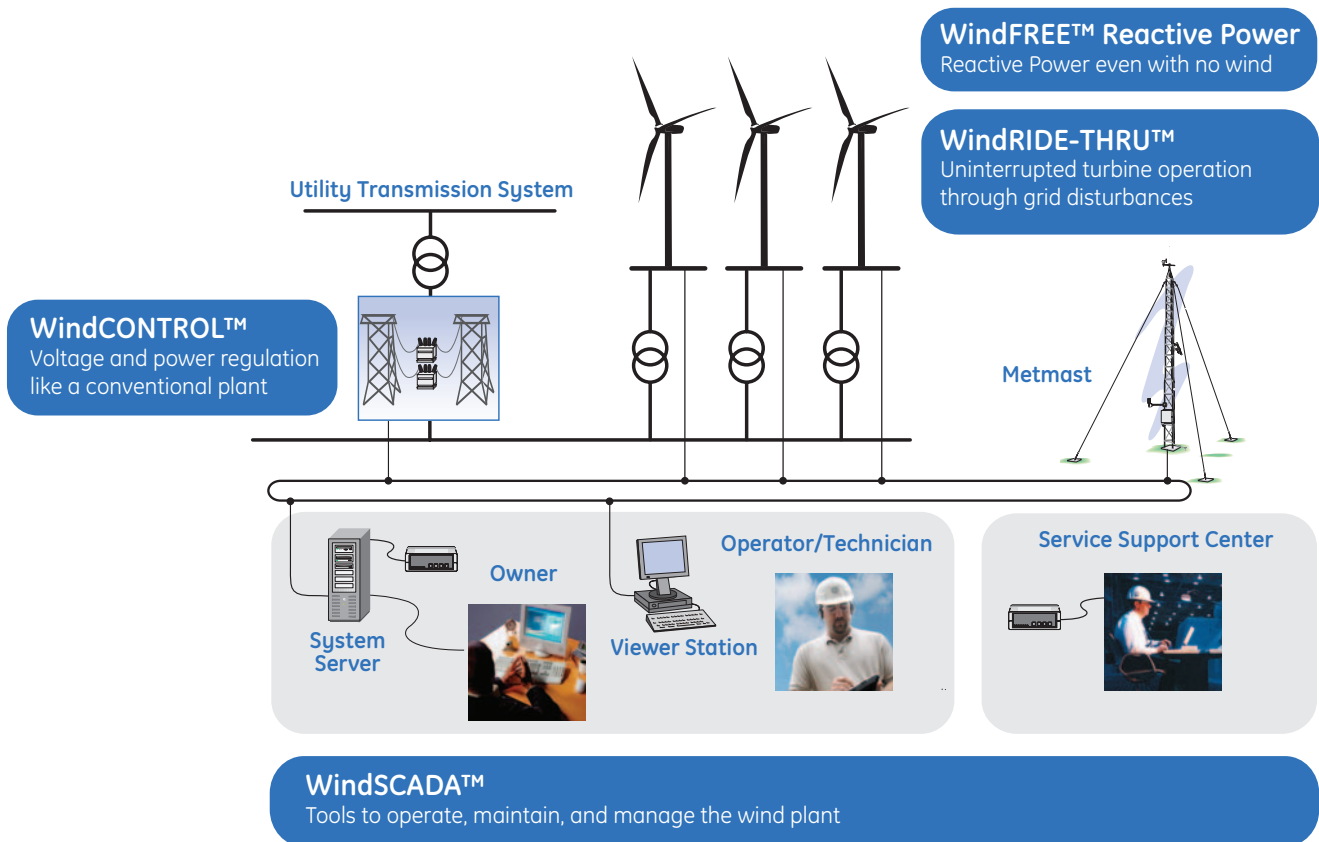


Wind Power Plant Performance



Performance at the highest level

GE's unique integrated suite of controls and electronics can take your wind power plant performance to the highest level, providing a sophisticated set of grid-friendly benefits similar to conventional power plants.



WindCONTROL™

GE's WindCONTROL system regulates voltage and power in real time. Like a conventional power plant, the system supplies reactive power to the grid when it is needed, regulating system voltage and stabilizing weak grids.

GE provides a simple integrated system of VAR control by utilizing the dynamic VAR capability inherent in GE's variable speed turbines as the main VAR source—unlike other systems that may require add-on capacitors or VAR compensators. Additionally, GE's WindCONTROL system can seamlessly integrate capacitor banks if greater VAR capability is required at your wind plant.

GE's WindCONTROL system also controls the power of the wind plant by utilizing the variable speed technology employed by the full line of GE's wind turbines. Each turbine maintains precise torque and pitch regulation, controlling power and speed during changing wind and grid conditions.

Conventional power plants include governor droop, controlled rates of change during power setpoint changes, and controlled shutdown and startup routines. Although there may be more than 100 turbines reacting to different wind conditions, GE's

WindCONTROL system is able to make a wind power plant operate more like a conventional power plant. The WindCONTROL system also satisfies many emerging grid code requirements related to wind plant power response.

Today there are over 2,000 of GE's wind turbine generators operating around the globe with the WindCONTROL system. With the ability to supply and regulate reactive and active power to the grid when it is needed, this system is becoming a standard feature requested by developers and utilities. It is also becoming a requirement of many interconnect agreements.

WindCONTROL features include:

- Maximum power limits
- Power-frequency droop
- Power ramp rate limits
- Startup/shutdown
- Integrated capacitor/reactor bank control
- Line drop and voltage droop compensation

WindFREE™ Reactive Power

GE's new WindFREE Reactive Power feature provides smooth fast voltage regulation by delivering controlled reactive power through all operating conditions. By supervising individual wind turbines, the WindCONTROL system ensures that the reactive power performance of a wind power plant can meet—and often exceed—the performance of a conventional (non-wind) power plant.

