STABILISING THE FUTURE: DELIVERING FOR ORGANISATIONS GLOBALLY

WORLDWIDE • WINDFARM • SUBSTATION • OFFICE • RESIDENTIAL •

HIGHLIGHTING **KEY PROJECTS**

RELIABLY OPTIMISING GRID PERFORMANCE

Sollatek are global leaders in voltage regulation, providing industry leading solutions for sensitive equipment. Using state of the art technology our AVRs boast a wide input range and fast correction speeds. Engineered to stabilise and protect your equipment, they excel in even the most challenging environments, ensuring precision, consistency and reliability.

DEVELOPING TECHNOLOGIES FOR A BETTER WORLD

Scottish & Southern Electricity Networks · nationalgrid · SIEMENS · sse Renewables · OMEXOM · Balfour Beatty · Ørsted · THE WORLD BANK IBRD • IDA | WORLD BANK GROUP

STABILISING THE FUTURE: REINFORCING CRITICAL INFRASTRUCTURE

Sollatek has cemented its reputation as a dependable partner in the power supply infrastructure by providing Automatic Voltage Regulators (AVR) to numerous projects across the UK.

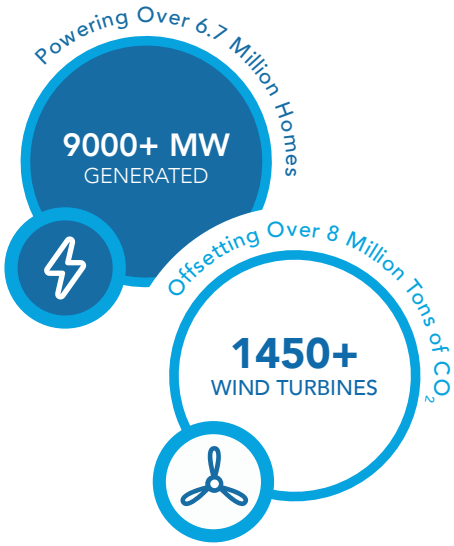
The energy sector has witnessed significant growth in recent years with windfarm projects becoming one of the largest sources of renewable energy in the UK. Since 2009, the surge in alternative energy production has seen an increase of 715%. These projects are revolutionising the energy landscape and driving the adoption of cleaner, more sustainable energy generation methods.

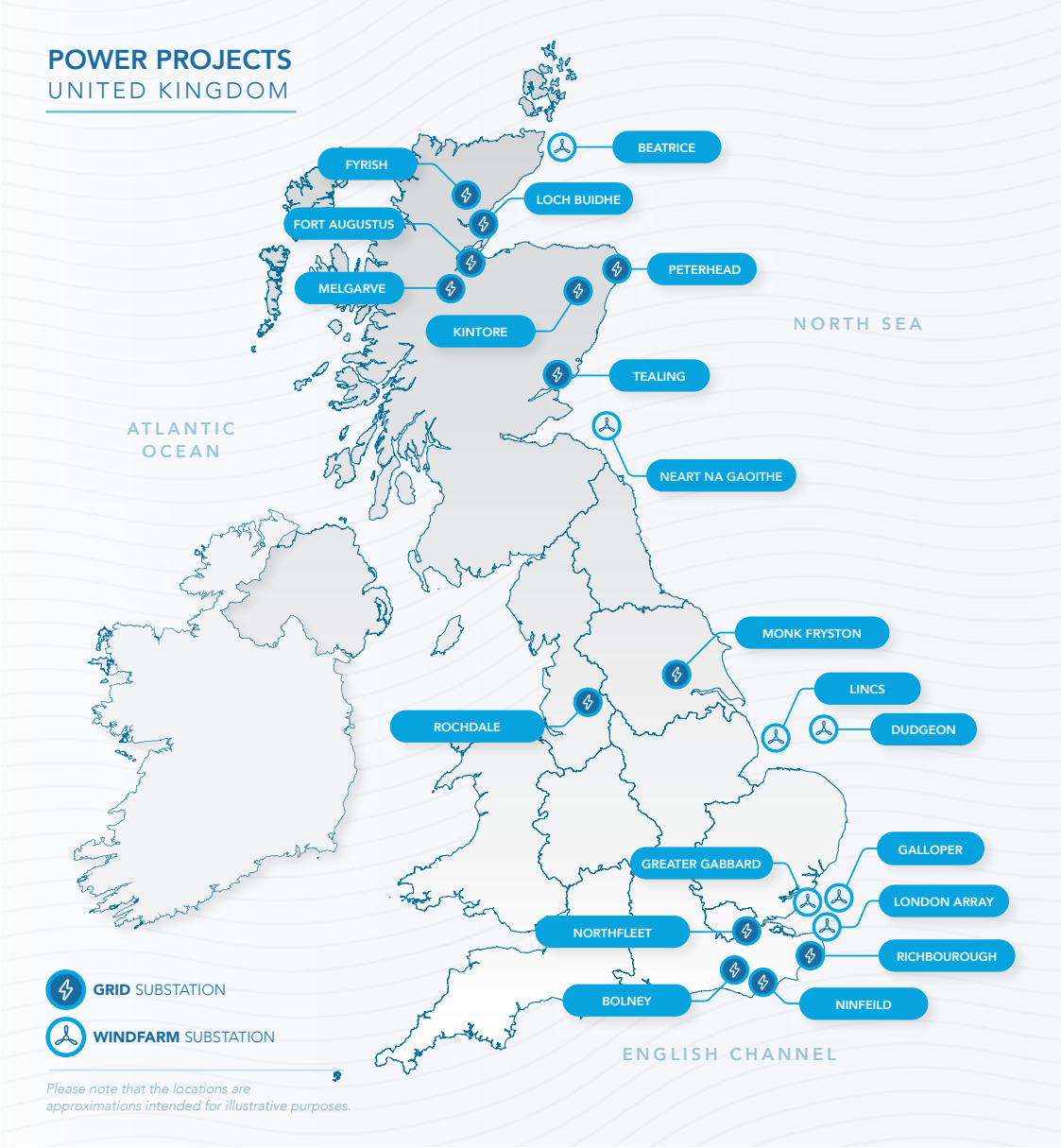
AVRs have been successfully deployed in some of the largest offshore windfarms in the UK, playing a crucial role in maintaining the stable operation of sensitive equipment. They have also served over 1,400 wind turbines, which collectively power more than 6.7 million homes with clean energy. The projects Sollatek have supported have contributed to offsetting over 8 million tonnes of CO_2 emissions.

