BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

In re: Joint Petition to Determine Need For the Gainesville Renewable Energy Center in Alachua County by Gainesville Regional Utilities and Gainesville Renewable Energy Center, LLC	)	DOCKET No. 090451-EM
	)	FILED: MAY 13, 2010

POST-HEARING STATEMENT OF ISSUES AND POSITIONS AND BRIEF OF GAINESVILLE REGIONAL UTILITIES AND GAINESVILLE RENEWABLE ENERGY CENTER, LLC

Gainesville Regional Utilities ("GRU") and Gainesville Renewable Energy Center, LLC ("GREC LLC"), pursuant to the Supplemental Prehearing Order in this docket, Order No. PSC-10-0227-PHO-EM, the Order Establishing Procedure, Order No. 09-0671-PCO-EM, the Second Order Revising Order Establishing Procedure, Order No. 10-0221-PCO-EM, and Rule 28-106.215, Florida Administrative Code ("F.A.C."), hereby submit their Posthearing Statement of Issues and Positions and Brief. Citations to the transcript from the December 16, 2009 hearing are in the form TR abc (page number), citations to the transcript from the May 3, 2010 supplemental hearing are in the form STR abc (page number), citations to the transcript from the December 9, 2009 customer hearing in Gainesville are in the form GvilleTR xyz (page number), and citations to hearing exhibits are in the form EXH jkl (exhibit number) at pqr (page number) or the Bates-stamped page number ("BSP-pqr"), if applicable.

SUMMARY

Gainesville Regional Utilities, the utility arm of the City of Gainesville, Florida, and Gainesville Renewable Energy Center, LLC, collectively referred to herein as the "Petitioners," respectfully seek the Commission's affirmative determination of need for the Gainesville Renewable Energy Center (the "Project" or the "GREC Project"), a 100-megawatt net biomass-fueled electrical power plant to be constructed and operated by GREC LLC on land leased from the City of Gainesville at GRU's Deerhaven Generating Station. The Project will provide reliable, baseload renewable electric capacity and energy to GRU pursuant to a negotiated 30-year power purchase agreement (the "PPA") between GRU and GREC LLC.

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Overwhelming competent, substantial evidence of record supports the following conclusions, upon which the Commission should base its order granting the requested determination of need for the Gainesville Renewable Energy Center.

- First, while the Commission can grant, and has granted, determinations of need for proposed plants that did not satisfy all of the statutory criteria, the Project, and GRU's purchase of the Project's output pursuant to the PPA, satisfies all of the specific criteria set forth in Section 403.519, Florida Statutes.[1]
    - The Project enhances both GRU's and Peninsular Florida's reliability by providing additional reliable, new baseload generating capacity that meets GRU's near-term needs for baseload support and fuel diversity as well as addressing GRU's needs for such capacity to support a smooth transition as it retires 148MW of its current generation fleet before 2024.
    - The Project provides adequate electricity at a reasonable cost and provides substantial risk mitigation benefits to GRU's customers.
    - The Project contributes significantly to GRU's fuel diversity and supply reliability by reducing GRU's dependency on fossil fuels from more than 92 percent to just over 50 percent, using sustainable, local, native Florida renewable energy resources.
    - The Project is the most cost-effective renewable baseload option available to GRU, which, through its utilization of solar and landfill gas energy, is already a recognized leader in renewable energy use.
    - With GRU's existing energy conservation programs based on the Total Resource Cost test since 2006, there are no additional energy conservation measures reasonably available that could mitigate GRU's need for baseload capacity that the Project will provide.
- Second, the Project promotes the specific renewable energy policies and goals that are expressly within the Commission's statutory jurisdiction under Sections 366.91, 366.92, and 366.81, Florida Statutes ("F.S."), including:
    - reducing Florida's dependency on natural gas as a generating fuel;
    - reducing Florida's exposure to fuel price volatility;
    - improving environmental conditions in Florida through reduced emissions from conventional electric generation fuels and also through reduced emissions of greenhouse gases in Florida;

[1] All citations herein to the Florida Statutes are to the 2009 edition.

- increasing Florida's total renewable energy production by more than 10 percent; and

- encouraging investment in Florida.

- Third, the Project will promote the public interest generally by enhancing Gainesville's energy independence and long-term sustainability, and by providing needed economic growth and new jobs in the Gainesville and Alachua County communities, in the north central Florida regional economy, and in the State as a whole.

Relative to the specific questions and concerns raised by the Commissioners at the February 9, 2010 agenda conference, at which the Commission granted the Petitioners' request to hold the supplemental hearing, overwhelming competent substantial evidence of record supports the following conclusions:

- The Project's biomass fuel supply is sustainable on a long-term basis, and the Project's use of low-value forest materials and urban wood waste – not merchantable timber – will have minimal or no impacts on existing users.

- The Project, and the PPA between GRU and GREC LLC, mitigate many risks and provide substantial risk mitigation benefits to GRU's customers. The risks of not proceeding with the Project now, as proposed by the Petitioners, are far greater than the risks of going forward as proposed.

- Carbon and renewable energy regulation are highly likely, particularly in light of action by both houses of Congress and in light of the EPA's "endangerment finding" that the emission of carbon dioxide and other greenhouse gases "threatens the public health and welfare of current and future generations."

- The Commission's role in this need determination proceeding is to consider the statutory criteria as well as other matters within the Commission's jurisdiction deemed relevant. In this case, GRU respectfully submits that the Commission should give substantial weight to the Gainesville City Commission's unanimous determination, through an extensive public process beginning in 2003, that the GREC Project and the associated PPA are the most cost-effective baseload renewable energy alternative available to meet Gainesville's desires to ensure reliable, cost-effective, sustainable power supplies for GRU and the Gainesville community.

Taking all factors into account, including the specific statutory criteria under Section 403.519, F.S., the pro-renewable energy policies articulated by the Florida Legislature in Sections 366.91, 366.92, and 366.81, F.S., and the public interest generally, the Commission should grant the requested determination of need for the GREC Project.

THE STATUTORY CONTEXT AND STANDARD OF PROOF

The Commission has jurisdiction over the determination of need for the Gainesville Renewable Energy Center pursuant to Section 403.519, F.S. The provisions relevant to this proceeding are set forth in Section 403.519(3), which provides in pertinent part as follows:

> The commission shall be the sole forum for the determination of this matter, which accordingly shall not be raised in any other forum or in the review of proceedings in such other forum. In making its determination, the commission shall take into account the need for electric system reliability and integrity, the need for adequate electricity at a reasonable cost, the need for fuel diversity and supply reliability, whether the proposed plant is the most cost-effective alternative available, and whether renewable energy sources and technologies, as well as conservation measures, are utilized to the extent reasonably available. The commission shall also expressly consider the conservation measures taken by or reasonably available to the applicant or its members which might mitigate the need for the proposed plant and other matters within its jurisdiction which it deems relevant.

The Commission's need determination statute thus sets forth several specific criteria – reliability need, need for adequate electricity at a reasonable cost, need for fuel diversity, need for fuel supply reliability, cost-effectiveness, and need for a proposed power plant in light of available renewable energy resources and conservation measures – that the Commission must consider, and the statute also directs the Commission to consider "other matters within its jurisdiction which it deems relevant." The Commission's prior need determination orders make clear that no single need criterion is determinative, and that not all criteria must be specifically satisfied, but rather that the Commission is to consider all relevant criteria and make its decision on the specific facts of each case. In Re: Petition for Determination of Need for Glades Power Park Units 1 and 2, by Florida Power & Light Company, Docket No. 070098-EI, Order No. PSC-07-0557-FOF-EI at 2-3 (July 2, 2007) ("Glades Power Park") For example, in a 1981 docket addressing the need for proposed coal-fired power plants with in-service dates in 1985 and 1987, the Commission noted that the proposed generating units were not needed for reliability purposes until at least 1989 and 1991, but, following the statute, granted the petitioners' determination of need, stating as follows:

> We construe the "need for power" to encompass several aspects of need . . . [including] the socio-economic need of reducing the consumption of imported oil in the State of Florida.

In Re: JEA/FPL's Application of Need for St. John's River Power Park Units 1 and 2 and Related Facilities, Docket No. 810045-EU (Fla. Pub. Serv. Comm'n, June 26, 1981) Order No. 10108 at 2 ("SJRPP"); see also In Re: Application for Certification of Tampa Electric Company's Proposed 417 Megawatt Net Coal-Fired Big Bend Unit No. 4, Docket No. 800595-EU (Fla. Pub. Serv. Comm'n, Jan. 16, 1981) Order No. 9749 at 4 ("Big Bend 4"); In Re: Petition of Orlando Utilities Commission for Determination of Need for Stanton Unit 1, Docket No. 810180-EU (Fla. Pub. Serv. Comm'n, Oct. 2, 1981) Order No. 10320-A at 3-4 ("Stanton 1").

The standard of proof for the Commission's decision in this case is a preponderance of the evidence. In Re: Petition of Florida Power & Light Co. for Authority to Increase Its Rates and Charges, FPSC Docket No. 810002-EU, Order No. 10306, 1981 WL 634490 at 7. The Commission's decisions must be supported by competent substantial evidence of record, but once thus supported, they are not subject to reversal on factual grounds. United Telephone Co. v. Mayo, 345 So. 2d 640, 654 (Fla. 1977).

DESCRIPTION OF THE GAINESVILLE RENEWABLE ENERGY CENTER PROJECT AND THE POWER PURCHASE AGREEMENT BETWEEN GRU AND GREC LLC

The GREC Project. The proposed GREC Project will be a biomass-fired steam generating facility with a nominal rating of 100 megawatts (MW) net output and 116MW gross output. TR 246 The Project will be located within GRU's existing Deerhaven generating site and will be fueled entirely by clean, woody biomass. Id.

The Project will utilize a fluidized bed boiler to produce superheated steam that will drive the steam turbine generator. TR 247 The Project's bubbling fluidized bed technology is proven and in use throughout the world. TR 201 In the opinion of Mr. Regan, a Registered Professional Engineer, the Project's technology is not experimental but rather is proven. Id. The Project's

electrical output will be produced at nominal generator voltage and then stepped-up through an on-site substation for transmission through aerial transmission lines to the interconnection with GRU's 138-kilovolt ("kV") transmission system. Id. GRU's transmission system is interconnected with the transmission systems of both Progress Energy Florida and Florida Power & Light Company. Id.

