

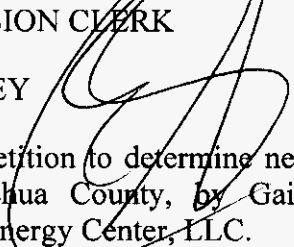
MEMORANDUM

MARCH 12, 2010

TO: ANN COLE, OFFICE OF COMMISSION CLERK

FROM: ERIK SAYLER, SENIOR ATTORNEY

RE: DOCKET NO. 090451-EM, 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 the following Responses to Staff's Fourth Set of Interrogatories to Gainesville Renewable Energy Center (Nos. 80-106) and Revised Responses (Nos. 104 and 106) in the Docket file.

ELS/th
Attachment

DOCUMENT NUMBER-DATE

01699 MAR 12 2010

FPSC-COMMISSION CLERK

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 1, 2010
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RESPONSES TO STAFF'S FOURTH SET OF INTERROGATORIES TO
GAINESVILLE RENEWABLE ENERGY CENTER (NOS. 80-106)

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 Fourth Set of Interrogatories (Nos. 80-106).

The answers to Interrogatories Nos. 80 through 90, 103, and 105 of Staff's Fourth Set of Interrogatories (Nos. 80-106) 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. 91 through 99 of Staff's Fourth Set of Interrogatories (Nos. 80-106) are provided by Joshua Levine (project developer), American Renewables, LLC, 75 Arlington Street, Fifth Floor, Boston, Massachusetts 02116.

The answers to Interrogatories Nos. 100 through 102, 104, and 106 of Staff's Fourth Set of Interrogatories (Nos. 80-106) are provided by Richard Bachmeier, Electric System Planning Director, Gainesville Regional Utilities, 301 SE 4th Avenue, Gainesville, Florida 32601.

DOCUMENT NUMBER DATE

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FPSC-COMMISSION CLERK

RESPONSES

I. Climate Legislation:

80. Please explain or describe the current status of House Resolution 2454, otherwise known as the Waxman-Markey Bill. As part of this response, please include whether the Bill has been taken up by any committees or otherwise been acted upon in the Senate, amendments that differ from the House version, and its outlook for passage at this time.

Response to Interrogatory No. 80:

House Resolution 2454 (HR 2454), known as the American Clean Energy and Security Act of 2009 (ACES), was adopted by the full House on June 26, 2009. ACES employs a downstream cap and trade program for carbon that has the point of regulation at the electric generator. S. 1733 known, as the Clean Energy Jobs and American Power Act of 2009, was voted out of the Senate Energy and Public Works Committee but was not brought to a floor vote during the 2009 session. S. 1733 contains carbon cap and trade provisions similar to those of HR 2454. While the caps and timelines are virtually the same, S.1733 awards approximately 15 percent fewer “free” allowances to distribution utilities and would result in greater cost to utilities and their customers than HR 2454. Both HR 2454 and S.1733 are extremely lengthy, complicated bills and are estimated to add significantly to energy costs. While there is still significant support for climate change legislation in both houses of Congress, it is unlikely that the full Senate will adopt S.1733 in this Congress and reconcile it with HR 2454 in conference before next year. Both bills have carbon regulation provisions that could result in substantial costs to GRU’s ratepayers. The proposed project will significantly reduce this liability by offsetting coal and natural gas combustion. Without GREC, under the provisions of HR 2454, GRU will have an allowance shortfall of 19.1 million metric tonnes of CO₂ through 2030. With GREC, this shortfall will be reduced 27 percent to 13.9 million metric tonnes of CO₂. Based on CO₂ allowance costs developed from “EPA Analysis of the American Clean Energy and Security Act of 2009 H.R. 2454 in the 111th Congress 6/23/09”, by 2030 GREC is estimated to reduce the HR 2454 cap and trade related rate increase for GRU from 30.8 percent to 21.1 percent in the low cost case and from 99.9 percent to 67.7 percent in the high cost case.

The EPA finding of endangerment (see response to Interrogatory No. 82) has created a strong interest by many parties in developing a legislative framework for carbon

management to preempt regulation of carbon dioxide by EPA. This recent report from the February 24 edition of the Washington Post is an example of this interest.

Senate Majority [Leader] Harry Reid (D-Nev.) has instructed Sen. John Kerry (D-Mass.) to produce a revamped climate bill as soon as possible, according to sources, a task Kerry intends to accomplish within two weeks.

The marching orders could represent the best chance advocates will get to pass a climate and energy bill before the November elections. Kerry has been working with Sens. Lindsey Graham (R-S.C.) and Joseph I. Lieberman (I-Conn.) on drafting a measure that could attract bipartisan support, but it remains unclear what combination of policies would draw enough votes to win passage.

"The majority leader is deadly serious about making progress this year on climate and energy reform," Kerry said in a statement. "He's been a hero every step of the process and he's been in constant communication. Senators Lieberman, Graham and I have been meeting every day and we're on a short track here, piecing together legislation and working with our colleagues so it can be finished and rolled out soon."

For the above reasons, GRU believes federal legislation regulating carbon emissions or imposing a renewable electricity standard, or both, will be enacted before 2012.

- 81. Please explain or describe the provisions of the Waxman-Markey Bill that relate to requirements for electric utilities to utilize renewable energy or purchase renewable energy credits. As part of this response, please include the potential economic impact to the GREC Project in this discussion.**

Response to Interrogatory No. 81:

HR 2454 has a renewable electricity standard (RES) that requires that a utility produce 20 percent of its electric energy from renewable sources by 2020. This program is under a separate title and adds cost to utility operations beyond the cap and trade program. The initial RES requirement starts at 6 percent in 2012. Up to 25 percent of the RES can be met through energy efficiency projects. These projects can produce energy efficiency credits (EECs) for compliance or sale. Utilities have the compliance option of adding renewable energy resources to their own system or buying renewable energy credits (RECs) or EECs from other entities. In addition, utilities have the ability to make alternate compliance payments (ACPs). The alternate compliance payment starts at \$25 per megawatt hour (in 2009 dollars) and increases each year based on inflation.

Currently utilities with less than 4,000,000 MWh sales per year are exempt from the RES standard. However, it is likely that smaller utilities (such as GRU) will be able to create RECs that can be sold into the RES market. It is estimated that the cost of RECs will be slightly less than that of the alternate compliance payment. In the event that GRU becomes subject to the RES under HR 2454, GREC should enable GRU to meet the renewable electricity requirements and still have RECs that could be marketed. GRU estimates that through 2030 GREC will produce a surplus of about 3.17 million RECs with a value of \$79 million in 2009 dollars. However, without GREC, the GRU system would have a deficit of 7.2 million RECs by 2030 with a cost of \$180.8 million.

- 82. Please explain or describe the status of any other regulation currently before the US House of Representatives, US Senate, or other federal government agencies that would increase regulation on carbon dioxide emissions and have an economic impact on the GREC Project.**

Response to Interrogatory No. 82:

Legislative Initiatives

There are two alternative legislative approaches in addition to S. 1733 that have gained some momentum in the U.S. Senate:

- S. 2877, the Carbon Limits and Energy for America's Renewal (CLEAR) Act is a bipartisan bill sponsored by Senator Maria Cantwell (D) of Washington and Senator Susan Collins (R) of Maine. Unlike S. 1733, the CLEAR Act regulates carbon upstream at the primary source of energy. This would include refineries, coal mines, and natural gas producers. The CLEAR Act is sometimes referred to as a "cap and dividend" bill in that all the carbon allowances are auctioned only to the primary energy sources that are regulated, with 75 percent of the revenue from the auction returned directly (dividend) to American households. Twenty-five percent of the auction revenues are to be used on carbon reduction technologies and energy efficiency innovations. The carbon costs are reflected in fossil fuel prices. The caps and timelines in this proposal are modest in the first few years of the program and increase significantly in later years when carbon control technology is more likely to be available and cost effective.

- The Kerry Graham Lieberman Energy Bill is a bipartisan bill under development by Senators Kerry, Graham, and Lieberman. Only a general outline of this bill has been released at this time. It is expected this bill will contain both an energy title with an RES and a climate provision, possibly utilizing a cap and trade approach to reduce carbon emissions from fossil fuel-fired electric generation.

Implementation of either the CLEAR Act or the Kerry Graham Lieberman Energy Bill would increase the electricity cost of fossil fuel-fired generation, and GREC will therefore enhance GRU's renewable energy position in the energy market, either by reducing GRU's compliance costs or by enabling GRU to benefit economically by selling its RECs, carbon allowances, or other renewable attributes at market prices.

In addition to the bills discussed previously, Senator Carper has introduced a three pollutant bill to reduce the emissions of SO₂, NO_x and mercury by 90 percent. Although this bill does not regulate carbon dioxide, it will significantly increase the cost of coal-fired generation and the GREC project will therefore enhance GRU's renewable energy position in the energy market.

Relevant Federal Regulatory Action

On December 7, 2009, the EPA Administrator signed two distinct findings regarding greenhouse gases under section 202(a) of the Clean Air Act:

- **Endangerment Finding:** The Administrator determined that the current and projected concentrations of the six key well-mixed greenhouse gases--carbon dioxide (CO₂), methane (CH₄), nitrous oxide (N₂O), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), and sulfur hexafluoride (SF₆)--in the atmosphere threaten the public health and welfare of current and future generations.
- **Cause or Contribute Finding:** The Administrator determined that the combined emissions of these well-mixed greenhouse gases from new motor vehicles and new motor vehicle engines contribute to the greenhouse gas pollution which threatens public health and welfare.

EPA's Endangerment Finding sets the stage for the regulation of carbon dioxide and other greenhouse gases by EPA under the Clean Air Act. While EPA's initial Endangerment Finding will result in greenhouse gas regulation of the transportation industry, the

regulation of large stationary sources such as fossil fuel-fired electric generating units is inevitable. It is uncertain whether EPA regulation of carbon dioxide emissions from electric generating units will be more or less stringent than in currently proposed legislation. However, EPA GHG regulations will increase the cost of fossil fuel-fired generation. As a result, the GREC project will enhance GRU's renewable energy position in the energy market, either by reducing GRU's compliance costs or by enabling GRU to benefit economically by selling its RECs, carbon allowances, or other renewable attributes at market prices.

The Council on Environmental Quality (CEQ) recently issued new draft guidelines on evaluating the effects of greenhouse gas emissions on climate change. Under draft guidelines released February 18, 2010, federal agencies will have to consider greenhouse gas emissions and climate change effects when carrying out National Environmental Policy Act reviews. Many expect this to lengthen the licensing process for major energy projects.

- 83. Please explain or describe the status of any other regulation currently before the FL House of Representatives, FL Senate, or other Florida state agencies that would increase regulation on carbon dioxide emissions and have an economic impact on the GREC Project.**

Response to Interrogatory No. 83:

It is our understanding that there is no additional carbon reduction legislation proposed in the Florida House or Senate this session. In addition, the Florida Department of Environmental Protection has suspended its regulatory action on regulating greenhouse gas emissions while awaiting the final actions taken by the U.S. Congress and the EPA.

- 84. Please explain or describe the status of any other regulation currently before the US House of Representatives, US Senate, or other federal government agencies that would require electric utilities to utilize renewable energy, such as a Renewable Portfolio Standard (RPS).**

Response to Interrogatory No. 84:

In addition to the renewable electricity standard found in HR 2454, Senate Bill 1462, reported out of the Senate Energy and Natural Resources Committee June 17, 2009, contains a RES. As currently written, S. 1462 applies to utilities generating greater than 4,000,000 MWh annually. The RES starts at 3 percent of generation in 2011 and increases to 15 percent in 2021. This is slightly less stringent than the RES found in HR 2454. ACP costs in S. 1462 start at \$21/MWh (in 2008 dollars) and increase each year based on inflation. In addition, Senator Graham has released a discussion draft bill entitled the Clean Energy Act of 2009. This bill establishes a clean energy standard (CES) of 13 percent in 2012 increasing to 50 percent by 2050. The CES differs from the RES in that in addition to renewable energy sources, new nuclear generation, coal-fired generation with carbon capture and sequestration (CCS), and certain incremental hydroelectric and geothermal generation can be included for compliance purposes. Qualifying generation sources are treated differently in awarding clean energy standard credits (CESCs). Biomass projects will receive bonus allowances while coal-fired units adding CCS will receive discounted CESCs. The Graham ACP starts at \$50/MWh. This bill may serve as the renewable component of the Kerry Graham Lieberman Energy Bill and would be the most stringent ACP to date. While GRU's generation is less than 4,000,000 MWh annually this bill would allow for voluntary participation by smaller utilities such as GRU and would provide a market for clean energy credits created by GREC. This provision would add value to the environmental attributes associated with GREC.

- 85. Please explain or describe the status of any other regulation currently before the FL House of Representatives, FL Senate, or other Florida state agencies that would require electric utilities to utilize renewable energy, such as a Renewable Portfolio Standard (RPS).**

Response to Interrogatory No. 85:

House Bill 1417 has been introduced in the Florida House of Representatives. This bill would ratify the Florida Public Service Commission's proposed RPS rules 25-17.400, 25-17.410, and 25-17.420, F.A.C. In previous years, legislation requiring the use of renewable energy has been proposed in the Florida House and Senate and an executive order from the Governor was issued to require the Florida Public Service Commission to

develop a RPS. Any such standard at the state level would enhance the value of the renewable energy output from GREC.

- 86. Please explain or describe GRU's current plan for utilizing the renewable energy credits produced by the GREC Project, under the current regulatory environment and under the Waxman-Markey Bill.**

Response to Interrogatory No. 86:

GRU's plan for utilizing renewable energy credits (RECs) produced by GREC depends on how the markets and requirements for carbon allowances and RECs evolve. Under the current regulatory environment, GRU continuously evaluates the voluntary REC and carbon markets and would utilize RECs and other environmental attributes so as to maximize value to GRU's customers. For example, GRU has found a market for selling these credits to assist developers seeking Leadership in Energy Efficient Design (LEED) certification for their projects. The legislation described in response to Interrogatories Nos. 80 through 85 would result in separate markets for carbon and RECs. GRU would evaluate the specific conditions in existence at the time GREC comes on line as well as at the time the RECs from other GRU renewable projects become available. If an excess of RECs existed, as is likely to occur under HR 2454 (see response to Interrogatory No. 81), GRU will maximize their value to GRU's customers, either by selling them or "banking" them for future use, whichever would provide the greatest value to GRU's customers.

II. Reliability Need:

- 87. Please explain or describe the possibility of early retirement of any of GRU's generating fleet as a result of the GREC Project. Specifically address the possible impact of early retirements of Deerhaven Unit 1, and J. R. Kelly GT-1 through GT-3.**

Response to Interrogatory No. 87:

GRU does not plan to advance their unit retirement schedule with the addition of GREC. GREC will reduce the costs of outages of GRU's other units with its low cost generation and will provide GRU the flexibility to retire older units if they incur catastrophic failure or very high repair or maintenance costs, or become uneconomic due to future

environmental regulations. Older combustion turbines such as Kelly GTs 1 through 3 are especially prone to failures which render them uneconomical to repair. Additionally, while GRU has no plans to accelerate the retirement date for Deerhaven 1, GREC provides GRU the flexibility to consider doing so, if, for example, Deerhaven 1 were to be faced with unexpectedly high environmental compliance costs or significantly escalating maintenance or repair costs. If any of these units were to be retired earlier than presently scheduled, GRU's need for additional capacity to meet reserve margin requirements would be correspondingly advanced to an earlier date. Having GREC on line will further provide opportunities to market GRU's capacity resources hourly through the Florida Cost Based Broker System and for longer periods of time through The Energy Authority. GRU continuously reviews all of its costs and opportunities and GREC may provide alternatives to reduce costs or extract market value in a manner not currently envisioned.

- 88. Please refer to Section 4.2.6 of GRU's application regarding wholesale energy sales. Please supply a copy of tables 4-1, 4-2, 5-1, and 5-2 from GRU's Application assuming that these wholesale energy sales are allowed to expire without renewal.**

Response to Interrogatory No. 88:

These wholesale power contracts have been in place since 1976 with Seminole Electric Cooperative Inc. and 1985 with the City of Alachua. They are full requirements contracts including all reserve margins, transmission, and control area services. GRU is best able to physically provide these services as well as substation maintenance and emergency response. These contracts have been renewed over the past 34 years both through negotiation and competitive solicitation to the benefit of GRU's retail customers. Based on the long history of renewing these contracts, GRU fully expects to renew them upon expiration. Should either or both of these contracts ever expire without renewal, GRU would market the resources thus freed up so as to maximize value to its retail customers.

Tables 4-1, 4-2, 5-1, and 5-2 have been revised to reflect a forecast of capacity requirements assuming that the Seminole and Alachua contracts are allowed to expire. GRU fully expects that it will be able to remarket 100 percent of the capacity that has been freed up by the expiration of these wholesale sales. However, in response to this request, GRU has produced a conservative forecast that assumes only 50 percent of this

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capacity is remarketed. The revised tables are presented below and demonstrate that the timing of GRU's need for capacity is not affected.

Revised Table 4-1 Historical and Forecast Net Energy for Load (GWh)							
Year	History	50% Remarket of Non-Renewed Wholesale	Lower (95% CI)	Lower (68% CI)	Base	Upper (68% CI)	Upper (95% CI)
1989	1,323						
1990	1,363						
1991	1,411						
1992	1,424						
1993	1,502						
1994	1,519						
1995	1,648						
1996	1,659						
1997	1,661						
1998	1,779						
1999	1,798						
2000	1,868						
2001	1,882						
2002	2,008						
2003	2,015						
2004	2,049						
2005	2,082						
2006	2,099						
2007	2,122						
2008	2,079						
2009		2,045	1,903	1,985	2,045	2,106	2,187
2010		2,044	1,897	1,978	2,044	2,109	2,190
2011		1,996	1,908	1,990	2,061	2,133	2,214
2012		2,018	1,925	2,008	2,085	2,162	2,245
2013		1,998	1,943	2,026	2,110	2,193	2,277
2014		2,020	1,961	2,045	2,135	2,224	2,309
2015		2,044	1,979	2,064	2,160	2,256	2,342
2016		2,065	1,994	2,081	2,183	2,285	2,372
2017		2,085	2,009	2,097	2,205	2,314	2,401
2018		2,106	2,025	2,113	2,228	2,344	2,432
2019		2,124	2,038	2,127	2,249	2,370	2,459
2020		2,139	2,047	2,137	2,265	2,394	2,483
2021		2,153	2,055	2,146	2,280	2,415	2,505
2022		2,165	2,063	2,154	2,295	2,436	2,527
2023		2,178	2,071	2,162	2,310	2,457	2,549
2024		2,191	2,078	2,170	2,325	2,479	2,571
2025		2,205	2,087	2,180	2,341	2,502	2,594
2026		2,219	2,095	2,188	2,356	2,524	2,617
2027		2,233	2,103	2,197	2,372	2,546	2,640
2028		2,247	2,111	2,205	2,387	2,569	2,663
2029		2,260	2,118	2,213	2,402	2,591	2,686
2030		2,273	2,125	2,221	2,417	2,612	2,708
2031		2,286	2,132	2,229	2,431	2,634	2,731
2032		2,299	2,139	2,236	2,446	2,656	2,753
2033		2,312	2,146	2,243	2,460	2,678	2,775
2034		2,325	2,152	2,250	2,475	2,700	2,798
2035		2,337	2,158	2,257	2,489	2,721	2,820
2036		2,350	2,165	2,264	2,503	2,743	2,842
2037		2,363	2,171	2,271	2,518	2,765	2,865
2038		2,376	2,178	2,279	2,533	2,788	2,889
2039		2,388	2,184	2,285	2,547	2,810	2,911
2040		2,401	2,190	2,291	2,561	2,831	2,933
2041		2,413	2,196	2,298	2,576	2,854	2,956
2042		2,426	2,202	2,305	2,590	2,876	2,979
2043		2,439	2,208	2,311	2,605	2,899	3,002
2044		2,453	2,215	2,318	2,620	2,922	3,026

Revised Table 4-2 Historical and Forecast Summer Peak Demand (MW)							
Year	History	50% Remarket of Non-Renewed Wholesale	Lower (95% CI)	Lower (68% CI)	Base	Upper (68% CI)	Upper (95% CI)
1989	296						
1990	305						
1991	297						
1992	320						
1993	339						
1994	331						
1995	361						
1996	365						
1997	373						
1998	396						
1999	419						
2000	425						
2001	409						
2002	433						
2003	417						
2004	432						
2005	465						
2006	464						
2007	481						
2008	457						
2009		441	406	425	441	458	477
2010		439	403	422	439	456	475
2011		426	403	422	441	459	478
2012		428	404	424	443	462	482
2013		421	405	425	445	466	485
2014		423	407	426	448	469	489
2015		425	408	427	450	473	492
2016		428	410	430	453	477	497
2017		431	412	432	457	482	502
2018		433	414	434	460	486	506
2019		436	415	435	463	490	510
2020		437	416	436	465	493	514
2021		439	416	437	466	496	517
2022		440	416	437	468	499	519
2023		441	417	437	469	502	522
2024		442	417	438	471	504	525
2025		444	418	438	473	507	528
2026		445	418	439	475	510	531
2027		446	419	439	476	513	534
2028		448	419	440	478	516	537
2029		449	419	440	480	519	540
2030		450	420	441	481	522	543
2031		451	420	441	483	524	546
2032		453	420	441	484	527	549
2033		454	420	442	486	530	551
2034		455	421	442	487	533	554
2035		456	421	442	489	535	557
2036		457	421	442	490	538	560
2037		458	421	443	492	541	563
2038		459	421	443	493	544	566
2039		460	421	443	495	547	568
2040		462	422	443	496	549	571
2041		463	422	444	498	552	574
2042		464	422	444	499	555	577
2043		465	422	444	501	558	580
2044		466	422	444	503	561	583

**Revised Table 5-1 – 50% Remarket of Non-Renewed Wholesale
 GRU Projected Capacity Requirements (Without the GREC LLC PPA)**

Year	GRU ⁽¹⁾ Owned Summer Net Generating Capacity (MW)	Renewable Energy Sources			(15) Other PPAs PEF (MW)	Total Available Summer Capacity (MW)	Summer Peak Demand (MW)	15% Reserve Margin (MW)	Total Summer Peak Demand Including Reserves (MW)	Excess/ (Deficit) Capacity to Maintain Reserve Margin (MW)
		(12) FIT Solar PV (MW)	LFG G2 Energy, LLC (MW)	GREC LLC PPA (MW)						
2009	608 ⁽²⁾	1	3	0	98	710	441	66	508	203
2010	608 ⁽³⁾	3	4 ⁽¹²⁾	0	98	713	439	66	505	208
2011	608	4	4	0	49 ⁽¹⁶⁾	665	426	64	490	175
2012	620 ⁽⁴⁾	6	4	0	49	678	428	64	493	185
2013	620	7	4	0	49	679	421	63	484	195
2014	597 ⁽⁵⁾	8	4	0	0 ⁽¹⁷⁾	609	423	63	486	122
2015	597	10	4	0	0	610	425	64	489	121
2016	597	11	4	0	0	611	428	64	492	119
2017	597	12	4	0	0	612	431	65	495	117
2018	583 ⁽⁶⁾	13	4	0	0	599	433	65	498	100
2019	555 ⁽⁷⁾	13	4	0	0	572	436	65	501	70
2020	555	14	4	0	0	572	437	66	503	69
2021	555	15	4	0	0	573	439	66	504	68
2022	555	15	4	0	0	574	440	66	506	68
2023	472 ⁽⁸⁾	16	4	0	0	491	441	66	507	(16)
2024	472	17	4	0	0	492	442	66	509	(17)
2025	472	18	4	0	0	493	444	67	510	(17)
2026	472	18	4	0	0	493	445	67	512	(18)
2027	437 ⁽⁹⁾	19	4	0	0	459	446	67	513	(54)
2028	437	20	4	0	0	460	448	67	515	(55)
2029	437	20	0 ⁽¹⁴⁾	0	0	456	449	67	516	(60)
2030	437	20	0	0	0	456	450	68	518	(61)
2031	437	20	0	0	0	456	451	68	519	(63)
2032	205 ⁽¹⁰⁾	20	0	0	0	225	453	68	520	(296)
2033	205	20	0	0	0	225	454	68	522	(297)
2034	205	20	0	0	0	225	455	68	523	(298)
2035	205	20	0	0	0	225	456	68	524	(300)
2036	205	20	0	0	0	225	457	69	525	(301)
2037	191 ⁽¹¹⁾	20	0	0	0	211	458	69	527	(316)
2038	191	20	0	0	0	211	459	69	528	(318)
2039	191	20	0	0	0	211	460	69	530	(319)
2040	191	20	0	0	0	211	462	69	531	(320)
2041	191	20	0	0	0	211	463	69	532	(321)
2042	191	20	0	0	0	211	464	70	533	(323)
2043	191	20	0	0	0	211	465	70	535	(324)

⁽¹⁾ GRU's assets including photovoltaic (PV) and efficiency and capacity improvements and retirements.

⁽²⁾ This capacity reflects MW reductions in net capacity due to auxiliary power to run Deerhaven Unit 2's new (May 2009) Air Quality Control Systems to significantly reduce NO_x, SO₂, particulates, & mercury emissions.

⁽³⁾ GRU's 0.3859 MW share of efficiency improvement in CR3 net output.

⁽⁴⁾ Net 9.4 MW capacity increase from steam turbine and other efficiency improvement in Deerhaven Unit 2 and GRU's 1.93 MW share of capacity increase in CR3 net output (Steam Generator replacement).

⁽⁵⁾ John R. Kelly Steam Unit 7 retires.

⁽⁶⁾ John R. Kelly GT 1 retires.

⁽⁷⁾ John R. Kelly GT 2 & GT 3 retire.

⁽⁸⁾ Deerhaven Steam Unit 1 retires.

⁽⁹⁾ Deerhaven GT 1 & GT 2 retire.

⁽¹⁰⁾ Deerhaven Steam Unit 2 retires.

⁽¹¹⁾ CR3 retires.

⁽¹²⁾ Total from Feed-In Tariff for Solar PV capacity adjusted for coincidence as well as annual increases in Feed-In Tariff capacity and follow-on net metered PV.

⁽¹³⁾ Additional net 0.775 MW delivered capacity from G2 Energy Power Purchase Agreement (PPA).

⁽¹⁴⁾ End of net delivered 3.68 MW from G2 Energy PPA.

⁽¹⁵⁾ Total from Other PPAs adjusting for losses.

⁽¹⁶⁾ End of PEF's 50 MW summer PPA (48.94 MW delivered).

⁽¹⁷⁾ End of PEF's 50 MW summer PPA (48.94 MW delivered).

Revised Table 5-2 – 50% Remarket of Non-Renewed Wholesale GRU Projected Capacity Requirements (With the GREC LLC PPA)										
Year	GRU ⁽¹⁾ Owned Summer Net Generating Capacity (MW)	Renewable Energy Sources			(17) Other PPAs PEF (MW)	Total Available Summer Capacity (MW)	Summer Peak Demand (MW)	15% Reserve Margin (MW)	Total Summer Peak Demand Including Reserves (MW)	Excess/ (Deficit) Capacity to Maintain Reserve Margin (MW)
		(12) FIT Solar PV (MW)	LFG G2 Energy, LLC (MW)	GREC LLC PPA (MW)						
2009	608 ⁽¹⁾	1	3	0	98	710	441	66	508	203
2010	608 ⁽¹⁾	3	4 ⁽¹⁾	0	98	713	439	66	505	208
2011	608	4	4	0	49 ⁽¹⁸⁾	665	426	64	490	175
2012	620 ⁽⁴⁾	6	4	0	49	678	428	64	493	185
2013	620	7	4	0	49	679	421	63	484	195
2014	597 ⁽⁵⁾	8	4	50 ⁽¹⁵⁾	0 ⁽¹⁹⁾	659	423	63	486	172
2015	597	10	4	50	0	660	425	64	489	171
2016	597	11	4	50	0	661	428	64	492	169
2017	597	12	4	50	0	662	431	65	495	167
2018	583 ⁽⁶⁾	13	4	50	0	649	433	65	498	150
2019	555 ⁽⁷⁾	13	4	50	0	622	436	65	501	120
2020	555	14	4	50	0	622	437	66	503	119
2021	555	15	4	50	0	623	439	66	504	118
2022	555	15	4	50	0	624	440	66	506	118
2023	472 ⁽⁸⁾	16	4	50	0	541	441	66	507	34
2024	472	17	4	100 ⁽¹⁶⁾	0	592	442	66	509	83
2025	472	18	4	100	0	593	444	67	510	83
2026	472	18	4	100	0	593	445	67	512	82
2027	437 ⁽⁹⁾	19	4	100	0	559	446	67	513	46
2028	437	20	4	100	0	560	448	67	515	45
2029	437	20	0 ⁽¹⁴⁾	100	0	556	449	67	516	40
2030	437	20	0	100	0	556	450	68	518	39
2031	437	20	0	100	0	556	451	68	519	37
2032	205 ⁽¹⁰⁾	20	0	100	0	325	453	68	520	(196)
2033	205	20	0	100	0	325	454	68	522	(197)
2034	205	20	0	100	0	325	455	68	523	(198)
2035	205	20	0	100	0	325	456	68	524	(200)
2036	205	20	0	100	0	325	457	69	525	(201)
2037	191 ⁽¹¹⁾	20	0	100	0	311	458	69	527	(216)
2038	191	20	0	100	0	311	459	69	528	(218)
2039	191	20	0	100	0	311	460	69	530	(219)
2040	191	20	0	100	0	311	462	69	531	(220)
2041	191	20	0	100	0	311	463	69	532	(221)
2042	191	20	0	100	0	311	464	70	533	(223)
2043	191	20	0	100	0	311	465	70	535	(224)

⁽¹⁾ GRU's assets including PV and efficiency & capacity improvements and retirements.

