



UNIVERSITY OF LEEDS

CANDIDATE BRIEF

Research Assistant in Energy and Macroeconomics, Faculty of Environment



Salary: Grade 6 (£32,296 – £37,999 p.a. depending on experience)

Reporting to: Dr Paul Brockway, School of Earth & Environment

Reference: ENVEE1794

Fixed term for 12 months to complete specific time limited work (with possible 12-month extension).

Location: University of Leeds (with scope for hybrid working)

We are open to discussing flexible working arrangements.

Research Assistant in Energy and Macroeconomics, School of Earth and Environment, Faculty of Environment

Overview of the Role

Would you like to further your career by applying your quantitative energy and economic skills at one of the UK's leading research-intensive Universities? Do you want to contribute to finding key new insights to urgent global issues, such as the economic implications of reducing energy use, or the links between economic growth and energy efficiency? If so, this could be the opportunity for you.

The job opportunity is to work as a Research Assistant on an exciting new research project: "Impacts of green growth and degrowth pathways using societal exergy analysis".

Meeting the 2015 Paris Agreement's ambition relies heavily on reducing global energy use through increased energy efficiency, and also switching to renewables-based energy systems. At the same time mainstream modelling projections assume continued economic growth. The strong link between the economy and energy consumption, as well as the needed development of alternative economic (e.g. post-growth and degrowth) pathways translates to an urgent need for new modelling approaches and investigation.

In response, a Leverhulme project led at the University of Leeds by Dr Paul Brockway is exploring these issues using pioneering Exergy Economics analytical methods. This emerging field applies 'exergy' as the thermodynamic-based measure of energy quality: the ability of energy to do physical work. The recent completion by Dr Brockway and colleagues of a country-level primary-final-useful (CL-PFU) energy and exergy database will be utilised directly on this project.

You will be working with the team at Leeds (including Dr Brockway and Dr Emmanuel Aramendia, a post-doctoral researcher, and a PhD student). You will help source and compile data from the CL-PFU database, other macroeconomic energy-economy and statistical datasets (e.g. IEA, OECD, World Bank), and help develop and analyse



economic green growth and energy degrowth scenarios (e.g. evolution of energy efficiencies, economic structure, GDP, employment) for modelling analysis. Wider collaboration is possible utilising our existing links to researchers who work in countries such as Portugal, France, Spain, Sweden, Austria, and the United States.

Main duties and responsibilities

- Sourcing and compiling data from the CL-PFU database, other macroeconomic energy-economy and statistical datasets (e.g. IEA, OECD, World Bank);
- Co-developing economic “green growth” and energy “degrowth” scenarios (e.g. evolution of energy efficiencies, economic structure, GDP, employment) for subsequent energy-economy modelling analysis;
- Supporting with the analysis of the developed economic green growth and energy degrowth scenarios;
- Writing reports, undertaking literature reviews and preparing papers for publication, with guidance as necessary;
- Working both independently and as part of a larger team of researchers and stakeholders;
- Supporting research activities, including contributing to research results and outputs and to the generation of independent and original ideas, ensuring a successful programme of investigation;
- Collating and analysing data to inform the direction and progression of the research project;
- Participating in the research group and presenting research output where appropriate;
- Contributing to the research culture of the School, where appropriate;
- Continually updating your knowledge, understanding and skills in the research field.

These duties provide a framework for the role and should not be regarded as a definitive list. Other reasonable duties may be required consistent with the grade of the post.



Qualifications and skills

Essential

- An undergraduate or master's degree in an ecological economics field or a closely allied discipline;
- A strong background in one of the following fields: ecological economics, or other heterodox economics concerned with environmental issues, industrial ecology, climate change mitigation, or closely allied discipline;
- Experience and skills working with large datasets, as well as finding, compiling, and analysing data (e.g., trends, relationships between variables, data quality);
- Good interpersonal and communication skills, both written and verbal and the ability to communicate effectively with a wide range of stakeholders;
- Well-developed analytical skills;
- Good time management and planning skills, with the ability to meet tight deadlines;
- A proven ability to work well both individually and in a team;
- The ability to work unsupervised and to use your own initiative.

Desirable

- A PhD or near completion - i.e. the initial thesis needs to have been handed in at the point of application in ecological economics) or a closely allied discipline;
- Experience in using R and/or Python for modelling and/or data analysis;
- Experience of working with socio-economic scenarios and/or macroeconomic models such as macroecological models, energy-economy models, climate change mitigation models, Integrated Assessment Models;
- Experience of contributing to the writing of papers for publication;
- Experience of working with input output and supply use tables;
- Technical knowledge of energy conversion in energy systems, energy efficiency, and low carbon technologies.

Additional information

Please note: If you are not a British or Irish citizen, from 1 January 2021 you will require permission to work in the UK. This will normally be in the form of a visa but, if you are an EEA/Swiss citizen and resident in the UK before 31 December 2020, this may be your passport or status under the EU Settlement Scheme.



Please note that this post may be suitable for sponsorship under the Skilled Worker visa route, but first-time applicants might need to qualify for salary concessions. For more information please visit: www.gov.uk/skilled-worker-visa.

For research and academic posts, we will consider eligibility under the Global Talent visa. For more information please visit: <https://www.gov.uk/global-talent>.

Find out more about the [Faculty of Environment](#)

Find out more about the [School of Earth and Environment](#)

Find out more about our [Research and associated facilities](#)

Find out more about [Equality and Inclusion](#) in the faculty

Working at Leeds

We are a campus-based community and regular interaction with campus is an expectation of all roles in line with academic and service needs and the requirements of the role. We are also open to discussing flexible working arrangements. To find out more about the benefits of working at the University and what it is like to live and work in the Leeds area visit our [Working at Leeds](#) information page.

Our University

As an international research-intensive university, we welcome students and staff from all walks of life and from across the world. We foster an inclusive environment where all can flourish and prosper, and we are proud of our strong commitment to student education. Within the Faculty of Environment, we are dedicated to diversifying our community and we welcome the unique contributions that individuals can bring, and particularly encourage applications from, but not limited to Black, Asian, people who belong to a minority ethnic community; people who identify as LGBT+; and disabled people.

The Faculty of Environment has received a prestigious Athena SWAN silver award from [Advance HE](#), the national body that promotes equality in the higher education sector. This award represents the combined efforts of all schools in the Faculty and shows the positive actions we have taken to ensure that our policies, processes and ethos all promote an equal and inclusive environment for work and study.



Information for disabled candidates

Information for disabled candidates, impairments or health conditions, including requesting alternative formats, can be found on our [Accessibility](#) information page or by getting in touch with us at hr@leeds.ac.uk.

Criminal record information

Rehabilitation of Offenders Act 1974

A criminal record check is not required for this position. However, all applicants will be required to declare if they have any 'unspent' criminal offences, including those pending.

Any offer of appointment will be in accordance with our Criminal Records policy. You can find out more about required checks and declarations in our [Criminal Records](#) information page.

