



## Service / Technology Fact Sheet



Whether you are a plant operator, a DSO/DNO, an EPC contractor, or dealing with PV-Diesel-Storage-Hybrid systems, Steadysun understands your need for very short term and accurate forecasting solutions.

Steadysun provides you with an advanced solar power production forecasting technology. This unique application delivers the most accurate forecasting solutions available on the market, to anticipate solar intermittencies.

Power generation of the solar plant is forecast up to one hour in advance thanks to fine modelling of the cloud cover motion and the built-in combination with the on-site all-sky imager.

Simple, reliable and user-friendly, steadyEye service allows operators to provide cost-effective accurate short term forecasting and nowcasting at any time, from any location.

This service solution is a simple management tool which allows a quasi-real time decision-making process to optimize daily operations.

## steadyEye structure

**EXPERT** steadysun, configuration, optimized solution

**ALL SKY IMAGES**



**> CLOUDS DETECTOR & MOTION VECTOR FIELD**

**STEADYSUN ALGORITHM**

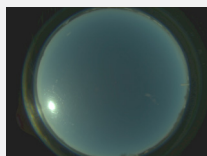
SELF-LEARNING

- > SOLAR PRODUCTION FORECAST** from 0 to 60 minutes
- > TIME STEP** from 10 seconds
- > UPDATED 30 TO 360 TIMES / HOUR**

## Selection and processing of all sky images

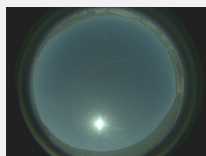
**Clear sky**

11.51.02 a.m.  
(29.01.2016)



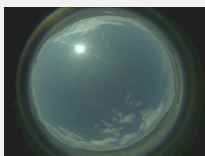
**Clear sky**

2.23.08 p.m.  
(28.07.15)



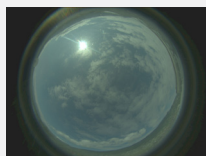
**Slightly cloudy**

08.31.04 a.m.  
(28.07.15)



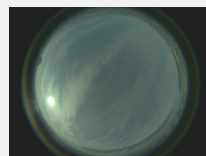
**Slightly cloudy**

08.36.04 a.m.  
(28.07.15)



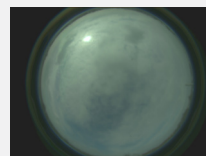
**Misty**

10.19.04 a.m.  
(31.12.14)



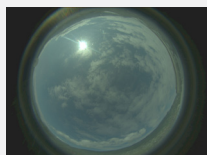
**Mostly Misty**

08.54.07 a.m.  
(22.03.2016)



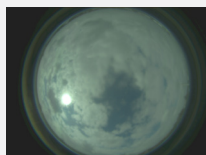
**Partly cloud**

08.13.04 a.m.  
(28.07.15)



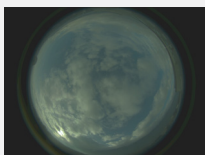
**Cloudy**

12.59.12 a.m.  
(22.03.16)



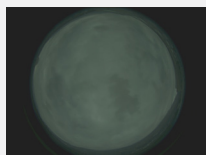
**Mostly cloud**

01.49.03 p.m.  
(25.12.14)



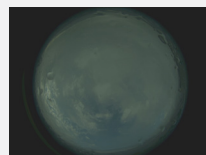
**Heavy cloudy**

10.19.04 a.m.  
(31.12.14)



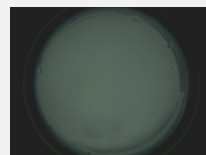
**Rainy**

08.48.03 a.m.  
(04.12.14)

