



A PHI Company

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November 23, 2015

Via DelaFile Submission

Ms. Donna Nickerson, 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. Nickerson:

Included with this filing, submitted via DelaFile, is 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. This filing computes rates based on the forecasted QFCP February operations which will be utilized in the January customer billing.

Summary:

The average monthly net impact over the life of the fuel cell project is \$1.77, which remains consistent with what was projected by the PSC staff at the outset (\$1.31) of the project. Included below is a comparison of the projected net monthly impact of the Qualified Fuel Cell Provider project (the "QFCP Project") to the typical residential customer¹ with the actual net monthly impact through February 2016. 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 to 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.²

¹ Typical residential customer is defined as having average monthly usage of 975 kwh.

² 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 February 2016 forecast for the typical residential customer, was expected to be \$3.13. The original PSC staff estimated QFCP Project Charge for the same period was expected to be \$3.43. The actual monthly QFCP Project Charge was \$3.13.

Therefore, for the period through February 2016, customers have been paying, on average, the same per month as 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 February 2016 forecast period was \$2.66 for the average residential customer. The original PSC Staff estimated avoided cost benefit over the same period was \$2.12. The actual monthly Avoided Cost Benefit through this filing is \$1.36.³

³ 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 February 2016, the costs the average residential customer was able to avoid paying were \$1.30 less than projected by ICF and \$0.76 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 February 2016 forecast period was \$0.47 for the average residential customer.⁴ The original PSC Staff projected monthly Net Impact over the same period was \$1.31 for the average residential customer. The actual average monthly Net Impact to date was \$1.77.

Therefore, for the period from the first QFCP filing in 2012 through the attached February 2016 QFCP rate forecast, the actual monthly Net Impact on the average ratepayer has been \$1.30 higher than the 2011 ICF Model's projected monthly Net Impact, and \$0.46 more than the PSC Staff's projected monthly Net Impact of \$1.31.

Average Cost & Benefits Through February 2016	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)	\$3.13	\$3.13		\$3.43	\$0.30 under
Avoided Cost Benefit (per month)	\$1.36	\$2.66	\$1.30 under	\$2.12	\$0.76 under
Net Impact for Typical Delmarva Residential Customer (per month) Line 1 minus line 2	\$1.77	\$0.47	\$1.30 over	\$1.31	\$0.46 over

⁴ 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 January, which is scheduled to begin with customer meter read and billing cycle #1 on January 4th and finish with cycle #21 on January 29th. 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 January bill of a 975 KWH residential customer will be \$1.74 per month; comprised of the QFCP cost at \$3.42 and the avoided cost of (\$1.68).

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

Sincerely,

A handwritten signature in blue ink, appearing to read "Todd L. Goodman". The signature is fluid and cursive, with a prominent peak in the middle.

Todd L. Goodman

RJC-1
Delmarva Power & Light Company
Fuel Cell – Renewable Capable Power Production - Monthly Rate Calculation
February 2016 Projection (To be billed in January 2016)

Line	Forecasted QFCP Revenues and Costs		
Table 1			
February 2016			
5	Contract Cost	\$ 3,916,015	
6	less Market -Based Revenue	\$ 930,410	
7	Above Market QFCP Costs (Margin)	\$ 2,985,604	
9	Administrative and Other O&M charges	\$ 9,000	
11	(Less) Plus Carrying Charge	\$ (160)	
13	Net QFCP Project Charge	\$ 2,994,445	
14	(Less) plus prior month(s) true-up	\$ (417,959)	
15	Monthly QFCP Project Charge	\$ 2,576,486	
			Checksum vs Forecast Tab should be 0 ==> \$ -

