BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

SUPPLEMENTAL TESTIMONY OF RICHARD D. BACHMEIER

ON BEHALF OF

GAINESVILLE REGIONAL UTILITIES AND

GAINESVILLE RENEWABLE ENERGY CENTER, LLC

DOCKET NO. 090451-EM

MARCH 15, 2010

Q. Please state your name and business address.

A. My name is Richard D. Bachmeier. My business address is 301 SE 4th Avenue, Gainesville, FL 32601.

Q. By whom are you employed and in what capacity?

A. I am employed by Gainesville Regional Utilities ("GRU") as the Electric System Planning Director.

Q. Please describe your responsibilities in that position.

A. My responsibilities include the planning and execution of GRU's long-term electric supply and transmission strategies, oversight of GRU's long-range production cost projections, structuring and pricing long-term wholesale power contracts, and coordinating GRU's NERC Reliability Compliance program. I have authored requests for proposals ("RFPs") and developed the methodology for evaluating biomass generation projects. I have also participated in contract

negotiations for the Gainesville Renewable Energy Center ("GREC") biomass facility.

Q. Please state your educational background and professional experience.

A. I received a Bachelor of Science degree in Mathematics and a Bachelor of Arts degree in Economics from the University of North Dakota. I have a Master of Applied Geography degree from Texas State University (formerly Southwest Texas State University) and was admitted to Ph.D. Candidacy in Economics at the University of Texas at Austin where I have completed all coursework and examination requirements for the Ph.D.

Prior to joining GRU in 2007, I held positions with the Orlando Utilities Commission (OUC), TXU Energy, Enron Corporation, the Public Utility Commission of Texas, and the University of Texas at Austin. I have nearly 25 years of professional experience in the electric power industry encompassing industry restructuring, competitive issues, utility risk management, electricity pricing, and system planning. My specific areas of expertise include utility regulation, policy, and ratemaking; utility resource planning; environmental economics and policy; risk management; financial modeling and analysis; and product development and pricing.

I have presented expert testimony in more than 20 regulatory proceedings at the Public Utility Commission of Texas, and have written or co-written several research papers and publications. While on staff at the Public Utility

Commission of Texas, I was involved in policy development that assisted the Texas Legislature in the restructuring and deregulation of the retail electric market in Texas, and I was a contributing author of the 1997 report "Electric Power Industry Scope of Competition and Potentially Strandable Investment."

Q. What is the purpose of your testimony in this proceeding?

A. The purpose of my testimony in this proceeding is to address the specific questions of whether the proposed GREC facility will result in the stranded investment of any of GRU's assets, and whether that is a risk that GRU should attempt to mitigate.

Q. Are you sponsoring any exhibits to your testimony?

A. Yes. I am sponsoring two exhibits. Exhibit No.__ [RDB-4] is a copy of resumé. Exhibit No. __ [RDB-5] is a study performed by The Energy Authority ("TEA") entitled Market Value of GRU's Generation Portfolio.

Q. Please summarize the main conclusions of your testimony.

A. GRU and its ratepayers are not and will not be exposed to potential stranded investment of GRU's assets as a result of GRU's addition of GREC to GRU's energy supply portfolio through the power purchase agreement with Gainesville Renewable Energy Center, LLC ("GREC LLC"). The addition of GREC will increase the value of GRU's entire energy portfolio in the market, and the addition of GREC will actually increase GRU's ability to recover costs associated with the net book value of its existing assets.

Q. Why have you prepared testimony addressing the issue of stranded investment?

A. During the Florida Public Service Commission's ("PSC") Agenda Conference held on February 9, 2010, in discussing this docket Commissioner Skop stated that "...you have so much excess generation to begin with, and basically all that does is strand ratepayer investment with the excess generation." [TR 68, L11-14] In the context of the Commissioners' broader concerns regarding risks and risk mitigation, my testimony addresses the issue of potential stranded investment as a result of adding GREC, and whether there is any stranded investment risk associated with adding GREC to GRU's generating portfolio.

Q. Please define what is meant by "stranded investment" in the electric utility industry.

A. In a September, 2000 Florida PSC report "Key Aspects of Electric Restructuring and Their Relevance for Florida's Electricity Market," stranded investment is defined as "...assets reduced in value due to competition and is calculated as the difference between the net book value of the assets and their market value. Assets reduced in value for reasons not related to competition are not potential stranded investment." (Florida PSC Restructuring Report at page 27)

To further emphasize that stranded costs can only occur as a result of the transition from a regulated to a competitive market, the 1997 Public Utility Commission of Texas report "Electric Power Industry Scope of Competition and

Potentially Strandable Investment-Vol. III" defines stranded investment as *"...the historic financial obligations of utilities incurred in the regulated market that become unrecoverable in a competitive market."* (Texas PUC Strandable Investment Report at page 11, italics in original)

Q. Are GRU and its ratepayers exposed to potential stranded investment with the addition of GREC?

A. No. First, GREC itself cannot become a stranded investment because GRU will not own the facility. As for the potential stranding of GRU's existing assets, as defined above investment can only become stranded because customers of the utility chose an alternative supplier. If customers leave the utility and purchase electricity from another supplier, the original utility is left with debts for plants and equipment it may no longer need and without the revenue from the departing ratepayers that the plants were built to serve. Because the Florida retail electric utility market is not deregulated, GRU customers cannot switch electricity suppliers and leave the utility with stranded investment. The net book value of GRU's owned generating assets, i.e., the undepreciated capital investment associated with those assets, is currently being recovered in GRU's retail electric rates and wholesale power contracts, and GRU will continue to fully recover the costs associated with these assets. It is worth noting that most of GRU's generation assets are fully depreciated.

