



Stephanie A. Cuello
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April 29, 2022

VIA ELECTRONIC FILING

Adam J. Teitzman, Commission Clerk
Florida Public Service Commission
2540 Shumard Oak Boulevard
Tallahassee, Florida 32399-0850

Re: *Petition for approval of amended standard offer contract (Schedule COG-2),
by Duke Energy Florida, LLC; Docket No. 20220071-EQ*

Dear Mr. Teitzman:

Please find enclosed for electronic filing Duke Energy Florida, LLC's Response to Staff's First Data Request (Nos. 1-3).

Thank you for your assistance in this matter and if you have any questions, please feel free to contact me at (850) 521-1425.

Sincerely,

s/ Stephanie A. Cuello

Stephanie A. Cuello

SAC/mw
Enclosure

Cc: Donald Phillips, Division of Engineering

**DUKE ENERGY FLORIDA, LLC'S (DEF), RESPONSE TO
STAFF'S FIRST DATA REQUEST (NOS. 1-3) REGARDING DEF'S PETITION FOR
APPROVAL OF AMENDED STANDARD OFFER CONTRACT (SCHEDULE COG-2)**

Docket No. 20220071-EQ

1. Please refer to Sheet No. 9.406 of the standard offer contract. Provide the rationale for the deletion in Section 1.

RESPONSE: The deletion was made to avoid any confusion about the Standard Offer Contract due dates for permitting, QF status certification, and Project Consents that are already covered in Section 5.

2. Please refer to Sheet No. 9.428 of the standard offer contract. Provide the rationale for the revisions in Section 14(g).

RESPONSE: These revisions were made because the termination is already covered in Section 5, when the RF/QF fails to *achieve* Government Agency approvals. Therefore, for more transparency in Section 14, a Default is incurred if the RF/QF fails to *maintain* Government Agency approvals to lawfully operate the Facility which is consistent with and already provided for under Section 10.5.4 and Section 14(k).

3. 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 for each of the five scenarios listed below. For the calculations, assume a renewable generator with a 50 MW output providing firm capacity with an in-service date of January 1, 2023, operating at the minimum capacity factor required for full capacity payments and a contract duration of 20 years. As part of your response, state the capacity factor assumed for the calculations. Please calculate the total Net Present Value (NPV) of all payments in 2023 dollars, and also provide an explanation of the method and rate used to calculate the NPV.

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

- Early leveled payments

Year	Energy (MWh)	Capacity Rate (\$/kw-mo)	Total Capacity Payments (\$)	Energy Rate (\$/MWh)	Total Energy Payments (\$)	Total Payments (\$)
2023						
2024						
2025						
2026						
2027						
2028						
2029						
2030						
2031						
2032						
2033						
2034						
2035						
2036						
2037						
2038						
2039						
2040						
2041						
2042						
Total (Nominal)						
Total (NPV)						

RESPONSE: When forecasting QF as available rates, DEF uses its system marginal costs adjusted for a reasonable volume of potential solar QF projects in DEF’s generator interconnection queues and consistent with rule 25-17.0825(2)(a). It is important to note that current estimates are only valid and effective as of December 31, 2021 due to the volume of potential QF activity. It is also important to note that with large amounts of QF generators contributing to DEF’s as-available block size, it is anticipated DEF will have increasing amounts of time when required DEF system resources along with potential QF generation may exceed DEF load levels and that excess energy is not fully captured in the estimates herein. Finally, please see the attached spreadsheet for the table values. The NPV values were calculated using monthly values and the discount rate used 6.55% and an assumed capacity factor of 95%.

