLICATION OF DELMARVA  
POWER AND LIGHT COMPANY FOR APPROVAL OF QUALIFIED FUEL  
CELL PROVIDER PROJECT TARIFFS**

Dear Ms. Bentley:

Enclosed for filing are the original and ten copies of Delmarva Power's monthly computation of the Service Classification QFCP-RC charges, including current factors and reconciliation factors as required in Order No. 8136, dated April 17, 2012 in Docket 11-362 and outlined in Tariff Leaf No. 74d Section F. This filing computes rates based on the forecasted QFCP October operations which will be utilized in the September customer billing.

**Summary:**

The average monthly net impact over the life of the fuel cell project is \$1.43, which remains consistent with what was projected by the PSC staff at the outset (\$1.42) of the project. Included below is a comparison of the projected net monthly impact of the Qualified Fuel Cell Provider project (the "QFCP Project") on the typical residential customer<sup>1</sup> with the actual net monthly impact through October 2014. The analysis compares the projections from the original ICF report and the original PSC Staff report with the actual monthly QFCP filings through this forecast period, respectively. The Net Impact of the QFCP Project on the average residential customer is determined by subtracting the costs ratepayers were able to avoid because of the project (the "Avoided Cost Benefit"), from the monthly charges ratepayers paid to support the project (the "QFCP Project Charge"), and dividing the result by Delmarva's monthly kilowatt-hour sales.<sup>2</sup>

<sup>1</sup> Typical residential customer is defined as having average monthly usage of 975 kwh.

<sup>2</sup> All numbers are cumulative from the beginning to respective forecasted month.

### **QFCP Project Charge:**

The monthly QFCP Project Charge is set forth in the monthly QFCP filings with the Delaware Public Service Commission. There are three major factors in computing the monthly charge to ratepayers. The fixed disbursement rate to the QFCP provider represents the largest component of the monthly charge. Because the disbursement rate was set as a fixed and known rate in the original QFCP legislation (*\$166.87 per megawatt-hour for the first 15 years; \$102.00 for years 16-20; \$30 for year 21*), it has the effect of keeping the actual costs relatively close to the estimated costs contained in both the ICF report and the Staff report.

The other two main variables in the monthly charge calculation are 1) the fuel cost of the natural gas and 2) the revenues derived from PJM energy and capacity sales. Fluctuations in PJM energy pricing and natural gas costs will fundamentally offset each other and create a natural hedge. For example, if natural gas prices increase, the revenue resulting from the QFCP Provider selling energy to PJM should also increase and offset the higher gas commodity cost. As long as the gas and the energy markets are correlated, customers should be largely insulated from commodity volatility. This effect should serve to keep the actual costs closely aligned with the model estimated costs throughout the life of the project.

The QFCP Project Charge is shown on Line 1 of the table on page 3. The original ICF estimated QFCP Project Charge, averaged monthly from inception through the October 2014 forecast for the typical residential customer, was expected to be \$2.71. The original PSC staff estimated QFCP Project Charge for the same period was expected to be \$2.79. The actual monthly QFCP Project Charge was \$2.48.

Therefore, for the period through October 2014, customers have been paying, on average, \$0.23 less per month than projected by ICF and \$0.31 less than projected by PSC staff.

### **Avoided Cost Benefit:**

An Avoided Cost Benefit was estimated in both the original ICF report and the original Staff report. In order to estimate the Avoided Cost Benefit, it was necessary to estimate what Delmarva's procurement costs for the Renewable Energy Credits (RECs/SRECs) necessary to comply with the RPS law would have been without the QFCP Project. To develop the estimate, it was assumed that Delmarva would have purchased 50% of its REC/SREC portfolio ahead of need and 50% on the spot market as required to meet RPS requirements.

The Avoided Cost Benefit is shown on Line 2 of the table on page 3. The original ICF estimated avoided cost benefit through the October 2014 forecast period was \$2.11 for the average residential customer. The original PSC Staff estimated avoided cost benefit over the same period was \$1.37. The actual monthly Avoided Cost Benefit through this filing is \$1.05.<sup>3</sup>

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<sup>3</sup> While the actual avoided cost benefit is less than the original estimates, it is a conservative estimate of benefits to ratepayers as it does not take into account any benefit related to the reduction in regional capacity pricing as a result of the 30 MW of additional in-state generation and the reduction in the need to import power from elsewhere in the PJM region. It also does not reflect the avoided cost benefits from reduced line losses and any reduced need for future transmission upgrades resulting from the Project's close proximity to population centers, which ultimately translates into lower overall electricity prices.

Therefore, for the period through October 2014, the costs the average residential customer was able to avoid paying were \$1.06 less than projected by ICF and \$0.32 less than projected by the PSC Staff. The difference is driven primarily by actual REC and SREC prices being lower than originally anticipated.

