

# CASE STUDY

## Highlighted Project

# 250 kW Installation in Colmar, FRANCE

## OVERVIEW

**Special focus:** Row shading

**Installer:** Blue Ice

**Installation Date:** Nov. 2010

**Location:** Colmar, France

**Average Irradiance:**

1139 kWh/m<sup>2</sup>/year

**Installed Capacity:** 250kWp

**Modules:** 1,063 x 235W

**Power Optimizers:**  
1,063 x PB250-AOB

**Inverters:** 42 x SE6000



Situated along the Alsatian Wine Route, Colmar is the home town of Frédéric Auguste Bartholdi, a sculptor whose most famous work was designing the Statue of Liberty. The city is renowned for its well preserved old town, and its numerous architectural landmarks. Now, it is also home to its first 250 kW solar PV installation. The project, stretching over 5,000 square meters, uses 1,063 Isofoton modules, each with a 235W capacity. It relies on SolarEdge power optimizers connected to each module, and on 42 SolarEdge SE6000 inverters.

Blue Ice, the Colmar system owner, specializes in the generation of revenue from PV systems. The Colmar installation stretches across a large saw patterned roof where the rows cast shade on each other and with that on the modules. With these shading patterns it wouldn't have been effective to use traditional PV inverters for this installation. Therefore, in order to initiate a well-

*Photo: The saw shape of the roof in Colmar poses a challenge to prevailing installation practices. SolarEdge enables the installation of a well-functioning PV array that remains cost-efficient and safe.*

functioning PV array on the given space, the installer turned to the SolarEdge system. SolarEdge's system is designed for system optimization and includes power optimizers to track the Maximum Power Point (MPP) of each module individually. Separate electric management of each module prevents the impact of partially shaded modules on unshaded ones.

The Colmar installation is further equipped with a SolarEdge monitoring system that alerts the maintenance staff to individual malfunctioning modules, allowing them to precisely locate them on the roof and fix the problem accurately and quickly. Before maintenance staff accesses the roof, a new safety mechanism, the SolarEdge SafeDC™, shuts down the DC voltage of every module as soon as the system is disconnected from the AC grid. The building

owners can rest assured knowing that the installation complies with governmental safety standards and is safe during maintenance and firefighting.

**“As an investor, I really have to look at three things: First, is the system generating maximum energy output and return on investment? Second, are installation and operation and maintenance cost efficient? And third, since I am renting rooftops from third parties, are safety risks minimized? I use SolarEdge for all of my installations because it can ensure all three.”**

*Eric Gatterer  
CEO, Blue Ice*