⁽²⁾ This capacity reflects MW reductions in net capacity due to auxiliary power to run Deerhaven Unit 2's new (May 2009) Air Quality Control Systems to significantly reduce NO_x, SO₂, particulates, & mercury emissions.

⁽³⁾ GRU's 0.3859 MW share of efficiency improvement in CR3 net output.

⁽⁴⁾ Net 9.4 MW capacity increase from steam turbine and other efficiency improvement in Deerhaven Unit 2 and GRU's 1.93 MW share of capacity increase in CR3 net output (Steam Generator replacement).

⁽⁵⁾ John R. Kelly Steam Unit 7 retires.

⁽⁶⁾ John R. Kelly GT 1 retires.

⁽⁷⁾ John R. Kelly GT 2 & GT 3 retire.

⁽⁸⁾ Deerhaven Steam Unit 1 retires.

⁽⁹⁾ Deerhaven GT 1 & GT 2 retire.

⁽¹⁰⁾ Deerhaven Steam Unit 2 retires.

⁽¹¹⁾ CR3 retires.

⁽¹²⁾ Total from Feed-In Tariff for Solar PV capacity adjusted for coincidence as well as annual increases in Feed-In Tariff capacity and follow-on net metered PV.

⁽¹³⁾ Additional net 0.775 MW delivered capacity from G2 Energy Purchased Power Agreement (PPA).

⁽¹⁴⁾ End of net delivered 3.68 MW from G2 Energy PPA.

⁽¹⁵⁾ Addition of 100 MW from GREC LLC PPA and start of 10 year resale of 50 MW from GREC.

⁽¹⁶⁾ End of GREC LLC PPA 50 MW Resale.

⁽¹⁷⁾ Total from Other PPAs adjusting for losses.

⁽¹⁸⁾ End of PEF's 50 MW summer PPA (48.94 MW delivered).

⁽¹⁹⁾ End of PEF's 50 MW summer PPA (48.94 MW delivered).

Biomass Resource Availability:

89. **Please explain or describe the effect, under the contract signed between GRU and GREC LLC, if insufficient fuel was available for usage in the facility. As part of this response, please indicate and describe what provisions specifically would be related to this possibility.**

Response to Interrogatory No. 89:

Failure to obtain sufficient fuel would render the facility unavailable. Pursuant to the terms and conditions of the Power Purchase Agreement (PPA) between GRU and GREC LLC, under this circumstance, GRU will have no financial liabilities and the clock on liquidated damages for GREC LLC would begin. Furthermore, under Section 3.4.2 of the PPA with GREC LLC, GRU will have the ability to adjust its obligations to reimburse GREC LLC for ad valorem taxes on a pro-rata basis if the unit is unavailable for a protracted period. Finally, under Section 4.1 of the PPA with GREC LLC, GRU could take over fuel acquisition.

90. **Please explain or describe any security provisions that would limit costs to GRU ratepayers if GREC LLC, is unable to acquire sufficient fuel locally, but is able to secure fuel with significantly higher transportation-related costs.**

Response to Interrogatory No. 90:

Section 4.7 of the PPA with GREC LLC provides that GRU can continuously monitor fuel costs and ensure that the gain/loss sharing provisions of the PPA are correctly applied. Given the anticipated portfolio of fuel contracts, the scenario presented would only apply to a small portion of the fuel supply. GRU will have the ability to ascertain the effect of this tranche of energy on its overall cost. If this tranche would place some of the output from GREC at an untenable price, GRU has the option to request that the purchase not be made in exchange for dispatching the unit at a slightly lower capacity factor or to obtain its own additional fuel supply. For example, if 90 percent of the fuel is purchased at an economic price, and the next increment of fuel cost is uneconomic, GRU can choose to have GREC LLC not purchase the uneconomic fuel and dispatch GREC at a slightly lower capacity factor.

91. Please refer to Exhibit 29, page 27. On the slide titled "Fuel Procurement Areas," a series of facilities are shown within the 75 mile radius for economic fuel transport described by Witness Levine. Please supply a list of the biomass projects shown, including approximate capacity (if an electrical generator), and estimated annual biomass resource need.

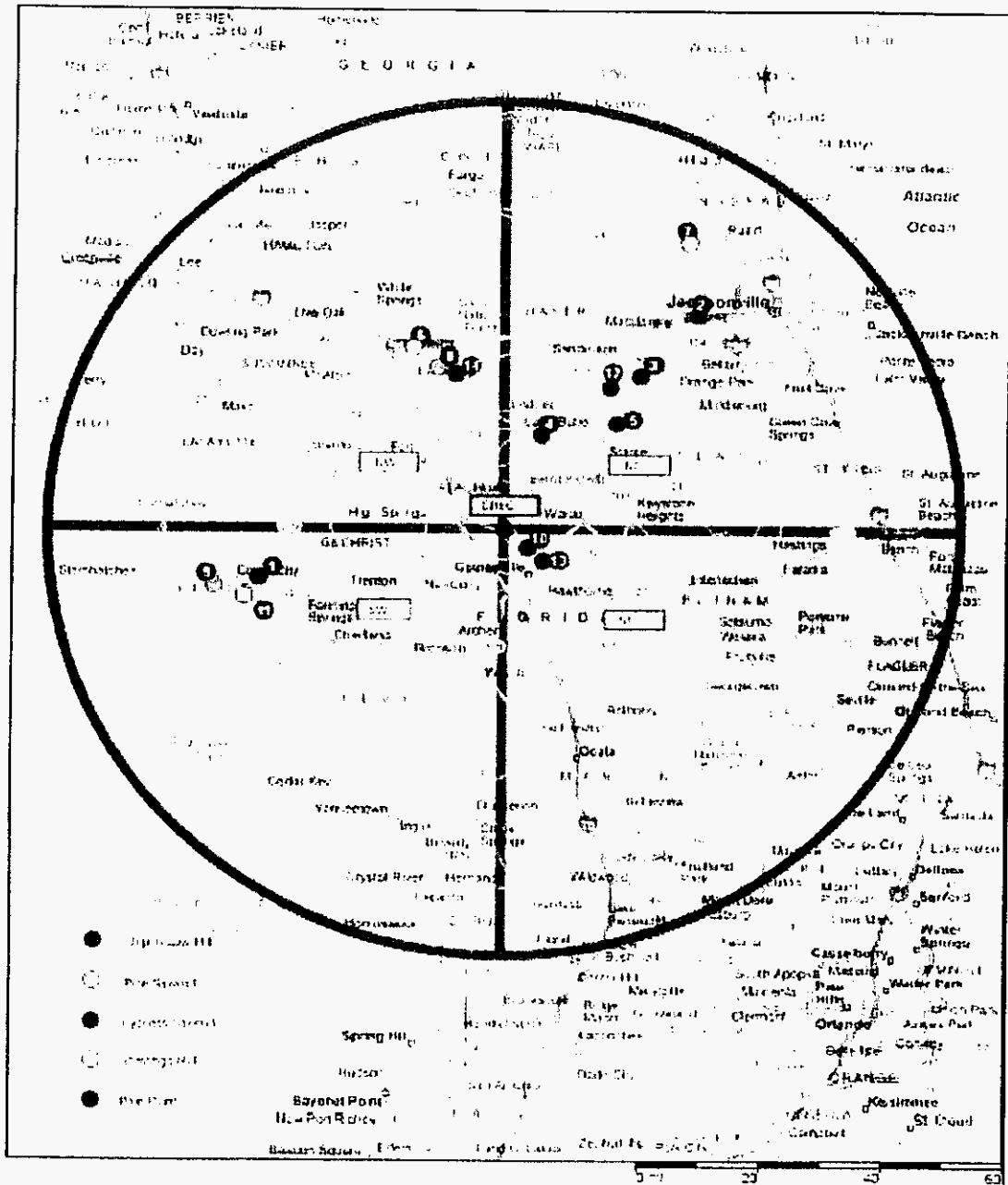
Response to Interrogatory No. 91:

On the following map, as well as in the table labeled Response to Interrogatory No. 91, are listed the 14 biomass facilities shown within the 75 mile radius depicted in Exhibit 29, page 27. These facilities were originally depicted, not to show potential competitors with GREC for biomass material, but rather to show the number of existing biomass users who are likely to supply GREC with some of their mill residues. These facilities process harvested round wood as feed stock and have by-products that are a potential source of fuel for GREC (i.e., mill residues). This map did not depict all biomass facilities within the 75 mile radius, but only showed the mills that have been identified as being most likely to potentially supply GREC with a portion of their residues due to the travel distance from GREC and the material type. Sufficient information to characterize their annual production of mill residues is available for only 9 of the 14 facilities. As shown in the table below, these 9 facilities are estimated to generate approximately 1.3 million green tons of mill residues per year. It is estimated that 15 percent or more of these residues will be available to GREC, which is equivalent to approximately 200,000 or more green tons per year. The total amount of mill residues that GREC will ultimately consume will depend on both the availability, and the price, of the mill residues.

US Forest Service data indicate that there is between 3 and 4 million green tons of mill residue produced annually within the GREC 75 mile radius area, most of which is currently being utilized, which is why GREC LLC has used the conservative estimate presented above.

An electronic version of the table labeled *Response to Interrogatory No. 91* is included in the file titled *Response to Interrogatories 91 through 99.xls* on the enclosed CD.

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Response to Interrogatory No. 91												
#	Biomass Facility Name (a)	Map No. (Question 91 map only)	Owner of Facility	Type of Facility	Location of Facility	Distance From GREC (road miles)	Capacity (MAY) (b)	Estimated Annual Biomass Feedstock Required (mm green tons)	Estimated Annual Residuals (mm green tons)	Type of Biomass Material	Status of Facility	Comment
1	Griffis Lumber	1	Griffis Lumber	Cypress sawmill, landscape mulch	Gainesville, FL	1	N/A	*	0.25	Cypress Logs	Operating	
2	Koppers Company	2	Koppers Company	Class Poles	Gainesville, FL	6	N/A	0.00	0.24	Pine Logs	Idle	Permanently closing facility in March, 2010
3	Gilman Building Products	3	Gilman Building Products	Chip-n-Saw	Lake Butler, FL	18	N/A	0.50	0.25	Pine Logs	Operating	
4	Tatum Brothers Lumber	4	Tatum Brothers Lumber	Sawmill	Lawley, FL	26	N/A	0.10	0.25	Pine Logs	Operating	
5	Cochran Forest Products	5	Cochran Forest Products	Class Poles	Lake City, FL	32	N/A	*	*	Pine Logs	Operating	Only taking large poles (min 12" at 6').
6	Smurfit Stone Container	6	Fulghum Fibres	Pine	Maxville, FL	33	N/A	0.74	*	Pine Logs	Operating	
7	Great South Lumber	7	Great South Timber & Lumber	Chip-n-Saw	Lake City, FL	33	N/A	0.18	0.01	Pine Logs	Operating	
8	Gilman Building Products	8	Gilman Building Products	Chip-n-Saw	Maxville, FL	35	N/A	0.50	0.07	Pine Logs	Operating	
9	Corbitt Manufacturing	9	Corbitt Manufacturing	Landscape Mulch, shavings	Lake City, FL	35	N/A	*	0.20	Cypress & Pine Logs	Operating	
10	Georgia-Pacific	10	Georgia-Pacific	Chip-n-Saw	Cross City, FL	44	N/A	0.33	*	Pine Logs	Idle	
11	Suwannee Lumber	11	Suwannee Lumber	Sawmill	Cross City, FL	46	N/A	0.40	*	Pine Logs	Operating	
12	Oldcastle Lawn & Garden	12	Oldcastle Lawn & Garden	Landscape Mulch, shavings	Cross City, FL	46	N/A	*	0.03	Cypress & Pine Logs	Operating	
13	West Fraser	13	West Fraser	Chip-n-Saw	Whitehouse, FL	49	N/A	0.45	0.00	Pine Logs	Operating	
14	Mulch Manufacturing	14	Mulch Manufacturing	Landscape Mulch, shavings	Callahan, FL	59	N/A	*	*	Cypress & Pine Logs	Operating	

(a) As set forth on Exhibit 29, page 27, the facilities shown within the 75 mile radius for economic fuel transport described by Witness Levine.
 (b) Only for electrical generators.
 The information has been compiled from publicly available data; however, GREC LLC is not able to independently validate the information.
 *Data not available.

92. Please refer to Exhibit 29, page 27. Please supply a list of woody biomass projects under construction or in-service that would share some or all of the 75 mile radius illustrated for their biomass supply, including approximate capacity (if an electrical generator), estimated annual biomass resource need, and current status of each project.

Response to Interrogatory No. 92:

Please refer to the table labeled *Response to Interrogatory No. 92* for a list of all existing, or under-construction, facilities that utilize any form of woody biomass, which share some, or all, of the GREC 75 mile radius for their biomass supply. An electronic version of the table labeled *Response to Interrogatory No. 92* is included in the file titled *Response to Interrogatories 91 through 99.xls* on the enclosed CD.

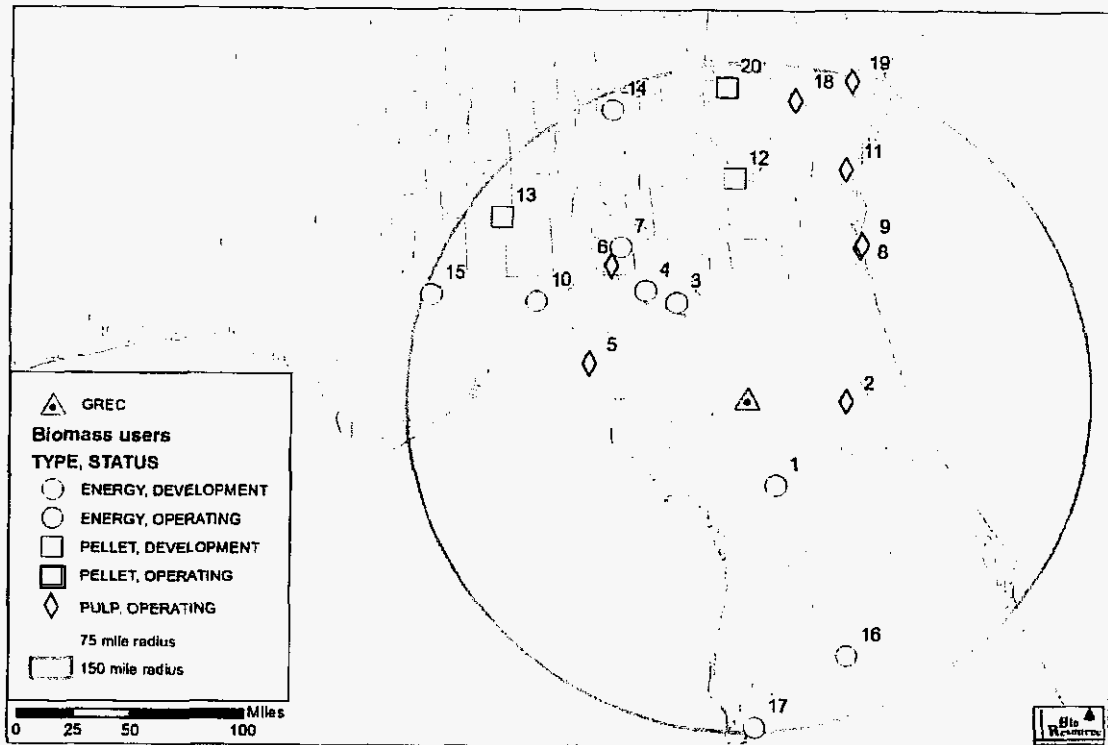
In determining which facilities can be considered to be in competition for biomass material with GREC, it is important to note that many of these facilities are primarily targeting a specific biomass material, such as pulpwood or saw logs in the case of pulp mills, pellet mills and saw mills. GREC, on the other hand, is able to utilize a wide range of clean, woody biomass material and will not utilize higher-value biomass material like saw logs as it is not economical to do so. Therefore, in most cases, GREC is not competing with the facilities listed in the following table.

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Response to Interrogatory No. 32														
#	Biomass Facility Name (a)	Map no. (overall map)	Owner of Facility	Type of Facility	State	County	City	Distance from GREC (road miles)	Approximate Net Capacity (MW) (b)	Est. Annual Biomass Feedstock Required (mm green tons)	Type of Biomass Material	Status of Facility	Current Status of Project	Comment
1	Georgia-Pacific Palatka	1	Koch Industries, USA	Pulp mill	FL	Putnam	Palatka	55	*	1.85	Pulpwood, bark, wastewood	Operating	-	
2	Buckeye	5	Buckeye Florida L.P.	Pulp mill	FL	Taylor	Foley	79	51	1.83	Pulpwood, bark, wastewood	Operating	Additional electrical capacity in development	Current capacity is 39 MW and they are proposing an additional 12 MW of biomass power; total annual biomass resource includes material needed for pulping process as well as its boiler
3	Packaging Corp. of America	6	Packaging Corp. of America	Pulp mill	GA	Lowndes	Clyattville	90	*	1.47	Pulpwood, bark, wastewood	Operating	-	
4	Rayonier Fernandina Beach	8	Rayonier, Inc.	Pulp mill	FL	Nassau	Fernandina Beach	100	*	0.56	Pulpwood, bark, wastewood	Operating	-	
5	Smurfit-Stone	9	Smurfit-Stone Container Corp.	Pulp mill	FL	Nassau	Fernandina Beach	107	*	2.65	Pulpwood, bark, wastewood	Operating	-	
6	SI Monticello	10	SI Group Energy	Electrical generator	FL	Jefferson	Monticello	116	7	0.87	Clean woody biomass	Operating	-	Frequent shutdowns
7	Georgia-Pacific Brunswick	11	Koch Industries, USA	Pulp mill	GA	Glynn	Brunswick	141	*	1.16	Pulpwood, bark, wastewood	Operating	-	
8	Ridge Generating Station	16	Wheelabrator Ridge Energy Inc.	Electrical generator	FL	Polk	Auburndale	166	39	0.20	Wood waste (plus tires, landfill gas)	Operating	-	
9	Rayonier Jesup	18	Rayonier, Inc.	Pulp mill	GA	Wayne	Jesup	175	*	2.22	Pulpwood, bark, wastewood	Operating	-	
10	Interstate Paper	19	Indevco Group	Pulp mill	GA	Liberty	Riceboro	177	*	0.95	Pulpwood, bark, wastewood	Operating	-	
11	Appling County Pellets	20	Fram Renewable Fuels	Pellet mill	GA	Appling	Baxley	189	*	0.16	Pulpwood, lime mill residue	Operating	Operating	Started up 2008

(a) Woody biomass projects under construction or in-service that would share some or all of the 75 mile radius of GREC fuel supply.
 (b) Only for electrical generators
 The information has been compiled from publicly available data; however, GREC LLC is not able to independently validate the information.
 * Not Applicable / not available

The following map shows the 20 facilities referenced in response to Interrogatories Nos. 92, 93, 94, 97 and 99, which are within a 150 mile radius of GREC.



93. Please refer to Exhibit 29, page 27. Please supply a list of woody biomass projects within the 75 mile radius that are currently approved or have applications pending before the Florida Department of Environmental Protection. As part of this response, please supply a summary of the biomass project, the approximate capacity (if an electrical generator), estimated annual biomass resource need, the company(ies) applying for the permit, and whether any purchase power agreements have been executed and with whom.

Response to Interrogatory No. 93:

Please refer to the table labeled *Response to Interrogatory No. 93* for the requested information. An electronic version of the table labeled *Response to Interrogatory No. 93*

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is included in the file titled *Response to Interrogatories 91 through 99.xls* on the enclosed CD.

The fact that a project has filed, or received, a permit from a regulatory agency is not a good indicator that a particular project will actually be constructed and placed into operation. Many other elements, such as a financeable PPA with a credit-worthy offtaker for a proposed electrical generator, are necessary before a project can begin construction.

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Response to Interrogatory No. 93																	
Biomass Facility Name	Map no. (overall map)	Owner of Facility	Type of Facility	State	County	City	Distance from GREC (road miles)	Descriptive Summary of the Project	Approximate Capacity (MW) (b)	Est. Annual Biomass Feedstock Required (mm green tons)	Type of Biomass Material	Company Applying for the Permit	Permit Approved or Pending	PPA Executed? / Counterparty	PPA Financable?	Current Status of Project	Comment
1 ADAGE Hamilton Co.	1	ADAGE	Electrical generator	FL	Hamilton	Isador	70	56 MW wood-fired biomass plant	56	0.59	Logging residue, landscaping debris, mill residue, source separated construction wood waste	ADAGE Hamilton, LLC	Construction permit issued FL DEP 1/12/10; # 0470016-061-AC	No	*	Announced 5/2009	Final air construction permit issued 1/2010
2 Buckeye	5	Buckeye Florida L.P.	Pulp mill	FL	Taylor	Foley	79 (c)	Pulp mill with biomass generating capability	51	1.88	Pulpwood, bark, wastewater	Buckeye Florida, LP	Construction permit issued FL DEP 8/21/03; # 1230001-023-AC	*	*	Additional electrical capacity in development	Current capacity is 39 MW and they are proposing an additional 12 MW of biomass power; total annual biomass resource includes material needed for pulping process as well as its boiler

(a) Woody biomass projects within the 75 mile radius that are currently approved or have applications pending before the FDEP
 (b) Only for electrical generators
 (c) Buckeye has been included. Buckeye is within 75 miles of GREC, "as the crow flies"; however, Buckeye is 79 road miles from GREC.
 The information has been compiled from publicly available data; however, GREC LLC is not able to independently validate the information.
 * Not applicable / not available

94. Please refer to Exhibit 29, page 27. Please supply a list of woody biomass projects in Georgia that are currently approved or have applications pending before the Georgia Department of Environmental Protection (or equivalent responsible agency for permitting biomass projects within the State of Georgia). Please limit the response(s) to biomass projects whose catchment area would reasonably or foreseeably overlap with the 75 mile radius or compete for biomass which would be supplied to GREC LLC biomass facility. As part of this response, please supply a summary of the biomass project, the approximate capacity (if an electrical generator), estimated annual biomass resource need, the company(ies) applying for the permit, and whether any purchase power agreements have been executed and with whom.

Response to Interrogatory No. 94:

Please refer to the table labeled *Response to Interrogatory No. 94* for the requested information. An electronic version of the table labeled *Response to Interrogatory No. 94* is included in the file titled *Response to Interrogatories 91 through 99.xls* on the enclosed CD.

The fact that a project has filed, or received, a permit from a regulatory agency is not a good indicator that a particular project will actually be constructed and placed into operation. Many other elements, such as a financeable PPA with a credit-worthy offtaker for a proposed electrical generator, are necessary before a project can begin construction.

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Response to Interrogatory No. 94																	
Biomass Facility Name	Map no. (overall map)	Owner of Facility	Type of Facility	State	County	City	Distance from GREC (road miles)	Descriptive Summary of the Project	Approximate Capacity (MW) (b)	Est. Annual Biomass Feedstock Required (mm green tons)	Type of Biomass Material	Company Applying for the Permit	Permit Approved or Pending	PPA Executed? / Counterparty	PPA Financeable?	Current Status of Project	Comment
1 Georgia Biomass LLC	12	RVE Energy/BMC	Pellet mill	GA	Ware	Waycross	144	Pellet manufacture for export market	*	2.00	Pulpwood, fine mill residue		Maybe, if via Ware County Pellets/Am. Green Holdings LLC minor source permit 10/29/08 #2499-239-0057-5-01-0		*	Announced 2010	BMC is Swedish. RVE German. Pellets to Netherlands
2 Fitzgerald Renewable Energy	14	FRE, LLC (Decker Energy International, Inc.)	Electrical generator	GA	Ben Hill	Fitzgerald	157	56 MW wood-fired biomass plant	56	0.16	Clean woody biomass	Fitzgerald Renewable Energy, LLC	Construction/operation. Issued GA EPD 5/5/2009. #4911-017-0020-E-01-0	yes/consortium of rural elec. coops*	*	Development	
<p>(a) Woody biomass projects in GA that are currently received or have applications pending before the GA EPD. Only biomass projects whose catchment area would reasonably or factually overlap with the 75 mile radius or contour for biomass which would be supplied to GREC LLC biomass facility are included.</p> <p>(b) Only for electrical generators.</p> <p>The information has been compiled from publicly available data, however, GREC LLC is not able to independently validate the information.</p> <p>* Not applicable / not available.</p>																	

95. **Please supply an update on GREC LLC's progress in securing woody biomass purchase contracts, options, or agreements with prospective suppliers of woody biomass, if any. As part of this response, please supply details related to the length, term, and amount of woody biomass the contract, option, or agreement is expected to provide to GREC LLC.**

Response to Interrogatory No. 95:

GREC LLC is actively discussing supply agreements with numerous, local forest landowners within the area of supply for the project. Collectively these landowners represent more than 1 million acres and potentially generate over 3.1 million green tons per year of forestry material including logging residue, low-grade thinning and other material. The negotiation of length, term, and amount of material for each landowner varies and all parties require confidentiality during the negotiation process. The targeted term is ten years and the targeted total volume of GREC fuel from the supply agreements from these landowners is 600,000 green tons annually.

Negotiations are also underway with a Florida-based large urban wood waste recycling company. This company handles on average over 1 million tons of vegetative material per year including storm debris. A ten year supply agreement is being negotiated for 300,000 tons of urban wood waste annually. The terms of this agreement are confidential.

GREC LLC is also actively discussing supply agreements for other sources of wood material including mill residue, agricultural land clearing tree debris, and other sources. In addition, GREC LLC wants to maintain the ability to receive opportunity fuels such as storm debris, diseased/damaged trees and tree debris from large clearing projects, and therefore will not execute long-term contracts for more than 90 percent of the estimated maximum supply requirement.

96. **Please supply an update on whether GREC LLC is aware of any woody biomass purchase contracts, options, or agreements that have already been secured by other biomass users, such as pulp or paper mills, wood pellet makers, and other biomass power plants, within the 75 mile radius of the facility. If so, as part of this response,**

please supply a summary of the woody biomass users/projects, the approximate capacity (if an electrical generator), estimated annual biomass resource need.

Response to Interrogatory No. 96:

All third-party supply agreements between biomass suppliers and biomass users are considered to be private and confidential between both parties. A project in Hamilton County, ADAGE Hamilton Co., has reportedly contracted with one large Georgia-based landowner for most or all of their supply needs for the project. GREC LLC has been unable to confirm the details or status of this report. Some of the larger biomass users that are listed in the response to Interrogatory No. 92, are reported to have long term contracts with private forest owners. There is a high probability that these large users receive a majority, in some cases, up to 75 percent, of their biomass material from one large private forest owner. It is unlikely that GREC would contract with these same private land owners for biomass material.

GREC LLC is not aware of any specifics related to any of the existing agreements between suppliers and users within 75 miles of the GREC project. However, all parties referenced in our discussion under Interrogatory No. 95 above have indicated there are no existing agreements with them that would conflict with their execution of an agreement with GREC LLC for the volumes and terms being discussed.

97. **Please supply a list of other woody biomass users or projects which would reasonably or foreseeably compete with the GREC LLC facility for woody biomass. As part of this response, please supply a summary of the woody biomass users/projects, the approximate capacity (if an electrical generator), estimated annual biomass resource need.**

Response to Interrogatory No. 97:

Please refer to the table labeled *Response to Interrogatory No. 97* for a list of other woody biomass users or projects, not mentioned in the responses to Interrogatory Nos. 92, 93, and 94, which could reasonably or foreseeably compete with GREC for woody biomass material. An electronic version of the table labeled *Response to Interrogatory No. 97* is included in the file titled *Response to Interrogatories 91 through 99.xls* on the enclosed CD.

