

## Research Associate in Energy System Modelling *Climate Compatible Growth (CCG) Programme*

Full-time and fixed term until 31<sup>st</sup> March 2025

Job Ref: REQ240783

As part of the University's ongoing commitment to redeployment, please note that this vacancy may be withdrawn at any stage of the recruitment process if a suitable redeployee is identified.

[Geography and Environment, School of Social Sciences and Humanities](#)  
[Climate Compatible Growth](#)

### Project Description

The Climate Compatible Growth (CCG) program is dedicated to fostering sustainable development in alignment with climate goals. Our mission is to support low and middle-income countries in developing economies that are resilient to climate change and compatible with global carbon emission reduction targets. The program integrates interdisciplinary research, policy analysis, and stakeholder engagement to devise strategies that address the complexities of sustainable development.

The programme brings together some of the UK's leading research organisations and partners them with local researchers, governments, Multinational Development Banks (MDBs), and International Organizations (IOs) to identify appropriate low-carbon development pathways. This includes assessing the most fit-for-purpose policy, regulatory, market models, and risk mitigation options to implement them. The programme and its partners will develop a range of open-source tools, models, and datasets that will be global public goods available to all countries.

### Job Description

**Job Grade:** Specialist and Supporting Academic, Grade 6

#### Job Purpose

The Research Associate will support the CCG program by conducting high-quality research, data analysis, and policy development. The role requires a blend of academic rigor, practical problem-solving, and a deep understanding of climate and energy issues. The ideal candidate will possess good ICT competencies and be comfortable utilizing artificial intelligence (AI) tools in their work.

#### Job Duties

##### Research and Analysis

- Conduct literature reviews, data collection, and data analysis related to climate compatible growth, sustainable development, and energy systems.
- Develop and implement research methodologies, including the use of AI tools for data modelling and predictive analytics.
- Analyse complex datasets to identify trends, insights, and implications for policy and practice.

### **ICT and AI Integration**

- Learn to work with and use advanced ICT tools and platforms for research, including data management, data visualization, and geospatial analysis.
- Use AI to assist in forecasting, scenario analysis, software development, documentation and decision support.
- Maintain and update systems, workflows and selected software relevant to the research.

### **Collaboration and Communication**

- Work closely with multidisciplinary teams, including researchers, policymakers, and stakeholders, to align research outputs with program objectives.
- Prepare and present research findings in academic and policy settings, including conferences, workshops, and seminars.
- Contribute to the drafting and editing of research papers, policy briefs, and reports.

### **Project Management**

- Assist in managing project timelines, ensuring milestones and deliverables are met.
- Coordinate with internal and external partners to facilitate smooth project execution.

### **Capacity Building and Knowledge Sharing**

- Support training and capacity-building initiatives for team members and partners, particularly in the use of OpTIMUS tools.
- Contribute to the dissemination of research findings through various communication channels, including blogs, webinars, and social media.

### **Points To Note**

The purpose of this job description is to indicate the general level of duties and responsibility of the post. The detailed duties may vary from time to time without changing the general character or level of responsibility entailed. The work schedule will be revised regularly with the CCG Director to ensure it is adjusted to fit dynamic demands. The items above may therefore be subject to revision/addition during the execution of the contract.

### **Special Conditions**

All staff have a statutory responsibility to take reasonable care of themselves, others, and the environment and to prevent harm by their acts or omissions. All staff are therefore required to adhere to the University's Health, Safety and Environmental Policy & Procedures.

All staff should hold a duty and commitment to observing the University's Equality & Diversity policy and procedures at all times. Duties must be carried out in accordance with relevant Equality & Diversity legislation and University policies/procedures.

Successful completion of probation will be dependent on attendance at the University's mandatory courses which include Respecting Diversity and, where appropriate, Recruitment and Selection.

### **Organisational Responsibility**

Reports to the CCG Programme Director.

## Person Specification

Your application will be reviewed against the essential and desirable criteria listed below.

**Applicants are strongly advised to explicitly state and evidence how they meet each of the essential (and desirable) criteria in their application. Stages of assessment are as follows:**

- 1 – Application
- 2 – Test/Assessment Centre/Presentation
- 3 – Interview

### Essential Criteria

Area	Criteria	Stage
Experience	Experience with AI applications	1,3
	Experience in drafting reports, policy briefs, and academic publications	1,3
Skills and abilities	Lite proficiency in ICT tools, including data management, statistical software, and data visualization platforms (e.g., Python, R, MATLAB, GIS software)	1,3
	Familiarity with climate and energy modelling tools (e.g. OSeMOSYS/TIMES/MESSAGE/PLEXOS) is desirable	1,3
	Strong quantitative and qualitative research skills	1,3
	Ability to analyse and synthesize complex information into coherent insights and recommendations	1,3
	Excellent written and verbal communication skills, with the ability to present complex information clearly and concisely	1,3
	Ability to work independently and as part of a team	1,3
	Strong organizational skills and the ability to manage multiple tasks and deadlines	1,3
Qualifications	A PhD in a relevant subject or a Masters in a relevant subject with extensive relevant experience	1
Other	Commitment to observing the University's Equal Opportunities policy at all times.	1,3
	Able to travel independently	1,3

### Desirable Criteria

Area	Criteria	Stage
Experience	Experience in capacity building activities in developing countries.	1,3
	Solid knowledge in energy modelling in developing country contexts and associated scenario development.	1,3
	Experience with dealing with multilateral agencies, managing networks and communication with diverse stakeholders.	1,3
	Working in a high-quality academic research environment	1,3
	Relevant working experience in South Africa	1,3
	Experience in the facilitation and delivery of externally facing workshops on data curation for modelling	1,3
	Experience of teaching and/or supervision of energy modelling trainees	1,3
Skills and abilities	Ability to develop working papers, tools, data repositories.	1,3

	A strong publication track record (including the publication of data, software and paper pre-prints).	1,3
	Skill in the development, application, teaching (and developing teaching material for) clicSAND-OSeMOSYS.	1,3
Education	PhD in a relevant field	1

## Conditions of Service

The position is available FULL-TIME and FIXED TERM until 31 March 2025. The position is subject to external funding. Salary will be on Specialist and Supporting Academic Grade 6 per annum (£33,966 - £44,263), at a starting salary to be confirmed on offer of appointment.

The appointment will be subject to the University's Terms and Conditions of Employment for STAFF GRADES 6 AND ABOVE, details of which can be found [here](#).

The University is committed to enabling staff to maintain a healthy work-home balance and has a number of family-friendly policies which can be found [here](#).

The University offers a wide range of employee benefits which can be found [here](#).

We also offer an on-campus nursery with subsidised places, subsidised places at local holiday clubs and a childcare voucher scheme (further details are available at: <http://www.lboro.ac.uk/services/hr/a-z/childcare-information---page.html>)

In addition, the University is supportive, wherever possible, of flexible working arrangements. We also strive to create a culture that supports equality and celebrates diversity throughout the campus. The University holds a Bronze Athena SWAN award which recognises the importance of support for women at all stages of their academic career. For further information on Athena SWAN see <http://www.lboro.ac.uk/services/hr/athena-swan/>