



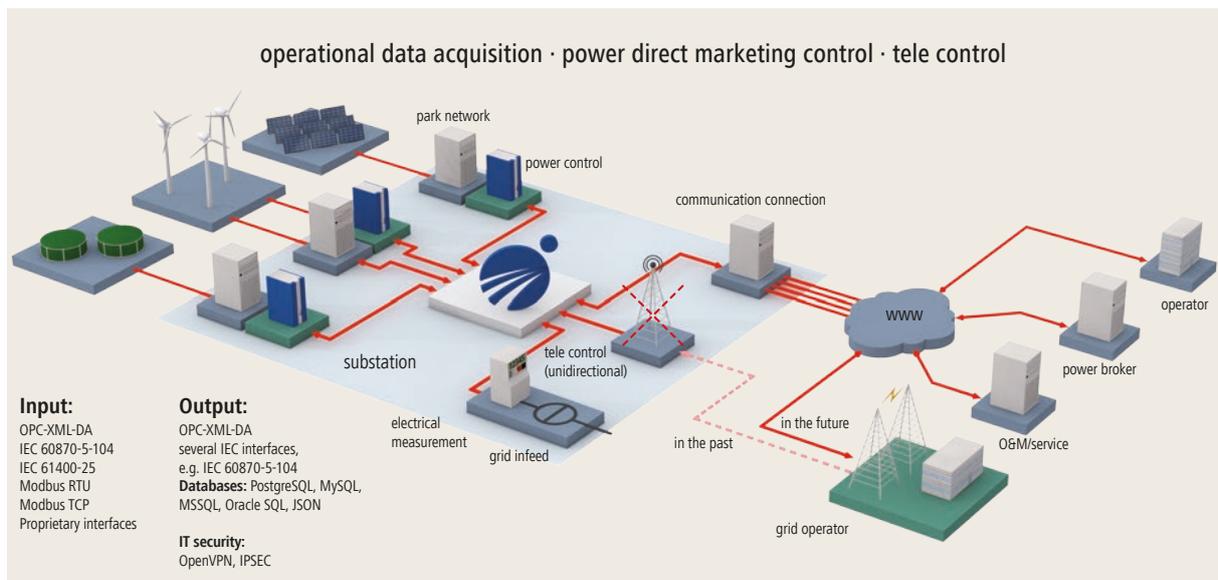
Access to a comprehensive WTG
real time monitoring:

»claVis« – multi compatible

The use of SCADA systems in the windenergy branch is an important tool for the O&M department to streamline processes, to optimize the turbine operation and to secure the existing business model. For an effective use of the systems, it is essential to overcome hurdles in terms of communication networks, interfaces and data quality. For that, claVis is creating a stable and sustainable basis.

Benefits and key features:

- one single interface for all different types of turbines, independent of their age
- automated and continuous acquisition and transfer of comprehensive raw operational data
- individual adaption to existing infrastructure
- existing systems stay fully functional
- including upgrade of existing infrastructure if necessary
- reliable dataflow, free of interferences – also under harsh conditions, optimal use of bandwidth
- secure store and forward function
- compatible with all common SCADA and database systems
- modular system architecture ensures easy system adaption to growing/changing demands (e.g. modules for power direct marketing, third-party systems, such as ice detection- / shutdown, CMS, bat shutdown)
- 24/7 online systems monitoring and continuous updates uphold the highest possible IT security level



claVis delivers data for flexible wind farm management

claVis collects operational data of wind turbine generators, meters, met masts, etc. and transfers it in a safe way to one or several databases.

Additionally an OPC or IEC interface can be provided. These interfaces enable bidirectional communication with SCADA systems as active part.

Extensions/supplements:

- Quantec power direct marketing controller (QDR)
 - remote control of power injection by power brokers or third parties
 - capturing of actual feed in and data transfer to the power broker
 - capturing and coordinating of control signals of the power network operator and the power broker including data transfer to the power broker
 - also for PV, biogas and other energy plants with power control systems
- Quantec tele control
 - replacement of old, unidirectional tele controls by modern, IP based systems
 - return of variable data to the power network operator, depending on the individual requirements