

Doc. 14-49-1



A P-H Company

500 North Wakefield Drive  
P.O. Box 6066  
Newark, 19714-6066

302.353.7979 – Business Cell  
302.429.3786 – Telephone  
302.429.3801 – Facsimile

todd.goodman@pepcoholdings.com

Todd L. Goodman  
Associate General Counsel

January 27, 2014

**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

RECEIVED  
2014 JAN 28 AM 11  
DELAWARE P.S.C.

**RE: MONTHLY FILING - IN THE MATTER OF THE APPLICATION OF  
DELMARVA POWER AND LIGHT COMPANY FOR APPROVAL OF  
PSC DOCKET  
NO. 13-76-## 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 April operations which will be utilized in the March customer billing.

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 April 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

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

project (the “QFCP Project Charge”), and dividing the result by Delmarva’s monthly kilowatt-hour sales.<sup>2</sup>

**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 April 2014 forecast for the typical residential customer, was expected to be \$2.21. The original PSC staff estimated QFCP Project Charge for the same period was expected to be \$2.36. The actual monthly QFCP Project Charge was \$2.06.

Therefore, for the period through April 2014, customers have been paying, on average, \$0.15 less per month than projected by ICF and \$0.20 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 April 2014 forecast period was \$1.78 for the average residential customer. The original PSC Staff estimated avoided cost benefit over the same period was \$1.14. The actual monthly Avoided Cost Benefit through this filing is \$0.86.<sup>3</sup>

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

<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

Therefore, for the period through April 2014, the costs the average residential customer was able to avoid paying were \$0.92 less than projected by ICF and \$0.28 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 April 2014 forecast period was \$0.43 for the average residential customer.<sup>4</sup> The original PSC Staff projected monthly Net Impact over the same period was \$1.22 for the average residential customer. The actual average monthly Net Impact to date was \$1.21.

Therefore, for the period from the first QFCP filing in 2012 through the attached April 2014 QFCP rate forecast, the actual monthly Net Impact on the average ratepayer has been \$0.78 higher than the 2011 ICF Model's projected monthly Net Impact, and \$0.01 lower than the PSC Staff's projected monthly Net Impact of \$1.22.

<b>Average Cost &amp; Benefits Through April 2014</b>	<b>QFCP Filings</b>	<b>2011 ICF Model Projections</b>	<b>ICF Model Variance Actual to Model</b>	<b>2011 PSC Staff Projections</b>	<b>PSC Staff Variance Actual to Model</b>
QFCP Project Charge (per month)	\$2.06	\$2.21	\$0.15 under	\$2.36	\$0.20 under
Avoided Cost Benefit (per month)	\$0.86	\$1.78	\$0.92 under	\$1.14	\$0.28 under
Net Impact for Typical Delmarva Residential Customer (per month) Line 1 minus line 2	\$1.21	\$0.43	\$0.78 over	\$1.22	\$0.01 under

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.

<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 March which begins February 26th and ends March 27th.

Please contact me or Kristin McEvoy at (302) 454-4187 with any questions related to this matter.

Sincerely,

A handwritten signature in black ink, appearing to read 'T. Goodman', written in a cursive style.

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

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

Line	Forecasted QFCP Revenues and Costs		
1	<b>Table 1</b>		
2			
3		<b>Apr 2014</b>	
4			
5	Contract Cost	\$ 3,783,839	
6	less Market-Based Revenue	\$ 782,424	
7	Above Market QFCP Costs (Margin)	\$ 3,001,415	
8			
9	Administrative and Other O&M charges	\$ 9,000	
10			
11	(Less) Plus Carrying Charge	\$ 50	
12			
13	Net QFCP Project Charge	\$ 3,010,465	
14	(Less) plus prior month(s) true-up	\$ 775,155	
15	Monthly QFCP Project Charge	\$ 3,785,621	
			Checksum vs Forecast Tab should be 0 ==> \$ -

Line	Voltage Level Loss (Energy & Capacity) - Adjustment Factor	
16	RESIDENTIAL	1.0636813
17	RES SPACE HEAT	1.0636813
18	Res TOU ND	1.0636813
19	SGS	1.0636813
20	MGS	1.0636813
21	LGS	1.0636813
22	GSP	1.0402971
23	GST	1.0219048

