**Case Study**

**Rural Electrification**

- **Central Region of Haiti**

“Doctors operating on women in labor can’t have the lights going out when a generator breaks down or runs out of fuel. It’s critical that we deliver top-notch energy storage, particularly to ensure that emergency and other procedures at nighttime can occur.”

**Rick Larue**

**Solar Electric Light Fund**

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<th>Location</th>
<th>Challenge</th>
<th>Solution</th>
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<td>Thomonde Hospital,</td>
<td>To provide reliable access to electricity for a rural hospital.</td>
<td>Off-grid solar system with Trojan batteries for storage.</td>
<td>Improved healthcare for 35,000 people in the region.</td>
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<td>Central Region of Haiti</td>
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**48 Trojan Premium Batteries**

**126 Solar Modules**

**35,000 People Served**
**LOCATION**

Located in the central region of Haiti, the town of Thomonde and its surrounding communities are home to more than 35,000 people who live without access to reliable electricity. Residents are primarily small farmers who earn their living growing sugar cane, rapadou, tobacco, bananas, and coffee.

**CHALLENGE**

Haiti, the poorest country in the Western Hemisphere, needs assistance to provide quality health care around the clock. Built in 2006, the Thomonde Hospital has 17 beds and is powered by a noisy, polluting, and expensive generator that is difficult to maintain. For these reasons, the generator is typically not used at night, leaving medical staff to perform procedures in the dark.

**SOLUTION**

A 29kW off-grid solar system with 48 Trojan SPRE 02 1255 batteries was installed. Trojan’s Premium line of flooded deep-cycle batteries have a 7+ year life-span and are specifically engineered to withstand rigorous conditions of renewable energy applications.

**SYSTEM SPECIFICATIONS**

- Batteries: (48) Trojan SPRE 02 1255*
- Inverters: (4) Outback VFX3648
- Solar Modules: (126) SolarWorld 230W
- Charge Controller: (6) Outback FM 8
- Racking: Unirack

*The Solar Industrial SPRE 02 1255 battery was previously known as the L16RE-2V battery.

**OUTCOME**

During periods of predominantly sunny weather, the PV system can provide 100 percent of the hospital’s energy needs, including powering lighting, lab equipment, water coolers, refrigerators, computers, and the satellite communication system. It also provides power for kitchen appliances, cell phone charging, and advanced teaching aids like TVs, DVD players, and radios, used for HIV education.