This substantial contribution plays a vital role in the nations progress towards a net zero future. Designed to operate in demanding conditions, Sollatek AVRs have demonstrated their robustness and reliability becoming an essential component within the power distribution network.

Their technology is regarded for efficiently regulating power and ensuring stable and continuous supply of clean energy. From small appliances to large applications, Sollatek can provide you with a solution. With single phase and three phase applications available, the Sollatek range of voltage regulators is your answer in the most unstable power conditions.

STABILISING VOLTAGE TO SUBSTATIONS





STABILISING THE FUTURE: SCOTLAND

OMEXOM

KINTORE

Customer	Omexom
Sollatek AVR	1000 Amps/Phase
Number of Systems	1
Power	690 kVA
Installation Date	2023
Country	UK

Large developments have prompted SSEN to construct a 400kV substation in Leylodge, Kintore. The project will ensure the transmission network in North Scotland can take energy from the source of generation to centres of demand across the UK.

Balfour Beatty

PETERHEAD

Customer	Balfour Beatty
Sollatek AVR	800 Amps/Phase
Number of Systems	2
Power	552 kVA
Installation Date	2022
Country	UK

This project involved upgrading the existing 275kV substation and the construction of a new 400kV substation close by. It assists in connecting the North East transmission network, delivering power to homes and businesses across Britain.

FORT AUGUSTUS

Customer	GE
Sollatek AVR	800 Amps/Phase
Number of Systems	1
Power	552 kVA
Installation Date	2022
Country	UK

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

SIEMENS

TEALING

Customer	Siemens
Sollatek AVR	600 Amps/Phase
Number of Systems	1
Power	414 kVA
Installation Date	2021
Country	UK

The Seagreen development is Scotland's largest offshore windfarm located 27km from the Angus coastline. With 114 turbines, it has a capacity of up to 1.5GW. The electricity is delivered by subsea underground cables to a new substation at Tealing.

Peterhead AVR – 2022
AVR3PE800-08

STABILISING THE FUTURE: SCOTLAND

NnG OFFSHORE WIND

NEART NA GAOITHE

Customer	GE
Sollatek AVR	1500 Amps/Phase
Number of Systems	2
Power	1035 kVA
Installation Date	2020
Country	UK

Located off the Fife coast in Scotland, NnG covers approximately 105km^2. It is expected to generate 450 MW of renewable energy, enough to power approximately 375,000 homes and offsetting 400,000 tonnes of CO_2 each year.

Beatrice Offshore Windfarm Ltd

BEATRICE

Customer	Siemens
Sollatek AVR	1200 Amps/Phase
Number of Systems	2
Power	828 kVA
Installation Date	2017
Country	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.