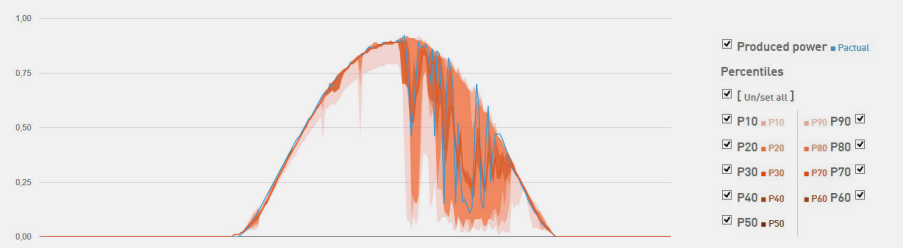


**Heavy rain**

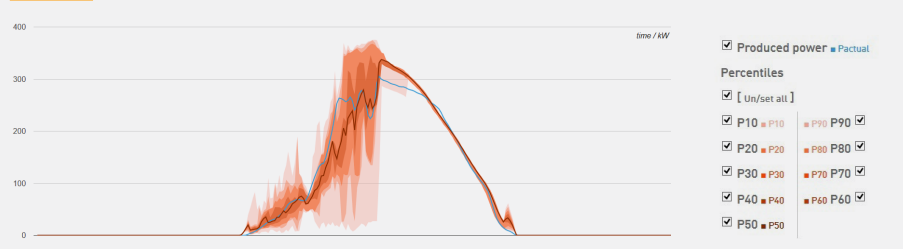
10.47.04 a.m.  
(18.12.14)



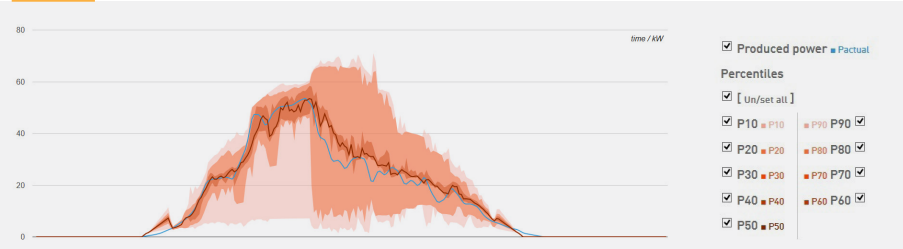
## GHI forecast in Australia



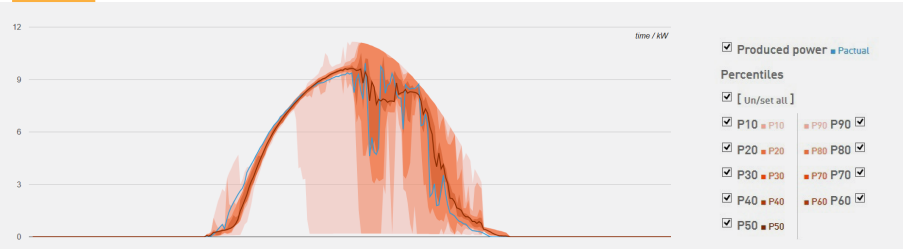
## Distributed PV forecast for french DSO



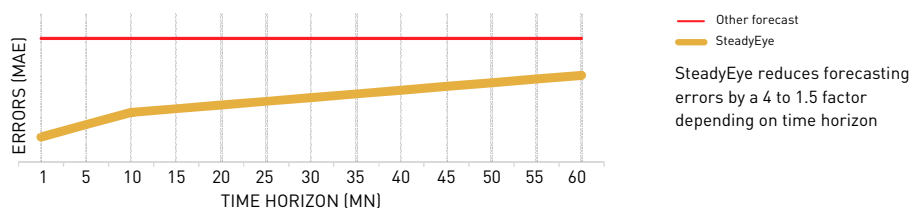
## Rooftop PV forecast in Germany



## Hybrid system forecast in Switzerland



## SteadyEye Vs other forecast



FEATURES	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	☀
Suitable for CPV (Concentrated Photovoltaic) technology	☀
Suitable for CSP (Concentrated Solar Power) technology	☀
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 short-term forecasting solution **SteadySat**.