Progress Energy

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COMMISSION CLERK

March 1, 2010

VIA HAND DELIVERY

Ms. Ann Cole, Commission Clerk
Florida Public Service Commission
2540 Shumard Oak Boulevard
Tallahassee, FL 32399-0850

Re: *Petition for approval of amended negotiated purchase power contract with BG&E of Florida, LLC by Progress Energy Florida, Inc.*; Docket No. 090537-EQ

Dear Ms. Cole:

Please find enclosed for filing on behalf of Progress Energy Florida, Inc. ("PEF") the original and five (5) copies of PEF's response to Staff's Data Request No. 1 in the above referenced docket.

Thank you for your assistance in this matter. Please call me at (727) 820-5184 should you have any questions.

Sincerely,

John T. Burnett LMS

John T. Burnett

JTB/lms

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Progress Energy Florida, Inc.'s Responses to Staff Data Request No. 1
Docket No. 090537-EQ

Q1. Has BG&E obtained financing for the proposed project?

Answer: Financing activities are on-going. BG&E has applied for a U.S. Department of Energy 1703 and 1795 Loan Guarantee Solicitation #DE-FOA-0000140 OMB Control #1910-5134 dated July 29th, 2009. The project has been accepted as a qualified project in the "Part I" filing made September 14th, 2009. "Part II" was filed within the stated deadline of January 15th, 2010. Final decisions are due in March or April 2010. In the event that BG&E fails to get the Loan Guarantee, alternative methods of financing are deemed available. Finally, BG&E has invested over $2 million dollars in the project to date which includes costs associated with business planning, permitting, fuel procurement, energy crop research and land preparation.

Q2. Has BG&E determined a location for the proposed project site? If so, where?

Answer: Yes, 521 Premier Drive, Port St. Joe, Gulf County, FL 32457.

Q3. Given that the in-service date, or Commercial Operation date, has been changed to July 1, 2012 and the energy payment start date has been changed to January 1, 2013, what are the milestones for the project?

Answer: The dates below represent the target dates in the agreement. Some of these dates may change under the terms of the agreement.

- November 25, 2009 – Effective Date.
- May 31, 2011 – Conditions Precedent must be satisfied and the Seller's Performance Security is due.
    - The milestones listed in the Conditions Precedent section are:
        - site selection by lease or ownership
        - firm transmission service
        - permits
        - financing
        - facility construction contract execution
        - electric service agreement for facility
        - electrical interconnection/operating agreement execution
        - insurance coverage

- July 1, 2012 – Stipulated Commercial Operations Date.
- September 28, 2012 – Delay Damages begin if Commercial Operations have not been achieved.
- December 27, 2012 – PEF has the right to terminate the agreement if Commercial Operation has not been achieved.
- January 1, 2013 – first annual payment rate increase.
- June 30, 2032 – contract terminates.

Q4. The contract does not appear to contain any provisions for early payment. What conditions must exist between the parties in order for early payments to be made?

Answer: BG&E will be paid at PEF's As-Available rate for energy delivered before the Commercial Operations Date as stated in Section 3.3.5. Section 8.1 provides that BG&E will be paid at the negotiated rate beginning on the Commercial Operations Date.

Q5. Please explain how PEF will recover the interest payable to BG&E under Article 8.2.2 of the contract, if it becomes necessary to pay such interest?

Answer: PEF would recover any interest payable to BG&E under Article 8.2.2 through the Fuel Adjustment Clause and the Capacity Cost Recovery Clause, subject to PSC review.

Q6. Has BG&E obtained a fuel supply contract? If so, with whom? What are the terms and duration of the contract?

Answer: BG&E has entered into a number of Memorandums of Understanding ("MOUs") for fuel and continues to work on more. They are:

- MOU with [redacted] for approximately [redacted] tons per year of mixed materials of low economic value to consist of understory, mixed trees and small diameter pines as is standing on [redacted] at $[redacted] per green ton and for a period of [redacted] years with renewals.
- MOU with [redacted] to harvest, chip and deliver up to [redacted] tons per year of mixed materials of low economic value from the [redacted] purchase at a current cost of $[redacted] to $[redacted] per ton with delivery of 20 miles. Another MOU with [redacted] provides for up to an additional [redacted] tons per year of chipped tops, limbs, branches, land clearing and forest maintenance materials and delivered to the BG&E project site at $[redacted] to $[redacted] per ton. Both MOUs with [redacted] are for [redacted] years with renewals.

