



OFF-GRID POWER SUPPLY FOR EIGG ISLAND



Easy set-up of off-grid and hybrid systems
Multicluster Box for Sunny Island

The Scottish Isle of Eigg is still not connected to the power distribution grid located on the mainland 16 kilometers away. The approximately 100 inhabitants have been operating their own stand-alone grid since 2008. They successfully converted their power supply, stepping away from diesel and now generate power using virtually 100% renewable energy sources. The SMA hybrid off-grid system equipped with an installed renewable power generation capacity of 166 kilowatts integrates solar, wind power, hydropower and a storage battery. If this is not sufficient, two diesel generators are used as a backup. This provides sustainable and economical electrical power around the clock. Energy costs have dropped more than 60 percent since the conversion.

The SMA multicluster technology ensures that the residents on Eigg Isle have a reliable, renewable, grid-quality power supply. Here, the Multicluster Box is the central link. The integrated AC distribution board makes it very easy to connect the electric generator, PV plant and wind turbine system. The high modularity with 4 clusters each with 3 Sunny Island devices makes the stand-alone grid particularly failsafe.

<p>System Size</p> <ul style="list-style-type: none"> • Renewable Energy Power: 110 kW Hybridpower, 24 kW Wind Power, 32 kWp PV Power • Battery Size: 212 kWh • Generator: 2x 64 kW 	<p>System Information</p> <ul style="list-style-type: none"> • Location: Eigg Island, Schottische Hebriden • Planning and Realisation: Scottish Hydro Contracting Ltd., Wind and Sun • Operator: Eigg Electric Ltd. • CO₂-Reduction: 47 % (from 8.4 to 4.45 t/y) • Commissioning: 2008 	<p>Inverters</p> <ul style="list-style-type: none"> • 12 x Sunny Island 5048 • 4 x Windy Boy 6000 • 3 x Sunny Boy 3000
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The ideal solution for reliable and autonomous energy supply