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April 16, 2020

**-VIA ELECTRONIC FILING-**

Mr. Adam Teitzman  
Division of Commission Clerk  
Florida Public Service Commission  
2540 Shumard Oak Blvd.  
Tallahassee, FL 32399-0850

**RE: Docket No. 20200114-EQ**  
**FPL's Response to Staff's First Data Request**

Dear Mr. Teitzman:

Attached is Florida Power & Light Company's response to Staff's First Data Request (Nos. 1-3) in Docket No. 20200114-EQ.

Please contact me should you or your staff have any questions regarding this filing.

Sincerely,

/s/ Joel T. Baker

Joel T. Baker  
Fla. Bar No. 0108202

JTB  
Enclosure

**QUESTION:**

Please refer to Appendix II on Sheet No. 10.311 of the petition filed in the instant docket, and to Sheet No. 9.81.11 in Gulf Power Company's (Gulf) petition in Docket No. 20200115-EQ. Please explain the differences in capacity payments between the FPL's filing and Gulf's filing, given that the avoided units are identical.

**RESPONSE:**

Although the baseline nominal cost inputs for the avoided unit of both FPL and Gulf Power are identical (*e.g.*, the estimated capital cost in 2030 dollars), the resulting capacity values differ by about 1% for the two utilities due to their distinct weighted average cost of capital (WACC). The capacity values are calculations that result in equivalent net present values (NPV) on January 1, 2022. Each utility's WACC is used in discounting the costs for each capacity payment scenario, which results in slightly different capacity values.

**QUESTION:**

Please refer to Sheet No. 10.313 of the petition filed in the instant docket and Sheet No. 9.81.13 in Gulf's petition in Docket No. 20200115-EQ. Please explain the differences in economic assumptions, given that at the time of the avoided unit (2030) is put in service, both companies will be a combined business entity.

**RESPONSE:**

FPL interprets this question as seeking an explanation of the differences between FPL Sheet No. 10.311.1 and Gulf Power Sheet No. 9.81.13, which are comparable pages as between the two companies' proposed tariffs.

As explained in FPL's response to Staff's First Data Request No. 1, the FPL and Gulf Power WACCs are different, which shifts factors that result from the time-value analysis. At this time, FPL and Gulf Power do not operate as a single combined business entity. As such, the companies maintain differing WACCs, which, combined with economic assumptions that are based on present-value quantities, result in economic factors that yield slightly different results.

A summary of the time-value based economic assumptions across companies is provided below:

<b>Parameter</b>	<b>FPL Value</b>	<b>Gulf Value</b>	<b>Explanation of Difference</b>
<b>R</b>	7.52%	6.95%	Approved company WACC
<b>K</b>	1.4194	1.4846	Present value of revenue requirements are discounted more heavily at FPL's higher WACC, resulting in a lower K-factor
<b>F</b>	\$365.7/kW	\$366.6/kW	2030 present value of capacity payments are discounted more heavily at FPL's higher WACC, resulting in a lower F-factor
<b>VAC<sub>m</sub></b>	\$5.4390/ kW-mo	\$5.4325/ kW-mo	Value of unit deferral by one year is slightly higher for FPL because of its higher discount factor
<b>O<sub>n</sub></b>	\$12.49/ kW-yr	\$12.69/ kW-yr	The nominal future-year avoided unit O&M assumptions are the same for both companies, but because the annual O&M is not evenly distributed ( <i>i.e.</i> , there are variously high- and low-cost years driven by unit outages), a 30-year levelized value is used. The FPL levelized value is slightly lower due to its higher discount rate.
<b>G</b>	\$94.56/kW	\$98.71/kW	2030 present value of annual O&M expenses are discounted more heavily at FPL's higher WACC, resulting in a lower G-factor

**QUESTION:**

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. Please assume a renewable generator with a 50 MW output providing firm capacity with an in-service date of January 1, 2021, operating at the minimum capacity factor required for full capacity payments, and a contract duration of 20 years. As part of your answer, please state the capacity factor assumed for the calculations. Please calculate the total Net Present Value (NPV) of all payments in 2021 dollars, and please also explain the method and rate used to calculate the NPV. Please provide the completed table for each of the following scenarios:

