

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-

RECEIVED-FPSC
13 MAY 31 PM 3:52
COMMISSION
CLERK

DATE: May 31, 2013
TO: Ann Cole, Commission Clerk, Office of Commission Clerk
FROM: Robert E. Graves^{es}, Engineering Specialist III, Division of Engineering
Paul Vickery, Chief of Reliability and Resource Planning, Division of Engineering
RE: DN 130069-EI -Petition for approval of new standard offer contract (Schedule COG-2A), 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!

DOCUMENT NUMBER-DATE

03012 MAY 31 2013

FPSC-COMMISSION CLERK



May 2, 2013

Kelley F. Corbari
Office of General Counsel
Regulatory Analysis Section.
Public Service Commission
2540 Shumard Oak Boulevard
Tallahassee, FL 32399-0850

Re: Docket No. 130069-EI- Petition for approval of amended standard offer contract (Schedule COG-2) by Duke Energy Florida, Inc.

Dear Ms. Corbari:

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

Q1. Please refer to proposed revised sheet No. 9.524. 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.

Q2. 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

Docket No. 130069-EI
DEF Response to Staff First Data Request
May 1, 2013

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

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

Attachment B

Committed Capacity (MW) **50**
Capacity Factor (%) **94%**
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	411,720	\$ -	-	\$ 39.22	16,148	16,148
2015	411,720	\$ -	-	\$ 42.42	17,466	17,466
2016	412,848	\$ -	-	\$ 44.06	18,190	18,190
2017	411,720	\$ -	-	\$ 44.51	18,324	18,324
2018	411,720	\$ -	-	\$ 46.47	19,133	19,133
2019	411,720	\$ -	-	\$ 49.87	20,532	20,532
2020	412,848	\$ -	-	\$ 52.18	21,541	21,541
2021	411,720	\$ -	-	\$ 54.57	22,470	22,470
2022	411,720	\$ -	-	\$ 57.99	23,876	23,876
2023	411,720	\$ -	-	\$ 59.61	24,543	24,543
2024	412,848	\$ -	-	\$ 60.73	25,073	25,073
2025	411,720	\$ -	-	\$ 63.71	26,230	26,230
2026	411,720	\$ -	-	\$ 62.27	25,639	25,639
2027	411,720	\$ -	-	\$ 65.46	26,951	26,951
2028	412,848	\$ -	-	\$ 69.18	28,560	28,560
2029	411,720	\$ -	-	\$ 68.36	28,145	28,145
2030	411,720	\$ -	-	\$ 72.17	29,715	29,715
2031	411,720	\$ -	-	\$ 77.18	31,775	31,775
2032	412,848	\$ -	-	\$ 78.67	32,477	32,477
2033	411,720	\$ -	-	\$ 82.16	33,827	33,827

Committed Capacity (MW) 50
Capacity Factor (%) 94%
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	411,720	\$ -	-	\$ 39.22	16,148	16,148
2015	411,720	\$ -	-	\$ 42.42	17,466	17,466
2016	412,848	\$ -	-	\$ 44.06	18,190	18,190
2017	411,720	\$ -	-	\$ 44.51	18,324	18,324
2018	411,720	\$ -	-	\$ 46.47	19,133	19,133
2019	411,720	\$ -	-	\$ 49.87	20,532	20,532
2020	412,848	\$ -	-	\$ 52.18	21,541	21,541
2021	411,720	\$ -	-	\$ 54.57	22,470	22,470
2022	411,720	\$ 5.33	1,864	\$ 57.99	23,876	25,740
2023	411,720	\$ 5.44	3,267	\$ 59.61	24,543	27,810
2024	412,848	\$ 5.57	3,340	\$ 60.73	25,073	28,414
2025	411,720	\$ 5.69	3,416	\$ 63.71	26,230	29,645
2026	411,720	\$ 5.82	3,492	\$ 62.27	25,639	29,131
2027	411,720	\$ 5.95	3,571	\$ 65.46	26,951	30,522
2028	412,848	\$ 6.09	3,651	\$ 69.18	28,560	32,211
2029	411,720	\$ 6.22	3,734	\$ 68.36	28,145	31,878
2030	411,720	\$ 6.36	3,818	\$ 72.17	29,715	33,532
2031	411,720	\$ 6.51	3,903	\$ 77.18	31,775	35,679
2032	412,848	\$ 6.65	3,991	\$ 78.67	32,477	36,468
2033	411,720	\$ 6.80	4,081	\$ 82.16	33,827	37,908

