State of Florida



Hublic 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:

March 18, 2010

TO:

Ann Cole, Commission Clerk, Office of Commission Clerk

FROM:

Erik L. Sayler, Senior Attorney, Office of the General Counsel

RE:

Docket No. 090451-EM – In Re: Joint petition to determine need for Gainesville

Renewable Energy Center in Alachua County, by Gainesville Regional Utilities and

Gainesville Renewable Energy Center, LLC.

Please place GRU/GREC LLC's responses and supplemental responses to Staff's Fifth Set of Interrogatories filed on March 26, March 29, and March 30, 2010, into the Docket file.

ELS/th Attachment

TO MAR 31 PM 1: 31

BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

In re: Joint petition to determine need for Gainesville Renewable Energy Center in Alachua County, by Gainesville Regional Utilities and Gainesville Renewable Energy Center, LLC.

DOCKET NO. 090451-EM

DATED: MARCH 26, 2010

RESPONSES TO STAFF'S FIFTH SET OF INTERROGATORIES TO GAINESVILLE RENEWABLE ENERGY CENTER (NOS. 107-116)

Gainesville Regional Utilities (GRU) and Gainesville Renewable Energy Center, LLC (GREC LLC), pursuant to Rule 28-106.206, Florida Administrative Code, Rule 1.340, Florida Rules of Civil Procedure, and the Order Establishing Procedure in this matter, hereby respond to Staff's Fifth Set of Interrogatories (Nos. 107-116). Please note that the answers to Interrogatories Nos. 109 and 114 will be served as soon as possible, which the Petitioners expect to be on Monday, March 29, 2010.

The answers to Interrogatories Nos. 108 through 112 of Staff's Fifth Set of Interrogatories (Nos. 107-116) are provided by Edward Regan, Assistant General Manager for Strategic Planning, Gainesville Regional Utilities, 301 SE 4th Avenue, Gainesville, Florida 32601.

The answers to Interrogatories Nos. 107 and 113 through 116 of Staff's Fifth Set of Interrogatories (Nos. 107-116) are provided by Richard Bachmeier, Electric System Planning Director, Gainesville Regional Utilities, 301 SE 4th Avenue, Gainesville, Florida 32601.

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RESPONSES

- 107. Please refer to Staff's Fourth Set of Interrogatories. In Interrogatory No. 101, Staff requested a revision of the cumulative present worth analysis conducted in Interrogatories Nos. 56 and 57 using a more recent fuel forecast. Similarly, Staff requested additional cases and scenarios be conducted in Interrogatory No. 104. The responses for the "No New Construction till 2023" Scenario are shown in the table below. It is Staff's understanding that the "No New Construction till 2023" Scenario would not be impacted by either the delay of the GREC Facility or the cost of biomass, and as a result the values should be identical between all base case scenarios, and all regulated CO2 scenarios.
 - a. Please explain or reconcile the different Cumulative Present Worth (CPW) results, and explain the factors that cause the variation if Staff's understanding is incorrect.

NO Nev	Construction till 2023 Cumulative Prese	ent worth
	All Values are in (2009 \$, \$000)	
ROG	Case	Value
101	Base Case	6,779,222
101	Regulated CO ₂	8,646,405
104	Base Case - GREC Delayed	6,993,170
104	Regulated CO ₂ - GREC Delayed	8,860,452
104	Base Case - 10% Higher Biomass	6,993,170
104	Regulated CO ₂ - 10% Higher Biomass	8,860,452
104	Base Case - 10% Lower Biomass	6,993,170
104	Regulated CO ₂ - 10% Lower Biomass	8,860,453

Response to Interrogatory No. 107a:

Staff's understanding is correct in that the "No New Construction till 2023" scenario would not be impacted by either a delay of the GREC facility or the cost of biomass. The

differences in CPW results noted by Staff are due almost entirely (see explanation below) to differences in the natural gas and coal price projections used in the analyses for which Staff is requesting clarification.

Regarding Interrogatory No. 101, Staff was clear in their request for an update to Interrogatories Nos. 56 and 57 in which Petitioners use a more recent fuel forecast than what was used in the original responses to Interrogatories Nos. 56 and 57. For reference, natural gas and coal price projections used in responding to Interrogatories Nos. 56 and 57 were based on the U.S. Energy Information Administration (EIA) Annual Energy Outlook 2009 (AEO2009), while natural gas and coal price projections used in responding to Interrogatory No. 101 were based on the EIA's Annual Energy Outlook 2010 (AEO2010). Regarding Interrogatory No. 104, Staff did not specify which fuel price forecast they would like the Petitioners to utilize when preparing the response, and the Petitioners interpreted Staff's request in Interrogatory No. 104 to run the specified cases based on AEO2009. Consequently, the response to Interrogatory No. 101 was based on AEO2010, while the response to Interrogatory No. 104 was based on AEO2009.

Although the difference between utilizing natural gas and coal price projections based on AEO2010 in responding to Interrogatory No. 101, and utilizing natural gas and coal price projections based on AEO2009 in responding to Interrogatory No. 104, is the primary reason for the variation in CPW results noted by Staff, there is one additional factor that Petitioners would like to address. Upon reviewing the responses to Interrogatory No. 104 (originally submitted March 1, 2010), Petitioners noticed that erroneous data was included in the response, and subsequently filed revised responses on March 5, 2010. The revised responses appear to be reflected in the table prepared by Staff that is presented above. In addition, there is a very minor correction to be made resulting from an incorrect cell reference in a formula. This correction is reflected in Table Interrogatory No. 107a, which is presented below.

Recently, Petitioners identified an additional correction (to properly escalate non-fuel variable O&M in 2024) to make to the revised responses to Interrogatory No. 104. The CPW results reflecting all revisions that Petitioners have noted are presented in Table Interrogatory No. 107a. Petitioners will file a revised set of responses to Interrogatory No. 104 that is consistent with the data presented in Table Interrogatory No. 107a. Note that the data in Table Interrogatory No. 107a show that, for the No New Construction scenario and using the AEO2009 forecasts, the Base Case results and the Regulated CO₂

Case results are the same regardless of the hypothesized GREC delay and regardless of the biomass price assumptions. See Table Interrogatory No. 107b below for the comparable results using the AEO2010 forecasts.

	No New Construct	ele Interrogatory No. 107a tion till 2023 Cumulative Present Worth Values are in (2009 \$, \$000)	
	Basis for Coal and Natural		1
ROG	Gas Price Projections	Case	Value
101	AEO2010	Base Case	6,779,201
101	AEO2010	Regulated CO ₂	8,646,384
104	AEO2009	Base Case – GREC Delayed	6,997,928
104	AEO2009	Regulated CO ₂	8,864,466
104	AEO2009	Base Case - 10% Higher Biomass	6,997,928
104	AEO2009	Regulated CO ₂ - 10% Higher Biomass	8,864,466
104	AEO2009	Base Case – 10% Lower Biomass	6,997,928
104	AEO2009	Regulated CO ₂ - 10% Lower Biomass	8,864,466

b. If this information in Interrogatory No. 104 was based on the Annual Energy Outlook (AEO) 2009 forecast for fuel, please provide an update using the AEO 2010 forecast.

Response to Interrogatory No. 107b:

Please see Table Interrogatory No. 107b, which presents the requested analyses utilizing natural gas and coal price projections based on AEO2010. Included for reference are the values for Interrogatory No 101, which, as described in response to Interrogatory No. 107a, are based on AEO2010. Note that after making the adjustment to have the requested analyses performed with natural gas and coal price projections based on AEO2010 (and making the above-mentioned correction of the incorrect cell reference in a spreadsheet formula), the results in Table Interrogatory No. 107b for ROG 107b are consistent with the corresponding cases (i.e. Base Case and Regulated CO₂) for ROG 101.

	No New Construc	le Interrogatory No. 107b tion till 2023 Cumulative Present Worth Values are in (2009 \$, \$000)	
ROG	Basis for Coal and Natural Gas Price Projections		
		Case	Value
101	AEQ2010	Base Case	6,779,201
101	AEO2010	Regulated CO ₂	8,646,384
107ь	AEO2010	Base Case - GREC Delayed	6,779,201
107b	AEO2010	Regulated CO ₂	8,646,384
107ь	AEO2010	Base Case – 10% Higher Biomass	6,779,201
107b	AEO2010	Regulated CO ₂ - 10% Higher Biomass	8,646,384
107ь	AEO2010	Base Case - 10% Lower Biomass	6,779,201
107b	AEO2010	Regulated CO ₂ - 10% Lower Biomass	8,646,384

108. Please refer to Witness Bachmeier's Supplemental Testimony, Page 8, Lines 11 through 21. In modeling market sales of energy from GRU's forecasted capacity, it states that a comparison was done between the existing system and the existing system with the addition of full 100 MW from GREC. GRU has previously stated its intent to contract for approximately half of GREC's capacity, or 50 MW. Please supply an analysis utilizing the existing system with the addition of 50 MW from GREC with annual and cumulative values.

Response to Interrogatory No. 108:

The scenario presented by GRU in response to Interrogatory No. 104 labeled "GREC Resale at Market Price" represents the analysis requested above with the exception that it does not include any benefits from off-system economy energy transactions made possible by the effect of 50 MW of GREC making GRU's existing units available for real-time off-system transactions. In the "GREC Resale at Market Price" case, GRU in effect only has 50 MW of GREC, except for the incidental benefits of transmission wheeling charges and having a portion of property taxes be paid from outside Alachua County. The fuel cost savings benefits to GRU from dispatching GRU's assets (including 50 MW of GREC) are included in that analysis.

The market sales analysis in Witness Bachmeier's Supplemental Testimony indicated the extent to which adding 100 MW of GREC's capacity to GRU's resources increased the value of GRU's existing assets. Adding 50 MW will do the same, but the direct benefits to GRU would be correspondingly less. The total benefits to the FRCC-Southern system modeled by TEA would be virtually identical, but GRU would only have 50 MW of additional generating assets to sell, on an economy-energy basis, for its own account. Per advice from TEA, the most reasonable approach is simply to divide the values presented in the TEA analysis by two to yield an estimate of the maximum portfolio value provided by adding 50 MW of GREC's capacity to GRU's system. This estimate is provided in Table Interrogatory No. 108, which is presented below. Because the real-time power market in Florida is not fully liquid and not likely to be 100 percent efficient, a conservative planning estimate of the market value GRU might obtain would be less than the maximum potential shown in Table Interrogatory No. 108.

Table Interrogatory No. 108 Maximum Net Market Value of Adding 50 MW of GREC's Capacity to GRU's Supply Portfolio									
Net Revenues Net Revenues									
Year	(Nominal \$000)	(NPV 2009 \$000)							
2014	\$11,137	\$9,067							
2015	\$8,443	\$6,596							
2016	\$9,045	\$6,782							
2017	\$9,803	\$7,054							
2018	\$10,431	\$7,203							
2019	\$10,773	\$7,140							
2020	\$12,195	\$7,756							
2021	\$13,234	\$8,078							
2022	\$14,577	\$8,539							
2023	\$16,566	\$9,313							
2024	\$18,559	\$10,013							
Total	\$134,766	\$87,539							

109. Please refer to Witness Regan's Supplemental Testimony, Page 12, Lines 11 through 20. According to his testimony, the \$62 million (2010 \$) cost figure results from a market contract of 50 MW from GREC at a rate similar to that of other baseload generation by PEF. Also, according to his testimony, the market proxy conducted by The Energy Authority (TEA) was utilized for the 50 MW of generation to be resold from GREC instead of PEF's contract structure and resulted in a cumulative present worth cost of \$43 million (2010 \$). However, according to his testimony (citing witness Bachmeier), TEA's modeling resulted in a net benefit (or savings) of \$182 million (2010 \$). Please explain or reconcile the apparent difference between a \$19 million reduction with the \$182 million net benefit (or savings).

Response to Interrogatory No. 109:

GRU and GREC LLC will submit the answer to Interrogatory No. 109 on Monday, March 29, 2010.

110. Please refer to Witness Regan's Supplemental Testimony, Page 8, Lines 11 through 15. In the Expected Value analysis, the inability to economically dispatch is listed as an ownership risk. Please explain or describe how GRU would be unable to economically dispatch a self-built biomass unit similarly sized to GREC.

Response to Interrogatory No. 110:

The power purchase agreement (PPA) with GREC LLC is structured with an implied heat rate that is constant regardless of where on the dispatch curve the unit is operating. Under a self build scenario, the heat rate would be higher at a lower level of dispatch, while capacity payments would be fixed, resulting in a higher average cost per MWh. Note that this factor was not considered in the Expected Value analysis discussed in the Supplemental Testimony of Witness Regan.

Please refer to Witness Regan's Supplemental Testimony, Page 13, Line 16 through Page 14, Line 9. The property tax to be paid by GREC is estimated at \$7.2 million per year, with a net present value of \$114 million (2010 \$) for the duration of the contract. Please refer to the Confidential Hearing Exhibit No. 22, BEK-6, which is the LCOE analysis conducted by Witness Kushner, specifically those sheets relating to the GREC Project. Please compare these values and explain any differences.

Response to Interrogatory No. 111:

The property tax to be paid by GREC LLC includes millage for the City of Gainesville, Alachua County Board of County Commissioners, the Alachua County School Board, the Santa Fe Community Library System, and the Suwannee River Water Management District. Taxes paid are distributed to these organizations in proportion to the millage levied by each unit of government. Witness Regan's analysis included taxes from all taxing authorities (the \$7.2 million value), including the City of Gainesville, in a discussion of the potential differences between a municipal utility and an investor owned utility. The value shown in Confidential Hearing Exhibit No. 22, BEK-6, excluded taxes paid to the City, because in comparing various alternatives with the LCOE analysis, the property tax returned to the City of Gainesville was considered as an offset to general fund transfer requirements. As such, that portion of taxes paid was not a net cost to GRU customers, when comparing GREC to other, self build, options. Another difference is that Witness Kushner's analysis assumed that taxes would decrease through time in proportion to property valuation, whereas Witness Regan's discussion assumed a constant, flat rate for discussion purposes. Note that the taxes were not factored into the Expected Value analysis discussed in the Supplemental Testimony of Witness Regan.

Please refer to Witness Regan's Supplemental Testimony, Page 26 through 27.

