



Project: **Galloper**
 Customer: **GE**
 Sollatek AVR: **800Amps/Phase**
 Number of Systems: **2**
 Power: **552kVA**
 Installation Date: **2017**
 Site Type: **Offshore Windfarm**
 Country of Install: **UK**

Galloper Offshore Windfarm is a 353MW wind farm project, located 30km off the coast of Suffolk. Each year Galloper Offshore Wind Farm's 56 turbines will generate enough green electricity to power the equivalent of more than 380,000 British homes.



Project: **Beatrice**
 Customer: **Siemens**
 Sollatek AVR: **1200Amps/Phase**
 Number of Systems: **2**
 Power: **828kVA**
 Installation Date: **2017**
 Site Type: **Offshore Windfarm**
 Country of Install: **UK**

Located around 13.5km from the Caithness coastline, Beatrice is Scotland's second largest operational offshore wind farm, capable of generating enough wind powered electricity for up to 450,000 homes.



Project: **Bolney/Ninfield/Richbourough**
 Customer: **GE**
 Sollatek AVR: **600Amps/Phase**
 Number of Systems: **3**
 Power: **414kVA**
 Installation Date: **2018**
 Site Type: **Substation**
 Country of Install: **UK**

The three substations are part of the largest STATCOM scheme in Europe, owned by UK utility National Grid. The substations support the large population and load centers south of London, as well as high-voltage direct current (HVDC) interconnectors with Europe, delivering a 975-MVAR power range.



Project: **Dudgeon**
 Customer: **Siemens**
 Sollatek AVR: **1200Amps/Phase**
 Number of Systems: **2**
 Power: **828kVA**
 Installation Date: **2016**
 Site Type: **Offshore Windfarm**
 Country of Install: **UK**

The Dudgeon Offshore Wind Farm is located between 32km off the coast of the seaside town of Cromer in North Norfolk. Since its completion in late 2017, this 402MW offshore wind farm has been producing enough green, clean energy to power more than 430,000 UK homes from its 676MW wind turbine generators.



Project: **Fort Augustus**
 Customer: **GE**
 Sollatek AVR: **800Amps/Phase**
 Number of Systems: **1**
 Power: **552kVA**
 Installation Date: **2022**
 Site Type: **Substation**
 Country of Install: **UK**

67-turbine wind farm proposed for the Garrogie Estate near Fort Augustus, generate power for 114,000 homes and brings £30m-worth of benefits to the region.

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Project: **Fyrish**
 Customer: **Siemens**
 Sollatek AVR: **600Amps/Phase**
 Number of Systems: **1**
 Power: **414kVA**
 Installation Date: **2017**
 Site Type: **Substation**
 Country of Install: **UK**

SSE have been granted planning consent for the construction of a new 275/132kV electricity substation at Fyrish, near Alness. This substation will form part of the reinforcement of the existing electricity network by offering more robust network security and increasing the network's capacity.



Project: **Loch Buidhe**
 Customer: **Siemens**
 Sollatek AVR: **600Amps/Phase**
 Number of Systems: **1**
 Power: **414kVA**
 Installation Date: **2017**
 Site Type: **Substation**
 Country of Install: **UK**

The Beaully-Dounreay Phase 1 Project involved the re-conductoring of the existing 275kV conductor between Beaully and Ardross; and installation of new conductors on the east side of the existing double circuit 275kV tower line from Ardross to Dounreay; this included a new 275/132kV substation at Loch Buidhe



Project: **Melgarve 1A**
 Customer: **Siemens**
 Sollatek AVR: **600Amps/Phase**
 Number of Systems: **1**
 Power: **414kVA**
 Installation Date: **2018**
 Site Type: **Substation**
 Country of Install: **UK**

In partnership with SSE Networks, Siemens BAM JV designed and constructed a 400/132kV GIS electrical substation in one of the most challenging locations in the Scottish Highlands. Melgarve Substation near Laggan was built to facilitate the connection of the 67 wind turbines at Stronelairg wind farm to the National Grid.



Project: **Dudgeon Offshore Windfarm, 2015**
 Product: **AVR3x1200-BCDMYZ**

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Project: **Melgarve 1B**
 Customer: **Siemens**
 Sollatek AVR: **600Amps/Phase**
 Number of Systems: **1**
 Power: **414kVA**
 Installation Date: **2020**
 Site Type: **Substation**
 Country of Install: **UK**

In partnership with SSE Networks, Siemens BAM JV designed and constructed a 400/132kV GIS electrical substation in one of the most challenging locations in the Scottish Highlands. Melgarve Substation near Laggan was built to facilitate the connection of the 67 wind turbines at Stronelaig wind farm to the National Grid.



Project: **Melgarve 3 Statcom**
 Customer: **Siemens**
 Sollatek AVR: **600Amps/Phase**
 Number of Systems: **1**
 Power: **414kVA**
 Installation Date: **2020**
 Site Type: **Substation**
 Country of Install: **UK**

The new STATCOMs at Melgarve substation represents SSEN Transmission's ongoing commitment to create a secure and reliable network for its customers, helping to actively reduce the length of future outages for planned windfarm extensions or repowers. Providing flexibility and voltage stability to the wider SSEN Transmission network and beyond, supporting its commitment to build a network for net zero.



