

## Renewable power generation

**Application:** commercial and farm buildings with roof surfaces < 500 square meters

# Use available rooftop space to install and operate solar panels

“ I want green certification for my farm. I would like to install rooftop solar panels on one of my outbuildings, but only if it is profitable for the business. ”

### Convert the energy generated by solar panels into alternating current and connect to the three-phase grid

The system consists of photovoltaic panels that produce between 30 kW and 50 kW of electricity by transforming solar energy into direct electric current. This “convert, connect, protect” system is built around prefabricated, interconnected panels:

- Panel strings are interconnected via junction boxes to pool the electricity generated by the photovoltaic installation
- An inverter then converts the direct current produced by the panel strings into alternating current
- Factory-assembled, pre-wired protection units ensure the installation is safe for both people and property.

Solution

# Benefits

### For the user

> **Helps businesses qualify for green certification**



> **ROI of less than 10 years driven** by selling surplus power back to the grid (in countries where incentives are offered)

> **Clear information thanks to SunEzy inverters**, which monitor both the electricity used and sold back to the grid

> **Easy to upgrade** to a building management system without changing the installation

## For professionals

+ **Schneider Electric support** to help you choose the right solution

+ **All products**, including panels, cables, and inverters, **provided by a single Schneider Electric-approved distributor**

+ **Add on to the installation without making costly changes**

+ **Meets environmental standards**

- Measure
- Reduce energy consumption
- Reduce energy costs



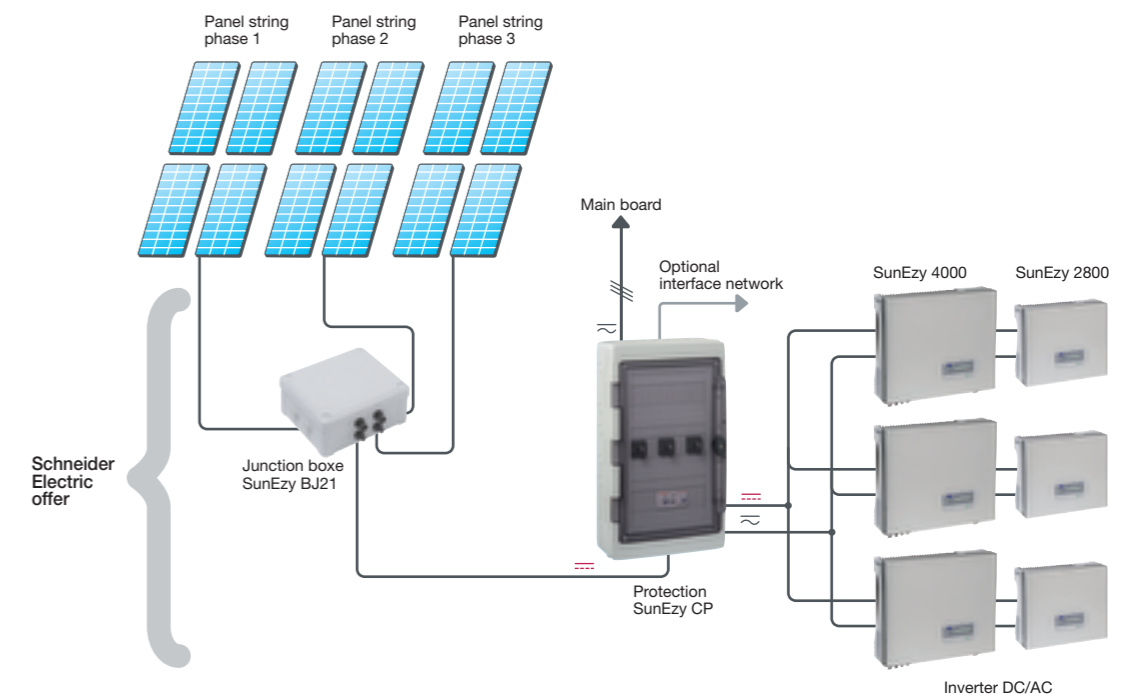
### Projects

#### South of France: farm building gets rooftop solar panels

The southern-facing rooftop of a farm outbuilding measuring just 147 square meters was the perfect location to install 105 175-watt solar panels covering a total area of 139 square meters. Because total power was just over 18 kW, a three-phase connection to the grid was installed.

The total cost of the equipment, installation, and hook-up to the grid was €90,000.

The installation is expected to generate 21,000 kWh per year, sold back to the grid at €0.60 per kWh, for total annual revenue of more than €12,000.



#### SunEzy inverters

- SunEzy inverters cover power from 2 kW to 4.6 kW
- They can be interconnected using SunEzy junction boxes (up to six strings)
- SunEzy protection systems, which include lightning arresters, ensure the installation is safe

#### Communication functions are ensured:

- via an LCD display integrated into each inverter
- via a PC installed with the SunEzy Control software delivered with each inverter; the software offers an array of additional functions to process the data produced by each inverter

- Display settings like power, current, voltage, and frequency in graph format
- Generate reports

#### SunEzy products comply with the following standards:

- EMC Directive: EN 50081, EN 50082, EN 61000-3-2

- Limitation of harmonic current emissions (for currents under 16 A)
- LV (Low Voltage) Directive: EN 50178
- VDE GS label