Please supply the annual nominal Renewable Energy Credit (REC) price assumed under the Waxman-Markey Bill. As part of this response, assuming that GRU is able to sell into the Renewable Electricity Standard (RES) Market, but is not subject to HR 2454, please supply the annual and cumulative net present value of REC Sales.

Response to Interrogatory No. 112:

Please see Table Interrogatory No. 112 presented below, which presents the requested information. The values shown reflect the REC price cap established in the Waxman-Markey Bill.

		Table Interroga										
	Value of Renewable Energy Credits from GREC											
	If HR 2454 Establishes RPS From Which GRU is Exempted											
	0~000	GREC		100 W								
20.000	Assumed REC	OUTPUT	Revenue Potential	Cumulative NPV								
Year	Value (\$/MWh)	(MWh/Yr)	(\$/Yr)	(2009\$)								
2010	\$25.00	0		\$0								
2011	\$25.00	0		\$0								
2012	\$25.00	0		\$0								
2013	\$25.00	0	4	\$0								
2014	\$25.00	788,400	\$19,710,000	\$16,045,307								
2015	\$25.00	788,400	\$19,710,000	\$31,443,874								
2016	\$25.00	788,400	\$19,710,000	\$46,221,770								
2017	\$25.00	788,400	\$19,710,000	\$60,404,011								
2018	\$25.00	788,400	\$19,710,000	\$74,014,607								
2019	\$25.00	788,400	\$19,710,000	\$87,076,600								
2020	\$25.00	788,400	\$19,710,000	\$99,612,101								
2021	\$25.00	788,400	\$19,710,000	\$111,642,333								
2022	\$25.00	788,400	\$19,710,000	\$123,187,661								
2023	\$25.00	788,400	\$19,710,000	\$134,267,631								
2024	\$25.00	788,400	\$19,710,000	\$144,900,999								
2025	\$25.00	788,400	\$19,710,000	\$155,105,766								
2026	\$25.00	788,400	\$19,710,000	\$164,899,209								
2027	\$25.00	788,400	\$19,710,000	\$174,297,907								
2028	\$25.00	788,400	\$19,710,000	\$183,317,771								
2029	\$25.00	788,400	\$19,710,000	\$191,974,069								
2030	\$25.00	788,400	\$19,710,000	\$200,281,458								
2031	\$25.00	788,400	\$19,710,000	\$208,254,000								
2032	\$25.00	788,400	\$19,710,000	\$215,905,192								
2033	\$25.00	788,400	\$19,710,000	\$223,247,986								
2034	\$25.00	788,400	\$19,710,000	\$230,294,814								
2035	\$25.00	788,400	\$19,710,000	\$237,057,604								
2036	\$25.00	788,400	\$19,710,000	\$243,547,806								
2037	\$25.00	788,400	\$19,710,000	\$249,776,407								
2038	\$25.00	788,400	\$19,710,000	\$255,753,951								
2039	\$25.00	788,400	\$19,710,000	\$261,490,557								
2040	\$25.00	788,400	\$19,710,000	\$266,995,938								
2041	\$25.00	788,400	\$19,710,000	\$272,279,412								
2042	\$25.00	788,400	\$19,710,000	\$277,349,925								
2043	\$25.00	788,400	\$19,710,000	\$282,216,060								

113. Please complete the following table showing the annual and cumulative present value revenue requirements for the scenarios and cases listed below. As part of this response, please supply an electronic (Excel Format) copy along with a hard copy. —

Cases: Base, Regulated CO2, and Delay of GREC until 2015

Scenarios: No New Construction till 2023, Resale of 50 MW at Full Contract Price, and Resale of 50 MW at Market Price (Either Power Sales or Contracted, please specify).

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e Stanta lo	Toy	Regulated C02	Delay(2(015))
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Response to Interrogatory No. 113:

Please refer to the completed tables below, which present the requested information. In addition to the tables below, the requested information has been included in Excel format on the enclosed CD. Two different analyses were performed: one with REC values at \$5.00/MWh in 2014, escalating at 2.5 percent thereafter, and one with REC values at \$25.00/MWh in 2014, remaining constant thereafter. The \$25.00/MWh represents the cap on REC values presented in response to Interrogatory No. 112. The \$5.00/MWh REC value is conservative relative to the Waxman-Markey.

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WALLS AND A STATE OF THE STATE			
		Register CO2	
	6,675,120	8,198,375	6,730,729
	6,758,655	8,227,214	6,798,168
although the second	6,779,201	8,646,384	6,779,201

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	6,517,501	8,040,755	6,579,527
	6,552,954	8,021,513	6,605,301
	6,779,201	8,646,384	6,779,201

114. Please complete the following table showing the annual and cumulative present value revenue requirements for the scenarios and cases listed above in Interrogatory No. 113 broken down by components as described below. As part of this response, please supply an electronic (Excel Format) copy along with a hard copy.

Definition of Column Headers

GRU Native Assets: Please include in these columns only those costs associated with GRU's existing generating assets, and excluding any purchased power contracts or market sales/purchases.

Market: Please include in these columns only those costs associated with GRU's purchased power contracts (excluding GREC) or market sales/purchases. For Power Sales, please use this value net of fuel and variable O&M used for sales, and represent payments as negative.

GREC: Please include in these columns all contract payments related to the GREC Facility, and any possible resale of power from GREC. For Power Resale from GREC, represent this value as negative.

<u>Environmental</u>: Please include in these columns all expenses related to environmental regulation, including potential carbon regulation. For REC Sales, assume that GRU would not be subject to HR 2454, and represent payments as negative.

Argenta N	(a)				Scenario) Presem: Worth (20095, \$000)					
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Response to Interrogatory No. 114:

The requested information will be filed separately, as soon as possible, accompanied by a Request for Confidential Classification. The requested information related to GREC contract payments and power resale from GREC is confidential, and completing the requested tables for all other columns would allow for "backing into" the confidential GREC costs using relatively simple calculations.

115. Please complete the following table showing the average monthly bill for the scenarios and cases listed above in Interrogatory No. 113.

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Response to Interrogatory No. 115:

Please see the completed tables below, which present the requested information. The first table presents the requested information reflecting the \$5.00/MWh REC value, while

the second table presents the requested information reflecting the \$25.00/MWh REC value. In addition to the tables below, the requested information has been included in Excel format on the enclosed CD.

	Average Monthly Bill (Nominal \$/831 kWh) with \$5.00/MWh RECs (2014), escalating at 2.5% annually											
	Base Case Regulated CO ₂ Case Delay Case (2015)			
Year	Resale @ Full Contract Value	Resale @ Market Value	No New Construction Till 2023	Resalc @ Full Contract Value	Resale @ Market Value	No New Construction Till 2023	Resale @ Full Contract Vatue	Resale @ Market Value	No New Construction Till 2023			
2014	108,13	113.62	101,76	121,87	125.06	118.65	101.76	101.76	101.76			
2015	109.02	114.32	103.43	124.18	126.98	121.75	110.25	115,17	103.43			
2016	106.78	111.99	101.35	123.44	125.91	121.23	108.00	112.78	101.35			
2017	112,24	117.37	107.28	130.67	132.82	129.49	113.45	117.99	107.28			
2018	113.97	119.01	108.92	134.05	135.84	133.48	115.16	119.65	108.92			
2019	117.10	122.00	111.93	139.53	140.89	138.84	118.28	122.92	111.93			
2020	119.03	123.76	114.73	143.65	144.49	144.00	120.21	125.04	114.73			
2021	121.78	126.39	117.64	149.08	149.46	149,95	122,95	127.60	117.64			
2022	124.11	128.56	120.29	154,13	153.96	155.75	125.26	129.30	120.29			
2023	134.14	134.14	124,24	161,41	161.41	163.55	136.44	136.44	124.24			
2024	137.35	137.35	130.79	167.60	167.60	173.99	139.64	139.64	130.79			
2025	140.11	140.11	134.49	173.70	173.70	182,39	142.37	142.37	134.49			
2026	142.16	142.16	136.63	178.83	178.83	188.00	144.41	144,41	136.63			
2027	145.28	145.28	140.58	185.95	185.95	197.48	147.51	147.51	140.58			
2028	148.40	148.40	144.75	192.97	192.97	206.94	150.64	150.64	144.75			
2029	152,01	152.01	150.03	201.48	201.48	218.74	154,23	154.23	150.03			
2030	154.76	154.76	154.25	208.83	208.83	229.19	156.95	156,95	154.25			
2031	207.71	207.71	219.22	243.72	243.72	264.16	209.89	209.89	219.22			
2032	221.74	221.74	233.21	257.95	257.95	276.04	223.92	223.92	233,21			
2033	226.86	226.86	239.80	265.49	265.49	284.71	229.02	229.02	239.80			
2034	232.63	232.63	246.73	276.42	276.42	297.96	234.77	234.77	246.73			
2035	238.94	238.94	254.98	285.69	285.69	308.81	241.06	241.06	254.98			
2036	244.30	244.30	261.62	297.16	297.16	323.10	246.42	246.42	261.62			
2037	252.23	252.23	271.70	308.78	308.78	336.14	254.33	254.33	271.70			
2038	264.67	264.67	286.07	330.77	330.77	359.96	266.75	266.75	286.07			
2039	271.55	271.55	295.10	341.59	341.59	372.51	273.62	273.62	295.10			
2040	278.53	278.53	303.83	358.15	358,15	392.46	280.60	280.60	303,83			
2041	285.95	285.95	313.66	370.26	370.26	406.36	287.99	287.99	313,66			
2042	293.39	293.39	322.91	389.30	389.30	428.83	295.42	295.42	322.91			
2043	301.59	301.59	333.80	403.08	403.08	444.75	303.61	303.61	333.80			

	Average Monthly Bill (Nominal \$/831 kWh) with \$25.00/MWh RECs (2014), no escalation										
	1	Base Case	itii \$25.00/1	VIWNKI	egulated CO	4), no escal		Delay Case (2	MIE)		
Year	Resale @ Full Contract Value	Resale @ Market Value	No New Construction Till 2023	Resale @ Full Contract Value	Resale @ Market Value	No New Construction Till 2023	Resale @ Full Contract Value	Resalc @ Market Value	No New Construction Till 2023		
2014	105.06	107.48	101.76	118.81	118.92	118.65	101.76	101.76	101.76		
2015	106,00	108.30	103.43	121.18	120.95	121.75	107.23	109.14	103.43		
2016	103.81	106.05	101.35	120.47	119.97	121.23	105.02	106.84	101.35		
2017	109.33	111.55	107.28	127.77	126.99	129.49	110.54	112.17	107.28		
2018	111.10	113.28	108.92	131.19	130.12	133,48	112.30	113.92	108.92		
2019	114.28	116.36	111.93	136.72	135.25	138.84	115,46	117.29	111.93		
2020	116,25	118.19	114.73	140.86	138.92	144.00	117,43	119.47	114.73		
2021	119.04	120,91	117.64	146.35	143.99	149.95	120.20	122.12	117.64		
2022	121.41	123.17	120,29	151.44	148.56	155.75	122.57	123.90	120.29		
2023	128.82	128.82	124.24	156.10	156.10	163.55	131.12	131.12	124.24		
2024	132.10	132.10	130.79	162.34	162.34	173.99	134.38	134.38	130.79		
2025	134.95	134.95	134.49	168.54	168.54	182.39	137.21	137.21	134,49		
2026	137.08	137.08	136.63	173.75	173.75	188.00	139.33	139.33	136,63		
2027	140.27	140.27	140.58	180.95	180.95	197.48	142.51	142.51	140.58		
2028	143.46	143.46	144.75	188.03	188.03	206.94	145.70	145.70	144.75		
2029	147.17	147.17	150.03	196.65	196.65	218.74	149.38	149.38	150.03		
2030	150.00	150,00	154.25	204.07	204.07	229.19	152.19	152.19	154.25		
2031	203.02	203.02	219.22	239.04	239.04	264.16	205.21	205.21	219.22		
2032	217.13	217.13	233.21	253.34	253.34	276.04	219.31	219.31	233.21		
2033	222.34	222.34	239.80	260.98	260.98	284.71	224.49	224,49	239.80		
2034	228.19	228.19	246.73	271.99	271.99	297.96	230.33	230.33	246.73		
2035	234.58	234.58	254.98	281,34	281.34	308.81	236.70	236.70	254.98		
2036	240.01	240.01	261,62	292.87	292.87	323.10	242.13	242.13	261.62		
2037	248.04	248.04	271.70	304.59	304.59	336.14	250.13	250.13	271.70		
2038	260.56	260.56	286.07	326.67	326.67	359.96	262.65	262,65	286.07		
2039	267.53	267.53	295.10	337.57	337.57	372.51	269.60	269.60	295.10		
2040	274.59	274.59	303.83	354,21	354,21	392.46	276.65	276.65	303.83		
2041	282.09	282.09	313.66	366.40	366.40	406.36	284.14	284,14	313.66		
2042	289.63	289.63	322.91	385.53	385.53	428.83	291.66	291.66	322.91		
2043	297,91	297.91	333.80	399,40	399.40	444.75	299.93	299.93	333.80		

116. Please complete the following table showing the average monthly bill impact compared to No New Construction till 2023 for the scenarios and cases listed above in Interrogatory No. 113.

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Response to Interrogatory No. 116:

Please see the completed tables below, which present the requested information. The first table presents the requested information reflecting the \$5.00/MWh REC value, while the second table presents the requested information reflecting the \$25.00/MWh REC value. In addition to the tables below, the requested information has been included in Excel format on the enclosed CD.