Even when wind turbines are not generating active power, GE's wind turbine generators equipped with the new WindFREE Reactive Power control feature can provide

reactive power. The provision of continued voltage support and regulation provides grid benefits not possible with conventional generation, while mitigating adverse voltage impacts of wind turbines being off-line due to wind conditions.

This feature can eliminate the need for grid reinforcements specifically designed for no-wind conditions, and may allow for more economic commitment of other generating resources that will enhance grid security by reducing the risk of voltage collapse.

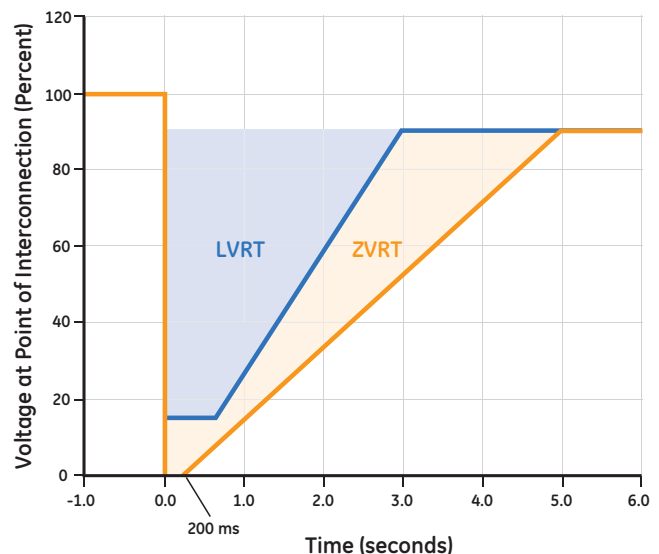
WindRIDE-THRU™

With GE's WindRIDE-THRU technology, wind turbines can remain on-line and feed reactive power to the electric grid through major system disturbances. This innovative feature enables wind turbines to meet transmission reliability standards similar to those demanded of thermal generators.

As wind power plants increase in size and command a larger share of the power industry's supply portfolio, the ability to provide truly uninterrupted service has grown in importance. Since system disturbances are a fact of life on utility grids around the world, GE continually develops progressively more disturbance-tolerant wind power plants.

Our innovative WindRIDE-THRU technology is now offered in two standard packages, Low Voltage Ride Through (LVRT) and Zero Voltage Ride Through (ZVRT). The ZVRT package is compliant with the new U.S. Federal Energy Regulatory Commission (FERC) ride-through requirements. These WindRIDE-THRU packages are available to meet various application needs that satisfy both present and emerging LVRT requirements.

GE's Standard WindRIDE-THRU Offerings



WindSCADA™

GE's WindSCADA system provides a broad set of intuitive tools for operation and maintenance of the wind power plant. From production reports to wind turbine monitoring and control, these tools meet the needs of the operator, maintenance staff, and owner.

Operator/Technician Maintenance Tools

The WindSCADA viewer application is used for operation and maintenance of the equipment. This viewer is accessible from any wind turbine as well as from the operations and maintenance building. It also can be used remotely with a secure Internet connection or a telephone line. To address the ever-growing security requirements in SCADA systems, user access control is integrated into the entire system and provides an audit trail for all activity.

Owner Tools

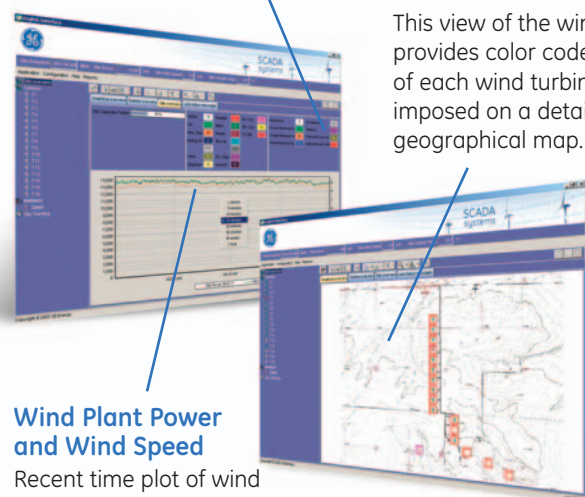
A large set of production and maintenance reports are available to enhance the owner's ability to drive productivity across all aspects of the wind plant operation.

Wind Plant Status

Color coded summary of how many wind turbines are in each mode.

Graphical Overview of Wind Plant

This view of the wind plant provides color coded status of each wind turbine superimposed on a detailed geographical map.



Wind Plant Power and Wind Speed

Recent time plot of wind speed and generated power.



GE Energy is one of the world's leading suppliers of power generation and energy delivery technology. We provide our customers with equipment, service and management solutions across the power generation, oil and gas, transmission and distribution, distributed power and energy rental industries.



As one of the world's leading wind turbine suppliers, our current product portfolio includes wind turbines with rated capacities ranging from 1.5 MW to 3.6 MW and support services reaching from development assistance to operation and maintenance. We currently design and produce wind turbines in Germany, Spain, China, Canada and the U.S.



Our facilities are registered to ISO 9001:2000. Our Quality Management System, which incorporates our rigorous Six Sigma methodologies, provides you with quality assurance backed by the strength of GE. We know that wind power will be an integral part of the world energy mix in this century and we are committed to helping our customers design and implement energy solutions for their unique energy needs. Every relationship we pursue bears our uncompromising commitment to quality and innovation.

To find out more about how you can increase the performance of your wind power plant, contact your GE Energy representative at:

www.ge-energy.com/wind



imagination at work