

Requirements for System Partners

This standard specifies the requirements for System Partners undertaking the supply, design, installation, set to work, commissioning and handover of Small Wind Turbine systems located on dedicated free-standing / guyed towers or building mounted and either linked to the electricity distribution grid or off-grid battery charging systems. The Small Wind Turbines are defined as those having an electrical output in the range 1.4 kW to 10 kW.

Competence of the System Partner will cover the following knowledge areas:

- Mechanical Engineering (understanding the commissioning according to a documented procedure to ensure that the system is safe, has been installed in accordance with the requirements of the manufacturers' requirements, and is operating correctly in accordance with the system design)
- Environmental impacts of wind turbines (e.g. site specific issues, prevailing wind direction or wind rose, permissions and approvals, tower height*, ground conditions for foundation*)
- DC / AC Electrical systems, wind&solar Inverters, Power ControlBox, Battery charger, Earth testing, Grid connection requirements (variable voltage, variable current, variable frequencies) of wind turbines
- Battery systems for off-grid applications (sizing, depth of discharge, ventilation, dump loads etc.)
- **Optional:** Additional knowledge of e.g. Solar Photovoltaic Modules, or Solar Hot Water (SHW), Biomass is an extra advantage to offer complete solutions to the market with green energy output

* Supply & static and dynamic stresses and loads calculation of the tower and foundation could be outsourced to sub-contractors