U.S. Forest Service Helps Fund Harvard Forest Green Energy Project

Posted by Steve Marshall, Assistant Director of Cooperative Forestry, U.S. Forest Service, on March 19, 2014 at 10:45 AM

Harvard Forest staff renovated a pole barn to house the boiler room and modern wood shop. The new boiler room (left side of the building) contains three wood gasification boilers, a 2,500-gallon thermal storage tank, a propane-fired backup boiler and associated pumps and system controls. The sloped roof on the left of the building provides a dry storage area for racks of firewood prior to loading in the boilers. (U.S. Forest Service/Rob Clark) I recently had the opportunity to speak at the dedication ceremony for the Harvard Forest Wood Energy Project, an exciting venture partially supported by the U.S. Forest Service Northeastern Area. This woody-biomass heating system will support 50,000 square feet of the central campus buildings and five dormitories, replacing fuel-oil with renewable wood chips that come from Harvard Forest, a 3,500-acre laboratory and classroom in Petersham, Mass., and owned by Harvard University.

A unique aspect of this project is that it is at the heart of a long-term forest carbon research project. Not only are carbon flows in the Harvard Forest where the wood for the new energy system will come from already being closely studied, but now every aspect of the new installation will be very closely monitored and studied as well. This high-profile project will help spread the word on just how efficient and cost effective woody-biomass energy can be, but it’s also just the latest in a recent U.S. surge in the use of this form of green energy.

Since 2005, the Forest Service’s woody biomass utilization grant program has helped start more than 160 woody biomass projects that support rural economies and have created hundreds of new jobs. In 2012 and 2013 alone, the program funded the start-up costs of 30 facilities across the United States. These projects remove and use excess wood – the same trees and brush that fuel the catastrophic wildfires we’ve seen in the last several years – from our nation’s forests. They also use material from invasive pests like emerald ash borer and the Asian long-horned beetle. The program has contributed to the restoration of more than 500,000 acres and removed and used nearly 5 million green tons of biomass. The results: small businesses, non-profits, tribes and local state agencies have better access to green, affordable energy, and we help improve the health of our forests.

The clean, efficient use of wood instead of burning piles of debris improves air quality and thus human health by reducing the amount of fine particles released into the atmosphere by more than 99 percent. Additionally, the use helps mitigate climate change by reducing the amount of fossil fuel consumed. Wood energy at a new power plant in Gypsum, Colo., will use hundreds of thousands of tons of bark-beetle killed trees in the area.

At $10 per ton for burning piles, it will save the Forest Service, state and private landowners more than $1 million per year. As we look toward America’s future of green energy and energy independence, biofuels are an important part of the equation. The Harvard Forest project is an important step in the right direction, and it’s my hope that it will help spur more projects in public and private forests across the country. –

See more at: http://blogs.usda.gov/2014/03/19/u-s-forest-service-helps-fund-harvard-forest-green-energy-project/#sthash.GDt2lw4b.dpuf