As mentioned in the responses to Interrogatory Nos. 93 and 94, the fact that a project has been announced or has actually filed, or received, a permit from a regulatory agency is not a good indicator that a particular project will actually be constructed and placed into operation. Many other elements, such as a financeable PPA with a credit-worthy offtaker for a proposed electrical generator, are necessary before a project can begin construction.

The low probability of the majority of the facilities listed in the table below, and in the responses to Interrogatory Nos. 93 and 94, actually being constructed and operated notwithstanding, GREC LLC estimates that there is enough biomass material sustainably available at an economic rate within the GREC 75 mile radius for the development of more than 200 MW of biomass energy facilities. As none of these other proposed projects share the exact same wood basket with GREC, GREC LLC is confident that there is more than enough biomass material economically available to sustainably supply GREC.

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Response to Interrogatory No. 97															
Biomass Facility # Name (a)	Map no. (Overall map)	Owner of Facility	Type of Facility	State	County	City	Distance from GREC (road miles)	Descriptive Summary of the Project	Approximate Capacity (MW) (b)	Est. Annual Biomass Feedstock Required (mm green tons)	Type of Biomass Material	PPA Executed? / Counterparty	PPA Financeable?	Current status of Project	Comment
1 Ocala Equine Energy	1	MaxWest/FTBDA	Electrical generator	FL	Marion	Ocala	89	11 MW horse bedding/wood gasification power plant	11	0.05	Horse bedding, clean woody biomass	*	*	Announced 2/2009	Received \$2.5 MM FECC renewable energy grant in 2009
2 Hamilton Co. Renewable Energy Center	3	American Renewables	Electrical generator	FL	Hamilton	Jasper	57	100 MW biomass power plant	100	1.00	Clean woody biomass	No	*	Development	
3 Woodlands Alternative Fuels	13	Woodlands Resources/World Wood Products	Pellet mill	GA	Thomas	Meigs	153	Pellet manufacture for domestic and international markets	*	0.18	Pulpwood, fine mill residue	*	*	Announced 2008; still in planning/financing stage, little progress	
4 ADAGE Gadsden Co.	15	ADAGE	Electrical generator	FL	Gadsden	Gretna	165	56 MW wood-fired biomass plant	56	0.56	Forestry residue/wood, mill residue	No	*	Announced 12/2009	Air construction permit application
5 FB Energy Manatee Facility	17	FB Energy, LLC	Electrical generator	FL	Manatee	Port Manatee	169	60 MW biomass power plant	60	0.60	Wood waste, ambiguous	Yes/Progress Energy Florida	Unlikely	Development	
<p>(a) Other woody biomass users or projects, not listed in response to interrogatories 92, 93 and 94, which would reasonably or foreseeably compete with the GREC LLC facility for woody biomass</p> <p>(b) Only for electrical generators</p> <p>The information has been compiled from publicly available data; however, GREC LLC is not able to independently validate the information.</p> <p>* Not applicable / not available</p> <p>Note: Two facilities that had been proposed by Oglethorpe in GA were not listed as Oglethorpe recently announced that they are only developing one facility in Warren County, GA (central GA near the SC border)</p>															

98. **Please supply a list of all additional biomass projects proposed by American Renewables LLC or any partners thereto since the filing of this joint petition, the approximate capacity, and estimated annual biomass resource need.**

Response to Interrogatory No. 98:

In addition to GREC, American Renewables LLC is also developing a nearly identical 100 MW net biomass energy project in Hamilton County, FL (along U.S. Highway 41 between White Springs and Jasper). This project is called the Hamilton County Renewable Energy Center and it is estimated to utilize approximately 1 million green tons of clean, woody biomass material annually. Neither American Renewables nor any of its parent companies have proposed any other biomass energy facilities.

99. **Please supply a list of all other non-American Renewables LLC woody biomass projects in Florida and Southern Georgia. As part of this response, please supply a summary of the biomass project, listing whether it is an electrical generator or wood pellet maker, the approximate capacity (if an electrical generator), estimated annual biomass resource need, the company(ies) applying for the permit, whether the permit approval is pending or has been approved, and whether any purchase power agreements have been executed and with whom.**

Response to Interrogatory No. 99:

Please refer to the table labeled *Response to Interrogatory No. 99* for the requested information. An electronic version of the table labeled *Response to Interrogatory No. 99* is included in the file titled *Response to Interrogatories 91 through 99.xls* on the enclosed CD.

As stated in the responses to Interrogatory Nos. 92, 93, 94, and 97, GREC LLC believes that there is a low probability that all of the announced projects will actually be constructed and operated. As for the existing biomass users mentioned in these same responses, GREC LLC does not anticipate that GREC will compete with the majority of these facilities for biomass material as they are targeting different types of woody biomass material and in some cases, already have long term biomass material contracts in place with suppliers.

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Response to Interrogatory No. 23																				
Number of units in nameplate	Unit no. (new or old)	Owner of facility	Type of facility	State	County	City	Distance from CERC (road miles)	Distance from nearest transmission line (road miles)	Approximate Capacity (MW)	Est. Annual Biomass Feedstock (dry tons)	Type of biomass feedstock	Company operating the plant	Permit approved or pending	PPA (contract type)	PPA (contract length)	Status of facility	Current status of project	Comments		
1	1	Midwest Environmental Systems, LLC	Electric generator	FL	Manatee	Deale	29	11 MW horse bedding-wind utilization power plant	11	0.03	horse bedding, clean wood biomass	Midwest Environmental Systems, LLC					Announced 2/2009	Completed 2/2010	Operating 2/2010	
2	4	ADAGE	Electric generator	FL	Hammock	Island	70	54 MW wood-fired biomass plant	50	0.54	logging residue, sawmill residue, forest thinning residue	ADAGE Hammock, LLC	Construction permit issued FL DEP 2/12/10, FDOT 10-001-AC	Yes				Announced 5/2009	Under construction 1/2010	Operating 1/2010
3	1	Buckeye Florida, LP	Pulp mill	FL	Taylor	Isle	79	Pulp mill	51	1.81	Saw wood	Buckeye Florida, LP	Construction permit issued FL DEP 2/12/10, FDOT 10-001-AC			Operating	Additional permit issued 1/2010	Operating 1/2010	Operating 1/2010	
4	7	Walden Power, LLC	Electric generator	GA	Waynes	Waynes	34	40 MW wood and biomass power plant	40	0.27	Wood chips, bark, mill residue	Walden Power, LLC					Announced 6/2009	Operating 6/2009	Operating 6/2009	
5	12	WWE Energy/BAC	Pellet mill	GA	Ware	Waynes	104	Pellet mill for export market	100	0.00	Wood chips, mill residue	WWE Energy/BAC					Announced 2010	Operating 2010	Operating 2010	
6	17	Woodlands Biomass, LLC	Pellet mill	GA	Thomas	Waynes	111	Pellet mill for export market	100	0.18	Wood chips, mill residue	Woodlands Biomass, LLC					Announced 2009	Operating 2009	Operating 2009	
7	14	Fitgerald Renewable Energy, LLC	Electric generator	GA	Burnett	Fitgerald	137	56 MW wood-fired biomass plant	50	0.56	Logging residue, mill residue	Fitgerald Renewable Energy, LLC	Construction permit issued GA EPD 1/12/10, 0-011-017-0000-01-0	Yes			Announced 12/2009	Under construction 1/2010	Operating 1/2010	
8	15	ADAGE	Electric generator	FL	Gadsden	Gretna	103	54 MW wood-fired biomass plant	50	0.54	Logging residue, mill residue	ADAGE Gadsden, LLC	Permitting for construction permit submitted 1/10	Yes			Announced 12/2009	Under construction 1/2010	Operating 1/2010	
9	17	WWE Energy/BAC	Electric generator	FL	Manatee	Port Manatee	149	40 MW biomass power plant	60	0.02	Wood chips, mill residue	WWE Energy/BAC	Permitting for construction permit submitted 1/10	Yes			Announced 12/2009	Under construction 1/2010	Operating 1/2010	
10	11	Highlands Biomass, LLC	Electric generator	FL	Highlands	Englewood	227	56 MW wood-fired biomass plant	50	0.56	Logging residue, mill residue	Highlands Biomass, LLC	Construction permit issued FL DEP 1/12/10, 0-011-017-0000-01-0	Yes			Announced 12/2009	Under construction 1/2010	Operating 1/2010	
11	17	BGE of Florida, LLC	Electric generator	FL	Suwannee	Fort Pierce	217	47 MW biomass utilization	47	0.47	Logging residue, mill residue	BGE of Florida, LLC	Construction permit issued FL DEP 1/12/10, 0-011-017-0000-01-0	Yes			Announced 12/2009	Under construction 1/2010	Operating 1/2010	
12	11	WWE Energy/BAC	Electric generator	FL	St. Johns	Fort Pierce	224	47 MW biomass utilization	47	0.47	Logging residue, mill residue	WWE Energy/BAC	Construction permit issued FL DEP 1/12/10, 0-011-017-0000-01-0	Yes			Announced 12/2009	Under construction 1/2010	Operating 1/2010	
13	11	WWE Energy/BAC	Electric generator	FL	Indian River	Vero Beach	289	5 MW biomass utilization	5	0.05	Logging residue, mill residue	WWE Energy/BAC	Construction permit issued FL DEP 1/12/10, 0-011-017-0000-01-0	Yes			Announced 12/2009	Under construction 1/2010	Operating 1/2010	
14	11	WWE Energy/BAC	Electric generator	FL	Volusia	Key West	302	5 MW biomass utilization	5	0.05	Logging residue, mill residue	WWE Energy/BAC	Construction permit issued FL DEP 1/12/10, 0-011-017-0000-01-0	Yes			Announced 12/2009	Under construction 1/2010	Operating 1/2010	

101 Other biomass projects in Florida and southern Georgia
 (a) Only for biomass projects
 The information has been compiled from publicly available data; however, GTEC LLC is not able to independently verify the data herein
 * Not applicable / no. 1 measure
 ** Not shown in map due to distance from GTEC

Note: The 10 biomass projects that had been proposed by Cape Verde in GA were not listed, as Cape Verde recently announced that they are only developing the biomass energy facility in Warren County, GA (located near the SC border).

III. Economic Analysis:

- 100. Please refer to Staff's Second Data Request, Interrogatories 56 and 57. Did GRU utilize the Annual Energy Outlook 2009 from the Energy Information Administration in developing its cumulative present worth revenue requirements? If not, please describe the fuel forecast utilized, including date of the forecast and fuel costs utilized for natural gas, coal, uranium, and biomass.**

Response to Interrogatory No. 100:

Natural gas and coal price projections used in developing the cumulative present worth revenue requirements presented in response to Interrogatories Nos. 56 and 57 were developed based on the Annual Energy Outlook 2009 (AEO2009) price projections, as described in Sections 7.0 and 11.0 of the Gainesville Renewable Energy Center Need for Power Application. For what is referred to as the *Base Case* in Interrogatories Nos. 56 and 57, the natural gas and coal price projections were based on the AEO2009 *Reference Case* projections for natural gas and coal delivered to the Florida Reliability Coordinating Council (FRCC) region for electric power end use. For what is referred to as the *Regulated CO₂* case in Interrogatories Nos. 56 and 57, in addition to the natural gas and coal price projections described above, CO₂ emissions allowance prices based on the Energy Information Administration's analysis entitled *Energy Market and Economic Impacts of H.R. 2454, the American Clean Energy and Security Act of 2009*, which was developed based on the AEO2009 *Reference Case*, were included. For both the *Base Case* and *Regulated CO₂* case, nuclear fuel price projections were based on GRU's budgeted prices, and the biomass fuel price projections were based on the target fuel price in the April 29, 2009 *Power Purchase Agreement for the Supply of Dependable Capacity, Energy and Environmental Attributes from a Biomass-Fired Power Production Facility by and between Gainesville Renewable Energy Center LLC and the City of Gainesville, Florida d/b/a Gainesville Regional Utilities* (the PPA). The target fuel price projection per the PPA is confidential; however, the PPA has been provided under confidential terms in response to previous discovery requests from Staff. Table ROG No. 100 presents the fuel price projections and the annual CO₂ emissions allowance price projections (used in the *Regulated CO₂* case). Due to confidentiality, biomass price projections are not presented in the tables referenced above.

Note that AEO2009 includes projected natural gas and coal prices through 2030. Beyond 2030, natural gas and coal price projections were developed by applying the average annual escalation rate for the last 5 years of the AEO2009 projections of natural gas and coal to the 2030 price projection of natural gas and coal. Similarly, the Energy Information Administration's analysis of H.R. 2454 provided projected CO₂ emissions allowance prices through 2030. Beyond 2030, CO₂ emissions allowance price projections were developed by applying the average annual escalation rate for the last 5 years of the projections to the 2030 price projection of CO₂ emissions allowance prices.

Year	Natural Gas (Nominal \$/MBtu)	Coal (Nominal \$/MBtu)	Nuclear (Nominal \$/MBtu)	CO ₂ (Nominal \$/Ton)
2014	8.38	3.17	0.92	22.31
2015	8.82	3.25	0.93	24.56
2016	9.30	3.34	0.96	27.04
2017	9.69	3.39	0.96	29.76
2018	10.16	3.41	0.95	32.76
2019	10.73	3.51	0.95	36.07
2020	11.27	3.60	0.95	39.70
2021	11.90	3.68	0.95	43.71
2022	12.37	3.76	0.95	48.12
2023	12.43	3.86	0.95	52.97
2024	12.78	3.97	0.95	58.31
2025	12.75	4.10	0.95	64.19
2026	13.24	4.23	0.95	70.67
2027	13.82	4.36	0.95	77.79
2028	14.69	4.47	0.95	85.64
2029	15.40	4.58	0.95	94.27
2030	16.22	4.71	0.95	103.78
2031	17.06	4.84	0.95	114.25
2032	17.95	4.98	0.95	125.77
2033	18.88	5.11	0.95	138.45
2034	19.87	5.25	0.95	152.42
2035	20.90	5.39	0.95	167.79
2036	21.99	5.54	0.95	184.71
2037	23.13	5.69	0.95	203.34
2038	24.34	5.85	0.95	223.84
2039	25.61	6.01	0.95	246.42
2040	26.94	6.17	0.95	271.27
2041	28.34	6.34	0.95	298.63
2042	29.82	6.51	0.95	328.74
2043	31.37	6.69	0.95	361.90

- 101. Please refer to Staff's Second Data Request, Interrogatories 56 and 57. Please update these responses with the most recent fuel forecast(s) available. Please include the date the forecast was developed and fuel costs utilized for natural gas, coal, uranium, and biomass.**

Response to Interrogatory No. 101:

Interrogatories Nos. 56, 57, 104, and 106 include scenarios in which GRU is unable to resell 50 MW of capacity from GREC at the contract price. In responding to Interrogatories Nos. 56 and 57, GRU performed these analyses as requested by the FPSC Staff, notwithstanding GRU's firm belief that the "no resale case" is very unlikely, in that the capacity from GREC was assumed to have no value in the market. During testimony and cross examination Witness Regan explained how the "no resale" scenario presented a misleading and improbable portrayal of the economics of GREC. Establishing the market value of GREC without any consideration of the hedge and policy values of the environmental attributes associated with the generation is best estimated by:

- 1) Comparison to prices paid to generation capacity with similar attributes – in this case low incremental dispatch cost and a high availability factor; and
- 2) Market simulations of the value of the generation capacity in an hourly dispatch scenario (which would omit the value of having firm capacity for reserve margin requirements).

Due to the limited time period available to respond to the most recent set of interrogatories, GRU has chosen the first approach in responding to Interrogatories Nos. 101, 104, and 106. The most similar capacity sale known to GRU is the "slice of the baseload system" product offered by Progress Energy Florida (PEF) under a FERC tariff and of which GRU has entered into contracts for 75 MW during off peak seasons and 100 MW during on peak season. This product is firm rated capacity with the following price elements:

- 1) Capacity: \$20 per kilowatt month
- 2) Energy: The average of designated PEF coal, gas, and nuclear base load units, which have historically had the following percentages by fuel type:
 - a. Coal 47 percent at 10,250 Btu/kWh
 - b. Natural Gas 37 percent at 8,500 Btu/kWh

- c. Nuclear 16 percent at 10,500 Btu/kWh
- 3) Variable O&M: \$4.00 per MWh
- 4) Availability: Up to 100 percent

The market value of output from GREC was modeled from the pricing elements described above and employing the most recent fuel price forecasts as described below. The resulting market values for the base and regulated CO₂ cases are as follows:

Year	Market Electric Price (Nominal \$/MWh)	
	Base	Regulated CO ₂
2014	\$79.34	\$94.38
2015	\$80.95	\$97.51
2016	\$82.08	\$100.31
2017	\$83.09	\$103.16
2018	\$84.18	\$106.27
2019	\$85.69	\$110.01
2020	\$87.67	\$114.44
2021	\$89.12	\$118.59
2022	\$90.96	\$123.41
2023	\$92.48	\$128.20

GRU has revised the analyses in Interrogatories Nos. 56, 57, 104, and 106 to incorporate the most recent AEO fuel price forecast available, as well as a proxy for the value of GREC output in a conventional power market to represent what was previously labeled the “no resale case”.

The early release of Annual Energy Outlook 2010 (AEO2010), dated December 2009, has been made available on the Energy Information Administration’s website (<http://www.eia.doe.gov/oiaf/aeo/index.html>). For purposes of consistency with the fuel price projections discussed in response to Interrogatory No. 100, the AEO2010 Reference Case projections for natural gas and coal delivered to the FRCC region for electric power end use have been converted to nominal dollars and summarized in Table ROG No. 101. Nuclear and biomass fuel price projections used in response to Interrogatories Nos. 56 and 57, as discussed in response to Interrogatory No. 100, were developed from different sources than AEO2009, and therefore Table ROG No. 101 only includes natural gas and coal price projections as the nuclear and biomass fuel price projections would be the

same as in Table ROG No. 100. The Energy Information Administration has not released an updated analysis of H.R. 2454 to correspond to AEO2010, and therefore there are no CO₂ emissions allowance prices presented in Table ROG No. 101 since they would be the same as in Table ROG No. 100.

Note that AEO2010 includes projected natural gas and coal prices through 2035. Beyond 2035, natural gas and coal price projections were developed by applying the average annual escalation rate for the last 5 years of the AEO2010 projections of natural gas and coal to the 2035 price projection of natural gas and coal.

Updated responses for Interrogatories Nos. 56 and 57, based on the fuel prices described previously in this response, are presented in the following tables, labeled *Updated Response to Interrogatory No. 56* and *Updated Response to Interrogatory No. 57*. A summary table presenting the cumulative total costs in year 2043 (present worth in thousands of 2009 dollars) for the updated responses to Interrogatory No. 57 has also been included.

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Table ROG No. 101 – Updated Natural Gas and Coal Price Projections		
Year	Natural Gas (Nominal \$/MBtu)	Coal (Nominal \$/MBtu)
2014	8.71	3.31
2015	9.19	3.33
2016	9.52	3.34
2017	9.72	3.42
2018	9.99	3.47
2019	10.32	3.57
2020	10.81	3.66
2021	11.16	3.73
2022	11.64	3.80
2023	12.03	3.86
2024	12.34	3.95
2025	12.64	4.04
2026	13.05	4.13
2027	13.57	4.23
2028	14.35	4.35
2029	15.15	4.47
2030	15.88	4.59
2031	16.81	4.70
2032	17.33	4.83
2033	17.73	4.98
2034	18.41	5.14
2035	19.02	5.29
2036	19.62	5.44
2037	20.24	5.61
2038	20.88	5.77
2039	21.54	5.95
2040	22.21	6.12
2041	22.91	6.31
2042	23.63	6.50
2043	24.38	6.69

Updated Response to Interrogatory No. 56				
Cumulative Present Worth Cost Analysis by Scenario and Case (\$000, 2013\$)				
Case	Scenario			
	GREC with Resale at Contract Price	GREC with Resale at Market Price	No New Construction till 2023	Least Cost Fossil Fuel Alternative
Base Case	7,949,991	8,064,429	7,991,913	NA
High Fuel	NA	NA	NA	NA
Low Fuel	NA	NA	NA	NA
High Load	NA	NA	NA	NA
Low Load	NA	NA	NA	NA
Regulated CO ₂	9,745,740	9,722,821	10,193,104	NA
High Regulated CO ₂	NA	NA	NA	NA
High Fuel & Regulated CO ₂	NA	NA	NA	NA
High Fuel, High Load, & Regulated CO ₂	NA	NA	NA	NA
Low Fuel, Low Load, & Regulated CO ₂	NA	NA	NA	NA
Low Fuel & Low Load	NA	NA	NA	NA

Updated Response to Interrogatory No. 57			
Summary of Cumulative Total Costs in Year 2043			
All Costs are in Present Worth (2009 \$, \$000)			
Case	Scenario		
	GREC with Resale at Contract Price	GREC with Resale at Market Price	No New Construction till 2023
Base Case	6,743,662	6,840,735	6,779,222
Regulated CO ₂	8,266,924	8,247,483	8,646,405

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Updated Response to Interrogatory No. 57								
Year	Scenario: GREC with Resale at Contract Price							
	Case: Base							
	All Costs are in Present Worth (2009 \$, \$000)							
	Capital Costs	Fixed O&M Costs	Variable O&M Costs	Fuel Costs	Environmental Costs (CO ₂)	Other Costs	Total Costs	Cumulative Total Costs
2014	130,821		1,962	95,069			227,852	227,852
2015	126,329		2,026	94,722			223,077	450,930
2016	117,338		2,029	92,636			212,003	662,932
2017	121,675		2,052	92,222			215,949	878,882
2018	119,690		2,018	90,908			212,616	1,091,498
2019	117,737		1,871	91,915			211,523	1,303,021
2020	115,816		1,844	90,257			207,918	1,510,940
2021	113,927		1,848	89,668			205,443	1,716,383
2022	112,068		1,825	88,287			202,180	1,918,563
2023	110,240		1,321	101,328			212,888	2,131,452
2024	108,441		1,353	100,723			210,517	2,341,969
2025	106,672		1,379	99,403			207,454	2,549,423
2026	104,932		1,400	97,048			203,380	2,752,803
2027	103,220		1,411	96,113			200,744	2,953,547
2028	101,536		1,382	95,176			198,094	3,151,641
2029	99,879		1,397	94,623			195,899	3,347,540
2030	98,250		1,371	92,996			192,617	3,540,157
2031	96,647		2,150	149,947			248,744	3,788,901
2032	95,070		2,479	158,708			256,258	4,045,159
2033	93,519		2,369	157,229			253,118	4,298,276
2034	91,993		2,432	156,275			250,700	4,548,977
2035	90,492		2,323	155,860			248,676	4,797,652
2036	89,016		2,389	154,242			245,647	5,043,299
2037	87,564		2,287	154,994			244,845	5,288,144
2038	86,135		2,458	159,452			248,045	5,536,189
2039	84,730		2,311	158,751			245,792	5,781,981
2040	83,348		2,399	157,755			243,502	6,025,483
2041	81,988		2,256	157,180			241,424	6,266,907
2042	80,650		2,344	156,246			239,240	6,506,147
2043	79,334		2,199	155,981			237,515	6,743,662

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Updated Response to Interrogatory No. 57								
Year	Scenario: GREC with Resale at Market Price							
	Case: Base							
	All Costs are in Present Worth (2009 \$, \$000)							
	Capital Costs	Fixed O&M Costs	Variable O&M Costs	Fuel Costs	Environmental Costs (CO ₂)	Other Costs	Total Costs	Cumulative Total Costs
2014	130,821		1,962	108,158			240,941	240,941
2015	126,329		2,026	107,071			235,426	476,367
2016	117,338		2,029	104,464			223,831	700,198
2017	121,675		2,052	103,531			227,258	927,456
2018	119,690		2,018	101,738			223,446	1,150,902
2019	117,737		1,871	102,182			221,791	1,372,693
2020	115,816		1,844	99,905			217,565	1,590,258
2021	113,927		1,848	98,815			214,590	1,804,848
2022	112,068		1,825	96,895			210,789	2,015,637
2023	110,240		1,321	101,328			212,888	2,228,525
2024	108,441		1,353	100,723			210,517	2,439,043
2025	106,672		1,379	99,403			207,454	2,646,497
2026	104,932		1,400	97,048			203,380	2,849,877
2027	103,220		1,411	96,113			200,744	3,050,621
2028	101,536		1,382	95,176			198,094	3,248,715
2029	99,879		1,397	94,623			195,899	3,444,613
2030	98,250		1,371	92,996			192,617	3,637,231
2031	96,647		2,150	149,947			248,744	3,885,975
2032	95,070		2,479	158,708			256,258	4,142,233
2033	93,519		2,369	157,229			253,118	4,395,350
2034	91,993		2,432	156,275			250,700	4,646,050
2035	90,492		2,323	155,860			248,676	4,894,726
2036	89,016		2,389	154,242			245,647	5,140,373
2037	87,564		2,287	154,994			244,845	5,385,217
2038	86,135		2,458	159,452			248,045	5,633,263
2039	84,730		2,311	158,751			245,792	5,879,054
2040	83,348		2,399	157,755			243,502	6,122,556
2041	81,988		2,256	157,180			241,424	6,363,980
2042	80,650		2,344	156,246			239,240	6,603,220
2043	79,334		2,199	155,981			237,515	6,840,735

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Updated Response to Interrogatory No. 57								
Year	Scenario: No New Construction until 2023							
	Case: Base							
	All Costs are in Present Worth (2009 \$, \$000)							
	Capital Costs	Fixed O&M Costs	Variable O&M Costs	Fuel Costs	Environmental Costs (CO ₂)	Other Costs	Total Costs	Cumulative Total Costs
2014	130,821		2,815	79,171			212,807	212,807
2015	126,329		2,848	80,874			210,051	422,858
2016	117,338		2,835	79,450			199,624	622,482
2017	121,675		2,794	80,408			204,877	827,359
2018	119,690		2,748	79,253			201,691	1,029,050
2019	117,737		2,499	80,483			200,720	1,229,770
2020	115,816		2,472	80,617			198,906	1,428,676
2021	113,927		2,472	80,640			197,039	1,625,715
2022	112,068		2,440	80,032			194,540	1,820,255
2023	110,240		2,468	81,420			194,128	2,014,383
2024	108,441		2,478	86,440			197,359	2,211,743
2025	106,672		2,475	86,982			196,129	2,407,872
2026	104,932		2,530	85,020			192,481	2,600,353
2027	103,220		2,477	85,638			191,335	2,791,688
2028	101,536		2,482	86,264			190,282	2,981,970
2029	99,879		2,451	88,162			190,492	3,172,462
2030	98,250		2,445	88,461			189,156	3,361,618
2031	96,647		2,696	160,324			259,667	3,621,285
2032	95,070		3,053	168,689			266,812	3,888,097
2033	93,519		2,842	168,626			264,987	4,153,084
2034	91,993		2,955	168,398			263,346	4,416,430
2035	90,492		2,754	169,622			262,868	4,679,299
2036	89,016		2,869	168,616			260,501	4,939,800
2037	87,564		2,673	171,083			261,319	5,201,119
2038	86,135		2,803	176,803			265,741	5,466,860
2039	84,730		2,605	177,444			264,779	5,731,639
2040	83,348		2,718	177,230			263,296	5,994,935
2041	81,988		2,524	178,046			262,558	6,257,493
2042	80,650		2,630	177,789			261,069	6,518,562
2043	79,334		2,444	178,882			260,660	6,779,222

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Updated Response to Interrogatory No. 57								
Year	Scenario: GREC with Resale at Contract Price							
	Case: Regulated CO2							
	All Costs are in Present Worth (2009 \$, 5000)							
	Capital Costs	Fixed O&M Costs	Variable O&M Costs	Fuel Costs	Environmental Costs (CO ₂)	Other Costs	Total Costs	Cumulative Total Costs
2014	130,821		1,993	95,187	28,594		256,595	256,595
2015	126,329		2,033	94,729	30,791		253,882	510,476
2016	117,338		2,037	92,731	32,718		244,825	755,302
2017	121,675		2,064	92,211	35,193		251,143	1,006,444
2018	119,690		2,003	90,805	37,305		249,804	1,256,248
2019	117,737		1,880	92,079	40,058		251,754	1,508,002
2020	115,816		1,860	90,563	42,344		250,583	1,758,586
2021	113,927		1,872	90,005	45,369		251,173	2,009,759
2022	112,068		1,854	88,926	47,894		250,741	2,260,500
2023	110,240		1,340	101,666	42,259		255,505	2,516,004
2024	108,441		1,357	100,750	45,619		256,168	2,772,172
2025	106,672		1,378	99,435	48,961		256,447	3,028,618
2026	104,932		1,401	97,077	51,630		255,039	3,283,658
2027	103,220		1,411	96,084	55,394		256,109	3,539,767
2028	101,536		1,383	95,206	58,551		256,675	3,796,442
2029	99,879		1,400	94,672	62,762		258,713	4,055,155
2030	98,250		1,372	92,955	66,349		258,926	4,314,081
2031	96,647		2,149	149,868	42,732		291,396	4,605,477
2032	95,070		2,479	158,713	41,413		297,675	4,903,151
2033	93,519		2,372	157,171	42,742		295,805	5,198,956
2034	91,993		2,432	156,282	46,734		297,441	5,496,397
2035	90,492		2,323	155,905	48,156		296,876	5,793,273
2036	89,016		2,389	154,279	52,598		298,283	6,091,556
2037	87,564		2,287	154,986	54,401		299,238	6,390,794
2038	86,135		2,458	159,458	61,399		309,451	6,700,245
2039	84,730		2,311	158,731	62,860		308,631	7,008,877
2040	83,348		2,399	157,751	69,001		312,499	7,321,376
2041	81,988		2,256	157,175	70,582		312,001	7,633,377
2042	80,650		2,344	156,246	77,541		316,781	7,950,158
2043	79,334		2,199	155,970	79,263		316,766	8,266,924

