MONITORING SOLAR PLANTS (50KW TO 300KW)

- Monitor solar plants (50KW to 300KW)
- Monitor parameters from solar inverters
- Monitor solar plant generation performance
- Weather monitoring system
- Data logging

- Net Metering
- Reverse power flow monitoring and alarm
- Cloud based solar plant monitoring
- Remote user access
- Very economical monitoring solution

SOLAR PLANT MONITORING

There is increasing use of grid connected medium rating solar power plants (50KW to 300KW). These solar plants require economical solution to monitor per-formance of the solar plant, data logging and net metering.


Image show for description purpose only

Following information is required from the solar plant :

- Operating hours for the solar plant.
- Solar plant grid interface parameters
- Electrical energy generated by the solar plant inverters.
- Performance of the solar plant.
- Net import/ export of energy to the grid.
- Weather monitoring system and estimation of energy generation
- Data logging

SATEC DCU ETC-II– SMART SOLUTION
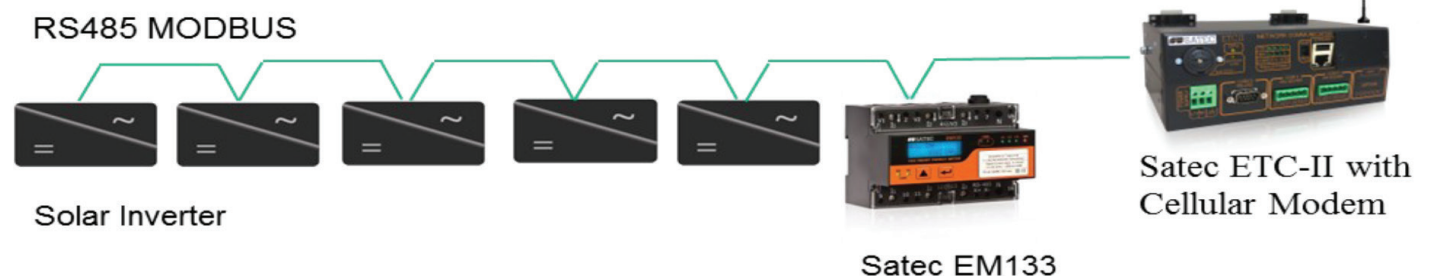
Satec DCU ETC-II will be used to collect all required parameters available from Satec make EM133, inverters and WMS via MODBUS RTU Master over serial RS485 network.

All the collected parameter are then transmitted to **eXpertpower** cloud service via cellular modem.

Cellular service (2G, 3G or 4G) can be used from any service provider.

Satec ETC-II has 265 MB of internal data-log memory to save parameters if cellular link to **eXpertpower** is lost. This information will be transmitted to eX-pertpower on restoration of the communication link.

User will be able to log-in to **eXpertpower** cloud service using user name and password assigned to him and view all the parameters and reports.

SATEC DCU ETC-II with Cellular Modem

SATEC EM133

SATEC EM133

SATEC intelligent MFT EM133 is perfectly suited for this application. SATEC four quadrant MFT EM133 will be installed in the roof top solar power plant. It will moni-tor and collect grid interface electrical parameters for the solar plant.

The MFT will monitor power flow for import and export of energy. Parameters Im-port Energy, Export Energy and Net Energy are provided. Set points feature in EM133 enables generation of alarms and events. The technical detials are as fol-lows:

- Accuracy class 0.2S as per IEC-62053-22:2003.
- Digital inputs –2
- Relay Output –1
- Ambient operating temperature: -20 to 60ºC.
- Operating power supply: 40- 260V DC/AC

EXPERT POWER CLOUD SERVICE

SATEC **eXpertpower** cloud service communicates with multiple devices installed at remote sites via cloud and collects all required parameters.

eXpertpower service will provide the following features to users via any standard web browser :

- Login for user using user and password .
- Display solar plant operating parameters.
- Display solar plant energy parameters (import, export and net).
- Provide operating hours for the solar plant.
- Provide alerts via email based on alarm set points.
- Provide reports on plant performance via email at set intervals.
- Required information is available any place and any time.
- Our flexible infrastructure supports tailored applications for specific cus-tomer needs

INFORMATION REQUEST

Please provide following information while submitting your request for proposal :

- Rating of the solar plant
- Number of inverters, their rating and make, MODBUS communication details
- Details of WMS
- Number of concurrent expert power users required

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