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Josh Levine: New biomass plant will promote healthy forests

By Josh Levine

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After much deliberation on how best to supply the community with energy in the coming years, GRU contracted with our firm, American Renewables, to construct, own and operate a new biomass energy facility — the Gainesville Renewable Energy Center (GREC).

As Gainesville moves down the path toward making an important commitment to renewable energy, I'd like to address some concerns that have been voiced about the availability of biomass material in the region to supply GREC and whether this biomass material can be harvested in a sustainable manner.

Arguments have been made that there are not enough forests in the area to support a project of this scale, or that our proposed biomass plant will create pressure to intensify harvesting activity to the point that the long-term health and productivity of local forests will be jeopardized. This is simply not the case.

According to the U.S. Forest Service inventory data, in the GREC supply area alone (a roughly 75-mile radius encompassing a minimum of 19 counties) there are more than 5.5 million acres of forests. Most of these forests are privately held, and on a yearly, sustainable basis, they currently generate more than 8 million tons of forest products.

In the process of harvesting this area's timber, approximately 1.5 million tons per year of logging residue is left behind. Logging residue consists of the tops and limbs of harvested trees which currently has no commercial value and is usually pushed into piles and open burned on site or left to rot. As an alternative, this logging residue can be burned in a biomass boiler with advanced emissions controls to produce useful, clean, renewable energy.

We expect that 75-80 percent of GREC's annual average biomass demand of 1 million tons will be met by the area's forests. This conclusion is supported by not only our own biomass assessment reports, but also by studies from independent industry professionals, consultants and academics.

In addition to logging residue, GREC anticipates receiving a significant portion of its forest-produced biomass material from pre-commercial tree thinnings.

The remaining 20-25 percent of GREC's biomass fuel will come from non-forest sources such as urban wood waste consisting of woody biomass waste generated by landscaping contractors and power line and roadway right-of-way clearance contractors, as well as used pallets and sawmill residue. It is important to note that GREC will not be sourcing all of its biomass demand from the region's forests.

Regarding the issue of the long-term health and sustainability of local forests: An examination of typical forest landowner objectives, as well as some consideration of the economics of biomass harvesting, shows that overharvesting simply to provide biomass fuel is very unlikely.

Literally thousands of landowners within the GREC supply area have chosen to establish and maintain forests on their property. Landowner surveys indicate that the nonmonetary benefits of forests are more important to most forest landowners than maximizing financial returns. In plain language, these landowners have a strong desire to preserve the rural nature of North Central Florida.

To argue that these forest landowners will compromise the values they place on their forest in order to extract some limited extra income via the harvest of biomass fuel seems improbable. This is particularly true when one considers that the single lowest value product that one can harvest from a forest is biomass fuel.

The biomass fuel GREC is proposing to utilize from the region's forests is primarily a byproduct of current forestry operations. GREC's demand for this low-value forestry product is not anticipated to dictate how landowners manage their forests.

Many forestry professionals contend that a bigger concern with the region's forests is a lack of proper forest management, leading to overstocked stands that are more susceptible to pest outbreaks, such as southern pine beetles, and wildfires. This is partly due to the lack of a market for undersized trees, and this is where biomass harvesting can provide a tangible benefit.

Thinning forest stands, that is, the removal of some of the trees before they reach commercial size requirements (i.e. pre-commercial tree thinnings), provides more growing space to the remaining trees and makes them less susceptible to damage. It also allows the remaining trees to more quickly achieve merchantable size for higher valued products such as sawtimber.

By providing a market for forest thinnings, GREC can provide a modest but significant push in the direction of greater productivity and improved forest health.

The Gainesville community has had the foresight to require stringent sustainability standards as part of GREC's power purchase agreement with GRU. These standards require all forest-derived fuel to come from forests where best management practices are in place, require harvested stands to be reforested, and offer a premium for wood harvested from forests receiving independent certification of sustainability.

We applaud those in the Gainesville community who have taken the importance of the region's forest resources to heart and worked with utility staff on the specifications in the PPA that ensure the sustainability of this valuable resource. They include members of the environmental community, landowners, forest industry professionals, and others, and they deserve credit for their initiative.

They have taken the time to consider the available information and have concluded that while sustainability cannot be assumed, it is achievable with some attention and effort.

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