- MOU with [redacted] to harvest, chip and deliver up to [redacted] tons per year of mixed materials of low economic value from the [redacted] purchase at a current cost of $[redacted] to $[redacted] per ton with delivery of [redacted] miles. Another MOU with [redacted] is for up to [redacted] tons per year of chipped tops, limbs and branches from area forest operations and delivered to the BG&E project site at $[redacted] per ton. Both MOUs with [redacted] are for [redacted] years with renewals.
- MOU with [redacted] to provide a supply of up to [redacted] tons per year of 3 inch diameter wood minus dirty chips (limbs, leaves, stumps, bark, etc) at a delivered cost not to exceed $[redacted] per ton and for a period of [redacted] years with renewals.
- MOU with [redacted] to provide a supply of up to [redacted] tons per year of 3 inch diameter wood minus dirty chips, land clearing and land maintenance materials at a delivered cost of $[redacted] per ton and for a period of [redacted] years with renewals.
- MOU with [redacted], for the delivery by year [redacted] of plant operations of up to [redacted] dry tons per year of chipped to 3 inch diameter wood minus agricultural biomass to be grown and harvested in the proximity of [redacted] and delivered to the BG&E project at a cost of $[redacted] per bone dry ton. This MOU will be for [redacted] years with a [redacted] year renewal.
- BG&E plans on executing a [redacted] year forest service agreement with the [redacted] that have been determined to have such significant infestation of understory and invasive trees as to provide no value for timber or habitat and now cause significant concern as to fire and future forest management absent the removal of substantially all the foreign, pest and non-conforming growth material. Current estimates are that this supply will average between [redacted] and [redacted] tons per year and will be harvested, chipped and delivered by third party service providers in conjunction with additional forest service contracting to improve forest access and forest maintenance to provide for complete restoration of these areas of [redacted]. Under this agreement, BG&E will agree to pay $[redacted] per delivered green ton to take all the material to be removed.

Q7. Has BG&E obtained a contract for a transmission provider?

Answer: The point of transmission has been identified and it is on the Progress Energy transmission grid. Application for transmission services has been made to Progress Energy along with the required deposit. A Facilities Study Agreement is currently underway.

Q8. In the event PEF were to terminate the contract pursuant to Article 11.4, what would it do with the monetary damages if those damages were in fact received from BG&E?

Answer: PEF would credit the damages back through the Fuel Adjustment Clause and the Capacity Cost Recovery Clause.

Q9. On page 4 of the petition, PEF states that it used the 2009 Ten Year Site Plan fuel forecast to calculate the NPV for the amended contract. For the years 2019 through 2032, what forecasted fuel prices did PEF use to calculate the NPV? Please explain.

Answer: PEF used a fuel forecast provided by the PIRA Energy Group through 2028. The forecasted price for years 2029 through 2032 are escalated at a fixed rate as shown in Question #10 below.

Q10. Please provide a complete copy of the fuel price forecast used to calculate the NPV for the entire term of the amended contract.

Answer:

	Henry Hub Natural Gas	Physical Basis FT Z3	Natural Gas Base Forecast
2012	[redacted]	[redacted]	[redacted]
2013	[redacted]	[redacted]	[redacted]
2014	[redacted]	[redacted]	[redacted]
2015	[redacted]	[redacted]	[redacted]
2016	[redacted]	[redacted]	[redacted]
2017	[redacted]	[redacted]	[redacted]
2018	[redacted]	[redacted]	[redacted]
2019	[redacted]	[redacted]	[redacted]
2020	[redacted]	[redacted]	[redacted]
2021	[redacted]	[redacted]	[redacted]
2022	[redacted]	[redacted]	[redacted]
2023	[redacted]	[redacted]	[redacted]
2024	[redacted]	[redacted]	[redacted]
2025	[redacted]	[redacted]	[redacted]
2026	[redacted]	[redacted]	[redacted]
2027	[redacted]	[redacted]	[redacted]
2028	[redacted]	[redacted]	[redacted]
2029	[redacted]	[redacted]	[redacted]
2030	[redacted]	[redacted]	[redacted]
2031	[redacted]	[redacted]	[redacted]
2032	[redacted]	[redacted]	[redacted]

[redacted]

Q11. Why is the fuel price forecast used to calculate the NPV of the amended contract reasonable?

Answer: PEF uses an outside third party vendor for its fuel price forecast. This energy consulting firm has over 30 years experience in the energy industry. Forecasting fuel and electricity markets is their only focus. They are internationally known and serve over 500 clients.