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Year	Scenario: GREC with Resale at Market Price							
	Case: Regulated CO2							
	All Costs are in Present Worth (2009 \$, \$000)							
	Capital Costs	Fixed O&M Costs	Variable O&M Costs	Fuel Costs	Environmental Costs (CO ₂)	Other Costs	Total Costs	Cumulative Total Costs
2014	130,821		1,993	103,449	23,285		259,548	259,548
2015	126,329		2,033	101,979	25,082		255,423	514,971
2016	117,338		2,037	99,157	26,694		245,227	760,198
2017	121,675		2,064	97,828	28,725		250,293	1,010,490
2018	119,690		2,003	95,622	30,479		247,794	1,258,285
2019	117,737		1,880	95,994	32,797		248,408	1,506,693
2020	115,816		1,860	93,480	34,718		245,874	1,752,567
2021	113,927		1,872	92,062	37,291		245,151	1,997,718
2022	112,068		1,854	90,044	39,375		243,341	2,241,059
2023	110,240		1,340	101,666	42,259		255,505	2,496,564
2024	108,441		1,357	100,750	45,619		256,168	2,752,731
2025	106,672		1,378	99,435	48,961		256,447	3,009,178
2026	104,932		1,401	97,077	51,630		255,039	3,264,217
2027	103,220		1,411	96,084	55,394		256,109	3,520,326
2028	101,536		1,383	95,206	58,551		256,675	3,777,001
2029	99,879		1,400	94,672	62,762		258,713	4,035,714
2030	98,250		1,372	92,955	66,349		258,926	4,294,640
2031	96,647		2,149	149,868	42,732		291,396	4,586,036
2032	95,070		2,479	158,713	41,413		297,675	4,883,711
2033	93,519		2,372	157,171	42,742		295,805	5,179,516
2034	91,993		2,432	156,282	46,734		297,441	5,476,956
2035	90,492		2,323	155,905	48,156		296,876	5,773,832
2036	89,016		2,389	154,279	52,598		298,283	6,072,115
2037	87,564		2,287	154,986	54,401		299,238	6,371,354
2038	86,135		2,458	159,458	61,399		309,451	6,680,804
2039	84,730		2,311	158,731	62,860		308,631	6,989,436
2040	83,348		2,399	157,751	69,001		312,499	7,301,935
2041	81,988		2,256	157,175	70,582		312,001	7,613,936
2042	80,650		2,344	156,246	77,541		316,781	7,930,717
2043	79,334		2,199	155,970	79,263		316,766	8,247,483

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Updated Response to Interrogatory No. 57								
Scenario: No New Construction until 2023								
Case: Regulated CO2								
All Costs are in Present Worth (2009 \$, \$000)								
Year	Capital Costs	Fixed O&M Costs	Variable O&M Costs	Fuel Costs	Environmental Costs (CO ₂)	Other Costs	Total Costs	Cumulative Total Costs
2014	130,821		2,865	79,952	34,474		248,112	248,112
2015	126,329		2,881	81,088	36,945		247,244	495,356
2016	117,338		2,817	79,475	39,170		238,801	734,156
2017	121,675		2,871	80,768	41,957		247,271	981,427
2018	119,690		2,824	80,168	44,477		247,158	1,228,586
2019	117,737		2,522	81,135	47,592		248,987	1,477,572
2020	115,816		2,488	80,987	50,364		249,656	1,727,228
2021	113,927		2,488	80,988	53,746		251,149	1,978,377
2022	112,068		2,460	80,617	56,762		251,907	2,230,284
2023	110,240		2,491	82,122	60,690		255,543	2,485,827
2024	108,441		2,526	86,521	65,053		262,541	2,748,368
2025	106,672		2,523	87,223	69,574		265,992	3,014,360
2026	104,932		2,530	85,103	72,280		264,845	3,279,205
2027	103,220		2,504	85,718	77,333		268,775	3,547,980
2028	101,536		2,492	86,419	81,587		272,033	3,820,013
2029	99,879		2,467	88,271	87,110		277,727	4,097,740
2030	98,250		2,462	88,594	91,754		281,060	4,378,800
2031	96,647		2,712	160,369	53,170		312,898	4,691,699
2032	95,070		3,053	168,695	48,992		315,810	5,007,508
2033	93,519		2,842	168,644	49,612		314,617	5,322,125
2034	91,993		2,955	168,406	54,666		318,020	5,640,145
2035	90,492		2,754	169,673	55,430		318,350	5,958,495
2036	89,016		2,869	168,660	61,183		321,728	6,280,223
2037	87,564		2,673	171,074	61,975		323,286	6,603,510
2038	86,135		2,803	176,810	68,641		334,389	6,937,899
2039	84,730		2,605	177,422	69,477		334,235	7,272,134
2040	83,348		2,718	177,225	76,816		340,107	7,612,241
2041	81,988		2,524	178,041	77,601		340,153	7,952,394
2042	80,650		2,630	177,789	85,633		346,702	8,299,096
2043	79,334		2,444	178,870	86,661		347,309	8,646,405

102. Please refer to Section 8.5 of GRU's Application. Please complete the following table comparing the alternate binding proposals offered to GRU for biomass facilities by Nacogdoches Power, LLC, Covanta Energy, and Sterling Planet, Inc., including the levelized cost of electricity and the estimated net present value of payments to the facility.

Comparison of GRU's Biomass Generation Alternatives									
Bidders	Covanta Energy				Nacogdoches			Sterling Planet	
Proposal	50 MW PPA	50 MW EPC	58 MW PPA	58 MW EPC	50% of 100 MW	100% of 100 MW	100% of 100 MW (alt)	30 MW	
Payments to Facility									
NPV of Payments	(\$000)								
Levelized Cost	(\$/kWh)								

Response to Interrogatory No. 102:

Please see the following table. The information requested was considered confidential, proprietary business information by Covanta, Nacogdoches, and Sterling Planet. GRU contacted these companies and they insist the responses remain confidential. Therefore, the information has been redacted. GRU intends to provide the requested information separately in conjunction with a Request for Confidential Classification.

Comparison of GRU's Biomass Generation Alternatives									
Bidders		Covanta			Nacogdoches				Sterling Planet
Proposal		50 MW PPA	50 MW EPC	58 MW PPA	58 MW EPC	50% of 100 MW	100% of 100 MW	100% of 100 MW (alt)	30 MW
Payments to Facility									
NPV of Payments	(\$000)	■	■	■	■	■	■	■	■
Levelized Cost	(\$/kWh)	■	■	■	■	■	■	■	■

In response to this question, please see the following two tables (titled *Response to Interrogatory No. 102 - Summary* and *Response to Interrogatory No. 102 - Detail*), which present the results of GRU's evaluation of the proposals received by GRU.

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Response to Interrogator: 1b- 102 - Summary
 Summary Ranking Table for GRU Biomass RFP Binding Proposal Evaluation

Summary Table Color Key
 Highest Score in Category or Overall (Best) 1

Respondent	Environmental	Category Ranking	Economics	Category Ranking	Risk & Reliability	Category Ranking	Total Score	Overall Ranking
Covanta: Option 1 - 60 MW net PPA	123.68	2	93.82	6	139.20	3	366.60	4
Covanta: Option 1a - 60 MW net EPC	123.68	2	104.32	4	139.20	3	367.10	3
Nacogdoches: Option 1 - 60 MW net PPA	99.76	4	169.43	1	144.95	1	404.14	2
Nacogdoches: Option 3 - 100 MW net PPA	127.82	1	169.43	1	144.95	1	432.20	1
Sterling Planet - 30 MW net PPA	76.74	6	152.93	3	97.75	5	327.42	5

Response to Interrogator: 1b- 102 - Detail
 Final Overall Evaluation Matrix for GRU Biomass RFP Binding Proposals

Category / Factor	Factor Weight	Covanta Energy Corp: Option 1 - 60 MW		Covanta Energy Corp: Option 1a - EPC		Nacogdoches Power, LLC: Option 1 - 60 MW		Nacogdoches Power, LLC: Option 3 - 100 MW		Sterling Planet	
		Factor Score	Weighted Total	Factor Score	Weighted Total	Factor Score	Weighted Total	Factor Score	Weighted Total	Factor Score	Weighted Total
(1) Environmental											
(d) Environmental Emissions	10.00	3.81	38.10	3.81	38.10	1.88	18.80	3.23	32.30	2.06	20.60
(g) Project Commitment to Sustainable Forest Resource Management	7.00	5.00	35.00	5.00	35.00	5.00	35.00	5.00	35.00	3.00	21.00
(m) By-product/Waste Production and Disposition	8.00	3.81	30.48	3.81	30.48	3.87	30.96	4.44	35.52	2.33	18.64
(h) Project Site Requirements	5.00	4.00	20.00	4.00	20.00	3.00	15.00	5.00	25.00	3.30	16.50
Category Total	30.00		123.68		123.68		99.76		127.82		76.74
(2) Economics											
(a) Project All-in Production Cost	25.00	2.38	59.50	2.80	70.00	4.21	105.25	4.21	105.25	4.77	119.25
(b) Project Variable Production Costs	5.00	2.60	13.00	2.60	13.00	4.10	20.50	4.10	20.50	2.00	10.00
(f) Anticipated Project In-Service Date and/or Energy Delivery	4.00	2.33	9.32	2.33	9.32	4.67	18.68	4.67	18.68	3.67	14.68
(n) Local Economic Impact	3.00	4.00	12.00	4.00	12.00	5.00	15.00	5.00	15.00	3.00	9.00
Category Total	37.00		93.82		104.32		169.43		169.43		152.93
(3) Risk & Reliability											
(k) Proposed Contractual Terms and Conditions	10.00	4.72	47.20	4.72	47.20	5.00	50.00	5.00	50.00	4.00	40.00
(c) Technology Readiness and Project Reliability	5.00	3.40	17.00	3.40	17.00	5.00	25.00	5.00	25.00	3.40	17.00
(e) Fuel Requirements and Sources	3.00	4.75	14.25	4.75	14.25	3.75	11.25	3.75	11.25	2.75	8.25
(i) Project Size and Design	5.00	3.70	18.50	3.70	18.50	4.10	20.50	4.10	20.50	3.50	17.50
(j) Experience and Resources of Project Developer/Sponsor	5.00	5.00	25.00	5.00	25.00	3.00	15.00	3.00	15.00	2.00	10.00
(l) Proposer's Financial Strength	5.00	3.45	17.25	3.45	17.25	4.64	23.20	4.64	23.20	1.00	5.00
Category Total	33.00		139.20		139.20		144.95		144.95		97.75
Grand Total	100.00		366.60		367.10		404.14		432.20		327.42

Note: Each of the above Factors received a raw numerical score from 1 - 5

- 103. Please refer to Staff's Second Data Request, Interrogatory 66. Please discuss the current status of negotiations with the utilities listed, as well as any additional utilities which may consider purchase of capacity from the GREC Project. Include the approximate capacity to be contracted by each utility, if available.**

Response to Interrogatory No. 103:

GRU and the utilities listed had agreed in the fall of 2009 not to proceed with negotiations until such time as GRU had received the necessary permits and certifications for the project to proceed and GREC LLC had entered into the portfolio of fuel contracts need to obtain financing for the project. These utilities continue to express their interest in purchasing a share of the output from GREC.

- 104. Please refer to Staff's Second Data Request, Interrogatory 57. Please complete the table presented there showing the annual and cumulative present value revenue requirements for each of the cases and scenarios described below:**

- a. Scenario: GREC Project has its in-service date delayed, resulting in loss of the Investment Tax Credit.**
- b. Scenario: 10% Higher Biomass Fuel Costs (with price sharing)**
- c. Scenario: 10% Lower Biomass Fuel Costs (with price sharing)**
- d. Case: Delay in Carbon Legislation to 2017**
- e. Case: Delay in Carbon Legislation to 2022**

Response to Interrogatory No. 104:

Please refer to the following tables, which present the requested information. Please refer to the response to Interrogatory No. 101 for discussion as to how the market value of the GREC biomass project was considered in developing the present value revenue requirements. A summary table presenting the cumulative total costs in year 2043 (present worth in thousands of 2009 dollars) for the requested cases and scenarios has also been included.

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Response to Interrogatory No. 104			
Summary of Cumulative Total Costs in Year 2043			
All Costs are in Present Worth (2009 \$, \$000)			
Scenario Description	GREC with Resale at Contract Price	GREC with Resale at Market Price	No New Construction till 2023
Base Case – GREC Project has In-Service Date Delayed, Resulting in Loss of Investment Tax Credit	6,975,197	7,054,571	6,993,170
Regulated CO ₂ – GREC Project has In-Service Date Delayed, Resulting in Loss of Investment Tax Credit	8,505,300	8,516,291	8,860,769
Base Case – 10% Higher Biomass Fuel Costs (with price sharing)	6,967,301	7,074,072	6,993,170
Regulated CO ₂ – 10% Higher Biomass Fuel Costs (with price sharing)	8,490,739	8,481,052	8,860,769
Base Case – 10% Lower Biomass Fuel Costs (with price sharing)	6,872,573	6,959,297	6,993,170
Regulated CO ₂ – 10% Lower Biomass Fuel Costs (with price sharing)	8,396,011	8,366,277	8,860,769
Regulated CO ₂ – Delay in Carbon Legislation to 2017	8,352,350	8,371,019	8,748,089
Regulated CO ₂ – Delay in Carbon Legislation to 2022	8,151,151	8,239,707	8,507,613

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Updated Response to Interrogatory No. 104a								
Scenario: GREC with Resale at Contract Price - GREC Project has its in-service date delayed, resulting in loss of the Investment Tax Credit.								
Case: Base								
Year	All Costs are in Present Worth (2009 \$, \$000)							
	Capital Costs	Fixed O&M Costs	Variable O&M Costs	Fuel Costs	Environmental Costs (CO ₂)	Other Costs	Total Costs	Cumulative Total Costs
2014	130,821		3,156	76,300			210,277	210,277
2015	126,329		2,289	95,415			224,034	434,310
2016	117,338		2,250	94,358			213,947	648,257
2017	121,675		2,290	94,079			218,044	866,301
2018	119,690		2,235	92,872			214,797	1,081,099
2019	117,737		2,119	94,399			214,256	1,295,354
2020	115,816		2,089	92,771			210,677	1,506,031
2021	113,927		2,092	92,903			208,922	1,714,953
2022	112,068		2,065	91,422			205,556	1,920,509
2023	110,240		1,495	104,918			216,652	2,137,161
2024	108,441		1,057	104,486			213,984	2,351,145
2025	106,672		1,560	102,811			211,043	2,562,188
2026	104,932		1,584	100,646			207,162	2,769,351
2027	103,220		1,596	99,888			204,704	2,974,055
2028	101,536		1,564	98,842			201,942	3,175,997
2029	99,879		1,580	98,032			199,492	3,375,489
2030	98,250		1,551	96,441			196,242	3,571,731
2031	96,647		2,433	153,564			252,644	3,824,375
2032	95,070		2,805	164,573			262,448	4,086,823
2033	93,519		1,482	165,712			260,713	4,347,536
2034	91,993		1,521	166,254			259,768	4,607,304
2035	90,492		1,453	167,360			259,306	4,866,610
2036	89,016		1,494	167,939			258,450	5,125,060
2037	87,564		1,431	170,409			259,404	5,384,464
2038	86,135		1,538	177,898			265,571	5,650,035
2039	84,730		1,445	178,680			264,855	5,914,890
2040	83,348		1,501	180,468			265,316	6,180,206
2041	81,988		1,411	181,238			264,637	6,444,844
2042	80,650		1,466	183,310			265,427	6,710,270
2043	79,334		1,375	184,217			264,927	6,975,197

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Updated Response to Interrogatory No. 104a								
Year	Scenario: GREC with Resale at Market Price - GREC Project has its in-service date delayed, resulting in loss of the Investment Tax Credit.							
	Case: Base							
	All Costs are in Present Worth (2009 \$, \$000)							
	Capital Costs	Fixed O&M Costs	Variable O&M Costs	Fuel Costs	Environmental Costs (CO ₂)	Other Costs	Total Costs	Cumulative Total Costs
2014	130,821		3,156	76,300			210,277	210,277
2015	126,329		2,289	106,988			235,606	445,883
2016	117,338		2,250	105,341			224,930	670,813
2017	121,675		2,290	104,282			228,247	899,060
2018	119,690		2,235	102,689			224,614	1,123,674
2019	117,737		2,119	104,211			224,068	1,347,742
2020	115,816		2,089	102,602			220,507	1,568,249
2021	113,927		2,092	102,133			218,152	1,786,401
2022	112,068		2,065	99,349			213,482	1,999,883
2023	110,240		1,495	104,918			216,652	2,216,535
2024	108,441		1,057	104,486			213,984	2,430,519
2025	106,672		1,560	102,811			211,043	2,641,562
2026	104,932		1,584	100,646			207,162	2,848,725
2027	103,220		1,596	99,888			204,704	3,053,429
2028	101,536		1,564	98,842			201,942	3,255,371
2029	99,879		1,580	98,032			199,492	3,454,863
2030	98,250		1,551	96,441			196,242	3,651,105
2031	96,647		2,433	153,564			252,644	3,903,749
2032	95,070		2,805	164,573			262,448	4,166,197
2033	93,519		1,482	165,712			260,713	4,426,910
2034	91,993		1,521	166,254			259,768	4,686,678
2035	90,492		1,453	167,360			259,306	4,945,984
2036	89,016		1,494	167,939			258,450	5,204,434
2037	87,564		1,431	170,409			259,404	5,463,838
2038	86,135		1,538	177,898			265,571	5,729,409
2039	84,730		1,445	178,680			264,855	5,994,264
2040	83,348		1,501	180,468			265,316	6,259,580
2041	81,988		1,411	181,238			264,637	6,524,217
2042	80,650		1,466	183,310			265,427	6,789,644
2043	79,334		1,375	184,217			264,927	7,054,571

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Year	Scenario: No New Construction until 2023 - GREC Project has its in-service date delayed, resulting in loss of the Investment Tax Credit.							
	Case: Base							
	All Costs are in Present Worth (2009 \$, \$000)							
	Capital Costs	Fixed O&M Costs	Variable O&M Costs	Fuel Costs	Environmental Costs (CO ₂)	Other Costs	Total Costs	Cumulative Total Costs
2014	130,821		3,156	76,300			210,277	210,277
2015	126,329		3,235	78,533			208,097	418,374
2016	117,338		3,146	78,648			199,132	617,506
2017	121,675		3,183	80,206			205,064	822,571
2018	119,690		3,088	79,227			202,005	1,024,575
2019	117,737		2,843	81,691			202,271	1,226,846
2020	115,816		2,793	81,622			200,232	1,427,078
2021	113,927		2,796	82,870			199,593	1,626,671
2022	112,068		2,757	82,136			196,961	1,823,632
2023	110,240		2,795	82,848			195,883	2,019,515
2024	108,441		1,936	88,431			198,808	2,218,324
2025	106,672		2,815	88,052			197,539	2,415,863
2026	104,932		2,862	86,521			194,315	2,610,178
2027	103,220		2,804	87,565			193,589	2,803,767
2028	101,536		2,808	88,351			192,696	2,996,463
2029	99,879		2,773	89,817			192,469	3,188,932
2030	98,250		2,766	90,403			191,420	3,380,352
2031	96,647		3,050	161,951			261,649	3,642,000
2032	95,070		3,454	172,897			271,421	3,913,421
2033	93,519		1,778	175,806			271,102	4,184,523
2034	91,993		1,848	177,521			271,362	4,455,886
2035	90,492		1,723	180,442			272,657	4,728,543
2036	89,016		1,795	182,292			273,103	5,001,646
2037	87,564		1,672	186,428			275,664	5,277,310
2038	86,135		1,753	195,287			283,176	5,560,486
2039	84,730		1,630	197,436			283,796	5,844,282
2040	83,348		1,700	200,564			285,612	6,129,894
2041	81,988		1,579	202,629			286,195	6,416,089
2042	80,650		1,645	205,880			288,175	6,704,264
2043	79,334		1,529	208,043			288,906	6,993,170

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Updated Response to Interrogatory No. 104a								
Year	Scenario: GREC with Resale at Contract Price - GREC Project has its in-service date delayed, resulting in loss of the Investment Tax Credit.							
	Case: Regulated CO2							
	All Costs are in Present Worth (2009 \$, \$000)							
	Capital Costs	Fixed O&M Costs	Variable O&M Costs	Fuel Costs	Environmental Costs (CO ₂)	Other Costs	Total Costs	Cumulative Total Costs
2014	130,821		3,316	38,407	73,176		245,720	245,720
2015	126,329		2,319	95,608	30,772		255,028	500,748
2016	117,338		2,268	94,578	32,696		246,880	747,628
2017	121,675		2,320	94,224	35,172		253,391	1,001,019
2018	119,690		2,264	92,846	37,287		252,087	1,253,106
2019	117,737		2,126	94,624	40,062		254,550	1,507,656
2020	115,816		2,106	92,979	42,344		253,244	1,760,900
2021	113,927		2,116	93,204	45,376		254,623	2,015,524
2022	112,068		2,097	92,096	47,894		254,156	2,269,679
2023	110,240		1,514	105,234	42,260		259,248	2,528,927
2024	108,441		1,058	104,532	45,634		259,666	2,788,593
2025	106,672		1,560	102,833	48,957		260,022	3,048,616
2026	104,932		1,585	100,659	51,630		258,805	3,307,421
2027	103,220		1,596	99,858	55,394		260,068	3,567,489
2028	101,536		1,564	98,853	58,551		260,504	3,827,994
2029	99,879		1,579	97,886	62,782		262,126	4,090,120
2030	98,250		1,552	96,368	66,351		262,521	4,352,642
2031	96,647		2,432	153,528	42,733		295,339	4,647,981
2032	95,070		2,805	164,578	41,413		303,865	4,951,846
2033	93,519		1,484	165,648	42,742		303,394	5,255,240
2034	91,993		1,522	166,153	46,710		306,379	5,561,619
2035	90,492		1,453	167,355	48,156		307,457	5,869,075
2036	89,016		1,494	167,927	52,598		311,036	6,180,111
2037	87,564		1,431	170,449	54,401		313,844	6,493,955
2038	86,135		1,538	177,905	61,399		326,977	6,820,932
2039	84,730		1,445	178,660	62,860		327,695	7,148,627
2040	83,348		1,501	180,464	69,001		334,313	7,482,940
2041	81,988		1,411	181,233	70,582		335,214	7,818,155
2042	80,650		1,466	183,311	77,541		342,968	8,161,122
2043	79,334		1,375	184,206	79,263		344,178	8,505,300

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 GAINESVILLE RENEWABLE ENERGY CENTER (NOS. 80-106)
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Updated Response to Interrogatory No. 104a								
Year	Scenario: GREC with Resale at Market Price - GREC Project has its in-service date delayed, resulting in loss of the Investment Tax Credit.							
	Case: Regulated CO2							
	All Costs are in Present Worth (2009 \$, \$000)							
	Capital Costs	Fixed O&M Costs	Variable O&M Costs	Fuel Costs	Environmental Costs (CO ₂)	Other Costs	Total Costs	Cumulative Total Costs
2014	130,821		3,316	38,407	73,176		245,720	245,720
2015	126,329		2,319	105,263	25,062		258,973	504,693
2016	117,338		2,268	103,639	26,686		249,931	754,624
2017	121,675		2,320	102,565	28,725		255,285	1,009,909
2018	119,690		2,264	100,947	30,462		253,363	1,263,272
2019	117,737		2,126	102,972	32,809		255,644	1,518,917
2020	115,816		2,106	101,562	34,741		254,225	1,773,141
2021	113,927		2,116	101,521	37,294		254,857	2,027,998
2022	112,068		2,097	99,130	39,376		252,672	2,280,670
2023	110,240		1,514	105,234	42,260		259,248	2,539,918
2024	108,441		1,058	104,532	45,634		259,666	2,799,585
2025	106,672		1,560	102,833	48,957		260,022	3,059,607
2026	104,932		1,585	100,659	51,630		258,805	3,318,412
2027	103,220		1,596	99,858	55,394		260,068	3,578,481
2028	101,536		1,564	98,853	58,551		260,504	3,838,985
2029	99,879		1,579	97,886	62,782		262,126	4,101,111
2030	98,250		1,552	96,368	66,351		262,521	4,363,633
2031	96,647		2,432	153,528	42,733		295,339	4,658,972
2032	95,070		2,805	164,578	41,413		303,865	4,962,837
2033	93,519		1,484	165,648	42,742		303,394	5,266,231
2034	91,993		1,522	166,153	46,710		306,379	5,572,610
2035	90,492		1,453	167,355	48,156		307,457	5,880,066
2036	89,016		1,494	167,927	52,598		311,036	6,191,102
2037	87,564		1,431	170,449	54,401		313,844	6,504,947
2038	86,135		1,538	177,905	61,399		326,977	6,831,923
2039	84,730		1,445	178,660	62,860		327,695	7,159,618
2040	83,348		1,501	180,464	69,001		334,313	7,493,931
2041	81,988		1,411	181,233	70,582		335,214	7,829,146
2042	80,650		1,466	183,311	77,541		342,968	8,172,113
2043	79,334		1,375	184,206	79,263		344,178	8,516,291

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 GAINESVILLE RENEWABLE ENERGY CENTER (NOS. 80-106)
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Updated Response to Interrogatory No. 104a								
Year	Scenario: No New Construction until 2023 - GREC Project has its in-service date delayed, resulting in loss of the Investment Tax Credit.							
	Case: Regulated CO2							
	All Costs are in Present Worth (2009 \$, \$000)							
	Capital Costs	Fixed O&M Costs	Variable O&M Costs	Fuel Costs	Environmental Costs (CO ₂)	Other Costs	Total Costs	Cumulative Total Costs
2014	130,821		3,316	38,407	73,176		245,720	245,720
2015	126,329		3,275	21,207	94,627		245,438	491,159
2016	117,338		3,197	(2,615)	120,794		238,714	729,873
2017	121,675		3,217	(34,046)	156,514		247,361	977,234
2018	119,690		3,169	(75,053)	199,724		247,530	1,224,764
2019	117,737		2,856	(129,457)	259,201		250,338	1,475,102
2020	115,816		2,810	(198,459)	330,785		250,952	1,726,054
2021	113,927		2,806	(291,685)	428,436		253,484	1,979,538
2022	112,068		2,780	(406,769)	546,268		254,347	2,233,885
2023	110,240		2,821	(564,562)	708,873		257,373	2,491,258
2024	108,441		1,975	(773,125)	926,848		264,139	2,755,397
2025	106,672		2,855	(1,044,383)	1,202,204		267,347	3,022,744
2026	104,932		2,862	(1,373,301)	1,532,161		266,654	3,289,397
2027	103,220		2,833	(1,823,726)	1,988,746		271,073	3,560,471
2028	101,536		2,819	(2,373,824)	2,543,896		274,426	3,834,897
2029	99,879		2,791	(3,124,734)	3,301,767		279,703	4,114,600
2030	98,250		2,786	(4,042,434)	4,224,789		283,390	4,397,990
2031	96,647		3,069	(3,104,496)	3,319,746		314,966	4,712,955
2032	95,070		3,454	(3,681,188)	3,903,083		320,419	5,033,374
2033	93,519		1,778	(4,644,833)	4,870,268		320,732	5,354,106
2034	91,993		1,848	(6,206,834)	6,438,966		325,974	5,680,080
2035	90,492		1,723	(7,796,001)	8,031,866		328,081	6,008,160
2036	89,016		1,795	(10,375,790)	10,619,252		334,273	6,342,433
2037	87,564		1,672	(13,047,130)	13,295,579		337,684	6,680,118
2038	86,135		1,753	(17,905,260)	18,169,196		351,824	7,031,941
2039	84,730		1,630	(22,259,793)	22,526,685		353,251	7,385,193
2040	83,348		1,700	(29,673,559)	29,950,935		362,423	7,747,616
2041	81,988		1,579	(36,830,669)	37,110,893		363,790	8,111,406
2042	80,650		1,645	(49,098,222)	49,389,735		373,808	8,485,214
2043	79,334		1,529	(60,868,936)	61,163,628		375,555	8,860,769

