BEFORE THE
GEORGIA PUBLIC SERVICE COMMISSION

In Re:	**)**	
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Georgia Power Company's	**)**	**Docket No. 28158-U**
Application for the Certification of	**)**	
The Conversion of Plant Mitchell Unit 3	**)**	
Into a Biomass Facility	**)**	

FINAL BRIEF FOR SOUTHERN ALLIANCE FOR CLEAN ENERGY

March 6, 2009

I. OVERVIEW

Southern Alliance for Clean Energy (SACE) commends Georgia Power Company (the Company), the Commissioners, and the Public Service Commission staff for their commitment to working to advance renewable energy in Georgia. While there is additional work ahead, SACE believes that the proposed conversion of Plant Mitchell Unit 3 into a Biomass Facility is a great step forward for the Company, signals an important message about the direction that our energy companies are moving, and should be approved by the Commission.

As proposed, this project will be one of the largest biomass plants of its kind in the country. It has the opportunity to serve as a lead project in biopower generation in the South. It is an opportunity for the Company to be a leader in the conversion of a facility, gain experience in biopower production, and serve as an example for other utilities if approved and implemented successfully. The Georgia Public Service Commission has the opportunity to lead in this arena with the approval and careful ongoing review of the project.

Southern Alliance for Clean Energy supports this conversion proposal for the following reasons:

This project is better for the environment. Biomass-to-electricity plants have less sulfur dioxide and nitrogen oxide emissions than coal-fueled electricity. Also, when the trees harvested for energy are re-planted, the project captures carbon emissions and helps fight global warming pollution.

The project is good for consumers. The converted plant would have lower fuel and operating costs in comparison to continued use of coal. The plant will diversify Georgia Power's energy mix by supporting greater renewable energy development, helping prevent potential rate increases. Further, it can provide "base-load" energy for use around the clock as compared to intermittent power.

This project will support on-going economic benefits in the state. Biomass energy projects can provide significant economic development opportunities for the region. Wood markets have been declining in recent years and jobs across the industry chain will be created and retained, in harvesting, processing and transportation of biomass fuel, as well as in the operations and maintenance of the facility. Based on SACE's expert witness testimony of Eric Kingsley, biomass electric facilities support between 2.4 and 5.0 jobs for each megawatt of installed capacity[1]. Further, the use of a locally derived fuel keeps money from leaving the local economy to pay for imported fuel, like coal.

II. CLARIFICATION OF THE BENEFITS OF THE CONVERSION

Sustainable Supply

Throughout the case, numerous questions arose regarding the potential availability of resources, competition for resources with existing traditional industries, and resource contracts. Based on Georgia Power's contracted research evaluation by Antares and SACE's expert witness testimony by Eric Kingsley of Innovative Natural Resources Solutions (INRS), we understand that there is more than sustainable supply of wood resources to support this project for the long term. Southwest Georgia is an excellent location to secure forest residue to support biomass energy production and the project can support sustainable forest practices.

At 96 MW, Plant Mitchell is in line with a number of facilities presently under development. The largest facility currently operating in the U.S. is Dominion's 80 MW Pittsylvania Station in Hurt, VA. While large, it should be noted that the wood use at this 96 MW biomass plant, estimated at 1.1 million green tons per year by Georgia Power Company, is well below the volume of wood used at many pulp mills in the United States. In order to capture economies of scale in capital cost, development cost and operations and maintenance, there is a trend in the biomass industry toward plants that are larger than the more typical 20-50 MW range; Georgia Power Company's plans at Plant Mitchell are in line with this national trend.