GREC LLC expects that the Project will provide full service over its entire 42-year projected useful life. TR 246-47 GREC LLC guarantees the overall availability of the Project at 95 percent for the 4 summer months, June through September, and at 90 percent on an annual basis. TR 248 The Project can be operated at any output level between 70 percent and 100 percent of its maximum output in order to meet economic or operational conditions on GRU's system, and pursuant to the PPA, EXH 7, Item 5, Bates pages 000387-88, GRU may take the unit completely off line. TR 247-48 GRU's estimated dispatch costs for the GREC Project are projected to be less than those of GRU's other generating resources, including the Deerhaven coal unit, such that the Project is expected to always be dispatched when available. See TR 120; EXH 24 at 5

The primary fuels that GREC will utilize will be forest residue such as the slash and brush left over from traditional forestry operations, mill residue, pre-commercial tree thinnings, used pallets and urban wood waste, which includes woody tree trimmings that are generated by landscaping contractors, power line clearance contractors, and other non-forestry related sources of woody debris. TR 248 In addition, the GREC Project will be able to utilize opportunity fuels such as storm debris and diseased trees. TR 248 Significantly, GREC LLC already has a letter of intent for the supply of thirty percent of its fuel supply, 300,000 tons per year of urban wood waste, EXH 53, STR 354, 361, and GREC LLC is in a position, at appropriate times well before the Project comes on line, to enter into a number of additional long-term fuel supply contracts

with favorable pricing and option provisions to ensure the availability of at least 100 percent of the Project's needed fuel supply. TR 249, 259 In fact, GREC LLC is much further along than other biomass power projects at similar points in the permitting process. STR 353, 354

The GRU-GREC LLC Power Purchase Agreement. GRU and GREC LLC have entered into a 30-year PPA pursuant to which GRU will purchase 100 percent of the Project's output. Under the PPA, GRU's purchase also includes 100 percent of the renewable energy attributes, carbon credits, carbon allowances, and other environmental attributes associated with the Project's renewable energy output. TR 98-99 The plant cost component of the PPA will be fixed as of the date that the notice to commence is issued, providing price certainty and risk reduction benefits to GRU's customers. TR 88-89, 100, 172 Thus, if there are capital cost overruns, GRU's customers are protected, as GREC LLC will bear these expenses with no cost impact to GRU or its customers.[2] The PPA provides fixed pricing for roughly two-thirds of the total PPA costs, and the portion that is not fixed is not nearly as volatile as natural gas or spot coal prices. TR 92-93 The PPA has also been structured to avoid any potential for stranded costs. Id. Fuel pricing will be indexed, with both GREC LLC and GRU sharing the risks and benefits associated with future fuel cost fluctuations. The PPA also provides substantial dispatch control to GRU, including the general capability to dispatch the Project between 70 percent and 100 percent of its capacity, as well as to dispatch the unit completely off. STR 423 Significantly, the PPA requires GREC LLC to adhere to sustainable forestry practices that are incorporated into the PPA. EXH 7, Item 5, BSP-000440-442 In sum, the PPA provides numerous mechanisms that protect GRU and its customers in many ways. STR 431, 433, 437, 438

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[2] The Intervenors' focus, in their cross-examination, on a value of $300 million as an estimate of the Project's cost, see EXH 85 at 16; STR 477-78, is misplaced and misleading. Mr. Regan testified that this value was an assumed value for certain property tax estimations, and that it had nothing whatsoever to do with GRU's decision to proceed with the Project or to execute the PPA. STR 477, 489, 492

THE PETITIONERS' POSTHEARING STATEMENT OF ISSUES AND POSITIONS

This section of GRU's and GREC LLC's Posthearing Statement addresses the specific issues set forth in the Prehearing Order. In summary, Gainesville Regional Utilities and GREC LLC are proper joint applicants for the Commission's determination of need for the Gainesville Renewable Energy Center Project, and the Project, together with GRU's purchase of the Project's output pursuant to the GRU-GREC PPA, satisfies all of the enumerated criteria of Section 403.519, F.S., that the Commission is to consider in making its determination of need for the Project. Additionally, the Project will greatly reduce GRU's reliance on fossil fuels that are imported from outside Florida while simultaneously providing the extensive benefits of Florida-based renewable energy recognized by the Florida Legislature. In summary, the GREC Project represents the best, most cost-effective alternative available to meet GRU's short- and long-term needs for reliable, sustainable baseload electricity supply, and the Gainesville City Commission recognized this in its unanimous approval of the Project and the PPA. Accordingly, the Commission should grant the requested determination of need for the Gainesville Renewable Energy Center Project.

I. GRU AND GREC LLC ARE PROPER APPLICANTS FOR THE COMMISSION'S DETERMINATION OF NEED FOR THE PROJECT.

ISSUE 1: Are Gainesville Regional Utilities and Gainesville Renewable Energy Center, LLC proper applicants within the meaning of Section 403.519, F.S.?

STIPULATION APPROVED BY THE COMMISSION:

*Yes. GRU is a municipal electric, natural gas, water, wastewater, and telecommunications utility serving retail customers that is owned and operated by the City of Gainesville in Alachua County, located in north-central Florida and is a valid applicant under the Florida Electrical Power Plant Siting Act ("PPSA"), Chapter 403, Part II, F.S..

GREC LLC is a private renewable power producer that will own, operate, and maintain the proposed GREC biomass facility and sell 100 percent of the facility's electric power output to GRU under a 30-year power purchase agreement (PPA). GREC LLC is therefore an appropriate joint applicant pursuant

to the Commission's decisions and the Florida Supreme Court's opinion in Nassau Power Corp. v. Deason, 641 So. 2d 396 (Fla. 1994).*

II. THE GAINESVILLE RENEWABLE ENERGY CENTER SATISFIES THE NEED CRITERIA OF SECTION 403.519, F.S.

The Commission's need determination statute sets forth several specific criteria that the Commission must take into account in making its determination of need for the GREC Project, including the need for system reliability and integrity, the need for adequate electricity at a reasonable cost, the need for fuel diversity and supply reliability, and whether the need for a proposed power plant can be mitigated by available renewable energy resources and conservation measures. The statute also directs the Commission to consider "other matters within its jurisdiction which it deems relevant." This section of the Petitioners' Posthearing Statement and Brief describes how the GREC Project satisfies each of the specific statutory criteria. The final section of the Posthearing Statement focuses on the ultimate issue – whether the Commission should grant the requested determination of need – to explain that the Commission should determine that the Project is needed because it not only satisfies the specific statutory criteria, but also because it provides extensive benefits of fuel diversity and sustainability that come with using native Florida renewable energy resources to provide GRU's electric supply as opposed to fossil fuels imported from outside Florida.

A. Need for Electric System Reliability and Integrity

ISSUE 2: Is there a need for the Gainesville Renewable Energy Center, taking into account the need for electric system reliability and integrity, as this criterion is used in section 403.519, Florida Statutes?

GRU/GREC: *Yes. GREC's capacity is needed to improve and maintain the reliability of GRU's existing system, to provide reliable baseload generating capacity, particularly considering GRU's aging generating fleet and the anticipated retirement of 148MW of capacity by 2023, and especially to replace capacity from GRU's Deerhaven 2 baseload unit during outages.*

The GREC Project's capacity is needed to improve and maintain the reliability of GRU's existing system. STR 206 It is needed to meet GRU's minimum reserve margin criterion in 2023 and thereafter, but this is only one aspect of the reliability benefits provided by the Project. GRU needs the Project to protect its customers against the risks of outages of its larger units, STR 265-66, 542, and to ensure that it has adequate baseload capacity to provide adequate power economically. The Project will provide additional physical reliability benefits by virtue of fuel diversity and local supply sources, as well as additional power that will be available during extreme summer and winter peaks when GRU would be vulnerable to unexpected outages of its other units. See STR 265 GRU needs the Project to provide baseload power in 2013, when its current purchase arrangement with Progress Energy terminates, STR 258, 266, and the projected continuation of GRU's wholesale power sales to the City of Alachua and Seminole Electric Cooperative do not affect the timing of GRU's need for the Project.

1. GRU Needs Additional Reliable Baseload Capacity In 2013.

The GREC Project will enhance the reliability and integrity of GRU's system in several ways. While based on current load forecasts that reflect the current economic recession as well as GRU's projected achievements from its energy conservation programs, the Project is not required to meet GRU's minimum reserve margin planning criterion until approximately 2023, TR 80, EXH 27, having the Project available will maintain and improve the overall reliability of GRU's system. TR 80 Obviously, a higher reserve margin will provide a more reliable system, TR 195, but the reliability benefits provided by the Project go far beyond this simple fact. See STR 206, 259

The capacity from the Project is needed to replace capacity and energy from GRU's lowest cost existing fossil fueled unit, Deerhaven 2, during maintenance and forced outages. STR 254, 542 As an aging facility that will be 32 years old when the GREC facility goes into service

in late 2013, Deerhaven 2 serves approximately 50 percent of GRU's system peak demand. TR 80, 110 With increased age, the availability of Deerhaven 2 is expected to decrease. TR 80, 114, 197 This is common for units of this type: national data in the Generation Availability Data System indicates that older units in Deerhaven 2's class have declining reliability as they age. TR 114, 197, STR 542 In fact, Deerhaven 2 has, in recent years, experienced outages and diminished capacity factors, as low as 65-70 percent. STR 542 Deerhaven 2 has lost capacity due to increased "parasitic loads" of recently added air pollution control equipment, id., and is presently experiencing an additional "derating" – reduction in available output capacity – of 20MW due to an over-frequency problem of unknown cause. Id. Without the GREC Project, GRU will be unable to meet its summer peak demand in 2014 when its Deerhaven 2 unit is out of service. EXH 27, Table 3-1 at 3-3 and Table 5-1 at 5-2 The Project will also provide enhanced reliability when other units experience unplanned outages; for example, GRU recently experienced an unplanned outage of its Deerhaven 1 unit, STR 542, causing GRU to have to purchase power from other utilities. STR 266

The GREC Project is also needed to provide reliable, low-cost baseload capacity in light of the fact that most of the remainder of GRU's capacity is older than Deerhaven 2, and will be retired during the term of the GREC LLC PPA. TR 97, 111, EXH 29 at 20-21 In fact, GRU will be retiring 148MW of it generating fleet between now and 2023. STR 259 A number of GRU's units are older, less-efficient natural gas fired combustion turbine units, which count toward meeting reserve margins but which are not economical to run on a daily basis, STR 265, and which give GRU staff cause for concern during hot summer and cold winter conditions when GRU's system is peaking. STR 265

Given other projected unit retirements on GRU's system, the GREC Project will enable GRU to meet its minimum reserve margin criterion through 2032, when GRU's Deerhaven 2 coal

unit is scheduled to retire, EXH 27, Table 5-2 at 5-3, and will obviously contribute needed baseload capacity from 2032 through at least 2043, when the PPA is presently scheduled to terminate. Id.

GRU presently purchases generating capacity, and some associated energy from Progress Energy Florida. STR 266 This purchase arrangement will expire in 2013, and GRU does not believe that Progress will renew. STR 258 GRU purchases this capacity as an economic and reliability hedge measure to protect its customers against unanticipated outages of Deerhaven 2 and other aging GRU units. GRU's economic and reliability need for additional baseload-type capacity will exist in 2013, and in 2014, and in each year thereafter, and the GREC Project will meet this need with new, highly reliable baseload capacity. STR 451, 572

2. The GREC Project Will Provide Significant Additional Reliability Benefits Beyond Enhanced Reserve Margins.

GRU's overall decision to pursue the GREC Project was necessarily based on consideration of many factors affecting reliability, including not only strict reserve margin criteria over the life of the Project and PPA, but also other reliability benefits, fuel supply diversity impacts, supply reliability effects, and the Gainesville community's commitment to addressing environmental concerns of climate change, sustainability, and energy independence. TR 92-93 The benefits that the GREC Project provides with respect to these factors – more reliable fuel supply from local resources, enhanced reliability through greater fuel diversity and reduced dependence on fossil fuels imported from outside Florida, and a more sustainable electric supply system – are additional aspects of reliability, beyond a simple, traditional reserve margin analysis, that the Gainesville City Commission considered in determining to pursue the GREC Project and in executing the PPA. See TR 87

3. The Anticipated Continuation of GRU's Wholesale Power Supply Contracts with the City of Alachua and Seminole Electric Cooperative Do Not Alter GRU's Need for the GREC Project.

