

**Ruth Nettles**

090451-EI

**From:** Robert Brinkman [robertwbrinkman@gmail.com]  
**Sent:** Monday, December 07, 2009 11:18 PM  
**To:** Filings@psc.state.fl.us  
**Subject:** Comments of Robert W. Brinkman regarding docket # 090451-EI  
**Attachments:** Why Gainesville Needs a Biomass Plant.doc

Please distribute the attached document to the Public Service Commissioners.

Thanks,

"S/" Robert W. Brinkman

12/8/2009

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Why Gainesville Needs a Biomass Plant:  
Comments of Robert W. Brinkman to be given at the PSC customer service  
hearing in Gainesville on 12/9/2009

Re: Docket No. 090451-EI

I have been directly involved in the community discussion over the last six years of Gainesville's future energy supply. During that time I founded a local organization, Citizens for Affordable Renewable Energy, specifically to oppose a 220 MW coal plant and advocate for renewable options. I have also served two terms on the Gainesville Energy Advisory Committee (GEAC) serving as chair for about two years. GEAC was created by the Gainesville City Commission as settlement of litigation by the Sierra Club of the proposal for Gainesville's first coal plant, Deerhaven 2. I also served two terms during this time period on the Alachua County Environmental Protection Advisory Committee serving several years as chair. I currently serve as chair of the Suwannee St. John's group of the Sierra Club Florida. However the following comments are to be taken as solely my view and not necessarily that of any of the above entities.

Over the last couple of years since the Gainesville City Commission directed GRU staff to pursue a biomass power plant rather than the original coal plant that had been proposed I have been asked several times such questions as is biomass really renewable? Or is it really carbon neutral, and what about the pollution from this plant? Several have also asked if we should not first invest all we can in conservation and then build another power plant if it is needed.

By definition a renewable energy resource must be replaced by natural processes and thus does not diminish in supply availability over time. Biomass represents stored energy from the sun through the process of photosynthesis. Indeed the Stewardship Incentive Plan for Biomass Procurement, part of the contract between GRU and American Renewables, specifies that suppliers must reforest their land. There is also an innovative certification incentive program which provides a premium payment of \$1.00/ wet ton for Forest Stewardship Council certification. The plan also bans the use of whole trees unless as part of a pre-approved forest management plan, such as to restore long leaf pine forests.

Some people assert that only carbon free power sources are truly renewable or clean, often there is a misunderstanding of carbon neutrality. I like to compare the use of fossil fuels to the transport of ancient carbon dioxide (CO<sub>2</sub>) from millions of years ago into the present day atmospheric carbon cycle. It is this temporal transport of CO<sub>2</sub> that increases the concentration of atmospheric CO<sub>2</sub> that we have been experiencing for the last 250 years. Burning biomass does release CO<sub>2</sub> but it does not increase the atmospheric concentration of CO<sub>2</sub> because the CO<sub>2</sub> released was taken up from the atmosphere as the biomass grew.

While other pollutants are emitted as biomass is burned in a power plant, more pollution particularly particulates, is released currently by the open burning of much of the biomass which will be used for fuel in the proposed plant. Indeed according to a presentation given by Ed Regan of GRU to GEAC several years

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ago burning biomass in a power plant emits only ten percent of the particulate pollution as does open burning of biomass.

GRU already contracts with Progress Energy (PEF) for 50 MW of baseload power from the PEF generation mix, primarily coal and nuclear sources. While GRU has enough generation to supply all of its native load and a 15% reserve margin for reliability without purchasing additional baseload capacity from PEF the use of much more costly natural gas generation would be required more of the time. This would increase the cost of electricity for GRU customers. Biomass represents the least cost form of renewable energy available to GRU in sufficient quantity to meet the need for additional baseload power. Gainesville has also committed to meeting the Kyoto Protocols target of a 7% reduction below 1990 emissions. To the best of my knowledge Gainesville is the only city in Florida which will come even close to meeting this target. Indeed Mayor Hanrahan is currently in Copenhagen where I am sure she is telling all who will listen what Gainesville is doing to meet the Kyoto targets.

The problem is despite the extraordinary efforts of Gainesville to reduce its carbon footprint; the Kyoto Protocols were always intended to be merely the starting point of the efforts needed to reduce global greenhouse gas emissions. Much more urgently needs to be done if disastrous climate disruption is to be avoided. While GRU initially plans to sell 50 MW of the capacity to other utilities the almost certainty of renewable portfolio standards and the regulation of GHG emissions would make this biomass power plant a wise investment as GRU could sell excess credits to other utilities offsetting some of the rate impact to GRU customers, of not only the biomass plant but the solar feed in tariff as well.

While solar power enjoys near universal support the perception that Gainesville could with enough investment generate all of its power from solar is simply not possible. First there is only enough un-shaded roof area in Gainesville to support somewhere around 80 MW of solar capacity. However this is no where near as much energy as the 100 MW biomass plant will produce primarily because solar panels only produce at near rated output for about 20% of the time where as the biomass plant is capable of producing power about 90% of the time. There is also the perception that it simply requires energy storage systems to alleviate the limitation on the hours that solar is available. The problem is energy storage systems reduce, not increase the total amount of energy available for use, there is after all no free lunch.

Gainesville needs the proposed biomass plant to reduce our carbon footprint fulfilling our commitment made in 2005 to meet the Kyoto targets for GHG emissions. We need economical cost effective base load energy to control costs and allow us to invest even more in other forms of renewable energy such as solar. We need this plant as a hedge against future regulations of GHG emissions. We need it to reduce particulate and other emissions in the region from open burning of biomass as a disposal method. This biomass plant will reduce pollution, save money, create jobs and help to provide a cleaner safer future.

“s/” Robert W. Brinkman