As outlined in Mr. Kingsley's testimony, the market for low-grade wood created by biomass electric facilities provides opportunities for foresters and landowners to manage land for high value timber products and creates options for meeting a wide range of landowner objectives. One of the longest-lasting benefits that markets for low-grade wood can provide is the improvement of the economics of private land ownership. In Georgia, seventy-five percent of the state's timberland is under the stewardship of family forestland owners or corporate owners not involved in the manufacture of forest products[2]. The ability of landowners to own and responsibly manage forests is a cornerstone of conservation. The short-term and long-term opportunities for forestry-based revenue help landowners recognize economic potential in

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[1] Innovative Natural Resource Solutions LLC and Draper Lennon, Inc. *Identifying and Implementing Alternatives to Sustain the Wood-Fired Electricity Generating Industry in New Hampshire.* Prepared for the NH Department of Resources & Economic Development. January 2002.

[2] Richard Harper and David Dickenson. "Forest Inventory and Analysis Factsheet: Georgia 2004." USDA Forest Service Southern Research Station and Georgia Forestry Commission. 2007.

long-term ownership of forestland, and in so doing deter the loss of forests through conversion, parcelization and fragmentation.

SACE is committed to supporting the sustainable use of biomass resources throughout the Southeast and believes that this project can support sustainable forest practices.

Environmental Benefits

Biomass energy can help achieve significant emissions reductions for a number of pollutants. Based on a similar project (50 MW coal to biomass conversion) by the Public Service Company of New Hampshire, the fuel switch, coupled with new technology to reduce emissions, resulted in significant reductions of NO_x and sulfur dioxide.

Also, as biomass displaces fossil fuel use, greenhouse gas emissions can be reduced. Biomass harvested from sustainably managed forests[3] is generally considered "carbon neutral". The carbon that is emitted from the combustion or other use of biomass is offset through carbon captured in new forest growth.

Economically Beneficial to Customers

This project can provide the benefits of biomass power in a least-cost manner. At the roughly $1,000 per installed kilowatt (kW) that is estimated for this project, the capital cost of this project is significantly lower than greenfield development and lower than that of similar projects. For example, the Public Service of New Hampshire's Schiller Station project, mentioned in Kingsley's testimony, cost $74.5 million for a 50 MW conversion, or roughly $1,500 per installed kW. Greenfield development that INRS is familiar with has a capital cost in excess of $3,000 per installed kW and can be significantly higher. Using the existing site at Plant Mitchell—through the utilization of the existing land, turbine, cooling towers, support buildings, turbine, interconnection and other assets-- provides a unique opportunity to develop renewable power in a least-cost manner.

Additionally, as Kingsley testified, the economic benefits of the Plant Mitchell conversion by the Company appear to be understated. Georgia Power Company has estimated that "by purchasing wood locally, the project will create 50 to 75 new jobs in Southwest Georgia and provide a significant enhancement to the local economy." Using a methodology developed while reviewing New Hampshire biomass projects[4], a 96 MW facility would be estimated to support between 230 and 480 jobs. Work completed in Massachusetts in 2007 estimates that

[3] "Sustainable management" as used here includes sustained yields of timber, where regrowth meets or exceeds harvest levels over the management rotation.

[4] Innovative Natural Resource Solutions LLC and Draper Lennon, Inc. *Identifying and Implementing Alternatives to Sustain the Wood-Fired Electricity Generating Industry in New Hampshire.* Prepared for the NH Department of Resources & Economic Development. January 2002.

165 MW of new biomass generation would support 774 new jobs[5]; extrapolating to 96 MW would mean that Plant Mitchell would support 450 jobs in the region. This job development for Georgia and for the area surrounding Plant Mitchell is significant and can provide unique opportunities for economic development in the region and state.

Technically Feasible

Again, the Public Service Company of New Hampshire's (PSNH) conversion of one 50 MW coal-fired unit at a 150 MW coal plant in Portsmouth, New Hampshire to biomass has a number of similarities to the Plant Mitchell proposal. It is regarded as a success by all involved and a model for investor-owned utility conversion from coal to biomass. This project has been recognized as a project that provided environmental and economic benefits to New Hampshire, developed a major new market for low-grade wood, and diversified PSNH's generation portfolio without harming ratepayers.