**Net Impact:**

To determine the average monthly Net Impact to the residential customer, and provide a comparison between the original ICF and PSC Staff projections and the actual QFCP Project results, it is necessary to subtract the Avoided Cost Benefit (Line 2) from the QFCP Project Charge (Line 1).

The Net Impact is shown on Line 3 of the table below. The original ICF projected monthly Net Impact through the October 2014 forecast period was \$0.60 for the average residential customer.<sup>4</sup> The original PSC Staff projected monthly Net Impact over the same period was \$1.42 for the average residential customer. The actual average monthly Net Impact to date was \$1.43.

Therefore, for the period from the first QFCP filing in 2012 through the attached October 2014 QFCP rate forecast, the actual monthly Net Impact on the average ratepayer has been \$0.83 higher than the 2011 ICF Model's projected monthly Net Impact, and \$0.01 more than the PSC Staff's projected monthly Net Impact of \$1.42.

Average Cost & Benefits Through October 2014	QFCP Filings	2011 ICF Model Projections	ICF Model Variance Actual to Model	2011 PSC Staff Projections	PSC Staff Variance Actual to Model
QFCP Project Charge (per month)	\$2.48	\$2.71	\$0.23 under	\$2.79	\$0.31 under
Avoided Cost Benefit (per month)	\$1.05	\$2.11	\$1.06 under	\$1.37	\$0.32 under
Net Impact for Typical Delmarva Residential Customer (per month) Line 1 minus line 2	\$1.43	\$0.60	\$0.83 over	\$1.42	\$0.01 over

<sup>4</sup> It is important to note that the forecast by ICF was provided as an estimate over the 21-year life of the QFCP project. The results described in this letter and as shown in the chart reflect only the results from the project inception to date, which is only a small segment of the 21 year term of the QFCP project.

As required in the Order, this filing is made at least 30 days prior to applying the QFCP-RC charges to customer bills effective billing month September which begins August 26th and ends September 25th. The approved monthly rates can be found on the Delmarva Power Website at "<http://www.delmarva.com/my-home/choices-and-rates/delaware/tariffs>" in the RPCR Table. Once this filing is approved by the Commission, the estimated Net cost for the September bill of a 975 KWH residential customer will be \$2.34 per month; comprised of the QFCP cost at \$4.07 and the avoided cost of (\$1.73).

Please contact me or Robert Coan at (302) 283-5724 with any questions related to this matter.

Sincerely,



Todd L. Goodman

cc: Janis Dillard, DE Public Service Commission  
Pam Knotts, DE Public Service Commission  
Heather G. Hall, DPL  
James B. Jacoby, DPL  
Kristin McEvoy, DPL

**RJC-1**  
**Delmarva Power & Light Company**  
**Fuel Cell – Renewable Capable Power Production - Monthly Rate Calculation**  
**October 2014 Projection (To be billed in September 2014)**

Line	Forecasted QFCP Revenues and Costs		October 2014	
1	<b>Table 1</b>			
2				
3			<b>October 2014</b>	
4				
5	Contract Cost	\$	3,683,769	
6	less Market -Based Revenue	\$	712,571	
7	Above Market QFCP Costs (Margin)	\$	2,971,199	
8				
9	Administrative and Other O&M charges	\$	9,000	
10				
11	(Less) Plus Carrying Charge	\$	5	
12				
13	Net QFCP Project Charge	\$	2,980,204	
14	(Less) plus prior month(s) true-up	\$	(25,794)	
15	Monthly QFCP Project Charge	\$	2,954,410	
	Checksum vs Forecast Tab should be 0 ==>			\$ -

Table 2	Voltage Level Loss (Energy & Capacity) - Adjustment Factor
16 RESIDENTIAL	1.07438
17 RES SPACE HEAT	1.07438
18 Res TOU ND	1.07438
19 SGS	1.07438
20 MGS	1.07438
21 LGS	1.07438
22 GSP	1.04532
23 GST	1.02861