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 GAINESVILLE RENEWABLE ENERGY CENTER (NOS. 80-106)
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Updated Response to Interrogatory No. 104b								
Scenario: GREC with Resale at Contract Price - 10% Higher Biomass Fuel Costs (with price sharing)								
Case: Base								
All Costs are in Present Worth (2009 \$, \$000)								
Year	Capital Costs	Fixed O&M Costs	Variable O&M Costs	Fuel Costs	Environmental Costs (CO ₂)	Other Costs	Total Costs	Cumulative Total Costs
2014	130,821		2,210	93,618			226,649	226,649
2015	126,329		2,289	94,066			222,684	449,333
2016	117,338		2,250	93,087			212,676	662,009
2017	121,675		2,290	92,892			216,857	878,866
2018	119,690		2,235	91,758			213,683	1,092,549
2019	117,737		2,119	93,356			213,212	1,305,762
2020	115,816		2,089	91,793			209,699	1,515,460
2021	113,927		2,092	91,992			208,011	1,723,472
2022	112,068		2,065	90,573			204,706	1,928,178
2023	110,240		1,495	103,336			215,071	2,143,248
2024	108,441		1,057	103,013			212,511	2,355,759
2025	106,672		1,560	101,450			209,683	2,565,442
2026	104,932		1,584	99,386			205,902	2,771,343
2027	103,220		1,596	98,725			203,541	2,974,884
2028	101,536		1,564	97,766			200,866	3,175,750
2029	99,879		1,580	97,047			198,506	3,374,256
2030	98,250		1,551	95,542			195,343	3,569,599
2031	96,647		2,433	152,743			251,823	3,821,422
2032	95,070		2,805	163,826			261,701	4,083,123
2033	93,519		1,482	165,036			260,037	4,343,160
2034	91,993		1,521	165,647			259,162	4,602,322
2035	90,492		1,453	166,820			258,765	4,861,087
2036	89,016		1,494	167,457			257,968	5,119,055
2037	87,564		1,431	169,987			258,982	5,378,037
2038	86,135		1,538	177,530			265,203	5,643,240
2039	84,730		1,445	178,364			264,540	5,907,780
2040	83,348		1,501	180,203			265,052	6,172,832
2041	81,988		1,411	181,020			264,420	6,437,251
2042	80,650		1,466	183,138			265,254	6,702,505
2043	79,334		1,375	184,086			264,796	6,967,301

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Updated Response to Interrogatory No. 104b								
Year	Scenario: GREC with Resale at Market Price - 10% Higher Biomass Fuel Costs (with price sharing)							
	Case: Base							
	All Costs are in Present Worth (2009 \$, \$000)							
	Capital Costs	Fixed O&M Costs	Variable O&M Costs	Fuel Costs	Environmental Costs (CO ₂)	Other Costs	Total Costs	Cumulative Total Costs
2014	130,821		2,210	107,741			240,772	240,772
2015	126,329		2,289	107,560			236,178	476,951
2016	117,338		2,250	106,044			225,633	702,584
2017	121,675		2,290	105,310			229,275	931,859
2018	119,690		2,235	103,678			225,602	1,157,462
2019	117,737		2,119	104,696			224,552	1,382,014
2020	115,816		2,089	102,498			220,404	1,602,418
2021	113,927		2,092	102,177			218,196	1,820,613
2022	112,068		2,065	100,202			214,335	2,034,948
2023	110,240		1,495	103,336			215,071	2,250,019
2024	108,441		1,057	103,013			212,511	2,462,530
2025	106,672		1,560	101,450			209,683	2,672,213
2026	104,932		1,584	99,386			205,902	2,878,114
2027	103,220		1,596	98,725			203,541	3,081,655
2028	101,536		1,564	97,766			200,866	3,282,521
2029	99,879		1,580	97,047			198,506	3,481,027
2030	98,250		1,551	95,542			195,343	3,676,370
2031	96,647		2,433	152,743			251,823	3,928,193
2032	95,070		2,805	163,826			261,701	4,189,894
2033	93,519		1,482	165,036			260,037	4,449,931
2034	91,993		1,521	165,647			259,162	4,709,092
2035	90,492		1,453	166,820			258,765	4,967,858
2036	89,016		1,494	167,457			257,968	5,225,826
2037	87,564		1,431	169,987			258,982	5,484,808
2038	86,135		1,538	177,530			265,203	5,750,011
2039	84,730		1,445	178,364			264,540	6,014,551
2040	83,348		1,501	180,203			265,052	6,279,602
2041	81,988		1,411	181,020			264,420	6,544,022
2042	80,650		1,466	183,138			265,254	6,809,276
2043	79,334		1,375	184,086			264,796	7,074,072

RESPONSES TO STAFF'S FOURTH SET OF INTERROGATORIES TO
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Updated Response to Interrogatory No. 104b								
Year	Scenario: No New Construction until 2023 - 10% Higher Biomass Fuel Costs (with price sharing)							
	Case: Base							
	All Costs are in Present Worth (2009 \$, \$000)							
	Capital Costs	Fixed O&M Costs	Variable O&M Costs	Fuel Costs	Environmental Costs (CO ₂)	Other Costs	Total Costs	Cumulative Total Costs
2014	130,821		3,156	76,300			210,277	210,277
2015	126,329		3,235	78,533			208,097	418,374
2016	117,338		3,146	78,648			199,132	617,506
2017	121,675		3,183	80,206			205,064	822,571
2018	119,690		3,088	79,227			202,005	1,024,575
2019	117,737		2,843	81,691			202,271	1,226,846
2020	115,816		2,793	81,622			200,232	1,427,078
2021	113,927		2,796	82,870			199,593	1,626,671
2022	112,068		2,757	82,136			196,961	1,823,632
2023	110,240		2,795	82,848			195,883	2,019,515
2024	108,441		1,936	88,431			198,808	2,218,324
2025	106,672		2,815	88,052			197,539	2,415,863
2026	104,932		2,862	86,521			194,315	2,610,178
2027	103,220		2,804	87,565			193,589	2,803,767
2028	101,536		2,808	88,351			192,696	2,996,463
2029	99,879		2,773	89,817			192,469	3,188,932
2030	98,250		2,766	90,403			191,420	3,380,352
2031	96,647		3,050	161,951			261,649	3,642,000
2032	95,070		3,454	172,897			271,421	3,913,421
2033	93,519		1,778	175,806			271,102	4,184,523
2034	91,993		1,848	177,521			271,362	4,455,886
2035	90,492		1,723	180,442			272,657	4,728,543
2036	89,016		1,795	182,292			273,103	5,001,646
2037	87,564		1,672	186,428			275,664	5,277,310
2038	86,135		1,753	195,287			283,176	5,560,486
2039	84,730		1,630	197,436			283,796	5,844,282
2040	83,348		1,700	200,564			285,612	6,129,894
2041	81,988		1,579	202,629			286,195	6,416,089
2042	80,650		1,645	205,880			288,175	6,704,264
2043	79,334		1,529	208,043			288,906	6,993,170

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Year	Scenario: GREC with Resale at Contract Price - 10% Higher Biomass Fuel Costs (with price sharing)							
	Case: Regulated CO2							
	All Costs are in Present Worth (2009 \$, 5000)							
	Capital Costs	Fixed O&M Costs	Variable O&M Costs	Fuel Costs	Environmental Costs (CO ₂)	Other Costs	Total Costs	Cumulative Total Costs
2014	130,821		2,222	93,816	28,568		255,427	255,427
2015	126,329		2,319	94,259	30,772		253,678	509,106
2016	117,338		2,268	93,307	32,696		245,609	754,715
2017	121,675		2,320	93,037	35,172		252,204	1,006,919
2018	119,690		2,264	91,731	37,287		250,972	1,257,891
2019	117,737		2,126	93,581	40,062		253,507	1,511,398
2020	115,816		2,106	92,000	42,344		252,266	1,763,664
2021	113,927		2,116	92,294	45,376		253,712	2,017,377
2022	112,068		2,097	91,247	47,894		253,306	2,270,683
2023	110,240		1,514	103,652	42,260		257,666	2,528,349
2024	108,441		1,058	103,059	45,634		258,193	2,786,542
2025	106,672		1,560	101,473	48,957		258,662	3,045,204
2026	104,932		1,585	99,398	51,630		257,545	3,302,749
2027	103,220		1,596	98,694	55,394		258,904	3,561,653
2028	101,536		1,564	97,777	58,551		259,428	3,821,081
2029	99,879		1,579	96,901	62,782		261,141	4,082,223
2030	98,250		1,552	95,469	66,351		261,622	4,343,845
2031	96,647		2,432	152,707	42,733		294,518	4,638,363
2032	95,070		2,805	163,831	41,413		303,118	4,941,481
2033	93,519		1,484	164,973	42,742		302,718	5,244,199
2034	91,993		1,522	165,546	46,710		305,772	5,549,971
2035	90,492		1,453	166,814	48,156		306,916	5,856,887
2036	89,016		1,494	167,446	52,598		310,554	6,167,441
2037	87,564		1,431	170,027	54,401		313,422	6,480,863
2038	86,135		1,538	177,537	61,399		326,609	6,807,472
2039	84,730		1,445	178,345	62,860		327,380	7,134,852
2040	83,348		1,501	180,199	69,001		334,048	7,468,900
2041	81,988		1,411	181,015	70,582		334,997	7,803,897
2042	80,650		1,466	183,138	77,541		342,795	8,146,692
2043	79,334		1,375	184,074	79,263		344,047	8,490,739

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Year	Scenario: GREC with Resale at Market Price - 10% Higher Biomass Fuel Costs (with price sharing)							
	Case: Regulated CO2							
	All Costs are in Present Worth (2009 \$, \$000)							
	Capital Costs	Fixed O&M Costs	Variable O&M Costs	Fuel Costs	Environmental Costs (CO ₂)	Other Costs	Total Costs	Cumulative Total Costs
2014	130,821		2,222	103,113	23,254		259,410	259,410
2015	126,329		2,319	102,654	25,062		256,364	515,774
2016	117,338		2,268	100,862	26,686		247,154	762,928
2017	121,675		2,320	99,764	28,725		252,484	1,015,412
2018	119,690		2,264	97,638	30,462		250,054	1,265,466
2019	117,737		2,126	98,569	32,809		251,241	1,516,707
2020	115,816		2,106	95,976	34,741		248,638	1,765,345
2021	113,927		2,116	95,388	37,294		248,724	2,014,069
2022	112,068		2,097	93,385	39,376		246,927	2,260,996
2023	110,240		1,514	103,652	42,260		257,666	2,518,662
2024	108,441		1,058	103,059	45,634		258,193	2,776,855
2025	106,672		1,560	101,473	48,957		258,662	3,035,517
2026	104,932		1,585	99,398	51,630		257,545	3,293,062
2027	103,220		1,596	98,694	55,394		258,904	3,551,966
2028	101,536		1,564	97,777	58,551		259,428	3,811,395
2029	99,879		1,579	96,901	62,782		261,141	4,072,536
2030	98,250		1,552	95,469	66,351		261,622	4,334,158
2031	96,647		2,432	152,707	42,733		294,518	4,628,676
2032	95,070		2,805	163,831	41,413		303,118	4,931,794
2033	93,519		1,484	164,973	42,742		302,718	5,234,512
2034	91,993		1,522	165,546	46,710		305,772	5,540,284
2035	90,492		1,453	166,814	48,156		306,916	5,847,200
2036	89,016		1,494	167,446	52,598		310,554	6,157,754
2037	87,564		1,431	170,027	54,401		313,422	6,471,176
2038	86,135		1,538	177,537	61,399		326,609	6,797,785
2039	84,730		1,445	178,345	62,860		327,380	7,125,165
2040	83,348		1,501	180,199	69,001		334,048	7,459,213
2041	81,988		1,411	181,015	70,582		334,997	7,794,210
2042	80,650		1,466	183,138	77,541		342,795	8,137,005
2043	79,334		1,375	184,074	79,263		344,047	8,481,052

RESPONSES TO STAFF'S FOURTH SET OF INTERROGATORIES TO
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Updated Response to Interrogatory No. 104b								
Year	Scenario: No New Construction until 2023 - 10% Higher Biomass Fuel Costs (with price sharing)							
	Case: Regulated CO2							
	All Costs are in Present Worth (2009 \$, \$000)							
	Capital Costs	Fixed O&M Costs	Variable O&M Costs	Fuel Costs	Environmental Costs (CO ₂)	Other Costs	Total Costs	Cumulative Total Costs
2014	130,821		3,316	38,407	73,176		245,720	245,720
2015	126,329		3,275	21,207	94,627		245,438	491,159
2016	117,338		3,197	(2,615)	120,794		238,714	729,873
2017	121,675		3,217	(34,046)	156,514		247,361	977,234
2018	119,690		3,169	(75,053)	199,724		247,530	1,224,764
2019	117,737		2,856	(129,457)	259,201		250,338	1,475,102
2020	115,816		2,810	(198,459)	330,785		250,952	1,726,054
2021	113,927		2,806	(291,685)	428,436		253,484	1,979,538
2022	112,068		2,780	(406,769)	546,268		254,347	2,233,885
2023	110,240		2,821	(564,562)	708,873		257,373	2,491,258
2024	108,441		1,975	(773,125)	926,848		264,139	2,755,397
2025	106,672		2,855	(1,044,383)	1,202,204		267,347	3,022,744
2026	104,932		2,862	(1,373,301)	1,532,161		266,654	3,289,397
2027	103,220		2,833	(1,823,726)	1,988,746		271,073	3,560,471
2028	101,536		2,819	(2,373,824)	2,543,896		274,426	3,834,897
2029	99,879		2,791	(3,124,734)	3,301,767		279,703	4,114,600
2030	98,250		2,786	(4,042,434)	4,224,789		283,390	4,397,990
2031	96,647		3,069	(3,104,496)	3,319,746		314,966	4,712,955
2032	95,070		3,454	(3,681,188)	3,903,083		320,419	5,033,374
2033	93,519		1,778	(4,644,833)	4,870,268		320,732	5,354,106
2034	91,993		1,848	(6,206,834)	6,438,966		325,974	5,680,080
2035	90,492		1,723	(7,796,001)	8,031,866		328,081	6,008,160
2036	89,016		1,795	(10,375,790)	10,619,252		334,273	6,342,433
2037	87,564		1,672	(13,047,130)	13,295,579		337,684	6,680,118
2038	86,135		1,753	(17,905,260)	18,169,196		351,824	7,031,941
2039	84,730		1,630	(22,259,793)	22,526,685		353,251	7,385,193
2040	83,348		1,700	(29,673,559)	29,950,935		362,423	7,747,616
2041	81,988		1,579	(36,830,669)	37,110,893		363,790	8,111,406
2042	80,650		1,645	(49,098,222)	49,389,735		373,808	8,485,214
2043	79,334		1,529	(60,868,936)	61,163,628		375,555	8,860,769

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Updated Response to Interrogatory No. 104c								
Year	Scenario: GREC with Resale at Contract Price - 10% Lower Biomass Fuel Costs (with price sharing)							
	Case: Base							
	All Costs are in Present Worth (2009 \$, \$000)							
	Capital Costs	Fixed O&M Costs	Variable O&M Costs	Fuel Costs	Environmental Costs (CO ₂)	Other Costs	Total Costs	Cumulative Total Costs
2014	130,821		2,210	91,552			224,583	224,583
2015	126,329		2,289	91,689			220,307	444,890
2016	117,338		2,250	90,742			210,331	655,220
2017	121,675		2,290	90,592			214,557	869,777
2018	119,690		2,235	89,495			211,420	1,081,197
2019	117,737		2,119	91,130			210,986	1,292,183
2020	115,816		2,089	89,598			207,503	1,499,686
2021	113,927		2,092	89,838			205,857	1,705,543
2022	112,068		2,065	88,454			202,587	1,908,131
2023	110,240		1,495	99,168			210,902	2,119,033
2024	108,441		1,057	98,901			208,399	2,327,432
2025	106,672		1,560	97,417			205,649	2,533,081
2026	104,932		1,584	95,418			201,934	2,735,015
2027	103,220		1,596	94,822			199,638	2,934,652
2028	101,536		1,564	93,916			197,016	3,131,668
2029	99,879		1,580	93,270			194,730	3,326,398
2030	98,250		1,551	91,827			191,628	3,518,025
2031	96,647		2,433	149,088			248,168	3,766,193
2032	95,070		2,805	160,221			258,096	4,024,289
2033	93,519		1,482	161,500			256,501	4,280,790
2034	91,993		1,521	162,169			255,683	4,536,473
2035	90,492		1,453	163,398			255,343	4,791,817
2036	89,016		1,494	164,082			254,593	5,046,409
2037	87,564		1,431	166,676			255,671	5,302,080
2038	86,135		1,538	174,273			261,946	5,564,026
2039	84,730		1,445	175,160			261,336	5,825,362
2040	83,348		1,501	177,043			261,891	6,087,253
2041	81,988		1,411	177,920			261,319	6,348,573
2042	80,650		1,466	180,088			262,205	6,610,777
2043	79,334		1,375	181,086			261,796	6,872,573

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Updated Response to Interrogatory No. 104c								
Scenario: GREC with Resale at Market Price - 10% Lower Biomass Fuel Costs (with price sharing)								
Case: Base								
All Costs are in Present Worth (2009 \$, \$000)								
Year	Capital Costs	Fixed O&M Costs	Variable O&M Costs	Fuel Costs	Environmental Costs (CO ₂)	Other Costs	Total Costs	Cumulative Total Costs
2014	130,821		2,210	103,609			236,640	236,640
2015	126,329		2,289	102,805			231,424	468,063
2016	117,338		2,250	101,354			220,943	689,006
2017	121,675		2,290	100,709			224,674	913,681
2018	119,690		2,235	99,152			221,077	1,134,757
2019	117,737		2,119	100,243			220,100	1,354,857
2020	115,816		2,089	98,107			216,012	1,570,870
2021	113,927		2,092	97,869			213,888	1,784,757
2022	112,068		2,065	95,964			210,098	1,994,855
2023	110,240		1,495	99,168			210,902	2,205,757
2024	108,441		1,057	98,901			208,399	2,414,156
2025	106,672		1,560	97,417			205,649	2,619,805
2026	104,932		1,584	95,418			201,934	2,821,738
2027	103,220		1,596	94,822			199,638	3,021,376
2028	101,536		1,564	93,916			197,016	3,218,392
2029	99,879		1,580	93,270			194,730	3,413,121
2030	98,250		1,551	91,827			191,628	3,604,749
2031	96,647		2,433	149,088			248,168	3,852,917
2032	95,070		2,805	160,221			258,096	4,111,013
2033	93,519		1,482	161,500			256,501	4,367,514
2034	91,993		1,521	162,169			255,683	4,623,197
2035	90,492		1,453	163,398			255,343	4,878,540
2036	89,016		1,494	164,082			254,593	5,133,133
2037	87,564		1,431	166,676			255,671	5,388,804
2038	86,135		1,538	174,273			261,946	5,650,750
2039	84,730		1,445	175,160			261,336	5,912,086
2040	83,348		1,501	177,043			261,891	6,173,977
2041	81,988		1,411	177,920			261,319	6,435,296
2042	80,650		1,466	180,088			262,205	6,697,501
2043	79,334		1,375	181,086			261,796	6,959,297

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Scenario: No New Construction until 2023 - 10% Lower Biomass Fuel Costs (with price sharing)								
Case: Base								
All Costs are in Present Worth (2009 \$, \$000)								
Year	Capital Costs	Fixed O&M Costs	Variable O&M Costs	Fuel Costs	Environmental Costs (CO ₂)	Other Costs	Total Costs	Cumulative Total Costs
2014	130,821		3,156	76,300			210,277	210,277
2015	126,329		3,235	78,533			208,097	418,374
2016	117,338		3,146	78,648			199,132	617,506
2017	121,675		3,183	80,206			205,064	822,571
2018	119,690		3,088	79,227			202,005	1,024,575
2019	117,737		2,843	81,691			202,271	1,226,846
2020	115,816		2,793	81,622			200,232	1,427,078
2021	113,927		2,796	82,870			199,593	1,626,671
2022	112,068		2,757	82,136			196,961	1,823,632
2023	110,240		2,795	82,848			195,883	2,019,515
2024	108,441		1,936	88,431			198,808	2,218,324
2025	106,672		2,815	88,052			197,539	2,415,863
2026	104,932		2,862	86,521			194,315	2,610,178
2027	103,220		2,804	87,565			193,589	2,803,767
2028	101,536		2,808	88,351			192,696	2,996,463
2029	99,879		2,773	89,817			192,469	3,188,932
2030	98,250		2,766	90,403			191,420	3,380,352
2031	96,647		3,050	161,951			261,649	3,642,000
2032	95,070		3,454	172,897			271,421	3,913,421
2033	93,519		1,778	175,806			271,102	4,184,523
2034	91,993		1,848	177,521			271,362	4,455,886
2035	90,492		1,723	180,442			272,657	4,728,543
2036	89,016		1,795	182,292			273,103	5,001,646
2037	87,564		1,672	186,428			275,664	5,277,310
2038	86,135		1,753	195,287			283,176	5,560,486
2039	84,730		1,630	197,436			283,796	5,844,282
2040	83,348		1,700	200,564			285,612	6,129,894
2041	81,988		1,579	202,629			286,195	6,416,089
2042	80,650		1,645	205,880			288,175	6,704,264
2043	79,334		1,529	208,043			288,906	6,993,170

RESPONSES TO STAFF'S FOURTH SET OF INTERROGATORIES TO
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Updated Response to Interrogatory No. 104c								
Scenario: GREC with Resale at Contract Price - 10% Lower Biomass Fuel Costs (with price sharing)								
Case: Regulated CO2								
All Costs are in Present Worth (2009 \$, \$000)								
Year	Capital Costs	Fixed O&M Costs	Variable O&M Costs	Fuel Costs	Environmental Costs (CO ₂)	Other Costs	Total Costs	Cumulative Total Costs
2014	130,821		2,222	91,750	28,568		253,361	253,361
2015	126,329		2,319	91,881	30,772		251,301	504,662
2016	117,338		2,268	90,962	32,696		243,264	747,926
2017	121,675		2,320	90,736	35,172		249,903	997,830
2018	119,690		2,264	89,468	37,287		248,709	1,246,539
2019	117,737		2,126	91,355	40,062		251,281	1,497,820
2020	115,816		2,106	89,805	42,344		250,070	1,747,890
2021	113,927		2,116	90,140	45,376		251,558	1,999,449
2022	112,068		2,097	89,128	47,894		251,187	2,250,636
2023	110,240		1,514	99,484	42,260		253,498	2,504,133
2024	108,441		1,058	98,947	45,634		254,081	2,758,215
2025	106,672		1,560	97,439	48,957		254,628	3,012,843
2026	104,932		1,585	95,430	51,630		253,577	3,266,420
2027	103,220		1,596	94,791	55,394		255,001	3,521,421
2028	101,536		1,564	93,926	58,551		255,578	3,776,999
2029	99,879		1,579	93,124	62,782		257,364	4,034,364
2030	98,250		1,552	91,754	66,351		257,907	4,292,271
2031	96,647		2,432	149,052	42,733		290,863	4,583,134
2032	95,070		2,805	160,226	41,413		299,513	4,882,647
2033	93,519		1,484	161,437	42,742		299,182	5,181,829
2034	91,993		1,522	162,068	46,710		302,293	5,484,122
2035	90,492		1,453	163,392	48,156		303,494	5,787,616
2036	89,016		1,494	164,070	52,598		307,179	6,094,795
2037	87,564		1,431	166,716	54,401		310,111	6,404,906
2038	86,135		1,538	174,280	61,399		323,352	6,728,258
2039	84,730		1,445	175,141	62,860		324,176	7,052,434
2040	83,348		1,501	177,039	69,001		330,888	7,383,322
2041	81,988		1,411	177,915	70,582		331,896	7,715,218
2042	80,650		1,466	180,088	77,541		339,746	8,054,964
2043	79,334		1,375	181,075	79,263		341,047	8,396,011

RESPONSES TO STAFF'S FOURTH SET OF INTERROGATORIES TO
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Updated Response to Interrogatory No. 104c								
Year	Scenario: GREC with Resale at Market Price - 10% Lower Biomass Fuel Costs (with price sharing)							
	Case: Regulated CO2							
	All Costs are in Present Worth (2009 \$, \$000)							
	Capital Costs	Fixed O&M Costs	Variable O&M Costs	Fuel Costs	Environmental Costs (CO ₂)	Other Costs	Total Costs	Cumulative Total Costs
2014	130,821		2,222	98,980	23,254		255,278	255,278
2015	126,329		2,319	97,899	25,062		251,609	506,886
2016	117,338		2,268	96,172	26,686		242,464	749,350
2017	121,675		2,320	95,163	28,725		247,883	997,233
2018	119,690		2,264	93,112	30,462		245,528	1,242,761
2019	117,737		2,126	94,117	32,809		246,789	1,489,551
2020	115,816		2,106	91,584	34,741		244,246	1,733,797
2021	113,927		2,116	91,080	37,294		244,416	1,978,213
2022	112,068		2,097	89,147	39,376		242,689	2,220,902
2023	110,240		1,514	99,484	42,260		253,498	2,474,400
2024	108,441		1,058	98,947	45,634		254,081	2,728,481
2025	106,672		1,560	97,439	48,957		254,628	2,983,109
2026	104,932		1,585	95,430	51,630		253,577	3,236,686
2027	103,220		1,596	94,791	55,394		255,001	3,491,687
2028	101,536		1,564	93,926	58,551		255,578	3,747,265
2029	99,879		1,579	93,124	62,782		257,364	4,004,630
2030	98,250		1,552	91,754	66,351		257,907	4,262,537
2031	96,647		2,432	149,052	42,733		290,863	4,553,400
2032	95,070		2,805	160,226	41,413		299,513	4,852,913
2033	93,519		1,484	161,437	42,742		299,182	5,152,095
2034	91,993		1,522	162,068	46,710		302,293	5,454,388
2035	90,492		1,453	163,392	48,156		303,494	5,757,883
2036	89,016		1,494	164,070	52,598		307,179	6,065,061
2037	87,564		1,431	166,716	54,401		310,111	6,375,173
2038	86,135		1,538	174,280	61,399		323,352	6,698,525
2039	84,730		1,445	175,141	62,860		324,176	7,022,700
2040	83,348		1,501	177,039	69,001		330,888	7,353,588
2041	81,988		1,411	177,915	70,582		331,896	7,685,484
2042	80,650		1,466	180,088	77,541		339,746	8,025,230
2043	79,334		1,375	181,075	79,263		341,047	8,366,277

RESPONSES TO STAFF'S FOURTH SET OF INTERROGATORIES TO
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Updated Response to Interrogatory No. 104c								
Scenario: No New Construction until 2023 - 10% Lower Biomass Fuel Costs (with price sharing)								
Case: Regulated CO2								
All Costs are in Present Worth (2009 \$, \$000)								
Year	Capital Costs	Fixed O&M Costs	Variable O&M Costs	Fuel Costs	Environmental Costs (CO ₂)	Other Costs	Total Costs	Cumulative Total Costs
2014	130,821		3,316	38,407	73,176		245,720	245,720
2015	126,329		3,275	21,207	94,627		245,438	491,159
2016	117,338		3,197	(2,615)	120,794		238,714	729,873
2017	121,675		3,217	(34,046)	156,514		247,361	977,234
2018	119,690		3,169	(75,053)	199,724		247,530	1,224,764
2019	117,737		2,856	(129,457)	259,201		250,338	1,475,102
2020	115,816		2,810	(198,459)	330,785		250,952	1,726,054
2021	113,927		2,806	(291,685)	428,436		253,484	1,979,538
2022	112,068		2,780	(406,769)	546,268		254,347	2,233,885
2023	110,240		2,821	(564,562)	708,873		257,373	2,491,258
2024	108,441		1,975	(773,125)	926,848		264,139	2,755,397
2025	106,672		2,855	(1,044,383)	1,202,204		267,347	3,022,744
2026	104,932		2,862	(1,373,301)	1,532,161		266,654	3,289,397
2027	103,220		2,833	(1,823,726)	1,988,746		271,073	3,560,471
2028	101,536		2,819	(2,373,824)	2,543,896		274,426	3,834,897
2029	99,879		2,791	(3,124,734)	3,301,767		279,703	4,114,600
2030	98,250		2,786	(4,042,434)	4,224,789		283,390	4,397,990
2031	96,647		3,069	(3,104,496)	3,319,746		314,966	4,712,955
2032	95,070		3,454	(3,681,188)	3,903,083		320,419	5,033,374
2033	93,519		1,778	(4,644,833)	4,870,268		320,732	5,354,106
2034	91,993		1,848	(6,206,834)	6,438,966		325,974	5,680,080
2035	90,492		1,723	(7,796,001)	8,031,866		328,081	6,008,160
2036	89,016		1,795	(10,375,790)	10,619,252		334,273	6,342,433
2037	87,564		1,672	(13,047,130)	13,295,579		337,684	6,680,118
2038	86,135		1,753	(17,905,260)	18,169,196		351,824	7,031,941
2039	84,730		1,630	(22,259,793)	22,526,685		353,251	7,385,193
2040	83,348		1,700	(29,673,559)	29,950,935		362,423	7,747,616
2041	81,988		1,579	(36,830,669)	37,110,893		363,790	8,111,406
2042	80,650		1,645	(49,098,222)	49,389,735		373,808	8,485,214
2043	79,334		1,529	(60,868,936)	61,163,628		375,555	8,860,769

