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May 2, 2018

Ms. Carlotta Stauffer, Commission Clerk  
Florida Public Service Commission  
2540 Shumard Oak Boulevard  
Tallahassee FL 32399-0850

Re: Docket No. 20180081-EQ – Petition for approval of new standard offer for purchase of firm capacity and energy from renewable energy facilities or small qualifying facilities and approval of tariff schedule REF-1, by Gulf Power Company

Dear Ms. Stauffer:

Attached for electronic filing is Gulf Power Company's response to Staff's First Data Request in Docket 20180081-EQ.

Sincerely,

A handwritten signature in blue ink that reads "Rhonda J. Alexander".

Rhonda J. Alexander  
Regulatory, Forecasting and Pricing Manager

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Attachments

cc: Gulf Power Company  
Jeffrey A. Stone, Esq., General Counsel  
Beggs & Lane  
Russell Badders, Esq.  
Florida Public Service Commission  
Orlando Wooten, Division of Engineering

1. Please refer to Sheet 9.82 of the standard offer contract. Explain the additional language: "If the Facility elects to make no commitment as to the quality or timing of its deliveries to the Company, the Committed Capacity in its Renewable Standard Offer will be zero (0) Megawatts, and the capacity rates set in accordance with the provisions of Paragraph A below shall not apply."

RESPONSE:

The subject language was included to clarify that generators electing to make no commitment as to quantity or timing of deliveries to the Company would not be entitled to receive capacity payments under the Standard Offer Contract or associated rate schedule. This provision is consistent with the Commission's order approving Gulf Power's 2017 Renewable Standard Offer Contract. See, Order No. PSC-2017-0295-PAA-EQ at p.2 ("The RF/QF operator may elect 1) to make no commitment as to the quantity or timing of its deliveries to Gulf, and 2) to have a committed capacity of zero (0) MW. Under such a scenario, the energy is delivered on an as-available basis and the operator receives only an energy payment. Alternatively, the RF/QF operator may elect to commit to certain minimum performance requirements based on the identified avoided unit, such as being operational and delivering an agreed upon amount of capacity by the in-service date of the avoided unit. Under this scenario, the operator is eligible for capacity payments in addition to payments received for energy.") The provision is also consistent with provisions found in Renewable Standard Offer Contracts of other Florida investor-owned utilities. See, for example, Articles 7.1 and 9.1.1 of Duke Energy Florida's approved Standard Offer Contract.

2. Please complete the following table describing payments to a renewable provider based on the proposed tariffs included in the Utility's revised standard offer contract. Assume a renewable generator with a 50 MW output providing firm capacity with an in-service date of January 1, 2019, operating at the minimum capacity factor required for full capacity payments and a contract duration of 20 years. Please state the capacity factor assumed for the calculations. Calculate the total Net Present Value (NPV) of all payments in 2019 dollars, and also provide an explanation of the method and rate used to calculate the NPV.

Please provide the completed table for the following five scenarios:

- As-available energy (energy only payments)
- Normal capacity payments
- Levelized payments
- Early payments
- Early levelized payments

RESPONSE:

See pages 2 through 6 for each scenario. Each scenario assumes a 50 MW renewable generator operating at 88 percent capacity factor and meeting the minimum Equivalent Availability Factor specified in Gulf's Schedule REF-1 needed to receive full capacity payments. For each scenario, Gulf assumes an in-service date of January 1, 2019 for the renewable generator.

Please see the attached file titled "20180081\_Staff\_1stDR\_2" in which Gulf uses the Excel formula to determine the NPV of each payment stream. The annual discount rate used in the NPV calculation is 7.26 percent.

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As- Available Energy	Energy (MWh)	Capacity Rate (\$/kw-mo)	Total Capacity Payments (\$)	Energy Rate (\$/MWh)	Total Energy Payments (\$)	Total Payments (\$)
2019	385,440	0	0	26.96	10,391,462	10,391,462
2020	386,496	0	0	29.38	11,355,252	11,355,252
2021	385,440	0	0	30.77	11,859,989	11,859,989
2022	385,440	0	0	31.84	12,272,410	12,272,410
2023	385,440	0	0	33.29	12,831,298	12,831,298
2024	386,496	0	0	35.19	13,600,794	13,600,794
2025	385,440	0	0	37.76	14,554,214	14,554,214
2026	385,440	0	0	38.24	14,739,226	14,739,226
2027	385,440	0	0	40.28	15,525,523	15,525,523
2028	386,496	0	0	41.24	15,939,095	15,939,095
2029	385,440	0	0	43.30	16,689,552	16,689,552
2030	385,440	0	0	45.34	17,475,850	17,475,850
2031	385,440	0	0	47.17	18,181,205	18,181,205
2032	386,496	0	0	49.24	19,031,063	19,031,063
2033	385,440	0	0	52.15	20,100,696	20,100,696
2034	385,440	0	0	55.65	21,449,736	21,449,736
2035	385,440	0	0	57.96	22,340,102	22,340,102
2036	386,496	0	0	60.42	23,352,088	23,352,088
2037	385,440	0	0	62.82	24,213,341	24,213,341
2038	385,440	0	0	66.14	25,493,002	25,493,002
<b>Total (nominal)</b>			0		341,395,898	341,395,898
<b>Total (NPV)</b>			0		171,284,606	171,284,606