The City of Gainesville presently provides wholesale power to the City of Alachua, another municipal utility system, and also to Seminole Electric Cooperative to meet Seminole's needs for power to serve Clay Electric Cooperative. EXH 92, Petitioner's Resp. to Intervenor Deevey's 2nd Set of Int., No. 1 at 2-3 Gainesville has served these needs of its neighbors, and the needs of the Alachua County citizens served by Alachua and Clay Electric Coop, for 25 years and 35 years, respectively. Id. Accordingly, GRU anticipates that it will continue to serve these utilities and the citizens whom they in turn serve at retail. Id. This makes obvious sense, from both historical and geographic perspectives. Moreover, even if GRU did not serve these wholesale loads, it would not affect the timing of GRU's present need for the GREC Project to provide additional reliable baseload capacity, nor would it affect the timing of GRU's strict reserve margin needs in the future, because the projected retirements in 2023 are greater than the capacity served under these wholesale contracts. EXH 27 Table 5-1 at 5-2, EXH 64 BSP-000509

B. Adequate Electricity at a Reasonable Cost

ISSUE 3: Is there a need for the Gainesville Renewable Energy Center, taking into account the need for adequate electricity at a reasonable cost, as this criterion is used in section 403.519, Florida Statutes?

GRU/GREC: *Yes. The Project and PPA are cost-effective when compared to other self-build supply options and to other renewable energy options available to GRU. Short-term bill increases, if any, are normal, and the Project will produce substantial long-term bill reductions and provide significant, highly valuable risk mitigation benefits to GRU's customers.*

This issue is closely related to the cost-effectiveness issue, which is addressed in section II.E of this Posthearing Statement. Accordingly, the discussion here is more qualitative in

nature, addressing overall cost reasonableness, bill impacts, and risk mitigation considerations, with more quantitative detail provided in the cost-effectiveness discussion in Section II.E.

In summary, under the GRU-GREC LLC PPA, GRU will obtain highly reliable baseload capacity at a reasonable cost when compared to other self-build supply-side options available to GRU, and also when compared to other viable renewable energy options. The Project and PPA will provide substantial and highly valuable risk mitigation benefits to GRU and its customers; significantly, these risk mitigation benefits would be lost to Gainesville and GRU's customers if the Project were not constructed and operated as proposed. These lost benefits must be recognized as adverse consequences of delay or denial within the scope of Commission Rule 25-17.081(6), F.A.C. With regard to risks taken and risks mitigated, the evidence overwhelmingly demonstrates that the risks to Gainesville's electric customers – and to the Gainesville community generally – of proceeding with the GREC Project now, as proposed by Petitioners, are far less than the risks of not proceeding with the Project. STR 213-14, 220, 433 Finally, while current projections indicate that adding the Project as proposed by GRU will result in modest bill increases for the first several years that the Project is in service, this was a conscious decision made by the Gainesville City Commission to obtain the extensive reliability, risk mitigation, economic, and other benefits provided by the Project, specifically including the significant long-term bill reductions that are provided through the PPA, which fixes roughly two-thirds of the contract payments for the PPA's 30-year term. TR 92-93 Such short-term increases are typical when a new baseload plant is added to a utility's generation fleet, and those short-term impacts are dwarfed by the long-term bill reductions provided by the Project and the PPA. See EXH 87 Moreover, the Gainesville City Commission consciously chose the pricing structure of the PPA, which fixes approximately two-thirds of total contract payments as of the construction commencement date. TR 92-93

1. Levelized Cost of Electricity ("LCOE") and Cumulative Present Worth Revenue Requirements Analyses Demonstrate the Reasonableness of the Project's Cost.

The GRU-GREC LLC PPA was initially evaluated using a LCOE approach, EXH 27, and, in responses to Staff's discovery requests, using a cumulative present worth revenue requirements analysis. EXH 24 at 4 The discovery responses also showed projected bill impacts over the life of the PPA. The supply-side alternatives that were evaluated in the LCOE analyses included simple-cycle combustion turbine and combined cycle options, as well as pulverized coal options with and without Carbon Capture and Sequestration ("CCS") technology incorporated to address anticipated carbon dioxide (CO_2) regulation. TR 296-97, EXH 24 The LCOE analyses considered seven different scenarios of fuel cost, capital cost, and CO_2 regulation. TR 296-98 On a levelized cost basis, the GREC LLC PPA is lower in cost than any of the alternatives in 23 of the 28 cases that were evaluated. TR 297-99 The GREC LLC PPA is lower in cost than any of the natural gas alternatives considered, and is also lower in cost than coal units when CO_2 regulation is considered. TR 298 The LCOE of the PPA is only higher than the costs of coal options without consideration of CO_2 regulation or CCS. Moreover, it is doubtful that any type of coal unit could be permitted in Florida at this time. TR 294 The LCOE analysis clearly demonstrates that the GREC LLC PPA is the least cost alternative compared to conventional alternatives in a side by side comparison.

2. The GREC Project and PPA Are More Cost-Effective Than All Other Viable Renewable Energy Alternatives.

Additionally, GRU conducted an extensive competitive solicitation – Request for Biomass Proposals – process (see TR 228-30) that led to GRU's conclusion, and the Gainesville City Commission's unanimous vote confirming, that the GREC LLC PPA was and is the most cost-effective alternative available to GRU to meet the short- and long-term needs of the

Gainesville community for reliable, fuel-diverse, sustainable electric power supply that does not depend as much on fossil fuels imported from outside Florida. See TR 62, 86-88

In the first phase of its process, GRU received and evaluated expressions of interest from 11 developers. EXH 27 at 8-6 From that group, GRU requested binding proposals from three proposers, Nacogdoches Power LLC (the predecessor to GREC LLC, and accordingly referred to hereinafter as the GREC proposals), Covanta, and Sterling Planet. Together, these three proposers offered five separate proposals: two proposals offered by Nacogdoches, one for half of the output of a 100MW facility and the other for 100 percent of the 100MW facility. EXH 85 at 12, 44, 45 Covanta offered a 50MW PPA proposal and a proposal to construct a 50MW plant for GRU. Id. Sterling Planet offered a 30MW PPA proposal to GRU. Id.

In the second phase of its RFP process, GRU evaluated these five proposals on the basis of Environmental criteria (four criteria), Economics (four criteria), and Risk & Reliability (six criteria). EXH 85 at 18-45 The 100MW GREC Project proposal ranked highest on the Environmental criteria, slightly higher than Covanta and about 40 percent higher than Sterling Planet. EXH 85 at 44-45 The 100MW GREC Project proposal also ranked highest on the Economics criteria, slightly higher than Sterling Planet and about 30 percent higher than Covanta. Id. Finally, the 100MW GREC Project proposal ranked highest on the Risk & Reliability criteria, about 15 percent higher on GRU's numeric evaluation scale than Covanta and more than 30 percent higher than Sterling Planet. Id. 44-45 GRU's ranking process specifically addressed proposed contract terms and conditions, and the GREC proposals were ranked higher than either Covanta or Sterling Planet. EXH 85 at 44 GRU's negotiations with GREC LLC further improved those terms to the benefit of GRU's customers. See STR 481 The Intervenors' attempts to suggest that the PPA's terms and conditions are not favorable are both misplaced and unsupported by any evidence.

The overall rankings showed the 100MW GREC Project proposal ranked highest, followed by the 50MW GREC Project proposal, which was then followed by the two Covanta proposals, with Sterling Planet ranked lowest. The scores for the five proposals were as follows:

Proposal	Score
Nacogdoches 100MW PPA	432.20
Nacogdoches 50% of 100MW PPA	404.14
Covanta 50MW EPC	367.10
Covanta 50MW PPA	356.60
Sterling Planet	327.42

EXH 85 at 44 This evidence – which was not contradicted by any other evidence in the record – demonstrates the correctness and reasonableness of the City's conclusion that the GREC Project proposals were superior to all others, and that the 100MW PPA was the best alternative available when all factors were considered, notwithstanding Sterling Planet's lower estimated energy price. Moreover, although the pricing in the PPA is higher than the indicative pricing in the earlier GREC proposal, the PPA as executed is still less costly than the Covanta proposals. CONFIDENTIAL EXH 64, BSP 000542.

Moreover, GRU already has a leading solar energy initiative, through its feed-in tariff, and utilizes landfill gas to the extent available. STR 546, 582 This further confirms that there are no additional renewable energy alternatives available to GRU to mitigate the need for the Project.

3. The GREC Project and PPA Provide Substantial and Valuable Risk Mitigation Benefits to GRU's Customers.

GRU understands that there are risks inherent in every decision it makes, e.g., whether to build a power plant, including decisions to take an action or not to take the action. STR 214 Mr. Edward J. Regan, GRU's Assistant General Manager for Strategic Planning, and a registered Professional Engineer, testified that proceeding with the GREC Project as proposed will provide

substantial protection for Gainesville's electric customers against the following risks (STR 433; EXH 56):

- Fuel cost volatility and fuel cost escalation;
- Physical fuel supply disruptions or interruptions;
- Reliability and production cost issues associated with GRU's aging power generation fleet;
- Risk of degrading unit performance over time;
- Unplanned outages of both the GREC Project and other key GRU units, especially Deerhaven 2;
- Ownership risks, including potential cost overruns associated with constructing new generating capacity, risks associated with operating and maintenance ("O&M") costs being greater than projected, and financing cost risks;
- Potential regulation of carbon and greenhouse gas emissions; and
- Potential renewable portfolio standards or similar regulatory mandates.

Summarizing these in the order above, the Petitioners first observe that it is well-known that fossil fuel prices, particularly the price of natural gas, have been extremely volatile in recent years. See EXH 58, which shows that annualized natural gas prices have fluctuated from about $2 per million Btu in 1999 to $8 per million Btu in 2008, and which likewise shows significant instability in gas price forecasts. Moreover, fossil fuel prices are at very low levels relative to the past decade, EXH 58, and the risk of fuel price escalation being greater than currently expected is substantial: as Mr. Regan testified, with respect to fuel costs, "the floor is much closer than the ceiling." STR 472 The GREC Project and the PPA will provide substantial protection against the risk of fossil fuel cost escalation being greater than presently projected and against the well-known volatility of fossil fuel costs.