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Year	Scenario: GREC with Resale at Contract Price - Delay in Carbon Legislation Until 2017							
	Case: Regulated CO2							
	All Costs are in Present Worth (2009 \$, \$000)							
	Capital Costs	Fixed O&M Costs	Variable O&M Costs	Fuel Costs	Environmental Costs (CO ₂)	Other Costs	Total Costs	Cumulative Total Costs
2014	130,821		2,210	92,583	-		225,615	225,615
2015	126,329		2,289	92,921	-		221,539	447,154
2016	117,338		2,250	91,958	-		211,546	658,700
2017	121,675		2,320	91,927	35,172		251,094	909,795
2018	119,690		2,264	90,641	37,287		249,882	1,159,677
2019	117,737		2,126	92,509	40,062		252,434	1,412,111
2020	115,816		2,106	90,942	42,344		251,208	1,663,320
2021	113,927		2,116	91,256	45,376		252,675	1,915,994
2022	112,068		2,097	90,226	47,894		252,286	2,168,280
2023	110,240		1,514	101,645	42,260		255,659	2,423,938
2024	108,441		1,058	101,078	45,634		256,212	2,680,151
2025	106,672		1,560	99,528	48,957		256,717	2,936,867
2026	104,932		1,585	97,486	51,630		255,633	3,192,500
2027	103,220		1,596	96,813	55,394		257,023	3,449,524
2028	101,536		1,564	95,923	58,551		257,574	3,707,098
2029	99,879		1,579	95,082	62,782		259,322	3,966,420
2030	98,250		1,552	93,677	66,351		259,830	4,226,251
2031	96,647		2,432	150,946	42,733		292,757	4,519,007
2032	95,070		2,805	162,093	41,413		301,380	4,820,387
2033	93,519		1,484	163,270	42,742		301,015	5,121,402
2034	91,993		1,522	163,870	46,710		304,096	5,425,498
2035	90,492		1,453	165,164	48,156		305,266	5,730,764
2036	89,016		1,494	165,819	52,598		308,928	6,039,692
2037	87,564		1,431	168,431	54,401		311,827	6,351,518
2038	86,135		1,538	175,968	61,399		325,040	6,676,559
2039	84,730		1,445	176,802	62,860		325,837	7,002,395
2040	83,348		1,501	178,675	69,001		332,525	7,334,920
2041	81,988		1,411	179,522	70,582		333,503	7,668,423
2042	80,650		1,466	181,668	77,541		341,325	8,009,748
2043	79,334		1,375	182,629	79,263		342,602	8,352,350

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Year	Scenario: GREC with Resale at Market Price - Delay in Carbon Legislation Until 2017							
	Case: Regulated CO2							
	All Costs are in Present Worth (2009 \$, \$000)							
	Capital Costs	Fixed O&M Costs	Variable O&M Costs	Fuel Costs	Environmental Costs (CO ₂)	Other Costs	Total Costs	Cumulative Total Costs
2014	130,821		2,210	105,672	-		238,703	238,703
2015	126,329		2,289	105,270	-		233,888	472,592
2016	117,338		2,250	103,785	-		223,374	695,966
2017	121,675		2,320	103,236	28,725		255,956	951,922
2018	119,690		2,264	95,458	30,462		247,874	1,199,796
2019	117,737		2,126	96,424	32,809		249,096	1,448,893
2020	115,816		2,106	93,860	34,741		246,522	1,695,415
2021	113,927		2,116	93,312	37,294		246,648	1,942,063
2022	112,068		2,097	91,344	39,376		244,886	2,186,949
2023	110,240		1,514	101,645	42,260		255,659	2,442,607
2024	108,441		1,058	101,078	45,634		256,212	2,698,820
2025	106,672		1,560	99,528	48,957		256,717	2,955,536
2026	104,932		1,585	97,486	51,630		255,633	3,211,169
2027	103,220		1,596	96,813	55,394		257,023	3,468,193
2028	101,536		1,564	95,923	58,551		257,574	3,725,767
2029	99,879		1,579	95,082	62,782		259,322	3,985,089
2030	98,250		1,552	93,677	66,351		259,830	4,244,920
2031	96,647		2,432	150,946	42,733		292,757	4,537,676
2032	95,070		2,805	162,093	41,413		301,380	4,839,056
2033	93,519		1,484	163,270	42,742		301,015	5,140,071
2034	91,993		1,522	163,870	46,710		304,096	5,444,167
2035	90,492		1,453	165,164	48,156		305,266	5,749,433
2036	89,016		1,494	165,819	52,598		308,928	6,058,361
2037	87,564		1,431	168,431	54,401		311,827	6,370,187
2038	86,135		1,538	175,968	61,399		325,040	6,695,228
2039	84,730		1,445	176,802	62,860		325,837	7,021,064
2040	83,348		1,501	178,675	69,001		332,525	7,353,589
2041	81,988		1,411	179,522	70,582		333,503	7,687,092
2042	80,650		1,466	181,668	77,541		341,325	8,028,417
2043	79,334		1,375	182,629	79,263		342,602	8,371,019

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Updated Response to Interrogatory No. 104d								
Scenario: No New Construction until 2023 - Delay in Carbon Legislation Until 2017								
Case: Regulated CO2								
All Costs are in Present Worth (2009 \$, \$000)								
Year	Capital Costs	Fixed O&M Costs	Variable O&M Costs	Fuel Costs	Environmental Costs (CO ₂)	Other Costs	Total Costs	Cumulative Total Costs
2014	130,821		3,156	76,300	-		210,277	210,277
2015	126,329		3,235	78,533	-		208,097	418,374
2016	117,338		3,146	78,648	-		199,132	617,506
2017	121,675		3,217	80,521	41,945		247,358	864,865
2018	119,690		3,169	80,210	44,459		247,527	1,112,392
2019	117,737		2,856	82,166	47,574		250,334	1,362,726
2020	115,816		2,810	81,955	50,366		250,947	1,613,673
2021	113,927		2,806	83,001	53,743		253,477	1,867,150
2022	112,068		2,780	82,732	56,758		254,338	2,121,488
2023	110,240		2,821	83,631	60,669		257,360	2,378,848
2024	108,441		1,975	88,659	65,049		264,124	2,642,972
2025	106,672		2,855	88,226	69,575		267,327	2,910,300
2026	104,932		2,862	86,550	72,282		266,627	3,176,927
2027	103,220		2,833	87,658	77,329		271,040	3,447,967
2028	101,536		2,819	88,437	81,591		274,382	3,722,349
2029	99,879		2,791	89,870	87,111		279,652	4,002,000
2030	98,250		2,786	90,534	91,752		283,322	4,285,322
2031	96,647		3,069	162,067	53,169		314,952	4,600,274
2032	95,070		3,454	172,902	48,992		320,419	4,920,693
2033	93,519		1,778	175,823	49,612		320,732	5,241,425
2034	91,993		1,848	177,466	54,666		325,974	5,567,399
2035	90,492		1,723	180,436	55,430		328,081	5,895,479
2036	89,016		1,795	182,279	61,183		334,273	6,229,752
2037	87,564		1,672	186,473	61,975		337,684	6,567,437
2038	86,135		1,753	195,294	68,641		351,824	6,919,261
2039	84,730		1,630	197,414	69,477		353,251	7,272,512
2040	83,348		1,700	200,560	76,816		362,423	7,634,935
2041	81,988		1,579	202,623	77,601		363,790	7,998,725
2042	80,650		1,645	205,880	85,633		373,808	8,372,533
2043	79,334		1,529	208,031	86,661		375,555	8,748,089

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 GAINESVILLE RENEWABLE ENERGY CENTER (NOS. 80-106)
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Updated Response to Interrogatory No. 104e								
Year	Scenario: GREC with Resale at Contract Price - Delay in Carbon Legislation Until 2022							
	Case: Regulated CO2							
	All Costs are in Present Worth (2009 \$, \$000)							
	Capital Costs	Fixed O&M Costs	Variable O&M Costs	Fuel Costs	Environmental Costs (CO ₂)	Other Costs	Total Costs	Cumulative Total Costs
2014	130,821		2,210	92,583	-		225,615	225,615
2015	126,329		2,289	92,921	-		221,539	447,154
2016	117,338		2,250	91,958	-		211,546	658,700
2017	121,675		2,290	91,782	-		215,747	874,448
2018	119,690		2,235	90,668	-		212,593	1,087,041
2019	117,737		2,119	92,283	-		212,140	1,299,181
2020	115,816		2,089	90,735	-		208,641	1,507,821
2021	113,927		2,092	90,955	-		206,974	1,714,795
2022	112,068		2,097	90,227	47,894		252,286	1,967,081
2023	110,240		1,514	101,645	42,260		255,659	2,222,740
2024	108,441		1,058	101,078	45,634		256,212	2,478,952
2025	106,672		1,560	99,528	48,957		256,717	2,735,669
2026	104,932		1,585	97,486	51,630		255,633	2,991,301
2027	103,220		1,596	96,813	55,394		257,023	3,248,325
2028	101,536		1,564	95,923	58,551		257,574	3,505,899
2029	99,879		1,579	95,082	62,782		259,322	3,765,221
2030	98,250		1,552	93,677	66,351		259,830	4,025,052
2031	96,647		2,432	150,946	42,733		292,757	4,317,809
2032	95,070		2,805	162,093	41,413		301,380	4,619,188
2033	93,519		1,484	163,270	42,742		301,015	4,920,204
2034	91,993		1,522	163,870	46,710		304,096	5,224,299
2035	90,492		1,453	165,164	48,156		305,266	5,529,565
2036	89,016		1,494	165,819	52,598		308,928	5,838,493
2037	87,564		1,431	168,431	54,401		311,827	6,150,319
2038	86,135		1,538	175,968	61,399		325,040	6,475,360
2039	84,730		1,445	176,802	62,860		325,837	6,801,196
2040	83,348		1,501	178,675	69,001		332,525	7,133,721
2041	81,988		1,411	179,522	70,582		333,503	7,467,224
2042	80,650		1,466	181,668	77,541		341,325	7,808,549
2043	79,334		1,375	182,629	79,263		342,602	8,151,151

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 GAINESVILLE RENEWABLE ENERGY CENTER (NOS. 80-106)
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Updated Response to Interrogatory No. 104e								
Year	Scenario: GREC with Resale at Market Price- Delay in Carbon Legislation Until 2022							
	Case: Regulated CO2							
	All Costs are in Present Worth (2009 \$, \$000)							
	Capital Costs	Fixed O&M Costs	Variable O&M Costs	Fuel Costs	Environmental Costs (CO ₂)	Other Costs	Total Costs	Cumulative Total Costs
2014	130,821		2,210	105,672	-		238,703	238,703
2015	126,329		2,289	105,270	-		233,888	472,592
2016	117,338		2,250	103,785	-		223,374	695,966
2017	121,675		2,290	103,091	-		227,056	923,022
2018	119,690		2,235	101,498	-		223,423	1,146,445
2019	117,737		2,119	102,550	-		222,407	1,368,852
2020	115,816		2,089	100,383	-		218,288	1,587,140
2021	113,927		2,092	100,101	-		216,120	1,803,260
2022	112,068		2,097	98,835	39,376		252,377	2,055,637
2023	110,240		1,514	101,645	42,260		255,659	2,311,295
2024	108,441		1,058	101,078	45,634		256,212	2,567,508
2025	106,672		1,560	99,528	48,957		256,717	2,824,224
2026	104,932		1,585	97,486	51,630		255,633	3,079,857
2027	103,220		1,596	96,813	55,394		257,023	3,336,881
2028	101,536		1,564	95,923	58,551		257,574	3,594,455
2029	99,879		1,579	95,082	62,782		259,322	3,853,777
2030	98,250		1,552	93,677	66,351		259,830	4,113,608
2031	96,647		2,432	150,946	42,733		292,757	4,406,364
2032	95,070		2,805	162,093	41,413		301,380	4,707,744
2033	93,519		1,484	163,270	42,742		301,015	5,008,759
2034	91,993		1,522	163,870	46,710		304,096	5,312,855
2035	90,492		1,453	165,164	48,156		305,266	5,618,121
2036	89,016		1,494	165,819	52,598		308,928	5,927,049
2037	87,564		1,431	168,431	54,401		311,827	6,238,875
2038	86,135		1,538	175,968	61,399		325,040	6,563,916
2039	84,730		1,445	176,802	62,860		325,837	6,889,752
2040	83,348		1,501	178,675	69,001		332,525	7,222,277
2041	81,988		1,411	179,522	70,582		333,503	7,555,780
2042	80,650		1,466	181,668	77,541		341,325	7,897,105
2043	79,334		1,375	182,629	79,263		342,602	8,239,707

RESPONSES TO STAFF'S FOURTH SET OF INTERROGATORIES TO
 GAINESVILLE RENEWABLE ENERGY CENTER (NOS. 80-106)
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Updated Response to Interrogatory No. 104c								
Scenario: No New Construction until 2023 - Delay in Carbon Legislation Until 2022								
Case: Regulated CO2								
All Costs are in Present Worth (2009 \$, \$000)								
Year	Capital Costs	Fixed O&M Costs	Variable O&M Costs	Fuel Costs	Environmental Costs (CO ₂)	Other Costs	Total Costs	Cumulative Total Costs
2014	130,821		3,156	76,300	-		210,277	210,277
2015	126,329		3,235	78,533	-		208,097	418,374
2016	117,338		3,146	78,648	-		199,132	617,506
2017	121,675		3,183	80,206	-		205,064	822,571
2018	119,690		3,088	79,227	-		202,005	1,024,575
2019	117,737		2,843	81,691	-		202,271	1,226,846
2020	115,816		2,793	81,622	-		200,232	1,427,078
2021	113,927		2,796	82,870	-		199,593	1,626,671
2022	112,068		2,780	82,735	56,758		254,341	1,881,012
2023	110,240		2,821	83,631	60,669		257,360	2,138,372
2024	108,441		1,975	88,659	65,049		264,124	2,402,497
2025	106,672		2,855	88,226	69,575		267,327	2,669,824
2026	104,932		2,862	86,550	72,282		266,627	2,936,451
2027	103,220		2,833	87,658	77,329		271,040	3,207,491
2028	101,536		2,819	88,437	81,591		274,382	3,481,873
2029	99,879		2,791	89,870	87,111		279,652	3,761,525
2030	98,250		2,786	90,534	91,752		283,322	4,044,847
2031	96,647		3,069	162,067	53,169		314,952	4,359,799
2032	95,070		3,454	172,902	48,992		320,419	4,680,217
2033	93,519		1,778	175,823	49,612		320,732	5,000,949
2034	91,993		1,848	177,466	54,666		325,974	5,326,923
2035	90,492		1,723	180,436	55,430		328,081	5,655,004
2036	89,016		1,795	182,279	61,183		334,273	5,989,277
2037	87,564		1,672	186,473	61,975		337,684	6,326,961
2038	86,135		1,753	195,294	68,641		351,824	6,678,785
2039	84,730		1,630	197,414	69,477		353,251	7,032,036
2040	83,348		1,700	200,560	76,816		362,423	7,394,460
2041	81,988		1,579	202,623	77,601		363,790	7,758,250
2042	80,650		1,645	205,880	85,633		373,808	8,132,058
2043	79,334		1,529	208,031	86,661		375,555	8,507,613

IV. Customer Rate Impact:

- 105. Please discuss any potential efforts to reduce or limit the rate impact of the GREC Project, including reduction of transfer to the City of Gainesville's general revenue fund, financial instruments or agreements, or other mechanisms.**

Response to Interrogatory No. 105:

Four key attributes of the PPA between GRU and GREC LLC are the long term fixed pricing for all of the non-fuel aspects of the price, the carbon neutral or better environmental attributes of the project; the relatively non-volatile cost of fuel, and the pay-for-performance structure of the PPA by which GRU will only pay for energy availability and production. These features of the PPA were designed as a hedge for GREC to limit the rate impacts of:

- Carbon constraint requirements such as cap and trade legislation and/or the ongoing USEPA rulemaking pursuant to the finding that carbon dioxide is an endangerment to public health and welfare
- Renewable portfolio requirements or standards
- The trends of increasing prices and volatility of conventional fuels, especially natural gas, accompanied by the increased import of these fuels at a national level
- Potential costs and reliability risks associated with GRU's aging generation fleet
- Risks associated with being served by one natural gas pipeline and one rail spur
- Risks over 30 years associated with financial interest rates and equity commitments; construction cost over-runs and delays; labor and operation costs other than volatile fossil fuel costs; both the physical and financial risks associated with equipment maintenance, renewal and repair; and costs associated with potential catastrophic failures of GRU generating facilities
- The anticipated accelerating increases in the cost of additional generation capacity in the future associated with accelerated trends in energy and commodity price escalation associated with increased reliance on non-domestic sources of electric generating fuels and other materials

The Gainesville City Commission has chosen to proceed with GREC not only to protect its customers against potential rate impacts of these risks but also to obtain the additional benefits of:

- Meeting its policy objectives related to reducing carbon emissions
- Enhancing Gainesville's and Florida's energy independence
- Create investment and jobs in the local economy

This commitment by the Gainesville City Commission was made with full knowledge that GREC would exert upward pressure on retail rates in the early years of its operation; full knowledge of the risk of not reselling a portion of GREC output at full contract value during the first years of its operation; and full knowledge of the risk of delays resulting in a loss of opportunity to partake in the benefits of federal incentives for renewable energy. Hedges are a form of insurance that will always have a cost associated with them.

GRU staff has identified a number of policies and has identified techniques to help mitigate any short term impacts these remaining risks might have on rate payers. These are summarized as follows:

- The amount of the general fund transfer has been decoupled from GRU's operating revenue requirements which include GREC payments.
- GRU has reviewed the project in detail with Moody's Investment Services and Standard and Poor's bond rating agencies, which have concurred that the GREC LLC PPA does not constitute a capital obligation that would trigger additional debt service reserves or bond coverage requirements.
- GRU has met with a number of major investment banking firms who are familiar with and have engaged in third party prepayment financial structures pursuant to the federal safe harbor provisions for such practices for municipal natural gas and electric power prepayment, and GRU has made certain that the PPA would allow such provisions. A reasonable estimate of the potential savings from such a structure is roughly 10 percent. No such structure will be contemplated until such time as all permits, certifications, and long term fuel contracts are in place.
- Experience has shown that the fuel contracts will likely be indexed against diesel fuel and labor costs. Diesel fuel costs are readily hedged with over the counter commodity contracts, and GRU will investigate ways to hedge against labor cost as well.

- The GREC LLC PPA includes a variety of ways for GRU to manage fuel costs as described in the response to Interrogatory Nos. 89 and 90.

The Energy Authority (TEA) is a power marketing group managing all of its generation assets in excess of requirements to meet native load and represents GRU in the hourly Florida Cost Based Broker System. TEA is managing over 25,000 MW nationwide, and has a significant market presence that not only helps GRU achieve the lowest possible power cost for its native loads, but extracts the highest possible value from all its generation assets with its major market presence. Thus, to the extent that GRU has surplus generation assets after adding GREC to its generating fleet, TEA will manage all of GRU's assets so as to maximize value to GRU and minimize GRU's customers' rates. Additionally, in the unlikely event that GRU does not contract with other Florida utilities (such as OUC, FMPA, Lakeland, and Reedy Creek) for the sale of 50MW of GREC's capacity and energy, GRU expects that it will be able to mitigate rate impacts by negotiating with other utilities for the purchase and sale of capacity, energy, renewable attributes, and carbon regulation values from GREC, and potentially also by asking TEA to market these products.

Delaying the project is not a good option for GRU's customers, in that GRU strongly believes that its customers' rates will be lower, over the long run, with GREC added in 2013 than under any realistic delay scenario.

- 106. Please provide the estimated rate impacts for the cumulative present worth revenue requirement analysis requested above.**

Response to Interrogatory No. 106:

Please see the file labeled *Response to Interrogatory No. 106* on the enclosed CD, which presents the requested information.

RESPECTFULLY SUBMITTED this 1st day of March, 2010.

Young van Assenderp, P.A.

By: 

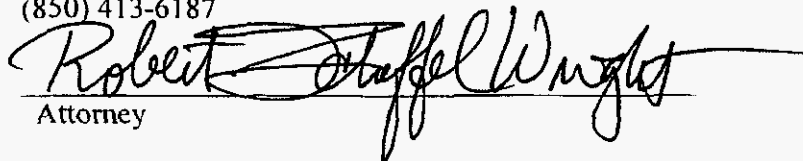
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Attorneys for GRU and GREC LLC

CERTIFICATE OF SERVICE

I hereby certify that a copy of the foregoing responses to Staff's Fourth Set of Interrogatories (Nos. 80-106) was served upon the following by hand delivery on this 1st day of March, 2010:

Erik L. Saylor
Senior Attorney, Office of General Counsel
Florida Public Service Commission
2540 Shumard Oak Blvd.
Tallahassee, FL 32399-0850
(850) 413-6187


Attorney

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 5, 2010

REVISED RESPONSES TO NOS. 104 AND 106 OF
STAFF'S FOURTH SET OF INTERROGATORIES TO
GAINESVILLE RENEWABLE ENERGY CENTER (NOS. 80-106)

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 provides revised responses to Nos. 104 and 106 of Staff's Fourth Set of Interrogatories (Nos. 80-106).

The revised responses to Interrogatories Nos. 104 and 106 of Staff's Fourth Set of Interrogatories (Nos. 80-106) are provided by Richard Bachmeier, Electric System Planning Director, Gainesville Regional Utilities, 301 SE 4th Avenue, Gainesville, Florida 32601.

RESPONSES

- 104 Please refer to Staff's Second Data Request, Interrogatory 57. Please complete the table presented there showing the annual and cumulative present value revenue requirements for each of the cases and scenarios described below:
- a. Scenario: GREC Project has its in-service date delayed, resulting in loss of the Investment Tax Credit.
 - b. Scenario: 10% Higher Biomass Fuel Costs (with price sharing)
 - c. Scenario: 10% Lower Biomass Fuel Costs (with price sharing)
 - d. Case: Delay in Carbon Legislation to 2017
 - e. Case: Delay in Carbon Legislation to 2022

Revised Response to Interrogatory No. 104:

Please refer to the following tables, which present revised responses to the version originally submitted on March 1, 2010. The revisions are being submitted to correct erroneous output data that was inadvertently included in response to the "No New Construction till 2023" with regulated CO₂ case for scenarios "a" through "c" as identified above. The error was a spreadsheet specification that inadvertently, and incorrectly, copied the wrong columns of output data for the Fuel Costs and Environmental Costs into the referenced table. Although the revisions only affect the "No New Construction till 2023" with regulated CO₂ case for three scenarios, all tables originally provided in response to Interrogatory No. 104 have been provided in this revised response (tables with revisions are so noted in the title of the table). A revised summary table presenting the cumulative total costs in year 2043 (present worth in thousands of 2009 dollars) reflecting the revisions discussed above has also been included.

REVISED RESPONSES TO NOS. 104 AND 106 OF STAFF'S FOURTH SET OF INTERROGATORIES TO GAINESVILLE RENEWABLE ENERGY CENTER (NOS. 80-106)
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Please refer to the response to Interrogatory No. 101 (submitted March 1, 2010) for discussion as to how the market value of the GREC biomass project was considered in developing the present value revenue requirements.

Revised Response to Interrogatory No. 104 Summary of Cumulative Total Costs in Year 2043 All Costs are in Present Worth (2009 \$, \$000)			
Scenario Description	GREC with Resale at Contract Price	GREC with Resale at Market Price	No New Construction till 2023
Base Case – GREC Project has In-Service Date Delayed, Resulting in Loss of Investment Tax Credit	6,975,197	7,054,571	6,993,170
Regulated CO ₂ – GREC Project has In-Service Date Delayed, Resulting in Loss of Investment Tax Credit	8,505,300	8,516,291	8,860,452
Base Case – 10% Higher Biomass Fuel Costs (with price sharing)	6,967,301	7,074,072	6,993,170
Regulated CO ₂ – 10% Higher Biomass Fuel Costs (with price sharing)	8,490,739	8,481,052	8,860,452
Base Case – 10% Lower Biomass Fuel Costs (with price sharing)	6,872,573	6,959,297	6,993,170
Regulated CO ₂ – 10% Lower Biomass Fuel Costs (with price sharing)	8,396,011	8,366,277	8,860,452
Regulated CO ₂ – Delay in Carbon Legislation to 2017	8,352,350	8,371,019	8,748,089
Regulated CO ₂ – Delay in Carbon Legislation to 2022	8,151,151	8,239,707	8,507,613

REVISED RESPONSES TO NOS. 104 AND 106 OF STAFF'S FOURTH SET OF INTERROGATORIES TO GAINESVILLE RENEWABLE ENERGY CENTER (NOS. 80-106)
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Response to Interrogatory No. 104a								
Year	Scenario: GREC with Resale at Contract Price - GREC Project has its in-service date delayed, resulting in loss of the Investment Tax Credit.							
	Case: Base							
	All Costs are in Present Worth (2009 \$, \$000)							
	Capital Costs	Fixed O&M Costs	Variable O&M Costs	Fuel Costs	Environmental Costs (CO ₂)	Other Costs	Total Costs	Cumulative Total Costs
2014	130,821		3,156	76,300			210,277	210,277
2015	126,329		2,289	95,415			224,034	434,310
2016	117,338		2,250	94,358			213,947	648,257
2017	121,675		2,290	94,079			218,044	866,301
2018	119,690		2,235	92,872			214,797	1,081,099
2019	117,737		2,119	94,399			214,256	1,295,354
2020	115,816		2,089	92,771			210,677	1,506,031
2021	113,927		2,092	92,903			208,922	1,714,953
2022	112,068		2,065	91,422			205,556	1,920,509
2023	110,240		1,495	104,918			216,652	2,137,161
2024	108,441		1,057	104,486			213,984	2,351,145
2025	106,672		1,560	102,811			211,043	2,562,188
2026	104,932		1,584	100,646			207,162	2,769,351
2027	103,220		1,596	99,888			204,704	2,974,055
2028	101,536		1,564	98,842			201,942	3,175,997
2029	99,879		1,580	98,032			199,492	3,375,489
2030	98,250		1,551	96,441			196,242	3,571,731
2031	96,647		2,433	153,564			252,644	3,824,375
2032	95,070		2,805	164,573			262,448	4,086,823
2033	93,519		1,482	165,712			260,713	4,347,536
2034	91,993		1,521	166,254			259,768	4,607,304
2035	90,492		1,453	167,360			259,306	4,866,610
2036	89,016		1,494	167,939			258,450	5,125,060
2037	87,564		1,431	170,409			259,404	5,384,464
2038	86,135		1,538	177,898			265,571	5,650,035
2039	84,730		1,445	178,680			264,855	5,914,890
2040	83,348		1,501	180,468			265,316	6,180,206
2041	81,988		1,411	181,238			264,637	6,444,844
2042	80,650		1,466	183,310			265,427	6,710,270
2043	79,334		1,375	184,217			264,927	6,975,197

