

125kW SolarEdge System Powers Colombian Health Clinic and Produces Significant Savings

Faced with mounting operational costs and the pressure to reduce its electricity expenditures, the Clinica Boyaca health clinic in Duitama, Colombia, turned to solar to power its facility. In search of the most efficient and affordable solar solution, they contacted the installation company Iluminacion.co SAS, which recommended a 125kW SolarEdge system following an on-site energy survey.

“Looking for the right way to maximize the sun’s power and minimize electrical expenses, we decided to install a SolarEdge system. We designed the project using SolarEdge Designer, giving us the ability to create an accurate simulation to build an efficient system. Keeping in mind that one of the major factors was to reduce operational costs we expect a 52% reduction in monthly electricity costs with the new SolarEdge system.” **John Oshalim (Technical Director) Iluminacion.co SAS**



Installation Details

- Location: Duitama, Colombia
- System Type: Commercial Rooftop
- System Owner: Clinica Boyaca
- Capacity: 124.8KW
- Power Optimizers: 156 x P850
- Inverters: 2 x SE66KUS



SolarEdge Technology Soaks Up the Sun and Produces Significant Savings

The decision to go solar resulted in significant savings for Clinica Boyaca. Prior to installation, it had spent about R\$13.3 million (~US\$4K) per month on electricity. Following installation, their monthly electricity bill was reduced to only R\$6.2 million (~US\$1.8K), representing a savings of up to 52% for the health clinic’s administrators.

This saving is also reflected in a projected ROI of only 9 years for the solar system owners, with a 25-year production schedule.

Protecting Assets with Advanced Rapid Shutdown and SafeDC™

In anticipation of future secure fault detection and fire risk regulations in Colombia, SolarEdge's rapid shutdown and SafeDC™ safety features provided additional benefits to Clinica Boyaca.

SolarEdge's advanced safety features are fully compliant with global safety standards. In the event of grid shutdown or when the inverter is turned off e.g. during standard system maintenance, the SolarEdge DC optimized technology is designed to automatically de-energize the high voltage PV cables to a touch-safe 1V per module, ensuring maximum protection for both people and property.

Seamless PV Project Planning and Design

Iluminacion.co SAS used SolarEdge's free web-based Designer to plan, build and validate the solar energy system from inception to installation. They leveraged Designer to produce accurate energy simulations and solve technical installation issues. For instance, natural challenges such as Columbia's high altitude of 2300m above sea level and 4 degrees off the equator can affect solar energy production. Designer made it possible to implement an effective design that could overcome these issues.

Why SolarEdge?

By installing a SolarEdge PV system, Clinica Boyaca has a sustainable and eco-friendly solution for reducing its monthly electricity expenditures. Ultimately, SolarEdge met the client's need for a powerful, cost-effective, and safe solar energy solution.

