**Green Cat Renewables Job Advertisement – Senior Electrical Design Engineer**

Location: Edinburgh or Glasgow

**The Company**

Green Cat Renewables (GCR) is a dynamic, innovative company that provides the complete range of technical services required to deliver renewable energy and green hydrogen projects. The team of over 100 Engineers and Environmental Consultants deliver projects on behalf of clients from four offices in Edinburgh, Glasgow, Livingston and Biggar. GCR also works closely with its three sister companies Green Cat Hydrogen and Green Cat Contracting based in the UK and Green Cat Renewables Canada based in Calgary and Halifax.

Through the Engineering Department, the company provides Engineering Consultancy and Project Management services to Clients on wind, solar, BESS, green hydrogen and hybrid projects. This includes full electrical design and management including on-site, grid (distribution and transmission level), and ICP works.

Green Cat Renewables requires a Senior Electrical Design Engineer to join the Engineering Team in Edinburgh or Glasgow.

**The Role:**

The Senior Electrical Design Engineer will work on all facets relating to the electrical engineering works of green hydrogen and renewable energy projects, through all phases of development from project feasibility, procurement, detailed design, construction, and the completion of testing/commissioning. They will also work with engineering professionals and project managers to provide technical electrical engineering support as an Owner’s Engineer. They will apply engineering knowledge and professional judgement acquired through experience to fulfil this role, in accordance with codes, standards, and best practice. Direct experience relating to project construction is considered an asset. They will also work with engineers, draftsmen, and designers to review various scopes such as engineering work packages, grid applications, and power system studies. There will be a specific focus on the electrical design elements of the growing number of green hydrogen projects currently under way within the business.

* Act as an electrical engineering resource for all areas of green hydrogen and renewable project development.
* Conduct technical reviews of electrical engineering deliverables provided by internal and external parties.
* Conduct and/or oversee construction phase services, inclusive of responding to RFI’s, issuing site instructions, reviewing CAD drawings, and completing site assessments
* Act as the Senior Electrical Design Engineer for engineering work packages, inclusive of Electrical equipment sizing (e.g. transformers, switchgear, cables, busbars, protection devices), SLDs, cabling layouts and schedules, earthing/bonding design, and protection coordination/setting.
* Manage and/or oversee multiple projects, inclusive of electrical scope, budget, schedule, and resourcing.
* Manage and/or lead meetings between internal professionals, owners, contractors, external consultants, and utilities.
* Mentor junior engineers, designers / drafters, professionals.
* Prepare electrical engineering proposals in response to developer and utility requests for proposals.
* Attend networking events, client meetings and support business growth opportunities as required.
* Support internal reporting and project tracking efforts.
* Undertake design work and design reviews on all types of renewable generator and green hydrogen projects
* Carry out active problem solving with various project stakeholders (Clients, Network Operators, technology suppliers’, contractors) to manage and mitigate renewable projects’ electrical elements.
* Provide electrical input (reviewing and approving) and managing Balance of Plant Contractors, ICP and Suppliers, including associated Agreements and Contracts.
* Prepare and review of electrical scopes of work and specifications for tendering.

The candidate will on occasionally be required to support the wider team with technical and non-technical aspects of the business, including, business development, report and proposal writing and resource monitoring/assessment.

**The Candidate:**

*Essential*

* Minimum BEng or equivalent degree in Electrical Engineering.
* 5+ years’ experience in a technical electrical design role within industries such as renewable energy, power generation, oil & gas and chemical processing.
  + Experience in other industries is also welcomed, provided the candidate can demonstrate **skills transferrable to the electrical design of a green hydrogen facility**, including HV/LV distribution, protection, earthing, cabling, and integration with process equipment.
* Demonstrated technical leadership in detailed electrical design of LV distribution and HV power systems (up to 33kV) within relevant industry.
* Ability to evaluate suppliers’ bids and contractors’ proposals technically and commercially.
* Strong understanding of all phases of project development, specifically of construction of energy generation and/or industrial sites.
* Experience in taking leadership for the design of some or all of the items below;
  + **Electrical equipment sizing calculations** – including transformers, switchgear, cables, busbars, protection devices, UPS systems, earthing, and standby generation.
  + **Single-line diagrams, interconnection wiring, and schematic diagrams** for LV and HV distribution systems, motor control centres (MCCs), protection and control systems, and integration with process plant equipment.
  + **Cabling layouts and schedules** – encompassing HV and LV power, routing, containment, segregation, and installation types.
  + **Earthing and bonding system design** – including grid/rod sizing, step and touch voltage studies, , lightning protection, and compliance with IEC/BS standards.
  + **Interface design** with utility/grid connections, process equipment packages (compressors, pumps, electrolysers), and balance-of-plant systems.
  + **Verification and review** of consultant/contractor deliverables to ensure compliance with project standards, regulatory requirements, and safety codes.

*Desirable*

* Chartered Electrical Engineer status
* Experience of ATEX requirements for industrial process environments and implications to detailed electrical design
* Experience of process safety and risk reviews; including HAZOP, HAZID, SIL studies, and electrical safety assessments
* Experience of designing electrical power systems at 132kV voltage level and above.
* Experience with Transmission & Distribution utility engineering or similar experience
* Knowledge of electrical building design /code
* Capable of innovative solutions and approaches and is open-minded to alternative solutions
* Knowledge of the UK Grid Code and ENA G-99/G-100 engineering requirements
* Experience with software-based modelling and simulation in some or all of: ETAP/PSCAD/PSSE/DigSILENT/CDEGS
* Experience in power generation, grid connection, and grid connection processes

**Benefits:**

* Competitive salary
* 25 Days annual leave and 8 flexible bank holidays
* Private Medical Healthcare
* Cycle to work scheme
* Professional development opportunities and support
* Professional fees paid for by the company
* Company social events and team building days
* On-site parking with EV charging points available to staff (Edinburgh)

To apply please send a full CV and covering letter to [jobs@greencatrenewables.co.uk](mailto:jobs@greencatrenewables.co.uk) .