THE RENEWABLE ENERGY SYSTEM PRODUCES BETWEEN 70 AND 100 PERCENT OF THE ENERGY NEEDED TO OPERATE THE TELECOM TOWERS IN ORDER TO MEET CUSTOMER DEMAND.

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<td>Nicaragua</td>
<td>To provide reliable power to Claro’s Base Transceiver Stations.</td>
<td>Off-grid solar power system with Trojan batteries for energy storage.</td>
<td>System provides between 70 and 100 percent of the energy needed to operate telecom towers and meet customer demand.</td>
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56 BATTERIES

70–100% POWER PRODUCED

$6,700 ANNUAL SAVINGS
CASE STUDY
RURAL TELECOM / NICARAGUA

LOCATION

Base Transceiver Stations (BTS) in rural Nicaragua are used to operate Claro’s telecom towers. Claro is the region’s primary provider of mobile telephone, Internet, and satellite television services to both residential and business customers.

CHALLENGE

BTS were previously powered by diesel generators, which were expensive, loud, and had high CO₂ emissions.

SOLUTION

Trojan distributor ECAMI S.A. installed an off-grid, solar power system with energy storage featuring Trojan flooded batteries to support a base transceiver station—also referred to as the radio base station (RBS)—used to operate Claro’s telecom towers.

SYSTEM SPECIFICATIONS

- Batteries: (56) Trojan SSIG 06 475* deep-cycle flooded batteries, Signature Line
- Solar Modules: Kyocera KD215
- Installed Solar Capacity: 6.5kW
- Inverter: Xantrex XW
- Charge Controller: Xantrex XW MPPT
- Racking: Combination of ground and roof mount installation

*The Solar Signature SSIG 06 475 battery was previously known as the L16-P battery.

OUTCOME

Converting the telecom installation to solar power with battery backup enabled Claro to move away from using diesel generators to power these sites.

Not only does the new RE system save the company more than $6,700 annually in operating costs by removing the expense of purchasing diesel fuel, but it also eliminates noxious emissions previously produced by the generators.

Trojan Battery Company / 10375 Slusher Drive, Santa Fe Springs, CA 90670, USA
Email / marketing@trojanbattery.com

Trojan batteries are available worldwide and backed by outstanding technical support provided by full-time application engineers.

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www.ecami.com.ni

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Soluciones Energéticas

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PARTNER

TROJAN BATTERY COMPANY
800.423.6569 +1.562.236.3000
TROJANBATTERY.COM