

# Light and water

Presbyterian regions live up to their names in Haiti project

CHRISTIE STORM  
ARKANSAS DEMOCRAT-GAZETTE

In rural Haiti clean water can be hard to find. Villagers often use gasoline-powered generators to filter water, but the fuel is expensive, and without proper care the generators eventually fail.

Two synods of the Presbyterian Church (USA) have joined together to provide clean water in a way they hope will be cheaper and more reliable — by using the power of the sun. The Synod of the Sun, a regional church body that consists of churches in Arkansas, Louisiana, Oklahoma and Texas, offers a program in Arkansas to train church volunteers to install solar panels that can be used to power water systems, schools, homes and even small communities.

They often partner with the Synod of Living Waters, which consists of churches in Alabama, Kentucky, Mississippi and Tennessee, to provide the water systems.

The Synod of the Sun project, known as Solar Under the Sun, was started through the efforts of Chris McRae, a member of Central Presbyterian Church in Fort Smith. He saw the need for clean water while working with the Haiti Education Foundation, another Arkansas-based ministry.

McRae said clean water is a rarity in the island





nation, even in the capital of Port-au-Prince.

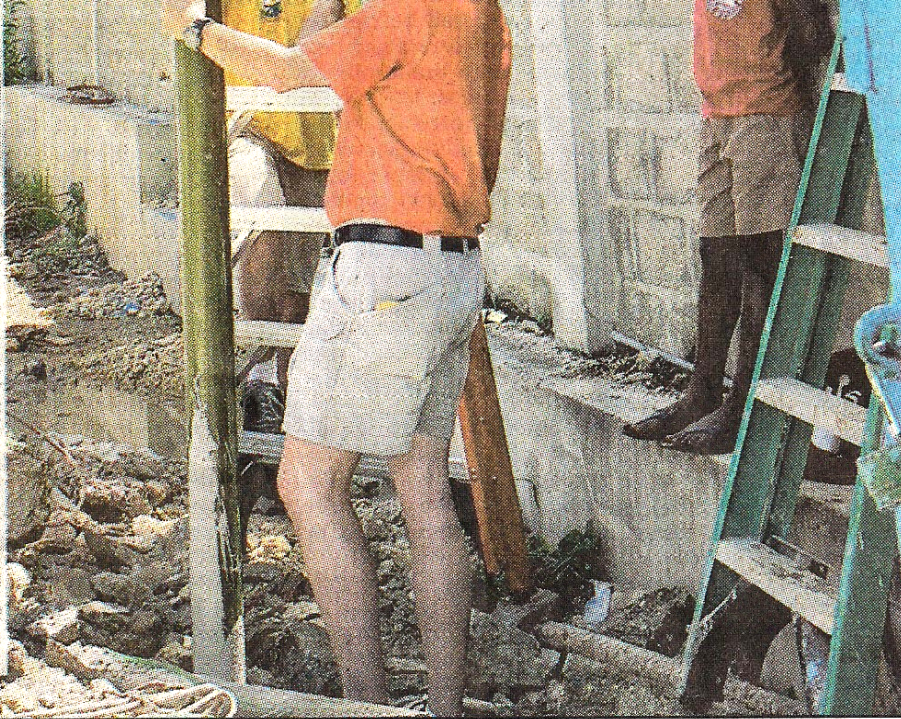
"I have yet to find clean water in Haiti," he said. "And the outbreak of cholera after the earthquake exacerbated the situation."

While working to improve water quality in Haiti through the Synod of Living Waters, McRae said he saw how solar power could be used to provide a stable source of energy, ultimately at a much lower cost than expensive gasoline-powered generators.

"We started experimenting with solar power and found out it was a very viable source to power the water filtration system," McRae said. "We could pay for the power supply side of the system in a year or a year and a half over the cost of gasoline, and solar panels are guaranteed up to 25 years."

There was one problem, though; they had no one at Clean Water U — the Living Waters outreach — to teach others how to install solar panels. McRae said the natural solution was to turn to the Synod of the Sun to develop a solar program. Synod leaders approved a training program and appointed McRae as executive director. He also teaches classes at the Solar School held at the Presbyterians' Ferncliff Camp and Conference Center in Little Rock. The

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**esbyterian Church** volunteers from Tennessee and Arkansas install a solar-powered water filtration system in Cherident, Haiti. Workers Jim Williams (atop the ladder) and Steve Edens (at the base) are from Elizabethton, Tenn.; Rollin Wycoff (behind ladder) is from Camden.

## Sun

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The first full year of training ended in May and the second year of classes begins with sessions in September.