Q12. Please provide a comparison of the NPVs for the original contract and the amended contract. Please calculate the NPV for the original contract and the amended contract using the fuel price forecast that was used for the amended contract.

Answer:

($000)	Original	Original Contract with Amended Fuel	Amended Contract
Start Date	1/1/2011	1/1/2011	7/1/2012
End Date	12/31/2030	12/31/2030	6/30/2032
MW	75	75	45
Avoided Unit	June 2013 CC	June 2013 CC	June 2014 CT
10 Year Site Plan Fuel	2007	2009	2009
NPV of Payments to BGE	$ 305,504	$ 305,504	$ 231,583
NPV of Avoided Capacity Costs	$ 52,394	$ 52,394	$ 43,007
NPV of Avoided Energy Costs	$ 293,904	$ 363,076	$ 235,630
NPV of Net Benefit (Cost)	$ 40,794	$ 109,966	$ 47,054

Q13. Please complete the attached three tables.

a. **Table 1 is a comparison of the payments under the amended contract to the avoided unit (2014 CT) at the capacity factor given in the analysis provided with the petition.**
b. **Table 2 is a comparison of the payments under the original contract to those under the amended contract. As part of its response, please state the assumptions used in the analysis.**
c. **Table 3 is a comparison of the payments under the amended contract to a combination of the avoided unit (2014 CT) and as-available energy. As part of this response, please use a**

capacity factor for the avoided unit that represents the typical actual utilization of this type of generating unit. In addition, please use as-available payments for the remainder of the energy and state the capacity factor of the avoided unit used for this analysis.

Answer: Please see Attachment A.

Attachment A

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Question 13 - Table 1

Table 1: Comparison of Payments to BG&E and 2014 CT Avoided Costs

	Capacity: 45MW			Capacity Factor: 91%			Discount Rate: 8.48%			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
	# of Months	Energy	Contract Energy & *Capacity* Payments	Contract Energy & *Capacity* Payments	Contract Cumulative Payments	Avoided Energy & *Capacity* Payments	Avoided Energy & *Capacity* Payments	Avoided Cumulative Payments	(7) - (4) Difference	(8) - (5) Cumulative Difference
		MWh	$/MWh	$000	$000	$/MWh	$000	$000	$000	$000
Year										
2011	0	-	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
2012	6	180,836	[redacted]	[redacted]	[redacted]	$ 83.24	$ 15,052	$ 15,052	[redacted]	[redacted]
2013	12	358,723	[redacted]	[redacted]	[redacted]	$ 85.40	$ 30,635	$ 45,687	[redacted]	[redacted]
2014	12	358,723	[redacted]	[redacted]	[redacted]	$ 92.22	$ 33,082	$ 78,769	[redacted]	[redacted]
2015	12	358,723	[redacted]	[redacted]	[redacted]	$ 101.89	$ 36,549	$ 115,317	[redacted]	[redacted]
2016	12	359,706	[redacted]	[redacted]	[redacted]	$ 96.44	$ 34,690	$ 150,007	[redacted]	[redacted]
2017	12	358,723	[redacted]	[redacted]	[redacted]	$ 89.71	$ 32,181	$ 182,188	[redacted]	[redacted]
2018	12	358,723	[redacted]	[redacted]	[redacted]	$ 90.54	$ 32,479	$ 214,667	[redacted]	[redacted]
2019	12	358,723	[redacted]	[redacted]	[redacted]	$ 92.27	$ 33,100	$ 247,767	[redacted]	[redacted]
2020	12	359,706	[redacted]	[redacted]	[redacted]	$ 94.51	$ 33,995	$ 281,762	[redacted]	[redacted]
2021	12	358,723	[redacted]	[redacted]	[redacted]	$ 99.44	$ 35,670	$ 317,432	[redacted]	[redacted]
2022	12	358,723	[redacted]	[redacted]	[redacted]	$ 102.88	$ 36,907	$ 354,339	[redacted]	[redacted]
2023	12	358,723	[redacted]	[redacted]	[redacted]	$ 107.52	$ 38,569	$ 392,909	[redacted]	[redacted]
2024	12	359,706	[redacted]	[redacted]	[redacted]	$ 106.20	$ 38,200	$ 431,109	[redacted]	[redacted]
2025	12	358,723	[redacted]	[redacted]	[redacted]	$ 112.05	$ 40,196	$ 471,305	[redacted]	[redacted]
2026	12	358,723	[redacted]	[redacted]	[redacted]	$ 116.14	$ 41,662	$ 512,967	[redacted]	[redacted]
2027	12	358,723	[redacted]	[redacted]	[redacted]	$ 122.86	$ 44,072	$ 557,039	[redacted]	[redacted]
2028	12	359,706	[redacted]	[redacted]	[redacted]	$ 123.65	$ 44,479	$ 601,517	[redacted]	[redacted]
2029	12	358,723	[redacted]	[redacted]	[redacted]	$ 126.91	$ 45,527	$ 647,045	[redacted]	[redacted]
2030	12	358,723	[redacted]	[redacted]	[redacted]	$ 130.21	$ 46,709	$ 693,754	[redacted]	[redacted]
2031	12	358,723	[redacted]	[redacted]	[redacted]	$ 133.55	$ 47,909	$ 741,663	[redacted]	[redacted]
2032	6	178,870	[redacted]	[redacted]	[redacted]	$ 131.55	$ 23,530	$ 765,193	[redacted]	[redacted]
	NPV 2010$			$ 231,583			$ 278,637		$ 47,054	
Note: due to all in rate pricing for this contract, the table has been modified to include Capacity in all the payment streams.										