Difference From No New Construction Till 2023
Average Monthly Bill (Nominal \$/831 kWh)
with \$5.00/MWh RECs (2014), escalating at 2.5% annually

		Case		CO2 Case	Delay Case (2015)		
Year	Resale @ Full Contract Value	Resale @ Market Value	Resale @ Full Contract Value	Resale @ Market Value	Resale @ Full Contract Value	Resale @ Marke Value	
2014	6.37	11.86	3.22	6.41	•	-	
2015	5.59	10.89	2,43	5.23	6.82	11.74	
2016	5.43	10.64	2.21	4,68	6,65	11.43	
2017	4.96	10.09	1.18	3.33	6.17	10,71	
2018	5.05	10.09	0.57	2.36	6.24	10.73	
2019	5.17	10.07	0.69	2.05	6.35	10.99	
2020	4.30	9.03	(0.35)	0.49	5.48	10.31	
2021	4.14	8.75	(0.87)	(0.49)	5.31	9.96	
2022	3.82	8.27	(1.62)	(1.79)	4.97	9.01	
2023	9.90	9.90	(2.14)	(2.14)	12.20	12,20	
2024	6.56	6.56	(6.39)	(6.39)	8.85	8.85	
2025	5.62	5.62	(8.69)	(8.69)	7.88	7.88	
2026	5.53	5.53	(9.17)	(9.17)	7.78	7.78	
2027	4.70	4.70	(11.53)	(11.53)	6.93	6.93	
2028	3.65	3.65	(13.97)	(13.97)	5.89	5.89	
2029	1.98	1.98	(17.26)	(17.26)	4.20	4.20	
2030	0.51	0.51	(20.36)	(20.36)	2.70	2.70	
2031	(11.51)	(11.51)	(20.44)	(20.44)	(9.33)	(9.33)	
2032	(11.47)	(11.47)	(18.09)	(18.09)	(9.29)	(9.29)	
2033	(12.94)	(12.94)	(19.22)	(19.22)	(10.78)	(10.78)	
2034	(14.10)	(14.10)	(21.54)	(21.54)	(11.96)	(11.96)	
2035	(16.04)	(16,04)	(23.12)	. (23.12)	(13.92)	(13.92)	
2036	(17.32)	(17.32)	(25.94)	(25.94)	(15.20)	(15,20)	
2037	(19.47)	(19,47)	(27.36)	(27.36)	(17.37)	(17.37)	
2038	(21.40)	(21.40)	(29.19)	(29.19)	(19.32)	(19.32)	
2039	(23.55)	(23.55)	(30.92)	(30.92)	(21,48)	(21.48)	
2040	(25.30)	(25.30)	(34.31)	(34.31)	(23.23)	(23.23)	
2041	(27.71)	(27.71)	(36.10)	(36.10)	(25.67)	(25.67)	
2042	(29.52)	(29.52)	(39.53)	(39.53)	(27.49)	(27.49)	
2043	(32.21)	(32.21)	(41.67)	(41.67)	(30.19)	(30.19)	

Difference From No New Construction Till 2023 Average Monthly Bill (Nominal \$/831 kWh) with \$25.00/MWh RECs (2014), no escalation

	Base	Case	Regulated	I CO ₂ Case	Delay Case (2015)		
Year	Resale @ Full Contract Value	Resale @ Market Value	Resale @ Fult Contract Value	Resale @ Market Value	Resale @ Full Contract Value	Resale @ Market Value	
2014	3.30	5.72	0.16	0.27	-	-	
2015	2.57	4.87	(0.57)	(0.80)	3.80	5.71	
2016	2.46	4.70	(0.76)	(1.26)	3.67	5,49	
2017	2.05	4.27	(1.72)	(2.50)	3.26	4.89	
2018	2.18	4.36	(2.29)	(3.36)	3.38	5.00	
2019	2.35	4,43	(2.12)	(3.59)	3.53	5.36	
2020	1.52	3.46	(3.14)	(5.08)	2.70	4.74	
2021	1.40	3.27	(3.60)	(5.96)	2.56	4,48	
2022	1.12	2.88	(4.31)	(7.19)	2.28	3.61	
2023	4.58	4.58	(7.45)	(7.45)	6.88	6.88	
2024	1.31	1.31	(11.65)	(11.65)	3.59	3.59	
2025	0.46	0.46	(13.85)	(13.85)	2.72	2.72	
2026	0.45	0.45	(14.25)	(14.25)	2.70	2,70	
2027	(0.31)	(0.31)	(16.53)	(16.53)	1.93	1,93	
2028	(1.29)	(1.29)	(18.91)	(18.91)	0.95	0.95	
2029	(2.86)	(2.86)	(22.09)	(22.09)	(0.65)	(0.65)	
2030	(4.25)	(4.25)	(25.12)	(25.12)	(2,06)	(2.06)	
2031	(16.20)	(16.20)	(25.12)	(25.12)	(14.01)	(14.01)	
2032	(16.08)	(16.08)	(22.70)	(22.70)	(13.90)	(13,90)	
2033	(17.46)	(17.46)	(23.73)	(23.73)	(15.31)	(15.31)	
2034	(18.54)	(18.54)	(25.97)	(25.97)	(16.40)	(16.40)	
2035	(20.40)	(20.40)	(27.47)	(27.47)	(18.28)	(18.28)	
2036	(21.61)	(21.61)	(30.23)	(30.23)	(19.49)	(19.49)	
2037	(23.66)	(23,66)	(31.55)	(31.55)	(21.57)	(21.57)	
2038	(25.51)	(25.51)	(33.29)	(33.29)	(23.42)	(23.42)	
2039	(27.57)	(27.57)	(34.94)	(34.94)	(25.50)	(25.50)	
2040	(29.24)	(29.24)	(38.25)	(38.25)	(27.18)	(27.18)	
2041	(31.57)	(31.57)	(39.96)	(39.96)	(29.52)	(29.52)	
2042	(33.28)	(33.28)	(43.30)	(43,30)	(31.25)	(31.25)	
2043	(35.89)	(35.89)	(45.35)	(45.35)	(33.87)	(33.87)	

RESPECTFULLY SUBMITTED this 26th day of March, 2010.

Young van Assenderp, P.A.

By:

Roy C. Young Florida Bar No. 098428 Robert Scheffel Wright Florida Bar No. 966721

225 South Adams Street- Suite 200

P.O. Box 1833

Tallahassee, Florida 32302-1833

(850) 222-7206 (850) 561-6834 (fax)

Attorneys for GRU and GREC LLC

CERTIFICATE OF SERVICE

I hereby certify that a copy of the foregoing responses to Staff's Fifth Set of Interrogatories (Nos. 107-116) was served upon the following by electronic mail on this 26th day of March, 2010:

Erik L. Sayler Senior Attorney, Office of General Counsel Florida Public Service Commission 2540 Shumard Oak Blvd. Tallahassee, FL 32399-0850 esayler@psc.state.fl.us

Paula H. Stahmer 4621 Clear Lake Drive Gainesville, Florida 32607 paulastahmer@aol.com

Dian R. Deevey 1702 SW 35th Place Gainesville, Florida 32608 diandv@bellsouth.net

Attorney

AFFIDAVIT

STATE OF FLORIDA)

COUNTY OF Alachia

I hereby certify that on this 26 day of March, 2010, before me, an officer duly authorized in the State and County aforesaid to take acknowledgments, personally appeared Edward Regan, who is personally known to me, and he acknowledged before me that he provided the answers to interrogatory numbers 108 through 112 from STAFF'S FIFTH SET OF INTERROGATORIES TO GAINESVILLE RENEWABLE ENERGY CENTER (NOS. 107-116) in Docket No. 090451-EM, and that the responses are true and correct based on his personal knowledge.

In Witness Whereof, I have hereunto set my hand and seal in the State and County aforesaid as of this 26 day of 174701, 2010.

Signature of Affiant

Rita K. Strethen

Notary Public State of Florida, at Large

My Commission Expires:

may 12,2012



AFFIDAVIT

STATE OF FLORIDA)

COUNTY OF Alachua

I hereby certify that on this 25 th day of March, 2010, before me, an officer duly authorized in the State and County aforesaid to take acknowledgments, personally appeared Richard Bachmeier, who is personally known to me, and he acknowledged before me that he provided the answers to interrogatory numbers 107, and 113 through 116 from STAFF'S FIFTH SET OF INTERROGATORIES TO GAINESVILLE RENEWABLE ENERGY CENTER (NOS. 107-116) in Docket No. 090451-EM, and that the responses are true and correct based on his personal knowledge.

In Witness Whereof, I have hereunto set my hand and seal in the State and County aforesaid as of this 25 Hoday of March, 2010.

Signature of Affiant

Notary Public State of Florida, at Large

My Commission Expires:

May 12,2012



Response to Staff's Interrogatory No. 113 (Docket 090451-EM)

All Costs are (2009\$, \$000)		Case	
Scenario	Base	Regulated CO2	Delay until 2015, no ITCs/REG
Resale @ Full Contract Price	6,675,120	8,198,375	6,730,729
Resale @ Market Price	6,758,655	8,227,214	6,798,168
No New Construction till 2023	6,779,201	8,646,384	6,779,201

All Costs are (2009\$, \$000)	Price Forecast; RECs at \$25.00/MWh in 2014, no escalation Case						
Scenario	Base	Regulated CO2	Delay until 2015, no ITCs/REG				
Resale @ Full Contract Price	6,517,501	8,040,755	6,579,527				
Resale @ Market Price	6,552,954	8,021,513	6,605,301				
No New Construction till 2023	6,779,201	8,646,384	6,779,201				

Response to Staff's Interrogatory No. 115 (Docket 090451-EM)

-	_	with \$5.00/MWh RECs (2014), escalating at 2.5% annually										
Year	Base Case			Re	Regulated CO ₂ Case			Delay Case (2015)				
	Full Contract Value	Market Value	Construction Till 2023	Full Contract Value	Market Value	Construction Till 2023		Market Value	Construction Til 2023			
2014	108.13	113.62	101.76	121.87	125.06	118.65	101.76	101.76	101.76			
2015	109.02	114.32	103.43	124.18	126.98	121.75	110.25	115.17	103.43			
2016	106.78	111.99	101.35	123.44	125.91	121.23	108.00	112.78	101.35			
2017	112.24	117.37	107.28	130.67	132.82	129.49	113.45	117.99	107.28			
2018	113.97	119.01	108.92	134.05	135.84	133.48	115.16	119.65	108.92			
2019	117.10	122.00	111.93	139.53	140.89	138.84	118.28	122.92	111.93			
2020	119.03	123.76	114.73	143.65	144.49	144.00	120.21	125.04	114.73			
2021	121.78	126.39	117.64	149.08	149.46	149.95	122.95	127.60	117.64			
2022	124.11	128.56	120.29	154.13	153.96	155.75	125.26	129.30	120.29			
2023	134.14	134.14	124.24	161.41	161.41	163.55	136.44	136.44	124.24			
2024	137,35	137.35	130.79	167.60	167.60	173.99	139.64	139.64	130.79			
2025	140.11	140.11	134.49	173.70	173,70	182.39	142.37	142.37	134.49			
2026	142.16	142.16	136.63	178.83	178.83	188.00	144.41	144.41	136.63			
2027	145.28	145.28	140.58	185.95	185,95	197.48	147.51	147.51	140.58			
2028	148.40	148.40	144.75	192.97	192.97	206.94	150.64	150.64	144.75			
2029	152.01	152.01	150.03	201.48	201.48	218.74	154.23	154.23	150.03			
2030	154.76	154.76	154.25	208.83	208.83	229.19	156.95	156.95	154.25			
2031	207.71	207.71	219.22	243.72	243.72	264.16	209.89	209.89	219.22			
2032	221.74	221.74	233.21	257.95	257.95	276.04	223.92	223.92	233.21			
2033	226.86	226.86	239.80	265.49	265.49	284,71	229.02	229.02	239.80			
2034	232.63	232.63	246.73	276.42	276.42	297.96	234.77	234,77	246.73			
2035	238.94	238.94	254.98	285.69	285.69	308.81	241.06	241.06	254,98			
2036	244.30	244.30	261.62	297.16	297.16	323.10	246.42	246,42	261.62			
2037	252.23	252.23	271.70	308.78	308.78	336.14	254.33	254.33	271.70			
2038	264.67	264.67	286.07	330.77	330.77	359.96	266.75	266.75	286.07			
2039	271.55	271.55	295.10	341.59	341.59	372.51	273.62	273.62	295.10			
2040	278.53	278.53	303.83	358.15	358.15	392.46	280.60	280.60	303.83			
2041	285.95	285.95	313.66	370.26	370.26	406.36	287.99	287.99	313.66			
2042	293.39	293.39	322.91	389.30	389.30	428.83	295.42	295.42	322.91			
2043	301.59	301.59	333.80	403,08	403.08	444.75	303.61	303.61	333.80			

Response to Staff's Interrogatory No. 115 (Docket 090451-EM)

	T	Base Cas		O/MWh RECs (2014), no escalat			Delay Case (2015)		
Year	Full Contract Value	Market Value	Construction Till 2023	Full Contract Value	Market Value	Construction Till 2023	Full Contract Value	Market Value	Construction Til
2014	105.06	107.48	101.76	118.81	118.92	118.65	101.76	101.76	101.76
2015	106.00	108.30	103.43	121.18	120.95	121.75	107.23	109.14	103.43
2016	103.81	106.05	101.35	120.47	119.97	121.23	105.02	106.84	101.35
2017	109.33	111.55	107.28	127.77	126.99	129.49	110.54	112.17	107.28
2018	111,10	113.28	108.92	131.19	130.12	133.48	112.30	113.92	108.92
2019	114.28	116.36	111.93	136.72	135.25	138.84	115.46	117.29	111.93
2020	116.25	118.19	114.73	140.86	138.92	144.00	117.43	119.47	114.73
2021	119.04	120.91	117.64	146.35	143.99	149.95	120.20	122.12	117.64
2022	121.41	123.17	120.29	151.44	148,56	155.75	122.57	123.90	120.29
2023	128.82	128.82	124.24	156.10	156,10	163,55	131.12	131.12	124.24
2024	132.10	132.10	130.79	162.34	162.34	173.99	134.38	134.38	130.79
2025	134.95	134.95	134.49	168.54	168.54	182.39	137.21	137.21	134.49
2026	137.08	137.08	136.63	173.75	173,75	188.00	139.33	139.33	136.63
2027	140.27	140.27	140.58	180.95	180.95	197.48	142.51	142.51	140.58
2028	143.46	143.46	144.75	188.03	188.03	206.94	145.70	145.70	144.75
2029	147.17	147.17	150.03	196,65	196.65	218.74	149.38	149.38	150.03
2030	150.00	150.00	154.25	204.07	204.07	229.19	152.19	152.19	154.25
2031	203.02	203.02	219.22	239.04	239.04	264.16	205.21	205.21	219.22
2032	217.13	217.13	233.21	253.34	253.34	276,04	219.31	219.31	233.21
2033	222.34	222.34	239.80	260.98	260.98	284.71	224.49	224,49	239.80
2034	228.19	228.19	246.73	271.99	271,99	297.96	230.33	230.33	246.73
2035	234.58	234.58	254.98	281.34	281.34	308.81	236.70	236.70	254.98
2036	240.01	240.01	261.62	292.87	292.87	323.10	242.13	242.13	261.62
2037	248.04	248.04	271.70	304.59	304.59	336.14	250.13	250.13	271.70
2038	260,56	260.56	286.07	326.67	326.67	359.96	262.65	262.65	286.07
2039	267.53	267.53	295.10	337.57	337.57	372.51	269.60	269.60	295.10
2040	274.59	274.59	303.83	354.21	354.21	392.46	276.65	276.65	303.83
2041	282.09	282.09	313.66	366.40	366.40	406.36	284.14	284.14	313.66
2042	289.63	289.63	322.91	385.53	385.53	428.83	291.66	291.66	322.91
2043	297.91	297.91	333.80	399.40	399.40	444.75	299.93	299.93	333.80

