

... is the first address for all operators of wind power plants regarding technical, environmental as well as strategic issues and acts as hub for the wind energy sector in Europe



Wind Data Base (WiPPeX)

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Individual success through exchange of experience

VGB PowerTech | Wind – Offers and Benefits



- **Strategic Forum Wind**
 - Technical Lobbying
- **Technical Committee Wind Energy**
 - Exchange of operational experience
- **User Groups Vestas and Siemens**
 - Requirements on specific wind turbines
- **VGB-Standards**
 - Reduction of O&M costs
- **Technical Group H&S Offshore Wind**
 - Increase of H&S management
- **Joint Research projects**
 - Cost sharing
- **Conferences / Workshops**
 - State of technology – Discussion



Wind Power Performance Data EXchange - WiPPeX

Objectives

- Our member companies have expressed their common interest to share the operational data of specific wind turbine platforms within different databases.
- The aim of our member companies is to have directly access to the database and to evaluate the operational data by their own.
- The infrastructure will be provided by VGB and the storage devices will be installed in Germany to ensure the highest possible level of data security.
- The framework conditions are as follows:
 - Only companies who provide operational wind power plant data will be allowed to use the database.
 - Data anonymity and compliance to confidentiality will be ensured by VGB.
- The VGB member companies can download the raw data of the individually booked database platforms in order to create their own benchmark.
- In addition, VGB can set up a general KPI system.



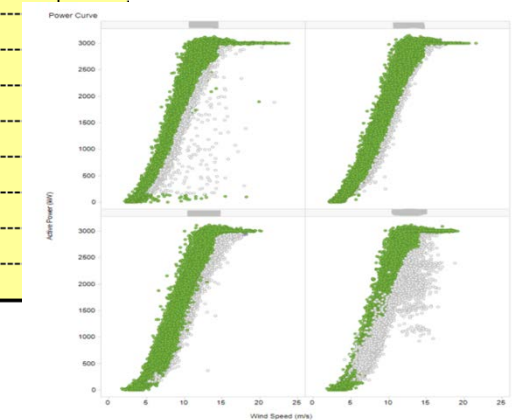
Source: Verbund

Implementation

- **In a first step**, the data to analyze and compare the *Performance of Wind Power Plants* will be analyzed. Needed data are, e.g.:
 - Wind Speed / Wind Direction
 - Nacelle Direction / Pitch Angle
 - Active Power / Reactive Power
 -
- The needed SCADA data will be supplied as 10-min values on a monthly basis.
- The data will be supplied for each wind turbine platform separately.
- It can be analyzed if a wind turbine is underperforming in comparison to the other ones.
- **In further steps**,
 - the list of data can be extended for maintenance planning & strategy optimization
 - a **failure statistic** will be implemented

- Planned platforms: Inquiry has been started.

Company	V80	V90-1.8	V90-2.0	V90-3.0	V112-3.0	V112-3.3
Verbund						
MVV						
SWM			14			4
E.ON	80					
Vattenfall	102	20	46	172		15
innogy						
Steag					36	
Engie	26	60				
EDF						
EnBW			56			
EDP						
Energie Eolienne du Maroc						
Fortum						
KELAG			13			
Wien Energie						
Raedthuys Groep B.V.				8		



Extracts of the contract

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Annex 1: Data supply

Annex 2: Wind turbine platforms

Annex 3: Utilization fee

Annex 1

Data supply

Some data are exclusively visible for VGB. Following data will be provided:

Wind Farm	Unit	Value example	VGB	Party
Name of the Wind Farm	[/]		x	
Country	[/]		x	
Asset identifier (Wind Farm)	[/]		x	
IEC Class	[/]			x
Type of Wind Farm (On-/Offshore)	[/]		x	

Wind Turbine	Unit	Value example	VGB	Party
Wind Turbine Type		SWT-3.6-120		x
Asset identifier (Wind Turbine)	[/]	WTB_1_001	x	
Date of commissioning	[yyyy.mm.dd]		x	
Hub height	[m]			x
Nominal Capacity	[kW]	3,6		x
Altitude	[m N.N.]			x
Asset identifier (Wind Farm)	[/]	Reference to the Wind Farm	x	

