

Micro-hydro Capabilities

Gardner Energy has been designing and installing micro-hydro systems for the past 18 years and has installed 20 micro hydro systems in the intermountain west. Micro hydro power, just like solar power, can be designed for grid-tie with net metering, off-grid and grid-tie with battery backup. Micro hydro systems are typically designed to meet the customer's needs even though at times the potential exists to generate far more power than is needed. Because hydropower operates 24 hours a day a small system can provide enough energy for residential or small commercial customers.

Case Study:

Mark Thaemert Hydro, Paonia, Colorado

- 6 kW off-grid hydroelectric system
- 65 feet of head
- 800 gpm

The hydroelectric system provides power and energy to a remote home supplemented by an existing solar electric system. Excess energy from the system is used to preheat water for a radiant floor heating system. Additional excess energy is also shunted by relays to radiant floor heaters placed by the owner. The owner is a contractor and much of the plumbing and underground vault work was completed by himself with little oversight.

