

# CASE STUDY

## GAS STATION POWERED BY OPTIMIZED PV ARRAY

Increased Savings and Increased Safety

### OVERVIEW

**Owner:** CORPOGAS

**Installation Date:**

26 September 2012

**Location:** Station 6254,  
Huixquilucan, Mexico

**Installed capacity:** 11.5kW

**Modules:** 48 VSOLAR 240 Watt  
polycrystalline modules

**Power Optimizers:** 48 X OP250

**Inverters:** 2 X SE6000A-US



In business, lowering running costs is often the difference between success and failure. As more businesses look to reduce their costs, managing energy has risen to a top priority. Corpogas's station 6254 is the perfect example of this. Corpogas is Mexico's largest gas station company with over 300 sites country-wide. With this level of infrastructure comes an equally high energy cost. In 2011, Corpogas station 6254, was paying a monthly electric bill of over 67,000 Pesos. That equals over 800,000 Pesos per year.

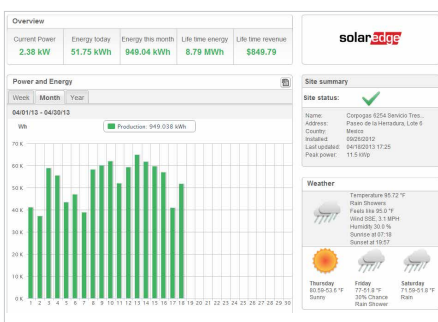
Mr. Felix Cruz, the Manager of the Energy Savings Department of Corpogas sought out two solutions to his problem: 1) energy efficiency and 2) energy generation. The first step was to retrofit all lighting with LEDs to reduce consumption. The next step was to install 11.5kW of solar modules optimized by the SolarEdge power optimizers and two SolarEdge inverters. SolarEdge was chosen for its increased energy harvest and safe DC operation. VTS Mexico, a solar installation company specializing in energy efficiency and renewable generation projects, performed the installation.

SolarEdge offers a solar power harvesting system that consists of power optimizers connected to each module, a PV inverter and module-level monitoring. This system optimizes the output of each module for maximum power and enables multiple module placement and orientation options to installers.

SolarEdge also offers a SafeDC™ architecture that eliminates high DC voltage when the system is off. Utilizing petrol stations for solar energy production requires the utmost quality control and adherence to safety protocols.

The importance of safety is one of the main reasons installers typically choose SolarEdge on rooftops. The SolarEdge power optimizers and the DC cables automatically drop to a safe DC voltage of 1V when the inverter is off or disconnected. This offers a high level of safety for installation and maintenance workers as well as for firefighters, eliminating many electrical risks.

*"With SolarEdge power optimizers, we can see that each of the modules is generating the highest possible output. This, plus the knowledge that the system will drop to a safe voltage in case of an emergency were key factors in our decision to go with SolarEdge. Since we installed the SolarEdge systems on our gas station rooftops, we experienced a dramatic reduction in our electricity bills. This is making a big difference." says Mr. Felix Cruz, Manager of Energy Savings Department at Corpogas.*



Today, Mr. Cruz has reduced his electrical expenses at station 6254 to a mere 2,000 Pesos. Since installation, his solar array has generated over 8.8MWh of electricity. That is enough to save 7,500 lbs of CO2 emissions or power 27,000 light bulbs. Thanks to companies like Corpogas and leaders like Arturo, the solar industry is strengthening its position as a full scale electricity generation resource.