CARING FOR THE PEOPLE

Health, Safety and Security

Diabetes is more prevalent among American Indians than among any other ethnic group in the United States. In fact, nearly half of all Native Americans over the age of 40 have the disease, which is linked to poor nutrition, lack of proper exercise and other factors. Safe drinking water and refrigeration for medicines and for storing foods safely are other health concerns that can often be mollified by the use of photovoltaics.

Most Americans take access to telephone communications and emergency response systems (police, fire, weather, and other emergencies) for granted. But many American Indians cannot. In an effort to look after the safety and security of their people, some tribes have installed photovoltaic systems. This enabling technology can provide remote power to rural populations wherever they live.

◀ Solar-powered radio telemetry systems send signals via transmitters to provide clean drinking water to 47 tribal homes on the Nez Perce Reservation in Idaho. *(Photo courtesy Nez Perce Tribe)*

◀ Hoopa Valley Rancheria in California has a swimming pool with filtration and solar heating systems. Because the pool has an air dome, it can be used year-round to encourage physical activity as preventative medicine against health problems. *(Photo courtesy Hoopa Valley Rancheria)*

▶ Solar power lights the jogging track at the Pine Hill Health Clinic on the Ramah Navajo Reservation in New Mexico. The lights provide early morning, evening, and even night time use of the track as part of a diabetes prevention program. PV was the power choice even though the grid is nearby. *(Photo courtesy Sandia National Laboratories)*

A PV telecommunications system extends telephone service from Eureka to Weitchpec on the Yurok Reservation in northern California. Much of the Yurok Reservation is without basic electrical services of any kind. Some believe that a drowning and other fatalities might have been prevented had phone service for summoning medical assistance been available. Background photo shows the raging Klamath River, which runs through Yurok lands. Also depicted are the remote Miner's Creek telecom system and Schoolhouse Peak fire lookout tower that hosts one of the tribe's microwave telecom links. *(Photos courtesy Yurok Reservation and Sandia National Laboratories)*

"Since losing our traditional diet and sustainable lifestyle, we now experience numerous health problems..."

Lac Courte Oreilles Ojibwa Community College Renewable Energy and Sustainable Development Project

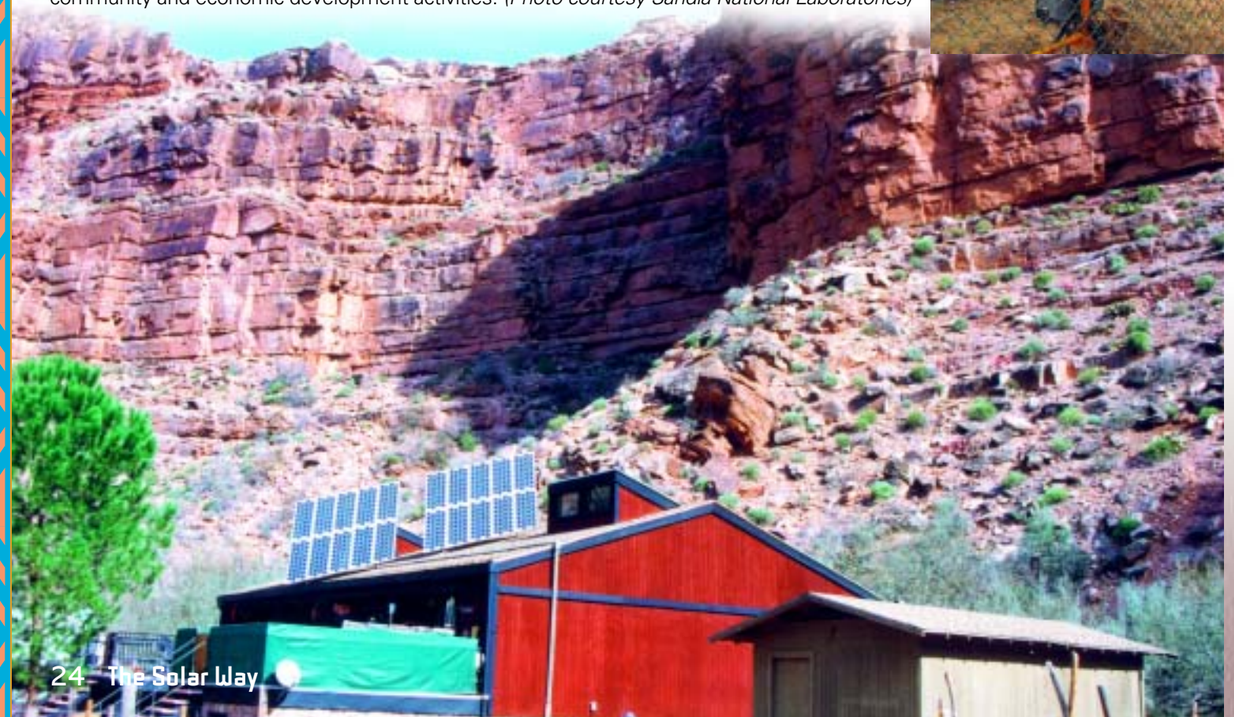
◀ Early warning systems for stream monitoring and dam safety on the Zuni Reservation help protect residents living in harm's way. *(Photo courtesy Zuni Conservation Project)*

Blue Lake Rancheria, California, uses solar for their air particulate monitoring program and accompanying weather station, which promote air quality and critical emergency response information. Tall Chief A. Comet, Environmental Programs Director, is exploring other applications that can be converted to solar power. *(Photo courtesy Blue Lake Rancheria)* ▼

► PV powers lights along pathways and at intersections at the Acoma-Cañoncito-Laguna Indian Hospital at San Fidel, New Mexico. *(Photo courtesy Solar Outdoor Lighting)*

◀ The large White Mountain Apache Reservation in eastern Arizona hosts four fire lookout towers, three of which include solar power. These and other PV-powered communications sites also facilitate tribal law enforcement. *(Photo courtesy White Mountain Apache Tribe)*

▼ The Havasupai Tribe, northern Arizona Grand Canyon area, has installed several photovoltaic systems. The systems provide electricity to facilities such as the jail and housing for police officers. The Havasupai hope to direct cost savings achieved by using solar toward new community and economic development activities. *(Photo courtesy Sandia National Laboratories)*



"Garden for Health" is a Rosebud Lakota program to promote exercise in the sun and air, and improved diet and nutrition toward the prevention of diabetes among tribal members. Photovoltaic systems pump water for homeowners participating in the home gardening program. *(Photo courtesy Center for Permaculture as Native Science)*

The Gwich'in Indians (Alaska) of Arctic Village and Venetie relied on noisy, polluting diesel generators, fueled at a high cost, until PV systems were installed on their community washeterias. The laundry facilities contribute to the overall cleanliness – and consequent good health – of the Alaska Natives in the two remote villages. *(Photos courtesy Earth Energy Systems, Ltd.)* ▼

▲ Refrigeration for medicine and food plays a key role in the health of people living in remote rural settings. Depicted here is a new, much more energy efficient refrigerator being prototyped on the vast Navajo Reservation, where as many as 30,000 homes may be unelectrified. *(Photo courtesy SOLUS Corporation, Nevada, and New Mexico State University, SWTDI)*

▼ This PV system at the home of Mr. and Mrs. Jackson (Dilkon community, Navajo Nation, Arizona) makes possible the first refrigerator they have owned in years. *(Photo courtesy U.S. Department of Energy, Golden Field Office)*