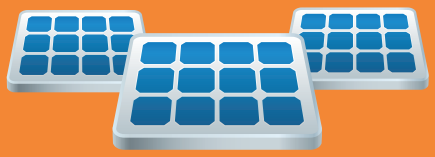
steadySat /

Service / Technology Fact Sheet



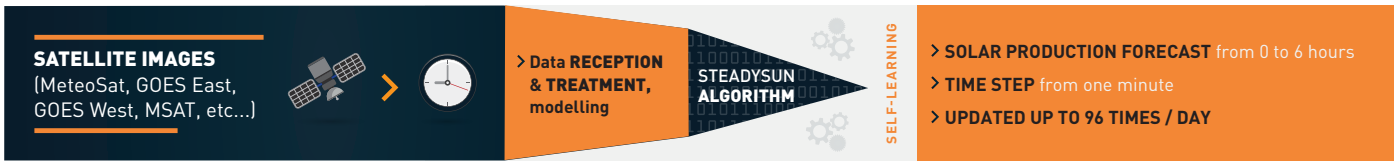
The solar forecast service SteadySat was developed in response to intra-day forecasting needs (up to 6 hours in advance) and is intended primarily for network operators (TSOs and DSOs), but also for electricity producers, traders or suppliers. This production forecast service allows in particular to:

- Manage the injection gap recorded during the day compared to the previous day's announcement, and reduce associated costs (penalties, risks);
- Set up and operate a storage system associated with a solar power plant;
- Efficiently exploit solar resources in an island environment or in non-interconnected areas, while reducing the use of fossil fuel energy;
- Manage the hybridization of a fossil fuel off-grid power plant using solar power to reduce the average cost per MWh locally produced;
- Manage a micro-grid network operating multiple power assets to maximize the use of the solar resource.

Coupled to weather forecast (SteadyMet), satellite imagery allows more accurate evaluation of cloud cover evolution and production profile over the coming hours. This module uses satellite images collected 1-4 times per hour. Through detailed modelling and advanced mathematical algorithms, energy production is predicted over the following hours with increased capability for assessing fluctuation risks and intermittency.

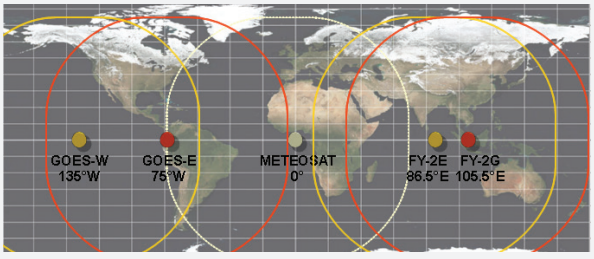
steadySat structure

EXPERT steadysun, configuration, optimized solution

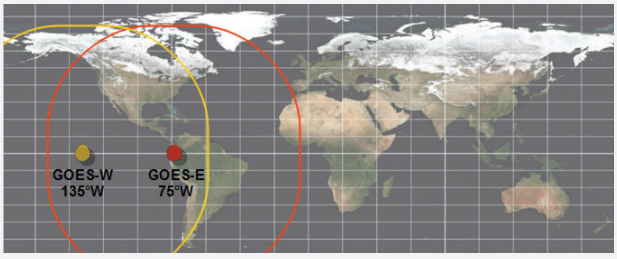


Selection and processing of satellite images

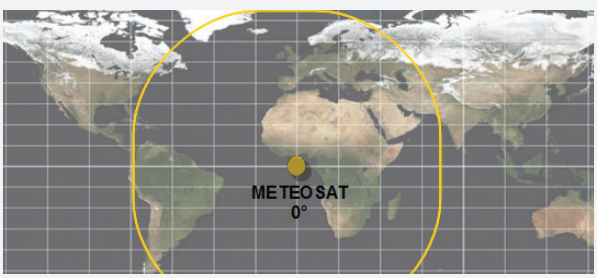
Worldwide coverage



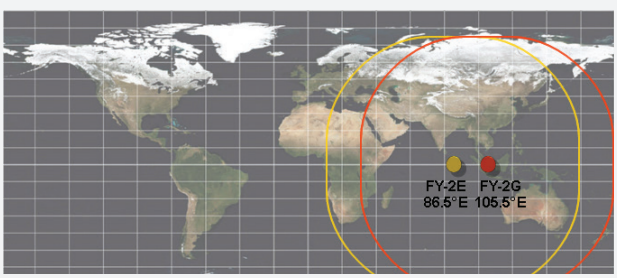
GOES-East & West for US and South America



