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July 18, 2016

# STAFF'S THIRD DATA REQUEST

## -VIA ELECTRONIC FILING-

Ms. Bianca Y. Lherisson, Esq. Attorney Office of the General Counsel Florida Public Service Commission 2540 Shumard Oak Blvd. Tallahassee, FL 32399-0850

Re: Docket No. 160070-EQ - Florida Power & Light Company's Petition for Approval of a Renewable Energy Tariff and Standard Offer Contract

Dear Ms. Lherisson:

Please find enclosed for filing a copy of Florida Power & Light Company's ("FPL") responses to Staff's Third Data Request in the above mentioned docket.

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

Sincerely,

s/ William P. Cox

William P. Cox Senior Attorney Florida Bar No. 0093531

WPC/msw Enclosures Responses to Staff's Third Data Request (capitalized terms not otherwise defined have the meaning set forth in the proposed Standard Offer Contract ("Contract")):

- 1. Please refer to the company's response to Staff's First Data Request, No. 1 and tariff page 10.313. The data request asked for an estimate of payments to a 50 MW renewable generating facility operating at the minimum capacity factor required to receive full capacity payments, with the company's response providing a value of 96%. However, the tariff sheet shows a value of 94% for the Annual Capacity Billing Factor for the avoided unit.
  - a. Please reconcile this difference in values.
  - b. Please provide a revised response to Staff's First Data Request No. 1 using a 94% Capacity Factor.

#### **RESPONSE:**

- a. The accurate value is 94% (the value used in the response to Staff's First Data Request No. 1 should have been updated).
- b. Please see Schedule 1 (attached hereto).
- 2. Please refer to proposed tariff page 9.032.1, paragraph 3.2.3. Please explain the reason for the increased notification requirements, including any experience the company may have had with other negotiated contracts that would support this modification.

#### **RESPONSE:**

Absent the proposed revision to paragraph 3.2.3, a Qualified Seller would be required to only acquire all permits and approvals. However, experience reveals that in order to ensure that a Qualified Seller can perform under the Contract, FPL needs assurances that such Qualified Seller will not only obtain, but will also maintain during the term, all necessary permits, licenses, and approvals of governmental and regulatory authorities. Because permitting and approvals are a necessary component of a Qualified Seller's performance, it is also prudent to require that a Qualified Seller keep FPL reasonably informed of the permitting process. In this manner, FPL can manage its exposure and make alternative arrangements for power to serve its customers in the event a Qualified Seller experiences a permit delay or permit failure.

3. Please refer to proposed tariff page 9.032.1, paragraph 3.2.7. Please explain the requirement for a remedial action report and the reasoning behind the ten (10) day timeframe for this to be provided to FPL.

#### **RESPONSE:**

In the event that a monthly progress report, a status meeting, or if other facts, circumstance and information reveals that a Qualified Seller is at risk for failing to achieve the Capacity Delivery Date, then it is prudent for FPL to require that such Qualified Seller provide a plan pursuant to which the Qualified Seller will remedy the potential failure. The Remedial Action Plan will provide FPL some assurance that the Qualified Seller will satisfy its Capacity Delivery Date commitment. Such a plan may also assist the Qualified Seller to avoid paying delay damages or having the Contract terminated due to a failure to satisfy the Capacity Delivery Date obligation. This Remedial Action Plan should be provided to FPL within ten (10) days of FPL's request in order to ensure prompt attention from the Qualified Seller so that a potential failure can be avoided and FPL and its customers are adequately protected from such a failure.

4. Please refer to proposed tariff page 9.033, paragraph 4.4. Please explain the reason and impact of this proposed modification on QFs and FPL's general body of ratepayers.