Line	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	
26	Table 3 Rate Calculation		January 2016	= Col. 1 x Col. 2	= Col. 3 Lines 28-41 / Col. 3	= Col. 4 x Line 15	= Col. 5 / Col. 2	RCF/(1- RCF*UNC Factor) = Col. 6 x Col. 7	
27	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	1.07438	215,089,077	231,087,403	0.2898	\$ 746,737	\$ 0.003472	1.011562	\$ 0.003512
29	Residential- Space Heating	1.07438	154,556,003	166,051,879	0.2083	\$ 536,581	\$ 0.003472	1.011562	\$ 0.003512
30	Residential Time-of-Use "R-TOU" (Deleted 5/1/2014)								
31	Residential Time-of-Use NON-Demand "R-TOU-ND"	1.07438	195,039	209,546	0.0003	\$ 677	\$ 0.003472	1.011562	\$ 0.003512
32	Small General Service - Sec Non-Demand "SGS-ND"	1.07438	9,026,503	9,697,895	0.0122	\$ 31,338	\$ 0.003472	1.011562	\$ 0.003512
33	Space Heating Sec Serv "SGS-ND" and "MGS-S"	1.07438	2,616,750	2,811,384	0.0035	\$ 9,085	\$ 0.003472	1.011562	\$ 0.003512
34	Water Heating Sec Serv "SGS-ND" and "MGS-S"	1.07438	86,185	92,595	0.0001	\$ 299	\$ 0.003472	1.011562	\$ 0.003512
35	Outdoor Recreational Lighting Svc - Sec "ORL"	1.07438	16,299	17,512	0.0000	\$ 57	\$ 0.003472	1.011562	\$ 0.003512
36	Medium General Service - Secondary "MGS-S"	1.07438	96,756,162	103,952,886	0.1304	\$ 335,914	\$ 0.003472	1.011562	\$ 0.003512
37	Large General Service - Secondary "LGS-S"	1.07438	51,206,109	55,014,819	0.0690	\$ 177,775	\$ 0.003472	1.011562	\$ 0.003512
38	General Service - Primary "GS-P"	1.04532	178,283,104	186,362,894	0.2337	\$ 602,214	\$ 0.003378	1.011562	\$ 0.003417
39	General Service - Transmission "GS-T"	1.02861	36,793,804	37,846,475	0.0475	\$ 122,297	\$ 0.003324	1.011562	\$ 0.003362
40	PL	1.07438	1,082,360	1,162,866	0.0015	\$ 3,758	\$ 0.003472	1.011562	\$ 0.003512
41	SL	1.07438	2,809,269	3,018,222	0.0038	\$ 9,753	\$ 0.003472	1.011562	\$ 0.003512
42	Total kWh		748,516,666	797,326,376	1.0000	\$ 2,576,486			

RJC-2
Delmarva Power & Light Company
Fuel Cell – Renewable Capable Power Production
February 2016 Projection (To be billed in January 2016)