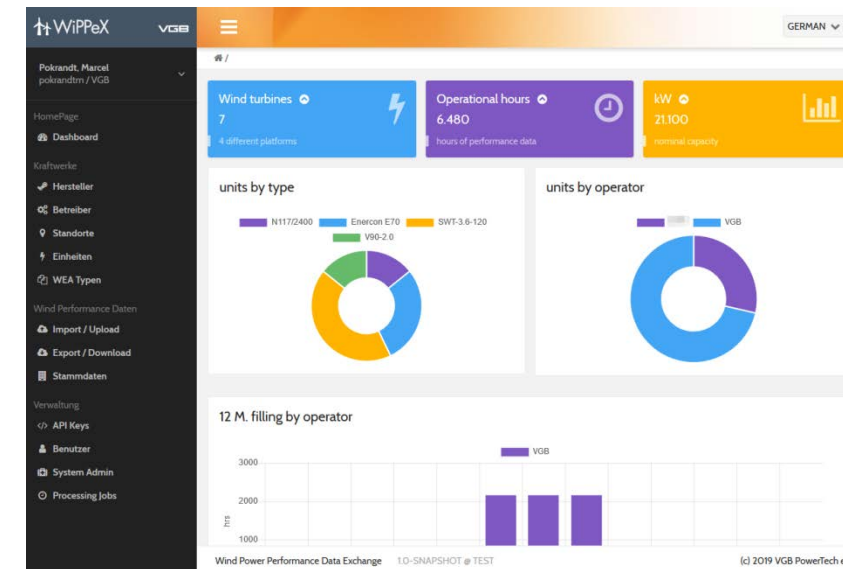
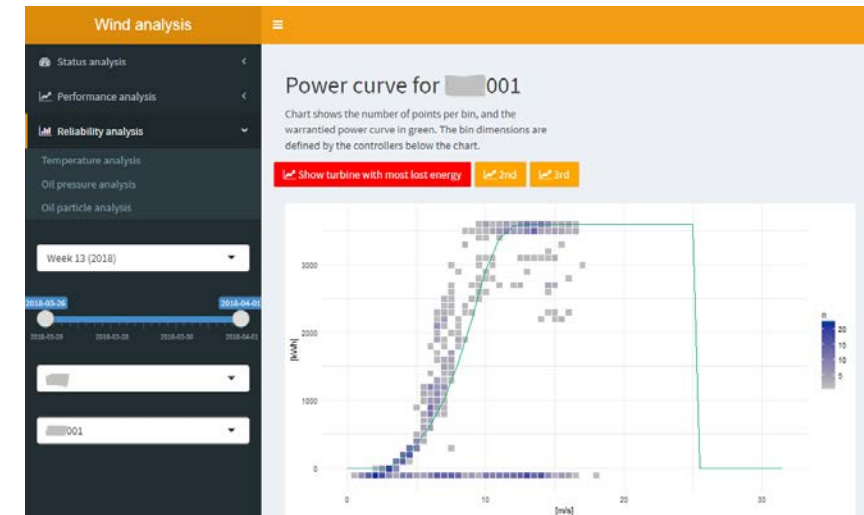
Production Data - Time Series	Unit	Value example	VGB	Party
Asset identifier (Wind Turbine)		Reference to the Wind Turbine	x	
Wind Speed	[m/s]			x
Active Power	[kW]			x
Reactive Power	[kVar]			x
Pitch Angle	[°]			x
Nacelle Direction	[°]			x
Wind Direction (Absolute)	[°]			x
Generator	[rpm]			x
Rotor	[rpm]			x
Ambient temperature	[°C]			x

VGB: Data are only visible for VGB



Next steps / Time schedule

- January 2019 Letter of Intent
- May 2019 Definition of the
 - needed SCADA-data
 - way of data processing
- July 2019 Securing of the domain **wippex.org** - Wind Power Performance Data Exchange -
- August 2019 Contractual requirements
 - Final coordination of the contract
 - Determination of the participation fee
- September 2019 Coordination process/Advertising measures
 - Coordination with possible contract partners (ongoing process)
 - Advertising at the HUSUM Wind - WiPPeX One Pager
- October 2019 IT requirements
 - Implementation of the IT infrastructure
 - Installation/Leasing of the server capacity
- January 2020 Start of the Wind Power Plant Database (Vestas V90-2MW)



Looking forward to answering any additional questions you might have.

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