#### **RESPONSE:**

This provision ensures that the Qualified Seller makes, and pays for, those arrangements (e.g., interconnection, electric losses, transmission and ancillary service) necessary for such Qualified Seller to deliver firm capacity and energy to the Delivery Point. These arrangements are essential in order for the Qualified Seller to perform under the Contract, and the Contract must provide specifically that the Qualified Seller is responsible for the costs and expenses associated with securing these arrangements. Having these arrangements in place will ensure that FPL and its customers will receive the committed firm capacity and energy and are not burdened by the additional, associated costs. Qualified Sellers have, historically and appropriately, been responsible for the cost and expense associated with power generation (including the costs of transmission necessary to deliver product to the Delivery Point) when providing power generation services to FPL and other Florida electric utilities. This revision simply makes it explicit and clear in the Contract that the Qualified Seller assumes this responsibility.

5. Please refer to proposed tariff pages 9.035, paragraph 8.2 and 9.036, paragraph 8.4.7. Please explain how FPL interprets the phrase "prudent industry standards" compared to "industry standards" in these contexts.

#### **RESPONSE:**

Adding "prudent" to the referenced provisions adds clarity to standard of performance that is expected of the Qualifying Seller. In the context of a power purchase agreement, "prudent industry standards" means those practices, methods, and acts engaged in or approved by a significant portion of the power generation industry in the United States (including applicable NERC requirements) that, at a particular time, in the exercise of reasonable judgment in light of the facts known or that should reasonably have been known to the Qualified Seller at the time a decision was made, would have been expected to accomplish the desired result in a manner consistent with applicable laws, standards, equipment manufacturer's recommendations, reliability, safety, environmental protection, economy, and expedition.

- 6. Please refer to proposed tariff pages 9.036, paragraph 9.1 and 9.037, paragraph 9.5.1.
  - a. Please explain the reason for the increase in completion/performance security from \$30/kW (reduced to \$15/kW under some circumstances) to \$50/kW after the Effective Date, and to \$100/kW prior to two years before the Guaranteed Capacity Delivery Date.
  - b. Please explain the large increase compared to Duke Energy Florida's and Tampa Electric Company's \$30/kW, and Gulf Power Company's \$20/kW.

## **RESPONSE:**

a. FPL's completion/performance security has not been adjusted since it was approved in the 1999 SOC Docket (See, Docket No. 990249-EI, Order No. PSC-00-0505-TRF-EG). The level of completion/performance security was increased from \$30/kW (reduced to \$15/kW in some circumstances) to \$50/kW in the proposed tariff in order to compensate FPL (and its customers) adequately in the event of a Qualified Seller's performance failure. The increased completion/performance security amount is appropriate as it will ensure that a Qualified Seller is creditworthy and will incentivize the Qualified Seller (a) to satisfy its pre-commercial operation date obligations, (b) to achieve the Capacity Delivery Date, (c) to ensure the delivery of firm capacity and energy throughout the Term in accordance with the Contract, and (d) ultimately to protect FPL's customers in event of a performance failure and to obtain alternative power arrangements if needed.

For similar reasons the \$100/kw completion/performance security posting requirement (i.e., two years before the Capacity Delivery Date) reflects the fact

that as the in-service date of the avoided unit gets closer in time, the costs of replacement power get higher because there would be fewer options available to FPL to replace the lost firm capacity and energy that the Qualified Seller had committed to provide under the Contract.

- b. FPL does not have insight as to how or why Duke Energy Florida, Tampa Electric Company, and Gulf Power Company determined the specific levels of performance security provided in their tariffs. As stated above, FPL has proposed levels of completion/performance security that are prudent and designed to protect FPL and its customers in the event of a Qualified Seller's failure to perform.
- 7. Please refer to proposed tariff page 9.036, paragraph 9.1. Please explain why the timeframe for delivery of the completion/performance security is proposed to be reduced from 30 days to 5 days.

#### **RESPONSE:**

The completion/performance security should be posted promptly following the applicable milestone date. FPL (and its customers) should not be exposed to unnecessary credit risk, and FPL should not have to wait 30 days from the Effective Date of the Contract to receive the completion/performance security from the Qualified Seller. Further, the posting date (five days from Contract execution) is not burdensome, because the Qualified Seller has prior notice of this posting requirement, and a creditworthy Qualified Seller should have no issue satisfying the posting requirement.

8. Please refer to proposed tariff page 9.037, paragraph 9.3. Please explain the reduction from 30 days to provide a replacement Letter of Credit to 10 days.