Line	Col. 1	Col. 2	Col. 3	Col. 4	Col. 5	Col. 6	Col. 7	Col. 8	
24									
25				= Col. 3 Lines 28- 41 / Col. 3 Line 42			RCF/(1- RCF*UNC Factor)		
26	<b>Table 3 Rate Calculation</b>	<b>September 2014</b>	= Col. 1 x Col. 2	= Col. 4 x Line 15		= Col. 5 / Col. 2		= Col. 6 x Col. 7	
							Revenue Conversio n Factor Inc	Final QFCP Rate (\$/kWh)	
27	Rate Class	Loss Factor	Sales @ Customer (kWh) (BD)	Sales @ Bulk System - Including Losses	Allocation Factor	Allocated Revenue Requirements	QFCP Rate (\$/kWh)	Uncollecta ble	
28	Residential	1.07438	191,774,721	206,038,925	0.2675	\$ 790,272	\$ 0.004121	1.012433	\$ 0.004172
29	Residential- Space Heating	1.07438	80,260,087	86,229,833	0.1119	\$ 330,739	\$ 0.004121	1.012433	\$ 0.004172
30	Residential Time-of-Use "R-TOU"	1.07438	1	1	0.0000	\$ 0	\$ 0.004121	1.012433	\$ 0.004172
31	Residential Time-of-Use NON-Demand "R-TOU-ND"	1.07438	127,947	137,464	0.0002	\$ 527	\$ 0.004121	1.012433	\$ 0.004172
32	Small General Service - Sec Non-Demand "SGS-ND"	1.07438	11,553,430	12,412,774	0.0161	\$ 47,610	\$ 0.004121	1.012433	\$ 0.004172
33	Space Heating Sec Serv "SGS-ND" and "MGS-S"	1.07438	2,010,894	2,160,464	0.0028	\$ 8,287	\$ 0.004121	1.012433	\$ 0.004172
34	Water Heating Sec Serv "SGS-ND" and "MGS-S"	1.07438	39,562	42,505	0.0001	\$ 163	\$ 0.004121	1.012433	\$ 0.004172
35	Outdoor Recreational Lighting Svc - Sec "ORL"	1.07438	47,345	50,866	0.0001	\$ 195	\$ 0.004121	1.012433	\$ 0.004172
36	Medium General Service - Secondary "MGS-S"	1.07438	106,412,320	114,327,269	0.1484	\$ 438,508	\$ 0.004121	1.012433	\$ 0.004172
37	Large General Service - Secondary "LGS-S"	1.07438	57,176,565	61,429,358	0.0798	\$ 235,615	\$ 0.004121	1.012433	\$ 0.004172
38	General Service - Primary "GS-P"	1.04532	219,640,424	229,594,528	0.2981	\$ 880,621	\$ 0.004009	1.012433	\$ 0.004059
39	General Service - Transmission "GS-T"	1.02861	51,892,602	53,377,249	0.0693	\$ 204,731	\$ 0.003945	1.012433	\$ 0.003994
40	PL	1.07438	1,065,168	1,144,395	0.0015	\$ 4,389	\$ 0.004121	1.012433	\$ 0.004172
41	SL	1.07438	3,094,875	3,325,071	0.0043	\$ 12,753	\$ 0.004121	1.012433	\$ 0.004172
42	<b>Total kWh</b>		<b>725,095,941</b>	<b>770,270,702</b>	<b>1.0000</b>	<b>\$ 2,954,410</b>			