SIEMENS

LOCH BUIDHE

Customer	Siemens
Sollatek AVR	600 Amps/Phase
Number of Systems	1
Power	414 kVA
Installation Date	2017
Country	UK

This involved the re-conductoring of the existing 275kV conductor between Beauly and Ardross. New conductors on the east side of the double circuit tower line were installed from Ardross to Dounreay and a new substation built at Loch Buidhe.

SIEMENS

MELGARVE 1A / 1B

Customer	Siemens
Sollatek AVR	600 Amps/Phase
Number of Systems	2
Power	414 kVA
Installation Date	2018
Country	UK

In partnership with SSEN, Siemens BAM designed and constructed a 400/132kV GIS electrical substation in the Scottish Highlands. Melgarve substation facilitates the connection of 67 wind turbines at Stonelairg windfarm to the national grid.

SIEMENS

MELGARVE 3 STATCOM

Customer	Siemens
Sollatek AVR	600 Amps/Phase
Number of Systems	1
Power	414 kVA
Installation Date	2020
Country	UK

The new STATCOMs at Melgarve provide voltage stability to the wider SSEN Transmission network. Creating a secure and reliable network for its SSEN customers, reducing the length of future outages for planned windfarm extensions or repowers.

SIEMENS

FYRISH

Customer	Siemens
Sollatek AVR	600 Amps/Phase
Number of Systems	1
Power	414 kVA
Installation Date	2017
Country	UK

Located near Alness, the 275/132kV Fyrish substation is part of the wider reinforcement of the existing electricity network by SSE. Helping to provide a robust network security and increasing the network's capacity.

STABILISING THE FUTURE: MIDLANDS & SOUTH EAST

AVR Interior
Various Models

SIEMENS

GREATER GABBARD

Customer	Siemens
Sollatek AVR	600 Amps/Phase
Number of Systems	1
Power	414 kVA
Installation Date	2020
Country	UK

For many years the 140-turbine windfarm was the largest windfarm under development worldwide and has been in operation since 2012. Now, the 504MW Greater Gabbard windfarm generates enough energy to power over 400,000 UK homes.

DUDGEON Offshore Wind Farm
Operated by Equinor

DUDGEON

Customer	Siemens
Sollatek AVR	1200 Amps/Phase
Number of Systems	2
Power	828 kVA
Installation Date	2016
Country	UK

The offshore windfarm is located 32km off the coast of North Norfolk. Since completion in 2017, this 402MW windfarm has been producing clean energy to power more than 430,000 UK homes from its 67 6MW wind turbine generators.

Galloper Wind Farm Ltd

GALLOPER

Customer	GE
Sollatek AVR	800 Amps/Phase
Number of Systems	2
Power	552 kVA
Installation Date	2017
Country	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.

SIEMENS

MONK FRYSTON

Customer	Siemens
Sollatek AVR	800 Amps/Phase
Number of Systems	3
Power	552 kVA
Installation Date	2012
Country	UK

The 400/275kV substation located in North Yorkshire is operated by National Grid and was part of a comprehensive upgrade program to enhance the power network due to increased regional demand.

STABILISING THE FUTURE: MIDLANDS & SOUTH EAST

TOMATIN

Customer	GE
Sollatek AVR	400 Amps/Phase
Number of Systems	1
Power	276 kVA
Installation Date	2019
Country	UK

The £30m project designed at Tomatin, South of Inverness, enables new renewable energy to connect to the high voltage transmission systems. This development also helps develop onshore wind power generation in the area around Tomatin.

NINFIELD

Customer	GE
Sollatek AVR	600 Amps/Phase
Number of Systems	3
Power	414 kVA
Installation Date	2018
Country	UK

To improve the electricity supply to the surrounding area, a connection between Bolney and Ninfield has been established, serving as a key asset for electrical connection between England and France bringing power to thousands of homes and businesses.

RICHBOUROUGH

Customer	GE
Sollatek AVR	600 Amps/Phase
Number of Systems	3
Power	414 kVA
Installation Date	2018
Country	UK

National Grid is connecting new energy sources around the UK with new connection between Belgium and Richborough known as the Nemo link. It will allow electricity to flow between the UK and Europe, providing a secure supply of electricity.

BOLNEY

Customer	GE
Sollatek AVR	600 Amps/Phase
Number of Systems	3
Power	414 kVA
Installation Date	2018
Country	UK

As one of 4 Grid Supply Points in South East England, Bolney is responsible for connecting the high voltage from the Grid to the distribution network. Bolney is also at a scale to receive power exported from UK's offshore wind farms.

