State of Florida

Public Service Commission

CAPITAL CIRCLE OFFICE CENTER • 2540 SHUMARD OAK BOULEVARD
TALLAHASSEE, FLORIDA 32399-0850

-M-E-M-O-R-A-N-D-U-M-

DATE: May 31, 2013

TO: Ann Cole, Commission Clerk, Office of Commission Clerk

FROM: Robert E. Graves, Engineering Specialist III, Division of Engineering
Paul Vickery, Chief of Reliability and Resource Planning, Division of Engineering

RE: DN 130068-EI - Petition for approval of amended standard offer contract (Schedule COG-2), by Progress Energy Florida, Inc.

Please file the attached document, Duke Energy's response to Staff's First Data Request, in the above mentioned docket file.

Thank you!

DUKE ENERGY® FLORIDA

May 2, 2013

Lee Eng Tan
Senior Attorney
Public Service Commission
2540 Shumard Oak Boulevard
Tallahassee, FL 32399-0850

Re: Docket No. 130068-EI- Petition for approval of amended standard offer contract (Schedule COG-2), by Progress Energy Florida, Inc.

Dear Ms. Tan:

By this letter, Duke Energy Florida, Inc. responds to Commission Staff's First Data Request as follows:

Q1. Please provide the Avoided Unit Variable O&M in 2018 dollars.

Response: 0.473¢/kWh

Q2. Please refer to proposed revised tariff sheet No. 9.424. Explain how the amounts contained in Table 2 were determined.

Response: The Eligible Collateral is calculated assuming that if the RF/QF were not able meet its commitment in the Standard Offer Contract that a combustion turbine could be built in as little as two years to meet DE's customers' needs for the contracted capacity and energy. Using the same methodology as last year and as shown in Attachment A, the calculations use the estimated average capacity cost of combustion turbine and take into account the amount of unsecured credit which would be granted to a company based on their creditworthiness.

Q3. Please refer to proposed revised tariff sheet No. 9.421. Explain why the "Scheduled maintenance outage days" has been changed from 28 days to 24 days.

Response: The maximum allowed scheduled maintenance days were changed because the anticipated planned outage factor for the avoided unit is 6.66% or 24 days per year.

Q4. Please complete the tables below describing payments to a renewable provider based on the proposed tariffs included in the company's revised standard offer contract. Please assume a renewable generator with 50 MW providing firm capacity with an in-service date of January 1, 2014, operating at the minimum capacity factor required for full capacity payments, for a contract duration of 20 years. Please provide the following scenarios:

- **As-Available Energy (Energy Only)**
- **Normal Capacity Payments**
- **Levelized Payments**
- **Early Payments**
- **Early Levelized Payments**

Response: Please see Attachment B.

Respectively submitted,

Dianne M. Triplett on behalf of
Duke Energy Florida, Inc.

Attachments
DMT/jlc

Performance Security Amounts Methodology and Calculation

Year	Avoided Unit Capacity Payments $/ KW-Month	Number of Months	Avoided Unit Capacity Payments
2013			
2014			
2015			
2016			
2017			
2018			
2019			
2020			
2021			
2022	5.02	7	35.12
2023	5.13	12	61.57
2024	5.25	12	62.95
2025	5.36	12	64.37
2026	5.48	12	65.81
2027	5.61	12	67.30
2028	5.73	12	68.81
2029	5.86	12	70.36
2030	6.00	12	71.94
2031	6.13	12	73.56
2032	6.27	12	75.22
2033	6.41	12	76.91
2034	6.55	12	78.64
2035	6.70	12	80.41
2036	6.85	12	82.22
2037	7.01	12	84.07
2038	7.16	12	85.96
2039	7.32	12	87.89
2040	7.49	12	89.87
2041	7.66	12	91.89
2042	7.83	12	93.96
2043	8.01	12	96.07
2044	8.19	12	98.23
2045	8.37	12	100.44
2046	8.56	12	102.70
2047	8.75	5	43.76
Average of amounts for avoided unit years		$/KW/year	$80.40
($/KW/month Multiplied by 1,000)		**$/MW/year**	**$80,400.72**

Using cost per MW/year, the amount is multiplied by 187 which is the average number of megawatts for the avoided unit over all seasons

One year 15,034,935

The above amount is then multiplied by 2, which is the number of years to put a combustion turbine into operation.

Two year amount 30,069,870

The average of the unsecured credit line amounts granted by Progress Energy for a ratings range is calculated.

	Unsecured lines	Average
"A" Range	30,000,000 25,000,000	27,500,000
"BBB+ and BBB" Range	20,000,000 15,000,000	17,500,000
"BBB-"	10,000,000	10,000,000

Next, the average of the unsecured credit line amount is subtracted from the Two year amount and is divided by 187 to get a per megawatt security cost. This security cost provides the start point and guidance for contract negotiations under the Standard Renewable Contract.

