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DELAWARE P.S.C.

May 22, 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 August operations which will be utilized in the July customer billing.

**Summary:**

The average monthly net impact over the life of the fuel cell project is \$1.37, which remains consistent with what was projected by the PSC staff at the outset (\$1.37) 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 August 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 August 2014 forecast for the typical residential customer, was expected to be \$2.54. The original PSC staff estimated QFCP Project Charge for the same period was expected to be \$2.68. The actual monthly QFCP Project Charge was \$2.38.

Therefore, for the period through August 2014, customers have been paying, on average, \$0.16 less per month than projected by ICF and \$0.30 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 August 2014 forecast period was \$2.00 for the average residential customer. The original PSC Staff estimated avoided cost benefit over the same period was \$1.31. The actual monthly Avoided Cost Benefit through this filing is \$1.01.<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 August 2014, the costs the average residential customer was able to avoid paying were \$0.99 less than projected by ICF and \$0.30 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 August 2014 forecast period was \$0.54 for the average residential customer.<sup>4</sup> The original PSC Staff projected monthly Net Impact over the same period was \$1.37 for the average residential customer. The actual average monthly Net Impact to date was \$1.37.

Therefore, for the period from the first QFCP filing in 2012 through the attached August 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 matches the PSC Staff's projected monthly Net Impact of \$1.37.

<b>Average Cost &amp; Benefits Through August 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)	\$2.38	\$2.54	\$0.16 under	\$2.68	\$0.30 under
Avoided Cost Benefit (per month)	\$1.01	\$2.00	\$0.99 under	\$1.31	\$0.30 under
Net Impact for Typical Delmarva Residential Customer (per month) Line 1 minus line 2	\$1.37	\$0.54	\$0.83 over	\$1.37	Variance

<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 was originally made at least 30 days prior to applying the QFCP-RC charges to customer bills effective billing month July which begins June 27th and ends July 28th.

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**  
**August 2014 Projection (To be billed in July 2014)**

Table 1		Forecasted QFCP Revenues and Costs	
		August 2014	
5	Contract Cost	\$	3,899,739
6	less Market -Based Revenue	\$	1,008,654
7	Above Market QFCP Costs (Margin)	\$	2,891,085
9	Administrative and Other O&M charges	\$	9,000
11	(Less) Plus Carrying Charge	\$	(8)
13	Net QFCP Project Charge	\$	2,900,077
14	(Less) plus prior month(s) true-up	\$	(49,159)
15	Monthly QFCP Project Charge	\$	2,850,917

Checksum vs Forecast Tab should be 0 ==> \$ -

Table 2		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

Table 3 Rate Calculation	Col. 1	Col. 2	Col. 3	Col. 4	Col. 5	Col. 6	Col. 7	Col. 8
				= Col. 3 Lines 28-41 / Col. 3			RCF/(1- RCF*UNC Factor)	= Col. 6 x Col. 7
	July 2014	= Col. 1 x Col. 2		Line 42	= Col. 4 x Line 15	= Col. 5 / Col. 2		