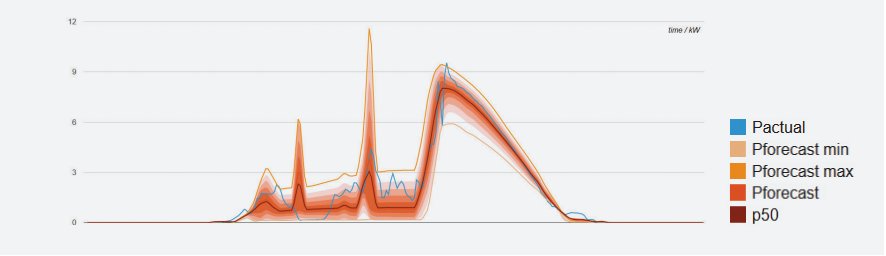
EUMETSAT for Europe and Africa



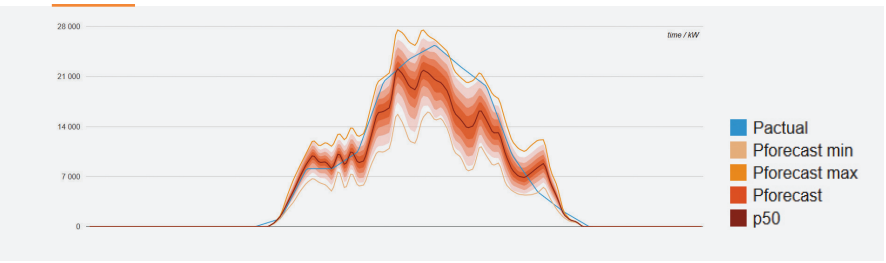
Feng Yeng (FY-2) for Asia and Australia



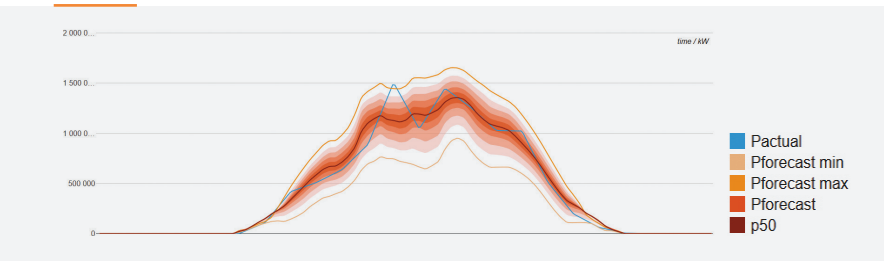
Forecast for a 12 kW small plant with percentiles



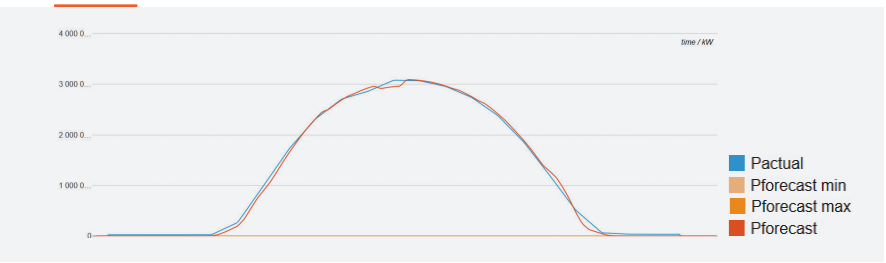
Forecast for an island (36MW) with percentiles



Forecast pfor a region (2500mW) with percentiles



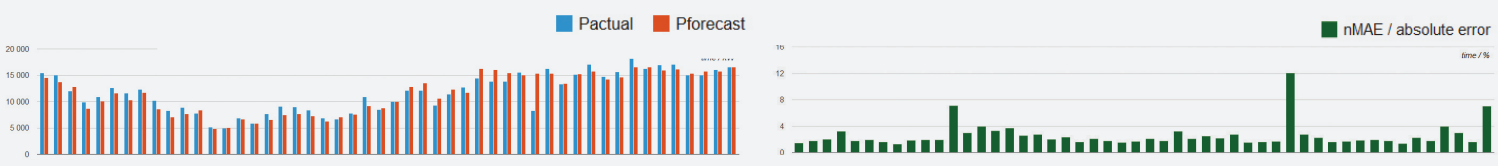
Forecast for a country without percentile



FEATURE	AVAILABILITY
Forecast at country level	☀
Forecast at regional level	☀
Forecast at town level	☀
Forecast at site level	☀
Forecast for a portfolio (stations spread over a territory)	☀
DNI (Direct Normal Irradiance) forecast	☀
GHI (Global Horizontal Irradiance) forecast	☀
GTI (Global Tilted Irradiance) forecast	☀
Temperature forecast	
Production forecast	☀
Time horizon up to 15 days	
Time horizon up to 6 hours	☀
Time horizon up to 60 minutes	
Update 4 times / day	
Update 96 times / day	☀
Update 1440 times / day	
Time step from one minute	☀
Suitable for all PV technologies	☀
Applicable à la technologie CPV (Concentrated Photovoltaic)	☀
Applicable à la technologie CSP (Concentrated Solar Power)	☀
Including 1-axis tracking	☀
Including 2-axis tracking	☀
Percentiles (P10, P20, P30, P40, P50, P60, P70, P80, P90)	☀

Steadysun offers a range of upgradable solutions to meet your future needs. We invite you to discover our long-term forecasting solution **SteadyMet** and our quasi real-time forecast solution **SteadyEye**.

Production & forecast history (data over one year)



steadysun

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