

Job Description

1. The Position	
Position	Grid Systems Engineer
Company information	<p>Welsh Power Group Limited is an employee-owned entrepreneurial energy business. The company's focus is on providing flexible generation and grid stability services to support the UK energy sector's transition to net zero. We are based in Cardiff however our projects are located across Wales, England, Scotland, and the Republic of Ireland.</p> <p>Welsh Power has developed and built 27 separate power assets and operates a portfolio of 730MW of flexible generation on behalf of several investors.</p> <p>We are a key player in the stability sector, having won seven National Energy System Operator's (NESO) Pathfinder contracts to date. Welsh Power developed and continues to manage the Rassau Synchronous Condenser, which was one of the first dedicated grid stability facilities in the UK delivered under NESO's Pathfinder 1 contract. Our second facility, in Rothienorman, became operational in December 2024; the third in Thurso South in May 2025; and the fourth in Gretna, in September 2025. All three were delivered through NESO's Pathfinder 2 contract.</p> <p>We have one Pathfinder 2 grid stability project remaining nearing the end of construction in Scotland and two Pathfinder 3 contracts in the earlier stages of construction in Kent and South Wales.</p> <p>Welsh Power is not an asset owner but develops, constructs, and operates power assets on behalf of financial investors. Within the sector this makes Welsh Power unique.</p>
Company Values	<ul style="list-style-type: none"> • Trust - Demonstrating integrity, commitment, loyalty, honesty and fairness. • Resilience - Demonstrate an ability to manage and take challenging situations in our stride and come out stronger. • Excellence - To aim for and demonstrate excellence whether this is personal, professional or technical in all we do for the organisation. • Enthusiasm - Demonstrate passion for and an eagerness in the development of the organisation. • Safety - To be committed to ensuring Welsh Power and all those associated with Welsh Power operate safely.
Position Summary	<p>Our company is seeking a highly motivated Grid Systems Engineer with a background in electrical engineering to join the Engineering and Compliance Team. This role presents a unique opportunity to contribute to cutting edge grid stability projects and support the development of strategic energy initiatives across the UK and Ireland. It also offers exposure to emerging technologies such as grid-forming inverters, synthetic inertia, and advanced control systems while encouraging the development of technical expertise and collaboration across multidisciplinary teams.</p> <p>The position is ideally suited to individuals with a BEng/MEng in Electrical Engineering or an MSc/PhD in Power Engineering - including recent graduates and those with a few years of</p>

	<p>experience in contracting, consulting, or related roles - who are seeking to apply their technical knowledge in a practical setting and progress towards becoming a specialist within the energy sector.</p> <p>As part of the Engineering and Compliance Team, the successful candidate will be responsible for supporting multidisciplinary activities and contributing to the company's growth as a leading developer in grid stability and emerging technologies, supporting the UK's transition to a Net Zero energy system.</p>
How to Apply?	Please send a CV to: careers@welshpower.com
Manager / Reporting Structure	The successful candidate will report directly to the Engineering and Compliance Manager.
Key Responsibilities	<p>The Grid Systems Engineer will undertake various tasks, including but not limited to:</p> <ul style="list-style-type: none"> ○ Perform detailed power system studies including load flow analysis, short circuit analysis, dynamic stability (RMS) and electromagnetic transient (EMT) analysis using industry standard simulation tools i.e. PSCAD and Powerfactory; ○ Develop and maintain accurate models of transmission and distribution networks, reflecting current system configurations and planned upgrades; ○ Provide electrical input into the location and electrical characteristics of new development projects, supporting feasibility assessments and early-stage designs; ○ Design grid connections, including the development of single line diagrams (SLDs), protection and measurement SLDs and electrical system layouts; ○ Prepare and manage transmission and distribution grid connection applications for a portfolio of developments, working closely with OEMs, consultants and transmission/distribution network operators; ○ Support project development, procurement and client engagement during construction phases, including scoping and overseeing (where necessary) the detailed electrical studies required under G99 and the Grid Code; ○ Support wider teams including Development, Project Delivery, Operations and Commercial - by providing technical inputs and grid related insights across all phases of project development and delivery; ○ Research and keep up to date with emerging technologies and Grid Code modifications to inform project development and delivery. ○ Assist in the development and refinement of internal technical specifications, standards, policies and procedures to ensure consistency and engineering excellence. <p>This list of duties may be subject to change to meet the future requirements of the business, and therefore the above list is neither exclusive nor exhaustive.</p>

2. Person Specification

Knowledge, Skills, Attributes and Qualifications	<p>The successful candidate for this position must hold a minimum of a BEng/Meng degree in a related field such as Electrical Power Engineering or Power Electronics. A higher qualification such as an MSc/PhD is considered highly desirable. Candidates with equivalent practical experience gained through contracting, consulting, or industry placements are also encouraged to apply. The role is open to individuals at various stages of early career development, including postgraduate researchers and professionals seeking to transition into a specialist role within the energy sector.</p> <p>The successful candidate will possess modelling and simulation skills using professional software packages such as PSCAD, Powerfactory, and other similar packages. The candidate will also have software programming or scripting skills (e.g. PYTHON, Octave) and experience with GitHub in the domain of power system engineering. Basic computer-aided design skills using AutoCAD could be useful but not essential.</p>
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	<p>The candidate must demonstrate a professional approach and attitude at all times and have strong problem-solving skills. They must be prepared to handle high-level sensitive information, and confidentiality and integrity are absolutely essential. They must be highly organised and pay attention to detail, as well as being able to work collaboratively with people across different disciplines.</p> <p>The successful candidate must be enthusiastic about shaping the evolution of low-carbon electricity networks and contributing to the UK's transition towards a net zero energy system. They should be capable of working effectively both remotely and independently. They must have excellent verbal, written, and presentation communication skills and the ability to self-motivate and effectively manage their workload and prioritise tasks in a dynamic environment.</p> <p>The Grid Systems Engineer is expected to work under supervision until they gain sufficient experience to handle tasks independently. This period will vary depending on the individual. Additionally, the list of duties may be subject to change to meet the future requirements of the business.</p> <p>A full driving licence is required for site visits and access to a vehicle would be advantageous.</p>
Special Features	<p>The role can be flexible in terms of location, involving a combination of regular (normally weekly) site visits to the projects that the candidate will manage, occasional visits to our Cardiff City Centre office when required, as well as working from home.</p> <p>Whilst the position is full-time with a standard 37.5 hour working week (excluding hour breaks for lunch each day), the role is results focused, and the candidate will be expected to manage their time accordingly.</p>
What We Offer	<ul style="list-style-type: none"> ○ The position is full-time with a standard 37.5 hour working week (excluding lunch). ○ To be part of an exciting, innovative, passionate, and entrepreneurial team environment at the cutting edge of new energy developments and innovations. ○ Competitive salary, bonus and benefits package, including eligibility for a tax-free employee dividend. ○ Automatic participation in an employee-owned business structure, with the positive working culture and financial benefits that this affords. ○ 25 days of annual leave plus bank holidays (can be up to 30 with holiday loyalty scheme). ○ Opportunity to be involved in the company electric car and/or cycle-to-work salary sacrifice schemes. ○ Opportunity to be involved in regular social activities organised by the Wellbeing team. ○ Provision of all PPE required for site visits. ○ Opportunities for continuous training and development in line with business needs. Welsh Power will encourage any professional training and ambitions to gain relevant professional qualifications and will fund relevant professional memberships.

As a Welsh Power employee, you are required to comply with all Welsh Power policies and procedures.