With regard to physical fuel supply reliability, the Project will obtain its fuel from the north central Florida region, generally from within 75 miles of the Project site. STR 352, 369-70 This local supply is much less vulnerable to physical disruptions than the supply of natural gas from the Gulf of Mexico and delivery of gas through a single pipeline, and also less vulnerable to physical disruption than supply of coal from the Appalachian region on a single rail spur. EXH

27 at 15-4 Thus, the GREC Project will protect GRU's customers against the risk of physical fuel supply interruptions. STR 206, 222

GRU's generating fleet is aging. STR 206, 473 The average age of GRU's fleet is approximately 28 years, and GRU's primary baseload unit, the Deerhaven 2 coal-fired unit, is nearly 30 years old. Id. This aging fleet exposes GRU and its customers to risks of outages and performance degradation, which can translate into additional, unforeseen operating and maintenance cost increases, as well as unforeseen replacement power costs in the event of unexpected outages. STR 254, 542

The risk of degrading unit performance over time, which GRU would be exposed to if it were to self-build a biomass plant (or any other plant), is mitigated by the PPA with its guaranteed heat rate for power produced by the Project. STR 437 The GREC Project, as a new, highly reliable baseload unit, will enhance reliability and protect against the risks of outages of GRU's existing units, and with the Project's guaranteed heat rate, the Project will protect GRU's customers against the risk of performance degradation. Id.

Moreover, with the pay-for-performance structure of the PPA, Gainesville's customers are protected against the risk of having to bear the costs of non-performance, e.g., due to outages of the GREC Project, which is a risk they are exposed to with GRU-owned units. STR 437 Through the pricing structure of the PPA, under which approximately two-thirds of total payments are fixed as of the construction commencement date, TR 92-93, GRU's customers are protected against both construction cost overruns and long-term costs associated with equipment renewal, replacement, and repair. Id. Additionally, the PPA protects GRU against financing cost risks. STR 437; EXH 56 As an "AA-rated" utility – one of fewer than 20 out of more than 2,000 U.S. utilities – GRU is keenly concerned with managing risks for the benefit of its customers. STR 223, 548 With respect to the financial risk factor, the Commission should also note that

GRU discussed the issue of possible imputed debt with both Standard & Poor's and Moody's rating services, and the preliminary indications are that the only amount of imputed debt considered would likely be in the range of six months' of contract payments; no mention by rating agency personnel was made of imputing debt at 25 percent of projected fixed payments. STR 551

Finally, the PPA provides uncommon protection against fuel cost increases by virtue of the cost-sharing or gain-sharing formula embodied within the PPA by which GREC LLC actually bears part of the risk associated with the cost of the clean woody biomass fuel supply for the Project, STR 445; EXH 7, PPA at § 4.7 The PPA also protects GRU's customers by providing GRU (a) the ability to dispatch the Project off-line completely, in the unrealistic case that biomass fuel prices were to rise significantly more than fossil fuel prices, TR 89, and (b) the opportunity to take over the fuel procurement function from GREC LLC if GRU should determine that it would be in its customers' best interests for it to do so. STR 445; EXH 7, PPA at § 4.1

Mr. Regan also prepared a probabilistic expected value analysis of the risk mitigation benefits and costs associated with the GREC Project and PPA. Mr. Regan's analyses included two cases, one with assumptions biased conservatively against the Project, and another based on mid-range probability assumptions. The "Biased Expected Value Risk Analysis for GREC" case is summarized in Exhibit 57; even with assumptions biased strongly against the Project and the PPA, the analysis shows a worst-case benefit-to-cost ratio of 2.2 to 1, and a net expected positive value to GRU's customers of $74.1 million. The "Mid-Range Expected Value Risk Analysis for GREC," summarized in Exhibit 59, shows a benefit-to-cost ratio of 10.69 to 1, and a net expected value to GRU's customers of nearly $300 million (net present value in 2010 dollars).

No expert testimony contradicted the existence of any of these risk mitigation benefits. While the intervenors attempted to question the potential impacts of increases in biomass fuel costs, the uncontroverted testimony of Mr. Richard Bachmeier demonstrates that increases in biomass fuel costs would most probably track increases in fossil fuel costs, e.g., due to carbon regulation and associated costs, STR 422-23; the obvious result is that the relative economics of biomass power produced from the Project would still be favorable as compared to other generation alternatives. Additionally, both Mr. Regan and Mr. Bachmeier testified, again with no contradictory expert testimony or other competent evidence, that the cost of biomass fuel for the Project would be more stable than the cost of fossil fuels. TR 93, STR 422

4. The Project and PPA Will Protect Gainesville and Its Electric Customers Against the Risks of Likely Regulation of Carbon and Other Greenhouse Gas Emissions, and Also Against the Risks of Likely Renewable Portfolio Standards or Similar Mandates.

At the Commission's February 9, 2010 Agenda Conference, the Commissioners asked specifically about the status of potential regulation of carbon dioxide and other greenhouse gas ("GHG") emissions, and also about the prospects for renewable portfolio standards or similar mandates. The evidence shows that, while Congress has not yet enacted legislation mandating either, the federal government is clearly poised to act to implement carbon regulation.

The House of Representatives passed H.R. 2454, the American Clean Energy and Security Act of 2009 ("ACES"), which would (if enacted into law) implement a carbon emissions cap-and-trade program. Senate Bill 1733, the Clean Energy Jobs and American Power Act of 2009, was reported out of the Senate Energy and Pubic Works Committee, but was not brought to a floor vote. S.B. 1733 has carbon cap-and-trade provisions that are similar to those in the ACES bill. STR 454-55 The Project would significantly improve GRU's position under either regulatory program, and would, based on the costs of H.R. 2454 as estimated by the U.S. Environmental Protection Agency ("EPA"), reduce the rate impact on GRU's customers from a

24 percent increase to a 16 percent increase in the low-carbon-cost case, and from a 77 percent increase to a 52 percent increase in the high-carbon-cost case. STR 455 Moreover, while the Kerry-Lieberman-Graham climate bill initiative has apparently been sidetracked by other political factors, its resurrection is still possible. Other federal legislation addressing CO_2/GHG regulation and renewable energy mandates is pending. STR 455-57

Additionally, in December 2009, the EPA Administrator issued a formal "endangerment finding," in which she determined that the emission of carbon dioxide and other greenhouse gases "threatens the public health and welfare of current and future generations." STR 458 This formal endangerment finding sets the stage for EPA's regulation of carbon dioxide ("CO_2") and other GHGs, and based on this finding, the regulation of emissions from stationary sources, such as large fossil-fueled power plants, is inevitable. STR 459

H.R. 2454 would also impose a renewable energy standard (like a "Renewable Portfolio Standard" or "RPS") on many utilities. While GRU would not be subject to the standard under H.R. 2454 as presently framed, the presence of the GREC Project on GRU's system would create tremendous value for GRU and its customers, on the order of $79 million, available to GRU from the potential sale of surplus renewable energy credits; if GRU were to become subject to the requirement, the Project would provide net benefits to GRU and its customers of approximately $180 million. STR 455-56

GRU therefore believes that proceeding with the GREC Project as proposed is by far the most reasonable and prudent course of action to take to protect GRU's customers against future regulation of CO_2 and other GHG emissions, which GRU believes is inevitable, and also to provide value – either through cost savings or value from selling surplus renewable energy credits – to GRU's customers under reasonably expected federal (or state) renewable energy mandates.

5. The Project and PPA Will Provide Long-Term Bill Reductions That Significantly Outweigh Any Short-Term Bill Increases.

At the outset, GRU does not agree that the denomination of the "no new construction until 2023" case as a "base" case is appropriate. See EXH 87, in which the header indicates that bill impacts are calculated with reference to a "No New Construction until 2023" case; GRU, based on its extensive analyses and long-term, multi-year consideration of all factors relevant to its generation expansion planning and its decision to proceed with the GREC Project and PPA, believes that the most appropriate "base" case scenario is the scenario that includes (a) resale of 50MW of the Project's output at the full contract price and (b) carbon regulation with costs as estimated by the EPA. Accordingly, GRU concludes that the short-term bill increases – beginning in 2014 – are most likely on the order of $3.22 per average GRU residential customer's monthly bill (831 kWh per month), and that the impact will approach zero by 2018 or 2019 and become positive – i.e., a net decrease in customer bills – in 2020 or 2021. EXH 87 (last page of the Exhibit); STR 294 Moreover, the long-term projected bill impacts under GRU's assumptions indicate that an average GRU residential customer would experience bill reductions of more than $10.00 per month for the last 15 years of the PPA's life. Id.

Assumptions that are unfavorable to the Project and the PPA can be made, but assumptions do not constitute evidence unless they are otherwise supported by competent substantial evidence of record, i.e., expert testimony or credible exhibits, and in this proceeding, the only competent substantial evidence of record bearing on these key factors is GRU's testimony and exhibits that support GRU's conclusions that resale will be as projected by GRU (or, at worst, at a market value for capacity and energy without any value recovered for the renewable character of the Project's output) and that carbon/GHG regulation is likely.

The Commission should also note that the prospect of short-term bill increases is not unusual when a utility adds new baseload capacity. As Mr. Regan testified, when GRU's

Deerhaven 2 unit came on-line in 1981, GRU's base rates doubled, and then declined as GRU grew into the Deerhaven 2 capacity. STR 544-45 This same point is illustrated in an earlier need determination docket, cited in Mr. Rollins's testimony, STR 574-75, where the Commission granted a determination of need for OUC's Stanton Unit 1 while recognizing that "It is unlikely that the construction of Stanton Unit 1 will result in an absolute reduction in the OUC's customers bills; however, the electric bills would be lower than they would be if Stanton were not constructed or if any other alternative were exercised." In Re: Petition for Certification of Need for Orlando Utilities Commission Curtis H. Stanton Energy Center Unit 1, PSC Docket No. 810180-EU, Order No. 10320 at 5 (October 2, 1981). Fortunately, every case analyzed for the GREC Project and PPA indicates that the bill impacts are projected to become positive for a significant number of years of the PPA's life: even the worst-case assumptions (with no value from resale of 50MW of the Project's capacity and no carbon regulation costs, and which GRU does not agree represents a true "base" case) show bill reductions beginning in 2031 and generally ranging from reductions of $10.00 to $30.00 per month for the last 12 years of the period. EXH 87 (last page)

As noted at the outset of this discussion, GRU is keenly aware that there are risks in every decision it makes: here, the risks are of proceeding as planned with the GREC Project or of not proceeding. The risks of proceeding with the Project – i.e., the risks that might, at least hypothetically, result in a negative outcome for GRU's customers – include the risk that the resale value of the 50MW that GRU expects to resell to FMPA, OUC, or other utilities (see Exhibits 61 and 62, as well as Gville TR 64-66) may be less than expected, and the risk – remote in GRU's view – that neither carbon nor renewable energy regulations will materialize.

The risks of not proceeding with the Project as proposed and as discussed and analyzed both qualitatively and quantitatively above, are many and substantial, and the evidence of record

has led the Gainesville City Commission to conclude that the risks of not proceeding with the GREC Project are far greater than the risks of going forward as planned. Accordingly, GRU strongly believes – and the competent substantial evidence of record in this docket demonstrates – that the GREC Project and the PPA will protect GRU's customers and will meet GRU's need for adequate electricity at a reasonable cost, and the Commission should accordingly grant the requested determination of need.

C. Need for Fuel Diversity and Supply Reliability

ISSUE 4: Is there a need for the Gainesville Renewable Energy Center, taking into account the need for fuel diversity and supply reliability, as this criterion is used in Section 403.519, Florida Statutes?