Committed Capacity (MW) 50
Capacity Factor (%) 94%
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	411,720	\$ 2.14	1,282	\$ 39.22	16,148	17,431
2015	411,720	\$ 2.19	1,311	\$ 42.42	17,466	18,777
2016	412,848	\$ 2.23	1,341	\$ 44.06	18,190	19,531
2017	411,720	\$ 2.28	1,371	\$ 44.51	18,324	19,695
2018	411,720	\$ 2.34	1,402	\$ 46.47	19,133	20,534
2019	411,720	\$ 2.39	1,433	\$ 49.87	20,532	21,966
2020	412,848	\$ 2.44	1,466	\$ 52.18	21,541	23,007
2021	411,720	\$ 2.50	1,499	\$ 54.57	22,470	23,968
2022	411,720	\$ 2.55	1,532	\$ 57.99	23,876	25,409
2023	411,720	\$ 2.61	1,567	\$ 59.61	24,543	26,110
2024	412,848	\$ 2.67	1,602	\$ 60.73	25,073	26,675
2025	411,720	\$ 2.73	1,638	\$ 63.71	26,230	27,868
2026	411,720	\$ 2.79	1,675	\$ 62.27	25,639	27,314
2027	411,720	\$ 2.85	1,713	\$ 65.46	26,951	28,664
2028	412,848	\$ 2.92	1,751	\$ 69.18	28,560	30,311
2029	411,720	\$ 2.98	1,790	\$ 68.36	28,145	29,935
2030	411,720	\$ 3.05	1,831	\$ 72.17	29,715	31,545
2031	411,720	\$ 3.12	1,872	\$ 77.18	31,775	33,647
2032	412,848	\$ 3.19	1,914	\$ 78.67	32,477	34,391
2033	411,720	\$ 3.26	1,957	\$ 82.16	33,827	35,784

Committed Capacity (MW) 50
Capacity Factor (%) 94%
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	411,720	\$ -	-	\$ 39.22	16,148	16,148
2015	411,720	\$ -	-	\$ 42.42	17,466	17,466
2016	412,848	\$ -	-	\$ 44.06	18,190	18,190
2017	411,720	\$ -	-	\$ 44.51	18,324	18,324
2018	411,720	\$ -	-	\$ 46.47	19,133	19,133
2019	411,720	\$ -	-	\$ 49.87	20,532	20,532
2020	412,848	\$ -	-	\$ 52.18	21,541	21,541
2021	411,720	\$ -	-	\$ 54.57	22,470	22,470
2022	411,720	\$ 5.93	2,076	\$ 57.99	23,876	25,952
2023	411,720	\$ 5.94	3,563	\$ 59.61	24,543	28,106
2024	412,848	\$ 5.95	3,567	\$ 60.73	25,073	28,640
2025	411,720	\$ 5.95	3,571	\$ 63.71	26,230	29,801
2026	411,720	\$ 5.96	3,576	\$ 62.27	25,639	29,215
2027	411,720	\$ 5.97	3,580	\$ 65.46	26,951	30,531
2028	412,848	\$ 5.98	3,585	\$ 69.18	28,560	32,145
2029	411,720	\$ 5.98	3,590	\$ 68.36	28,145	31,735
2030	411,720	\$ 5.99	3,595	\$ 72.17	29,715	33,309
2031	411,720	\$ 6.00	3,600	\$ 77.18	31,775	35,375
2032	412,848	\$ 6.01	3,605	\$ 78.67	32,477	36,082
2033	411,720	\$ 6.02	3,610	\$ 82.16	33,827	37,437

Committed Capacity (MW) 50
Capacity Factor (%) 94%
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	411,720	\$ 2.52	1,512	\$ 39.22	16,148	17,660
2015	411,720	\$ 2.52	1,514	\$ 42.42	17,466	18,979
2016	412,848	\$ 2.53	1,515	\$ 44.06	18,190	19,705
2017	411,720	\$ 2.53	1,517	\$ 44.51	18,324	19,841
2018	411,720	\$ 2.53	1,519	\$ 46.47	19,133	20,651
2019	411,720	\$ 2.53	1,521	\$ 49.87	20,532	22,053
2020	412,848	\$ 2.54	1,522	\$ 52.18	21,541	23,064
2021	411,720	\$ 2.54	1,524	\$ 54.57	22,470	23,994
2022	411,720	\$ 2.54	1,526	\$ 57.99	23,876	25,403
2023	411,720	\$ 2.55	1,528	\$ 59.61	24,543	26,072
2024	412,848	\$ 2.55	1,530	\$ 60.73	25,073	26,604
2025	411,720	\$ 2.55	1,532	\$ 63.71	26,230	27,762
2026	411,720	\$ 2.56	1,535	\$ 62.27	25,639	27,173
2027	411,720	\$ 2.56	1,537	\$ 65.46	26,951	28,488
2028	412,848	\$ 2.56	1,539	\$ 69.18	28,560	30,099
2029	411,720	\$ 2.57	1,541	\$ 68.36	28,145	29,686
2030	411,720	\$ 2.57	1,544	\$ 72.17	29,715	31,258
2031	411,720	\$ 2.58	1,546	\$ 77.18	31,775	33,321
2032	412,848	\$ 2.58	1,548	\$ 78.67	32,477	34,025
2033	411,720	\$ 2.58	1,551	\$ 82.16	33,827	35,378