Response to Staff's Interrogatory No. 116 (Docket 090451-EM)

Difference From No New Construction Till 2023 Average Monthly Bill (Nominal \$/831 kWh) with \$5.00/MWh RECs (2014), escalating at 2.5% annually

	Base C	Regulated C		Delay Case (2015)		
Year	Resale @ Full Contract Value	Market Value	Resale @ Full Contract Value	Market Value	Resale @ Full Contract Value	Market Value
2014	6.37	11.86	3.22	6.41	-	-
2015	5.59	10.89	2.43	5.23	6.82	11.74
2016	5.43	10.64	2.21	4.68	6.65	11.43
2017	4.96	10.09	1.18	3.33	6.17	10.71
2018	5.05	10.09	0.57	2.36	6.24	10.73
2019	5.17	10.07	0.69	2.05	6.35	10.99
2020	4.30	9.03	(0.35)	0.49	5.48	10.31
2021	4.14	8.75	(0.87)	(0.49)	5.31	9.96
2022	3.82	8.27	(1.62)	(1.79)	4.97	9.01
2023	9.90	9.90	(2.14)	(2.14)	12.20	12.20
2024	6.56	6.56	(6.39)	(6.39)	8.85	8.85
2025	5.62	5.62	(8.69)	(8.69)	7.88	7.88
2026	5.53	5.53	(9.17)	(9.17)	7.78	7.78
2027	4.70	4.70	(11.53)	(11.53)	6.93	6.93
2028	3.65	3.65	(13.97)	(13.97)	5.89	5.89
2029	1.98	1.98	(17.26)	(17.26)	4.20	4.20
2030	0.51	0.51	(20.36)	(20.36)	2.70	2.70
2031	(11.51)	(11.51)	(20.44)	(20.44)	(9.33)	(9.33)
2032	(11.47)	(11.47)	(18.09)	(18.09)	(9.29)	(9.29)
2033	(12.94)	(12.94)	(19.22)	(19.22)	(10.78)	(10.78)
2034	(14.10)	(14.10)	(21.54)	(21.54)	(11.96)	(11.96)
2035	(16.04)	(16.04)	(23.12)	(23.12)	(13.92)	(13.92)
2036	(17.32)	(17.32)	(25.94)	(25.94)	(15.20)	(15.20)
2037	(19.47)	(19.47)	(27.36)	(27.36)	(17.37)	(17.37)
2038	(21.40)	(21.40)	(29.19)	(29.19)	(19.32)	(19.32)
2039	(23.55)	(23.55)	(30.92)	(30.92)	(21.48)	(21.48)
2040	(25.30)	(25.30)	(34.31)	(34.31)	(23.23)	(23.23)
2041	(27.71)	(27.71)	(36.10)	(36.10)	(25.67)	(25.67)
2042	(29.52)	(29.52)	(39.53)	(39.53)	(27.49)	(27.49)
2043	(32.21)	(32.21)	(41.67)	(41.67)	(30.19)	(30.19)

Response to Staff's Interrogatory No. 116 (Docket 090451-EM)

Difference From No New Construction Till 2023 Average Monthly Bill (Nominal \$/831 kWh) with \$25.00/MWh RECs (2014), no escalation

,	Base Case		Regulated (CO2 Case	Delay Case (2015)		
Year	Resale @ Full Contract Value	Resale @ Market Value	Resale @ Full Contract Value	Resale @ Market Value	Resale @ Full Contract Value	Resale @ Market Value	
2014	3.30	5.72	0.16	0.27	-	-	
2015	2.57	4.87	(0.57)	(0.80)	3.80	5.71	
2016	2.46	4.70	(0.76)	(1.26)	3.67	5.49	
2017	2.05	4.27	(1.72)	(2.50)	3.26	4.89	
2018	2.18	4.36	(2.29)	(3.36)	3.38	5.00	
2019	2.35	4.43	(2.12)	(3.59)	3.53	5.36	
2020	1.52	3.46	(3.14)	(5.08)	2.70	4.74	
2021	1.40	3.27	(3.60)	(5.96)	2.56	4.48	
2022	1.12	2.88	(4.31)	(7.19)	2.28	3.61	
2023	4.58	4.58	(7.45)	(7.45)	6.88	6.88	
2024	1.31	1.31	(11.65)	(11.65)	3.59	3.59	
2025	0.46	0.46	(13.85)	(13.85)	2.72	2.72	
2026	0.45	0.45	(14.25)	(14.25)	2.70	2.70	
2027	(0.31)	(0.31)	(16.53)	(16.53)	1.93	1.93	
2028	(1.29)	(1.29)	(18.91)	(18.91)	0.95	0.95	
2029	(2.86)	(2.86)	(22.09)	(22.09)	(0.65)	(0.65)	
2030	(4.25)	(4.25)	(25.12)	(25.12)	(2.06)	(2.06)	
2031	(16.20)	(16.20)	(25.12)	(25.12)	(14.01)	(14.01)	
2032	(16.08)	(16.08)	(22.70)	(22.70)	(13.90)	(13.90)	
2033	(17.46)	(17.46)	(23.73)	(23.73)	(15.31)	(15.31)	
2034	(18.54)	(18.54)	(25.97)	(25.97)	(16.40)	(16.40)	
2035	(20.40)	(20.40)	(27.47)	(27.47)	(18.28)	(18.28)	
2036	(21.61)	(21.61)	(30.23)	(30.23)	(19.49)	(19.49)	
2037	(23.66)	(23.66)	(31.55)	(31.55)	(21.57)	(21.57)	
2038	(25.51)	(25.51)	(33.29)	(33.29)	(23.42)	(23.42)	
2039	(27.57)	(27.57)	(34.94)	(34.94)	(25.50)	(25.50)	
2040	(29.24)	(29.24)	(38.25)	(38.25)	(27.18)	(27.18)	
2041	(31.57)	(31.57)	(39.96)	(39.96)	(29.52)	(29.52)	
2042	(33.28)	(33.28)	(43.30)	(43.30)	(31.25)	(31.25)	
2043	(35.89)	(35.89)	(45.35)	(45.35)	(33.87)	(33.87)	

BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

In re: Joint petition to determine need for DOCKET NO. 090451-EM Gainesville Renewable Energy Center in Alachua County, by Gainesville Regional Utilities and Gainesville Renewable Energy Center, LLC.

DATED: MARCH 29, 2010

SUPPLEMENTAL RESPONSE TO STAFF'S FIFTH SET OF INTERROGATORIES TO GAINESVILLE RENEWABLE ENERGY CENTER (INTERROGATORY NO. 109)

Gainesville Renewable Energy Center, LLC (GREC LLC), pursuant to Rule 28-106.206, Florida Administrative Code, Rule 1.340, Florida Rules of Civil Procedure, and the Order Establishing Procedure in this matter, hereby submits this supplemental response to the Staff's Fifth Set of Interrogatories, specifically to Interrogatory No. 109.

The answer to Interrogatory No. 109 has been provided by Edward J. Regan, Assistant General Manager for Strategic Planning, Gainesville Regional Utilities, 301 SE 4th Avenue, Gainesville, Florida 32601.

RESPONSES

109. Please refer to Witness Regan's Supplemental Testimony, Page 12, Lines 11 through 20. According to his testimony, the \$62 million (2010 \$) cost figure results from a market contract of 50 MW from GREC at a rate similar to that of other baseload generation by PEF. Also, according to his testimony, the market proxy conducted by The Energy Authority (TEA) was utilized for the 50 MW of generation to be resold from GREC instead of PEF's contract structure and resulted in a cumulative present worth cost of \$43 million (2010 \$). However, according to his testimony (citing witness Bachmeier), TEA's modeling resulted in a net benefit (or savings) of \$182 million (2010 \$). Please explain or reconcile the apparent difference between a \$19 million reduction with the \$182 million net benefit (or savings).

Response to Interrogatory No. 109:

In summary, the difference between the \$182 million (net present value, discounted to 2010 dollars) and the \$19 million reduction is the effect of including the non-energy payments for GREC into the analysis. This result indicates that the \$62 million (net present value, 2009 dollars) may over estimate the cost of reselling GREC's output at less than contract price.

The \$182 million (net present value, discounted to 2010 dollars) is the total additional value estimated (in the TEA analysis) to be created on the FRCC-Southern system from having the 100 MW of GREC available on GRU's system, thereby freeing up other assets for economy transactions. In preparing the response to this Interrogatory, it was discovered that this value should have been converted to \$175 million on a \$2009 net

present value basis, and this corrected value has been employed here. The net improvement, or net additional benefit, to GRU that would result if GRU sold the 50 MW of freed-up capacity on an economy-energy basis into the FRCC-Southern system instead of selling it at the price of Progress Energy Florida's base load energy product, as reflected in the "GREC Resale at Market Price" scenario, is \$16 million (net present value, discounted to 2009 dollars).

The purpose of the analysis by witness Regan referenced in Interrogatory No. 109 was to compare the economic benefits of a long-term unit sale from GREC to the alternative of putting all of GRU's assets into the real-time energy market, given that GREC, with its low incremental cost, would free up capacity from GRU's other generating units. The long-term unit sale was modeled as the Progress Energy Florida (PEF) baseload energy product (labeled "GREC Resale at Market Price" in Interrogatory Nos. 101 and 104 and as described in the Supplemental testimony of Witness Regan), and the real-time market was modeled by TEA as described by Witness Bachmeier. Note that all calculations related to this comparison employed the AEO 2010 natural gas prices.

The value of \$175 million (net present value, discounted to 2009 dollars) cited by Witness Bachmeier was the increased net energy value of all of GRU's assets in the real-time market simulation performed by TEA. These benefits resulted from adding 100 MW from GREC to GRU's generating resources. The market simulation performed by TEA only included the incremental dispatch cost of GRU's assets (fuel plus variable O&M) against the incremental dispatch costs for the market's assets, after adjusting for transmission losses and costs. This does not include the non-fuel energy charges for GREC which are a function of unit availability and not unit dispatch, and therefore the results are not directly comparable to the scenario of a long term unit sale, which did include these charges.

The scenario labeled "GREC Resale at Market Price" (which also assumed no CO₂ regulation and no value for RECs), resulted in a difference of (-\$62) million (net present value discounted to 2009 dollars) compared to the "No New Construction till 2023" scenario. In order to allow TEA's real-time market simulation results to be comparable, a scenario was modeled in which GRU dispatched 100 MW of GREC into its system, but did not including any off-system real time market sales potential. This scenario captured the fossil fuel cost savings on GRU's system thus obtained as well as all non-fuel energy charges associated with 100 MW of GREC (again assuming no CO₂ regulation and no

REC values), and is designed to allow the TEA off-system market value results to be included. Because the real-time power market in Florida is not fully liquid and not likely to be 100 percent efficient, the \$175 million (net present value discounted to 2009 dollars) value was divided by two in order to provide a more conservative value of the market value that GRU might obtain. The net present value difference between this new scenario and the "No New Construction till 2023" scenario was then calculated.

The result was (-\$47) million (net present value discounted to 2009 dollars), which is \$16 million (net present value in 2009 dollars) more favorable than the (-\$62) million (net present value discounted to 2009 dollars) obtained from the unit sale market proxy. The difference between this result and the \$19 million (net present value discounted to \$2010 dollars) is due to the inadvertent, erroneous use of a \$2010 basis value instead of a \$2009 basis value for the TEA results in witness Regan's testimony.

Respectfully submitted this 29th day of March, 2010.

Roy C. Young

Florida Bar No.098408 Robert Scheffel Wright Florida Bar No. 966721

John T. LaVia, III

Florida Bar No. 853666 Young van Assenderp, P.A.

225 South Adams Street, Suite 200

Tallahassee, Florida 32301

Phone: 850/222-7206 FAX: 850/561-6834

Attorneys for GREC LLC and GRU

CERTIFICATE OF SERVICE

I HEREBY CERTIFY that a true and correct copy of the foregoing has been served by electronic mail and hand delivery (*) or U.S. Mail this 29th day of March, 2010, on the following:

Erik Sayler/Martha Carter Brown* Florida Public Service Commission 2540 Shumard Oak Boulevard Tallahassee, FL 32399-0850

Raymond O. Manasco, Jr.
Gainesville Regional Utilities
P.O. Box 147117
Station A-138
Gainesville, FL 32614-7117

J.R Kelly Office of Public Counsel 111 West Madison Street Room 812 Tallahassee, Florida 32399

Paula H. Stahmer 4621 Clear Lake Drive Gainesville, Florida 32607 paulastahmer@aol.com

Dian R. Deevey 1702 SW 35th Place Gainesville, Florida 32608 diandv@bellsouth.net

Attorney

BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

In re: Joint Petition to Determine)
Need For the Gainesville Renewable)
Energy Center in Alachua County) DOCKET NO. 090451-EM
By Gainesville Regional Utilities)
and Gainesville Renewable Energy) FILED: March 30, 2010
Center, LLC.)