**RJC-2**  
**Delmarva Power & Light Company**  
**Fuel Cell – Renewable Capable Power Production**

**October 2014 Projection (To be billed in September 2014)**

	Projected May-14	Projected Jun-14	Projected Jul-14	Projected Aug-14	Projected Sep-14	Projected Oct-14
<b>1 Costs</b>						
<b>2 QFCP – Renewable Capable Power Production</b>						
3 Contract Price	\$ 166.87	\$ 166.87	\$ 166.87	\$ 166.87	\$ 166.87	\$ 166.87
4 Projected Output Rate (MW)	26.4	26.4	26.1	26.1	26.1	25.8
5 Maximum Monthly Hours of Production	744	720	744	744	720	744
6 Total Contract Costs	\$ 3,277,594	\$ 3,171,865	\$ 3,240,348	\$ 3,240,348	\$ 3,135,821	\$ 3,203,103
<b>8 Gas Supply Costs</b>						
9 Gas Monthly Fixed Costs	\$ 61,225	\$ 39,441	\$ 39,441	\$ 39,441	\$ 39,441	\$ 39,441
10 Gas Cost per Dt	\$ 4.25	\$ 4.09	\$ 4.33	\$ 4.24	\$ 3.66	\$ 3.05
11 Heat rate	7.16	7.19	7.20	7.21	7.21	7.20
12 Monthly Gas Requirements (Dt) (=Line 4 x Line 5 x Line 11)	140,634	136,668	139,812	140,007	135,490	138,205
13 Monthly Cost of Gas= (Line 10 x Line 12)+Line 9+Tax	\$ 686,923	\$ 624,128	\$ 672,598	\$ 659,390	\$ 558,285	\$ 480,666
14						
15 Gas Tracking - Banking Penalty	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
16						
17 Administrative and Other O&M charges	\$ 9,000	\$ 9,000	\$ 9,000	\$ 9,000	\$ 9,000	\$ 9,000
18 Other Indirect Costs	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
19 Total Administrative and Other O&M costs	\$ 9,000	\$ 9,000	\$ 9,000	\$ 9,000	\$ 9,000	\$ 9,000
20						
<b>21 Revenues</b>						
<b>22 PJM Energy Revenue</b>						
23 Estimated Max Monthly Output (MWh)	22,320	21,600	22,320	22,320	21,600	22,320
24 Estimated Unit Capacity Factor	0.880	0.880	0.870	0.870	0.870	0.860
25 Forecasted Monthly Output (=Line 23 x Line 24)	19,642	19,008	19,418	19,418	18,792	19,195
26 LMP @ DPL N Zone (assumed)	\$ 41.26	\$ 48.39	\$ 59.07	\$ 50.41	\$ 37.23	\$ 35.57
27 Total PJM Energy Revenue per month (Line 25 x Line 26)	\$ 810,407	\$ 919,764	\$ 1,147,023	\$ 978,809	\$ 699,569	\$ 682,726
28						
<b>29 PJM Capacity Revenue</b>						
30 Contract Capacity from PJM	\$ 12,257	\$ 18,296	\$ 18,905	\$ 18,905	\$ 18,296	\$ 18,905
31 Other PJM Revenue and Expenses	\$ -	\$ 10,940	\$ 10,940	\$ 10,940	\$ 10,940	\$ 10,940
32 Total Capacity Revenue per Month	\$ 12,257	\$ 29,235	\$ 29,845	\$ 29,845	\$ 29,235	\$ 29,845
33						
<b>34 (Less) plus prior month(s) true-up</b>						
35 Retail Revenue Deferral+Actual vs Forecast	\$ 547,542	\$ 13,501	\$ (393,365)	\$ (49,159)	\$ (174,411)	\$ (25,794)
36						
<b>37 (Less) Plus Carrying Charge</b>						
	\$ (5)	\$ 26	\$ (1)	\$ (8)	\$ 5	\$ 5
38						
<b>39 Monthly QFCP Project Charge</b>						
40 Contract+Gas Cost-Banking+Admin-Revenue+/-True Up+/- Interest	\$ 3,698,390	\$ 2,869,521	\$ 2,351,713	\$ 2,850,917	\$ 2,799,896	\$ 2,954,410
41						
<b>42 QFCP-RC Rates</b>						
43 Residential	\$ 0.005982	\$ 0.005162	\$ 0.003674	\$ 0.003795	\$ 0.003647	\$ 0.004172
44 Residential- Space Heating	\$ 0.005982	\$ 0.005162	\$ 0.003674	\$ 0.003795	\$ 0.003647	\$ 0.004172
45 Residential Time-of-Use "R-TOU"	\$ 0.005982	\$ 0.005162	\$ 0.003674	\$ 0.003795	\$ 0.003647	\$ 0.004172
46 Residential Time-of-Use NON-Demand "R-TOU-ND"	\$ 0.005982	\$ 0.005162	\$ 0.003674	\$ 0.003795	\$ 0.003647	\$ 0.004172
47 Small General Service - Sec Non-Demand "SGS-ND"	\$ 0.005982	\$ 0.005162	\$ 0.003674	\$ 0.003795	\$ 0.003647	\$ 0.004172
48 Space Heating Sec Service "SGS-ND" and "MGS-S"	\$ 0.005982	\$ 0.005162	\$ 0.003674	\$ 0.003795	\$ 0.003647	\$ 0.004172
49 Water Heating Sec Service "SGS-ND" and "MGS-S"	\$ 0.005982	\$ 0.005162	\$ 0.003674	\$ 0.003795	\$ 0.003647	\$ 0.004172
50 Outdoor Recreational Lighting Svc - Secondary "ORL"	\$ 0.005982	\$ 0.005162	\$ 0.003674	\$ 0.003795	\$ 0.003647	\$ 0.004172
51 Medium General Service - Secondary "MGS-S"	\$ 0.005982	\$ 0.005162	\$ 0.003674	\$ 0.003795	\$ 0.003647	\$ 0.004172
52 Large General Service - Secondary "LGS-S"	\$ 0.005982	\$ 0.005162	\$ 0.003674	\$ 0.003795	\$ 0.003647	\$ 0.004172
53 General Service - Primary "GS-P"	\$ 0.005851	\$ 0.005049	\$ 0.003593	\$ 0.003712	\$ 0.003548	\$ 0.004059
54 General Service - Transmission "GS-T"	\$ 0.005747	\$ 0.004960	\$ 0.003530	\$ 0.003646	\$ 0.003492	\$ 0.003994
55 Outdoor Lighting PL	\$ 0.005982	\$ 0.005162	\$ 0.003674	\$ 0.003795	\$ 0.003647	\$ 0.004172
56 Outdoor Lighting SL	\$ 0.005982	\$ 0.005162	\$ 0.003674	\$ 0.003795	\$ 0.003647	\$ 0.004172