

LOCATION

Larino, Province of Campobasso (Italy).

PLANT FEATURES

Plant divided into 6 total sections, each with a power of 500kW c.a.
The sections, in turn grouped into zones, refer to three cabins: cabin zone A / B / C.

In each cabin are arranged:

- No. 2 SATCON PowerGate Plus 500kW inverters (communication over TCP-IP)
- No. 2 Landys & Gyr ZMD 405 IEC meters (RS485 communication) for partial production monitoring

In the delivery cabin there is a Landys & Gyr ZMD 405 IEC meter for monitoring the overall plant production.

PROJECT DESCRIPTION

The system was installed in 2010 without any kind of predisposition for a monitoring system. The need therefore became to use the least invasive technologies possible.

It was decided to use radio links (point-to-multipoint) able to connect all the cabins (area cabins and delivery cabins). Where there is no native TCP-IP communication, RS485 to TCP-IP gateways have been arranged.

SINAPSI ROLE

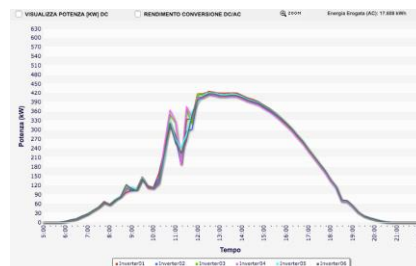
PV System monitoring

Sinapsi's eSolar PV PARK system was chosen for monitoring performance, production efficiency and remote management and maintenance.

In addition to production efficiency aspects, the eSolar PV PARK system monitors environmental parameters through a weather station. It also allows real-time data export via modbus TCP-IP through the installation of dedicated plug-ins.

MONITORING SYSTEM

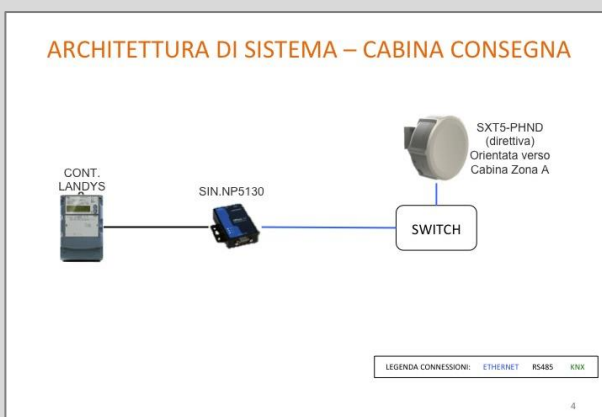
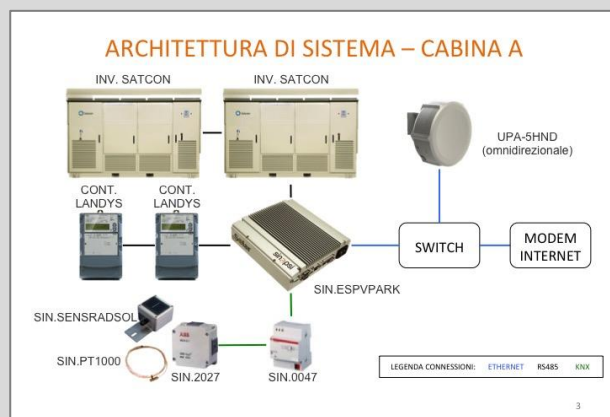
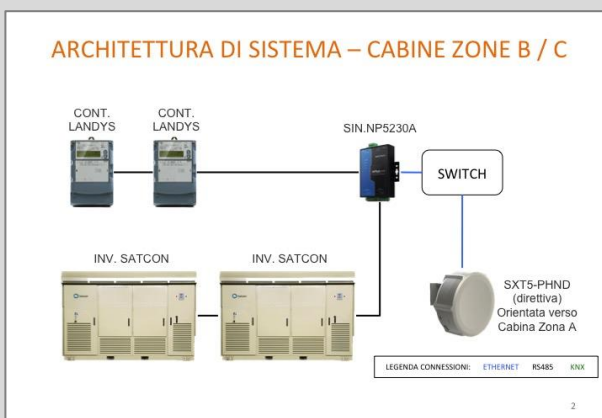
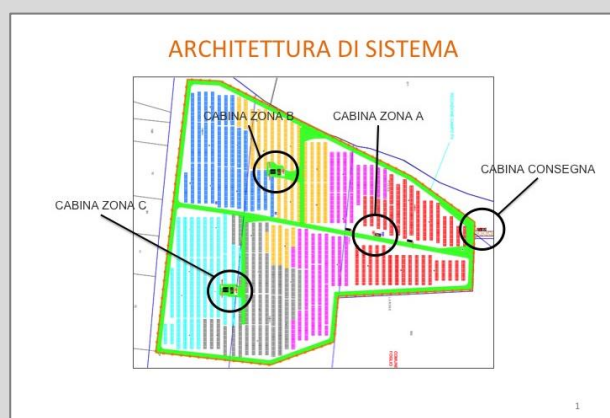
- Monitoring of all inverters installed in the field with native TCP-IP communication
- Real time and daily production data reading
- Monitoring of all meters installed in the field (partial and total) with communication via RS485 to TCP-IP gateway
- Monitoring of temperature and solar radiation sensors
- Point-to-multipoint wireless communication between all cabins (N°4 total)
- Real-time data export via modbus TCP-IP plug-in