## **RESPONSE:**

The revised replacement credit support requirement is prudent as it reduces FPL's exposure to a potential credit default by the Qualified Seller. See also, FPL's response to Date Request No. 7.

Also, please note a scrivener's error in the proposed paragraph 9.3: "or a financially sound issues..." should be revised to read "or a financially sound issuer...".

9. Please refer to proposed tariff page 9.037, paragraph 9.5.2. Please explain the reason for the modification of this paragraph and the requirement to replenish the completion/performance security within five (5) days.

#### **RESPONSE:**

The modification to paragraph is intended to preserve the Qualified Seller's performance security for the benefit of FPL and its customers during the term of the Contract. A Qualifying Seller is required to post completion/performance security two years prior to the Guaranteed Capacity Delivery Date (see, paragraph 9.1(b)) and is also required to conduct a Committed Capacity Test no earlier than six months prior to the Capacity Delivery Date (see, paragraph 5.2). If not modified, paragraph 9.5.2 would require, upon the successful completion of the Committed Capacity Test, that FPL return to the Qualified Seller all of the completion/performance security posted by the Qualified Seller, leaving FPL (and its customers) unsecured for the remaining term of the Contract.

In the event that FPL is compelled to draw down on the completion/performance security due to a default by a Qualifying Seller, the Qualifying Seller must be required to replenish the applicable security amount to the level provided for in the Contract. This provision reduces FPL's credit risk and will ensure that adequate security is available to FPL (and its customers) in the event of multiple defaults by the Qualified Seller.

10. Please refer to proposed tariff page 9.038, paragraph 10.1.3. Please explain the reduction from 30 days to provide a replacement Termination Fee Letter of Credit or Bond to 10 days.

#### **RESPONSE:**

The revised Termination Fee credit support requirement is prudent as it reduces FPL's exposure to a potential credit default by the Qualified Seller. See also, FPL's response to Data Request No. 7.

11. Please refer to proposed tariff page 9.040, paragraph 12.14. Please explain this additional occurrence of default, and how it would relate to paragraph 12.3.

## **RESPONSE:**

The Qualified Seller is dedicating to FPL, and FPL is contracting for, 100% of the full firm capacity and energy generated by the Facility. The event of default provided for at paragraph 12.14 prohibits a Qualified Seller from diverting the Facility's capacity and energy to a third-party purchaser. Paragraph 12.3 provides for a default in the event that the Qualified Seller fails to achieve an Annual Capacity Billing Factor of at least 70%, but it does not address the misappropriation of capacity or energy to a third party nor does it adequately protect FPL and its customers under those circumstances.

12. Please refer to proposed tariff page 9.045, paragraph 18.4. Please explain the reason for requiring a QF to be responsible for FPL's costs for Assignment. As part of this response, please provide an estimate of these costs.

## **RESPONSE:**

The intent of the provision is to ensure that a Qualified Seller is responsible for the costs and expense incurred by FPL with respect to such Qualified Seller's financing or when the Qualified Seller is otherwise requesting assignment of the Contract. Such costs would include, but not be limited to, FPL's legal and technical review of the Qualified Seller's financing documents, collateral assignment, consents, estoppels, and any necessary legal opinion required of FPL by the Qualified Seller's lender. Since such assignment is entirely for the benefit of the Qualified Seller, neither FPL nor its customers should bear these costs. In the unlikely event that FPL would request an assignment of the Contract, then the Qualified Seller would not be responsible for FPL's costs related to such an assignment.

- 13. Please refer to proposed tariff pages 10.304 and 10.311.
  - a. Please explain why the company has elected to eliminate the as-available energy cost projections.
  - b. Please explain why the company has elected to eliminate the unit fuel cost projections.
  - c. Please provide the estimated as-available energy rate forecast for the period 2016 through 2025.
  - d. Please provide the estimated unit fuel cost forecast for the period 2024 through 2032.