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			RCF/(1- RCF*UNC Factor)	= Col. 6 x Col. 7	
26	<b>Table 3 Rate Calculation</b>	<b>Mar 2014</b>	= Col. 1 x Col. 2	Line 42	= Col. 4 x Line 15	= Col. 5 / Col. 2			
27	<b>Rate Class</b>	<b>Loss Factor</b>	<b>Sales @ Customer (kWh) (BD)</b>	<b>Sales @ Bulk System - Including Losses</b>	<b>Allocation Factor</b>	<b>Allocated Revenue Requirements</b>	<b>QFCP Rate (\$/kWh)</b>	<b>Revenue Conversion Factor Inc Uncollectable</b>	<b>Final QFCP Rate (\$/kWh)</b>
28	Residential	1.06368	150,104,567	159,663,421	0.2145	\$ 811,993	\$ 0.005410	1.012463	\$ 0.005477
29	Residential- Space Heating	1.06368	113,938,780	121,194,549	0.1628	\$ 616,354	\$ 0.005410	1.012463	\$ 0.005477
30	Residential Time-of-Use "R-TOU"	1.06368	1	1	0.0000	\$ 0	\$ 0.005410	1.012463	\$ 0.005477
31	Residential Time-of-Use NON-Demand "R-TOU-ND"	1.06368	143,924	153,090	0.0002	\$ 779	\$ 0.005410	1.012463	\$ 0.005477
32	Small General Service - Sec Non-Demand "SGS-ND"	1.06368	11,707,272	12,452,806	0.0167	\$ 63,331	\$ 0.005410	1.012463	\$ 0.005477
33	Space Heating Sec Serv "SGS-ND" and "MGS-S"	1.06368	1,949,676	2,073,834	0.0028	\$ 10,547	\$ 0.005410	1.012463	\$ 0.005477
34	Water Heating Sec Serv "SGS-ND" and "MGS-S"	1.06368	96,664	102,819	0.0001	\$ 523	\$ 0.005410	1.012463	\$ 0.005477
35	Outdoor Recreational Lighting Svc - Sec "ORL"	1.06368	29,676	31,566	0.0000	\$ 161	\$ 0.005410	1.012463	\$ 0.005477
36	Medium General Service - Secondary "MGS-S"	1.06368	103,822,927	110,434,506	0.1484	\$ 561,632	\$ 0.005410	1.012463	\$ 0.005477
37	Large General Service - Secondary "LGS-S"	1.06368	52,681,035	56,035,832	0.0753	\$ 284,979	\$ 0.005410	1.012463	\$ 0.005477
38	General Service - Primary "GS-P"	1.04030	181,680,590	189,001,791	0.2539	\$ 961,198	\$ 0.005291	1.012463	\$ 0.005357
39	General Service - Transmission "GS-T"	1.02190	86,778,578	88,679,445	0.1191	\$ 450,993	\$ 0.005197	1.012463	\$ 0.005262
40	PL	1.06368	1,187,276	1,262,883	0.0017	\$ 6,423	\$ 0.005410	1.012463	\$ 0.005477
41	SL	1.06368	3,089,117	3,285,836	0.0044	\$ 16,711	\$ 0.005410	1.012463	\$ 0.005477
42	<b>Total kWh</b>		<b>707,210,081</b>	<b>744,372,378</b>	<b>1.0000</b>	<b>\$ 3,785,621</b>			

**KMM-2**  
**Delmarva Power & Light Company**  
**Fuel Cell – Renewable Capable Power Production**  
**Apr 2014 Projection (To be billed in Mar 2014)**

