Energy Centres & Building Connections Lead

Salary: Salary dependent on experience + Up to 20% performance bonus

Benefits: Up to 7% matched Pension, private medical insurance, and travel insurance

Hours/days per week: 37.5 hours/5 days

Place of work: Hybrid minimum 3 days in South Oxford office

Reports to: Chief Development Officer

About us

Heat in buildings accounts for more than a third of the UK's total carbon emissions, with more than two million businesses and 24 million homes burning fossil fuels for heating.

To achieve Britain's climate goals, there is an urgent need for a national shift from fossil fuel heating to low-carbon alternatives—and heat networks offer a proven, scalable option.

1Energy is the UK's leading developer of low-carbon, city-heat-networks. Our mission is to decarbonise heat in cities and towns across the UK, accelerating the transition to net zero.

Our heat networks provide the lowest cost, simplest and fastest route to decarbonising heat at scale and a long-term foundation for healthier, greener cities.

In just over three years, 1Energy has grown from a start-up to having over £600m of heat networks in development, with ambitions to deploy £1bn within the next eight years into building new networks.

1Energy is backed by a dedicated fund established by Asper Investment Management, which supports the development, construction and operation of our networks.

Our team are leaders in the heat network industry—having delivered and operated more than 100 district heating projects over the past 15 years.

As our Energy Centre and Building Connections lead, you'll be responsible for the technical development and concept design of the plant, substations and connections that bring 1Energy's heat networks to life. You'll assess the heat demand of buildings, carry out energy systems modelling, create layouts for Energy Centres and Connections, and develop the technical evidence that takes projects from feasibility through to investment-ready, deliverable designs.

Working alongside internal colleagues and specialist external consultants, suppliers and contractors, you'll produce the concept designs, technical documentation and procurement strategies that underpin robust, investable projects. We're looking for a technically strong, detail-oriented engineer who is passionate about decarbonising heat and enjoys turning analysis into practical, buildable solutions.

What you'll do

Energy Centre, substation & connection design

- Develop Energy Centre layouts, with particular focus on sizing the physical footprint and arranging plant
- Produce concept designs for Energy Centres and building connections
- Produce concept designs for district heating substations
- Carry out utility connection sizing and prepare utility connection applications
- Undertake land assessments to identify and evaluate suitable Energy Centre and network sites
- Complete site surveys for potential 1energy customers to evaluate how to provide a suitable connection to 1energy's network

Technical evidence & design documentation

- Input to Basis of Design (BoD) and Design Brief evidence
- Develop preliminary engineering design evidence
- Provide feedback to network route surveys and constraints mapping to ensure they align with Energy Centre and Building Connection concept designs
- Produce outline construction drawings
- Produce energy balance modelling reports
- Develop an outline operations and maintenance (O&M) strategy

Suppliers, procurement & contracting

- Engage with equipment suppliers to inform design, specification and cost
- Prepare scopes of work for consultants and contractors
- Define procurement and contracting strategies for design, supply, construction and operation
- Draft tender documentation and lead pre-qualification studies
- Obtain costs and evaluate proposals from suppliers, consultants and contractors

- Assess connection agreement costs

Heat demand & energy systems analysis

- Carry out heat demand assessments of buildings to inform network and Energy Centre sizing
- Propose technical solutions to reduce flow temperatures and increase temperature differentials within customer buildings, while considering the commercial implications
- Undertake energy systems analysis and modelling to evaluate technology options and system performance
- Input to energy yield studies to assess generation potential and inform project viability

Collaboration & reporting

- Collaborate with internal colleagues and specialist external consultants on Energy Centre, network and building connection design
- Accurately report to management on technical progress
- Prepare and deliver presentations, proposals, reports and analyses as required
- Support activities across other 1Energy functions, including development, design and operations, as required

What you'll need

Essential

- A degree in Mechanical Engineering, Building Services Engineering, Energy Systems or a related engineering discipline (or equivalent experience)
- Three or more years' experience in a relevant sector, ideally district heating, communal heat networks, building services or low-carbon energy
- Experience in heat demand assessment and in energy systems analysis and modelling
- Knowledge of Energy Centre and heat network design, including substations, building connections and hydraulic modelling
- Experience preparing technical documentation such as design briefs, specifications, tender documents and engineering drawings
- Experience engaging with suppliers, consultants and contractors, including obtaining costs and evaluating proposals
- Strong quantitative and analytical capability, both technical and commercial
- Excellent verbal and written communication skills, with strong report-writing ability
- Strong IT skills, including proficiency in MS Word, PowerPoint and Excel

- A self-motivated team player who takes the initiative, works well independently and remotely, manages competing priorities and meets deadlines
- Attention to detail and strong organisational skills
- A passion for the UK's transition to a low-carbon energy system

Desirable

- Familiarity with CIBSE CP1 and UK heat network regulation and standards
- Experience with energy systems modelling and design software
- Knowledge of utility connection processes and applications
- Experience supporting projects funded through the Green Heat Network Fund (GHNF) or similar
- Willingness to travel nationally as required
- A full, valid UK driving licence

1Energy's team is comprised of head office remote and on-site roles, with our team members based across the UK; for this role, however, occasional travel will be required to meet with customers, stakeholders and colleagues.
All applicants must be eligible to legally work in the UK.

Work with us

If this sounds like you, we'd love to hear from you. Please send us an email with your CV to: info@1energy.uk