- a. As-available energy (energy only payments)
- b. Normal capacity payments
- c. Levelized payments
- d. Early payments
- e. Early levelized payments

Year	Energy (MWh)	Capacity Rate (\$/kw-mo)	Total Capacity Payments (\$)	Energy Rate (\$/MWh)	Total Energy Payments (\$)	Total Payments (\$)
2021						
2022						
2023						
2024						
2025						
2026						
2027						
2028						
2029						
2030						
2031						
2032						
2033						
2034						
2035						
2036						
2037						
2038						
2039						
2040						
Total (nominal)						
Total (NPV)						

**RESPONSE:**

Please see Attachment No. 1 to this response.

2030 CC Avoided Unit

Committed Capacity (MW) 50  
 Capacity Factor (%) 94%  
 Payment Type: Energy Only

**Florida Power & Light Company**  
**Docket No. 20200114-EQ**  
**Staff's First Data Request**  
**Request No. 3**  
**Attachment No. 1**  
**Page 1 of 5**

	Energy (MWh)	Capacity Rates (\$/kW-mo)	Total Capacity Payments (\$)	Energy Rates (\$/MWh)	Total Energy Payments (\$)	Total Payments (\$)
2021	411,720	-	-	16.78	6,907,723	6,907,723
2022	411,720	-	-	16.84	6,933,146	6,933,146
2023	411,720	-	-	19.52	8,038,156	8,038,156
2024	412,848	-	-	21.10	8,709,204	8,709,204
2025	411,720	-	-	23.43	9,647,516	9,647,516
2026	411,720	-	-	24.80	10,211,574	10,211,574
2027	411,720	-	-	25.84	10,639,030	10,639,030
2028	412,848	-	-	27.90	11,517,085	11,517,085
2029	411,720	-	-	28.03	11,540,461	11,540,461
2030	411,720	-	-	28.23	11,624,651	11,624,651
2031	411,720	-	-	28.93	11,910,458	11,910,458
2032	412,848	-	-	30.41	12,555,929	12,555,929
2033	411,720	-	-	31.24	12,862,180	12,862,180
2034	411,720	-	-	32.56	13,404,283	13,404,283
2035	411,720	-	-	31.66	13,034,993	13,034,993
2036	412,848	-	-	31.73	13,101,617	13,101,617
2037	411,720	-	-	30.05	12,370,154	12,370,154
2038	411,720	-	-	29.33	12,076,085	12,076,085
2039	411,720	-	-	33.59	13,828,144	13,828,144
2040	<u>412,848</u>	-	-	32.97	<u>13,612,518</u>	<u>13,612,518</u>
<b>Total</b>	<b>8,240,040</b>				<b>224,524,906</b>	<b>224,524,906</b>
<b>Total NPV @7.52% Discount Rate</b>					<b>105,773,244</b>	<b>105,773,244</b>

2030 CC Avoided Unit

Committed Capacity (MW) 50  
 Capacity Factor (%) 94%  
 Payment Type: Normal

**Florida Power & Light Company**  
**Docket No. 20200114-EQ**  
**Staff's First Data Request**  
**Request No. 3**  
**Attachment No. 1**  
**Page 2 of 5**

	Energy (MWh)	Capacity Rates (\$/kW-mo)	Total Capacity Payments (\$)	Energy Rates (\$/MWh)	Total Energy Payments (\$)	Total Payments (\$)
2021	411,720	-	-	16.78	6,907,723	6,907,723
2022	411,720	-	-	16.84	6,933,146	6,933,146
2023	411,720	-	-	19.52	8,038,156	8,038,156
2024	412,848	-	-	21.10	8,709,204	8,709,204
2025	411,720	-	-	23.43	9,647,516	9,647,516
2026	411,720	-	-	24.80	10,211,574	10,211,574
2027	411,720	-	-	25.84	10,639,030	10,639,030
2028	412,848	-	-	27.90	11,517,085	11,517,085
2029	411,720	-	-	28.03	11,540,461	11,540,461
2030	411,720	5.44	3,263,404	27.40	11,279,658	14,543,063
2031	411,720	5.55	3,331,795	26.90	11,075,125	14,406,921
2032	412,848	5.67	3,401,632	27.39	11,309,068	14,710,701
2033	411,720	5.79	3,472,946	27.89	11,481,176	14,954,122
2034	411,720	5.91	3,545,768	28.35	11,671,763	15,217,531
2035	411,720	6.03	3,620,131	28.78	11,849,746	15,469,877
2036	412,848	6.16	3,696,067	29.18	12,048,167	15,744,234
2037	411,720	6.29	3,773,610	29.55	12,168,233	15,941,843
2038	411,720	6.42	3,852,795	29.90	12,308,698	16,161,493
2039	411,720	6.56	3,933,656	30.21	12,436,565	16,370,220
2040	<u>412,848</u>	6.69	<u>4,016,229</u>	30.49	<u>12,586,305</u>	<u>16,602,534</u>
<b>Total</b>	8,240,040		39,908,034		214,358,400	254,266,434
<b>Total NPV @7.52% Discount Rate</b>			<b>13,601,470</b>		<b>102,224,639</b>	<b>115,826,109</b>