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Normal	Energy (MWh)	Capacity Rate <sup>(1)</sup> (\$/kw-mo)	Total Capacity Payments (\$)	Energy Rate <sup>(2)</sup> (\$/MWh)	Total Energy Payments (\$)	Total Payments (\$)
2019	385,440	0	0	26.96	10,391,462	10,391,462
2020	386,496	0	0	29.38	11,355,252	11,355,252
2021	385,440	0	0	30.77	11,859,989	11,859,989
2022	385,440	0	0	31.84	12,272,410	12,272,410
2023	385,440	0	0	33.29	12,831,298	12,831,298
2024	386,496	11.87	4,155,754	29.68	12,358,532	16,514,286
2025	385,440	11.98	7,189,685	31.93	12,307,099	19,496,784
2026	385,440	12.17	7,303,414	31.66	12,203,030	19,506,444
2027	385,440	12.37	7,419,544	32.60	12,565,344	19,984,888
2028	386,496	12.56	7,538,124	33.33	12,881,912	20,420,036
2029	385,440	12.77	7,659,206	34.30	13,220,592	20,879,798
2030	385,440	12.97	7,782,844	35.78	13,791,043	21,573,887
2031	385,440	13.18	7,909,090	36.79	14,180,338	22,089,428
2032	386,496	13.40	8,038,000	38.17	14,752,552	22,790,552
2033	385,440	13.62	8,169,630	39.72	15,309,677	23,479,307
2034	385,440	13.84	8,304,038	42.00	16,188,480	24,492,518
2035	385,440	14.07	8,441,282	43.72	16,851,437	25,292,719
2036	386,496	14.30	8,581,423	45.46	17,570,108	26,151,531
2037	385,440	14.54	8,724,520	46.68	17,992,339	26,716,859
2038	385,440	14.78	8,870,637	50.07	19,298,981	28,169,618
<b>Total (nominal)</b>			116,087,192		280,181,875	396,269,067
<b>Total (NPV)</b>			50,545,575		146,616,001	197,161,575

- (1) Capacity rate effective as of avoided unit's June 1, 2024 in-service date.  
(2) Projected as-available energy rates shown prior the avoided unit's June 1, 2024 in-service date. The lower of the projected as-available energy rate or the projected avoided unit energy rate shown as of in-service date of Gulf's avoided unit.

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Levelized	Energy (MWh)	Capacity Rate <sup>(1)</sup> (\$/kw-mo)	Total Capacity Payments (\$)	Energy Rate <sup>(2)</sup> (\$/MWh)	Total Energy Payments (\$)	Total Payments (\$)
2019	385,440	0.00	0	26.96	10,391,462	10,391,462
2020	386,496	0.00	0	29.38	11,355,252	11,355,252
2021	385,440	0.00	0	30.77	11,859,989	11,859,989
2022	385,440	0.00	0	31.84	12,272,410	12,272,410
2023	385,440	0.00	0	33.29	12,831,298	12,831,298
2024	386,496	12.79	4,477,845	29.68	12,358,532	16,836,377
2025	385,440	12.81	7,688,682	31.93	12,307,099	19,995,781
2026	385,440	12.85	7,710,160	31.66	12,203,030	19,913,190
2027	385,440	12.89	7,732,091	32.60	12,565,344	20,297,435
2028	386,496	12.92	7,754,485	33.33	12,881,912	20,636,397
2029	385,440	12.96	7,777,352	34.30	13,220,592	20,997,944
2030	385,440	13.00	7,800,701	35.78	13,791,043	21,591,744
2031	385,440	13.04	7,824,542	36.79	14,180,338	22,004,880
2032	386,496	13.08	7,848,887	38.17	14,752,552	22,601,439
2033	385,440	13.12	7,873,746	39.72	15,309,677	23,183,423
2034	385,440	13.17	7,899,129	42.00	16,188,480	24,087,609
2035	385,440	13.21	7,925,047	43.72	16,851,437	24,776,484
2036	386,496	13.25	7,951,513	45.46	17,570,108	25,521,621
2037	385,440	13.30	7,978,537	46.68	17,992,339	25,970,876
2038	385,440	13.34	8,006,131	50.07	19,298,981	27,305,112
<b>Total (nominal)</b>			114,248,848		280,181,875	394,430,723
<b>Total (NPV)</b>			50,545,578		146,616,001	197,161,579

- (1) Capacity rate effective as of avoided unit's June 1, 2024 in-service date.  
(2) Projected as-available energy rates shown prior the avoided unit's June 1, 2024 in-service date. The lower of the projected as-available energy rate or the projected avoided unit energy rate shown as of in-service date of Gulf's avoided unit.

