

Eucalyptus Utopia

Dow will begin to use eucalyptus in Brazil, as the country continues to make meaningful use of the tree in its bioenergy sector.

By [Lisa Gibson](#) | January 25, 2011



BIOMASS IN BRAZIL: Dow's Aratu Complex will begin using eucalyptus feedstock in 2013, adding to a multitude of other Brazilian companies utilizing the resource.
PHOTO: DOW CHEMICAL CO.

Brazil has more than 100 years of experience with eucalyptus biomass fuel, but Dow Chemical Co. will be the first in the chemical/petrochemical industry there to utilize it.

Dow has signed an 18-year supply agreement with Energias Renovaveis do Brazil, which will invest, install and operate a 13-megawatt plant next to Dow's Aratu Complex in the Bahia State in northeast Brazil. The plant, which will replace natural gas-fired boilers, will supply 100 percent of steam requirements for the Aratu site's propylene oxide and propylene glycol operations and 30 percent of the requirements for the chlor-alkali and hydrochloric acid production units.

Dow and numerous other Brazilian companies chose eucalyptus because Brazil has enormous resources to grow and use the tree for bioenergy. It is the world's largest producer of eucalyptus, and the Bahia State is one of its most productive areas.

"Over the past four years, fuel prices have increased sharply in Brazil and biomass provides a proven, abundant and secure source of low-carbon energy," says Doug May, vice president of Dow Energy & Climate Change. The use of eucalyptus is attractive not only in Brazil, but also in Latin America and other regions, he says. In addition, Energias Renovaveis do Brazil has three projects under development in the Bahia State, and ongoing studies into three more possible projects.

For its Aratu Complex, ERB is establishing a 9,500-hectare (23,475 acres) eucalyptus plot about 150 kilometers (93 miles) from the site, to be used for fuel purposes. ERB will be responsible for planting and managing the plantation, and harvesting, transporting and chipping the wood logs. ERB will invest about \$90 million in the plant, which should begin operation in 2013. The cogeneration facility will reduce carbon dioxide emissions at the site by 180,000 metric tons

annually, and save 200,000 cubic meters of natural gas per day, May cites.

Not only does eucalyptus represent a massive bioenergy opportunity in Brazil, but experts say it also has potential in the Southern U.S. In fact, David Nothmann, vice president of business and product development with ArborGen LLC, says eucalyptus represents the greatest potential of any hardwood tree to produce large amounts of biomass in the Southeast U.S. Eucalyptus is purpose grown on plantations for biomass in almost 100 countries because of its rapid growth rate and ability to withstand climate extremes, disease and insects, according to ArborGen.

And the tree can hold its own against other renewable energy options, according to May. "Traditional alternative energy sources such as wind and solar cannot provide the necessary heat in the form of steam needed at Aratu," he says. "With sufficient local supply, woody biomass is an ideal renewable solution."

—*Lisa Gibson*