



# saet

# italgest

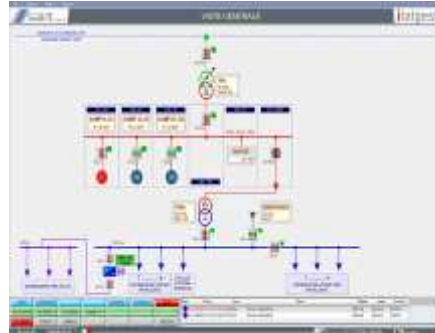
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Application-note

## Turnkey project: " 150/20 kV Italgest substation for 10 MWp Tuteurano solar farm (BR)"



Transformer 150/20kV



SCADA Substation Overview



HV equipment assembly

ITALGEST company has realized in the municipality of Tuteurano (BR) a 10 MWp solar farm and has assigned to SAET the turnkey project of 150/20kV Producer Substation, included civil and electrical engineering for HV-MV-LV and protection & control system.

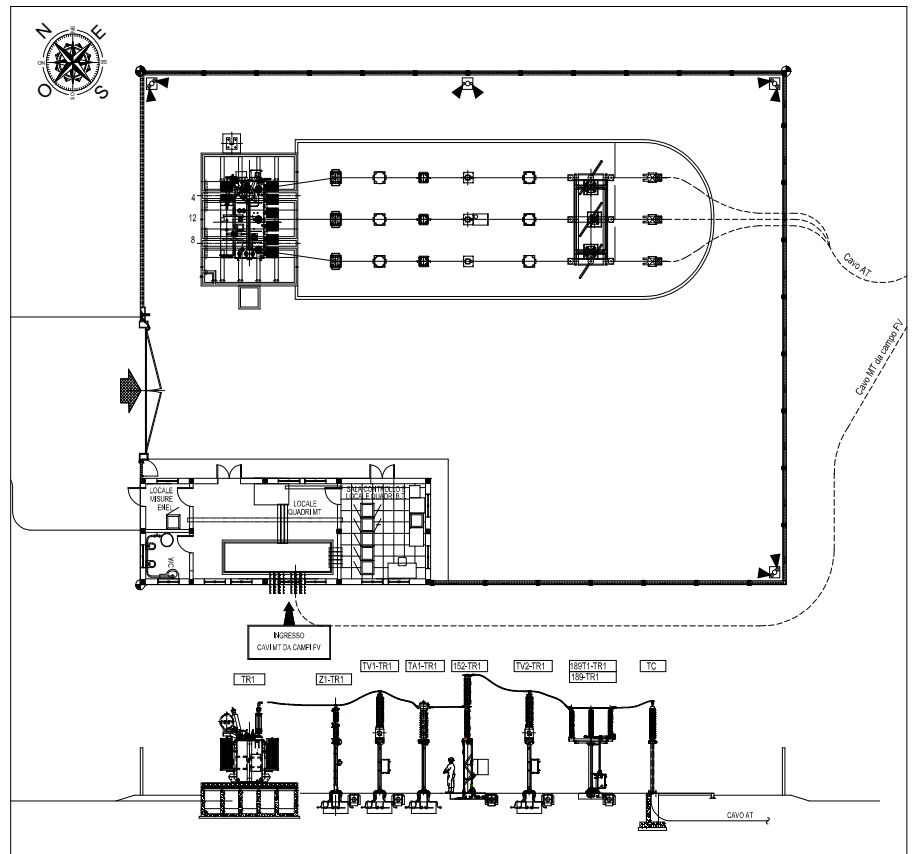
The Producer Substation is designed with air-insulated equipment and includes 1 power transformer 150/20 kV (11 MVA).

The 8 MWp solar farm is connected to the MV panels located in the Substation through MV cables. Also, there will be the possibility to connect other 2 Photovoltaic farm, each one of 1MWp.

The protection, command and control system, based on Bay Control Unit (BCU) is designed with General Electric and Siemens devices.

The SCADA station, installed on plant, is used for supervision and remote control, but also for exchange data with protections through IEC 61850 protocol, and with TERNA through router with redundant protocol IEC 60870-5-104.

Since August 2011, the plant is producing successfully photovoltaic energy under the management of Italgest.



Electromechanical plan



Protection Panel



View of the HV Substation

 **saet** Padova  
SISTEMI ED IMPIANTI  
ENERGIA E AMBIENTE - AUTOMAZIONE DI PROCESSO - ALTRAVIE LOGISTICA

SAET S.p.A. – Via Moravia 8  
35030 SELVAZZANO D. (PD)  
Tel. +39(0)49.8989711

Fax +39(0)49.8975299

E-mail: [info@saetpd.it](mailto:info@saetpd.it) – Internet

[www.saetpd.it](http://www.saetpd.it)