

# GRID AGENT - WIND FARM CONTROL UNIT



## About SSC Wind

SSC Wind is a medium-sized wind energy service provider with more than 170 employees or rather 240 employees within the whole SSC group. Our services range from project and site management, installation, commissioning and servicing of wind turbines onshore and offshore to technical development and evaluation of concepts. We have been working successfully all over Europe for more than 14 years in the field of measurement technology, control and electrical instrumentation, planning and implementation of complex data transmission systems including the technical documentation. Based on our know-how we provide extensive services in planning and developing complex electrical systems. Concerning the GRID Agent this means: 100% service supplied by SSC Wind.

## Regulation of effective and idle power in heterogeneous wind farms

Our GRID Agent is a superior controller to manage the effective and idle power of heterogeneous power generating plants. The system likewise ensures reliable fulfillment of time critical needs of high- or medium-voltage requirements as well as the requirements of system services according to the EEG (provision of effective power, reduction in case of overfrequency etc.). The GRID Agent enables the regulation of heterogeneous plants for e.g. wind farms with wind turbines of different manufacturers as well as linked wind and solar farms over one common network connection point.

## Strengths:

### Reliable Technology

- > Installed in more than 25 onshore wind farms
- > Regulates already more than 1 GW of rated power
- > Features standard interfaces to leading manufactures of wind turbines

### Applications

- > Heterogeneous wind farms with wind turbines of different manufacturers
- > Power generating plants with a complex park topology (long control path)
- > Linked wind farms over one common network connection point
- > Dynamic wind farm topologies

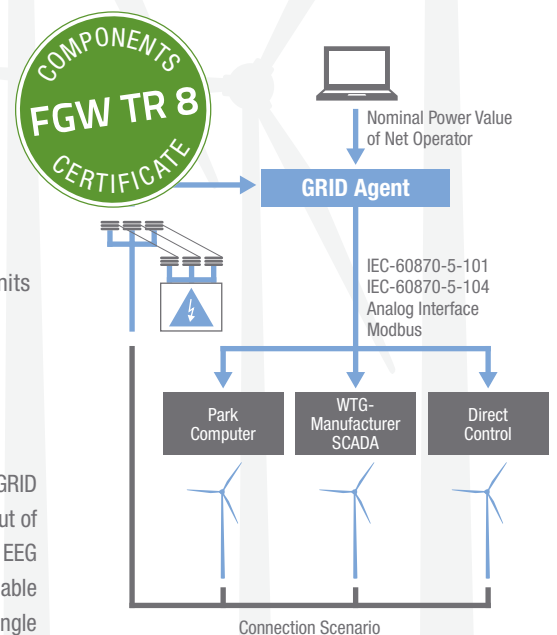
### Power Supply Management

- > Revenue maximization due to intelligent control
- > Precise distribution of the effective power reduction to the individual production units
- > Operator notification in all cases of power supply management events

### Direct Marketing

- > Effective power adjustments in accordance with direct marketing requirements for nominal power values

With the help of an innovative load flow model that also handles complex park topologies the GRID Agent offers a precise and vibration resistant regulation of the idle power. The effective output of the wind farm will be reduced in case of a power supply management signal according to the EEG 2012: precise, fast and efficient results will be delivered taking into account the currently available power of each generating plant. As a monitoring device the GRID Agent informs about every single intervention and provides all necessary information for the settlements with the network operator.



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