As Avail Only

	Energy (MWH)	Capacity Rates (\$/kw-month)	Total Capacity Payments (\$000)	Energy Rates (\$/MWh)	Total Energy Payments (\$000)	Total Payments to Renewable Provider (\$000)
2023	416,362	\$ -	\$ -	\$ 31.88	\$ 13,273	\$ 13,273
2024	417,503	\$ -	\$ -	\$ 28.42	\$ 11,866	\$ 11,866
2025	416,362	\$ -	\$ -	\$ 25.59	\$ 10,656	\$ 10,656
2026	416,362	\$ -	\$ -	\$ 25.41	\$ 10,581	\$ 10,581
2027	416,362	\$ -	\$ -	\$ 25.15	\$ 10,470	\$ 10,470
2028	417,503	\$ -	\$ -	\$ 27.33	\$ 11,411	\$ 11,411
2029	416,362	\$ -	\$ -	\$ 27.14	\$ 11,299	\$ 11,299
2030	416,362	\$ -	\$ -	\$ 27.95	\$ 11,637	\$ 11,637
2031	416,362	\$ -	\$ -	\$ 28.85	\$ 12,013	\$ 12,013
2032	417,503	\$ -	\$ -	\$ 29.17	\$ 12,180	\$ 12,180
2033	416,362	\$ -	\$ -	\$ 29.40	\$ 12,243	\$ 12,243
2034	416,362	\$ -	\$ -	\$ 31.58	\$ 13,149	\$ 13,149
2035	416,362	\$ -	\$ -	\$ 33.19	\$ 13,820	\$ 13,820
2036	417,503	\$ -	\$ -	\$ 35.48	\$ 14,812	\$ 14,812
2037	416,362	\$ -	\$ -	\$ 38.69	\$ 16,109	\$ 16,109
2038	416,362	\$ -	\$ -	\$ 38.88	\$ 16,187	\$ 16,187
2039	416,362	\$ -	\$ -	\$ 42.18	\$ 17,561	\$ 17,561
2040	417,503	\$ -	\$ -	\$ 44.43	\$ 18,550	\$ 18,550
2041	416,362	\$ -	\$ -	\$ 45.48	\$ 18,936	\$ 18,936
2042	416,362	\$ -	\$ -	\$ 45.94	\$ 19,130	\$ 19,130
Total	8,332,945		-		275,883	275,883
NPV 2023\$			\$ -		\$ 147,141	\$ 147,141

Normal						Total
	Energy (MWH)	Capacity Rates (\$/kw-month)	Total Capacity Payments (\$000)	Energy Rates (\$/MWh)	Total Energy Payments (\$000)	Payments to Renewable Provider (\$000)
2023	416,362	\$ -	\$ -	\$ 31.88	\$ 13,273	\$ 13,273
2024	417,503	\$ -	\$ -	\$ 28.42	\$ 11,866	\$ 11,866
2025	416,362	\$ -	\$ -	\$ 25.59	\$ 10,656	\$ 10,656
2026	416,362	\$ -	\$ -	\$ 25.41	\$ 10,581	\$ 10,581
2027	416,362	\$ -	\$ -	\$ 25.15	\$ 10,470	\$ 10,470
2028	417,503	\$ -	\$ -	\$ 27.33	\$ 11,411	\$ 11,411
2029	416,362	\$ 5.49	\$ 1,922	\$ 27.14	\$ 11,299	\$ 13,221
2030	416,362	\$ 5.55	\$ 3,328	\$ 27.95	\$ 11,637	\$ 14,965
2031	416,362	\$ 5.60	\$ 3,362	\$ 28.85	\$ 12,013	\$ 15,376
2032	417,503	\$ 5.66	\$ 3,397	\$ 29.17	\$ 12,180	\$ 15,577
2033	416,362	\$ 5.72	\$ 3,432	\$ 29.40	\$ 12,243	\$ 15,675
2034	416,362	\$ 5.78	\$ 3,468	\$ 31.58	\$ 13,149	\$ 16,616
2035	416,362	\$ 5.84	\$ 3,503	\$ 33.19	\$ 13,820	\$ 17,324
2036	417,503	\$ 5.90	\$ 3,540	\$ 35.48	\$ 14,812	\$ 18,352
2037	416,362	\$ 5.96	\$ 3,576	\$ 38.69	\$ 16,109	\$ 19,686
2038	416,362	\$ 6.02	\$ 3,613	\$ 38.88	\$ 16,187	\$ 19,800
2039	416,362	\$ 6.08	\$ 3,651	\$ 41.87	\$ 17,432	\$ 21,082
2040	417,503	\$ 6.15	\$ 3,689	\$ 44.18	\$ 18,447	\$ 22,136
2041	416,362	\$ 6.21	\$ 3,727	\$ 45.48	\$ 18,936	\$ 22,664
2042	416,362	\$ 6.28	\$ 3,766	\$ 45.94	\$ 19,130	\$ 22,896
Total	8,332,945		47,975		275,652	323,626
NPV 2023\$			\$ 21,236		\$ 147,062	\$ 168,298