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Question 13 - Table 2

Table 2: Comparison of Original Contract and Amended Contract

	Original Capacity: 75MW			Amended Capacity : 45MW			Discount Rate: 8.48%			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
	Original Contract Energy	Original Contract Energy & *Capacity* Payments	Original Contract Energy & *Capacity* Payments	Original Contract Cumulative Payments	Amended Contract Energy	Amended Contract Energy & *Capacity* Payments	Amended Contract Energy & *Capacity* Payments	Amended Contract Cumulative Payments	(3) - (7) Difference Monthly	(4) - (8) Cumulative Difference
	MWh	$/MWh	$000	$000	MWh	$/MWh	$000	$000	$000	$000
Year										
2011	584,730	[redacted]	[redacted]	[redacted]	-	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
2012	586,332	[redacted]	[redacted]	[redacted]	180,836	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
2013	584,730	[redacted]	[redacted]	[redacted]	358,723	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
2014	584,730	[redacted]	[redacted]	[redacted]	358,723	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
2015	584,730	[redacted]	[redacted]	[redacted]	358,723	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
2016	586,332	[redacted]	[redacted]	[redacted]	359,706	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
2017	584,730	[redacted]	[redacted]	[redacted]	358,723	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
2018	584,730	[redacted]	[redacted]	[redacted]	358,723	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
2019	584,730	[redacted]	[redacted]	[redacted]	358,723	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
2020	586,332	[redacted]	[redacted]	[redacted]	359,706	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
2021	584,730	[redacted]	[redacted]	[redacted]	358,723	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
2022	584,730	[redacted]	[redacted]	[redacted]	358,723	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
2023	584,730	[redacted]	[redacted]	[redacted]	358,723	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
2024	586,332	[redacted]	[redacted]	[redacted]	359,706	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
2025	584,730	[redacted]	[redacted]	[redacted]	358,723	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
2026	584,730	[redacted]	[redacted]	[redacted]	358,723	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
2027	584,730	[redacted]	[redacted]	[redacted]	358,723	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
2028	586,332	[redacted]	[redacted]	[redacted]	359,706	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
2029	584,730	[redacted]	[redacted]	[redacted]	358,723	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
2030	584,730	[redacted]	[redacted]	[redacted]	358,723	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
2031				$ 838,891	358,723	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
2032				$ 838,891	178,870	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
	NPV 2010$		$ 305,504				$ 231,583		$ 73,921	
Note: due to all in rate pricing for this contract, the table has been modified to include Capacity in all the payment streams.										

