



Name of Plant:	Glen Ferris
Year in Service:	Since 1900
Horsepower of Turbine:	Eight Turbines 2 large- 6 small
Annual Energy Gen.	will generate enough electricity to power 4,500 homes, said officials of Brookfield Renewable Energy Partners, which owns and is rebuilding the plant.
Water Conditions:	Kanawha River
Bearings Used:	Lignum-Vitae was and still is the bearing of choice
Longevity of Bearing:	Lignum-Vitae used for decades

GLEN FERRIS — The first rebuilt and renovated units in the hydroelectric plant at the falls of the Kanawha River should be generating electricity as early as next week, and the entire plant could be on line next spring.

The two largest generators in the 112-year-old plant have been rebuilt and reinstalled and are now in performance testing. The six smaller units are being rebuilt in Michigan. When the work is done, the plant will generate enough electricity to power 4,500 homes, said officials of Brookfield Renewable Energy Partners, which owns and is rebuilding the plant.

"It's always more difficult to start with something and fix it than to start from a green field, and so a lot of challenges were taking the turn-of-the-century technology and deciding what you're going to use and what ends up being replaced," said David Barnhart, general manager of Brookfield's Mid America Regional Operations, which is based in Montgomery.

Brookfield is spending \$25 million to renovate the old plant. It kept the old dam and the old buildings, but just about everything else was removed and either upgraded or replaced.

The plant was closed by its previous owners in 2003 after more than 100 years of operation, most of which was spent providing power to nearby ferroalloy industries. Brookfield started the renovation in June 2010.

All eight turbine generators — two large ones and six smaller ones — were removed and shipped to Michigan for upgrading. A new access bridge, upgrade of the overhead cranes in the two powerhouses and the installation of new step-up transformers, generators and controls were included in the project.

And one other thing was included. About 15 years ago, the street lights along U.S. 60 in Montgomery. On Dec. 13, new lamps installed by Brookfield were lit for the first time. Tom Deedy, vice president of U.S. operations for Brookfield, said, the decision to restore these street lights was a natural extension of the company's investment in the Glen Ferris hydropower facility.

"Both the lights and the hydro station played an important historical role in Glen Ferris' history, and they will now be a part of its future, too," he said.

Gov. Earl Ray Tomblin was on hand for the lighting of the lamps and commented on what the resurrection of the hydropower plant means to West Virginia.

"What the Brookfield plant will do, with the addition of the hydropower produced here at the Glen Ferris plant, will definitely help us with our energy portfolio act which we passed a few years ago, which says that by 2025 that 25 percent of our electric must be renewables or alternative sources of fuel," Tomblin said.

The total generating capacity at Glen Ferris is about 5.5 megawatts. The two large units produce about 1.8 megawatts each, and the six smaller units combined will produce about 2 megawatts total.

Barnhart said the plant has no one dedicated customer. The power produced there will go into the regional grid, he said.

Over the life of the project, about 100 people worked there, but the largest on site at any one time was about 30, Barnhart said. Workers put in more than 60,000 man hours of work without a single lost-time accident