REVISED RESPONSES TO NOS. 104 AND 106 OF STAFF'S FOURTH SET OF INTERROGATORIES TO GAINESVILLE RENEWABLE ENERGY CENTER (NOS. 80-106)
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Response to Interrogatory No. 104a								
Year	Scenario: GREC with Resale at Market Price - GREC Project has its in-service date delayed, resulting in loss of the Investment Tax Credit.							
	Case: Base							
	All Costs are in Present Worth (2009 \$, \$000)							
	Capital Costs	Fixed O&M Costs	Variable O&M Costs	Fuel Costs	Environmental Costs (CO ₂)	Other Costs	Total Costs	Cumulative Total Costs
2014	130,821		3,156	76,300			210,277	210,277
2015	126,329		2,289	106,988			235,606	445,883
2016	117,338		2,250	105,341			224,930	670,813
2017	121,675		2,290	104,282			228,247	899,060
2018	119,690		2,235	102,689			224,614	1,123,674
2019	117,737		2,119	104,211			224,068	1,347,742
2020	115,816		2,089	102,602			220,507	1,568,249
2021	113,927		2,092	102,133			218,152	1,786,401
2022	112,068		2,065	99,349			213,482	1,999,883
2023	110,240		1,495	104,918			216,652	2,216,535
2024	108,441		1,057	104,486			213,984	2,430,519
2025	106,672		1,560	102,811			211,043	2,641,562
2026	104,932		1,584	100,646			207,162	2,848,725
2027	103,220		1,596	99,888			204,704	3,053,429
2028	101,536		1,564	98,842			201,942	3,255,371
2029	99,879		1,580	98,032			199,492	3,454,863
2030	98,250		1,551	96,441			196,242	3,651,105
2031	96,647		2,433	153,564			252,644	3,903,749
2032	95,070		2,805	164,573			262,448	4,166,197
2033	93,519		1,482	165,712			260,713	4,426,910
2034	91,993		1,521	166,254			259,768	4,686,678
2035	90,492		1,453	167,360			259,306	4,945,984
2036	89,016		1,494	167,939			258,450	5,204,434
2037	87,564		1,431	170,409			259,404	5,463,838
2038	86,135		1,538	177,898			265,571	5,729,409
2039	84,730		1,445	178,680			264,855	5,994,264
2040	83,348		1,501	180,468			265,316	6,259,580
2041	81,988		1,411	181,238			264,637	6,524,217
2042	80,650		1,466	183,310			265,427	6,789,644
2043	79,334		1,375	184,217			264,927	7,054,571

REVISED RESPONSES TO NOS. 104 AND 106 OF STAFF'S FOURTH SET OF INTERROGATORIES TO GAINESVILLE RENEWABLE ENERGY CENTER (NOS. 80-106)
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Response to Interrogatory No. 104a								
Scenario: No New Construction until 2023 - GREC Project has its in-service date delayed, resulting in loss of the Investment Tax Credit.								
Case: Base								
All Costs are in Present Worth (2009 \$, \$000)								
Year	Capital Costs	Fixed O&M Costs	Variable O&M Costs	Fuel Costs	Environmental Costs (CO ₂)	Other Costs	Total Costs	Cumulative Total Costs
2014	130,821		3,156	76,300			210,277	210,277
2015	126,329		3,235	78,533			208,097	418,374
2016	117,338		3,146	78,648			199,132	617,506
2017	121,675		3,183	80,206			205,064	822,571
2018	119,690		3,088	79,227			202,005	1,024,575
2019	117,737		2,843	81,691			202,271	1,226,846
2020	115,816		2,793	81,622			200,232	1,427,078
2021	113,927		2,796	82,870			199,593	1,626,671
2022	112,068		2,757	82,136			196,961	1,823,632
2023	110,240		2,795	82,848			195,883	2,019,515
2024	108,441		1,936	88,431			198,808	2,218,324
2025	106,672		2,815	88,052			197,539	2,415,863
2026	104,932		2,862	86,521			194,315	2,610,178
2027	103,220		2,804	87,565			193,589	2,803,767
2028	101,536		2,808	88,351			192,696	2,996,463
2029	99,879		2,773	89,817			192,469	3,188,932
2030	98,250		2,766	90,403			191,420	3,380,352
2031	96,647		3,050	161,951			261,649	3,642,000
2032	95,070		3,454	172,897			271,421	3,913,421
2033	93,519		1,778	175,806			271,102	4,184,523
2034	91,993		1,848	177,521			271,362	4,455,886
2035	90,492		1,723	180,442			272,657	4,728,543
2036	89,016		1,795	182,292			273,103	5,001,646
2037	87,564		1,672	186,428			275,664	5,277,310
2038	86,135		1,753	195,287			283,176	5,560,486
2039	84,730		1,630	197,436			283,796	5,844,282
2040	83,348		1,700	200,564			285,612	6,129,894
2041	81,988		1,579	202,629			286,195	6,416,089
2042	80,650		1,645	205,880			288,175	6,704,264
2043	79,334		1,529	208,043			288,906	6,993,170

REVISED RESPONSES TO NOS. 104 AND 106 OF STAFF'S FOURTH SET OF INTERROGATORIES TO GAINESVILLE RENEWABLE ENERGY CENTER (NOS. 80-106)
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Response to Interrogatory No. 104a								
Year	Scenario: GREC with Resale at Contract Price - GREC Project has its in-service date delayed, resulting in loss of the Investment Tax Credit.							
	Case: Regulated CO2							
	All Costs are in Present Worth (2009 \$, \$000)							
	Capital Costs	Fixed O&M Costs	Variable O&M Costs	Fuel Costs	Environmental Costs (CO ₂)	Other Costs	Total Costs	Cumulative Total Costs
2014	130,821		3,316	38,407	73,176		245,720	245,720
2015	126,329		2,319	95,608	30,772		255,028	500,748
2016	117,338		2,268	94,578	32,696		246,880	747,628
2017	121,675		2,320	94,224	35,172		253,391	1,001,019
2018	119,690		2,264	92,846	37,287		252,087	1,253,106
2019	117,737		2,126	94,624	40,062		254,550	1,507,656
2020	115,816		2,106	92,979	42,344		253,244	1,760,900
2021	113,927		2,116	93,204	45,376		254,623	2,015,524
2022	112,068		2,097	92,096	47,894		254,156	2,269,679
2023	110,240		1,514	105,234	42,260		259,248	2,528,927
2024	108,441		1,058	104,532	45,634		259,666	2,788,593
2025	106,672		1,560	102,833	48,957		260,022	3,048,616
2026	104,932		1,585	100,659	51,630		258,805	3,307,421
2027	103,220		1,596	99,858	55,394		260,068	3,567,489
2028	101,536		1,564	98,853	58,551		260,504	3,827,994
2029	99,879		1,579	97,886	62,782		262,126	4,090,120
2030	98,250		1,552	96,368	66,351		262,521	4,352,642
2031	96,647		2,432	153,528	42,733		295,339	4,647,981
2032	95,070		2,805	164,578	41,413		303,865	4,951,846
2033	93,519		1,484	165,648	42,742		303,394	5,255,240
2034	91,993		1,522	166,153	46,710		306,379	5,561,619
2035	90,492		1,453	167,355	48,156		307,457	5,869,075
2036	89,016		1,494	167,927	52,598		311,036	6,180,111
2037	87,564		1,431	170,449	54,401		313,844	6,493,955
2038	86,135		1,538	177,905	61,399		326,977	6,820,932
2039	84,730		1,445	178,660	62,860		327,695	7,148,627
2040	83,348		1,501	180,464	69,001		334,313	7,482,940
2041	81,988		1,411	181,233	70,582		335,214	7,818,155
2042	80,650		1,466	183,311	77,541		342,968	8,161,122
2043	79,334		1,375	184,206	79,263		344,178	8,505,300

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Response to Interrogatory No. 104a								
Year	Scenario: GREC with Resale at Market Price - GREC Project has its in-service date delayed, resulting in loss of the Investment Tax Credit.							
	Case: Regulated CO2							
	All Costs are in Present Worth (2009 \$, \$000)							
Capital Costs	Fixed O&M Costs	Variable O&M Costs	Fuel Costs	Environmental Costs (CO ₂)	Other Costs	Total Costs	Cumulative Total Costs	
2014	130,821		3,316	38,407	73,176		245,720	245,720
2015	126,329		2,319	105,263	25,062		258,973	504,693
2016	117,338		2,268	103,639	26,686		249,931	754,624
2017	121,675		2,320	102,565	28,725		255,285	1,009,909
2018	119,690		2,264	100,947	30,462		253,363	1,263,272
2019	117,737		2,126	102,972	32,809		255,644	1,518,917
2020	115,816		2,106	101,562	34,741		254,225	1,773,141
2021	113,927		2,116	101,521	37,294		254,857	2,027,998
2022	112,068		2,097	99,130	39,376		252,672	2,280,670
2023	110,240		1,514	105,234	42,260		259,248	2,539,918
2024	108,441		1,058	104,532	45,634		259,666	2,799,585
2025	106,672		1,560	102,833	48,957		260,022	3,059,607
2026	104,932		1,585	100,659	51,630		258,805	3,318,412
2027	103,220		1,596	99,858	55,394		260,068	3,578,481
2028	101,536		1,564	98,853	58,551		260,504	3,838,985
2029	99,879		1,579	97,886	62,782		262,126	4,101,111
2030	98,250		1,552	96,368	66,351		262,521	4,363,633
2031	96,647		2,432	153,528	42,733		295,339	4,658,972
2032	95,070		2,805	164,578	41,413		303,865	4,962,837
2033	93,519		1,484	165,648	42,742		303,394	5,266,231
2034	91,993		1,522	166,153	46,710		306,379	5,572,610
2035	90,492		1,453	167,355	48,156		307,457	5,880,066
2036	89,016		1,494	167,927	52,598		311,036	6,191,102
2037	87,564		1,431	170,449	54,401		313,844	6,504,947
2038	86,135		1,538	177,905	61,399		326,977	6,831,923
2039	84,730		1,445	178,660	62,860		327,695	7,159,618
2040	83,348		1,501	180,464	69,001		334,313	7,493,931
2041	81,988		1,411	181,233	70,582		335,214	7,829,146
2042	80,650		1,466	183,311	77,541		342,968	8,172,113
2043	79,334		1,375	184,206	79,263		344,178	8,516,291

REVISED RESPONSES TO NOS. 104 AND 106 OF STAFF'S FOURTH SET OF INTERROGATORIES TO GAINESVILLE RENEWABLE ENERGY CENTER (NOS. 80-106)
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Revised Response to Interrogatory No. 104a								
Year	Scenario: No New Construction until 2023 - GREC Project has its in-service date delayed, resulting in loss of the Investment Tax Credit.							
	Case: Regulated CO2							
	All Costs are in Present Worth (2009 \$, \$000)							
	Capital Costs	Fixed O&M Costs	Variable O&M Costs	Fuel Costs	Environmental Costs (CO ₂)	Other Costs	Total Costs	Cumulative Total Costs
2014	130,821		3,316	77,133	34,450		245,720	245,720
2015	126,329		3,275	78,914	36,918		245,437	491,157
2016	117,338		3,197	79,047	39,131		238,713	729,870
2017	121,675		3,217	80,521	41,945		247,358	977,229
2018	119,690		3,169	80,210	44,459		247,527	1,224,756
2019	117,737		2,856	82,166	47,574		250,334	1,475,090
2020	115,816		2,810	81,955	50,366		250,947	1,726,037
2021	113,927		2,806	83,001	53,743		253,477	1,979,514
2022	112,068		2,780	82,732	56,758		254,338	2,233,851
2023	110,240		2,821	83,631	60,669		257,360	2,491,212
2024	108,441		1,975	88,659	65,049		264,124	2,755,336
2025	106,672		2,855	88,226	69,575		267,327	3,022,664
2026	104,932		2,862	86,550	72,282		266,627	3,289,290
2027	103,220		2,833	87,658	77,329		271,040	3,560,331
2028	101,536		2,819	88,437	81,591		274,382	3,834,713
2029	99,879		2,791	89,870	87,111		279,652	4,114,364
2030	98,250		2,786	90,534	91,752		283,322	4,397,686
2031	96,647		3,069	162,067	53,169		314,952	4,712,638
2032	95,070		3,454	172,902	48,992		320,419	5,033,057
2033	93,519		1,778	175,823	49,612		320,732	5,353,789
2034	91,993		1,848	177,466	54,666		325,974	5,679,763
2035	90,492		1,723	180,436	55,430		328,081	6,007,843
2036	89,016		1,795	182,279	61,183		334,273	6,342,116
2037	87,564		1,672	186,473	61,975		337,684	6,679,801
2038	86,135		1,753	195,294	68,641		351,824	7,031,624
2039	84,730		1,630	197,414	69,477		353,251	7,384,876
2040	83,348		1,700	200,560	76,816		362,423	7,747,299
2041	81,988		1,579	202,623	77,601		363,790	8,111,089
2042	80,650		1,645	205,880	85,633		373,808	8,484,897
2043	79,334		1,529	208,031	86,661		375,555	8,860,452

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Response to Interrogatory No. 104b								
Year	Scenario: GREC with Resale at Contract Price - 10% Higher Biomass Fuel Costs (with price sharing)							
	Case: Base							
	All Costs are in Present Worth (2009 \$, \$000)							
	Capital Costs	Fixed O&M Costs	Variable O&M Costs	Fuel Costs	Environmental Costs (CO ₂)	Other Costs	Total Costs	Cumulative Total Costs
2014	130,821		2,210	93,618			226,649	226,649
2015	126,329		2,289	94,066			222,684	449,333
2016	117,338		2,250	93,087			212,676	662,009
2017	121,675		2,290	92,892			216,857	878,866
2018	119,690		2,235	91,758			213,683	1,092,549
2019	117,737		2,119	93,356			213,212	1,305,762
2020	115,816		2,089	91,793			209,699	1,515,460
2021	113,927		2,092	91,992			208,011	1,723,472
2022	112,068		2,065	90,573			204,706	1,928,178
2023	110,240		1,495	103,336			215,071	2,143,248
2024	108,441		1,057	103,013			212,511	2,355,759
2025	106,672		1,560	101,450			209,683	2,565,442
2026	104,932		1,584	99,386			205,902	2,771,343
2027	103,220		1,596	98,725			203,541	2,974,884
2028	101,536		1,564	97,766			200,866	3,175,750
2029	99,879		1,580	97,047			198,506	3,374,256
2030	98,250		1,551	95,542			195,343	3,569,599
2031	96,647		2,433	152,743			251,823	3,821,422
2032	95,070		2,805	163,826			261,701	4,083,123
2033	93,519		1,482	165,036			260,037	4,343,160
2034	91,993		1,521	165,647			259,162	4,602,322
2035	90,492		1,453	166,820			258,765	4,861,087
2036	89,016		1,494	167,457			257,968	5,119,055
2037	87,564		1,431	169,987			258,982	5,378,037
2038	86,135		1,538	177,530			265,203	5,643,240
2039	84,730		1,445	178,364			264,540	5,907,780
2040	83,348		1,501	180,203			265,052	6,172,832
2041	81,988		1,411	181,020			264,420	6,437,251
2042	80,650		1,466	183,138			265,254	6,702,505
2043	79,334		1,375	184,086			264,796	6,967,301

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Response to Interrogatory No. 104b								
Year	Scenario: GREC with Resale at Market Price - 10% Higher Biomass Fuel Costs (with price sharing)							
	Case: Base							
	All Costs are in Present Worth (2009 \$, \$000)							
	Capital Costs	Fixed O&M Costs	Variable O&M Costs	Fuel Costs	Environmental Costs (CO ₂)	Other Costs	Total Costs	Cumulative Total Costs
2014	130,821		2,210	107,741			240,772	240,772
2015	126,329		2,289	107,560			236,178	476,951
2016	117,338		2,250	106,044			225,633	702,584
2017	121,675		2,290	105,310			229,275	931,859
2018	119,690		2,235	103,678			225,602	1,157,462
2019	117,737		2,119	104,696			224,552	1,382,014
2020	115,816		2,089	102,498			220,404	1,602,418
2021	113,927		2,092	102,177			218,196	1,820,613
2022	112,068		2,065	100,202			214,335	2,034,948
2023	110,240		1,495	103,336			215,071	2,250,019
2024	108,441		1,057	103,013			212,511	2,462,530
2025	106,672		1,560	101,450			209,683	2,672,213
2026	104,932		1,584	99,386			205,902	2,878,114
2027	103,220		1,596	98,725			203,541	3,081,655
2028	101,536		1,564	97,766			200,866	3,282,521
2029	99,879		1,580	97,047			198,506	3,481,027
2030	98,250		1,551	95,542			195,343	3,676,370
2031	96,647		2,433	152,743			251,823	3,928,193
2032	95,070		2,805	163,826			261,701	4,189,894
2033	93,519		1,482	165,036			260,037	4,449,931
2034	91,993		1,521	165,647			259,162	4,709,092
2035	90,492		1,453	166,820			258,765	4,967,858
2036	89,016		1,494	167,457			257,968	5,225,826
2037	87,564		1,431	169,987			258,982	5,484,808
2038	86,135		1,538	177,530			265,203	5,750,011
2039	84,730		1,445	178,364			264,540	6,014,551
2040	83,348		1,501	180,203			265,052	6,279,602
2041	81,988		1,411	181,020			264,420	6,544,022
2042	80,650		1,466	183,138			265,254	6,809,276
2043	79,334		1,375	184,086			264,796	7,074,072

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Response to Interrogatory No. 104b								
Year	Scenario: No New Construction until 2023 - 10% Higher Biomass Fuel Costs (with price sharing)							
	Case: Base							
	All Costs are in Present Worth (2009 \$, \$000)							
	Capital Costs	Fixed O&M Costs	Variable O&M Costs	Fuel Costs	Environmental Costs (CO ₂)	Other Costs	Total Costs	Cumulative Total Costs
2014	130,821		3,156	76,300			210,277	210,277
2015	126,329		3,235	78,533			208,097	418,374
2016	117,338		3,146	78,648			199,132	617,506
2017	121,675		3,183	80,206			205,064	822,571
2018	119,690		3,088	79,227			202,005	1,024,575
2019	117,737		2,843	81,691			202,271	1,226,846
2020	115,816		2,793	81,622			200,232	1,427,078
2021	113,927		2,796	82,870			199,593	1,626,671
2022	112,068		2,757	82,136			196,961	1,823,632
2023	110,240		2,795	82,848			195,883	2,019,515
2024	108,441		1,936	88,431			198,808	2,218,324
2025	106,672		2,815	88,052			197,539	2,415,863
2026	104,932		2,862	86,521			194,315	2,610,178
2027	103,220		2,804	87,565			193,589	2,803,767
2028	101,536		2,808	88,351			192,696	2,996,463
2029	99,879		2,773	89,817			192,469	3,188,932
2030	98,250		2,766	90,403			191,420	3,380,352
2031	96,647		3,050	161,951			261,649	3,642,000
2032	95,070		3,454	172,897			271,421	3,913,421
2033	93,519		1,778	175,806			271,102	4,184,523
2034	91,993		1,848	177,521			271,362	4,455,886
2035	90,492		1,723	180,442			272,657	4,728,543
2036	89,016		1,795	182,292			273,103	5,001,646
2037	87,564		1,672	186,428			275,664	5,277,310
2038	86,135		1,753	195,287			283,176	5,560,486
2039	84,730		1,630	197,436			283,796	5,844,282
2040	83,348		1,700	200,564			285,612	6,129,894
2041	81,988		1,579	202,629			286,195	6,416,089
2042	80,650		1,645	205,880			288,175	6,704,264
2043	79,334		1,529	208,043			288,906	6,993,170

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Response to Interrogatory No. 104b								
Year	Scenario: GREC with Resale at Contract Price - 10% Higher Biomass Fuel Costs (with price sharing)							
	Case: Regulated CO2							
	All Costs are in Present Worth (2009 \$, \$000)							
	Capital Costs	Fixed O&M Costs	Variable O&M Costs	Fuel Costs	Environmental Costs (CO ₂)	Other Costs	Total Costs	Cumulative Total Costs
2014	130,821		2,222	93,816	28,568		255,427	255,427
2015	126,329		2,319	94,259	30,772		253,678	509,106
2016	117,338		2,268	93,307	32,696		245,609	754,715
2017	121,675		2,320	93,037	35,172		252,204	1,006,919
2018	119,690		2,264	91,731	37,287		250,972	1,257,891
2019	117,737		2,126	93,581	40,062		253,507	1,511,398
2020	115,816		2,106	92,000	42,344		252,266	1,763,664
2021	113,927		2,116	92,294	45,376		253,712	2,017,377
2022	112,068		2,097	91,247	47,894		253,306	2,270,683
2023	110,240		1,514	103,652	42,260		257,666	2,528,349
2024	108,441		1,058	103,059	45,634		258,193	2,786,542
2025	106,672		1,560	101,473	48,957		258,662	3,045,204
2026	104,932		1,585	99,398	51,630		257,545	3,302,749
2027	103,220		1,596	98,694	55,394		258,904	3,561,653
2028	101,536		1,564	97,777	58,551		259,428	3,821,081
2029	99,879		1,579	96,901	62,782		261,141	4,082,223
2030	98,250		1,552	95,469	66,351		261,622	4,343,845
2031	96,647		2,432	152,707	42,733		294,518	4,638,363
2032	95,070		2,805	163,831	41,413		303,118	4,941,481
2033	93,519		1,484	164,973	42,742		302,718	5,244,199
2034	91,993		1,522	165,546	46,710		305,772	5,549,971
2035	90,492		1,453	166,814	48,156		306,916	5,856,887
2036	89,016		1,494	167,446	52,598		310,554	6,167,441
2037	87,564		1,431	170,027	54,401		313,422	6,480,863
2038	86,135		1,538	177,537	61,399		326,609	6,807,472
2039	84,730		1,445	178,345	62,860		327,380	7,134,852
2040	83,348		1,501	180,199	69,001		334,048	7,468,900
2041	81,988		1,411	181,015	70,582		334,997	7,803,897
2042	80,650		1,466	183,138	77,541		342,795	8,146,692
2043	79,334		1,375	184,074	79,263		344,047	8,490,739

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Response to Interrogatory No. 104b								
Year	Scenario: GREC with Resale at Market Price - 10% Higher Biomass Fuel Costs (with price sharing)							
	Case: Regulated CO2							
	All Costs are in Present Worth (2009 \$, \$000)							
	Capital Costs	Fixed O&M Costs	Variable O&M Costs	Fuel Costs	Environmental Costs (CO ₂)	Other Costs	Total Costs	Cumulative Total Costs
2014	130,821		2,222	103,113	23,254		259,410	259,410
2015	126,329		2,319	102,654	25,062		256,364	515,774
2016	117,338		2,268	100,862	26,686		247,154	762,928
2017	121,675		2,320	99,764	28,725		252,484	1,015,412
2018	119,690		2,264	97,638	30,462		250,054	1,265,466
2019	117,737		2,126	98,569	32,809		251,241	1,516,707
2020	115,816		2,106	95,976	34,741		248,638	1,765,345
2021	113,927		2,116	95,388	37,294		248,724	2,014,069
2022	112,068		2,097	93,385	39,376		246,927	2,260,996
2023	110,240		1,514	103,652	42,260		257,666	2,518,662
2024	108,441		1,058	103,059	45,634		258,193	2,776,855
2025	106,672		1,560	101,473	48,957		258,662	3,035,517
2026	104,932		1,585	99,398	51,630		257,545	3,293,062
2027	103,220		1,596	98,694	55,394		258,904	3,551,966
2028	101,536		1,564	97,777	58,551		259,428	3,811,395
2029	99,879		1,579	96,901	62,782		261,141	4,072,536
2030	98,250		1,552	95,469	66,351		261,622	4,334,158
2031	96,647		2,432	152,707	42,733		294,518	4,628,676
2032	95,070		2,805	163,831	41,413		303,118	4,931,794
2033	93,519		1,484	164,973	42,742		302,718	5,234,512
2034	91,993		1,522	165,546	46,710		305,772	5,540,284
2035	90,492		1,453	166,814	48,156		306,916	5,847,200
2036	89,016		1,494	167,446	52,598		310,554	6,157,754
2037	87,564		1,431	170,027	54,401		313,422	6,471,176
2038	86,135		1,538	177,537	61,399		326,609	6,797,785
2039	84,730		1,445	178,345	62,860		327,380	7,125,165
2040	83,348		1,501	180,199	69,001		334,048	7,459,213
2041	81,988		1,411	181,015	70,582		334,997	7,794,210
2042	80,650		1,466	183,138	77,541		342,795	8,137,005
2043	79,334		1,375	184,074	79,263		344,047	8,481,052

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Revised Response to Interrogatory No. 104b								
Year	Scenario: No New Construction until 2023 - 10% Higher Biomass Fuel Costs (with price sharing)							
	Case: Regulated CO2							
	All Costs are in Present Worth (2009 \$, \$000)							
	Capital Costs	Fixed O&M Costs	Variable O&M Costs	Fuel Costs	Environmental Costs (CO ₂)	Other Costs	Total Costs	Cumulative Total Costs
2014	130,821		3,316	77,133	34,450		245,720	245,720
2015	126,329		3,275	78,914	36,918		245,437	491,157
2016	117,338		3,197	79,047	39,131		238,713	729,870
2017	121,675		3,217	80,521	41,945		247,358	977,229
2018	119,690		3,169	80,210	44,459		247,527	1,224,756
2019	117,737		2,856	82,166	47,574		250,334	1,475,090
2020	115,816		2,810	81,955	50,366		250,947	1,726,037
2021	113,927		2,806	83,001	53,743		253,477	1,979,514
2022	112,068		2,780	82,732	56,758		254,338	2,233,851
2023	110,240		2,821	83,631	60,669		257,360	2,491,212
2024	108,441		1,975	88,659	65,049		264,124	2,755,336
2025	106,672		2,855	88,226	69,575		267,327	3,022,664
2026	104,932		2,862	86,550	72,282		266,627	3,289,290
2027	103,220		2,833	87,658	77,329		271,040	3,560,331
2028	101,536		2,819	88,437	81,591		274,382	3,834,713
2029	99,879		2,791	89,870	87,111		279,652	4,114,364
2030	98,250		2,786	90,534	91,752		283,322	4,397,686
2031	96,647		3,069	162,067	53,169		314,952	4,712,638
2032	95,070		3,454	172,902	48,992		320,419	5,033,057
2033	93,519		1,778	175,823	49,612		320,732	5,353,789
2034	91,993		1,848	177,466	54,666		325,974	5,679,763
2035	90,492		1,723	180,436	55,430		328,081	6,007,843
2036	89,016		1,795	182,279	61,183		334,273	6,342,116
2037	87,564		1,672	186,473	61,975		337,684	6,679,801
2038	86,135		1,753	195,294	68,641		351,824	7,031,624
2039	84,730		1,630	197,414	69,477		353,251	7,384,876
2040	83,348		1,700	200,560	76,816		362,423	7,747,299
2041	81,988		1,579	202,623	77,601		363,790	8,111,089
2042	80,650		1,645	205,880	85,633		373,808	8,484,897
2043	79,334		1,529	208,031	86,661		375,555	8,860,452

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Response to Interrogatory No. 104c								
Year	Scenario: GREC with Resale at Contract Price - 10% Lower Biomass Fuel Costs (with price sharing)							
	Case: Base							
	All Costs are in Present Worth (2009 \$, \$000)							
	Capital Costs	Fixed O&M Costs	Variable O&M Costs	Fuel Costs	Environmental Costs (CO ₂)	Other Costs	Total Costs	Cumulative Total Costs
2014	130,821		2,210	91,552			224,583	224,583
2015	126,329		2,289	91,689			220,307	444,890
2016	117,338		2,250	90,742			210,331	655,220
2017	121,675		2,290	90,592			214,557	869,777
2018	119,690		2,235	89,495			211,420	1,081,197
2019	117,737		2,119	91,130			210,986	1,292,183
2020	115,816		2,089	89,598			207,503	1,499,686
2021	113,927		2,092	89,838			205,857	1,705,543
2022	112,068		2,065	88,454			202,587	1,908,131
2023	110,240		1,495	99,168			210,902	2,119,033
2024	108,441		1,057	98,901			208,399	2,327,432
2025	106,672		1,560	97,417			205,649	2,533,081
2026	104,932		1,584	95,418			201,934	2,735,015
2027	103,220		1,596	94,822			199,638	2,934,652
2028	101,536		1,564	93,916			197,016	3,131,668
2029	99,879		1,580	93,270			194,730	3,326,398
2030	98,250		1,551	91,827			191,628	3,518,025
2031	96,647		2,433	149,088			248,168	3,766,193
2032	95,070		2,805	160,221			258,096	4,024,289
2033	93,519		1,482	161,500			256,501	4,280,790
2034	91,993		1,521	162,169			255,683	4,536,473
2035	90,492		1,453	163,398			255,343	4,791,817
2036	89,016		1,494	164,082			254,593	5,046,409
2037	87,564		1,431	166,676			255,671	5,302,080
2038	86,135		1,538	174,273			261,946	5,564,026
2039	84,730		1,445	175,160			261,336	5,825,362
2040	83,348		1,501	177,043			261,891	6,087,253
2041	81,988		1,411	177,920			261,319	6,348,573
2042	80,650		1,466	180,088			262,205	6,610,777
2043	79,334		1,375	181,086			261,796	6,872,573

