State of Florida



Public Service Commission

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

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

DATE:

April 9, 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 to Staff's Seventh Set of Interrogatories filed April 9, 2010, into the Docket file.

ELS/th Attachment

02701 APR-9 □

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: APRIL 9, 2010

RESPONSES TO STAFF'S SEVENTH SET OF INTERROGATORIES (NO. 120) TO GAINESVILLE RENEWABLE ENERGY CENTER

Gainesville Regional Utilities (GRU) and Gainesville Renewable Energy Center, LLC (GREC LLC), collectively "Petitioners," 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 Seventh Set of Interrogatories (No. 120).

The answer to Interrogatory No. 120 of Staff's Seventh Set of Interrogatories has been provided by Richard D. Bachmeier, Electric System Planning Director, Gainesville Regional Utilities, 301 SE 4th Avenue, Gainesville, Florida 32601.

0270 | APR-9 =

RESPONSES

120. Please refer to GRU/GREC's responses to Staff Interrogatories Nos. 108 and 114. For years 2014 to 2024, please compare and contrast and explain the difference between the response values provided in No. 108 column (Net Revenues, (NPV 2009 \$000)) for annual market power sales for existing assets and the confidential values provided in No. 114 column (Market, Power Sales) for market power sales for existing assets. As part of this response, please explain whether the values provided in No. 108 should to be added to the values provide in No. 114 in order to arrive at a final value for each year.

Response to Interrogatory No. 120

The values for 2014 to 2024 in the response to Staff Interrogatory No. 108 column [Net Revenues, (NPV 2009 \$000)] are not included in the No. 114 column (Market, Power Sales) for market power sales for existing assets. The values in the response to Staff Interrogatory No. 108 are the result of the study performed by The Energy Authority (TEA) at GRU's request. In that study, TEA used a production cost model to dispatch the full 100 MW capacity from GREC into the GRU system and estimated the change in net revenues from off-system sales compared to the case with no GREC capacity. The values in the case referred to in the No. 114 column (Market, Power Sales) were obtained from GRU's own production cost modeling where only 50 MW of GREC capacity is dispatched into the GRU system and the remaining 50 MW is sold at either the contract price or market price. In other words, the values in the response to No. 108 cannot be added to the values provided in the response to No. 114 because the response to No. 114 includes revenues from firm unit contracts for 50 MW of GREC capacity.

However, GRU has performed production cost runs with the same AEO 2010 fuel prices and assumptions as those presented in the response to No. 114. In these production cost runs GRU dispatched the full 100 MW capacity from GREC into the GRU system but did not attribute any value to off-system sales from the addition of GREC. Therefore, it would be appropriate to add the values in the responses to No. 108 to the results from that modeling exercise.

RESPONSES TO STAFF'S SEVENTH SET OF INTERROGATORIES TO GAINESVILLE RENEWABLE ENERGY CENTER (NO. 120) DOCKET NO. 090451-EM PAGE 3

In response to this Interrogatory, GRU is resubmitting the tables in Staff Interrogatory Nos. 113-116 for the "Base Case", "Regulated CO₂ Case", and "Delay until 2015, no ITCs/REG Case" with the values from No. 108 included. The scenario has been renamed "GREC with Off-System Sales" and GRU has not included any REC values in this response. In these results the values that previously appeared in the (GREC, Power Resale) column will appear in the column (Market, Power Sales) because there is no way to separate them. These tables are included on the enclosed CD.

Please note that portions of the information requested related to the updated response to Interrogatory No. 114 discussed herein are confidential and have therefore been redacted.

RESPECTFULLY SUBMITTED this 9th day of April, 2010.

Roy C. Young

Florida Bar No.098428

Robert Scheffel Wright Florida Bar No. 966721

John T. LaVia, III

Florida Bar No. 853666

Young van Assenderp, P.A.

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Tallahassee, Florida 32301

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Attorneys for GREC LLC and GRU

RESPONSES TO STAFF'S SEVENTH SET OF INTERROGATORIES TO GAINESVILLE RENEWABLE ENERGY CENTER (NO. 120)
DOCKET NO. 090451-EM
PAGE 4

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 <u>9th</u> day April, 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