		Early					Total
	Energy (MWH)	Capacity Rates (\$/kw-month)	Total Capacity Payments (\$000)	Energy Rates (\$/MWh)	Total Energy Payments (\$000)	Payments to Renewable Provider (\$000)	
2023	416,362	\$ -	\$ -	\$ 31.88	\$ 13,273	\$ 13,273	
2024	417,503	\$ -	\$ -	\$ 28.42	\$ 11,866	\$ 11,866	
2025	416,362	\$ -	\$ -	\$ 25.59	\$ 10,656	\$ 10,656	
2026	416,362	\$ -	\$ -	\$ 25.41	\$ 10,581	\$ 10,581	
2027	416,362	\$ 4.25	\$ 2,547	\$ 25.15	\$ 10,470	\$ 13,018	
2028	417,503	\$ 4.29	\$ 2,574	\$ 27.33	\$ 11,411	\$ 13,985	
2029	416,362	\$ 4.33	\$ 2,600	\$ 27.14	\$ 11,299	\$ 13,900	
2030	416,362	\$ 4.38	\$ 2,627	\$ 27.95	\$ 11,637	\$ 14,264	
2031	416,362	\$ 4.42	\$ 2,654	\$ 28.85	\$ 12,013	\$ 14,667	
2032	417,503	\$ 4.47	\$ 2,681	\$ 29.17	\$ 12,180	\$ 14,861	
2033	416,362	\$ 4.52	\$ 2,709	\$ 29.40	\$ 12,243	\$ 14,952	
2034	416,362	\$ 4.56	\$ 2,737	\$ 31.58	\$ 13,149	\$ 15,886	
2035	416,362	\$ 4.61	\$ 2,765	\$ 33.19	\$ 13,820	\$ 16,586	
2036	417,503	\$ 4.66	\$ 2,794	\$ 35.48	\$ 14,812	\$ 17,606	
2037	416,362	\$ 4.71	\$ 2,823	\$ 38.69	\$ 16,109	\$ 18,933	
2038	416,362	\$ 4.75	\$ 2,852	\$ 38.88	\$ 16,187	\$ 19,039	
2039	416,362	\$ 4.80	\$ 2,882	\$ 41.87	\$ 17,432	\$ 20,314	
2040	417,503	\$ 4.85	\$ 2,912	\$ 44.18	\$ 18,447	\$ 21,359	
2041	416,362	\$ 4.90	\$ 2,942	\$ 45.48	\$ 18,936	\$ 21,879	
2042	416,362	\$ 4.96	\$ 2,973	\$ 45.94	\$ 19,130	\$ 22,103	
Total	8,332,945		44,075		275,652	319,726	
NPV 2023\$			\$ 21,236		\$ 147,062	\$ 168,298	