NORTHFLEET

Customer	Siemens
Sollatek AVR	800 Amps/Phase
Number of Systems	3
Power	552 kVA
Installation Date	2012
Country	UK

National grid Company erected a 400kV GIS substation in Northfleet, Kent and as part of an upgrade of National Grid substations. Siemens continued their partnership with Sollatek to provide their proven AVR technology for this site.

LONDON ARRAY

Customer	Siemens
Sollatek AVR	600 Amps/Phase
Number of Systems	1
Power	414 kVA
Installation Date	2012
Country	UK

Located 20km off the North Kent Coast, London Array has a 630 MW capacity and generates enough clean electricity to power around 500,000 British homes, while displacing around 900,000 tonnes of CO_2 a year.

ROCHDALE

Customer	Siemens
Sollatek AVR	800 Amps/Phase
Number of Systems	3
Power	552 kVA
Installation Date	2012
Country	UK

As part of a project to increase and strengthen network capacity, National Grid have upgraded their substations in these sites. It operates parallel with the Penwortham substation and supplies approximately 155,000 homes across Lancashire.

LINCS

Customer	Siemens
Sollatek AVR	600 Amps/Phase
Number of Systems	1
Power	414 kVA
Installation Date	2013
Country	UK

The Lincs windfarm is located near Skegness on the East coast of England and produces 270 MW of energy; enough to power 175,000 homes. The total cost of the project is estimated at £1 billion including electrical transmission links.

STABILISING THE FUTURE: INTERNATIONAL

ASAHI

Customer	SCE Power
Sollatek AVR	250 Amps/Phase
Number of Systems	1
Power	115 kVA
Installation Date	2019
Country	Australia

Asahi's Australian facility faced disruptive voltage fluctuations, but Sollatek's AVR proved to be the perfect solution, mitigating voltage fluctuations and providing a stable power supply, thereby optimising Asahi's production processes.

SAUDI ARABIA EMBASSY

Customer	SA Foreign Office
Sollatek AVR	600 Amps/Phase
Number of Systems	1
Power	414 kVA
Installation Date	2022
Country	Tanzania

The Saudi Embassy's over reliance on diesel generators had become a cause for concern. Sollatek AVR's was the solution, with its robustness, wider input range and remote connectivity providing more than the basic requirements sought by the Embassy.

US RESIDENTIAL COMPOUND

Customer	US Embassy
Sollatek AVR	250–1500 Amps/Phase
Number of Systems	16
Power	5700 kVA
Installation Date	2021
Country	Nigeria

After an intense selection process, the US Embassy in Abuja selected Sollatek to ensure quality power supply to their site. Sollatek successfully provided 16 solid state AVRs of various capacities with bespoke modifications added to suit customer demands.

THE WORLD BANK

Customer	The World Bank
Sollatek AVR	300 Amps/Phase
Number of Systems	1
Power	207 kVA
Installation Date	2003
Country	Armenia

When the World Bank decided to upgrade their operations in Armenia, Sollatek was awarded the contract to ensure a stable and reliable power supply was provided to safeguard their critical infrastructure.

PEACE CORPS

Customer	Logos Ind
Sollatek AVR	200 Amps/Phase
Number of Systems	1
Power	138 kVA
Installation Date	2023
Country	Zambia

The Peace Corps offices were severely impacted by extreme voltage fluctuations. However, with the implementation of Sollatek's AVR, the voltage fluctuations were effectively stabilised, enabling uninterrupted essential work in the region.

PHILIPS

Customer	Philips Medical
Sollatek AVR	Various
Number of Systems	Various
Power	Various
Installation Date	Ongoing
Country	Global

Sollatek is the preferred supplier for Automatic Voltage Regulators for Philips for their MRI and CT scanners when shipped to countries where stable voltage is an issue.

SOLLATEK'S EXPERTISE EXTENDS WORLDWIDE THROUGH LOCAL NETWORKS

GLOBAL AND LOCAL

With a global customer base and a local presence in over 60 countries, Sollatek offers comprehensive services wherever you are. Our extensive network ensures prompt assistance tailored to your location, backed by our expertise in local markets and understanding of regional challenges.

SOLLATEK (UK) LIMITED
Sollatek House, Waterside Drive, Langley, Slough SL3 6EZ, United Kingdom

Tel: +44 (1753) 214 500
Email: sales@sollatek.com
Web: www.sollatek.com

MJA	11/08/2023

Professional Power Solutions Case Study Aug 2023 v1
A/I: 10910964