

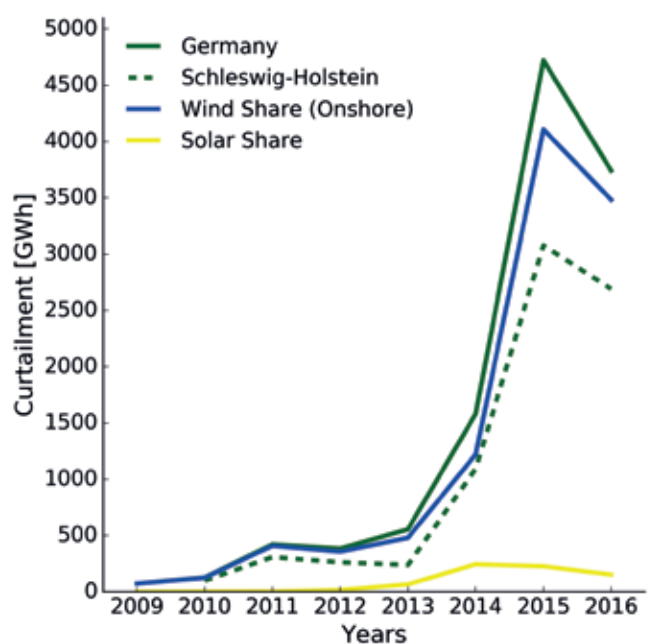
EINSMAN FORECAST*

DEACTIVATION FORECASTS FOR RENEWABLE ENERGY BASED ELECTRICITY PRODUCTION CAPACITY

The expansion of renewable energy (RE) in Germany increasingly leads to grid bottle-necks on the decentralised level. As a result, renewable energy sources are deactivated. These service changes are relevant for distributors, whose trading positions are exposed to the short-term price of electricity in Europe. Moreover, this also affects direct marketers in their own balancing group if grid restrictions cause the projected production performance of the marketed facilities to systematically deviate from the respective marketed volume.

UBIMET's feed-in management solution uses proprietary technology to generate forecasts of potential renewable energy deactivations within the scope of feed-in management.

Grid bottleneck management actions that lead to the limitation of production are anticipated based on the company's own performance forecasts for the relevant production units, load simulations in the affected grids and a grid simulation.



Development of feed-in management in Germany

PRODUCTS

• EinsMan Forecast Portfolio

Portfolio tailored and site-specific deactivation forecasts, for all RE technology. This solution is particularly useful for grid operators and direct marketers.

• EinsMan Forecast Germany

We forecast the managed feed-in electricity volume to be anticipated in Germany; if needed we can even provide this information for each control area. This is especially useful for spot traders.

* The invention that forms the basis of our solutions is protected as a utility model (DE 20 2017 100 343.4) and has also been filed for a patent (DE 10 2017 101 265.6).

YOUR BENEFITS

- ✓ **Short-Term Trading**
Sometimes multiple GWs of renewable energy production potential are not fed into the system as part of the feed-in management process. Knowledge of future renewable energy deactivations goes hand in hand with improved price fluctuation anticipation and all related advantages.
- ✓ **Optimisation of Power Plant Usage**
The German Renewable Energies Act of 2016 permits the utilisation of electrical power that would otherwise go unused as a result of feed-in management activities for certain applications (e.g. power to heat). The operation of this type of technology requires an exact forecast of feed-in management activities.
- ✓ **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.
- ✓ **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.

CUSTOMISED AND FLEXIBLE DATA PROVISION

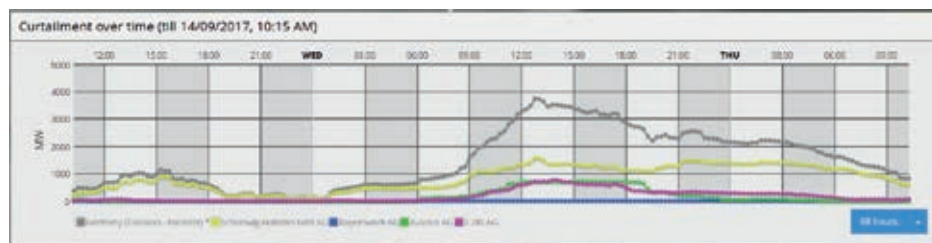
- Data displayed in the online Weather Cockpit® as a time series. The forecast horizon can be customized. Visualization of the EinsMan monitor can be optionally added.
- Format: CSV, EXCEL, XML
- Supplied as: E-mail, (S)FTP, web services
- The forecast horizon will be adapted to match your traded products

COMBINATION POSSIBILITIES

- UBIMET EinsMan Monitor
- UBIMET Wind Power Forecast
- UBIMET Solar Power Forecast
- UBIMET Weather Forecast

“Feed-in management activities now affect all regions of Germany.”

(Monitoring report 2014, Bundesnetz- agentur [German Federal Network Agency])



Time series of the renewable energy sources, which are regulated by the feed-in management in a control area, a distribution network and a portfolio.

CONTACT

GLOBAL HEADQUARTERS

UBIMET GmbH
ARES Tower
Donau-City-Straße 11
1220 Vienna
Austria
T +43 1 263 11 22 0
E info@ubimet.com

GERMANY

UBIMET GmbH
Schönfeldstraße 8
76131 Karlsruhe
T +49 721 663 23 0
E germany@ubimet.com

ABOUT UBIMET

Increase efficiency, reduce cost and enhance safety. These objectives can be achieved in the energy market with UBIMET weather data solutions and services. We offer high-quality hyper local and timely weather data, meteorological analyses as well as short- and medium-term forecasts for customers in the energy sector. For more information on our comprehensive product and solution portfolio, ranging from standardised products to specific tailor-made solutions please visit www.ubimet.com.