GAINESVILLE REGIONAL UTILITIES' AND GAINESVILLE RENEWABLE ENERGY CENTER, LLC'S REQUEST FOR CONFIDENTIAL CLASSIFICATION - RESPONSE TO STAFF'S INTERROGATORY NO. 114

Gainesville Regional Utilities ("GRU") and Gainesville
Renewable Energy Center, LLC ("GREC LLC"), collectively referred
to as "Petitioners," pursuant to Section 366.093, Florida
Statutes (F.S.), and Rule 25-22.006, Florida Administrative Code
(F.A.C.), submit this Request for Confidential Classification of
certain information provided in the response to Staff's
Interrogatory No. 114. In support of this Request, Petitioners
state:

1. On March 19, 2010, the Commission Staff served their Fifth Set of Interrogatories to Gainesville Renewable Energy Center, LLC. The Petitioners served their answers to all but two of the interrogatories on March 26, 2010, and advised the Staff that they were working diligently toward completing the remaining responses. (The response to Interrogatory No. 109 was submitted on March 29, and the response to Interrogatory No. 114 is being submitted contemporaneously with this Request for Confidential

Classification.) Rather than file a separate Notice of Intent to Request Confidential Classification for confidential information contained in the response to Staff's Interrogatory No. 114, the Petitioners are submitting this Request.

- 2. The information for which Petitioners seek confidential classification is confidential summary information regarding the net present value of GRU's projected payments, and the levelized cost of electricity, under different scenarios for the in-service date of the GREC Project, for resale of 50MW of the Project's capacity and output, and for carbon regulation costs and for costs associated with potential renewable portfolio standards or similar regulatory requirements. The subject information reflects the confidential, proprietary, business information of GREC LLC, the disclosure of which would cause harm to GREC LLC's competitive business interests. Additionally, the information is also regarded as trade secret information by GREC LLC, and accordingly, the public disclosure of the information is prohibited by Section 812.081(2), Florida Statutes.
- 3. The following exhibits are included with this revised request:
 - a. Exhibit A is a table that identifies the portions of the response to Interrogatory No. 114 for which Petitioners seek confidential classification and

- the specific basis for seeking confidential treatment;
- b. Exhibit B includes two copies of a redacted version of the response to Interrogatory No. 114 for which Petitioners request confidential classification. The specific information for which confidential treatment is requested has been blocked out by opaque marker or other means;
- C. Exhibit C is an unredacted copy of the response to Interrogatory No. 114 for which Petitioners seek confidential treatment. Exhibit C is being submitted separately in a sealed envelope labeled "CONFIDENTIAL." In the unredacted version, the information asserted to be confidential is highlighted in yellow; and
- d. Exhibit D is the affidavit of Joshua H. Levine of GREC LLC submitted in compliance with Rule 25-22.006(4)(d), F.A.C., and in support of the Petitioners' request; because of logistical considerations, the affidavit will be filed on March 31, 2010.
- 4. The information described above and identified on Exhibit "A" qualifies for confidential classification under Section 366.093(3), Florida Statutes. In addition to the GREC

Project, GREC LLC is developing other biomass projects in Florida and elsewhere, and GREC LLC is currently in discussions with other utilities in the State of Florida regarding agreements to sell power from such facilities. The highlighted information in the tables provided in response to Interrogatory No. 114 includes the projected contract payments to be made by GRU to GREC LLC, as well as information that, if disclosed, could be used to compute or "reverse engineer" the contract payments. The disclosure of this confidential information would harm GREC LLC's competitive business interests.

- 5. The information for which confidentiality is sought through this Revised Request satisfies the requirements of Section 366.093, Florida Statutes, because:
 - a. it is owned and controlled by GREC LLC;
 - b. it is intended to be and is treated by GREC LLC as its private, confidential, proprietary, trade secret business information;
 - c. it has not been disclosed to anyone outside GREC LLC except pursuant to confidentiality agreements or legal process;
 - d. disclosure of the information would impair the competitive business interests of GREC LLC by revealing to its business competitors GREC LLC's confidential pricing information, which would

- enable GREC LLC's business competitors to compete against GREC LLC to its detriment, including by enabling such competitors to "reverse engineer" proprietary pricing structure information that GREC LLC developed and negotiated specifically in the power purchase agreement between GREC LLC and GRU;
- e. disclosure of the information would impair GREC

 LLC's competitive business interests by revealing
 to other potential purchasers of power from

 projects being developed by GREC LLC and its

 affiliates confidential pricing information which

 could be used to establish a "floor" from which

 such other potential purchasers could negotiate

 against GREC LLC; and
- f. disclosure of the information would impair GREC LLC's competitive business interests by revealing, to potential vendors upon which GREC LLC must rely for goods and services necessary to its performance under the power purchase agreement between GREC LLC and GRU, information that would adversely impact GREC LLC's ability to contract for such necessary goods and services on favorable terms.

Accordingly, the information is entitled to confidential classification pursuant to Section 366.093(3)(d) and (e), Florida Statutes, as well as protected from public disclosure by Section 815.045, Florida Statutes, and by Section 812.081(2), Florida Statutes.

6. Petitioners request that the information identified above be classified as "proprietary confidential business information" within the meaning of Section 366.093(3), Florida Statutes; that the information remain confidential for a period of at least 18 months as provided in Section 366.093(4), Florida Statutes; and that the information be returned as soon as it is no longer necessary for the Commission to conduct its business.

WHEREFORE, for the foregoing reasons, Petitioners respectfully request that this Request for Confidential Classification be granted.

Respectfully submitted this 30th day of March, 2010.

Roy C. Young

Florida Bar No.098428 Robert Scheffel Wright

Florida Bar No. 966721

John T. LaVia, III

Florida Bar No. 853666

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Phone: 850/222-7206

FAX: 850/561-6834

Attorneys for GREC LLC and GRU

CERTIFICATE OF SERVICE

I HEREBY CERTIFY that a true and correct copy of the foregoing has been served by electronic mail and hand delivery (*) or U.S. Mail this 30th day of March, 2010, on the following:

Erik Sayler/Martha Carter Brown* Florida Public Service Commission 2540 Shumard Oak Boulevard Tallahassee, FL 32399-0850

Raymond O. Manasco, Jr.
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EXHIBIT A

JUSTIFICATION FOR CONFIDENTIAL TREATMENT OF INFORMATION

DOCUMENT	PAGE NO.	SECTION/DEFINITION / PORTION OF PAGE	STATUTORY JUSTIFICATION
Petitioners' Response to Staff's Interrogatory No. 114	Page 5 of responses	The six columns of numeric data headed GRU Native Assets, Market, and GREC	§ 366.093(3)(d)&(e), Fla. Stat. – confidential, proprietary business information §§ 812.081(2) & 815.045, Fla. Stat. – trade secret information
Petitioners' Response to Staff's Interrogatory No. 114	Page 6 of responses	The six columns of numeric data headed GRU Native Assets, Market, and GREC	§ 366.093(3)(d)&(e), Fla. Stat. – confidential, proprietary business information §§ 812.081(2) & 815.045, Fla. Stat trade secret information
Petitioners' Response to Staff's Interrogatory No. 114	Page 8 of responses	The six columns of numeric data headed GRU Native Assets, Market, and GREC	§ 366.093(3)(d)&(e), Fla. Stat. – confidential, proprietary business information §§ 812.081(2) & 815.045, Fla. Stat trade secret information
Petitioners' Response to Staff's Interrogatory No. 114	Page 9 of responses	The six columns of numeric data headed GRU Native Assets, Market, and GREC	§ 366.093(3)(d)&(e), Fla. Stat. – confidential, proprietary business information §§ 812.081(2) & 815.045, Fla. Stat trade secret information
Petitioners' Response to Staff's Interrogatory No. 114	Page 11 of responses	The six columns of numeric data headed GRU Native Assets, Market, and GREC	§ 366.093(3)(d)&(e), Fla. Stat. – confidential, proprietary business information §§ 812.081(2) & 815.045, Fla. Stat trade secret information
Petitioners' Response to Staff's Interrogatory No. 114	Page 12 of responses	The six columns of numeric data headed GRU Native Assets, Market, and GREC	§ 366.093(3)(d)&(e), Fla. Stat. – confidential, proprietary business information §§ 812.081(2) & 815.045, Fla. Stat trade secret information
Petitioners' Response to Staff's Interrogatory No. 114	Page 14 of responses	The six columns of numeric data headed GRU Native Assets, Market, and GREC	§ 366.093(3)(d)&(e), Fla. Stat. – confidential, proprietary business information §§ 812.081(2) & 815.045, Fla. Stat trade secret information
Petitioners' Response to Staff's Interrogatory No. 114	Page 15 of responses	The six columns of numeric data headed GRU Native Assets, Market, and GREC	§ 366.093(3)(d)&(e), Fla. Stat. – confidential, proprietary business information §§ 812.081(2) & 815.045, Fla. Stat trade secret information

Petitioners' Response to Staff's Interrogatory No. 114	Page 17 of responses	The six columns of numeric data headed GRU Native Assets, Market, and GREC	§ 366.093(3)(d)&(e), Fla. Stat. – confidential, proprietary business information §§ 812.081(2) & 815.045, Fla. Stat trade secret information
Petitioners' Response to Staff's Interrogatory No. 114	Page 18 of responses	The six columns of numeric data headed GRU Native Assets, Market, and GREC	§ 366.093(3)(d)&(e), Fla. Stat. – confidential, proprietary business information §§ 812.081(2) & 815.045, Fla. Stat. – trade secret information
Petitioners' Response to Staff's Interrogatory No. 114	Page 20 of responses	The six columns of numeric data headed GRU Native Assets, Market, and GREC	§ 366.093(3)(d)&(e), Fla. Stat. – confidential, proprietary business information §§ 812.081(2) & 815.045, Fla. Stat trade secret information
Petitioners' Response to Staff's Interrogatory No. 114	Page 21 of responses	The six columns of numeric data headed GRU Native Assets, Market, and GREC	§ 366.093(3)(d)&(e), Fla. Stat. – confidential, proprietary business information §§ 812.081(2) & 815.045, Fla. Stat trade secret information

EXHIBIT B

REDACTED RESPONSE TO STAFF'S INTERROGATORY NO. 114 (TWO COPIES)

BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

In re: Joint petition to determine need for Gainesville Renewable Energy Center in Alachua County, by Gainesville Regional Utilities and Gainesville Renewable Energy Center, LLC.

DOCKET NO. 090451-EM

DATED: MARCH 30, 2010

CONFIDENTIAL RESPONSE TO NO. 114 OF STAFF'S FIFTH SET OF INTERROGATORIES TO GAINESVILLE RENEWABLE ENERGY CENTER (NOS. 107-116)

Gainesville Regional Utilities (GRU) and Gainesville Renewable Energy Center, LLC (GREC LLC), pursuant to Rule 28-106.206, Florida Administrative Code, Rule 1.340, Florida Rules of Civil Procedure, and the Order Establishing Procedure in this matter, hereby submits the confidential response to Interrogatory No. 114 of Staff's Fifth Set of Interrogatories (Nos. 107-116).

The confidential response to Interrogatory No. 114 of Staff's Fifth Set of Interrogatories (Nos. 107-116) is provided by Richard Bachmeier, Electric System Planning Director, Gainesville Regional Utilities, 301 SE 4th Avenue, Gainesville, Florida 32601.

RESPONSE

114. Please complete the following table showing the annual and cumulative present value revenue requirements for the scenarios and cases listed above in Interrogatory No. 113 broken down by components as described below. As part of this response, please supply an electronic (Excel Format) copy along with a hard copy.

Definition of Column Headers

<u>GRU Native Assets:</u> Please include in these columns only those costs associated with GRU's existing generating assets, and excluding any purchased power contracts or market sales/purchases.

<u>Market:</u> Please include in these columns only those costs associated with GRU's purchased power contracts (excluding GREC) or market sales/purchases. For Power Sales, please use this value net of fuel and variable O&M used for sales, and represent payments as negative.

GREC: Please include in these columns all contract payments related to the GREC Facility, and any possible resale of power from GREC. For Power Resale from GREC, represent this value as negative.

<u>Environmental:</u> Please include in these columns all expenses related to environmental regulation, including potential carbon regulation. For REC Sales, assume that GRU would not be subject to HR 2454, and represent payments as negative.

	Case:				Scenario:							
		Lista de la Carlo	All Co	sts are i	n Present \		0098.800	0)	a et et et e			
Year	GRU Nat	tive Assets	Mar		GR			nmental	T	otal		
1eau	Capital & Fixed O&M Expenses	Fuel & Variable O&M Expenses	Purchased Power	Power Sales	Contract Payments	Power Resale	Expenses	REC Sales	Annual Value	Cumulative Value		
2014				****								
2015												
2016												
2017												
2018												
2019										1		
2020												
2021												
2022												
2023												
2024												
2025												
2026												
2027												
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2031												
2032												
2033												
2034												
2035												
2036												
2037												
2038												
2039												
2040												
2041												
2042												
2043										MATERIAL STREET, STREE		
Sum												

Response to Interrogatory No. 114:

Please see the completed tables below, which present the requested information. Tables have been provided for a scenario in which the value of renewable energy credits (RECs) is \$5.00/MWh in 2014, escalating at 2.5 percent annually, and for a scenario in which the value of RECs is \$25.00/MWh, with no escalation. Confidential information has been

highlighted in yellow. In the tables, the costs of compliance with CO₂ regulatory requirements are shown in the Environmental-Expenses column. In the scenarios with GREC, the Environmental Expenses include only CO₂ compliance costs, and the REC Sales value is the projected revenue to GRU, at the stated price (i.e., \$5/MWH with escalation or \$25/MWH flat), from selling surplus RECs. The No New Construction scenario does not include any REC costs to GRU, as GRU is assumed to be exempt from any renewable portfolio standard or renewable energy standard requirements for purposes of these analyses. The tables have also been included in Excel format on the enclosed CD.

Please note that in each of the following tables, the "Contract Payments" are all of the payments from GRU to GREC LLC. In the "Resale @ Full Contract Price" case, "Power Resale" includes the (1) payments to GRU from the 3rd party off-taker for 50 MW of GREC capacity valued at the contract price plus (2) the associated wheeling and tax revenues. In the "Resale @ Market Price" case, "Power Resale" includes the market sales revenues for the 50 MW of GREC capacity sold in the market. All revenues in the "Power Resale" columns are shown as negative values.