#### **RESPONSE:**

a. Under state and federal law a Qualified Seller is only entitled to FPL's full avoided cost for its payments, anything in excess would amount to a windfall for the Qualified Seller. The Standard Offer Contract and applicable Federal Energy Regulatory Commission ("FERC") rules allow the Qualified Seller to fix all or some portion of the energy prices at the time of entering the Contract. However, forecasted energy prices are volatile based upon future costs of fuel. Since the Standard Offer Contract is updated typically only once per year while forecasted energy prices are volatile throughout the year, a potential Qualified Seller may be misled as to what energy prices it may lock in with respect to the Contract. For

comparison purposes, the fuel costs used in calculating avoided costs for the 2016 Standard Offer Contract have dropped more than 25% from those used for the 2015 Standard Offer Contract.

- b. Please see response to subpart a. Energy prices to the Qualified Seller after the in-service date of the avoided unit are based upon the heat rate of the avoided unit and the cost of fuel for the avoided unit. The Qualified Seller needs to base his analysis (and any fixed energy payments) on the most recent assessment of the avoided costs as possible to avoid either being misled, or so that customers are not in a position to knowingly over pay for energy at the time the contract is entered.
- c. The avoided cost forecast at the time of preparing the Standard Offer Contract (as well as the response to Staff Interrogatory No. 1), were as follows:

	2016 SOC
	(\$/MWh)
2017	22.13
2018	28.08
2019	28.31
2020	27.01
2021	31.55
2022	30.22
2023	32.69
2024	37.64
2025	33.95

d. The unit fuel cost forecast at the time of preparing the Standard Offer Contract (as well as the response to Staff Interrogatory No 1), was as follows:

Weighted Avg.
<b>Unit Fuel Cost</b>
\$/mmbtu
\$4.73
\$4.95
\$5.11
\$5.28
\$5.45
\$5.56
\$5.67
\$5.78
\$5.90

14. Please refer to proposed tariff page 10.311.1,  $i_p$ , the annual escalation rate associated with the plant cost of the Company's Avoided Unit. Please explain the reason for the increase from 2.0% to 3.0%.

## **RESPONSE:**

The costs of power plants are driven by commodity costs (steel, concrete, etc.), labor costs, and the general market inflation rate for power plant contracts driven by the competitive position of the industry. For a number of years, commodity costs have been very low, inflation in labor costs has been low, and the major equipment vendors and engineering, procurement and construction contractors have been very competitive. FPL projects that the costs associated with power plants will marginally increase in the coming years, hence the escalation rate for plant costs has slightly increased to 3%. This results in a slight increase in capacity payments under the proposed Standard Offer Contract.

# Schedule 1

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

	Energy	Capacity Rates	Total Capacity Payments	Energy Rates	Total Energy Payments	Total Payments
	(MWh)	(\$/kW-mo)	(\$)	(\$/MWh)	(\$)	(\$)
2017	411,720	-	-	22.13	9,110,215	9,110,215
2018	411,720	-	-	28.08	11,559,742	11,559,742
2019	411,720	-	-	28.31	11,657,843	11,657,843
2020	412,848	-	-	27.01	11,149,296	11,149,296
2021	411,720	-	-	31.55	12,988,430	12,988,430
2022	411,720	-	-	30.22	12,440,855	12,440,855
2023	411,720	-	-	32.69	13,459,660	13,459,660
2024	412,848	-	-	37.64	15,539,751	15,539,751
2025	411,720	-	-	33.95	13,978,842	13,978,842
2026	411,720	-	-	36.60	15,068,704	15,068,704
2027	411,720	-	-	39.65	16,326,402	16,326,402
2028	412,848	-	-	37.35	15,420,721	15,420,721
2029	411,720	-	-	38.00	15,645,598	15,645,598
2030	411,720	-	-	38.99	16,054,989	16,054,989
2031	411,720	-	-	42.09	17,330,284	17,330,284
2032	412,848	-	-	43.15	17,813,359	17,813,359
2033	411,720	-	-	42.81	17,625,913	17,625,913
2034	411,720	-	-	42.82	17,631,502	17,631,502
2035	411,720	-	-	45.42	18,701,883	18,701,883
2036	412,848	-	-	46.21	19,077,266	19,077,266
Total	8,240,040		-		298,581,255	298,581,255
2016 NPV @	7.51% Discou	ınt Rate:			141,045,791	141,045,791