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Question 13 - Table 3

Table 3: Comparison of Payments to BG&E and 2014 CT Avoided Costs

		Capacity: 45MW			Avoided Unit Capacity Factor: 7.6%				Discount Rate: 8.48%				
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
	# of Months	Contract Energy @ 91% CF	Contract Energy & Capacity Payments	Contract Energy & Capacity Payments	Contract Cumulative Payments	45 MW of Avoided Unit @ CT CF of 7.6%	Avoided Unit Energy Cost @ 7.6% CF	(2) - (6) As Available Energy	As Available Energy Cost	Avoided Capacity Cost	(7)+ (9)+(10) Avoided Costs	(11) - (4) Difference from Contract	Cumulative Difference from Contract
		MWh	$/MWh	$000	$000	MWh	$000	MWh	$000	$000	$000	$000	$000
Year													
2012	6	[redacted]	[redacted]	[redacted]	[redacted]			180,836	$ 15,052	$ -	$ 15,052	[redacted]	[redacted]
2013	12	[redacted]	[redacted]	[redacted]	[redacted]			358,723	$ 30,635	$ -	$ 30,635	[redacted]	[redacted]
2014	12	[redacted]	[redacted]	[redacted]	[redacted]	17,476	$ 2,262	341,247	$ 28,613	$ 3,003	$ 33,878	[redacted]	[redacted]
2015	12	[redacted]	[redacted]	[redacted]	[redacted]	29,959	$ 4,208	328,764	$ 28,568	$ 5,352	$ 38,128	[redacted]	[redacted]
2016	12	[redacted]	[redacted]	[redacted]	[redacted]	29,959	$ 4,314	329,747	$ 26,697	$ 5,556	$ 36,568	[redacted]	[redacted]
2017	12	[redacted]	[redacted]	[redacted]	[redacted]	29,959	$ 4,422	328,764	$ 24,191	$ 5,772	$ 34,385	[redacted]	[redacted]
2018	12	[redacted]	[redacted]	[redacted]	[redacted]	29,959	$ 4,539	328,764	$ 24,270	$ 5,988	$ 34,797	[redacted]	[redacted]
2019	12	[redacted]	[redacted]	[redacted]	[redacted]	29,959	$ 4,580	328,764	$ 24,625	$ 6,216	$ 35,421	[redacted]	[redacted]
2020	12	[redacted]	[redacted]	[redacted]	[redacted]	29,959	$ 4,652	329,747	$ 25,236	$ 6,456	$ 36,344	[redacted]	[redacted]
2021	12	[redacted]	[redacted]	[redacted]	[redacted]	29,959	$ 4,710	328,764	$ 26,521	$ 6,708	$ 37,939	[redacted]	[redacted]
2022	12	[redacted]	[redacted]	[redacted]	[redacted]	29,959	$ 4,799	328,764	$ 27,430	$ 6,960	$ 39,189	[redacted]	[redacted]
2023	12	[redacted]	[redacted]	[redacted]	[redacted]	29,959	$ 4,912	328,764	$ 28,701	$ 7,236	$ 40,850	[redacted]	[redacted]
2024	12	[redacted]	[redacted]	[redacted]	[redacted]	29,959	$ 5,026	329,747	$ 28,123	$ 7,512	$ 40,660	[redacted]	[redacted]
2025	12	[redacted]	[redacted]	[redacted]	[redacted]	29,959	$ 5,151	328,764	$ 29,673	$ 7,800	$ 42,624	[redacted]	[redacted]
2026	12	[redacted]	[redacted]	[redacted]	[redacted]	29,959	$ 5,272	328,764	$ 30,736	$ 8,100	$ 44,108	[redacted]	[redacted]
2027	12	[redacted]	[redacted]	[redacted]	[redacted]	29,959	$ 5,372	328,764	$ 32,658	$ 8,412	$ 46,442	[redacted]	[redacted]
2028	12	[redacted]	[redacted]	[redacted]	[redacted]	29,959	$ 5,497	329,747	$ 32,748	$ 8,736	$ 46,981	[redacted]	[redacted]
2029	12	[redacted]	[redacted]	[redacted]	[redacted]	29,959	$ 5,609	328,764	$ 33,385	$ 9,072	$ 48,065	[redacted]	[redacted]
2030	12	[redacted]	[redacted]	[redacted]	[redacted]	29,959	$ 5,723	328,764	$ 34,136	$ 9,432	$ 49,290	[redacted]	[redacted]
2031	12	[redacted]	[redacted]	[redacted]	[redacted]	29,959	$ 5,839	328,764	$ 34,904	$ 9,792	$ 50,535	[redacted]	[redacted]
2032	6	[redacted]	[redacted]	[redacted]	[redacted]	14,980	$ 2,979	163,890	$ 17,791	$ 5,088	$ 25,859	[redacted]	[redacted]
	NPV 2010$			$ 231,583			$ 30,122		$ 219,529	$ 43,007	$ 292,658	$ 61,075	
Note: due to all in rate pricing for this contract, the table has been modified to include Capacity in all the payment streams.													