"A" Range	30,069,870	-	27,500,000	=	2,569,870
	2,569,870	/	187	=	$13,743 Per MW
"BBB+ and BBB" Range	30,069,870	-	17,500,000	=	12,569,870
	12,569,870	/	187	=	$67,219 Per MW
"BBB-"	30,069,870	-	10,000,000	=	20,069,870
	20,069,870	/	187	=	$107,326 Per MW
Below "BBB-"	30,069,870	/	187	=	$160,801 Per MW

Note: ***Proposed*** Performance Security amounts for use in the ***2013*** standard contract (years 1 - 5).
"A "range - $15,000/MW
"BBB+/BBB" range - $70,000/MW
"BBB-" range - $110,000/MW

Note: ***Proposed*** Performance Security amounts for use in the ***2013*** standard contract (years 6 and beyond)
"A "range - $5,000/MW
"BBB+/BBB" range - $55,000/MW
"BBB-" range - $95,000/MW

Docket No. 130068-EI
Duke Energy Florida, Inc.
DEF Response Staff First Data Request
May 2, 2013

Attachment B

Committed Capacity (MW)	**50**
Capacity Factor (%)	**87%**
Payment Type	**As Available Energy Only**

	Energy (MWH)	Capacity Rates ($/kw-month)	Total Capacity Payments ($000)	Energy Rates ($/MWh)	Total Energy Payments ($000)	Total Payments to Renewable Provider ($000)
2014	381,060	$ -	-	$ 39.22	14,946	14,946
2015	381,060	$ -	-	$ 42.42	16,165	16,165
2016	382,104	$ -	-	$ 44.06	16,835	16,835
2017	381,060	$ -	-	$ 44.51	16,960	16,960
2018	381,060	$ -	-	$ 46.47	17,708	17,708
2019	381,060	$ -	-	$ 49.87	19,003	19,003
2020	382,104	$ -	-	$ 52.18	19,937	19,937
2021	381,060	$ -	-	$ 54.57	20,796	20,796
2022	381,060	$ -	-	$ 57.99	22,098	22,098
2023	381,060	$ -	-	$ 59.61	22,716	22,716
2024	382,104	$ -	-	$ 60.73	23,206	23,206
2025	381,060	$ -	-	$ 63.71	24,277	24,277
2026	381,060	$ -	-	$ 62.27	23,729	23,729
2027	381,060	$ -	-	$ 65.46	24,944	24,944
2028	382,104	$ -	-	$ 69.18	26,433	26,433
2029	381,060	$ -	-	$ 68.36	26,049	26,049
2030	381,060	$ -	-	$ 72.17	27,502	27,502
2031	381,060	$ -	-	$ 77.18	29,409	29,409
2032	382,104	$ -	-	$ 78.67	30,059	30,059
2033	381,060	$ -	-	$ 82.16	31,308	31,308

Committed Capacity (MW)	**50**
Capacity Factor (%)	**87%**
Payment Type	**Normal**

	Energy (MWH)	Capacity Rates ($/kw-month)	Total Capacity Payments ($000)	Energy Rates ($/MWh)	Total Energy Payments ($000)	Total Payments to Renewable Provider ($000)
2014	381,060	$ -	-	$ 39.22	14,946	14,946
2015	381,060	$ -	-	$ 42.42	16,165	16,165
2016	382,104	$ -	-	$ 44.06	16,835	16,835
2017	381,060	$ -	-	$ 44.51	16,960	16,960
2018	381,060	$ 10.80	3,781	$ 46.47	17,708	21,489
2019	381,060	$ 11.05	6,627	$ 49.87	19,003	25,630
2020	382,104	$ 11.29	6,776	$ 51.81	19,797	26,574
2021	381,060	$ 11.55	6,929	$ 54.44	20,745	27,674
2022	381,060	$ 11.81	7,085	$ 57.96	22,087	29,172
2023	381,060	$ 12.07	7,244	$ 59.18	22,551	29,795
2024	382,104	$ 12.34	7,407	$ 60.53	23,128	30,535
2025	381,060	$ 12.62	7,574	$ 63.63	24,248	31,821
2026	381,060	$ 12.91	7,744	$ 62.27	23,729	31,473
2027	381,060	$ 13.20	7,918	$ 65.16	24,829	32,748
2028	382,104	$ 13.49	8,096	$ 69.18	26,433	34,530
2029	381,060	$ 13.80	8,279	$ 68.36	26,049	34,327
2030	381,060	$ 14.11	8,465	$ 72.08	27,468	35,933
2031	381,060	$ 14.43	8,655	$ 76.09	28,996	37,651
2032	382,104	$ 14.75	8,850	$ 78.62	30,042	38,892
2033	381,060	$ 15.08	9,049	$ 82.07	31,275	40,324

Committed Capacity (MW)	**50**
Capacity Factor (%)	**87%**
Payment Type	**Early**

