

# EINSMAN SOLUTIONS



## MONITORING AND FORECAST OF FEED-IN MANAGEMENT

The rapid growth of renewable energy in Germany increasingly leads to grid bottlenecks and deactivation of renewable energy sources within the framework of feed-in management (EinsMan). UBIMET has developed both the monitoring of current EinsMan measures (EinsMan Monitor) as well as forecasts of expected deactivations (EinsMan Forecast).

EinsMan Forecast & EinsMan Monitor  
in the UBIMET Weather Cockpit®\*\*



## OUR SOLUTIONS

### EINSMAN MONITOR

The EinsMan Monitor captures the current situation of feed-in management measures in Germany. This overview is available either for distribution grids or all of Germany. UBIMET combines company specific readings in real time via EinsMan measures of distribution grid operators with plant specific analyses of renewable energy production (wind, solar & bio-mass) and updates this information every 15 minutes.

### EINSMAN FORECAST

UBIMET takes yet another step further with the EinsMan Forecast\* and creates forecasts on the expected feed-in management. UBIMET provides insights on when and where grid bottlenecks will occur and how many renewable energy sources will be deactivated to eliminate the bottleneck. Company specific renewable energy forecasts (wind, solar and bio-mass), municipality specific load forecasts as well as grid topology form the basis. Models assist in anticipating which measures the grid operator will take to reduce grid load in intraday or day-ahead.

\* The invention was protected as utility model (DE 20 2017 100 343.4) and has been filed for patent (DE 10 2017 101 265.6, European patent application No. 18152474.5 as well as US patent application No. 15/879,326) by UBIMET.

## YOUR BENEFITS

### ✓ Proprietary trading

Within the framework of feed-in management at times several gigawatt (GW) of renewable energy produced are not fed into the grid. By having more detailed information of future deactivation, price developments may be better anticipated.

### ✓ Direct marketing

Whenever production of renewable energies that are allocated to an operator's own balancing group is reduced as part of the feed-in management activities, balancing group discrepancies paired with an increased demand for balancing power arise. UBIMET's forecasts help operators minimise these uncertainties.

### ✓ Control energy marketing

Feed-in management influences the control energy balance. With the EinsMan forecast the probability of use of the flexibility provided may be forecast.

### ✓ Grid operation

The grid operator is responsible for the secure operation of the grid infrastructure. UBIMET's feed-in management forecast helps grid operators anticipate critical grid scenarios caused by bottlenecks.

## DATA PROVISION

### EinsMan Monitor

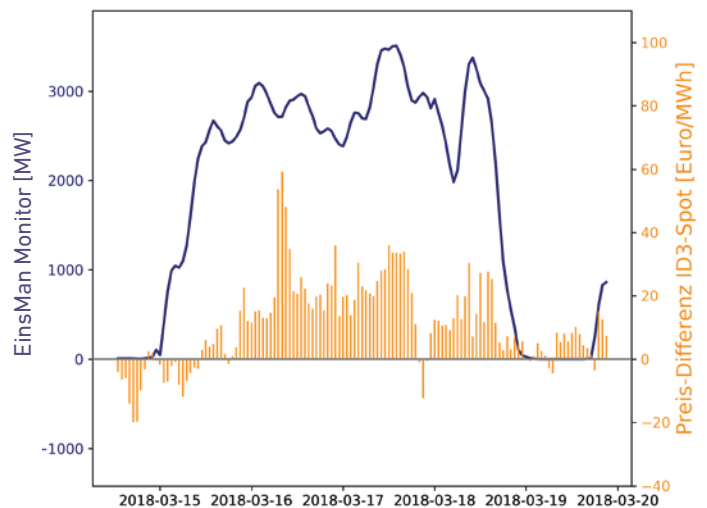
- 15 minute updated of the past 14 days
- Format: CSV, XML
- Supplied as: E-mail, (S)FTP
- Data displayed in the online Weather Cockpit® as time series, geographical map and tachometer

### EinsMan Forecast

- 2 updates per day up to a max. of 72 hours in advance
- Format: CSV, XML
- Supplied as: E-mail, (S)FTP
- Data displayed in the online Weather Cockpit® as time series



EinsMan: Day-Ahead (15/03 - 20/03/2018)\*\*



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## ABOUT UBIMET

From allocations to power plant control to trading – weather matters for the energy business. To meet your high expectations, UBIMET combines high precision meteorology with industry specific expertise. The result: highly innovative solutions, customised for our energy customers' requirements.

For more on our energy portfolio, please refer to:

[www.ubimet.com](http://www.ubimet.com)

\*\* All data and information depicted in this illustration are without guarantee and excluding all liability.