

Solar Powered Pump a First in Eastern Montana

A new type of livestock water system has been developed by Donald Miller on his ranch 25 miles southwest of Glendive. Don had a 1,000 acre field of rangeland with a spring and a well near the north end. The spring and well both went bad in 1981. Also, the range in the north end of the field was overused and the grass was untouched in the south end.

There was an old well in the south end that would be usable with only a gasoline or propane powered pump. Due to the daily maintenance of these types of pumps and the five mile distance of travel to check on the pumps each day, Don decided to look into some other type of system. He first considered running electric power to the site but the cost was very high both for installation of power lines and yearly electric costs.

Miller then decided to try a solar powered system he had heard about from a well drilling company. He liked the idea

and installed a system with 8 solar panels which produce electricity that is stored in two 225 amp batteries. The batteries power a one-half horse power, 24-volt electric motor which operates a screw-type pump. A timer, regulator, and a float switch are used to start the pump and motor when the water level in the tank drops to a certain level. A large fiber glass tank, 2,200 gallon capacity, was also installed. The entire development was fenced to prevent livestock damage of the development. The pump produces 8 gallons of water per minute, which is enough to water 100 cows in that part of the pasture that had no livestock use in the past.

Livestock water is a very valuable resource in eastern Montana and this solar powered development has lots of potential there for helping ranchers get better distribution of livestock.

(Reprint from December 1981 Dawson County Conservation District Newsletter)



Farmers and ranchers on a 1982 range tour observing the solar powered livestock well project on the Miller Ranch. (SCS Photo)