

# CASE STUDY

## 200kW Multi-facet Commercial Installation Trentino, ITALY

### OVERVIEW

**Installer:** ELETTRONORD di Gardumi Luca s.n.c

**Installation Date:** 29.07.11

**Location:** Trentino, Italy

**Installed Capacity:** 200kWp

**Modules:** Bosch M240

**Optimizers:** PB250-AOB

**Inverters:** 16 x SE12.5K

**String Layout:**

26 modules per string,  
two strings per inverter



This case study is set in Concilio S.p.a., a well-known winery situated in the breathtaking landscape of Trentino in Italy. The company management of Concilio S.p.a. considered allocating the factory roof to a photovoltaic installation with the intention to run the factory on clean energy. Yet, even though the roof area was big enough for a large commercial size PV system, the installer would not have been able to cover the majority of its roof space with a traditional inverter system.

**Module mismatch**

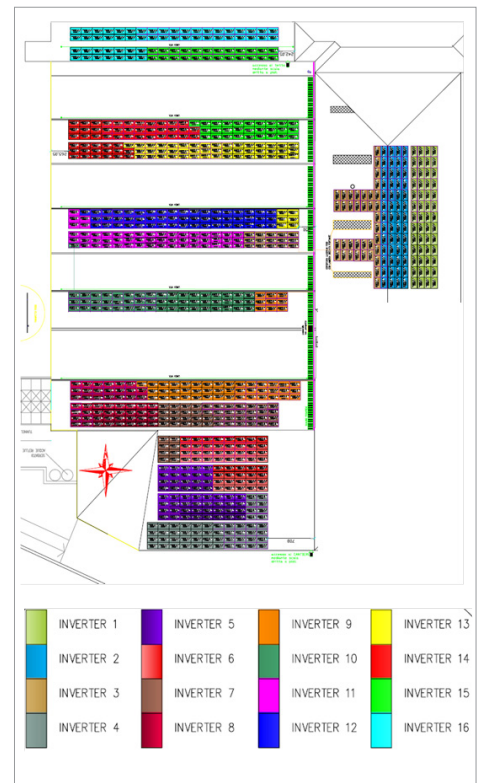
Traditional inverter systems are subject to energy losses resulting from module

mismatch. In order to minimize module mismatch, installers are required to install modules in strict conformity with matching tilt, orientation and string length as well as to avoid areas exposed to partial shading. Such design limitations presented a major issue for Concilio S.p.a., as the winery's roof is mostly curved-shaped. Installing modules on a curved-shaped base would require installing modules at different tilts and orientations which in turn would introduce mismatch to the system.

Luckily, installer Gardumi Luca of ELETTRONORD di Gardumi Luca s.n.c. suggested to Concilio S.p.a. to install the SolarEdge system. The SolarEdge system harvests the energy of every module individually and therefore there is no need to maintain conformity between modules. Different orientations and tilts have no effect on system efficiency, neither do partially shaded modules.

**Balance of System Cost Savings**

The SolarEdge system also allows for much longer and therefore fewer strings. Fewer strings require less cables and fuses, which significantly reduces balance of system costs.



**“Without SolarEdge, I would not have been able to install a 200kW installation on that roof, without compromising on system efficiency. SolarEdge enabled us to spread strings across different tilts and orientations and install modules in partially shaded areas.”**

*Gardumi Luca, Manager,  
ELETTRONORD di Gardumi Luca s.n.c*