Project: **Neart na Gaoithe (NnG)**
 Customer: **GE**
 Sollatek AVR: **1500Amps/Phase**
 Number of Systems: **2**
 Power: **1035kVA**
 Installation Date: **2020**
 Site Type: **Offshore Windfarm**
 Country of Install: **UK**

The Neart na Gaoithe offshore wind farm will be located 15.5 km off the Fife coast and covers an area of approximately 105 km². NnG has the potential to generate 450 MW of renewable energy, which is enough power to supply around 375,000 Scottish homes – and will offset over 400,000 tonnes of CO₂ emissions each year.

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Project: **Northfleet, Monk Fryston, Rochdale**
 Customer: **Siemens**
 Sollatek AVR: **800Amps/Phase**
 Number of Systems: **3**
 Power: **552kVA**
 Installation Date: **2012**
 Site Type: **Substation**
 Country of Install: **UK**

As part of the upgradation of National Grid's substations, Siemens continued it's reliance on Sollatek to provide their proven AVR technology for these sites.



Project: **Tomatin**
 Customer: **GE**
 Sollatek AVR: **400Amps/Phase**
 Number of Systems: **1**
 Power: **276kVA**
 Installation Date: **2019**
 Site Type: **Substation**
 Country of Install: **UK**

The £30m project is designed at Tomatin, outh of Inverness, will enable new renewable energy to connect to the high voltage transmission system.

On shore substations facilitate connection of the windfarm output generation to the local utility company's network, before they can do this, the incoming voltage requires conditioning to the local grid quality levels. This means that the site's system voltage can vary depending on what conditioning is used.

The sensitive control mechanisms within the substation require a stable voltage within a specified tolerance level. Sollatek AVRs are used to stabilise this control voltage to a specified level thereby ensuring reliable operation of electronics control and measurement devices.



Project: **Galloper Offshore Windfarm, 2017**
 Product: **AVR3S4x800-ABCDGMYZ**



Project: **Greater Gabbard**
 Customer: **Siemens**
 Sollatek AVR: **600Amps/Phase**
 Number of Systems: **1**
 Power: **414kVA**
 Installation Date: **2011**
 Site Type: **Offshore Windfarm**
 Country of Install: **UK**

The 504MW Greater Gabbard offshore wind farm has been in operation since 2012, generating enough low-carbon renewable energy each year to power the equivalent of over 400,000 UK homes. The site was a pioneering project for the UK offshore wind industry and for many years the 140-turbine site was the largest wind farm under development world-wide.



Project: **London Array**
 Customer: **Siemens**
 Sollatek AVR: **600Amps/Phase**
 Number of Systems: **1**
 Power: **414kVA**
 Installation Date: **2012**
 Site Type: **Offshore Windfarm**
 Country of Install: **UK**

Located 20km off the north Kent coast in the Outer Thames Estuary, London Array has a 630MW capacity and generates enough clean electricity to power around 500,000 British homes, while displacing around 900,000 tonnes of CO2 a year.



Project: **Lincs**
 Customer: **Siemens**
 Sollatek AVR: **600Amps/Phase**
 Number of Systems: **1**
 Power: **414kVA**
 Installation Date: **2013**
 Site Type: **Offshore Windfarm**
 Country of Install: **UK**

The Lincs Wind Farm is located 8 kilometres off Skegness on the east coast of England and produces a 270 MW of energy; enough to power approximately 175,000 homes. The total cost of the project is estimated at £1 billion including electrical transmission links.



Project: **Tealing**
 Customer: **Siemens**
 Sollatek AVR: **600Amps/Phase**
 Number of Systems: **1**
 Power: **414kVA**
 Installation Date: **2021**
 Site Type: **Substation**
 Country of Install: **UK**

Seagreen Wind Energy Ltd is a £3bn offshore wind farm development and will take on the title of Scotland's largest offshore wind farm. The site is located over 27km from the Angus coastline with a potential combined capacity of up to 1.5GW and composed of 114 turbines. The electricity is delivered by subsea and then underground cables from landfall at Carnoustie to a new onshore substation at Tealing where the Sollatek AVRs are installed.



Project: **Peterhead**
 Customer: **GE**
 Sollatek AVR: **800Amps/Phase**
 Number of Systems: **2**
 Power: **552kVA**
 Installation Date: **2022**
 Site Type: **Substation**
 Country of Install: **UK**

The Peterhead project involves the upgrade of the existing 275 kV substation and construction of a new 400 kilovolt (kV) substation close by. This project assists in delivering connect new generation and facilitate the delivering Scottish generation to homes and businesses across Britain, helping the country move towards a low carbon economy.



Project: **Saudi Embassy**
 Customer: **Enzar**
 Sollatek AVR: **600Amps/Phase**
 Number of Systems: **1**
 Power: **414kVA**
 Installation Date: **2022**
 Site Type: **Office/Embassy**
 Country of Install: **Tanzania**

The Saudi Embassy's requirement for an solution to their site power concerns and over reliance on diesel generators was fulfilled by Sollatek's AVR. The AVR's robustness, wider input range and remote connectivity provided more than the basic requirements sought by the Embassy, but qualitatively enhanced the solution's functionality.



Project: **Residential Compound**
 Customer: **US Embassy**
 Sollatek AVR: **250Amps/Phase-2200Amps/Phase**
 Number of Systems: **16**
 Power: **5.7MVA**
 Installation Date: **2021**
 Site Type: **Residential**
 Country of Install: **Nigeria**

Upgrading the US Diplomatic compound in Abuja also required ensuring quality power was supplied to site. Through a process of intense selection process, Sollatek was awarded the contract to provide 16 AVRs of various capacities for the whole site. Sollatek's completely solid state and bespoke modifications for the customer proved to be the deciding factor.