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

	Energy	Capacity Rates	Total Capacity Payments	Energy Rates	Total Energy Payments	Total Payments
	(MWh)	(\$/kW-mo)	(\$)	(\$/MWh)	(\$)	(\$)
2017	411,720	-	-	22.13	9,110,215	9,110,215
2018	411,720	-	-	28.08	11,559,742	11,559,742
2019	411,720	-	-	28.31	11,657,843	11,657,843
2020	412,848	-	-	27.01	11,149,296	11,149,296
2021	411,720	-	-	31.55	12,988,430	12,988,430
2022	411,720	-	-	30.22	12,440,855	12,440,855
2023	411,720	-	-	32.69	13,459,660	13,459,660
2024	412,848	8.72	5,229,892	33.09	13,659,988	18,889,880
2025	411,720	8.90	5,341,447	31.21	12,849,919	18,191,365
2026	411,720	9.09	5,455,406	32.23	13,269,390	18,724,796
2027	411,720	9.29	5,571,823	33.28	13,700,565	19,272,388
2028	412,848	9.48	5,690,751	34.35	14,182,471	19,873,222
2029	411,720	9.69	5,812,245	35.03	14,424,538	20,236,782
2030	411,720	9.89	5,936,360	35.73	14,710,940	20,647,300
2031	411,720	10.11	6,063,155	36.44	15,003,064	21,066,219
2032	412,848	10.32	6,192,687	37.16	15,342,978	21,535,666
2033	411,720	10.54	6,325,017	37.90	15,605,000	21,930,017
2034	411,720	10.77	6,460,205	38.65	15,915,027	22,375,232
2035	411,720	11.00	6,598,315	39.42	16,231,252	22,829,567
2036	412,848	11.23	6,739,409	40.69	16,799,979	23,539,387
Total	8,240,040		77,416,712		274,061,150	351,477,862
2017 NPV @	7.51% Discou	ınt Rate:	28,520,650		132,088,361	160,609,011

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

	Energy	Capacity Rates	Total Capacity Payments	Energy Rates	Total Energy Payments	Total Payments
	(MWh)	(\$/kW-mo)	(\$)	(\$/MWh)	(\$)	(\$)
2017	411,720	-	-	22.13	9,110,215	9,110,215
2018	411,720	-	-	28.08	11,559,742	11,559,742
2019	411,720	-	-	28.31	11,657,843	11,657,843
2020	412,848	5.51	3,303,434	27.01	11,149,296	14,452,730
2021	411,720	5.62	3,369,503	31.55	12,988,430	16,357,933
2022	411,720	5.73	3,436,893	30.22	12,440,855	15,877,748
2023	411,720	5.84	3,505,631	32.69	13,459,660	16,965,290
2024	412,848	5.96	3,575,743	33.09	13,659,988	17,235,731
2025	411,720	6.08	3,647,258	31.21	12,849,919	16,497,177
2026	411,720	6.20	3,720,203	32.23	13,269,390	16,989,593
2027	411,720	6.32	3,794,607	33.28	13,700,565	17,495,172
2028	412,848	6.45	3,870,499	34.35	14,182,471	18,052,970
2029	411,720	6.58	3,947,909	35.03	14,424,538	18,372,447
2030	411,720	6.71	4,026,868	35.73	14,710,940	18,737,808
2031	411,720	6.85	4,107,405	36.44	15,003,064	19,110,469
2032	412,848	6.98	4,189,553	37.16	15,342,978	19,532,531
2033	411,720	7.12	4,273,344	37.90	15,605,000	19,878,344
2034	411,720	7.26	4,358,811	38.65	15,915,027	20,273,838
2035	411,720	7.41	4,445,987	39.42	16,231,252	20,677,239
2036	412,848	7.56	4,534,907	40.69	16,799,979	21,334,885
Total	8,240,040		66,108,554		274,061,150	340,169,705
2017 NPV @	7.51% Discou	int Rate:	28,520,650		132,088,361	160,609,011

