



Hydroelectric Energy Gets Green-Light from Utility Giant

December 21, 2007, by Kristin Espeland

Renewable energy isn't as affordable-yet- as fossil fuel energy. But the growing green power market could help offset the cost, and encourage new green power development. That's what's happening for a small hydroelectric plant on the Kentucky River. WFPL's Kristin Espeland reports.

The first time water flowing over the Lock 7 dam near Harrodsburg was spun into energy was 1927. Electricity flowed from this [hydroelectric plant](#) for the next 72 years, until the generators fell into disrepair... and its owners abandoned it around 1999. Enter David Brown Kinloch, president of Lock 7 Hydro Partners.

Inside the plant's generator room, high above the churning water, he says the plant's owners had given up.

"Actually they wanted to tear it down... and we stepped in and bought it from them... and are in the process of getting it completely running again and modernized."

Since then, he's restored two of the plant's three generators, which, in 1927, he says were the top of the line. Today, these iron behemoths look like giant vintage spaceships. And Kinloch runs between them and the more modern, 1980s, control panel like a mad scientist. As he powers up the first unit, Kinloch explains what's happening far below us.

"The water goes past a propeller, and the propeller turns, and it's hooked to a 40 foot shaft. The shaft comes up here into the generator room and directly connects to the generator. And each of them is capable of putting out 680 kilowatts."

When the three generators are fully up and running, they'll produce enough electricity to power about a thousand homes. That energy zips across the river and enters the grid at Salt River Electric. You can't buy this power directly, but you can buy a block of green energy from [LG&E](#) or KU for 5 bucks a month. It's part of a young but growing industry called [green energy](#)



[marketing](#). Three utilities market green power in Kentucky, but they've been buying mainly landfill gas or wind power. Despite the fact that there are 7 hydro stations in Kentucky, this is the first time a utility is marketing hydro power as part of their green energy program. LG&E and KU energy signed on with another company called 3Degrees, which buys and sells [renewable energy credits](#). 3degrees spokesman, Gabe Petlin.

“It’s a way to verify that one MWH of renewable energy has been created, generated, and then delivered to the grid. And each time a MWH of clean renewable energy has been delivered to the grid, there’s one less MWH of polluting power needed.”

3degrees has agreed to buy one certificate from the Lock 7 station for every megawatt hour of energy it produces. That’s revenue David Brown Kinloch can use to keep repairing the aging plant. 3degrees will then sell these certificates to LG&E and KU. The idea is both to offset the effects of polluting energy as well as to finance a renewable energy project. But the utilities have to convince customers to sign up for the program. Petlin says that’s where his firm fits in.

“One of the biggest unknowns for a utility in this is how much demand is here. So how do they know how many certificates they should buy. So we guarantee to deliver certificates to them at a fixed price.... No matter what their demand is.”

And then Petlin says they go shopping for those certificates, on behalf of the utility. Lock 7’s hydroelectric project fit the bill. That’s in part because it’s local. And because it’s been certified by the Low Impact Hydro Institute. Up on the plant’s roof, Kinloch says he believes there’s never been a better time for hydroelectric power. He says it used to be difficult even to get utilities or developers to talk to him. But attitudes have changed.

“We’ve been doing this about 20 years and it’s just in the last years that things have turned around with concerns about the environment, concerns about global climate change, that it really been to the point where it looks like we can make a go of it.”

To do that... Kinloch will need to sell as many certificates as possible... and hope utility customers sign up for the program.

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