"After this class, we will have been trained over 100 students," McRae said.

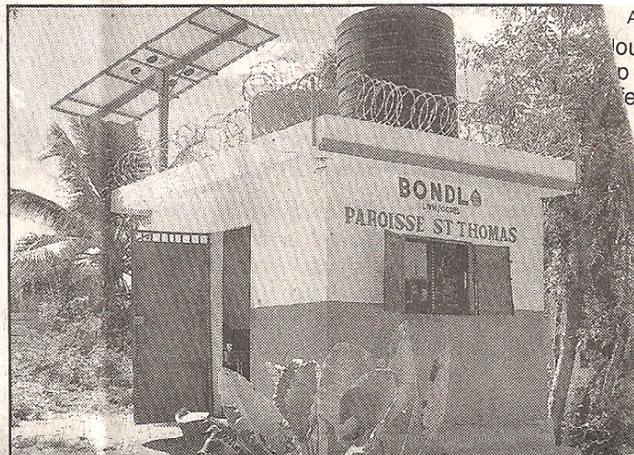
So far, teams from Arkansas and other states have installed 15 solar-powered systems in Haiti. Some are water filtration systems; others provide power for buildings used by ministries and missionaries. Most teams have been working alongside groups from Living Waters to install solar-powered water filtration systems.

"We're really excited about it," McRae said. "It's like grabbing a tiger by the tail, and it's really going."

Solar Under the Sun is overseen by a board of directors with members representing various states within the synod. A representative from the Synod of Living Waters is also on the board.

"It's a really wonderful connection between two projects," said Bill Galbraith, leader of the Arkansas Presbytery and a board member for Solar Under the Sun. "We still have two governing boards but we do a lot together."

Classes are held a few times a year and are titled Solar I and II. The first class focuses on trip management, developing relationships with locals and performing a solar needs assessment. The second is more technical, pro-



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**This Solar Under the Sun** installation in Archaie, Haiti, was the first of 15 solar-powered systems constructed in this Caribbean country.

send to countries around the world.

"Many people already have a country in mind where they need water and solar power," he said. "They can take a specific skill into that country and teach their in-country partners."

Those in-country partners are key, and showing them how to maintain the system is important, McRae said.

"We're teaching them to establish relationships to help guarantee sustainability," he said. "I've seen too many good intentions rust in the field after one or two years down the road."

McRae said circuit riders visit each Haitian installation once a month to make sure the systems are operational and maintained properly. The ministry also has a warehouse in Haiti with parts available

several churches. They share costs and establish relationships.

"That way a person from a small church without resources to raise the money can join up with other churches and pool resources," McRae said.

A water/solar system costs about \$7,500 to \$8,000. If a building is needed to house the equipment, the cost usually doubles. McRae said a building is necessary to protect the equipment from the elements and from theft, and to provide a distribution center for the water.

McRae said the installation process is fairly simple and can be done quickly. Teams usually plan for six days — two days of travel and four days to install the system.

While Haiti has been an area of major emphasis, Galbraith said teams have also

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ona is more technical, providing lessons on assembling and installing a small, off-grid solar system, as well as safety and maintenance.

"A graduate should know how to put together a mini power supply system," McRae said. "One to six solar panels can provide a lot of power. It's a mini power plant for a developing country."

Many students also take classes from Clean Water U through the Synod of Living Waters so they know both sides of the water system installation.

"It makes sense because we are going into really remote areas," McRae said.

McRae said the goal is to train individuals so they can return to their churches and form their own teams to

in Haiti with parts available for repairs. That way the Haitians don't have to wait for six months until another mission group arrives from the United States.

Galbraith said the school at Ferncliff has become widely known — and not only among Presbyterians.

"I think it's been outstanding," Galbraith said. "It's been an addressing of a long-term need, and it's gained momentum from the very beginning. I think we'll continue to have a growing impact as more and more people find out about it."

The school has attracted Methodists, Lutherans, Baptists, Episcopalians and Catholics. Many teams that travel to Haiti and other locations are made up of people from

branch and teams have also installed systems in Kenya and Ukraine. The Presbytery of Arkansas has been able to fund several projects with the help of grants from the denomination.

A team including members from Second Presbyterian Church in Little Rock, as well as others from Florida, Mississippi, Nevada and Tennessee, traveled to Haiti earlier this month. In a week's time the 12 volunteers installed four systems — two solar-powered water systems, a solar power system for a single-family home and a solar system for a missions-operated medical clinic.

The next Solar School will be Sept. 15-18 in Little Rock. Information is available online at [solarunderthesun.org](http://solarunderthesun.org).