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

	Energy	Capacity Rates	Total Capacity Payments	Energy Rates	Total Energy Payments	Total Payments
	(MWh)	(\$/kW-mo)	(\$)	(\$/MWh)	(\$)	(\$)
2017	411,720	-	-	22.13	9,110,215	9,110,215
2018	411,720	-	-	28.08	11,559,742	11,559,742
2019	411,720	-	-	28.31	11,657,843	11,657,843
2020	412,848	-	-	27.01	11,149,296	11,149,296
2021	411,720	-	-	31.55	12,988,430	12,988,430
2022	411,720	-	-	30.22	12,440,855	12,440,855
2023	411,720	-	-	32.69	13,459,660	13,459,660
2024	412,848	9.72	5,830,095	33.09	13,659,988	19,490,083
2025	411,720	9.72	5,830,095	31.21	12,849,919	18,680,014
2026	411,720	9.72	5,830,095	32.23	13,269,390	19,099,485
2027	411,720	9.72	5,830,095	33.28	13,700,565	19,530,660
2028	412,848	9.72	5,830,095	34.35	14,182,471	20,012,566
2029	411,720	9.72	5,830,095	35.03	14,424,538	20,254,632
2030	411,720	9.72	5,830,095	35.73	14,710,940	20,541,035
2031	411,720	9.72	5,830,095	36.44	15,003,064	20,833,159
2032	412,848	9.72	5,830,095	37.16	15,342,978	21,173,073
2033	411,720	9.72	5,830,095	37.90	15,605,000	21,435,095
2034	411,720	9.72	5,830,095	38.65	15,915,027	21,745,122
2035	411,720	9.72	5,830,095	39.42	16,231,252	22,061,347
2036	412,848	9.72	5,830,095	40.69	16,799,979	22,630,073
Total	8,240,040		75,791,233		274,061,150	349,852,383
2017 NPV @	7.51% Discou	int Rate:	28,520,650		132,088,361	160,609,011

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

	Energy	Capacity Rates	Total Capacity Payments	Energy Rates	Total Energy Payments	Total Payments
	(MWh)	(\$/kW-mo)	(\$)	(\$/MWh)	(\$)	(\$)
2017	411,720	-	-	22.13	9,110,215	9,110,215
2018	411,720	-	-	28.08	11,559,742	11,559,742
2019	411,720	-	-	28.31	11,657,843	11,657,843
2020	412,848	6.27	3,759,301	27.01	11,149,296	14,908,597
2021	411,720	6.27	3,759,301	31.55	12,988,430	16,747,731
2022	411,720	6.27	3,759,301	30.22	12,440,855	16,200,156
2023	411,720	6.27	3,759,301	32.69	13,459,660	17,218,961
2024	412,848	6.27	3,759,301	33.09	13,659,988	17,419,289
2025	411,720	6.27	3,759,301	31.21	12,849,919	16,609,220
2026	411,720	6.27	3,759,301	32.23	13,269,390	17,028,691
2027	411,720	6.27	3,759,301	33.28	13,700,565	17,459,866
2028	412,848	6.27	3,759,301	34.35	14,182,471	17,941,772
2029	411,720	6.27	3,759,301	35.03	14,424,538	18,183,839
2030	411,720	6.27	3,759,301	35.73	14,710,940	18,470,241
2031	411,720	6.27	3,759,301	36.44	15,003,064	18,762,365
2032	412,848	6.27	3,759,301	37.16	15,342,978	19,102,279
2033	411,720	6.27	3,759,301	37.90	15,605,000	19,364,301
2034	411,720	6.27	3,759,301	38.65	15,915,027	19,674,328
2035	411,720	6.27	3,759,301	39.42	16,231,252	19,990,553
2036	412,848	6.27	3,759,301	40.69	16,799,979	20,559,280
Total	8,240,040		63,908,119		274,061,150	337,969,269
2017 NPV @	7.51% Discou	int Rate:	28,520,650		132,088,361	160,609,011