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Early	Energy (MWh)	Capacity Rate <sup>(1)</sup> (\$/kw-mo)	Total Capacity Payments (\$)	Energy Rate <sup>(2)</sup> (\$/MWh)	Total Energy Payments (\$)	Total Payments (\$)
2019	385,440	6.47	3,881,439	26.96	10,391,462	14,272,901
2020	386,496	6.60	3,962,561	29.38	11,355,252	15,317,813
2021	385,440	6.74	4,045,379	30.77	11,859,989	15,905,368
2022	385,440	6.88	4,129,927	31.84	12,272,410	16,402,337
2023	385,440	7.03	4,216,242	33.29	12,831,298	17,047,540
2024	386,496	7.17	4,304,362	29.68	12,358,532	16,662,894
2025	385,440	7.32	4,394,323	31.93	12,307,099	16,701,422
2026	385,440	7.48	4,486,164	31.66	12,203,030	16,689,194
2027	385,440	7.63	4,579,925	32.60	12,565,344	17,145,269
2028	386,496	7.79	4,675,646	33.33	12,881,912	17,557,558
2029	385,440	7.96	4,773,367	34.30	13,220,592	17,993,959
2030	385,440	8.12	4,873,130	35.78	13,791,043	18,664,173
2031	385,440	8.29	4,974,979	36.79	14,180,338	19,155,317
2032	386,496	8.46	5,078,956	38.17	14,752,552	19,831,508
2033	385,440	8.64	5,185,106	39.72	15,309,677	20,494,783
2034	385,440	8.82	5,293,474	42.00	16,188,480	21,481,954
2035	385,440	9.01	5,404,108	43.72	16,851,437	22,255,545
2036	386,496	9.20	5,517,054	45.46	17,570,108	23,087,162
2037	385,440	9.39	5,632,360	46.68	17,992,339	23,624,699
2038	385,440	9.58	5,750,077	50.07	19,298,981	25,049,058
<b>Total (nominal)</b>			95,158,579		280,181,875	375,340,454
<b>Total (NPV)</b>			50,545,574		146,616,001	197,161,575

(1) Capacity rate effective as of January 1, 2019.

(2) Projected as-available energy rates shown prior the avoided unit's June 1, 2024 in-service date. The lower of the projected as-available energy rate or the projected avoided unit energy rate shown as of in-service date of Gulf's avoided unit.

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Early Levelized	Energy (MWh)	Capacity Rate <sup>(1)</sup> (\$/kw-mo)	Total Capacity Payments (\$)	Energy Rate <sup>(2)</sup> (\$/MWh)	Total Energy Payments (\$)	Total Payments (\$)
2019	385,440	7.15	4,291,490	26.96	10,391,462	14,682,952
2020	386,496	7.20	4,321,985	29.38	11,355,252	15,677,237
2021	385,440	7.26	4,353,118	30.77	11,859,989	16,213,107
2022	385,440	7.31	4,384,902	31.84	12,272,410	16,657,312
2023	385,440	7.36	4,417,350	33.29	12,831,298	17,248,648
2024	386,496	7.42	4,450,476	29.68	12,358,532	16,809,008
2025	385,440	7.47	4,484,295	31.93	12,307,099	16,791,394
2026	385,440	7.53	4,518,820	31.66	12,203,030	16,721,850
2027	385,440	7.59	4,554,067	32.60	12,565,344	17,119,411
2028	386,496	7.65	4,590,050	33.33	12,881,912	17,471,962
2029	385,440	7.71	4,626,786	34.30	13,220,592	17,847,378
2030	385,440	7.77	4,664,289	35.78	13,791,043	18,455,332
2031	385,440	7.84	4,702,576	36.79	14,180,338	18,882,914
2032	386,496	7.90	4,741,663	38.17	14,752,552	19,494,215
2033	385,440	7.97	4,781,568	39.72	15,309,677	20,091,245
2034	385,440	8.04	4,822,306	42.00	16,188,480	21,010,786
2035	385,440	8.11	4,863,896	43.72	16,851,437	21,715,333
2036	386,496	8.18	4,906,354	45.46	17,570,108	22,476,462
2037	385,440	8.25	4,949,701	46.68	17,992,339	22,942,040
2038	385,440	8.32	4,993,953	50.07	19,298,981	24,292,934
<b>Total (nominal)</b>			92,419,644		280,181,875	372,601,519
<b>Total (NPV)</b>			50,545,568		146,616,001	197,161,569

(1) Capacity rate effective as of January 1, 2019.

(2) Projected as-available energy rates shown prior the avoided unit's June 1, 2024 in-service date. The lower of the projected as-available energy rate or the projected avoided unit energy rate shown as of in-service date of Gulf's avoided unit.