Caratteristiche dell' Inverter		
Nome	Inverter01	Inverter Satcon
Marca	Satcon	
Numero di Serie		
Modello	PowerGate Plus	
Potenza Nominale	500	
Porta	TCP/IP	
Indirizzo Inverter	192.168.1.101:502#1	
Offset Energia	0.000	
Note/Descrizioni		



SYSTEM ARCHITECTURE

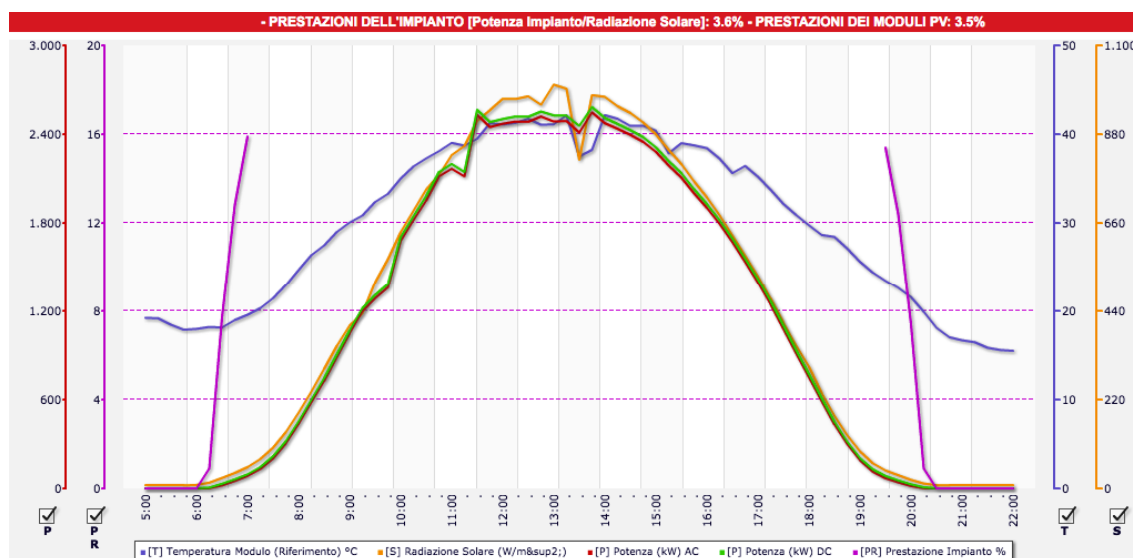


LARINO 3MW plant monitoring system architecture

PHOTO GALLERY



Plant Overview



Daily plant performance