	Projected Nov-13	Projected Dec-13	Projected Jan-14	Projected Feb-14	Projected Mar-14	Projected Apr-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)	22.5	26.0	26.3	26.1	26.1	26.4
5 Maximum Monthly Hours of Production	720	744	744	672	744	720
6 Total Contract Costs	\$ 2,703,294	\$ 3,227,933	\$ 3,265,179	\$ 2,926,766	\$ 3,240,348	\$ 3,171,865
<b>8 Gas Supply Costs</b>						
9 Gas Monthly Fixed Costs	\$ 41,067	\$ 28,344	\$ 62,305	\$ 61,225	\$ 61,225	\$ 61,225
10 Gas Cost per Dt	\$ 3.64	\$ 4.34	\$ 4.71	\$ 4.39	\$ 4.26	\$ 3.88
11 Heat rate	7.00	6.99	7.06	7.05	7.08	7.13
12 Monthly Gas Requirements (Dt) (=Line 4 x Line 5 x Line 11)	113,400	135,215	138,144	123,651	137,482	135,603
13 Monthly Cost of Gas= (Line 10 x Line 12)+Line 9+Tax	\$ 473,509	\$ 641,433	\$ 742,805	\$ 629,276	\$ 674,608	\$ 611,975
15 Gas Tracking - Banking Penalty	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
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
<b>21 Revenues</b>						
<b>22 PJM Energy Revenue</b>						
23 Estimated Max Monthly Output (MWh)	17,609	20,800	22,235	20,160	22,320	21,600
24 Estimated Unit Capacity Factor	0.920	0.930	0.880	0.870	0.870	0.880
25 Forecasted Monthly Output (=Line 23 x Line 24)	16,200	19,344	19,567	17,539	19,418	19,008
26 LMP @ DPL N Zone (assumed)	\$ 39.32	\$ 43.77	\$ 49.94	\$ 42.36	\$ 39.03	\$ 40.54
27 Total PJM Energy Revenue per month (Line 25 x Line 26)	\$ 636,948	\$ 846,718	\$ 977,144	\$ 742,931	\$ 757,948	\$ 770,563
<b>29 PJM Capacity Revenue</b>						
30 Contract Capacity from PJM	\$ 11,861	\$ 12,257	\$ 12,257	\$ 11,071	\$ 12,257	\$ 11,861
31 Other PJM Revenue and Expenses	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
32 Total Capacity Revenue per Month	\$ 11,861	\$ 12,257	\$ 12,257	\$ 11,071	\$ 12,257	\$ 11,861
<b>34 (Less) plus prior month(s) true-up</b>						
Retail Revenue Deferral+Actual vs Forecast	\$ (100,153)	\$ (228,273)	\$ (135,686)	\$ 97,383	\$ 357,435	\$ 775,155
<b>37 (Less) Plus Carrying Charge</b>	\$ 20	\$ (41)	\$ (38)	\$ 14	\$ 88	\$ 50
<b>39 Monthly QFCP Project Charge</b>	\$ 2,436,861	\$ 2,791,077	\$ 2,891,859	\$ 2,908,437	\$ 3,511,274	\$ 3,785,621
40 Contract+Gas Cost+Banking+Admin+Revenue+/-True Up+/- Interest						
<b>41 Monthly QFCP Project Charge</b>	<b>\$ 2,436,861</b>	<b>\$ 2,791,077</b>	<b>\$ 2,891,859</b>	<b>\$ 2,908,437</b>	<b>\$ 3,511,274</b>	<b>\$ 3,785,621</b>
<b>43 QFCP-RC Rates</b>						
	Rates Oct-13	Rates Nov-13	Rates Dec-13	Rates Jan-14	Rates Feb-14	Rates Mar-14
44 Residential	\$ 0.003980	\$ 0.004372	\$ 0.004045	\$ 0.003888	\$ 0.004771	\$ 0.005477
45 Residential- Space Heating	\$ 0.003980	\$ 0.004372	\$ 0.004045	\$ 0.003888	\$ 0.004771	\$ 0.005477
46 Residential Time-of-Use "R-TOU"	\$ 0.003980	\$ 0.004372	\$ 0.004045	\$ 0.003888	\$ 0.004771	\$ 0.005477
47 Residential Time-of-Use NON-Demand "R-TOU-ND"	\$ 0.003980	\$ 0.004372	\$ 0.004045	\$ 0.003888	\$ 0.004771	\$ 0.005477
48 Small General Service - Sec Non-Demand "SGS-ND"	\$ 0.003980	\$ 0.004372	\$ 0.004045	\$ 0.003888	\$ 0.004771	\$ 0.005477
49 Space Heating Sec Service "SGS-ND" and "MGS-S"	\$ 0.003980	\$ 0.004372	\$ 0.004045	\$ 0.003888	\$ 0.004771	\$ 0.005477
50 Water Heating Sec Service "SGS-ND" and "MGS-S"	\$ 0.003980	\$ 0.004372	\$ 0.004045	\$ 0.003888	\$ 0.004771	\$ 0.005477
51 Outdoor Recreational Lighting Svc - Secondary "ORL"	\$ 0.003980	\$ 0.004372	\$ 0.004045	\$ 0.003888	\$ 0.004771	\$ 0.005477
52 Medium General Service - Secondary "MGS-S"	\$ 0.003980	\$ 0.004372	\$ 0.004045	\$ 0.003888	\$ 0.004771	\$ 0.005477
53 Large General Service - Secondary "LGS-S"	\$ 0.003980	\$ 0.004372	\$ 0.004045	\$ 0.003888	\$ 0.004771	\$ 0.005477
54 General Service - Primary "GS-P"	\$ 0.003893	\$ 0.004276	\$ 0.003956	\$ 0.003802	\$ 0.004666	\$ 0.005357
55 General Service - Transmission "GS-T"	\$ 0.003824	\$ 0.004200	\$ 0.003886	\$ 0.003735	\$ 0.004584	\$ 0.005262
56 Outdoor Lighting PL	\$ 0.003980	\$ 0.004372	\$ 0.004045	\$ 0.003888	\$ 0.004771	\$ 0.005477
57 Outdoor Lighting SL	\$ 0.003980	\$ 0.004372	\$ 0.004045	\$ 0.003888	\$ 0.004771	\$ 0.005477