

# Rural COOPERATIVES

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co-op leadership roles

# Utility Co-op Connection

## Virginia co-op's biomass project creating jobs, along with renewable energy

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A biomass generation project currently under construction by the Northern Virginia Electric Cooperative (NOVEC) in Halifax County will not

only increase the use of renewable energy to provide electricity, but it is expected to create several hundred jobs in a portion of the state grappling with high unemployment. NOVEC Energy Production, Halifax County Biomass is expected to generate up to 6.5 percent of the cooperative's electrical output by 2014, enough to meet the needs of about 16,000 residential customers.

"Investment in infrastructure is an investment in American workers," says Jonathan Adelstein, administrator of the Rural Utilities Program of USDA Rural Development, which helped finance the plant. "This project shows how financing utility projects pays off, both now and in the future."

### Plant to generate 50 megawatts

The NOVEC biomass project, on the site of a former Georgia-Pacific manufacturing facility, will burn waste wood to generate nearly 50 megawatts of electricity. The waste will come from regional logging operations and the forest products industry near South Boston in Halifax County, along Virginia's North Carolina border.

Halifax County reached its peak



*An artist's depiction of a new biomass power facility being developed by the Northern Virginia Electric Cooperative.*

population of more than 41,000 in 1950. Today's population of just over 36,000 is about the same as it was in 1900.

Stan Feuerberg, NOVEC president and CEO, says the construction has already brought more than 100 jobs to the economically hard-hit region. He estimates that the project will bring 250 construction jobs to the Southside Virginia area during a two-year period. Once the system becomes commercially operable, the plant will require about 26 permanent jobs and 40 indirect jobs in forestry, logging and transportation.

"We expect to see an increasing number of indirect jobs harvesting waste wood," Feuerberg said. "As much as 30 percent of the tree is left after it is used for construction or furniture. Harvesting, chipping and trucking industries will likely grow."

The biomass plant will be cooled with "grey" water from a nearby wastewater treatment facility to help conserve the amount of potable water needed for plant operations. Biomass —

such as agriculture and forest residues, energy crops and algae — are considered renewable energy sources.

According to data from the U.S. Department of Energy's Energy Information Administration, over one-half of renewable energy consumed in the United States in 2007 was generated by biomass. Many rural electric cooperative utilities use a variety of fuel sources to provide electric power. This diversity helps maintain a reliable and affordable electric supply by utilizing regional resources.

"This project is a win-win for all parties," says Feuerberg. "It will provide NOVEC with a renewable source of electricity and increase logging and trucking jobs for residents. Furthermore, it will improve the tax base for the community."

### Carbon-neutral plant

There is an abundance of wood waste within a 75-mile radius of the

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facility. Feuerberg says that as wood decomposes, one of the byproducts is methane, which is "24 to 25 times worse for the environment than carbon dioxide. One of the major attributes of this facility is that it will be carbon neutral — it will not add more carbon dioxide to the environment than what is released naturally."

Ash, another byproduct of the plant, can be returned to the forests as fertilizer, he said.

Construction of the plant, which is expected to cost \$178 million, is on schedule. Funding includes a \$90 million loan from USDA's Rural Utilities Program, equity funds and state and federal grants. NOVEC will begin testing the plant in 2013, and by

September the plant is expected to begin commercial operation.

"The sun doesn't always shine and the wind doesn't always blow," notes Feuerberg. "The relative economies of wood biomass are less expensive than solar and wind energy."

Feuerberg says that reliability was a key factor in selecting biomass as a renewable fuel source. "If you're operating near peak capacity on a hot, humid summer afternoon, you cannot be certain of meeting system demand with wind or solar as the source. Virginia does not yet have renewable-energy mandates, but we're anticipating a federal renewable standard. Our goal is to be ahead of the curve. Trying to catch up to a standard can be costly. This is another way to diversify our resource mix."

Response by NOVEC members, many of whom have encouraged greater use of renewable energy, has been positive.

Did being a cooperative facilitate approval of the project? "Our board members recognized this was an easy decision to make after hearing from our members through our survey process," Feuerberg says. "The feedback indicated that many members link environmental stewardship with good corporate citizenship."

Feuerberg contends that further evidence of the project's popularity was when they held regulatory hearings, no opponents testified.

"There are so many favorable attributes associated with this project that it was a simple decision," Feuerberg explains. "We have satisfied our customers' expectations, added renewables to our portfolio and diversified our resource mix in the process. We've become more competitive, provided jobs and helped improve the local economy." ■

# Now Available

"The Nature of the Cooperative" is a collection of five articles reprinted from *Rural Cooperatives* Magazine that examine cooperatives and their place in our free-market economy.

Author Charles Ling explains co-op economic structure, theory and practice, as well as the economics of cooperative marketing and co-ops' relationships with other market participants through their roles in transaction governance.

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