	Case: Base				Scenario: Resale	@ Full Contract P	rice			
				All C	osts are in Prese	nt Worth (2009S, S	000)			
Year	GRU Nati		Mari	ket	G]	REC	Environ	mental	Tot	al
	Capital & Fixed O&M Expenses	Fuel & Variable O&M Expenses	Purchased Power	Power Sales	Contract Payments	Power Retale	Expenses	REC Sales	Annual Value	Cumulative Value
2014								(1.604)	226 115	226 115
2015							-	(1 578)	221 392	447 503
2016								(1.557)	210.315	657 82
2017								(1.527)	214 348	872.17
2018								(1.502)	211 044	1 083 21
2019								(1.478)	209.988	1 293 203
2020							-	(1.458)	206 378	1.499.580
2021								(1.430)	203.963	1,703,544
2022								(1,406)	200.727	1 904 27
2023								(2.767)	209.587	2.113.85
2024							* 1	(2.729)	207.255	2 321.11
2025							-	(2.677)	204 320	2 525 43
2026								(2.634)	200.265	2,725,69
2027							-	(2 591)	197 719	2.923.41
2028								(2.556)	195 078	3,118.49
2029								(2.507)	193,010	3,311.50
2030								(2.466)	189.777	3.501.28
2031								(2 426)	246.029	3.747.31
2032								(2,393)	253.695	4 001 00
2033				A Substitution of				(2.347)	250.690	4 251 69
2034								(2.309)	248,296	4 499 99
2035								(2.271)	246 322	4 746 31
2036								(2.241)	243.257	4.989.57
2037								(2 198)		5 232.15
2038				A STATE OF THE STA			9 1	(2 162)	245.863	5 478.01
2039								(2.127)	243.651	5.721,67
2040								(2.098)	241.375	5 963 04
2041								(2.058)		6 202 40
2042			The second or directly					(2.024)	237.205	6,439.60
2043								(1.991)		6.675.12
Sum								(63.111)	6 675.120	

	Case: Base				Scenario: Resale	@ Market Price				
				All C	osts are in Prese	nt Worth (2009S, S0	000)			
ar	GRU Nati		Mar	ket	GI	EC)	Environ	mental	Tot	al
	Capital & Fixed O&M Expenses	Fuel & Variable O&M Expenses	Purchased Power	Power Sales	Contract Payments	Power Resale	Expenses	REC Sales	Annual Value	Cumulative Value
114						AT MARKET		(3 208;	237 599	237 5
15							1-0	(3.156)	232 163	469
6					Service and the			(3,113)	220.586	690
7								(3.054)	224 129	914
18								(3.004)	220.372	1 134
19							-	(2.955)	218 777	1 353
20							-	(2.915)	214.568	1.568
21							-	(2,860)	211.680	1 779.
22								(2 813)	207,929	1 987
23								(2.767)	209 587	2 197
24								(2.729)	207 255	2.404
25								(2.677)	204 320	2.608
26								(2 634)	200 265	2,809
27								(2,591)	197 719	3.006
28							-	(2.556)	195.078	3.202
29								(2 507)	193.010	3 395
30							-	(2.466)	189 777	3 584
31								(2.426)	246.029	3.830
32							-	(2.393)	253 695	4.084
33								(2.347)	250 690	4.335
34							-	(2.309)	248,296	4.583
35								(2.271)	246,322	4,829
36								(2 241)	243.257	5.073
137								(2 198)	242,585	5 315
38								(2.162)	245.863	5 561
139								(2.127)	243 651	5.805
040								(2.098)	241.375	6.046
041							8	(2 058)	239 356	6.285
042								(2.024)	237.205	6.523
043								(1.991)	235.514	6.758.
um	=							(76 650)	6 758 655	

	Case: Base					w Construction ti				
						t Worth (2009S, S				
Year	GRU Nati		Mar			REC	Environ	mental	Tot	ol .
	Capital & Fixed O&M Expenses	Fuel & Variable O&M Expenses	Purchased Power	Power Sales	Contract Payments	Power Resale	Expenses	REC Sales	Annual Value	Cumulative Value
2014	130,821	79,808	2,179	(1)	-	-	-		212.806	212.806
2015	126,329	81,580	2.142	(1)	-	-			210,050	422,856
2016	117,338	80,173	2,113	(1)		-	~		199,623	622,479
2017	121,675	81,130	2,072	(1)		-	-	_	204,876	827,354
2018	119,690	79,964	2,038	(2)		-	-		201,690	1,029,044
2019	117,737	80,968	2.015	(2)	-	-			200,719	1,229,763
2020	115,816	81,104	1,985	(2)	-	-	-	-	198,904	1,428,667
2021	113,927	81,157	1,955	(1)	-	-		_	197,038	1,625,705
2022	112,068	80,555	1,917	(1)	-	-	-	-	194,539	1,820,244
2023	110,240	81,991	1,898	(1)	5. * .	7-1	_		194,127	2,014,371
2024	108,441	88,062	856	(1)	-		-	-	197,358	2,211,729
2025	106,672	88,552	905	(2)	-	_		-	196,128	2,407,857
2026	104,932	84,729	2,821	(2)	-	-	-		192,480	2,600,337
2027	103,220	85,094	3,022	(1)	-	-			191,334	2,791,671
2028	101,536	85,763	2,984	(2)		-	-	-	190,281	2,981,952
2029	99,879	87,241	3,371	(1)	()=	-	-	_	190,491	3,172,442
2030	98,250	87,453	3,454	(1)	-	-	141	-	189,155	3,361,597
2031	96,647	106,684	56,336	(0)	-	-	-		259,667	3,621,264
2032	95,070	121,110	50,632	ш.	_	-	-	-	266,812	3,888,076
2033	93,519	113,906	57,563	-		-		-	264,987	4,153,063
2034	91,993	118,401	52,952	-		(-)	-		263,346	4,416,409
2035	90,492	112,571	59,805	-		-	-	*	262,868	4,679,278
2036	89,016	116,472	55,013	-	-	-	-	_	260,501	4,939,778
2037	87,564	110,414	63,342	-	-	-	-	-	261,319	5,201,098
2038	86,135	114,350	65,256	-	-		-	-	265,741	5,466,839
2039	84,730	108,410	71,640	-	-	-	_		264,779	5,731,618
2040	83,348	112,287	67,661	-	-	-	-	-	263,296	5,994,914
2041	81,988	106,240	74,329	-	-	-	-	-	262,558	6,257,471
2042	80,650	109,864	70,555	-			-	2	261,069	6,518,541
2043	79,334	104,153	77,173	-	-	-	-		260,660	6,779,201
Sum	3,049,060	2,870.185	859,982	(25)	-	-	-		6,779,201	3,175,201

	Case: Regulated	002				a Full Contract P				
						nt Worth (2009S, S				
Year	GRU Nati		Mar	ket	G)	REC	Environ	nmental		
	Capital & Fixed	Fuel & Variable O&M Expenses	Purchased Power	Power Sales	Contract Payments	Power Resale	Expenses	REC Salet	Annual Value	Cumulative Value
2014							THE CONTRACT	(1 604)	254 857	254 85
2015								(1 578)	252 197	507 05
2016								(1.557)	243 137	750 19
2017								(1.527)	249.541	999 73
2018								(1.502)	248 232	1 247 96
2019								(1.478)	250.218	1 498 18
2020								(1 458)	249.043	1 747 22
2021								(1 430)	249 692	1 996 9
2022								(1.406)	249 288	2 246 2
2023					THE STATE OF			(2.767)	252 199	2 498 4
2024								(2.729)	252.905	2 751 3
025						A CAR A CHARLE		(2.677)	253,313	3 004 6
2026								(2.634)	251 924	3 256 5
2027								(2.591)	253 085	3 509 6
2028								(2.556)	253.659	3 763 2
2029								(2 507)	255.824	4 019 1
030								12 466:	256 086	4 275
031								(2 426)	288 680	4 563 (
2032								(2,393)	295 112	4 858 9
2033								(2.347)	293.376	5 152 3
2034								(2 309)	295 036	5 447 4
2035								(2.271)	294 523	5 741 9
2036								(2.241)	295 893	6 037 (
2037								(2.198)	296 978	6 334 7
2038								(2.162	307.268	6 642 (
2039	as the invariant state							(2 127	306 491	6 948 8
2040								(2 098	310.372	7 258 9
2041								(2 058		7 568 (
2042				100				(2.024	314 746	7 883 (
2043								(1 991		8,198 3
Sum								(63 111	8 198 375	

	Case: Regulated (002				@ Market Price				
				All C	osts are in Prese	nt Worth (2009S, S	000)			
Year	GRU Nati		Mar	ket	G)	REC	Enviro	nmental	Total	
	Capital & Fixed O&M Expenses	Fuel & Variable O&M Expenses	Purchased Power	Power Sales	Contract Payments	Power Rezale	Expenses	REC Sales	Annual Value	Cumulative Value
2014								(3 208)	261 515	261 51
2015								(3 156)	257 869	519 38
2016								(3 113;	248 006	767 39
2017								(3.054)	253.631	1 021 02
2018								(3 004)	251.547	1 272 56
2019		en region de la company de						(2.955)	252 656	1 525 22
2020								(2 915)	250.502	1 775 72
2021								(2 860)	250.319	2 026 04
2022								(2.813)	248.999	2 275 0-
2023								(2.767)	252 199	2 527 2
2024								(2.729)	252 905	2.780 1
2025	124 4							(2,677)	253.313	3 033 4
2026								(2.634)	251 924	3 285.3
2027								(2.591)	253 085	3.538.4
2028								(2 556)	253 659	3 792 1
2029								(2 507)	255 824	4 047 9
2030		er james med vije	all and the second					(2 466)	256 086	4.304 (
2031						Salar Salar		(2 426)	288 680	4 592 7
2032								(2 393)	295 112	4.887.8
2033								(2.347)	293 376	5.181 2
2034								(2.309)	295 036	5 476 2
2035								(2.271)	294 523	5.770.7
2036								(2.241)	295 893	6.066.6
2037								(2.198)	296 978	6.363 6
2038								(2.162)	307 268	6.670.9
2039								(2 127)	306 491	6 977.3
2040								(2.098)	310 372	7 287 7
2041	A control of the cont							(2.058)	309 934	7 597 7
2042								(2.024)	314 746	7.912 4
2043								(1.991)	314.766	8 227.2
Sum	Blocker and a							(76 650)	8 227 214	

	Case: Regulated					w Construction ti			Accomplishing the	
				All Cost	s are in Presen	t Worth (2009S, S	000)			
Year	GRU Nati		Mar	ket	GR	EC	Environ	mental	Tet	ıl
	Capital & Fixed O&M Expenses	Fuel & Variable O&M Expenses	Purchased Power	Power Sales	Contract Payments	Power Resale	Expenses	REC Sales	Annual Value	Cumulative Value
2014	130,821	80,638	2.179	(1)	-	-	34,474		248,111	248,111
2015	126,329	81,827	2,142	(1)	-	-	36,945	-	247.242	495,353
2016	117,338	80,180	2,113	(1)	.=:	-	39,170	-	238,800	734,153
2017	121,675	81,567	2.072	(2)	-	-	41.957	-	247,270	981,423
2018	119,690	80,954	2,038	(2)	-	-	44,477	-	247,157	1,228,580
2019	117,737	81,645	2,013	(2)	-	-	47,592		248.985	1,477,565
2020	115,816	81,493	1,982	(2)	-	-	50,364	-	249,654	1,727,219
2021	113,927	81,526	1,951	(2)	-	-	53.746		251,148	1,978.367
2022	112,068	81,163	1,914	(1)	-	-	56,762	(m)	251,906	2,230,273
2023	110,240	82,722	1,891	(2)	-	-	60,690		255,542	2,485,815
2024	108,441	88,191	856	(2)	(20)	-	65,053		262,540	2,748,354
2025	106,672	88,842	905	(2)	-	-	69.574	-	265,991	3,014,345
2026	104.932	84.813	2,821	(2)	-	-	72,280	-	264,844	3,279,189
2027	103,220	85.200	3,022	(2)	-	- 1	77,333	-	268,773	3.547,962
2028	101,536	85,927	2,984	(2)	. *:	-	81.587		272,032	3,819,994
2029	99,879	87,366	3,371	(1)		-	87,110	-	277,726	4,097,720
2030	98,250	87,603	3,454	(1)	-	-	91,754		281,059	4,378,779
2031	96,647	106,745	56,336	(0)	*:	2	53,170		312,898	4,691,677
2032	95,070	121,116	50,632	-		-	48,992	-	315,810	5,007,487
2033	93,519	113,923	57.563	-		-	49.612	42	314,617	5,322,104
2034	91,993	118,409	52,952	-	-	-	54,666	-	318,020	5,640,124
2035	90,492	112,622	59,805	-		-	55,430		318,350	5,958,473
2036	89,016	116,516	55,013	-		-	61,183		321,728	6,280,202
2037	87,564	110.406	63,342	-	3:	-	61.975	•	323,286	6,603,488
2038	86,135	114,357	65,256	-	-	-	68,641	-	334.389	6,937,877
2039	84,730	108,388	71,640		-	-	69,477	-	334,235	7,272,112
2040	83,348	112,282	67,661	*		-	76.816	-	340,107	7,612,219
2041	81,988	106,235	74,329	-	-	-	77,601	-	340,153	7,952,372
2042	80,650	109,864	70,555		<u> </u>	-	85,633	-	346.702	8,299,074
2043	79,334	104,141	77,173	-	-	-	86,661	-	347,309	8,646,384
Sum	3.049.060	2,876.660	859,963	(26)	_	-	1,860,727	-	8,646,384	

	Case: Delay until	2015, no ITCs/RI	EG			Full Contract P				
					osts are in Prese	nt Worth (2009S, S	000)			
Year	GRU Nati		Mar	ket	G:	REC	Environ	mental	Tot	al
	Capital & Fixed O&M Expenses	Fuel & Variable O&M Expenses	Purchased Power	Power Sales	Contract Payments	Power Resale	Expenses	REC Sale:	Annual Value	Cumulative Value
2014									212 806	212 80
2015							-	(1.578)	223 886	436 69
2016								(1.557)	212.716	649 40
2017								(1.527)	216 645	866.05
2018								(1.502)	213 249	1 079 30
2019							-	(1.478)	212 103	1 291 40
2020			Contract of				-	(1.458)	208.414	1,499.81
2021								(1.430)	205 912	1.705 73
2022								(1 406)	202 597	1,908,32
2023								(2.767)	213 177	2 121 50
2024			S, - 1876 A		tis cateria.			(2.729)	210 710	2.332.2
2025								(2.677)	207.626	2 539 8
2026		Section 1						(2.634)	203,437	2 743 2
2027							-	(2.591)	200.764	2 944 0
2028								(2.556)	198 008	3 142 0
2029								(2.507)	195 814	3 337 8
2030								(2 466)	192,468	3.530.3
2031					Comment of			(2.426)	248 611	3 778 9
2032					WWW. Total			(2.393)	256,181	4.035 1
2033	BANKS L. b.							(2.347)	253.068	4 288 1
2034	A PRODUCE AND A				17			(2.309)	250 579	4 538 7
2035								(2.271)	248 513	4 787 2
2036	1000							(2.241)	245 366	5.032.6
2037								(2 198)	244 602	5 277 2
2038								(2.162)	247.799	5 525,0
2039								(2.127)	245 509	5.770.5
2040								(2.098)	243 163	6 013.7
2041							-	(2.058	241.068	6 254 7
2042							-	(2.024	238 847	6 493.6
2043								(1.991	237.091	6.730.7
Sum								(61 507)	6.730.729	