Docket No. 090451-EM CONFIDENTIAL Response to Staff Interrogatory No. 120

III SE	Case: Base	N7-1		SEATT ME	Scenario: Resale (U.S. Company		i i i i i i i i i i i i i i i i i i i
				All	Costs are in Presen	t Worth (2009\$, \$	000)			
Year	GRU Native Assets		Market		GR	EC	Environmental		To	tal
	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				100					227,719	227,719
2015									222,970	450,689
2016								-	211,872	662,561
2017							_		215,875	878,436
2018									212,547	1,090,983
2019	i								211,465	1,302,448
2020									207,836	1,510,283
2021						No L. Prof			205,393	1,715,676
2022									202,134	1,917,810
2023	i								212,354	2,130,165
2024	i								209,985	2,340,149
2025									206,997	2,547,147
2826									202,898	2,750,045
2027									200,310	2,950,356
2028	1								197,634	3,147,989
2029	1						Y		195,517	3,343,507
2030									192,243	3,535,749
2031									248,454	3,784,204
2032	I								256,088	4,040,292
2033	1								253,037	4,293,329
2034	l								250,605	4,543,933
2035									248,594	4,792,527
2036									245,498	5,038,025
2037									244,783	5,282,807
2038									248,025	5,530,832
2039	10 A AK								245,777	5,776,610
2040									243,473	6,020,082
2041	1 1 Lai								241,414	6,261,497
2042									239,229	6,500,726
2043									237,506	6,738,231
Sum							-	-	6,738,231	

7	Case: Base		Personal State		Scenario: GREC v	vith Off-System Sa	iles		1 4 4 5 7			
Year				Al	All Costs are in Present Worth (2009\$, \$000)							
Year	GRU Native Assets		Mar	ket	GREC		Enviro	nmental	To	tal		
	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	l .				*******				243,079	243,079		
2815						N. 14 E. 11	-		239,267	482,346		
2016									227,182	709,528		
2017						1400 00 7			229,140	938,668		
2018									224,182	1,162,849		
2019									221,231	1,384,080		
2020									216,715	1,600,795		
2021									212,626	1,813,421		
2022									207,879	2,021,300		
2023	i								203,683	2,224,982		
2024						i			200,611	2,425,594		
2025									206,997	2,632,591		
2026									202,898	2,835,490		
2027									200,310	3,035,800		
2028	ı								197,634	3,233,434		
2029	ľ					· - : '-			195,517	3,428,951		
2030	i								192,243	3,621,193		
2031									248,454	3,869,648		
2032	l .					1 1 1 1 1			256,088	4,125,736		
2033									253,037	4,378,773		
2034									250,605	4,629,378		
2035									248,594	4,877,971		
2036									245,498	5,123,469		
2837									244,783	5,368,252		
2838						F			248,025	5,616,276		
2039									245,777	5,862,054		
2040	10,000								243,473	6,105,527		
2041									241,414	6,346,941		
2042						- 1- 1 20°			239,229	6,586,170		
2043						24-22-1			237,506	6,823,675		
Sum								-	6,823,675			

	Case: Base				Scenario: No Nev	v Construction til	11 2023	HILE PLANTS		
			بعر عبالما درجيت	All Co	sts are in Present	Worth (2009\$, \$0	000)		IN THE PARTY OF	The State of the State of
Year	GRU Nati		Market		GREC		Environmental		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)	-	-			212,806	212,806
2015	126,329	81,580	2,142	(1)		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		-	-			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	H	-				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
2848	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		- 1				261,069	6,518,541
2043	79,334	104,153	77,173	-2	-	-	-		260,660	6,779,201
Sum	3,049,060	2,870,185	859,982	(25)	- 1	1			6,779,201	

AND SEP	Case: Regulated	CO2			Scenario: Resale						
Year					Costs are in Presen						
Year	GRU Native Assets		Mar	ket	GR	EC	Environmental		To	tal	
	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									256,461	256,461	
2015									253,775	510,236	
2016	i								244,694	754,930	
2017	l .								251,068	1,005,998	
2018	l .								249,734	1,255,732	
2019	F								251,696	1,507,428	
2020									250,500	1,757,929	
2021	l .								251,122	2,009,051	
2022									250,694	2,259,745	
2023									254,966	2,514,711	
2024	1								255,635	2,770,345	
2025									255,990	3,026,336	
2026									254,557	3,280,893	
2027									255,676	3,536,569	
2028									256,214	3,792,783	
2029									258,331	4,051,114	
2030	l .								258,552	4,309,666	
2031									291,106	4,600,772	
2032	l								297,505	4,898,277	
2033									295,724	5,194,001	
2034									297,345	5,491,346	
2035									296,794	5,788,140	
2036									298,134	6,086,274	
2037									299,176	6,385,450	
2038	A STATE OF THE STA								309,430	6,694,880	
2039									308,617	7,003,498	
2040									312,470	7,315,967	
2041									311,991	7,627,959	
2042									316,770	7,944,729	
2043									316,757	8,261,486	
Sum	10 - 17								8,261,486		