		Levelized					
	Energy (MWH)	Capacity Rates (\$/kw-month)	Total Capacity Payments (\$000)	Energy Rates (\$/MWh)	Total Energy Payments (\$000)	Total Payments to Renewable Provider (\$000)	
2023	416,362	\$ -	\$ -	\$ 31.88	\$ 13,273	\$ 13,273	
2024	417,503	\$ -	\$ -	\$ 28.42	\$ 11,866	\$ 11,866	
2025	416,362	\$ -	\$ -	\$ 25.59	\$ 10,656	\$ 10,656	
2026	416,362	\$ -	\$ -	\$ 25.41	\$ 10,581	\$ 10,581	
2027	416,362	\$ -	\$ -	\$ 25.15	\$ 10,470	\$ 10,470	
2028	417,503	\$ -	\$ -	\$ 27.33	\$ 11,411	\$ 11,411	
2029	416,362	\$ 5.79	\$ 2,027	\$ 27.14	\$ 11,299	\$ 13,326	
2030	416,362	\$ 5.80	\$ 3,478	\$ 27.95	\$ 11,637	\$ 15,115	
2031	416,362	\$ 5.80	\$ 3,482	\$ 28.85	\$ 12,013	\$ 15,495	
2032	417,503	\$ 5.81	\$ 3,485	\$ 29.17	\$ 12,180	\$ 15,665	
2033	416,362	\$ 5.82	\$ 3,489	\$ 29.40	\$ 12,243	\$ 15,732	
2034	416,362	\$ 5.82	\$ 3,493	\$ 31.58	\$ 13,149	\$ 16,642	
2035	416,362	\$ 5.83	\$ 3,497	\$ 33.19	\$ 13,820	\$ 17,317	
2036	417,503	\$ 5.84	\$ 3,501	\$ 35.48	\$ 14,812	\$ 18,314	
2037	416,362	\$ 5.84	\$ 3,506	\$ 38.69	\$ 16,109	\$ 19,615	
2038	416,362	\$ 5.85	\$ 3,510	\$ 38.88	\$ 16,187	\$ 19,697	
2039	416,362	\$ 5.86	\$ 3,514	\$ 41.87	\$ 17,432	\$ 20,946	
2040	417,503	\$ 5.86	\$ 3,519	\$ 44.18	\$ 18,447	\$ 21,966	
2041	416,362	\$ 5.87	\$ 3,524	\$ 45.48	\$ 18,936	\$ 22,460	
2042	416,362	\$ 5.88	\$ 3,528	\$ 45.94	\$ 19,130	\$ 22,658	
Total	8,332,945		47,554		275,652	323,205	
NPV 2023\$			\$ 21,236		\$ 147,062	\$ 168,298	

Early Levelized

	Energy (MWH)	Capacity Rates (\$/kw-month)	Total Capacity Payments (\$000)	Energy Rates (\$/MWh)	Total Energy Payments (\$000)	Total Payments to Renewable Provider (\$000)
2023	416,362	\$ -	\$ -	\$ 31.88	\$ 13,273	\$ 13,273
2024	417,503	\$ -	\$ -	\$ 28.42	\$ 11,866	\$ 11,866
2025	416,362	\$ -	\$ -	\$ 25.59	\$ 10,656	\$ 10,656
2026	416,362	\$ -	\$ -	\$ 25.41	\$ 10,581	\$ 10,581
2027	416,362	\$ 4.50	\$ 2,698	\$ 25.15	\$ 10,470	\$ 13,169
2028	417,503	\$ 4.50	\$ 2,701	\$ 27.33	\$ 11,411	\$ 14,112
2029	416,362	\$ 4.51	\$ 2,704	\$ 27.14	\$ 11,299	\$ 14,003
2030	416,362	\$ 4.51	\$ 2,707	\$ 27.95	\$ 11,637	\$ 14,344
2031	416,362	\$ 4.52	\$ 2,710	\$ 28.85	\$ 12,013	\$ 14,723
2032	417,503	\$ 4.52	\$ 2,713	\$ 29.17	\$ 12,180	\$ 14,893
2033	416,362	\$ 4.53	\$ 2,716	\$ 29.40	\$ 12,243	\$ 14,959
2034	416,362	\$ 4.53	\$ 2,719	\$ 31.58	\$ 13,149	\$ 15,868
2035	416,362	\$ 4.54	\$ 2,722	\$ 33.19	\$ 13,820	\$ 16,542
2036	417,503	\$ 4.54	\$ 2,726	\$ 35.48	\$ 14,812	\$ 17,538
2037	416,362	\$ 4.55	\$ 2,729	\$ 38.69	\$ 16,109	\$ 18,838
2038	416,362	\$ 4.55	\$ 2,732	\$ 38.88	\$ 16,187	\$ 18,919
2039	416,362	\$ 4.56	\$ 2,736	\$ 41.87	\$ 17,432	\$ 20,167
2040	417,503	\$ 4.57	\$ 2,740	\$ 44.18	\$ 18,447	\$ 21,187
2041	416,362	\$ 4.57	\$ 2,743	\$ 45.48	\$ 18,936	\$ 21,680
2042	416,362	\$ 4.58	\$ 2,747	\$ 45.94	\$ 19,130	\$ 21,877
Total	8,332,945		43,543		275,652	319,194
NPV 2023\$			\$ 21,236		\$ 147,062	\$ 168,298