Rate Class	Loss Factor	Sales @ Customer (kWh) (BD)	Sales @ Bulk System - Including Losses	Allocation Factor	Allocated Revenue Requirements	QFCP Rate (\$/kWh)	Revenue Conversion Factor	Uncollectable	Final QFCP Rate (\$/kWh)
28 Residential	1.06368	217,603,273	231,460,533	0.2861	\$ 815,670	\$ 0.003748	1.012433	\$ 0.003795	
29 Residential- Space Heating	1.06368	83,752,428	89,085,892	0.1101	\$ 313,940	\$ 0.003748	1.012433	\$ 0.003795	
30 Residential Time-of-Use "R-TOU"	1.06368	1	1	0.0000	\$ 0	\$ 0.003748	1.012433	\$ 0.003795	
31 Residential Time-of-Use NON-Demand "R-TOU-ND"	1.06368	148,416	157,867	0.0002	\$ 556	\$ 0.003748	1.012433	\$ 0.003795	
32 Small General Service - Sec Non-Demand "SGS-ND"	1.06368	12,378,449	13,166,725	0.0163	\$ 46,400	\$ 0.003748	1.012433	\$ 0.003795	
33 Space Heating Sec Serv "SGS-ND" and "MGS-S"	1.06368	2,095,908	2,229,378	0.0028	\$ 7,856	\$ 0.003748	1.012433	\$ 0.003795	
34 Water Heating Sec Serv "SGS-ND" and "MGS-S"	1.06368	50,267	53,468	0.0001	\$ 188	\$ 0.003748	1.012433	\$ 0.003795	
35 Outdoor Recreational Lighting Svc - Sec "ORL"	1.06368	93,120	99,050	0.0001	\$ 349	\$ 0.003748	1.012433	\$ 0.003795	
36 Medium General Service - Secondary "MGS-S"	1.06368	113,021,670	120,219,036	0.1486	\$ 423,653	\$ 0.003748	1.012433	\$ 0.003795	
37 Large General Service - Secondary "LGS-S"	1.06368	54,874,252	58,368,716	0.0721	\$ 205,692	\$ 0.003748	1.012433	\$ 0.003795	
38 General Service - Primary "GS-P"	1.04030	209,743,572	218,195,629	0.2697	\$ 768,924	\$ 0.003666	1.012433	\$ 0.003712	
39 General Service - Transmission "GS-T"	1.02190	70,010,990	71,544,567	0.0884	\$ 252,124	\$ 0.003601	1.012433	\$ 0.003646	
40 PL	1.06368	1,062,615	1,130,284	0.0014	\$ 3,983	\$ 0.003748	1.012433	\$ 0.003795	
41 SL	1.06368	3,089,577	3,286,326	0.0041	\$ 11,581	\$ 0.003748	1.012433	\$ 0.003795	
42 <b>Total kWh</b>		<b>767,924,539</b>	<b>808,997,473</b>	<b>1.0000</b>	<b>\$ 2,850,917</b>				

