

Town water plant hydro operating

NEAL P. GOSWAMI

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BENNINGTON -- A hydroelectric generator inside the town's water filtration plant is online after several years of planning.

A turbine has been installed in the main line that draws water into the plant from the Bolles Brook. About 1,300 gallons of water per minute passes through the turbine at peak use, creating about 15 kilowatts per hour, according to Michael Maloney, an engineer with Soar Technologies, who designed the system specifically for the water plant.

Maloney was instructing town employees Thursday on how to monitor and run the generator, believed to be the first of its kind in Vermont.

The generator will supply about 10 percent of the plant's total energy use during peak use of the plant, and up to 50 percent during off-peak hours. Bennington Community and Economic Development Director Scott Murphy said the town expects to break even in five to seven years.

The total cost of getting the generator online is about \$152,000. A \$63,000 grant from the Vermont Department of Public Service Clean Energy Development Fund advanced the project.

Murphy said a generator capable of producing more than 15kw of power was not feasible because it would have required additional state and federal approval. The process was already long enough, Murphy said.

"We're glad that it's over. It was a long process," Murphy said. "We want to get a champagne bottle and break it over it."

Town officials hired a consultant in 2006 to complete a feasibility study on the project. The consultant was rehired to guide the town through the extensive permitting process that involved the Vermont Fish and Wildlife Department and the Army Corps of Engineers. The project also required permission from the Federal Energy Regulatory Commission.

Murphy said the amount of work needed to bring the project to fruition was remarkable because it had no impact on anything outside the plant.

"We're inside our own building. We're not disrupting the flow of water at all. We're just dropping a simple turbine into the flow of water inside our own building," Murphy said.

He said town officials are still evaluating whether the extensive process was worth it.

"I think that's something we're going to sit down and evaluate because it was very time consuming," he said. "We can put down on paper how much it cost, but how about time of employees and in-kind services?"

A streamlined process would "absolutely" make it worthwhile for other municipalities, he said.

Maloney said such generators grew in popularity in the 1980s, but interest declined when energy costs dropped. The recent spike in energy costs has created new interest, he said.

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"I'm hoping the green thing continues it on," Maloney said.

Maloney said cutting out the need for Fish and Wildlife officials to approve such projects that do not directly impact waterways would encourage more such projects.

"All we're doing is cutting the pipe and recovering the energy that's there to recover," he said.

Contact Neal P. Goswami at ngoswami@benningtonbanner.com

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