

Richard Gauld BSc (Hons) IEng InstMC Dip.DesInn

Professional Review

Richard Gauld has been part of the UK wind energy industry since 1987. Projects include the first UK built wind turbine, the first UK windfarm and the first UK offshore wind turbine. Richard is a Member of the Institute of Measurement and Control, and is registered as an Engineer with the Engineering Council.

Richard is a hands-on design engineer, and has worked closely on a range of projects with the internationally respected consultancy firm Garrad Hassan and Partners.

Continuing professional development has included study into Oceanography, Geology, Environmental Impact and Resources, Renewable Energy, Sustainable Design and Innovation. Richard is an Honours Science Graduate, and qualifications include Earth Sciences, Environment, Design, and Electrical and Electronic Engineering:

Qualification	Date Qualified
BSc (Hons) Upper Second Class	2006
Diploma in Design and Innovation	2006
I Eng MInstMC; Registered with The Engineering Council	2001
HNC Electrical and Electronic Engineering	1982
ONC Electrical Engineering	1980

Wind Energy Planning

Richard has designed windfarms and managed successful planning consents for a range of wind energy projects throughout Scotland, including the Balnamoon, Methlick, Mains of Bogfechal, Herscha Hill, and Dummuie projects in the North East of Scotland, the three turbine development at Melness in Sutherland, and the Hammars Hill, Burgar Hill, Stronsay, Burray and Birsay projects in Orkney.

Strain and Loads Measurement

Machine and resource measurement is required on all new design wind turbines. These monitoring projects have been multi-national, involving travel and work throughout Europe. An instrumentation supply and installation service is provided.

Operations and Maintenance

Richard is the Director and Site Manager of the Northfield wind turbine operating on the island of Burray in Orkney. This turbine has been operating successfully for over four years.

Resident Engineer

Resident Engineer services were supplied to the 30MW Castelfranco in Miscano wind farm, Southern Italy, in 1999, representing Garrad Hassan & Partners Ltd.

Richard has a proven record of providing quality work throughout Scotland and Europe, and the following is a summary of successful projects completed by Richard over the last twenty two years:

Project	Role	Capacity	Dates
Hammars Hill Project, Orkney	Design, planning and environmental impact	4.5 MW	2007- present day
Birsay Energy Project, Orkney	Design, planning and environmental impact	0.85 MW	2006- present day
Nordic Wind Turbine, Gotland, Sweden	Strain and loads measurement	1 MW turbine	2008
Balnamoon Project, Moray	Design, planning and environmental impact	0.85 MW	2004- present day
Herscha Hill Project, Aberdeenshire	Design, planning and environmental impact	1.3 MW	2004- present day
Methlick Project	Design, planning and EIA	6 x 2 MW	2006 – present day
Sigurd Project, Orkney	Design, construction and Site Manager	1.3 MW	2001- present day
Northfield Project, Orkney	Design, construction and Site Manager	0.85 MW	2003 – present day
Paldiski Project, Estonia	Strain and loads measurement	4 x 2.5 MW turbines	2005
Thorfinn Project, Orkney	Design and Planning	4.25 MW	2001-2003
Rothiesholm Project, Orkney	Design and Planning	3 x 0.85 MW	2001
Melness Project, Sutherland	Design, planning and environmental impact	3 x 0.85 MW	2004-2006
Dummuie Project, Aberdeenshire	Design, planning and environmental impact	7 x 1.75 MW	2004-2005
Blyth Harbour, Offshore	Strain and loads measurement	2 x 2MW	2001
Castlefranco in Miscano, Italy	Resident Engineer	30 MW	1999
Arklow Bank offshore, Eire	Offshore wind measurement	-	2001
EHN project, Navarre, Spain	Strain and loads measurement	1.3 MW	2000
Vestas 1.6MW, Andalusia, Spain	Strain and loads measurement	1.6MW	1999
RES 1MW, Northern Ireland	Strain and loads measurement	1 MW	1998
Garrad Hassan, UK and EU	Strain and loads measurement	5 x wind turbines,	1993 - 1997
Cemmaes and Coldnorthcott, UK	Commissioning engineer	300kW wind turbines	1992-1993
Burgar Hill prototypes, Orkney	Senior Technician	1 x 3MW, 1 x 250kW	1987 - 1991

Wind Turbine Commissioning

The Orkney 3MW turbine was commissioned initially during 1987 to 1991 then subsequently in 1995 following major repairs, Cemmaes wind farm was completed in 1993, the WEG400 in 1994 and the WEG MS3 variable speed wind turbine at Myers Hill was completed in 1996. A Nordex 1.3MW was installed and commissioned on Burgar Hill in 2000, and a Vestas V52 was installed on Burray in 2004.

Technical Papers

The First Community Wind Turbine; Gauld. All Energy Conference, Aberdeen 2006.

Wind Energy Developments in the Orkney Islands; Gauld. Proceedings of the 1st European Renewable Energy Islands conference, 1998.

Sustainable Energy for an Island Community; Gauld and White. Proceedings of the 18th British Wind Energy Association (BWEA) annual conference, 1996.

Recommissioning and Operating the LS1 3MW, Burgar Hill, Orkney Wind Turbine, using a novel crack repair; Burton, Fern, Gauld and Twidell. 17th BWEA conference, 1995.

Published Reports

Horizontal Axis Wind Turbine Generator Systems Development, ETSU for the DTI.

Additional Monitoring of the WEG MS3 at Carmarthen Bay, ETSU.

The MS2 Demonstration Wind Turbine Generator for the Canary Islands, European Commission Directorate for Energy.

The Installation of the WEG MS-3 Wind Turbine Generators at Cemmaes, European Commission Directorate for Energy.

Awards

1996 BWEA Special Commendation for Technological Achievement.

Professional Institute and Associations

Institute of Measurement and Control

British Wind Energy Association.

British Society for Strain Measurement.

Orkney Renewable Energy Forum.

Reference

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