Q. You maintain that stranded investment can only occur when a regulated market is deregulated. Ignoring for the moment the absence of a

deregulated retail electric market in Florida, does excess generation necessarily result in "something like" stranded investment?

A. No. As mentioned above, GRU is recovering and will continue to recover the costs associated with existing generating assets from retail ratepayers and wholesale power contracts even if these assets become less utilized due to the addition of GREC.

Furthermore, the second condition for stranded investment in the above definitions requires that the market value of the assets in question be reduced below the net book value to the point where the remaining costs associated with the assets are unrecoverable. If GRU can recover the costs associated with the remaining net book value of less utilized assets in the market, the potential for "something like" stranded investment is minimal.

Finally, many of GRU's existing assets that could become less utilized due to the addition of GREC are some of the oldest units in GRU's generating fleet. As a result, these assets have largely been depreciated over their useful life, thus minimizing the remaining net book value that needs to be recovered.

Q. How would GRU recover the costs of less utilized assets?

A. In accordance with good utility practice, GRU is active in the wholesale power market and is continuously seeking ways to optimize its generating assets and minimize costs to its ratepayers. When the market price for power is greater than GRU's incremental cost of generation, GRU will increase generation and

sell into the market, thereby realizing margins that flow to the benefit of the entire system. If the market price is less than GRU's incremental cost of generation, GRU will reduce its own generation and make market purchases, thereby reducing costs to the utility and its ratepayers. To summarize, if any of GRU's existing assets become less utilized because of the addition of GREC, GRU can market the output of those assets and recover the associated costs as long as the assets have market value.

Q. Has GRU estimated whether its existing assets would have market value with the addition of GREC to GRU's generation portfolio?

A. Yes. At GRU's request, The Energy Authority (TEA) performed an analysis of the market value of all of GRU's resources both with and without the addition of GREC from 2014 through 2024. The question that the TEA analysis is posed to answer is what is the market value of GRU's energy supply portfolio with the addition of GREC?

The model that TEA employed is a proprietary economic dispatch model of the entire FRCC and Southern Company grid that includes outage schedules, transmission constraints, and operating constraints. TEA set up the model using load forecasts obtained through U.S. Energy Information Administration (EIA) reports and the EIA's Annual Energy Outlook (AEO) 2010 natural gas price forecast adjusted for regional differences in delivery costs.

The region modeled represents the actual energy market within which GRU operates. The model simulates GRU's energy market purchases and sales by optimizing the dispatch of the entire region. If GRU's incremental cost of generation is less than the incremental cost of the highest cost unit needed to meet the load of the entire region, GRU will sell energy into the market and generation from the highest cost unit will be decreased. Conversely, if GRU's incremental cost of generation is higher than the incremental cost of the region, GRU will back off its own generation and buy from the market until incremental costs are equalized.

The entire region was modeled first without GREC and then with the full 100 MW of GREC added to GRU's supply resources. The difference between the two scenarios represents GRU's net revenues from off-system sales, and therefore the change in the market value of GRU's supply portfolio as a result of adding GREC. The net increase in the market value of GRU's supply portfolio from the addition of GREC is summarized in Table 1 below.

The addition of GREC to GRU's supply portfolio actually increases the net market value for off-system sales from GRU's assets by almost $270 million over the period from 2014 through 2024. If discounted to 2010 at 4.2 percent, this yields a net present value (NPV) benefit to GRU of $182 million.

Table 1	
Increase of Net Market Value of GRU's Supply Portfolio for Off-System Sales from 100 MW of GREC	
Year	**Net Revenues ($000)**
2014	$22,275
2015	$16,886
2016	$18,090
2017	$19,606
2018	$20,862
2019	$21,546
2020	$24,391
2021	$26,469
2022	$29,155
2023	$33,132
2024	$37,119
Total	$269,531

Q. How does this modeling exercise relate to the issue of stranded investment?

A. The analysis shows that with the addition of GREC, GRU's entire energy portfolio will have increased value in the market, and that adding GREC will actually increase GRU's ability to recover costs associated with the net book value of its existing assets. The existence of a competitive retail electric market where customers may choose alternative suppliers is one condition for potential stranded investment. However, in the absence of a competitive market, something similar to stranded investment is theoretically possible if the market

value of a utility's generating assets would not allow the utility to recover the costs associated with the net book value of those assets.

Q. Does this conclude your testimony?

A. Yes.