	Projected Sep-15	Projected Oct-15	Projected Nov-15	Projected Dec-15	Projected Jan-16	Projected Feb-16
1 Costs						
2 QFCP – Renewable Capable Power Production						
3 Contract Price	\$ 166.87	\$ 166.87	\$ 166.87	\$ 166.87	\$ 166.87	\$ 166.87
4 Projected Output Rate (MW)	26.3	26.3	26.7	26.4	26.4	25.8
5 Maximum Monthly Hours of Production	720	744	720	744	744	696
6 Total Contract Costs	\$ 3,159,850	\$ 3,265,179	\$ 3,207,909	\$ 3,277,594	\$ 3,277,594	\$ 2,996,451
7						
8 Gas Supply Costs						
9 Gas Monthly Fixed Costs	\$ 44,855	\$ 44,855	\$ 44,855	\$ 44,855	\$ 44,855	\$ 44,855
10 Gas Cost per Dt	\$ 2.03	\$ 1.92	\$ 2.72	\$ 3.89	\$ 6.10	\$ 6.13
11 Heat rate	7.61	7.61	7.69	7.69	7.61	7.61
12 Monthly Gas Requirements (Dt) (=Line 4 x Line 5 x Line 11)	144,103	148,906	147,775	150,985	149,473	136,633
13 Monthly Cost of Gas= (Line 10 x Line 12)+Line 9+Tax	\$ 351,422	\$ 344,424	\$ 465,329	\$ 658,818	\$ 996,749	\$ 919,564
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						
21 Revenues						
22 PJM Energy Revenue						
23 Estimated Max Monthly Output (MWh)	21,518	22,235	21,600	22,320	22,320	20,880
24 Estimated Unit Capacity Factor	0.880	0.880	0.890	0.880	0.880	0.860
25 Forecasted Monthly Output (=Line 23 x Line 24)	18,936	19,567	19,224	19,642	19,642	17,957
26 LMP @ DPL N Zone (assumed)	\$ 29.04	\$ 30.61	\$ 37.58	\$ 39.29	\$ 55.47	\$ 44.52
27 Total PJM Energy Revenue per month (Line 25 x Line 26)	\$ 549,966	\$ 599,050	\$ 722,445	\$ 771,685	\$ 1,089,446	\$ 799,497
28						
29 PJM Capacity Revenue						
30 Contract Capacity from PJM	\$ 124,110	\$ 128,247	\$ 124,110	\$ 128,247	\$ 128,247	\$ 119,973
31 Other PJM Revenue and Expenses	\$ 10,940	\$ 10,940	\$ 10,940	\$ 10,940	\$ 10,940	\$ 10,940
32 Total Capacity Revenue per Month	\$ 135,050	\$ 139,187	\$ 135,050	\$ 139,187	\$ 139,187	\$ 130,913
33						
34 (Less) plus prior month(s) true-up						
35 Retail Revenue Deferral+Actual vs Forecast	\$ 436,770	\$ 57,114	\$ 84,423	\$ 68,888	\$ 253,168	\$ (417,959)
36						
37 (Less) Plus Carrying Charge	\$ 129	\$ (54)	\$ (28)	\$ (10)	\$ 105	\$ (160)
38						
39 Monthly QFCP Project Charge	\$ 3,272,156	\$ 2,937,427	\$ 2,909,139	\$ 3,103,418	\$ 3,307,983	\$ 2,576,486
40 Contract+Gas Cost-Banking+Admin-Revenue+/- True Up+/- Interest						
41						
42 QFCP-RC Rates	Rates Aug-15	Rates Sep-15	Rates Oct-15	Rates Nov-15	Rates Dec-15	Rates Jan-16
43 Residential	\$ 0.004398	\$ 0.004046	\$ 0.004887	\$ 0.005529	\$ 0.005250	\$ 0.003512
44 Residential- Space Heating	\$ 0.004398	\$ 0.004046	\$ 0.004887	\$ 0.005529	\$ 0.005250	\$ 0.003512
45 Residential Time-of-Use "R-TOU" (Deleted 5/1/2014)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
46 Residential Time-of-Use NON-Demand "R-TOU-ND"	\$ 0.004398	\$ 0.004046	\$ 0.004887	\$ 0.005529	\$ 0.005250	\$ 0.003512
47 Small General Service - Sec Non-Demand "SGS-ND"	\$ 0.004398	\$ 0.004046	\$ 0.004887	\$ 0.005529	\$ 0.005250	\$ 0.003512
48 Space Heating Sec Service "SGS-ND" and "MGS-S"	\$ 0.004398	\$ 0.004046	\$ 0.004887	\$ 0.005529	\$ 0.005250	\$ 0.003512
49 Water Heating Sec Service "SGS-ND" and "MGS-S"	\$ 0.004398	\$ 0.004046	\$ 0.004887	\$ 0.005529	\$ 0.005250	\$ 0.003512
50 Outdoor Recreational Lighting Svc - Secondary "ORL"	\$ 0.004398	\$ 0.004046	\$ 0.004887	\$ 0.005529	\$ 0.005250	\$ 0.003512
51 Medium General Service - Secondary "MGS-S"	\$ 0.004398	\$ 0.004046	\$ 0.004887	\$ 0.005529	\$ 0.005250	\$ 0.003512
52 Large General Service - Secondary "LGS-S"	\$ 0.004398	\$ 0.004046	\$ 0.004887	\$ 0.005529	\$ 0.005250	\$ 0.003512
53 General Service - Primary "GS-P"	\$ 0.004279	\$ 0.003937	\$ 0.004755	\$ 0.005380	\$ 0.005108	\$ 0.003417
54 General Service - Transmission "GS-T"	\$ 0.004210	\$ 0.003874	\$ 0.004679	\$ 0.005294	\$ 0.005027	\$ 0.003362
55 Outdoor Lighting PL	\$ 0.004398	\$ 0.004046	\$ 0.004887	\$ 0.005529	\$ 0.005250	\$ 0.003512
56 Outdoor Lighting SL	\$ 0.004398	\$ 0.004046	\$ 0.004887	\$ 0.005529	\$ 0.005250	\$ 0.003512