GRU/GREC: *Yes. The Project will significantly diversify GRU's existing fuel mix, which is dominated by coal and natural gas. The Project will also significantly enhance GRU's and Florida's renewable energy generation. The Project's fuel supply is sustainable on a long-term basis, with minimal or no impacts on existing users.*

The GREC Project will significantly diversify GRU's existing fuel mix, which is dominated by coal and natural gas. The Project will also significantly enhance GRU's and Florida's renewable energy generation. The Project's fuel supply is sustainable on a long-term basis, with minimal or no impacts on existing users. The Gainesville City Commission considered the fuel diversity and sustainability benefits of biomass technology before undertaking its RFP process, and fully considered the Project's benefits as it selected the GREC 100MW PPA proposal and subsequently approved the PPA.

1. The GREC Project Will Contribute Significantly to GRU's Fuel Diversity.

The GREC Project and PPA will enable GRU to reduce the proportion of GRU's electricity generation from coal and natural gas fuels from more than 90 percent at present, TR 98, to approximately 55 percent in 2024, assuming that the fuel diversity benefits of the PPA are shared with other Florida utilities for the first ten years of the PPA's term. TR 98, EXH 24 at 1. Page 1 of Exhibit 24 shows that GRU obtained 92.0 percent of its total energy supply from coal,

oil, and gas in 2008, but that percentage would decline to 55.7 percent in 2014 if there were no resale, and to 74.1 percent in 2014 if, as anticipated, GRU resells half of the Project's output to other Florida utilities. When the anticipated resale would end in 2022, the percentage of GRU's power supply from gas and coal would similarly drop down to the 50-55 percent range.

2. The GREC Project Will Contribute Significantly to GRU's Fuel Supply Reliability.

In addition to the obvious enhancement to fuel diversity, the Project will also significantly enhance the fuel supply reliability of GRU's system by obtaining a substantial proportion of GRU's fuel supply from an area within 75 miles of Gainesville. EXH 29 at 27; STR 352 Again, this local fuel supply benefit is particularly important because of GRU's reliance on a single natural gas pipeline and single rail spur. EXH 27 at 15-4

3. The GREC Project Will Contribute Substantially and Meaningfully to GRU's and Florida's Renewable Energy Generation.

As noted above, the GREC Project will enable GRU to reduce its dependency on fossil fuels imported from outside Florida from approximately 92 percent in 2008 to approximately 50-55 percent in 2023. This will be accomplished by the corresponding increase in GRU's use of native Florida renewable energy resources, clean woody biomass that is otherwise wasted or burned in the open. STR 339-40 At the same time, the GREC Project will increase Florida's renewable energy production by more than 10 percent: Exhibit 7 (Response to Staff's Int. No. 16, at BSP 000019) shows that the Project will generate approximately 788,000 MWH per year, which represents slightly more than a 10 percent increase from the 7,768,000 MWH reported as total Florida renewable energy generation for 2007 in what is commonly known as the "Navigant Study." (The full title of this document is Florida Renewable Energy Potential Assessment, Full Report, Final, December 30, 2008; EXH 44 at 12 of 311.)

4. The GREC Project's Biomass Fuel Supply Is Sustainable In the Long Run, and The Project's Biomass Use Will Have Minimal or No Impacts on Existing Users.

At the February 9, 2010, Agenda Conference, the Commissioners inquired about the long-term sustainability of the Project's biomass fuel supply, and also as to a related question, namely, whether the Project's utilization of a woody biomass resources would adversely impact existing users. Mr. Richard Schroeder, an expert based in Gainesville with more than 30 years experience working in forestry and fuel procurement activities, testified that there is more than enough low-value biomass material available annually, on a long-term sustainable basis, to provide all of the Project's fuel supply needs without adversely affecting existing users. STR 351

More specifically, Mr. Schroeder testified that the Project is located in some of the most densely forested land in the southeastern U.S., and that the total amount of low-value biomass material produced by the forest resource within 75 miles of the Project site is approximately 5.85 million tons per year, nearly six times the Project's annual requirement of 1 million tons per year. STR 352; EXH 48 at 5 of 14. The components of the potential biomass feedstock for the Project – low-value material, as the Project does not target otherwise merchantable timber, STR 352 – are urban wood waste, first thinnings, logging residue, and mill residues. EXH 48 at 5 of 14

These results are confirmed not only by Mr. Schroeder's own independent analysis, but also by numerous reports and studies that are now in the record evidence of this proceeding. Exhibit 43, a 2007 report prepared by Carter, Langholtz, and Schroeder titled "Economic Availability of Alternative Biomass Sources for Gainesville, Florida," concluded that there was sufficient biomass material available to comfortably supply a 100MW biomass facility in Gainesville. STR 326 The Navigant Study, Exhibit 44, concluded that there is sufficient biomass material available from logging residues and urban wood waste not currently being recycled to support an additional 529MW to 856MW of biomass generation, and that the total technical potential from biomass generation is between 5,900MW and 13,750MW.

Exhibits 45, 46, and 47 are the three studies prepared for the Florida Department of Agriculture and Consumer Services, Division of Forestry, and released in early March 2010. Among other things, these three studies concluded that an additional 1,000MW of biomass energy generation would be more than feasible given Florida's forest resources, with little disruption to the timber supply of the existing forest products industry. STR 328 These studies further concluded that development of additional biomass generation fueled with forest residues would be beneficial to the state economy, timber producers, and forestry operations in particular. Id. In his letters transmitting the "woody biomass economic study" (EXH 47) to the Governor, the President of the Florida Senate, and the Speaker of the Florida House of Representatives, Commissioner of Agriculture Charles Bronson wrote that "a significant amount of renewable energy can be developed through the utilization of woody biomass, while still keeping the forest resources of Florida sustainable and current forest industries strong." EXH 47 at 1-3 of 22

Given Commissioner Bronson's clear statement, the conclusions of the numerous other studies confirming adequate biomass supplies, and Mr. Schroeder's own analysis, plus the total absence of any contradictory evidence in the record of this proceeding, it is clear that significant additional renewable energy can be produced from woody biomass in Florida, without harming existing users.

The Commission should also note that GREC LLC already has a letter of intent to supply 30 percent of its projected fuel needs – in the form of urban wood waste – from Wood Resource Recovery. EXH 53 Moreover, Mr. Schroeder testified that GREC LLC is much further along than other biomass power projects at similar points in the permitting process. STR 354 With regard to long-term sustainability, it is also noteworthy that GRU has incorporated into the PPA minimum forest sustainability fuel procurement standards. STR 341-42, EXH 49 These

sustainability practices will encourage superior silvicultural practices, improve forest health, and help protect Florida's water resources and wildlife habitats. STR 342

5. The Gainesville City Commission Thoroughly Considered the Project's Fuel Diversity and Supply Reliability Benefits Throughout Its Decision Processes.

The Gainesville City Commission considered the full range of factors relating to reliability, overall cost, bill impacts, benefits of renewable energy resources, future price risks, future regulatory risks, and other factors in reaching its decision to approve the PPA with GREC LLC. See TR 86-88; EXH 27 at 8-1 After spending several years discussing and reviewing alternatives for future power supplies, and after sponsoring and participating in extensive public outreach and community participation efforts, the Gainesville City Commission voted unanimously to pursue only biomass-fueled power supply options on June 18, 2007. TR 64, 87; EXH 27 at 8-3 Many factors contributed to the City Commission's unanimous decision, which was based primarily on the basis of long-term strategic and risk reduction considerations rather than on strict, short-term economic criteria. TR 87 The City Commission's continuing unanimous support was further demonstrated by the fact that five Gainesville City Commissioners, in addition to Mayor Hanrahan, came to Tallahassee and testified in the public testimony portion of the supplemental hearing on May 3, 2010. See 40, 42, 44, 56, 59

The City Commission and the Gainesville community were and are concerned about climate change and potential future regulations that may drive power production costs that utilize conventional fossil fuels, especially coal. TR 87 These issues were discussed thoroughly throughout the public participation processes. Id. Among other factors, this concern of the Gainesville community led the City to participate in the U.S. Mayors' Climate Protection Agreement to meet the requirements of the Kyoto protocols. TR 87; STR 212 Exhibit 30 is Gainesville City Commission Resolution No. 050132, authorizing the Mayor to execute the Mayors' Climate Protection Agreement on behalf of the City.

The City Commission was also sensitive to the environmental emissions other than CO_2 associated with conventional generating fuels, which led the City Commission to prefer woody biomass over municipal solid waste. The Gainesville City Commission was fully aware of the increasing volatility of coal and natural gas prices, and the benefits of improving Gainesville's energy independence and fuel diversity. Biomass fuels are readily available from local supply sources and are generally immune from physical interruptions due to transportation blockages. TR 87 This benefit is particularly important because GRU is exposed to potential natural gas and coal supply disruptions due to its reliance on a single gas pipeline and single rail spur. EXH 27 at 15-4 Finally, the City Commission was aware of the age of GRU's generation fleet. TR 87; STR 41 The City Commission recognized and considered all of these factors in making its unanimous policy decision to invest in a renewable, sustainable technology with substantial environmental benefits, local economic value, regulatory hedge value, and the ability to meet the long-term capacity and reliability requirements of GRU and the Gainesville community. TR 87-88, STR 221

Accordingly, the GREC Project will meaningfully and substantially meet GRU's needs for fuel diversity and fuel supply reliability, and the Commission should grant the requested determination of need for the Gainesville Renewable Energy Center Project.

D. There Are No Renewable Energy Sources or Energy Conservation Measures Available to GRU That Might Mitigate the Need for the Gainesville Renewable Energy Center.

ISSUE 5: Are there any renewable energy sources and technologies, as well as conservation measures, taken by or reasonably available to Gainesville Regional Utilities which might mitigate the need for the proposed Gainesville Renewable Energy Center?

GRU/GREC: *No. GRU has an aggressive renewable energy program, including landfill gas generation and a substantial solar feed-in-tariff. Since 2006, GRU has designed and implemented energy conservation programs using the TRC test. No additional renewable or conservation options are available to realistically mitigate the need for the Project.*

GRU is considered a leader in aggressively pursuing and implementing renewable energy resources to the extent of their availability, and also in implementing aggressive, extensive energy conservation programs and measures. EXH 24 at 16-18 The combined successes of these programs and initiatives has helped to delay the need for additional capacity to beyond the proposed commercial operation date of the GREC biomass facility. See TR 90 Even so, proceeding with the GREC Project as planned and proposed – with the 100MW GREC Project coming on-line as planned in December 2013 – provides maximum benefits to GRU's customers: delaying the Project costs GRU's customers. (This is discussed more fully below, but is mentioned here to explain, in part, why even GRU's leading conservation programs have not mitigated, and cannot mitigate, the need for the Project as proposed.)

