



## Going off the grid: Property owner installs turbines in Summit Creek

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By Jay Patrick |

A Smithfield Canyon property owner is taking the power into his own hands.

Stillwater Farms, a ranch about 2 miles up the canyon used for cattle grazing and horse-riding training, is about to go off the grid thanks to two little water wheels being spun by the waters of Summit Creek.

"I just kinda thought, 'Hey, let's make some power, be a little more independent,'" said Stillwater Farms owner Gordon Wood, a 57-year-old Logan resident, when he learned of micro-turbines installed on creeks powering homes.

At about the same time - two years ago - local civil engineer Danny MacFarlane began carving out a niche doing micro-turbine work. The two found each other and laid plans for a micro-turbine project at the farm - on Tuesday electricians wired up the turbines.

Here's how it works: 4,000 gallons per minute is diverted from Summit Creek through a pipe, which runs about 50 feet underground before dumping into a cement vault containing the turbines. The water runs through the vault and into a pipe that takes the water back to the creek. The turbines can generate a maximum of 1 kilowatt per hour - together enough to power two homes. Two more turbines will go into the vault in the future.

Power produced that Wood doesn't use goes out on the grid and he gets credit for it from Rocky Mountain Power.

Given current electricity prices, it will take 20 years for Wood to break even on the \$80,000 project. So he's not going to save money anytime soon, but Wood said the project's worth it for the sake of generating clean power and lessening, albeit to a minute extent, the country's dependence on coal and oil.

"I just thought I'd do my part," he said. "If everybody did a little bit then maybe we'd be more self-sufficient," he said, noting his luck in having a power source running across his property.

MacFarlane, who owns the Providence-based firm Civil Solutions Group, has completed a few micro-turbine projects in the area now and has done feasibility studies and worked up drawings for several potential clients looking to juice their homes using the creeks running nearby.

With a big upfront bill, slow payback and a lack of big federal tax credits afforded other types of renewable energy projects, MacFarlane said: "You have to have a client that is really committed ... it's about the principle."

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