	Case: Delay until			The state of the s		@ Market Price	at 210 to annidan			
						nt Worth (2009S, S	000)			
Year	GRU Nati		Mar			REC	Environ	mental	Total	
	Capital & Fixed O&M Expenses	Fuel & Variable O&M Expenses	Purchased Power	Power Sales	Contract Payments	Power Resale	Expenses	REC Sales	Annual Value	Cumulative Value
2014									212 806	212 806
2015				State of the state				(3 156;	233 681	446 687
2016								(3.113)	222 142	668 829
2017								(3.054)	225.321	894 150
2018								(3 004)	221 564	1 115 713
2019							-	(2.955)	220.438	1.336.151
2020								(2.915)	216 787	1 552 938
2021								(2,860)	213 712	1 766 650
2022							2	(2.813)	209 117	1 975 767
2023							-	(2.767)	213 177	2.188.944
2024								(2.729)	210.710	2.399.653
2025								(2,677)	207.626	2.607.279
2026								(2.634)	203 437	2.810.716
2027								(2.591)	200.764	3.011 480
2028	Mark to							(2 556)	198 008	3 209 489
2029							-	(2.507)	195.814	3 405 303
2030	Make the second						144	(2.466)	192 468	3.597.771
2031							-	(2 426)	248 611	3.846.382
2032								(2.393)	256 181	4 102 563
2033							-	(2.347)	253 068	4 355 631
2034								(2 309)	250.579	4.606.209
2035								(2.271)	248 513	4 854 722
2036								(2.241)	245 366	5 100 088
2037							41	(2.198)	244.602	5 344 690
2038								(2 162)	247 799	5 592 490
2039								(2.127)	245.509	5.837.999
2040								(2.098)	243 163	6.081 162
2041								(2.058)	241 068	6 322 230
2042								(2.024)	238.847	6.561.077
2043								(1 991)	237.091	6 798 168
Sum				44.8				(73 442)	6 798 168	

		l 2015, no ITCs/R				Wh in 2014, esca w Construction til				
				All Cos	ts are in Presen	t Worth (2009\$, \$	000)			
Year	GRU Nati		Mar	ket	GF	SEC	Environ	mental	Tot	1
	Capital & Fixed O&M Expenses	Fuel & Variable O&M Expenses	Purchased Power	Power Sales	Contract Payments	Power Rezale	Expenses	REC Sales	Annual Value	Cumulative Value
2014	130.821	79,808	2.179	(1)	-	-	-	-	212,806	212,806
2015	126,329	81,580	2,142	(1)	-	-	-	-	210.050	422,856
2016	117,338	80,173	2,113	(1)	-	-	-	-	199,623	622,479
2017	121,675	81,130	2,072	(1)		-	-		204,876	827,354
2018	119,690	79,964	2,038	(2)	-	-	-	-	201,690	1,029,044
2019	117,737	80,968	2,015	(2)	-		-	2	200,719	1,229,763
2020	115,816	81,104	1,985	(2)	-	-	-	_	198,904	1,428,667
2021	113.927	81,157	1,955	(1)			-	-	197,038	1,625,705
2022	112,068	80,555	1,917	(1)	-	-	24		194,539	1,820,244
2023	110,240	81,991	1,898	(1)	-		-		194,127	2,014,371
2024	108,441	88,062	856	(1)	-	-	-	_	197,358	2.211.729
2025	106,672	88,552	905	(2)	-	-		-	196,128	2.407.857
2026	104,932	84,729	2,821	(2)		-	-		192,480	2,600,337
2027	103,220	85,094	3,022	(1)	-	-	: E-		191,334	2,791,671
2028	101,536	85,763	2,984	(2)	-		-		190,281	2,981,952
2029	99,879	87,241	3,371	(1)	-	-	-		190,491	3,172.442
2030	98,250	87,453	3,454	(1)	-				189,155	3,361,597
2031	96,647	106,684	56,336	(0)	-	-	-		259,667	3,621,264
2032	95,070	121,110	50,632	-	-	-	-		266,812	3,888,076
2033	93,519	113,906	57,563	- 4	-	-	-		264,987	4.153.063
2034	91,993	118,401	52,952		-	-		-	263,346	4,416,409
2035	90,492	112,571	59,805		-	-	-	-	262,868	4,679,278
2036	89,016	116,472	55,013		-	-	-		260,501	4,939,778
2037	87,564	110,414	63,342	-	-	-		-	261,319	5,201,098
2038	86,135	114,350	65,256	-	-	-	-		265.741	5,466,839
2039	84,730	108,410	71,640	-	-		-		264,779	5,731,618
2040	83,348	112,287	67,661	140	-	-	-	_	263,296	5,994,914
2041	81,988	106,240	74,329	*		- 1	-	-	262,558	6,257,471
2042	80,650	109,864	70,555		-	-	-	-	261,069	6,518,541
2043	79,334	104,153	77,173	-	-	-		_	260,660	6,779,201
Sum	3.049.060	2,870,185	859.982	(25)	-	1 . 1	-		6,779,201	5,110,201

	Case: Base					in 2014, no esca @ Full Contract P				
						nt Worth (2009S, S				
Year	GRU Nati		Mar	ket		REC	Environ	imental	Tot	-01
	Capital & Fixed O&M Expenses	Fuel & Variable O&M Expenses	Purchased Power	Power Sales	Contract Payments	Power Resale	Expenses	REC Sales	Annual Value	Cumulative Value
2014								(8 021)	219 698	219 69
2015								(7 698)	215 273	434 91
2016							-	(7 408)	204 464	639 4
2017					Establish a		-	(7.090)	208.785	848 2
2018				11-19-18-19-19-19-19-19-19-19-19-19-19-19-19-19-			+ 1	(6.804)	205.742	1.053 9
2019				Paragraph	desiration of the		-	(6 530)	204.935	1 258 8
2020							2	(6.284)	201 551	1 460 4
2021				The state of the s			-	(6.014)	199.379	1 659.8
2022							-	(5.772)	196,362	1.856.1
2023								(11.078)	201 276	2 057 4
2024				College Service				(10.661)	199.324	2 256 7
025								(10.203)	196.795	2.453.5
2026							2	(9.792)	193.107	2.646 6
			t early				-	(9.397)	190.913	2 837 6
2028					eran in the same	At the Angles	-	(9.043)	188.590	3 026.1
2030							-	(8.655)	186 863	3.213.0
031			and the second					(8.306)	183.937	3.396 9
031	4.4			$F_{2}(F_{2})$				(7.971)	240.483	3.637 4
								(7 671)	248 417	3.885 8
2033							-	(7.341)	245.695	4 131.5
		1 M 48 12 L	THE PARTY OF THE PARTY.				-	(7.046)	243 559	4,375.1
2035								(6 762)	241.832	4,616.9
2036								(6.507)	238 991	4 855.9
				Office and the second			-	(6 227)	238 555	5 094 5
2038	in Article by							(5.976)	242 048	5.336 5
2039			2.5					(5.736)	240 042	5.576.6
2040							<u> </u>	(5.520)	237.953	5 814 5
2041							•	(5.283)	236.132	6.050.7
2042								(5.070)	234.159	6.284.8
								(4.865)	232.640	6,517,5
Sum							2	(220.730)	6.517.501	

	Case: Base					@ Market Price					
				All C	osts are in Prese	nt Worth (2009S, S)	000)				
2014 2015 2016 2017 2018 2019 2020 2021 2022 2023 2024 2025	GRU Nati		Mar	ket	G	REC	Environ	mental	Total		
	Capital & Fixed O&M Expenses	Fuel & Variable O&M Expenses	Purchased Power	Power Sales	Contract Payments	Power Resale	Expenses	REC Sale:	Annual Value	Cumulative Value	
2014								(16 042)	224 765	224 765	
2015								(15 396)	219 924	444 689	
								(14 817)	208 883	653 572	
								(14 180)	213.004	866 576	
								(13 608)	209 768	1 076 344	
								(13.060)	208,673	1.285 017	
								(12.568)	204 914	1 489 932	
	Addition of the second							(12 028)	202.512	1 692 443	
								(11.543)	199 199	1.891 642	
								(11,078)	201 276	2.092 918	
2024							14	(10.661)	199.324	2 292 242	
2025								(10.203)	196 795	2 489 037	
2026							Ú.	(9.792)	193 107	2 682 144	
2027								(9.397)	190.913	2.873.057	
2028							, e	(9.043)	188,590	3.061.647	
2029			Part Charles Cold					(8.655)	186.863	3.248.510	
2030								(8.306)	183.937	3,432,446	
2031								(7.971)	240.483	3 672 930	
2032								(7.671)	248.417	3 921 347	
2033	THE RESERVE TO BE							(7.341)	245,695	4.167.042	
2034								(7.046)	243,559	4 410.601	
2035								(6 762)	241 832	4.652 433	
2036		Nagaraja, et al., and est					-	(6.507)	238,991	4.891.424	
2037								(6.227)	238 555	5 129 979	
2038								(5.976)	242.048	5 372 027	
2039								(5.736)	240.042	5.612.069	
2040							, j÷2	(5.520)	237 953	5 850 022	
2041	Contract of the	A Company						(5.283)	236.132	6 086 154	
2042								(5.070)	234 159	6.320 313	
2043								(4.865)	232 640	6.552.954	
Sum								(282 351)	6 552 954		

	Case: Base					w Construction ti				
						Worth (2009S, S				
Year	GRU Nati		Mar	ket	GF	EC	Environ	mental	Tet	al
	Capital & Fixed O&M Expenses	Fuel & Variable O&M Expenses	Purchased Power	Power Sales	Contract Payments	Power Resale	Expenses	REC Sales	Annual Value	Cumulative Value
2014	130,821	79,808	2,179	(1)	-	-	-	-	212,806	212,806
2015	126,329	81,580	2,142	(1)	-	-	-	-	210,050	422.856
2016	117,338	80,173	2,113	(1)	-	-	-		199,623	622,479
2017	121,675	81,130	2,072	(1)	-	-	-	-	204,876	827,354
2018	119,690	79,964	2,038	(2)			-		201,690	1.029.044
2019	117,737	80,968	2,015	(2)		-	-	_	200,719	1,229,763
2020	115,816	81,104	1,985	(2)		-		-	198,904	1,428,667
2021	113,927	81,157	1,955	(1)		-	-		197,038	1,625,705
2022	112,068	80,555	1,917	(1)	-	-	-	-	194,539	1,820.244
2023	110,240	81,991	1,898	(1)	-	-	-	-	194,127	2.014,371
2024	108,441	88,062	856	(1)	- 12	-	-		197,358	2,211,729
2025	106,672	88,552	905	(2)	-	-	-	-	196,128	2,407.857
2026	104,932	84,729	2,821	(2)		-	-	-	192,480	2,600,337
2027	103,220	85,094	3,022	(1)		-	-	-	191,334	2,791,671
2028	101,536	85,763	2,984	(2)	20	-	-	-	190,281	2,981.952
2029	99,879	87,241	3,371	(1)	*	= ;	-	-	190,491	3,172,442
2030	98,250	87,453	3,454	(1)				-	189,155	3,361,597
2031	96,647	106,684	56,336	(0)		- 1		20	259,667	3,621,264
2032	95,070	121,110	50,632	-		- 1	-		266,812	3,888,076
2033	93,519	113,906	57,563	-		-	-		264,987	4,153,063
2034	91,993	118,401	52,952	•		-	-	-	263,346	4,416,409
2035	90,492	112,571	59,805	-	-	-	~		262,868	4,679,278
2036	89,016	116,472	55,013	-	-	-	-	-	260,501	4,939.778
2037	87,564	110,414	63,342	-	2.	-	-	-	261,319	5,201,098
2038	86,135	114,350	65,256	-	-	-	-	-	265,741	5,466,839
2039	84,730	108,410	71,640	-		-	4	-	264,779	5,731,618
2040	83,348	112,287	67,661	-	-	-	-		263,296	5,994,914
2041	81,988	106,240	74,329	-		- 1	-	-	262,558	6,257,471
2042	80,650	109,864	70,555	-	- 4	-	-		261,069	6,518,541
2043	79,334	104,153	77,173	<u> </u>	-	-		÷)	260,660	6,779,201
Sum	3,049,060	2,870,185	859,982	(25)	-	-	-	*	6,779,201	VOICE AND IN

	Case: Regulated	002			Scenario: Resale	@ Full Contract P	rice			
				All C	osts are in Prese	nt Worth (2009S, S	000)			
Year	GRU Nati		Mar	ket	GI	REC	Environ	nmental	Tot	al
	Capital & Fixed O&M Expenses	Fuel & Variable O&M Expenses	Purchased Power	Power Sales	Contract Payments	Power Resale	Expenses	REC Sale:	Annual Value	Cumulative Value
2014			Non-Head Colors	Employed Miles				(8 021)	248 440	248 440
2015								(7 698)	246 077	494 517
2016								(7.408)	237 286	731 803
2017								(7.090)	243 978	975 781
2018			ne de la companya de					(6 804)	242.930	1.218.711
2019								(6.530)	245 166	1.463 877
2020								(6.284)	244 216	1.708 093
2021								(6.014)	245.108	1 953 201
2022					A Transfer			(5 772)	244 922	2 198 124
2023								(11.078)	243.888	2 442 012
2024								(10.661)	244 973	2 686 985
2025								(10 203)	245 787	2 932 773
2026								(9.792)	244.766	3.177 538
2027				and Company				(9.397)	246.279	3,423 817
2028								(9.043)	247 171	3 670 988
2029								(8.655)	249 676	3 920 664
2030								(8 306)	250,246	4 170.910
2031								(7.971)	283 135	4 454 045
2032								(7 671)	289.834	4 743.879
2033								(7.341)	288 382	5 032 261
2034								(7 046)	290,300	5 322 561
2035					$I \in I$			(6.762)	290 033	5 612 594
2036								(6 507)	291 626	5 904 220
2037								(6.227)	292 949	6 197 169
2038								(5.976)	303,454	6 500 623
2039								(5 736)	302 882	6 803 505
2040						Marine L. Co.		(5.520)	306 950	7 110 454
2041								(5.283)	306.709	7.417 163
2042								(5.070)		7 728 864
2043								(4 865)		8 040 755
Sum								(220 730)	8.040.755	