With regard to its renewable energy initiatives, GRU is successfully offering the first European-style feed-in tariff for solar photovoltaic energy in the United States. This offering is designed to stimulate the photovoltaic industry in the Gainesville area and Florida in general. TR 83 GRU also utilizes landfill gas, the only other renewable resource readily available to GRU, to the extent of its availability. TR 82 Also on the energy supply side, GRU has several programs to improve the adequacy and reliability of the transmission and distribution systems, which also result in decreased energy losses. EXH 27 at 13-8 to 13-9

With regard to energy conservation measures, GRU has invested significant effort in developing the demand-side management ("DSM") programs currently offered to its customers and is considered one of the leading utilities in the State in this area. See EXH 9, EXH 29 Since 1980, GRU has offered incentives and services for energy conservation and demand reduction. TR 90 DSM programs are available for all of GRU's retail customers, including commercial and industrial customers. In addition, GRU continues to offer rebates for solar water heating and net metering and rebates for solar photovoltaic energy systems. EXH 9 GRU's energy conservation

offerings, incentives, and services to its customers have resulted in cumulative energy reductions of 169 gigawatt-hours and cumulative peak demand reductions of 33MW as of 2009. EXH 27 at 13-3 GRU also utilizes increasing block rates to encourage energy conservation. Id. GRU adopted the Total Resource Cost ("TRC") test in 2006, providing the basis for additional, and more extensive, energy conservation programs than have been offered by Florida utilities pursuant to the Rate Impact Measure ("RIM") test. EXH 27 at 13-1

GRU's energy conservation programs are summarized in Exhibit 9 and also in Exhibit 27 at 13-1 through 13-7. GRU's energy conservation programs include residential programs for high efficiency air conditioning, solar water heating, solar PV rebates with net metering, natural gas appliances and other appliance efficiency incentives, insulation, and lighting programs, EXH 27, Table 13-2 at 13-5. GRU's conservation programs also include non-residential conservation programs including solar water heating, solar PV, natural gas water heating and space heating rebates, lighting measures, and custom rebates for energy efficiency retrofit projects. EXH 27, Table 13-3 at 13-6

GRU has also installed its South Energy Center serving the Shands at UF Cancer Hospital, the first combined heat and power ("CHP") plant of its type serving a hospital in the southeastern United States. TR 91; EXH 27 at 13-6 Overall, the South Energy Center achieves 75 percent thermal efficiency, and the site may be expanded to provide services to other public facilities located nearby. Id. GRU has also supported the installation of highly efficient LED (light emitting diode) stoplights, crosswalk signals, and pedestrian lighting in Gainesville. Id. GRU's projections of its future energy conservation achievements through its energy conservation programs are incorporated into GRU's load projections upon which GRU's analyses evaluating the benefits of the GREC Project were based. TR 198

In summary, GRU has aggressively pursued renewable energy resources, including landfill gas and solar photovoltaic facilities, and, as discussed in detail above, it is undisputed that the GREC Project is the most cost-effective additional renewable energy opportunity available to GRU. Moreover, GRU aggressively pursues and implements all reasonably available energy conservation and demand-side management measures that might otherwise mitigate the need for the GREC Project. Even though GRU's existing renewable energy and energy conservation initiatives have deferred the strict reserve-margin need for additional generating capacity by several years, GRU still needs additional reliable, cost-effective, sustainable baseload power supply resources, and the GREC Project is the most cost-effective alternative available to meet this need. The Gainesville City Commission, through extensive public hearings and workshops and extensive deliberations over several years, unanimously determined that the GREC Project and the GRU-GREC LLC PPA should be pursued to meet GRU's short- and long-term energy supply needs, even taking full account of GRU's aggressive renewable energy and conservation initiatives.

Moreover, there is no competent substantial evidence to contradict the foregoing conclusions, no evidence that there is any more cost-effective renewable option available to GRU to mitigate the need for the Project, and no evidence that there are sufficient energy conservation opportunities available – over and above the amounts that GRU is already implementing and planning to implement pursuant to the TRC test – that would mitigate the need for the project. Accordingly, the Commission should conclude that there are no additional renewable energy alternatives or energy conservation measures available that would mitigate the need for the GREC Project, and the Commission should grant the requested determination of need for the Project.

E. The Gainesville Renewable Energy Center Is the Most Cost-Effective Alternative Available to GRU to Meet Its Needs for Reliable, Sustainable Energy.

ISSUE 6: Is the Gainesville Renewable Energy Center the most cost-effective alternative available, as this criterion is used in section 403.519, Florida Statutes?

GRU/GREC: *Yes. The Project is the most cost-effective generation expansion decision that GRU can possibly make to meet its need for reliable, sustainable electric power. The Project's LCOE is lower-cost than conventional alternatives, and the CPWRR impacts are lowest with the Project under all realistic scenarios.*

The economics of GRU's PPA with GREC LLC were analyzed using three different methods: first, the Project and PPA were compared to the cost of several relevant supply-side alternatives using a levelized cost of energy ("LCOE") analytical approach. The Project and PPA were also analyzed using a Cumulative Present Worth Revenue Requirements ("CPWRR") approach, applied to more than 100 scenarios. Finally, as discussed above with respect to risk mitigation impacts, Mr. Regan analyzed the Project using a probabilistic expected value analysis approach with respect to the risks mitigated by, and risks taken with, the Project and the PPA.

LCOE Analyses. Taking account of all capital, operating, maintenance and fuel costs, GRU initially evaluated a total of 28 different supply-side alternative scenarios using the LCOE method: the GREC LCOE was lowest in cost in 23 of the 28 scenarios. The alternative technologies analyzed included simple-cycle gas-fired combustion turbine ("CT") and gas-fired combined cycle ("CC") technologies, and also pulverized coal options with and without Carbon Capture and Sequestration ("CCS") technology incorporated to meet anticipated carbon dioxide/greenhouse gas regulations. The cases analyzed included cases with no CO_2 regulation and GRU's base, high, and low fuel price projections, cases with no CO_2 regulation with high and low capital costs, and two cases that included CO_2 costs using the mid-range and high CO_2 emissions allowance cost projections. Table 12-1 of Exhibit 27 shows that all gas-fired options and all coal-fired options with either mid-range or high CO_2 costs were higher in cost than the GREC Project and PPA. Only scenarios utilizing coal-fired options without any consideration of

CO_2 regulation and costs were projected to be lower in cost. It is doubtful that coal units of any type can be permitted in Florida at this time, TR 294, 303, EXH 27 at 8-8, and the Gainesville City Commission and community have thoroughly considered and rejected coal and petroleum coke alternatives in light of the Gainesville community's concerns regarding climate change. For all practical purposes, coal and petroleum coke technologies are no longer viable generating options in Florida because they have been effectively removed from consideration by Governor Crist's 2007 executive orders. EXH 27 at 8-8; TR 294 Thus, based on conventional LCOE analyses, the GREC Project and PPA are the lowest-cost option relative to all conventional generating options that are practically available to GRU.

CPWRR Analyses. The Project and PPA were also analyzed using a CPWRR approach or method. More than 100 scenarios were analyzed. STR 274 Key variables included: whether GRU was successful at selling 50MW of the Project's capacity for the first 10 years of the PPA's life at the full contract price, as GRU fully expects to do, see STR 411, 468, or at a market price, which would be somewhat less (but significantly greater than zero); and whether CO_2 regulation was implemented during the 30-year time horizon of the analyses. EXH 64 at 3 through 39 of 39, BSP-000589-000625 (Thirty years was chosen because it is the life of the PPA.) Additional variables analyzed included delaying the Project's in-service date, higher and lower assumptions regarding biomass fuel costs, and whether CO_2 regulation was implemented in 2014, 2017, or 2022. EXH 64, BSP-000595 (which present updated and corrected analyses)

Several key results are shown from these analyses. Before proceeding, however, it is again important to note that GRU does not agree that the designation or denomination of the "no new construction until 2023" scenario is GRU's "base case." GRU strongly believes that the relevant base case is the scenario that includes CO_2 regulation beginning early in the Project's

life, most probably in 2014,[3] and that also includes resale of 50MW of the Project's output to other municipal utilities at the full contract price. GRU believes that the "resale at market price" scenario is not a representative base case because it assigns zero value to the Project's renewable attributes. With those qualifications, the analyses show that:

- Under what GRU considers to be the most likely scenario, the Project and PPA provide net present value ("NPV") benefits to GRU's customers of approximately $385 million (in 2009 dollars).[4] EXH 66, BSP-000657;

- Without any CO_2 regulation in the study period, but with resale at the contract price, the Project and PPA provide approximately $40 million of NPV benefits to GRU's customers. Id.;

- Delaying the Project's in-service date results in lost value of more than $54 million in NPV terms. Id.; and

- Higher and lower biomass fuel costs, and delays of CO_2 regulation until 2017 or 2022, change the magnitudes, but not the overall results: adding the Project as proposed provides a lower cost generation expansion path for GRU than not adding the Project, unless one makes the unrealistic assumptions that: GRU is not successful at marketing the 50MW to other municipal utilities at the contract price, as it expects to do; that the Project's output has no value greater than that of its electrical capacity and energy; and that there is no CO_2 regulation over the next 30 years.

Additionally, adding the GREC Project as proposed will significantly enhance the value of GREC's existing assets, by freeing them up to make off-system sales where economic transactions are possible. This will occur because the GREC Project is expected to dispatch at a very low cost, most probably lower than coal, such that other GRU units will be freed up. An

[3] In this regard, it is also significant that the Commission has considered the costs of carbon regulation in its recent energy conservation goals dockets, see e.g., In Re: Commission Review of Numeric Conservation Goals (Florida Power & Light Company), Docket No. 080407-EG, Order No. 09-0855-FOF-EG at 15 (December 30, 2009) (Commission considered utilities' proposed energy conservation measures including estimated cost impacts of complying with potential CO_2 regulations), and in recent need determination cases Glades Power Park, Order No. PSC-07-0557-FOF-EI at 3; In Re: Petition to Determine Need for Turkey Point Nuclear Units 6 and 7, Docket No. 070650-EI, Order No. PSC-08-0237-FOF-EI at 11, 14-17 (April 11, 2008); In Re: Petition for Determination of Need for Levy Units 1 and 2 Nuclear Power Plants, Docket No. PSC-08-0518-FOF-EI at 12-15 (August 12, 2008).

[4] Unless otherwise stated explicitly, all NPV values are stated in 2009 dollars.

analysis performed by The Energy Authority, at GRU's request, shows that the potential value available from economy sales by GRU to other utilities in Peninsular Florida and Georgia, with the Project in service, over the period 2014-2024 is approximately $182 million (NPV). STR 402-07, EXH 55 (Note that these are the potential gains from sales, but actual value realized will depend on whether all economic transactions are actually consummated.)

Expected Value Risk Analysis. Thus, under the vast majority of scenarios, and under all realistic assumptions, the Project and the PPA are cost-effective for GRU's customers. In fact, as Mr. Regan demonstrated through his probabilistic expected value analyses of the risks mitigated by, and taken with, the Project, STR 467, 471-72, the only scenarios in which the Project and PPA are not cost-effective for GRU's customers are those in which the following five worst case – and unrealistic, in GRU's view – conditions are simultaneously assumed to be true:

- GRU is only able to resell 50MW at a market price, which would include zero value for the renewable characteristics of the Project's output;
- The current EIA price forecast for natural gas, which is quite low, turns out to be accurate for the next 30 years;
- No regulations that impose any costs for CO_2 emissions are enacted in the next 30 years;
- No regulations requiring renewable energy usage by electric utilities are imposed in the next 30 years; and
- No value is assigned to the risk-mitigation benefits related to plant ownership, performance, construction, and financing, that the PPA provides to GRU.

