

## Idaho utility entry into PV field may be a sign of things to come

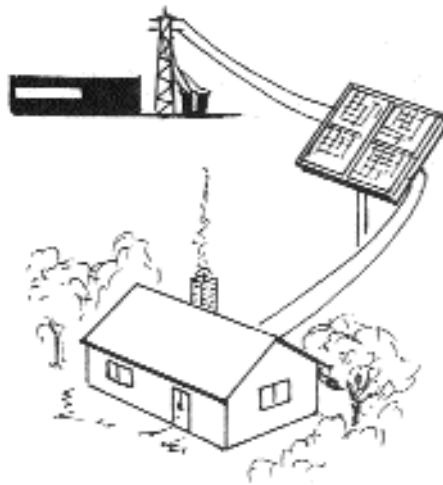
By Larry Elliott

For more than 10 years, most of us involved in the alternative energy industry, and people who have remained informed about this emerging technology, have seen steady progress, especially in regard to photovoltaics and their use in residential electrical systems. We have gone from a simple backwoods cabin system consisting of a few crude lights and perhaps a 12-volt TV, to systems that duplicate electrical power supplied by utilities. It seems only natural then that the utilities themselves would begin taking a serious look at this new technology.

Idaho Power and Light, an electric utility based in Boise, Idaho, has gone from taking a look to actually getting directly involved in this emerging new industry. In September of 1992 this utility received approval from the Idaho PUC to set into motion an innovative three year pilot program that most likely is the first in the nation. The utility will supply photovoltaic equipment to those customers who are not now served by Idaho Power's utility grid due to the high cost of extending electric lines into these remote locations. These systems will be complete packages, designed, assembled, installed, and maintained by utility personnel. The systems will not be sold outright, but will be leased to the customer and paid for on a monthly basis, similar to customers served by the utility power grid.

According to information supplied by the utility, a typical small residential system is projected to cost \$10,000 and have a monthly charge of \$160. In addition to the monthly charge, an initial payment equal to five percent of the total installed cost of the photovoltaic system will be

required prior to installation. Initially this program will be limited to six different applications. These six will be residential electric service, stock watering, sign lighting, general lighting, communication sites and cathodic protection, all of which are limited to remote sites. The utility has limited



the three-year program to an investment of five million dollars and individual PV systems to less than \$50,000.

Even though the program is less than six months old, it has already had a positive impact. A rancher in Jordan Valley, Oregon, who is located in their service district, has installed a 2800-peak-watt-water pumping system for stock watering and irrigation. The system has been in operation for several months now and delivers over 10,000 gallons per day. Total installed cost was \$42,000. In addition, an Idaho developer is building a residential subdivision with no utility connection, thanks to this program.

Although a round of applause is in order for the progressive and long term responsible thinking of this utility, not everyone sees this program as a positive step forward. Many dealers and installers of photovoltaic equipment expressed anger and frustration over

the utility's entry into the market. According to complaints filed with the Idaho PUC, one dealer expressed concern that Idaho Power is overstepping its "authority as a public utility" by selling power to non-grid customers. Similar and more harsh comments have come from others who are involved in the solar electric business.

It is this author's opinion that it is far too early to either heap accolades on the utility or retreat in fear that the small fry are going to be consumed by utility sharks. I do think that those of us who have been in this business for some time and have a good working knowledge of the industry as a whole, can make some well founded assumptions about the positive or negative impact of this program.

One positive outcome of this program will be the change in perception the public will have in regard to photovoltaic technology. No longer will solar cells be seen as simply power supplies for calculators and automotive battery maintainers. Utilities are in the business of supplying reliable and cost-effective electrical power, and the public perception in most cases agrees with that. Would they be expected to do less when supplying photovoltaic-produced electricity?

Also, anyone who has ever installed and used a stand-alone PV system has become far too aware of how grossly inefficient most every electrical appliance sold in this country really is. There are many pitfalls and obstacles the utility will be forced to overcome as they proceed with this program and their personnel become more familiar with the technology. If this and other utilities expect to make these programs a long-term commitment, they will have to serve as a positive influence on manufacturers to make efficiency a priority and not an afterthought.

Many people have complained that lending institutions have been quite reluctant to loan money for alternative energy equipment, demand instead that loan-seekers have their homes be connected to the grid. Idaho Power's

program could serve as an example of how much faith they have in the technology and is an acknowledgment that not all homes must be utility-connected to be safe and functional. Also, if Idaho Power or others of their size and wealth decide to sell this equipment directly, banks and other lending institutions may be forced to finance these systems.

I'm sure other utilities are going to watch closely the progress or lack thereof that Idaho Power makes in the next three years. If they succeed as they plan, other utilities will begin to look more favorably toward PV technology and may look into setting up their own programs, perhaps in the area of grid/PV intertie systems for businesses and homes.

I think that any negative impact the program will have will be short-lived and limited. Because of overhead, regulation by PUCs, and the lack of uniformity of system design, individuals and well trained and innovative dealers will be able to compete quite well. Unless the program evolves into

one where equipment is sold outright and perhaps financed by the utility at less than market interest rates, it will have a limited impact on the market.

Most people who opt to live in remote areas do so as much for the freedom from outside interference as they do for peace and quiet. Very few people will be willing to pay a heavy lease payment for several years, knowing they have no equity in the equipment. I am reminded of the comments made by one of my latest customers when we finally threw the breakers and solar electric power began flowing into the system. He looked out the window and in a loud voice said "Good God

Almighty, I'm free at last!" At first I thought he might just be quoting Martin Luther King, but then I realized he meant he was free from the utility bills he had been paying when living in the city.

For some people there is almost a patriotic or pioneer feeling that comes from this lack of utility umbilical cord. Even so, the lack of individual maintenance will appeal to some, and so will the lack of heavy up-front costs. Still, I feel that if we are all put on a level playing field, with no special-interest leverage, we can all benefit from the activity generated by Idaho Power's program.

For more information, contact Idaho Power Company at P.O. Box 70, Boise, Idaho 83707 or at (208) 853-8526.

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### A BHM Writer's Profile



Jennifer Stein Barker grew up in Vermont where healthy cooking has always been popular. As an adult living in the Cascade Mountains of Washington, she owned and cooked at Garrison Springs Lodge, a backcountry ski lodge. As her reputation for good food grew, she began writing for *Backwoods Home Magazine* in 1989.

When she met her husband Lance and moved to Oregon, Barker began working on a cookbook (soon to be available through *Backwoods Home Magazine*) and teaching whole foods cooking courses at the Blue Mountain Community College extension in John Day, Oregon.

The Barkers live on 40 acres in the pine woods of Bear Valley, Oregon, with three cats and a three-acre garden. She was last seen digging beets, turnips, and kolhrabi out from under the snow.