Solutions for the small wind market

What is small wind?

IEC 61400-2 and UL6142 defines a small wind turbine as having a rotor swept area of less than 200 m2, giving a small wind turbine power of 100kW or less. The United States and Canada are leading the world in production of small wind turbines.

A changing market for small wind

The need for renewable energy production will remain high in order to reduce CO2 emissions globally. Small wind turbines can play a major role as a part of diversified and distributed energy production.

Many countries are implementing feed-in tariffs for small energy production. The incentive to install small wind power production has resulted in a growing market in the recent years.

Off-grid turbines are still a big part of the small wind market, however, as the average small wind turbine size is increased a grid-connection is often installed.

ABB in wind power

ABB is the leading independent supplier to the wind power industry. With componets in more than 40,000 wind turbines around the globe, ABB is expert at designing and optiminzing wind electrical products and solutions.

Based on over 30 years of experience in the wind power industry, ABB has acquired a strong knowledge on all wind turbine concepts. ABB has a wide product and service portfolio that helps to increase reliability, safety and performance of wind turbines.

Thanks to a presence in more than 100 countries, a network of wind experts and products & services available in all markets, ABB offers the best global support on a local level.

Efficient and safe solutions for a complete electrical drivetrain

Generators
Generate your electricity with high efficiency induction or permanent magnet generators.

Protection devices
Protect your turbine main circuit and auxiliary devices (such as electrical brake or storage batteries) with ABB circuit breakers or fuse switch-disconnectors.

Lightning and overvoltage protections
Protect your turbine against lightning strikes and overvoltages with ABB lightning rod and surge protective devices.

Converters
Connect your generator to the grid with an ABB converter. With ABB direct torque control, you can achieve optimal generator performance at any wind speed.

Control system
Control and monitor your turbine with ABB PLC's. Connect to the integrated web-server with a standard internet browser.

Electronic products and relays
Monitor your turbine and the grid with ABB's wide range of relays.

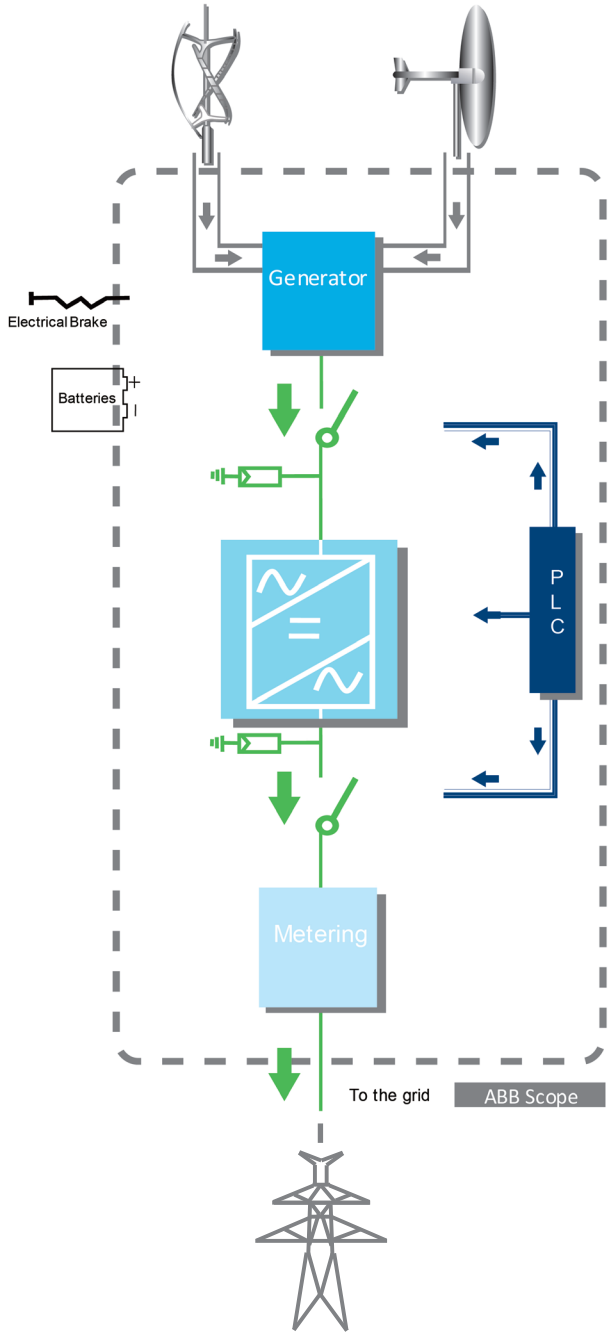
Switching devices
Connect your turbine to the grid with ABB contactors.

Safety devices
Insure the safety of your turbine and people with ABB safety devices.

Meters
Measure your electricity production with ABB energy meters.

Motors, soft starters and drives
Depending on your turbine size and design, command your pitch and yaw systems with ABB motors, soft starters and drives.

Other devices
Complete your installation with ABB enclosures, terminal blocks and pilot devices.



Electrical circuit example of a small wind turbine connected to the grid.

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