2030 CC Avoided Unit

Committed Capacity (MW) 50  
 Capacity Factor (%) 94%  
 Payment Type: Levelized

**Florida Power & Light Company**  
**Docket No. 20200114-EQ**  
**Staff's First Data Request**  
**Request No. 3**  
**Attachment No. 1**  
**Page 3 of 5**

	Energy (MWh)	Capacity Rates (\$/kW-mo)	Total Capacity Payments (\$)	Energy Rates (\$/MWh)	Total Energy Payments (\$)	Total Payments (\$)
2021	411,720	-	-	16.78	6,907,723	6,907,723
2022	411,720	-	-	16.84	6,933,146	6,933,146
2023	411,720	-	-	19.52	8,038,156	8,038,156
2024	412,848	-	-	21.10	8,709,204	8,709,204
2025	411,720	-	-	23.43	9,647,516	9,647,516
2026	411,720	-	-	24.80	10,211,574	10,211,574
2027	411,720	-	-	25.84	10,639,030	10,639,030
2028	412,848	-	-	27.90	11,517,085	11,517,085
2029	411,720	-	-	28.03	11,540,461	11,540,461
2030	411,720	5.76	3,455,846	27.40	11,279,658	14,735,504
2031	411,720	5.76	3,455,846	26.90	11,075,125	14,530,971
2032	412,848	5.76	3,455,846	27.39	11,309,068	14,764,914
2033	411,720	5.76	3,455,846	27.89	11,481,176	14,937,022
2034	411,720	5.76	3,455,846	28.35	11,671,763	15,127,609
2035	411,720	5.76	3,455,846	28.78	11,849,746	15,305,591
2036	412,848	5.76	3,455,846	29.18	12,048,167	15,504,013
2037	411,720	5.76	3,455,846	29.55	12,168,233	15,624,078
2038	411,720	5.76	3,455,846	29.90	12,308,698	15,764,544
2039	411,720	5.76	3,455,846	30.21	12,436,565	15,892,411
2040	<u>412,848</u>	5.76	<u>3,455,846</u>	30.49	<u>12,586,305</u>	<u>16,042,150</u>
<b>Total</b>	<b>8,240,040</b>		<b>38,014,303</b>		<b>214,358,400</b>	<b>252,372,703</b>
<b>Total NPV @7.52% Discount Rate</b>			<b>13,151,149</b>		<b>102,224,639</b>	<b>115,375,788</b>



2030 CC Avoided Unit

Committed Capacity (MW) 50  
 Capacity Factor (%) 94%  
 Payment Type: Early

**Florida Power & Light Company**  
**Docket No. 20200114-EQ**  
**Staff's First Data Request**  
**Request No. 3**  
**Attachment No. 1**  
**Page 4 of 5**