REVISED RESPONSES TO NOS. 104 AND 106 OF STAFF'S FOURTH SET OF INTERROGATORIES TO GAINESVILLE RENEWABLE ENERGY CENTER (NOS. 80-106)
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Response to Interrogatory No. 104c								
Year	Scenario: GREC with Resule at Market Price - 10% Lower Biomass Fuel Costs (with price sharing)							
	Case: Base							
	All Costs are in Present Worth (2009 \$, \$000)							
	Capital Costs	Fixed O&M Costs	Variable O&M Costs	Fuel Costs	Environmental Costs (CO ₂)	Other Costs	Total Costs	Cumulative Total Costs
2014	130,821		2,210	103,609			236,640	236,640
2015	126,329		2,289	102,805			231,424	468,063
2016	117,338		2,250	101,354			220,943	689,006
2017	121,675		2,290	100,709			224,674	913,681
2018	119,690		2,235	99,152			221,077	1,134,757
2019	117,737		2,119	100,243			220,100	1,354,857
2020	115,816		2,089	98,107			216,012	1,570,870
2021	113,927		2,092	97,869			213,888	1,784,757
2022	112,068		2,065	95,964			210,098	1,994,855
2023	110,240		1,495	99,168			210,902	2,205,757
2024	108,441		1,057	98,901			208,399	2,414,156
2025	106,672		1,560	97,417			205,649	2,619,805
2026	104,932		1,584	95,418			201,934	2,821,738
2027	103,220		1,596	94,822			199,638	3,021,376
2028	101,536		1,564	93,916			197,016	3,218,392
2029	99,879		1,580	93,270			194,730	3,413,121
2030	98,250		1,551	91,827			191,628	3,604,749
2031	96,647		2,433	149,088			248,168	3,852,917
2032	95,070		2,805	160,221			258,096	4,111,013
2033	93,519		1,482	161,500			256,501	4,367,514
2034	91,993		1,521	162,169			255,683	4,623,197
2035	90,492		1,453	163,398			255,343	4,878,540
2036	89,016		1,494	164,082			254,593	5,133,133
2037	87,564		1,431	166,676			255,671	5,388,804
2038	86,135		1,538	174,273			261,946	5,650,750
2039	84,730		1,445	175,160			261,336	5,912,086
2040	83,348		1,501	177,043			261,891	6,173,977
2041	81,988		1,411	177,920			261,319	6,435,296
2042	80,650		1,466	180,088			262,205	6,697,501
2043	79,334		1,375	181,086			261,796	6,959,297

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Response to Interrogatory No. 104c								
Scenario: No New Construction until 2023 - 10% Lower Biomass Fuel Costs (with price sharing)								
Case: Base								
All Costs are in Present Worth (2009 \$, \$000)								
Year	Capital Costs	Fixed O&M Costs	Variable O&M Costs	Fuel Costs	Environmental Costs (CO ₂)	Other Costs	Total Costs	Cumulative Total Costs
2014	130,821		3,156	76,300			210,277	210,277
2015	126,329		3,235	78,533			208,097	418,374
2016	117,338		3,146	78,648			199,132	617,506
2017	121,675		3,183	80,206			205,064	822,571
2018	119,690		3,088	79,227			202,005	1,024,575
2019	117,737		2,843	81,691			202,271	1,226,846
2020	115,816		2,793	81,622			200,232	1,427,078
2021	113,927		2,796	82,870			199,593	1,626,671
2022	112,068		2,757	82,136			196,961	1,823,632
2023	110,240		2,795	82,848			195,883	2,019,515
2024	108,441		1,936	88,431			198,808	2,218,324
2025	106,672		2,815	88,052			197,539	2,415,863
2026	104,932		2,862	86,521			194,315	2,610,178
2027	103,220		2,804	87,565			193,589	2,803,767
2028	101,536		2,808	88,351			192,696	2,996,463
2029	99,879		2,773	89,817			192,469	3,188,932
2030	98,250		2,766	90,403			191,420	3,380,352
2031	96,647		3,050	161,951			261,649	3,642,000
2032	95,070		3,454	172,897			271,421	3,913,421
2033	93,519		1,778	175,806			271,102	4,184,523
2034	91,993		1,848	177,521			271,362	4,455,886
2035	90,492		1,723	180,442			272,657	4,728,543
2036	89,016		1,795	182,292			273,103	5,001,646
2037	87,564		1,672	186,428			275,664	5,277,310
2038	86,135		1,753	195,287			283,176	5,560,486
2039	84,730		1,630	197,436			283,796	5,844,282
2040	83,348		1,700	200,564			285,612	6,129,894
2041	81,988		1,579	202,629			286,195	6,416,089
2042	80,650		1,645	205,880			288,175	6,704,264
2043	79,334		1,529	208,043			288,906	6,993,170

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Response to Interrogatory No. 104c								
Scenario: GREC with Resale at Contract Price - 10% Lower Biomass Fuel Costs (with price sharing)								
Case: Regulated CO2								
All Costs are in Present Worth (2009 \$, \$000)								
Year	Capital Costs	Fixed O&M Costs	Variable O&M Costs	Fuel Costs	Environmental Costs (CO ₂)	Other Costs	Total Costs	Cumulative Total Costs
2014	130,821		2,222	91,750	28,568		253,361	253,361
2015	126,329		2,319	91,881	30,772		251,301	504,662
2016	117,338		2,268	90,962	32,696		243,264	747,926
2017	121,675		2,320	90,736	35,172		249,903	997,830
2018	119,690		2,264	89,468	37,287		248,709	1,246,539
2019	117,737		2,126	91,355	40,062		251,281	1,497,820
2020	115,816		2,106	89,805	42,344		250,070	1,747,890
2021	113,927		2,116	90,140	45,376		251,558	1,999,449
2022	112,068		2,097	89,128	47,894		251,187	2,250,636
2023	110,240		1,514	99,484	42,260		253,498	2,504,133
2024	108,441		1,058	98,947	45,634		254,081	2,758,215
2025	106,672		1,560	97,439	48,957		254,628	3,012,843
2026	104,932		1,585	95,430	51,630		253,577	3,266,420
2027	103,220		1,596	94,791	55,394		255,001	3,521,421
2028	101,536		1,564	93,926	58,551		255,578	3,776,999
2029	99,879		1,579	93,124	62,782		257,364	4,034,364
2030	98,250		1,552	91,754	66,351		257,907	4,292,271
2031	96,647		2,432	149,052	42,733		290,863	4,583,134
2032	95,070		2,805	160,226	41,413		299,513	4,882,647
2033	93,519		1,484	161,437	42,742		299,182	5,181,829
2034	91,993		1,522	162,068	46,710		302,293	5,484,122
2035	90,492		1,453	163,392	48,156		303,494	5,787,616
2036	89,016		1,494	164,070	52,598		307,179	6,094,795
2037	87,564		1,431	166,716	54,401		310,111	6,404,906
2038	86,135		1,538	174,280	61,399		323,352	6,728,258
2039	84,730		1,445	175,141	62,860		324,176	7,052,434
2040	83,348		1,501	177,039	69,001		330,888	7,383,322
2041	81,988		1,411	177,915	70,582		331,896	7,715,218
2042	80,650		1,466	180,088	77,541		339,746	8,054,964
2043	79,334		1,375	181,075	79,263		341,047	8,396,011

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Response to Interrogatory No. 104c								
Year	Scenario: GREC with Resale at Market Price - 10% Lower Biomass Fuel Costs (with price sharing)							
	Case: Regulated CO2							
	All Costs are in Present Worth (2009 \$, \$000)							
	Capital Costs	Fixed O&M Costs	Variable O&M Costs	Fuel Costs	Environmental Costs (CO ₂)	Other Costs	Total Costs	Cumulative Total Costs
2014	130,821		2,222	98,980	23,254		255,278	255,278
2015	126,329		2,319	97,899	25,062		251,609	506,886
2016	117,338		2,268	96,172	26,686		242,464	749,350
2017	121,675		2,320	95,163	28,725		247,883	997,233
2018	119,690		2,264	93,112	30,462		245,528	1,242,761
2019	117,737		2,126	94,117	32,809		246,789	1,489,551
2020	115,816		2,106	91,584	34,741		244,246	1,733,797
2021	113,927		2,116	91,080	37,294		244,416	1,978,213
2022	112,068		2,097	89,147	39,376		242,689	2,220,902
2023	110,240		1,514	99,484	42,260		253,498	2,474,400
2024	108,441		1,058	98,947	45,634		254,081	2,728,481
2025	106,672		1,560	97,439	48,957		254,628	2,983,109
2026	104,932		1,585	95,430	51,630		253,577	3,236,686
2027	103,220		1,596	94,791	55,394		255,001	3,491,687
2028	101,536		1,564	93,926	58,551		255,578	3,747,265
2029	99,879		1,579	93,124	62,782		257,364	4,004,630
2030	98,250		1,552	91,754	66,351		257,907	4,262,537
2031	96,647		2,432	149,052	42,733		290,863	4,553,400
2032	95,070		2,805	160,226	41,413		299,513	4,852,913
2033	93,519		1,484	161,437	42,742		299,182	5,152,095
2034	91,993		1,522	162,068	46,710		302,293	5,454,388
2035	90,492		1,453	163,392	48,156		303,494	5,757,883
2036	89,016		1,494	164,070	52,598		307,179	6,065,061
2037	87,564		1,431	166,716	54,401		310,111	6,375,173
2038	86,135		1,538	174,280	61,399		323,352	6,698,525
2039	84,730		1,445	175,141	62,860		324,176	7,022,700
2040	83,348		1,501	177,039	69,001		330,888	7,353,588
2041	81,988		1,411	177,915	70,582		331,896	7,685,484
2042	80,650		1,466	180,088	77,541		339,746	8,025,230
2043	79,334		1,375	181,075	79,263		341,047	8,366,277

REVISED RESPONSES TO NOS. 104 AND 106 OF STAFF'S FOURTH SET OF INTERROGATORIES TO GAINESVILLE RENEWABLE ENERGY CENTER (NOS. 80-106)
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Revised Response to Interrogatory No. 104c								
Year	Scenario: No New Construction until 2023 - 10% Lower Biomass Fuel Costs (with price sharing)							
	Case: Regulated CO2							
	All Costs are in Present Worth (2009 \$, \$000)							
	Capital Costs	Fixed O&M Costs	Variable O&M Costs	Fuel Costs	Environmental Costs (CO ₂)	Other Costs	Total Costs	Cumulative Total Costs
2014	130,821		3,316	77,133	34,450		245,720	245,720
2015	126,329		3,275	78,914	36,918		245,437	491,157
2016	117,338		3,197	79,047	39,131		238,713	729,870
2017	121,675		3,217	80,521	41,945		247,358	977,229
2018	119,690		3,169	80,210	44,459		247,527	1,224,756
2019	117,737		2,856	82,166	47,574		250,334	1,475,090
2020	115,816		2,810	81,955	50,366		250,947	1,726,037
2021	113,927		2,806	83,001	53,743		253,477	1,979,514
2022	112,068		2,780	82,732	56,758		254,338	2,233,851
2023	110,240		2,821	83,631	60,669		257,360	2,491,212
2024	108,441		1,975	88,659	65,049		264,124	2,755,336
2025	106,672		2,855	88,226	69,575		267,327	3,022,664
2026	104,932		2,862	86,550	72,282		266,627	3,289,290
2027	103,220		2,833	87,658	77,329		271,040	3,560,331
2028	101,536		2,819	88,437	81,591		274,382	3,834,713
2029	99,879		2,791	89,870	87,111		279,652	4,114,364
2030	98,250		2,786	90,534	91,752		283,322	4,397,686
2031	96,647		3,069	162,067	53,169		314,952	4,712,638
2032	95,070		3,454	172,902	48,992		320,419	5,033,057
2033	93,519		1,778	175,823	49,612		320,732	5,353,789
2034	91,993		1,848	177,466	54,666		325,974	5,679,763
2035	90,492		1,723	180,436	55,430		328,081	6,007,843
2036	89,016		1,795	182,279	61,183		334,273	6,342,116
2037	87,564		1,672	186,473	61,975		337,684	6,679,801
2038	86,135		1,753	195,294	68,641		351,824	7,031,624
2039	84,730		1,630	197,414	69,477		353,251	7,384,876
2040	83,348		1,700	200,560	76,816		362,423	7,747,299
2041	81,988		1,579	202,623	77,601		363,790	8,111,089
2042	80,650		1,645	205,880	85,633		373,808	8,484,897
2043	79,334		1,529	208,031	86,661		375,555	8,860,452

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Response to Interrogatory No. 104d								
Year	Scenario: GREC with Resale at Contract Price - Delay in Carbon Legislation Until 2017							
	Case: Regulated CO2							
	All Costs are in Present Worth (2009 \$, \$000)							
	Capital Costs	Fixed O&M Costs	Variable O&M Costs	Fuel Costs	Environmental Costs (CO ₂)	Other Costs	Total Costs	Cumulative Total Costs
2014	130,821		2,210	92,583	-		225,615	225,615
2015	126,329		2,289	92,921	-		221,539	447,154
2016	117,338		2,250	91,958	-		211,546	658,700
2017	121,675		2,320	91,927	35,172		251,094	909,795
2018	119,690		2,264	90,641	37,287		249,882	1,159,677
2019	117,737		2,126	92,509	40,062		252,434	1,412,111
2020	115,816		2,106	90,942	42,344		251,208	1,663,320
2021	113,927		2,116	91,256	45,376		252,675	1,915,994
2022	112,068		2,097	90,226	47,894		252,286	2,168,280
2023	110,240		1,514	101,645	42,260		255,659	2,423,938
2024	108,441		1,058	101,078	45,634		256,212	2,680,151
2025	106,672		1,560	99,528	48,957		256,717	2,936,867
2026	104,932		1,585	97,486	51,630		255,633	3,192,500
2027	103,220		1,596	96,813	55,394		257,023	3,449,524
2028	101,536		1,564	95,923	58,551		257,574	3,707,098
2029	99,879		1,579	95,082	62,782		259,322	3,966,420
2030	98,250		1,552	93,677	66,351		259,830	4,226,251
2031	96,647		2,432	150,946	42,733		292,757	4,519,007
2032	95,070		2,805	162,093	41,413		301,380	4,820,387
2033	93,519		1,484	163,270	42,742		301,015	5,121,402
2034	91,993		1,522	163,870	46,710		304,096	5,425,498
2035	90,492		1,453	165,164	48,156		305,266	5,730,764
2036	89,016		1,494	165,819	52,598		308,928	6,039,692
2037	87,564		1,431	168,431	54,401		311,827	6,351,518
2038	86,135		1,538	175,968	61,399		325,040	6,676,559
2039	84,730		1,445	176,802	62,860		325,837	7,002,395
2040	83,348		1,501	178,675	69,001		332,525	7,334,920
2041	81,988		1,411	179,522	70,582		333,503	7,668,423
2042	80,650		1,466	181,668	77,541		341,325	8,009,748
2043	79,334		1,375	182,629	79,263		342,602	8,352,350

REVISED RESPONSES TO NOS. 104 AND 106 OF STAFF'S FOURTH SET OF INTERROGATORIES TO GAINESVILLE RENEWABLE ENERGY CENTER (NOS. 80-106)
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Response to Interrogatory No. 104d								
Scenario: GREC with Resale at Market Price - Delay in Carbon Legislation Until 2017								
Case: Regulated CO2								
All Costs are in Present Worth (2009 \$, \$000)								
Year	Capital Costs	Fixed O&M Costs	Variable O&M Costs	Fuel Costs	Environmental Costs (CO ₂)	Other Costs	Total Costs	Cumulative Total Costs
2014	130,821		2,210	105,672	-		238,703	238,703
2015	126,329		2,289	105,270	-		233,888	472,592
2016	117,338		2,250	103,785	-		223,374	695,966
2017	121,675		2,320	103,236	28,725		255,956	951,922
2018	119,690		2,264	95,458	30,462		247,874	1,199,796
2019	117,737		2,126	96,424	32,809		249,096	1,448,893
2020	115,816		2,106	93,860	34,741		246,522	1,695,415
2021	113,927		2,116	93,312	37,294		246,648	1,942,063
2022	112,068		2,097	91,344	39,376		244,886	2,186,949
2023	110,240		1,514	101,645	42,260		255,659	2,442,607
2024	108,441		1,058	101,078	45,634		256,212	2,698,820
2025	106,672		1,560	99,528	48,957		256,717	2,955,536
2026	104,932		1,585	97,486	51,630		255,633	3,211,169
2027	103,220		1,596	96,813	55,394		257,023	3,468,193
2028	101,536		1,564	95,923	58,551		257,574	3,725,767
2029	99,879		1,579	95,082	62,782		259,322	3,985,089
2030	98,250		1,552	93,677	66,351		259,830	4,244,920
2031	96,647		2,432	150,946	42,733		292,757	4,537,676
2032	95,070		2,805	162,093	41,413		301,380	4,839,056
2033	93,519		1,484	163,270	42,742		301,015	5,140,071
2034	91,993		1,522	163,870	46,710		304,096	5,444,167
2035	90,492		1,453	165,164	48,156		305,266	5,749,433
2036	89,016		1,494	165,819	52,598		308,928	6,058,361
2037	87,564		1,431	168,431	54,401		311,827	6,370,187
2038	86,135		1,538	175,968	61,399		325,040	6,695,228
2039	84,730		1,445	176,802	62,860		325,837	7,021,064
2040	83,348		1,501	178,675	69,001		332,525	7,353,589
2041	81,988		1,411	179,522	70,582		333,503	7,687,092
2042	80,650		1,466	181,668	77,541		341,325	8,028,417
2043	79,334		1,375	182,629	79,263		342,602	8,371,019

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Year	Scenario: No New Construction until 2023 - Delay in Carbon Legislation Until 2017							
	Case: Regulated CO2							
	All Costs are in Present Worth (2009 \$, \$000)							
	Capital Costs	Fixed O&M Costs	Variable O&M Costs	Fuel Costs	Environmental Costs (CO ₂)	Other Costs	Total Costs	Cumulative Total Costs
2014	130,821		3,156	76,300	-		210,277	210,277
2015	126,329		3,235	78,533	-		208,097	418,374
2016	117,338		3,146	78,648	-		199,132	617,506
2017	121,675		3,217	80,521	41,945		247,358	864,865
2018	119,690		3,169	80,210	44,459		247,527	1,112,392
2019	117,737		2,856	82,166	47,574		250,334	1,362,726
2020	115,816		2,810	81,955	50,366		250,947	1,613,673
2021	113,927		2,806	83,001	53,743		253,477	1,867,150
2022	112,068		2,780	82,732	56,758		254,338	2,121,488
2023	110,240		2,821	83,631	60,669		257,360	2,378,848
2024	108,441		1,975	88,659	65,049		264,124	2,642,972
2025	106,672		2,855	88,226	69,575		267,327	2,910,300
2026	104,932		2,862	86,550	72,282		266,627	3,176,927
2027	103,220		2,833	87,658	77,329		271,040	3,447,967
2028	101,536		2,819	88,437	81,591		274,382	3,722,349
2029	99,879		2,791	89,870	87,111		279,652	4,002,000
2030	98,250		2,786	90,534	91,752		283,322	4,285,322
2031	96,647		3,069	162,067	53,169		314,952	4,600,274
2032	95,070		3,454	172,902	48,992		320,419	4,920,693
2033	93,519		1,778	175,823	49,612		320,732	5,241,425
2034	91,993		1,848	177,466	54,666		325,974	5,567,399
2035	90,492		1,723	180,436	55,430		328,081	5,895,479
2036	89,016		1,795	182,279	61,183		334,273	6,229,752
2037	87,564		1,672	186,473	61,975		337,684	6,567,437
2038	86,135		1,753	195,294	68,641		351,824	6,919,261
2039	84,730		1,630	197,414	69,477		353,251	7,272,512
2040	83,348		1,700	200,560	76,816		362,423	7,634,935
2041	81,988		1,579	202,623	77,601		363,790	7,998,725
2042	80,650		1,645	205,880	85,633		373,808	8,372,533
2043	79,334		1,529	208,031	86,661		375,555	8,748,089

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Response to Interrogatory No. 104e								
Year	Scenario: GREC with Resale at Contract Price - Delay in Carbon Legislation Until 2022							
	Case: Regulated CO2							
	All Costs are in Present Worth (2009 \$, \$000)							
	Capital Costs	Fixed O&M Costs	Variable O&M Costs	Fuel Costs	Environmental Costs (CO ₂)	Other Costs	Total Costs	Cumulative Total Costs
2014	130,821		2,210	92,583	-		225,615	225,615
2015	126,329		2,289	92,921	-		221,539	447,154
2016	117,338		2,250	91,958	-		211,546	658,700
2017	121,675		2,290	91,782	-		215,747	874,448
2018	119,690		2,235	90,668	-		212,593	1,087,041
2019	117,737		2,119	92,283	-		212,140	1,299,181
2020	115,816		2,089	90,735	-		208,641	1,507,821
2021	113,927		2,092	90,955	-		206,974	1,714,795
2022	112,068		2,097	90,227	47,894		252,286	1,967,081
2023	110,240		1,514	101,645	42,260		255,659	2,222,740
2024	108,441		1,058	101,078	45,634		256,212	2,478,952
2025	106,672		1,560	99,528	48,957		256,717	2,735,669
2026	104,932		1,585	97,486	51,630		255,633	2,991,301
2027	103,220		1,596	96,813	55,394		257,023	3,248,325
2028	101,536		1,564	95,923	58,551		257,574	3,505,899
2029	99,879		1,579	95,082	62,782		259,322	3,765,221
2030	98,250		1,552	93,677	66,351		259,830	4,025,052
2031	96,647		2,432	150,946	42,733		292,757	4,317,809
2032	95,070		2,805	162,093	41,413		301,380	4,619,188
2033	93,519		1,484	163,270	42,742		301,015	4,920,204
2034	91,993		1,522	163,870	46,710		304,096	5,224,299
2035	90,492		1,453	165,164	48,156		305,266	5,529,565
2036	89,016		1,494	165,819	52,598		308,928	5,838,493
2037	87,564		1,431	168,431	54,401		311,827	6,150,319
2038	86,135		1,538	175,968	61,399		325,040	6,475,360
2039	84,730		1,445	176,802	62,860		325,837	6,801,196
2040	83,348		1,501	178,675	69,001		332,525	7,133,721
2041	81,988		1,411	179,522	70,582		333,503	7,467,224
2042	80,650		1,466	181,668	77,541		341,325	7,808,549
2043	79,334		1,375	182,629	79,263		342,602	8,151,151

REVISED RESPONSES TO NOS. 104 AND 106 OF STAFF'S FOURTH SET OF INTERROGATORIES TO GAINESVILLE RENEWABLE ENERGY CENTER (NOS. 80-106)
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Response to Interrogatory No. 104e								
Scenario: GREC with Resale at Market Price- Delay in Carbon Legislation Until 2022								
Case: Regulated CO2								
All Costs are in Present Worth (2009 \$, \$000)								
Year	Capital Costs	Fixed O&M Costs	Variable O&M Costs	Fuel Costs	Environmental Costs (CO ₂)	Other Costs	Total Costs	Cumulative Total Costs
2014	130,821		2,210	105,672	-		238,703	238,703
2015	126,329		2,289	105,270	-		233,888	472,592
2016	117,338		2,250	103,785	-		223,374	695,966
2017	121,675		2,290	103,091	-		227,056	923,022
2018	119,690		2,235	101,498	-		223,423	1,146,445
2019	117,737		2,119	102,550	-		222,407	1,368,852
2020	115,816		2,089	100,383	-		218,288	1,587,140
2021	113,927		2,092	100,101	-		216,120	1,803,260
2022	112,068		2,097	98,835	39,376		252,377	2,055,637
2023	110,240		1,514	101,645	42,260		255,659	2,311,295
2024	108,441		1,058	101,078	45,634		256,212	2,567,508
2025	106,672		1,560	99,528	48,957		256,717	2,824,224
2026	104,932		1,585	97,486	51,630		255,633	3,079,857
2027	103,220		1,596	96,813	55,394		257,023	3,336,881
2028	101,536		1,564	95,923	58,551		257,574	3,594,455
2029	99,879		1,579	95,082	62,782		259,322	3,853,777
2030	98,250		1,552	93,677	66,351		259,830	4,113,608
2031	96,647		2,432	150,946	42,733		292,757	4,406,364
2032	95,070		2,805	162,093	41,413		301,380	4,707,744
2033	93,519		1,484	163,270	42,742		301,015	5,008,759
2034	91,993		1,522	163,870	46,710		304,096	5,312,855
2035	90,492		1,453	165,164	48,156		305,266	5,618,121
2036	89,016		1,494	165,819	52,598		308,928	5,927,049
2037	87,564		1,431	168,431	54,401		311,827	6,238,875
2038	86,135		1,538	175,968	61,399		325,040	6,563,916
2039	84,730		1,445	176,802	62,860		325,837	6,889,752
2040	83,348		1,501	178,675	69,001		332,525	7,222,277
2041	81,988		1,411	179,522	70,582		333,503	7,555,780
2042	80,650		1,466	181,668	77,541		341,325	7,897,105
2043	79,334		1,375	182,629	79,263		342,602	8,239,707

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Response to Interrogatory No. 104e								
Year	Scenario: No New Construction until 2023 - Delay in Carbon Legislation Until 2022							
	Case: Regulated CO2							
	All Costs are in Present Worth (2009 \$, \$000)							
	Capital Costs	Fixed O&M Costs	Variable O&M Costs	Fuel Costs	Environmental Costs (CO ₂)	Other Costs	Total Costs	Cumulative Total Costs
2014	130,821		3,156	76,300	-		210,277	210,277
2015	126,329		3,235	78,533	-		208,097	418,374
2016	117,338		3,146	78,648	-		199,132	617,506
2017	121,675		3,183	80,206	-		205,064	822,571
2018	119,690		3,088	79,227	-		202,005	1,024,575
2019	117,737		2,843	81,691	-		202,271	1,226,846
2020	115,816		2,793	81,622	-		200,232	1,427,078
2021	113,927		2,796	82,870	-		199,593	1,626,671
2022	112,068		2,780	82,735	56,758		254,341	1,881,012
2023	110,240		2,821	83,631	60,669		257,360	2,138,372
2024	108,441		1,975	88,659	65,049		264,124	2,402,497
2025	106,672		2,855	88,226	69,575		267,327	2,669,824
2026	104,932		2,862	86,550	72,282		266,627	2,936,451
2027	103,220		2,833	87,658	77,329		271,040	3,207,491
2028	101,536		2,819	88,437	81,591		274,382	3,481,873
2029	99,879		2,791	89,870	87,111		279,652	3,761,525
2030	98,250		2,786	90,534	91,752		283,322	4,044,847
2031	96,647		3,069	162,067	53,169		314,952	4,359,799
2032	95,070		3,454	172,902	48,992		320,419	4,680,217
2033	93,519		1,778	175,823	49,612		320,732	5,000,949
2034	91,993		1,848	177,466	54,666		325,974	5,326,923
2035	90,492		1,723	180,436	55,430		328,081	5,655,004
2036	89,016		1,795	182,279	61,183		334,273	5,989,277
2037	87,564		1,672	186,473	61,975		337,684	6,326,961
2038	86,135		1,753	195,294	68,641		351,824	6,678,785
2039	84,730		1,630	197,414	69,477		353,251	7,032,036
2040	83,348		1,700	200,560	76,816		362,423	7,394,460
2041	81,988		1,579	202,623	77,601		363,790	7,758,250
2042	80,650		1,645	205,880	85,633		373,808	8,132,058
2043	79,334		1,529	208,031	86,661		375,555	8,507,613

106. **Please provide the estimated rate impacts for the cumulative present worth revenue requirement analysis requested above.**

Response to Interrogatory No. 106:

Please see the file labeled *Revised Response to Interrogatory No. 106* on the enclosed CD, which presents revised versions of the tables originally submitted on March 1, 2010. The revisions are being submitted to provide responses that are consistent with the revisions discussed in the revised response to Interrogatory No. 104. As discussed in that response, the error was a spreadsheet specification that inadvertently, and incorrectly, copied the wrong columns of output data for the Fuel Costs and Environmental Costs into the referenced table. Although the revisions only affect the "No New Construction till 2023" with regulated CO₂ case for three scenarios ("a" through "c" as identified in Interrogatory No. 104), all tables originally provided in response to Interrogatory No. 106 have been provided in this revised response (tables with revisions are so noted in the title of the table).

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RESPECTFULLY SUBMITTED this 5th day of March, 2010.

Young van Assenderp, P.A.

A handwritten signature in black ink, appearing to read 'Roy C. Young', is written over a horizontal line.

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REVISED RESPONSES TO NOS. 104 AND 106 OF STAFF'S FOURTH SET OF
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CERTIFICATE OF SERVICE

I hereby certify that a copy of the foregoing was served upon the following by hand
delivery (*) or by United States Mail and electronic mail on this 5th day of March, 2010.

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