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

**August 2014 Projection (To be billed in July 2014)**

	Projected Mar-14	Projected Apr-14	Projected May-14	Projected Jun-14	Projected Jul-14	Projected Aug-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)	26.1	26.4	26.4	26.4	26.1	26.1
5 Maximum Monthly Hours of Production	744	720	744	720	744	744
6 Total Contract Costs	\$ 3,240,348	\$ 3,171,865	\$ 3,277,594	\$ 3,171,865	\$ 3,240,348	\$ 3,240,348
7						
<b>8 Gas Supply Costs</b>						
9 Gas Monthly Fixed Costs	\$ 61,225	\$ 61,225	\$ 61,225	\$ 39,441	\$ 39,441	\$ 39,441
10 Gas Cost per Dt	\$ 4.26	\$ 3.88	\$ 4.25	\$ 4.09	\$ 4.33	\$ 4.24
11 Heat rate	7.08	7.13	7.16	7.19	7.20	7.21
12 Monthly Gas Requirements (Dt) (=Line 4 x Line 5 x Line 11)	137,482	135,603	140,634	136,668	139,812	140,007
13 Monthly Cost of Gas= (Line 10 x Line 12)+Line 9+Tax	\$ 674,608	\$ 611,975	\$ 686,923	\$ 624,128	\$ 672,598	\$ 659,390
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	21,600	22,320	22,320
24 Estimated Unit Capacity Factor	0.870	0.880	0.880	0.880	0.870	0.870
25 Forecasted Monthly Output (=Line 23 x Line 24)	19,418	19,008	19,642	19,008	19,418	19,418
26 LMP @ DPL N Zone (assumed)	\$ 39.03	\$ 40.54	\$ 41.26	\$ 48.39	\$ 59.07	\$ 50.41
27 Total PJM Energy Revenue per month (Line 25 x Line 26)	\$ 757,948	\$ 770,563	\$ 810,407	\$ 919,764	\$ 1,147,023	\$ 978,809
28						
<b>29 PJM Capacity Revenue</b>						
30 Contract Capacity from PJM	\$ 12,257	\$ 11,861	\$ 12,257	\$ 18,296	\$ 18,905	\$ 18,905
31 Other PJM Revenue and Expenses	\$ -	\$ -	\$ -	\$ 10,940	\$ 10,940	\$ 10,940
32 Total Capacity Revenue per Month	\$ 12,257	\$ 11,861	\$ 12,257	\$ 29,235	\$ 29,845	\$ 29,845
33						
<b>34 (Less) plus prior month(s) true-up</b>						
35 Detail Revenue Deferral+Actual vs Forecast	\$ 357,435	\$ 775,155	\$ 547,542	\$ 13,501	\$ (393,365)	\$ (49,159)
36						
<b>37 (Less) Plus Carrying Charge</b>	\$ 88	\$ 50	\$ (5)	\$ 26	\$ (1)	\$ (8)
38						
<b>39 Monthly QFCP Project Charge</b>	\$ 3,511,274	\$ 3,785,621	\$ 3,698,390	\$ 2,869,521	\$ 2,351,713	\$ 2,850,917
40 Contract+Gas Cost-Banking+Admin-Revenue+/-True Up+/- Interest						
41						
<b>42 QFCP-RC Rates</b>						
43 Residential	\$ 0.004771	\$ 0.005477	\$ 0.005982	\$ 0.005162	\$ 0.003674	\$ 0.003795
44 Residential- Space Heating	\$ 0.004771	\$ 0.005477	\$ 0.005982	\$ 0.005162	\$ 0.003674	\$ 0.003795
45 Residential Time-of-Use "R-TOU"	\$ 0.004771	\$ 0.005477	\$ 0.005982	\$ 0.005162	\$ 0.003674	\$ 0.003795
46 Residential Time-of-Use NON-Demand "R-TOU-ND"	\$ 0.004771	\$ 0.005477	\$ 0.005982	\$ 0.005162	\$ 0.003674	\$ 0.003795
47 Small General Service - Sec Non-Demand "SGS-ND"	\$ 0.004771	\$ 0.005477	\$ 0.005982	\$ 0.005162	\$ 0.003674	\$ 0.003795
48 Space Heating Sec Service "SGS-ND" and "MGS-S"	\$ 0.004771	\$ 0.005477	\$ 0.005982	\$ 0.005162	\$ 0.003674	\$ 0.003795
49 Water Heating Sec Service "SGS-ND" and "MGS-S"	\$ 0.004771	\$ 0.005477	\$ 0.005982	\$ 0.005162	\$ 0.003674	\$ 0.003795
50 Outdoor Recreational Lighting Svc - Secondary "ORL"	\$ 0.004771	\$ 0.005477	\$ 0.005982	\$ 0.005162	\$ 0.003674	\$ 0.003795
51 Medium General Service - Secondary "MGS-S"	\$ 0.004771	\$ 0.005477	\$ 0.005982	\$ 0.005162	\$ 0.003674	\$ 0.003795
52 Large General Service - Secondary "LGS-S"	\$ 0.004771	\$ 0.005477	\$ 0.005982	\$ 0.005162	\$ 0.003674	\$ 0.003795
53 General Service - Primary "GS-P"	\$ 0.004666	\$ 0.005357	\$ 0.005851	\$ 0.005049	\$ 0.003593	\$ 0.003712
54 General Service - Transmission "GS-T"	\$ 0.004584	\$ 0.005262	\$ 0.005747	\$ 0.004960	\$ 0.003530	\$ 0.003646
55 Outdoor Lighting PL	\$ 0.004771	\$ 0.005477	\$ 0.005982	\$ 0.005162	\$ 0.003674	\$ 0.003795
56 Outdoor Lighting SL	\$ 0.004771	\$ 0.005477	\$ 0.005982	\$ 0.005162	\$ 0.003674	\$ 0.003795
57 Monthly Net Cost Analysis to the average residential customer (975 KWH per month):						
58 QFCP Project Charge to Avg Residential \$3.70/Month; Estimated Avoided Cost \$1.68/month; Estimated Net impact \$2.02/month						