Job description – Strategy Analyst (Transport)

Background

The Energy Technologies Institute (ETI) is a public private partnership between global energy and engineering companies (BP, Caterpillar, EDF, Rolls-Royce, Shell) and the UK Government. The ETI works to accelerate the development, demonstration and eventual commercial deployment of a focused portfolio of energy technologies which will increase energy efficiency, reduce greenhouse gas emissions and help meet energy and climate change goals.

ETI's strategy team works to identify valuable technology opportunities and to assess the strategic challenges surrounding the commercialisation of new low carbon energy technologies. This work is underpinned by an analysis of the UK energy system including ETI's Energy System Modelling Environment (ESME – see http://www.eti.co.uk/project/esme/), alongside analysis of the constituent parts of that overall system, such as energy networks.

This role offers an exciting opportunity to bring to bear your strong analytical skills in a creative and forward looking environment.

Purpose

To contribute to the development of the ETI's technology strategy and programme portfolio by providing engineering, modelling and analysis capability in support of the ETI Strategy Managers.

The role has a particular focus on light and heavy duty vehicles, including the impact of PHEV's on the supply chain, the role of gas in heavy duty vehicles, impacts of legislative tools and policies on technology development and deployment, data management and analysis (e.g. through the use of steady-state and dynamic modelling tools), and the options and choices associated with transport out to 2050.

Location and employment term

This is a fixed term contract which will end December 2017, based in Loughborough.

Principal accountabilities

To support and manage the development of analytical tools and data sets (including energy supply, demand, carbon emissions and economic factors) that will guide the development, selection and integration of ETI Technology Programmes, and to perform studies and other analysis using these tools and data sets, that will specifically be used to inform the ETI's Transport Programme.

You will be a key player in ensuring that the ETI strategy and programmes are fact based and that critical information and assumptions are documented, so that the impact of changes can be readily assessed. This will require you to develop personal relationships and sources of information, and to ensure that new information is evaluated in a timely fashion and incorporated into the team's thinking.

Specific accountabilities include:

- Support the Strategy Manager (Transport) in the technical and economic analysis of key low carbon transport issues (such as the future roles of liquid fuels, hydrogen, electricity and natural gas for transport), their long-term challenges and the opportunities for technology development intervention;
- Liaise with the Programme Manager (Transport) to ensure that projects in development and those already in delivery align with the ETI's high level strategic objectives and the specific objectives of the ETI's Transport Programme;
- Manage the development of analytical tools and data sets to support the delivery of the ETI's LDV & HDV Transport Programme objectives, alongside the utilisation of pre-existing commercial tools such as Plexos;
- Review the technical aspects of project deliverables to (i) ensure the delivery of the desired project outcomes to the required technical quality; and (ii) ensure that the key strategic outcomes of the projects are recorded, analysed, communicated clearly and fed back into the ETI strategy development process;
- Ensure a consistent set of assumptions are maintained within the ETI for system modelling and economic evaluation of low carbon technologies, in particular in respect of the UK transport system likely to be needed to deliver 2050 energy targets;
- Ensure that the audit trail for key source documents and decisions is maintained and transparent, so that key modelling and strategic outputs can be traced back to their source inputs;
- Produce high quality summaries and analyses of analytical work for the ETI strategy team and external audiences.

Qualifications, experience & competencies required

This role requires someone who can carry out detailed numerical work accurately and rapidly, and who can understand the practical engineering implications of their analysis.

- Qualifications – must have a good degree (Bachelors, Masters or Doctoral level) in a relevant engineering or science subject with a strong systems flavour; should aspire to professional (Chartered) status within their discipline.
- Experience - should have two / three years post first-degree experience working in a systems engineering environment (this might include industry, Government, academia or other environments), and should be able to demonstrate experience of model building and programming, and experience of quantitative analysis and use of engineering / computer models. It would be desirable to have experience of coding and or building models from the ground up in Matlab environment.
- Skills - good communication & presentation skills (ability to present technical work to colleagues and to external audiences), high quality writing and analytical skills (ability to distil key messages from complex source data/reports), and strong inter-personal skills (articulate and able to work with a diverse team of colleagues with backgrounds across science, engineering, business, and policy).

Apply here