

CHEMTECH SOLAR presents:

PV PLANTS 2011 | Italy

Plant 005/11 | SOLARNINO

**Surano (LE)
993,60 kWp**



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The plant named "LOCALNINO", is grid-connected type, the connection is in three-phase medium voltage (20kV).

It is installed on a plane surface with no shadowing, on an agricultural land plot, outside the urban area.

It has a total power of 993,60 kW and an esteemed energy production of about 1.400.000 kWh per year, produced by 4.320 panels 230 Wp each, which covers a total surface of about 7.000 m².

Modules are installed on zinc-plated steel / aluminium structures with a tilt of 30° and South oriented.

The electricity production is 100% sold to ENEL.

Reference Nr.: 005/11

Name: LOCALNINO

Year of construction: 2011

Location: Surano (LE) – Apulia region – ITALY | 40° 2'21.11"N 18°21'45.86"E

Description: Plan area – Agricultural land plot

Site accessibility: 73030 Surano (LE), Contrada Nino, snc

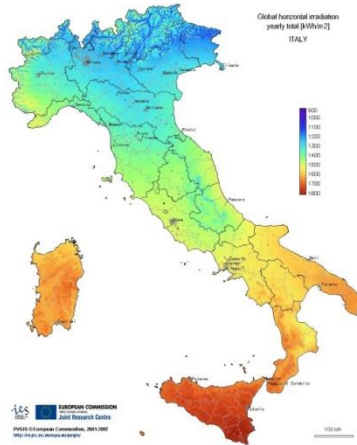
Land: Total area about 39'500 m² | Radiating surface 7'000 m²

Cadastral: Municipality of Surano (LE) - Sheet 4; Part 18; sub. 0

SPV: Solarnino S.r.l.

Availability: Right on the land Owned by the SPV

Status of project: Connected



Performance of Grid-connected PV

PVGIS estimates of solar electricity generation

Location: 40°1'21" North, 18°20'8" East, Elevation: 113 m a.s.l.,
Solar radiation database used: PVGIS-CMSAF

- Nominal power of the PV system: 1.0 kW (crystalline silicon)
- Estimated losses due to temperature: 11.0% (using local ambient temperature)
- Estimated loss due to angular reflectance effects: 2.7%
- Other losses (cables, inverter etc.): 14.0%
- Combined PV system losses: 25.5%

Fixed system: inclination=30 deg., orientation=0 deg.					
Month	Ed	Em	Hd	Hm	
Jan	2.59	80.4	3.25	101	
Feb	3.14	87.9	4.00	112	
Mar	3.93	122	5.15	160	
Apr	4.48	134	5.96	179	
May	4.88	151	6.66	206	
Jun	5.11	153	7.13	214	
Jul	5.32	165	7.45	231	
Aug	5.06	157	7.13	221	
Sep	4.21	126	5.79	174	
Oct	3.48	108	4.66	145	
Nov	2.79	83.7	3.61	108	
Dec	2.48	77.0	3.14	97.3	
Year	3.96	120	5.33	162	
Total for year		1450		1950	

Ed: Average daily electricity production from the given system (kWh)

Em: Average monthly electricity production from the given system (kWh)

Hd: Average daily sum of global irradiation per square meter received by the modules of the given system (kWh/m²)

Hm: Average sum of global irradiation per square meter received by the modules of the given system (kWh/m²)

PV layout



PLANIMETRIA DELLA ZONA - SCALA 1:500



Complete view of installation



*No. 3 Inverter
Power one Aurora
PVI-330.0-TL-IT*



Detail of installation and inverter station

Revenue analysis

Contractual agreement:	100% Sale to ENEL
The plant will start working as:	New construction
Connection date:	December 2011
Classification:	Ground mounted installation
Total power:	993,60 kWp
Feed-in tariff:	0,189 €/kWh
Energy sales tariff:	0,080 €/kWh
Expected production:	1 ' 400 ' 000 kWh / Year

Operating costs

Maintenance:	18'500 €/year
Insurance:	7'500 €/year
Others:	5'000 €/year
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Right on the land:	Owned by the SPV