	Energy (MWH)	Capacity Rates ($/kw-month)	Total Capacity Payments ($000)	Energy Rates ($/MWh)	Total Energy Payments ($000)	Total Payments to Renewable Provider ($000)
2014	381,060	$ 6.97	4,179	$ 39.22	14,946	19,125
2015	381,060	$ 7.12	4,273	$ 42.42	16,165	20,438
2016	382,104	$ 7.28	4,369	$ 44.06	16,835	21,205
2017	381,060	$ 7.45	4,468	$ 44.51	16,960	21,427
2018	381,060	$ 7.61	4,568	$ 46.47	17,708	22,276
2019	381,060	$ 7.78	4,671	$ 49.87	19,003	23,674
2020	382,104	$ 7.96	4,776	$ 51.81	19,797	24,573
2021	381,060	$ 8.14	4,883	$ 54.44	20,745	25,629
2022	381,060	$ 8.32	4,993	$ 57.96	22,087	27,080
2023	381,060	$ 8.51	5,106	$ 59.18	22,551	27,656
2024	382,104	$ 8.70	5,221	$ 60.53	23,128	28,349
2025	381,060	$ 8.90	5,338	$ 63.63	24,248	29,586
2026	381,060	$ 9.10	5,458	$ 62.27	23,729	29,188
2027	381,060	$ 9.30	5,581	$ 65.16	24,829	30,410
2028	382,104	$ 9.51	5,707	$ 69.18	26,433	32,140
2029	381,060	$ 9.72	5,835	$ 68.36	26,049	31,884
2030	381,060	$ 9.94	5,966	$ 72.08	27,468	33,434
2031	381,060	$ 10.17	6,100	$ 76.09	28,996	35,096
2032	382,104	$ 10.40	6,238	$ 78.62	30,042	36,280
2033	381,060	$ 10.63	6,378	$ 82.07	31,275	37,653

Committed Capacity (MW)	**50**
Capacity Factor (%)	**87%**
Payment Type	**Levelized**

	Energy (MWH)	Capacity Rates ($/kw-month)	Total Capacity Payments ($000)	Energy Rates ($/MWh)	Total Energy Payments ($000)	Total Payments to Renewable Provider ($000)
2014	381,060	$ -	-	$ 39.22	14,946	14,946
2015	381,060	$ -	-	$ 42.42	16,165	16,165
2016	382,104	$ -	-	$ 44.06	16,835	16,835
2017	381,060	$ -	-	$ 44.51	16,960	16,960
2018	381,060	$ 12.46	4,360	$ 46.47	17,708	22,067
2019	381,060	$ 12.47	7,480	$ 49.87	19,003	26,483
2020	382,104	$ 12.48	7,486	$ 51.81	19,797	27,284
2021	381,060	$ 12.49	7,493	$ 54.44	20,745	28,238
2022	381,060	$ 12.50	7,500	$ 57.96	22,087	29,586
2023	381,060	$ 12.51	7,506	$ 59.18	22,551	30,057
2024	382,104	$ 12.52	7,513	$ 60.53	23,128	30,641
2025	381,060	$ 12.53	7,520	$ 63.63	24,248	31,768
2026	381,060	$ 12.55	7,528	$ 62.27	23,729	31,257
2027	381,060	$ 12.56	7,535	$ 65.16	24,829	32,365
2028	382,104	$ 12.57	7,543	$ 69.18	26,433	33,976
2029	381,060	$ 12.58	7,551	$ 68.36	26,049	33,599
2030	381,060	$ 12.60	7,559	$ 72.08	27,468	35,027
2031	381,060	$ 12.61	7,567	$ 76.09	28,996	36,562
2032	382,104	$ 12.63	7,575	$ 78.62	30,042	37,617
2033	381,060	$ 12.64	7,584	$ 82.07	31,275	38,858

Committed Capacity (MW)	**50**
Capacity Factor (%)	**87%**
Payment Type	**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)
2014	381,060	$ 8.23	4,939	$ 39.22	14,946	19,885
2015	381,060	$ 8.24	4,943	$ 42.42	16,165	21,108
2016	382,104	$ 8.25	4,947	$ 44.06	16,835	21,783
2017	381,060	$ 8.25	4,951	$ 44.51	16,960	21,911
2018	381,060	$ 8.26	4,956	$ 46.47	17,708	22,663
2019	381,060	$ 8.27	4,960	$ 49.87	19,003	23,963
2020	382,104	$ 8.27	4,964	$ 51.81	19,797	24,762
2021	381,060	$ 8.28	4,969	$ 54.44	20,745	25,714
2022	381,060	$ 8.29	4,974	$ 57.96	22,087	27,061
2023	381,060	$ 8.30	4,979	$ 59.18	22,551	27,529
2024	382,104	$ 8.31	4,983	$ 60.53	23,128	28,111
2025	381,060	$ 8.31	4,988	$ 63.63	24,248	29,236
2026	381,060	$ 8.32	4,994	$ 62.27	23,729	28,723
2027	381,060	$ 8.33	4,999	$ 65.16	24,829	29,828
2028	382,104	$ 8.34	5,004	$ 69.18	26,433	31,437
2029	381,060	$ 8.35	5,010	$ 68.36	26,049	31,058
2030	381,060	$ 8.36	5,015	$ 72.08	27,468	32,483
2031	381,060	$ 8.37	5,021	$ 76.09	28,996	34,016
2032	382,104	$ 8.38	5,027	$ 78.62	30,042	35,069
2033	381,060	$ 8.39	5,033	$ 82.07	31,275	36,307