The vast majority of existing biomass plants use a stoker-grate boiler technology, the same boiler technology that has been proposed by Plant Mitchell. This technology has proven to be a reliable technology for the combustion of wood in the production of electricity.

Anticipates Federal Policy

This project is important for the company's long-range plan and impending national regulation of carbon dioxide emissions and renewable energy goals. Since the beginning of the hearings on this case, President Obama has made clear that he expects Congress to pass market-based legislation that puts a cap on carbon dioxide emissions. In his recent speech before a joint session of Congress, President Obama reiterated that he expects that legislation to take the form of cap-and-trade.

Also, Senators Bingaman and Udall have both proposed bills for a Renewable Electricity Standard. Both the U.S. Senate and House of Representatives have already held hearings on national renewable electricity standard, and leaders in Congress expect this legislation to move quickly over the next few weeks.

Regulatory shifts at the national level would have a substantial impact on Georgia's electricity sector and Georgia ratepayers. Moving forward with this facility will provide the company with a base of renewable energy, experience with producing renewable energy from biomass, and a better position from which to meet a future national renewable electricity standard if one is passed in the near term. Early action to develop renewable energy resources will reduce the potential risk of future non-compliance.

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[5] David Timmons, David Damery, Geoff Allen (University of Massachusetts, Department of Resource Economics) and Lisa Petraglia (Economic Development Research Group, Inc.). "Energy from Forest Biomass: Potential Economic Impacts in Massachusetts." Prepared for the Massachusetts Division of Energy Resources and the Massachusetts Deparrtment of Conservation & Recreation. December 2007.

III. RECOMMENDATIONS

- We recommend the Commission and the Company take further steps in the future to expand renewable energy projects such as Plant Mitchell that will diversify the Company's fuel mix and also better position the Company to develop a greater renewable energy contribution to its overall portfolio.

- We recommend that the company should conduct a comprehensive renewable energy potential study to understand the resource potential to develop and purchase generation and capacity from biomass and other renewable energy resources. Information gathered from the already completed analysis of the Plant Mitchell conversion should be included in such a study. The Commission should require that the results of such a study be incorporated into Georgia Power's 2010 Integrated Resource Plan.

- For this project, we recommend that Georgia Power include in their contracts that vehicles delivering biomass to the facility meet a minimum of Tier 4 diesel engine standards or be retrofitted with the best available control technology.

- Lastly, based on the infancy of the market and to ensure the environmental sustainability of the surrounding forest resources, we recommend that Georgia Power purchase biomass from forests certified by programs such as the Forest Stewardship Council (FSC) or similar programs that encompass a broad range of environmental and community values.

IV. CONCLUSION

The Plant Mitchell project is a powerful opportunity for the Company and Commission to demonstrate leadership in promoting renewable energy and sustainable economic development.

The company should be making every effort to reduce its carbon footprint by displacing or replacing its existing coal generation with lower carbon emitting renewable generation and energy efficiency and the PSC should support this step. Biomass to electricity is a long-term solution to climate change. These facilities are a lower risk option, economically and environmentally, in the carbon-constrained world of today. Biopower is better for the environment than other fuel types the company currently uses and is pursuing, including ongoing coal generation and expanded nuclear generation.

We urge the Commission to support Georgia Power Company's Application for the Certification of the Conversion of Plant Mitchell Unit 3 into a Biomass Facility. It is absolutely necessary to examine and consider meaningfully renewable resource options, such as biomass, that offer climate change solutions and environmental and long term risk benefits.

Further, this project is consistent with the recommendations from the Commission's order in Docket 24505 that reviewed Georgia Power's 2007 Integrated Resource Plan and determined that the company should pursue a plan to develop cost-effective renewable energy resources.

Southern Alliance for Clean Energy is committed to working with Georgia Power and the Commission to help bring this project to fruition in a responsible manner. It is an important opportunity to demonstrate renewable energy, using our own resources, in the state and throughout the region.

Respectfully submitted,

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