	Case: Regulated (CO2			Scenario: GREC v	vith Off-System Sa	ales	4 4 7 7 7 7 7 7 7	こうしょうこう			
Year				A	All Costs are in Present Worth (2009S, \$000)							
	GRU Native Assets		Mar	rket	GREC		Environmental		To	tal		
	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									264,727	264,727		
2015									262,974	527,701		
2016									252,257	779,957		
2017									256,111	1,036,068		
2018									252,941	1,289,009		
2019									252,274	1,541,283		
2020									249,312	1,790,595		
2021	i								247,247	2,037,843		
2022									244,439	2,282,282		
2023	i								242,703	2,524,984		
2024	i								242,066	2,767,050		
2025	i e								255,990	3,023,04		
2026	ĺ								254,557	3,277,59		
2027	i								255,676	3,533,274		
2028	i								256,214	3,789,488		
2029	İ								258,331	4,047,819		
2030	i .								258,552	4,306,37		
2031									291,106	4,597,477		
2032									297,505	4,894,982		
2033	i								295,724	5,190,706		
2034									297,345	5,488,05		
2035									296,794	5,784,84		
2036									298,134	6,082,979		
2037									299,176	6,382,155		
2038									309,430	6,691,585		
2039									308,617	7,000,203		
2848									312,470	7,312,672		
2041									311,991	7,624,664		
2042									316,770	7,941,434		
2043									316,757	8,258,191		
Sum									8,258,191			

	Case: Regulated	CO2		A FRANCISCO	Scenario: No Nev	v Construction ti	ill 2023			
V				All Co	sts are in Present	Worth (2009\$, \$	000)			
Year	GRU Nati		Market		GREC		Environmental		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	80,638	2,179	(1)			34,474	-	248,111	248,111
2015	126,329	81,827	2,142	(1)	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)	1=1	-	47,592	-	248,985	1,477,565
2020	115,816	81,493	1,982	(2)	-	1-	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	-	-	, -	61,183	-	321,728	6,280,202
2037	87,564	110,406	63,342		-	1=0	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
2848	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
2842	80,650	109,864	70,555			.=.	85,633	_	346,702	8,299,074
2843	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	

6-00	Case: Delay until	2015, no ITCs/R	EG		Scenario: Resale	Full Contract P	rice		Section 1	NEW TO
				All	Costs are in Presen	Worth (2009\$, \$	000)			NOSSY - D.
Year	GRU Nat	ive Assets	Market		GREC		Environmental		To	tal
	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									225,465	438,270
2016	i .								214,272	652,54
2017	i								218,172	870,71
2018									214,751	1,085,46
2019									213,581	1,299,04
2020	İ								209,872	1,508,91
2021									207,342	1,716,25
2022	i								204,004	1,920,26
2023									215,944	2,136,20
2024	l					Ī			213,439	2,349,64
2025	ı					ĺ			210,303	2,559,94
2026	l .								206,071	2,766,02
2027	l .					Ĩ			203,355	2,969,37
2828	i								200,564	3,169,93
2029									198,321	3,368,26
2036	1								194,934	3,563,19
2031									251,037	3,814,23
2032									258,574	4,072,80
2033									255,415	4,328,22
2034									252,888	4,581,10
2035									250,784	4,831,89
2036	Maria de la companya					11			247,606	5,079,49
2037									246,800	5,326,29
2038									249,961	5,576,25
2039									247,636	5,823,89
2840									245,261	6,069,15
2841						9			243,126	6,312,28
2042									240,872	6,553,15
2943						-1			239,082	6,792,236
Sum									6,792,236	

	Case: Delay until	2015, no ITCs/RE	G		Scenario: GREC				and the second	
					l Costs are in Presen			E DE TREE		
Year	GRU Native Assets		Mar	ket	GR	GREC		Environmental		tal
	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									244,256	457,061
2016									231,983	689,044
2017									233,734	922,778
2018						1.0			228,591	1,151,368
2019									225,462	1,376,831
2020									220,787	1,597,618
2021									216,523	1,814,140
2022									211,619	2,025,759
2023									207,272	2,233,031
2024									204,066	2,437,097
2025									210,303	2,647,400
2026	aba b								206,071	2,853,47
2027									203,355	3,056,826
2028									200,564	3,257,390
2029						7			198,321	3,455,71
2030	i								194,934	3,650,645
2031									251,037	3,901,682
2032									258,574	4,160,25
2033									255,415	4,415,67
2034									252,888	4,668,558
2035									250,784	4,919,343
2036									247,606	5,166,949
2037									246,800	5,413,749
2038	4 41					n o l			249,961	5,663,710
2039						7 10 7			247,636	5,911,346
2048									245,261	6,156,607
2041	1								243,126	6,399,733
2842						E. T. C. (1)		-	240,872	6,640,605
2043						1:43:4	-		239,082	6,879,687
Sum								†	6,879,687	

AEO 2010 Fuel Price Forecast; no RECs

	Case: Delay until	2015, no ITCs/I	REG		Scenario: No Nev	Construction ti	11 2023			1361 13			
Veer				All Co	osts are in Present Worth (2009\$, \$000)								
Year	GRU Nati		Market		GREC		Environmental		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)		-			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)		1-			190,491	3,172,442			
2030	98,250	87,453	3,454	(1)		ie i			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	-	-	-			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			
2848	83,348	112,287	67,661		-	-			263,296	5,994,914			
2041	81,988	106,240	74,329	-	-				262,558	6,257,471			
2842	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)	-	-		-	6,779,201				