STR 471-72; EXHs 56-59

III. CONSIDERING ALL RELEVANT FACTORS WITHIN ITS JURISDICTION, THE COMMISSION SHOULD GRANT THE REQUESTED DETERMINATION OF NEED FOR THE GAINESVILLE RENEWABLE ENERGY CENTER.

ISSUE 7: Based on the resolution of the foregoing issues, should the Commission grant the petition to determine the need for the proposed Gainesville Renewable Energy Center?

GRU/GREC: *Yes. The Commission should grant the requested determination of need because the GREC satisfies the statutory need criteria, is the most cost-effective option for meeting Gainesville's future power requirements, promotes renewable energy, and provides substantial strategic and public interest benefits to GRU's customers and the Gainesville community.*

Based on the overwhelming preponderance of the competent substantial evidence of record in this proceeding, the Commission should grant the petition for determination of need for the Gainesville Renewable Energy Center because the Project meets all of the statutory need criteria, represents the most cost-effective option and generation expansion path for GRU to meet its customers' power requirements over the next 30 years, promotes renewable energy consistent with the Legislature's declared policies under various provisions of the Commission's statutes, and provides significant public interest benefits, socio-economic benefits, and strategic benefits to Gainesville and its citizens, who are also GRU's customers.

In making its determination, the Commission must take into account the enumerated statutory criteria under Section 403.519, F.S., and consider other matters within its jurisdiction. The Commission has broad discretion to weigh the criteria, as the Legislature did not assign the weights that the Commission is to accord to the various factors, and to make determinations of need when not all criteria are satisfied.

The Commission should also give substantial weight to the fact that the Gainesville City Commission has fully considered and vetted both the choice of woody biomass technology and of the GREC Project, and that the City Commission has unanimously approved these choices at every step of the way. The Commission should also note well that the overwhelming majority –

75 percent – of the public witnesses who have testified in this need determination proceeding have supported the Project. Of course, this is not surprising considering the City Commission's unanimous approvals of the Project and the fact that, in the City's recent elections, no candidate who opposed the Project was elected. STR 83-34, 211-12

The consequences of delaying the Project are significantly adverse to GRU and the Gainesville community. TR 93-94; see EXH 66 at BSP-000657 (delaying the Project by one year increases GRU's total costs by more than $54 million in NPV terms); EXH 38 (proceeding with the Project will generate approximately $600 million in NPV economic development benefits and more than 700 permanent jobs in the Gainesville and north central Florida economy).

A. The Commission Has – and Has Exercised – Broad Discretion in Weighing the Statutory Need Criteria and Other Matters Within the Commission's Jurisdiction.

Under Section 403.519, F.S., the Commission is required to "take into account" several specific criteria relating to the need for a proposed power plant, including the need for system reliability and integrity, the need for adequate electricity at a reasonable cost, the need for fuel diversity and supply reliability, whether there are renewable energy alternatives or energy conservation measures reasonably available that might mitigate the need for the proposed plant, whether the proposed plant is the most cost-effective alternative available to the applicant, and "other matters within its jurisdiction which it deems relevant." The Commission has – and has exercised – great discretion in weighing the statutory criteria, and also in considering other matters within its jurisdiction in making its need determination decisions. Taking the statutory criteria into account, giving fair consideration to the Legislature's pro-renewable-energy policies set forth within Chapter 366, and considering the more general public interest and strategic benefits that the Project will provide, the Commission should grant the requested determination of need for the GREC Project.

By way of a brief legal history, the Commission has generally – but not always – made explicit findings with respect to all of the enumerated statutory criteria. Several Commission need orders do not make findings on all of the criteria. The Commission has granted determinations of need without making findings, and without making affirmative findings, as to all specific criteria. For example, the Commission has taken the following actions in previous need determination orders.

- Granted need where proposed power plants were not needed to meet either the applicant utility's reserve margin or Peninsular Florida's reserve margin for several years. Stanton 1 at 3 (determining in its 1981 decision that the plant would not be needed until 1992); SJRPP at 2 (determining in its 1981 order that the proposed units were not needed until 1989 and 1991, respectively); In Re: Petition of Pasco County for Determination of Need for a Solid Waste-Fired Cogeneration Power Plant, Docket No. 870193-EG, Order No. 17752 at 2 (Fla. Pub. Serv. Comm'n, June 26, 1987) ("Pasco County").

- Granted need where the addition of the proposed power plant would not lower customers bills, but would ultimately result in bills being lower than without the proposed plant. Stanton 1 at 5

- Granted need where the proposed plant would increase Peninsular Florida's reserve margin – even when the margin was already at 28 percent – by one one-hundredth of one percent, and where the Commission was unable to make findings on the cost-effectiveness and reasonable cost criteria, and where the Commission considered but determined that it was unnecessary to make a specific finding on the "available conservation measures" criterion. Pasco County at 2.

- Granted need where evidence showed that reliability would be satisfactory before and after construction of the proposed plant, that the proposed unit would enhance system reliability and integrity by an unquantified amount, and where the proposed plant would "have essentially no impact on the need for an adequate supply of electricity at a reasonable cost." In Re: Petition of Florida Crushed Stone Company for Determination of Need, Docket No. 820460-EG, Order No. 11611 at 3-6 (February 14, 1983).

Turning from the legal perspective to the Commission's more practical perspective of deciding on need applications under the circumstances of each case, it is clear that the Commission recognizes that it must address the realities of specific situations, with or without express statutory language to support its specific considerations. For example, in the need case

for OUC's Stanton Unit 1, the Commission recognized the "socio-economic need" to reduce the State's dependence on imported oil in granting the determination of need for a coal-fired power plant. Stanton 1 at 2, STR 568 The Commission considered "the socio-economic need of reducing the State's consumption of imported oil." The Commission reasoned that OUC's project " . . . will provide significant economic benefits for peninsular Florida in terms of supplying an alternative to oil-fired capacity generation." The Commission concluded that the unit would help enable electric utilities to meet and surpass the Commission's goal of reducing statewide oil consumption.

The Commission similarly recognized the socio-economic needs and socio-economic benefits of reducing oil consumption in both the St. John's River Power Park and Big Bend 4 need determinations. SJRPP at 2, STR 568; Big Bend 4 at 1, 4 All three of these decisions were made long before the "fuel diversity and supply reliability criterion" was enacted, and there was no explicit statutory language directing or explicitly authorizing the Commission to consider "socio-economic need" for a power plant.

Of course, considering the circumstances of the early 1980s, the Petitioners believe the Commission did the right thing, acting to address the State's welfare – the public interest – by approving the Stanton 1, St. Johns River Power Park ("SJRPP"), and Big Bend 4 units. The Commission should do the same here: while it may be difficult to assign a firm value to reduced dependence on fuels imported from outside Florida, or a firm value to reduced exposure to fuel cost volatility and unexpected fuel cost escalation, no Floridian (and no American) who lived through the energy price shocks of 2008, or through the earlier price shocks of 1973 and 1978, would discount those values significantly.

By analogy here, the GREC Project will substantially reduce GRU's use of fossil fuels imported from outside the state, simultaneously meeting the specific legislative criteria of

enhancing fuel diversity and local supply reliability, and also providing all of the benefits of native Florida renewable energy recognized by the Legislature in Sections 366.91 and 366.92, F.S..

B. The Commission's Role In This Determination of Need Proceeding Naturally Includes Weighing the Statutory Criteria and the State's Specific Pro-Renewable-Energy Policies. The Commission Should Also Give Substantial Weight to the Gainesville City Commission's Thorough Public Consideration of Biomass Technology and the GREC Project.

At the February 9th Agenda Conference, the Commissioners asked whether the Commission's role in this particular need determination – initiated by a municipal utility for a renewable power plant – would be any different from its role in a need determination proceeding for an investor-owned utility. While this is the first need proceeding for a renewable plant proposed by a municipal utility, and also the first need determination for a renewable project since the fuel diversity and renewable energy criteria were added to the statute (in 2006 and 2007, respectively STR 563), the Commission's role remains to consider the criteria set forth in Section 403.519, as well as other matters within its jurisdiction.

GRU believes that the Commission should, in exercising its broad discretion, give substantial weight to the fact that the Gainesville City Commission has considered and balanced many objectives in deciding to proceed with the GREC Project. STR 205 The City's objectives are broader than strict reliability and cost criteria, although the City is keenly sensitive to those criteria as well. STR 205-06 The Gainesville City Commission fully considered the values of energy independence, sustainability, fuel diversity, system reliability, value as a hedge against future regulatory costs, and local economic development benefits in reaching its decision to select the Gainesville Renewable Energy Center Project and to execute the PPA with GREC LLC. The City's considerations covered its reliability concerns relating to its aging generation fleet, its strong desire – need – to promote fuel diversity in light of its current heavy dependence

on natural gas and coal, its strong desire to achieve long-term cost stability for the City's customers, to minimize risks, to reduce the City's greenhouse gas footprint, and to promote economic development in the Gainesville community and north central Florida. STR 206-07

In a seven-year-long public process, the City fully vetted many options, initially deciding against coal and petroleum coke, then in favor of woody biomass as a technology choice, and finally on the GREC Project and PPA. STR 209-10, EXH 27 Moreover, the Commission should give substantial weight to the fact that the City's customers are its citizens, and that those citizens exercise direct electoral control over the City Commission. STR 209; STR 151 The Public Service Commission should note particularly that the Gainesville City Commission has approved biomass technology and the GREC Project unanimously at every step of the way, STR 211-12, and that in the City's recent elections, no candidate who opposed the GREC Project was elected. STR 83-84 This history is an overwhelming endorsement of the City's processes, of the citizens' involvement, and of the fact that the Project enjoys substantial majority support at the local level. This, in turn, leads back to GRU's request that the Commission give substantial weight to the desires of the Gainesville community.

C. The Legislature's Strong Pro-Renewable Policies Support Granting the Requested Determination of Need for the Gainesville Renewable Energy Center.

Section 403.519, F.S., also directs the Commission to consider "other matters within its jurisdiction which it deems relevant." GRU and GREC LLC respectfully suggest that the Legislature's strong pro-renewable energy policies articulated in Sections 366.91 and 366.92, F.S., are exactly such matters that the Commission should consider in determining need for the Gainesville Renewable Energy Center. Specifically, the GREC Project will promote the pro-renewable energy policies set forth by the Florida Legislature by:

- reducing Florida's dependency on natural gas as a generating fuel (see EXH 24);
- reducing Florida's exposure to fuel price volatility and fuel supply uncertainty;

- improving environmental conditions in Florida through reduced emissions from conventional electric generation fuels and also through reduced emissions of greenhouse gases in Florida;
- increasing the use of renewable energy resources in Florida; and
- encouraging investment in Florida.

These State policy goals, articulated by the Legislature within Chapter 366, are clearly additional matters within the Commission's jurisdiction that the Commission should consider in granting its determination of need for the GREC Project.

D. The GREC Project and PPA Will Promote the Public Interest By Providing Substantial Socio-Economic and Strategic Benefits to Gainesville's Electric Customers and the Gainesville Community.