	Energy (MWh)	Capacity Rates (\$/kW-mo)	Total Capacity Payments (\$)	Energy Rates (\$/MWh)	Total Energy Payments (\$)	Total Payments (\$)
2021	411,720	1.72	1,034,369	16.78	6,907,723	7,942,092
2022	411,720	1.72	1,034,369	16.84	6,933,146	7,967,515
2023	411,720	1.76	1,055,056	19.52	8,038,156	9,093,212
2024	412,848	1.79	1,076,157	21.10	8,709,204	9,785,361
2025	411,720	1.83	1,097,680	23.43	9,647,516	10,745,197
2026	411,720	1.87	1,119,634	24.80	10,211,574	11,331,208
2027	411,720	1.90	1,142,027	25.84	10,639,030	11,781,056
2028	412,848	1.94	1,164,867	27.90	11,517,085	12,681,952
2029	411,720	1.98	1,188,165	28.03	11,540,461	12,728,625
2030	411,720	2.02	1,211,928	27.40	11,279,658	12,491,586
2031	411,720	2.06	1,236,166	26.90	11,075,125	12,311,292
2032	412,848	2.10	1,260,890	27.39	11,309,068	12,569,958
2033	411,720	2.14	1,286,108	27.89	11,481,176	12,767,284
2034	411,720	2.19	1,311,830	28.35	11,671,763	12,983,593
2035	411,720	2.23	1,338,066	28.78	11,849,746	13,187,812
2036	412,848	2.27	1,364,828	29.18	12,048,167	13,412,995
2037	411,720	2.32	1,392,124	29.55	12,168,233	13,560,357
2038	411,720	2.37	1,419,967	29.90	12,308,698	13,728,665
2039	411,720	2.41	1,448,366	30.21	12,436,565	13,884,931
2040	<u>412,848</u>	2.46	<u>1,477,333</u>	30.49	<u>12,586,305</u>	<u>14,063,638</u>
Total	8,240,040		24,659,929		214,358,400	239,018,329
<b>Total NPV @7.52% Discount Rate</b>			<b>11,987,433</b>		<b>102,224,639</b>	<b>114,212,072</b>

2030 CC Avoided Unit

Committed Capacity (MW) 50  
 Capacity Factor (%) 94%  
 Payment Type: Early Levelized

**Florida Power & Light Company**  
**Docket No. 20200114-EQ**  
**Staff's First Data Request**  
**Request No. 3**  
**Attachment No. 1**  
**Page 5 of 5**

	Energy (MWh)	Capacity Rates (\$/kW-mo)	Total Capacity Payments (\$)	Energy Rates (\$/MWh)	Total Energy Payments (\$)	Total Payments (\$)
2021	411,720	1.94	1,161,365	16.78	6,907,723	8,069,088
2022	411,720	1.94	1,161,365	16.84	6,933,146	8,094,511
2023	411,720	1.94	1,161,365	19.52	8,038,156	9,199,521
2024	412,848	1.94	1,161,365	21.10	8,709,204	9,870,568
2025	411,720	1.94	1,161,365	23.43	9,647,516	10,808,881
2026	411,720	1.94	1,161,365	24.80	10,211,574	11,372,939
2027	411,720	1.94	1,161,365	25.84	10,639,030	11,800,395
2028	412,848	1.94	1,161,365	27.90	11,517,085	12,678,449
2029	411,720	1.94	1,161,365	28.03	11,540,461	12,701,826
2030	411,720	1.94	1,161,365	27.40	11,279,658	12,441,023
2031	411,720	1.94	1,161,365	26.90	11,075,125	12,236,490
2032	412,848	1.94	1,161,365	27.39	11,309,068	12,470,433
2033	411,720	1.94	1,161,365	27.89	11,481,176	12,642,541
2034	411,720	1.94	1,161,365	28.35	11,671,763	12,833,128
2035	411,720	1.94	1,161,365	28.78	11,849,746	13,011,110
2036	412,848	1.94	1,161,365	29.18	12,048,167	13,209,532
2037	411,720	1.94	1,161,365	29.55	12,168,233	13,329,598
2038	411,720	1.94	1,161,365	29.90	12,308,698	13,470,063
2039	411,720	1.94	1,161,365	30.21	12,436,565	13,597,930
2040	<u>412,848</u>	1.94	<u>1,161,365</u>	30.49	<u>12,586,305</u>	<u>13,747,670</u>
<b>Total</b>	8,240,040		23,227,297		214,358,400	237,585,697
<b>Total NPV @7.52% Discount Rate</b>			<b>11,821,537</b>		<b>102,224,639</b>	<b>114,046,176</b>