	Case: Regulated (iterrogatory no.		Scenario: Resale		COTT			
						t Worth (2009S, S	000)			
Year	GRU Nati		Mar	ket	GR		Environ	mental	To	ral
	Capital & Fixed O&M Expenses	Fuel & Variable O&M Expenses	Purchased Power	Power Salez	Contract Payments	Power Resale	Expenses	REC Sales	Annual Value	Cumulative Value
2014		La Maria de Ma						(16.042)	248 681	248 681
2015								(15 396)	245 629	494 310
2016								(14.817)	236.303	730.613
2017								(14, 180)	242 506	973.119
2018					Second Second		28.	(13 608)	240.943	1 214 062
2019								(13,060)	242.551	1.456 613
2020								(12 568)	240.849	1.697 462
2021								(12,028)	241.150	1.938.613
2022						7.		(11,543)	240.269	2 178 882
2023								(11.078)	243.888	2 422 770
2024								(10.661)	244.973	2.667.743
2026								(10,203)	245.787	2 913 530
2027								(9.792)	244.766	3 158 296
2028								(9.397)	246 279	3 404 575
2029								(9.043)	247.171	3 651 746
2030	A SAME TO	Helian Carlo						(8.655)	249.676	3 901 422
2031			Property and					(8 306)	250.246	4 151 668
2032								(7.971)	283 135	4.434 803
2033								(7.341)	289 834	4 724 637
2034								(7.046)	288 382	5 013 019
2035								(6.762)	290,300	5.303 319
2036								(6.507)	290,033 291,626	5,593,352
2037								(6.227)	292.949	5 884 978
2038								(5.976)	303.454	6 177 927
2039		n company the second						(5.736)	302.882	6 481.381 6 784 262
2040								(5.520)	306.950	7 091 212
2041								(5.283)	306.709	7.397.921
2042					ender the second			(5.070)	311.700	7 709 622
2043						100		(4.865)	311 892	8 021.513
Sum								(282 351)	8 021.513	0 021.010

	Case: Regulated	CO2			Scenario: No Ne	ew Construction ti	11 2023						
2014 2015 2016 2017 2018 2019 2020				All Cos	osts are in Present Worth (2009\$, \$000)								
	GRU Nati		Mar	ket	GF	SEC	Environ	mental	Total				
	Capital & Fixed O&M Expenses	Fuel & Variable O&M Expenses	Purchased Power	Power Sales	Contract Payments	Power Rezale	Expenses	REC Sales	Annual Value	Cumulative Value			
2014	130.821	80,638	2,179	(1)	-	-	34,474	-	248,111	248,111			
2015	126,329	81,827	2,142	(1)	-	_	36,945		247.242	495.353			
2016	117,338	80,180	2,113	(1)	-	-	39,170	-	238,800	734,153			
2017	121,675	81,567	2,072	(2)		-	41,957		247,270	981.423			
2018	119,690	80,954	2,038	(2)	-	-	44,477	-	247,157	1,228,580			
2019	117,737	81,645	2,013	(2)	-	-	47,592	-	248,985	1,477,565			
2020	115,816	81,493	1,982	(2)	-	-	50,364	-	249,654	1,727.219			
2021	113,927	81,526	1,951	(2)	-	-	53,746	-	251,148	1,978,367			
2022	112,068	81,163	1,914	(1)	-	-	56,762	_	251,906	2,230,273			
2023	110,240	82,722	1,891	(2)	-	_	60,690	-	255,542	2,485,815			
2024	108,441	88,191	856	(2)	-	-	65,053		262,540	2,748,354			
2025	106,672	88,842	905	(2)	-	-	69,574	-	265,991	3,014,345			
2026	104,932	84,813	2,821	(2)	-	-	72.280	-	264.844	3,279,189			
2027	103,220	85,200	3,022	(2)	-	-	77,333	-	268,773	3,547,962			
2028	101,536	85,927	2,984	(2)	-	-	81,587	-	272.032	3,819,994			
2029	99,879	87,366	3,371	(1)	-	-	87,110		277,726	4,097,720			
2030	98,250	87,603	3,454	(1)	-	-	91,754		281.059	4,378,779			
2031	96,647	106,745	56,336	(0)	-	-	53,170		312,898	4,691,677			
2032	95,070	121,116	50,632	-	-	-	48,992	-	315,810	5,007,487			
2033	93,519	113,923	57,563	-	-	-	49,612	-	314,617	5,322,104			
2034	91,993	118,409	52,952		-	-	54,666	-	318,020	5,640,124			
2035	90,492	112,622	59,805		-	-	55,430	-	318,350	5,958,473			
2036	89,016	116,516	55,013	7.5	-	-	61,183		321,728	6,280,202			
2037	87,564	110,406	63,342	-	-	- 1	61,975	1 (4)	323,286	6,603,488			
2038	86,135	114,357	65,256	•		-	68,641	-	334,389	6,937,877			
2039	84,730	108,388	71,640	-	-		69,477		334,235	7,272,112			
2040	83,348	112,282	67,661	-		8	76,816	1=	340,107	7,612,219			
2041	81,988	106,235	74,329	-	-	-	77,601		340,153	7,952,372			
2042	80,650	109,864	70,555	-	-	-	85,633	-	346,702	8,299,074			
2043	79,334	104,141	77,173	-	-	-	86,661	-	347,309	8,646,384			
Sum	3,049,060	2,876,660	859,963	(26)	-	-	1.860.727	147	8.646.384				

	Case: Delay until	2015, no ITCs/RI	EG		Scenario: Resale	e @ Full Contract P	rice			
				All C	osts are in Prese	nt Worth (2009S, S	000)			
Year	GRU Nati		Mar	ket	GI	REC	Environ	ımental	Tota	al
	Capital & Fixed O&M Expenses	Fuel & Variable O&M Expenses	Purchased Power	Power Sales	Contract Payments	Power Rezale	Expenses	REC Sales	Annual Value	Cumulative Value
2014							-	-	212 806	212 806
2015								(7 698)	217 767	430 573
2016								(7 408)	206 864	637 43
2017								(7 090)	211.082	848 51
2018	I	and Stable		Ancientification in				(6.804)	207.947	1 056 46
2019				To Karinka L				(6.530)	207.051	1.263.51
2020								(6.284)	203.588	1 467 10
2021				4.00			-	(6.014)	201.327	1 668 43
2022							-	(5.772)	198.232	1 866.66
2023								(11.078)	204 866	2 071.52
2024								(10,661)	202.778	2 274 30
2025								(10 203)	200.100	2.474.40
2026							-	(9.792)	196.279	2.670.68
2027							-	(9.397)	193.958	2.864.6-
2028								(9.043)	191.520	3 056 1
2029								(8.655)	189.667	3.245 8
2030							-	(8.306)	186.628	3.432.4
2031							-	(7 971)	243.066	3.675.5
2032							-	(7 671)	250.902	3 926 4
2033							-	(7.341)	248.074	4 174 5
2034			to a seed to meet				-	(7.046)		4,420.3
2035							-	(6.762)	244.023	4 664 3
2036								(6.507	241 099	4.905.4
2037							-	(6.227	240.573	5.146.0
2038								(5,976	243.985	5 390 (
2039							-	(5.736		5 631 9
2040							-	(5.520		5.871.6
2041							-	(5.283	237.843	6 109 8
2042								(5.070	235.802	6 345 3
2043	ESCOTINGENERAL AND ADDRESS.							(4.865		6.579.5
Sum								(212 709	6.579 527	

	Case: Delay until					@ Market Price				
						nt Worth (2009S, St	000)			
Year	GRU Nati		Mar	ket	G)	REC	Environ	mental	Tot	al
	Capital & Fixed O&M Expenses	Fuel & Variable O&M Expenses	Purchased Power	Power Sales	Contract Payments	Power Resale	Expenses	REC Sales	Annual Value	Cumulative Value
2014									212 806	212 806
2015							-	(15 396)	221 641	434 443
2016							•	(14.817)	210.439	644 886
2017			a francisco de la fili					(14 180)	214 195	859.08
2018								(13.608)	210,960	1.070.04
2019								(13,060)	210,334	1 280 374
2020							-	(12.568)	207 134	1,487 508
2021							<u> </u>	(12.028)	204.543	1.692.051
2022		and the second					-	(11.543)	200.387	1.892.438
2023	5.1			Company of the St.				(11.078)	204.866	2.097.304
2024							•	(10.661)	202 778	2,300,08
2025					1.00		-	(10.203)	200.100	2 500 182
2026							-	(9.792)	196.279	2 696,461
2027							*	(9.397)	193 958	2.890.419
2028							-	(9.043)	191.520	3 081 939
2029	1						-	(8.655)	189,667	3 271 606
2030							-	(8.306)	186 628	3 458 23-
2031	Section 1						12.	(7 971)	243.066	3.701.300
2032	Maria Santa						-	(7.671)	250.902	3.952.202
2033								(7.341)	248 074	4.200.270
2034								(7.046)	245 842	4 446 110
2035								(6.762)	244.023	4,690,141
2036							-	(6.507)	241 099	4 931 240
2037							-	(6.227)	240,573	5,171,813
2038								(5.976)	243.985	5.415.793
2039								(5.736)	241.900	5.657.698
2040					Carlos as			(5.520)	239.741	5.897.439
2041								(5.283)	237.843	6.135.282
2042								(5.070)	235,802	6 371 084
2043								(4.865)	234.217	6 605 301
Sum		The The Inc.						(266.309)	6.605.301	

	Case: Delay unti	1 2015, no ITCs/R	FG		Scenario: No No	ew Construction ti	11 2023			-
				All Cos	ts are in Presen	t Worth (2009S, S	000)			
Year 2014 2015 2016 2017 2018 2019 2020 2021 2022 2023 2024 2026	GRU Nati		Market		GREC		Environ	mental	Total	
	Capital & Fixed O&M Expenses	Fuel & Variable O&M Expenses	Purchased Power	Power Sales	Contract Payments	Power Resale	Expenses	REC Sales	Annual Value	Cumulative Value
2014	130,821	79,808	2.179	(1)	-	- 1	•	-	212,806	212,806
2015	126,329	81,580	2,142	(1)	-	-			210,050	422.856
2016	117,338	80,173	2,113	(1)	-	-		-	199,623	622,479
2017	121,675	81,130	2,072	(1)	-	-		-	204,876	827,354
2018	119,690	79,964	2,038	(2)	-	-	-	-	201,690	1,029,044
2019	117,737	80,968	2,015	(2)	-	-	-	-	200,719	1,229,763
2020	115,816	81,104	1,985	(2)		-		-	198,904	1,428,667
2021	113,927	81,157	1,955	(1)				-	197,038	1,625,705
2022	112,068	80,555	1,917	(1)	-	-	-	-	194,539	1,820,244
2023	110,240	81,991	1,898	(1)	-	-	-	-	194,127	2.014.371
2024	108,441	88,062	856	(1)	-		-	-	197,358	2,211,729
2025	106,672	88,552	905	(2)	-	-	-	-	196,128	2,407.857
2026	104,932	84,729	2,821	(2)		-	-	-	192,480	2,600,337
2027	103,220	85,094	3,022	(1)	-	-	-		191,334	2,791,671
2028	101,536	85,763	2,984	(2)	-		-	-	190.281	2,981,952
2029	99,879	87,241	3,371	(1)	-	_		-	190,491	3,172,442
2030	98,250	87,453	3,454	(1)	-	_	-	-	189,155	3,361,597
2031	96,647	106,684	56,336	(0)	-	-		-	259,667	3,621,264
2032	95,070	121,110	50,632	121	-	-			266,812	3,888,076
2033	93,519	113,906	57,563	-		-		-	264,987	4,153,063
2034	91,993	118,401	52,952		-	-	-	-	263,346	4,416,409
2035	90,492	112,571	59,805		-	-	-		262,868	4,679,278
2036	89,016	116,472	55,013	-	-	-	-		260,501	4,939,778
2037	87,564	110,414	63,342		-	-		151	261,319	5,201,098
2038	86,135	114,350	65,256			Ħ.J	-	-	265,741	5,466,839
2039	84,730	108,410	71,640			-	-	-	264,779	5,731,618
2040	83,348	112,287	67,661	-	-	-	*	-	263,296	5,994,914
2041	81,988	106,240	74,329	-	-	-	-	-	262,558	6,257,471
2042	80,650	109,864	70,555		100	-	-	-	261,069	6,518,541
2043	79,334	104,153	77,173	-	-			-	260,660	6,779,201
Sum	3,049,060	2,870,185	859,982	(25)	-	-	-	-	6,779,201	

Respectfully submitted this 30th day of March, 2010.

Roy C. Young

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Robert Scheffel Wright
Florida Bar No. 966721
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Florida Bar No. 853666

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Attorneys for GREC LLC and GRU

CERTIFICATE OF SERVICE

I HEREBY CERTIFY that a true and correct copy of the foregoing Confidential Response has been served by hand delivery to the Commission Staff listed below (*), and that a true and correct copy of the Non-Confidential, Redacted version of this response has been served by electronic and U.S. Mail on the other service parties shown below, on this 30th day of March, 2010:

Erik Sayler/Martha Carter Brown* Florida Public Service Commission 2540 Shumard Oak Boulevard Tallahassee, FL 32399-0850

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Gainesville Regional Utilities
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Attornev

EXHIBIT C

UNREDACTED, CONFIDENTIAL RESPONSE TO STAFF'S INTERROGATORY NO. 114

EXHIBIT D

AFFIDAVIT OF JOSHUA H. LEVINE IN SUPPORT OF REQUEST FOR CONFIDENTIAL CLASSIFICATION

WILL BE FILED ON MARCH 31, 2010