As noted above, the Commission has considered "socio-economic benefits" (of reducing the State's dependence on imported oil) in earlier need determination cases. GRU respectfully believes that the Commission should recognize and consider the similar benefits that the GREC Project will provide to Gainesville's electric customers and the Gainesville community in the form of reduced dependence on natural gas and coal imported from outside Florida, as well as in the form of reduced exposure to fuel cost volatility. As noted above, while it may be difficult to assign a firm value to reduced dependence on imported fuels or to reduced vulnerability to fuel cost volatility and unexpected price escalation, no one can doubt that these "socio-economic benefits" have substantial value. Moreover, the socio-economic benefits of increased employment and economic activity are critically important.

The GREC Project and the PPA will also provide substantial and significant strategic benefits to GRU's customers. These benefits include fixed pricing for roughly two-thirds of the total PPA costs, and the portion that is not fixed is not nearly as volatile as natural gas or spot coal prices. TR 92-93; STR 422 The Project and the PPA will also provide value to GRU's generation portfolio by modernizing GRU's aging generating fleet. TR 92; STR 404-07 The GREC Project will improve GRU's reliability by providing additional firm, reliable baseload

capacity and by reducing GRU's exposure to potentially high replacement power costs. TR 92 The GREC capacity will help GRU to satisfy renewable energy portfolio standards – or to profit from such standards, even if GRU is not subject to such mandates – and will also serve as a hedge against the risk of future, potentially costly, regulation of CO_2 emissions. TR 92 Additional tangible benefits that the Project will provide to the Gainesville community include minimal exposure to construction and operating risk as compared to a GRU-self-built facility, TR 93, EXH 24, creation of more than 700 permanent jobs in the region, STR 208, EXH 38, keeping dollars spent on electric generating fuels – and the economic stimulus benefits those expenditures provide - in the north central Florida region, STR 66, supporting the substantial silviculture industry in north central Florida, TR 93, reduction in emissions from the open burning of biomass, TR 93, and reduced landfill requirements. TR 93 The Project will also promote ecosystem restoration through the sustainable forestry practices required under the PPA, id., contribute to keeping the region's forests healthy and sustainable, and "increase the chances of keeping forest land in forest land." STR 354.

E. The Consequences of Delay Are Significantly Adverse to Gainesville's Electric Customers.

Commission Rule 25-22.081(6), F.A.C., requires a discussion of the adverse consequences of delay, i.e., of the consequences if the proposed power plant is not brought into service at the approximate size proposed or in the approximate time proposed. The evidence shows that delaying the operation of the GREC Project will postpone GRU's realization of all the benefits, including the reliability, regulatory hedge, and energy security benefits, associated with the Project discussed in the foregoing sections of this Posthearing Statement. Moreover, and more specifically, if the Project has not begun commercial operation by January 1, 2014, it will not be eligible to obtain the Renewable Energy Grant provided under the American Recovery

and Reinvestment Act of 2009, which will result in increased costs to GRU of $8.10 per megawatt-hour, equivalent to approximately $6.4 million per year. TR 93-94

GRU needs the GREC Project to meet several needs, including reserve margins, and those needs and their timing, as shown on STR 452, are summarized here:

Need	Date Needed
Fuel Diversity	2014
System reliability and integrity (baseload capacity)	2014
Renewable Energy	2014
Risk Mitigation	2014
Meet CO_2 and Renewable Regulatory Requirements	2014
Reserve Margins	2023

Delay reduces the benefits to GRU's customers. First, delaying the Project costs GRU's customers the benefits listed in the above table – fuel diversity, baseload reliability, and risk mitigation benefits – for the length of any delay; denial would cost GRU's customers these benefits permanently. EXH 66 at BSP 000657 indicates that GRU's long-run CPWRR is more than $54 million NPV higher in the case where the Project is delayed by one year. Also significantly, under the PPA, the nonfuel energy charges to be paid by GRU are adjusted up to the point in time that construction of the Project commences, but are fixed at that point. Based on an assumed cost escalation rate of 2.5 percent, the cost of delaying the Project's construction would be $29.6 million NPV per year of delay. TR 94 Of significance to the Gainesville community and the north central Florida economy generally, delay would postpone the economic stimulus benefits of the Project, which include more than 1,100 full-time equivalent construction jobs during the construction period, plus an estimated 204 permanent direct jobs and another 529 permanent induced or indirect jobs once the Project is in operation. STR 208, EXH 38 In the public interest, Gainesville and Florida need these economic stimulus benefits now, perhaps more than ever.

In summary, the consequences of delay are significant and substantially adverse to GRU's customers and to the Gainesville and north central Florida communities generally.

F. The Substantial Majority of the Witnesses at the Commission's Public Hearing in Gainesville and In the Public Testimony Session of the May 3, 2010 Supplemental Hearing Support the Project.

The Commission conducted a 3-hour public hearing in Gainesville on December 9, 2009. Following presentations regarding the Project by Gainesville's Mayor Pegeen Hanrahan, several Gainesville City Commissioners, and the General Manager of GRU, the Commission heard from 14 public witnesses. Two of those did not specifically articulate a position for or against the Project; of the remaining 12 witnesses, 9 favored the Project and only 3 opposed it. Similarly, at the May 3 supplemental hearing in Tallahassee, the Commission received public testimony from 24 witnesses over a period exceeding 3 hours. At the supplemental hearing, 18 of the 24 witnesses supported the Project.

Notably, during the supplemental hearing, Commissioner of Agriculture Charles Bronson testified to the great benefits of the Project not only to the State of Florida but also to the Gainesville region, in terms of reducing Florida's dependency on foreign oil and in terms of maintaining Florida's forestry industry. STR 47-50 State Senator Steve Oelrich, who represents Alachua County, also testified in support of the Project, citing the City's thorough review and unanimous approval of the Project with broad public support. Senator Oelrich also mentioned the job creation and economic development benefits of the Project. STR 33-39; see also EXH 74 (a letter from the Gainesville-Alachua County legislative delegation, including Senator Oelrich, Representative Debbie Boyd, and Representative Charles S. Chestnut, IV, supporting the Project). Former State Senator Rod Smith testified in support of the Project and its benefits to the forestry sector, the local economy, and the environment. STR 23-28 In addition to Mayor Hanrahan, five Gainesville City Commissioners spoke in support of the Project in the public

testimony portion of the hearing, including Commissioner and Mayor-Elect Craig Lowe, Commissioner and Vice Mayor Scherwin Henry, Commissioner Jeanna Mastrodicasa, Commissioner Lauren Poe, and Commissioner Thomas Hawkins. STR 40-47, 56-62

Commissioner Bill Conrad of the City of Newberry also testified during the supplemental hearing in support of the Project, in particular to the economic recovery impacts of the Project and the benefits of keeping the money GRU spends on electric generating fuels "right here in Alachua county instead of sending it overseas or up to Kentucky or Virginia where the coal comes from . . . to be able to put that money right in our own economy and pull ourselves out of this recession." STR 63-67

Additionally, representatives of the following organizations testified in support of the Project:

- The Florida Municipal Electric Association, represented by the FMEA's Executive Director, Barry Moline (STR 145-58);
- The Florida Forestry Association, represented by Jeff Doran (STR 75-79);
- The Forest Landowners Association, represented by Mr. Bryan Olmert, a member and the president of Loncala, Inc. (STR 70-74, EXH 75);
- The Southern Alliance for Clean Energy, represented by Susan Glickman (STR 140-44);
- The Florida Farm Bureau Association, represented by Andrew Walmsley (also a GRU customer (STR 122-24);
- The Gainesville Chamber of Commerce, represented by Eric Godet (STR 115-21); and
- Florida Works, represented by Angela Pate, its Executive Director (STR 132-39).

CONCLUSION: COMPETENT SUBSTANTIAL EVIDENCE OF RECORD OVERWHELMINGLY SUPPORTS GRANTING THE DETERMINATION OF NEED FOR THE GREC PROJECT.

The competent substantial evidence of record in this need determination case overwhelmingly supports the conclusion that the Commission should grant the requested

determination of need for the GREC Project as requested by GRU and GREC LLC. The evidence shows that the Project will satisfy the statutory need criteria by:

a. Enhancing GRU's system reliability by improving reserve margins and providing substantial cost-effective baseload capacity for GRU's aging generation system;

b. Providing adequate, cost-effective electric supply to serve GRU's customers, as the Project and the PPA will provide lower cost electricity than all gas options and all coal options with carbon regulation costs included in the analyses, as well as provide cumulative present worth savings over the 30-year life of the PPA as compared to the scenario in which the Project is not constructed and the PPA is not performed;

c. Significantly improving GRU's fuel diversity and fuel supply reliability; and

d. Significantly mitigating many risks facing GRU and its customers in a world of volatile energy costs and likely regulation of greenhouse gases.

Additionally, the Project and the PPA will provide all of the benefits associated with renewable energy and recognized by the Florida Legislature in Sections 366.91 and 366.92, F.S., by reducing GRU's and Florida's dependency on natural gas as a generating fuel, reducing GRU's and Florida's exposure to fuel price volatility, improving environmental conditions, increasing the use of renewable energy resources in Florida by more than 10 percent, and by encouraging investment in the Gainesville community and in Florida.

The Project will promote the public interest by mitigating risks to Gainesville's electric customers, especially the risks associated with vulnerability to fuel cost volatility and interruptions that come from being dependent on imported fuels, the risks of likely future carbon and renewable energy regulation, and risks of construction, ownership, and operation of a new baseload power plant that are absorbed by GREC LLC under the PPA. The Project will also provide needed economic stimulus benefits – including more than 700 permanent jobs – in the midst of the worst recession in the memories of most living Floridians.

There is no competent, substantial, probative evidence in the record of this proceeding that is contrary to any of these points. The Intervenors offered no expert testimony, nor any

credible exhibit evidence, to support their opposition to the Project, choosing instead to cast insubstantial – and unsubstantiated – darts of doubt at the Project and at GRU itself. The simple fact that GRU will have higher reserve margins than its planning target minimum of 15 percent for the first 10 years of the PPA's term does not negate the fact that the Project will, in fact, enhance GRU's system reliability, nor does it negate the many additional reliability, economic, regulatory hedge, energy security, and environmental benefits that the Project will provide to the Gainesville community. Thus, the overwhelming preponderance of the evidence in the record of this proceeding supports the conclusion that the GREC Project meets the statutory need criteria in Section 403.519, F.S., that it promotes the State's renewable energy policy goals set forth in Sections 366.91 and 366, 92, F.S., and that it promotes the public interest. Accordingly, based on the evidence, the Commission should grant the requested determination of need for the Gainesville Renewable Energy Center.

ISSUE 8: Should this docket be closed?

GRU/GREC: *Yes. This docket should be closed after expiration of the time for filing an appeal of the Commission's final order granting the petition for determination of need.*

Respectfully submitted this 13th day of May, 2010.

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CERTIFICATE OF SERVICE

I HEREBY CERTIFY that a true and correct copy of the foregoing has been served by electronic mail and hand delivery (*) or U.S. Mail this 13th day of May, 2010, on the following:

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