

**JOB TITLE: RESEARCH ASSISTANT/ASSOCIATE IN CLIMATE CHANGE POLICY FOR THE ENERGY POLICY RESEARCH GROUP (EPRG), FIXED TERM**

**REPORTS TO: ASSISTANT DIRECTOR, EPRG**

Background

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We are looking to appoint a Research Associate at Cambridge Judge Business School (CJBS) within the economics and policy subject group. The Research Associate will support a new pan-European, multi-institution consortium (NEGEM) focused on assessing carbon dioxide gas removal (CDR) options such as bioenergy with carbon capture and storage (BECCS), direct air capture of CO<sub>2</sub> with CO<sub>2</sub> storage (DACCS), enhanced weathering, afforestation, soil carbon sequestration and other negative emissions technologies and practices (NETPs). According to most economic models, the ambitious targets laid out in the Paris Agreement (PA) agreed in December 2015 will likely rely heavily on the extensive deployment of these CDR options. By bringing together a team of highly experienced partners across a broad range of scientific disciplines, the NEGEM project aims to provide a comprehensive framework for analysing sustainable, cost-effective, and resilient pathways toward reaching the Paris Agreement.

Through an extensive assessment within the full spectrum of economic, environmental, social, political, commercial and technological science disciplines, and based on a range of key performance indicators, NEGEM will filter the negative emission technologies and practices to identify the most realistic, sustainably deployable potential NETPs. This filtering incorporates comprehensive analyses of a range of environmental implications such as biogeochemical cycles, ecosystems, resource economies, societal dimensions, and planetary boundaries, public and stakeholder perceptions, technological opportunities and constraints, multi-level governance, and the sustainability transition.

Based on multi-disciplinary and crosscutting analyses of real-world potentials and impacts, NEGEM reduces the knowledge gaps associated with large-scale implementation of NETPs. Bringing together potential investors and end-users with commercial interest in NETPs, NEGEM adds a critical, supplementary layer of realism to the standard climate-energy-economy scenario modelling laying the basis for more credible IPCC scenarios and implementation of the Paris Agreement.

The successful candidate will be based within the Energy Policy Research Group (EPRG) at CJBS. This project will complement other EPRG research into deep decarbonisation in energy-intensive industries, electricity, heat and transport.

The research is being conducted as part of the European Commission Horizon 2020 programme, and involves 18 partner institutions led by VTT Finland, and including Imperial College London, Cambridge, Oxford, ETH Zurich, Potsdam Institute for Climate Impact Research (PIK), as well as NGOs (Carbon Market Watch and Bellona Europa) and firms (Drax Power and Stockholm Exergi). Existing integrated assessment models (IAMs) have relied heavily on such CDR technologies to meet ambitious climate objectives but have also been accused of having unrealistic constraints, e.g. in terms of the quantity of sustainable biomass that can be utilised, or the rate at which CDR technologies can be deployed. These factors have

cast doubt as to the feasibility of actually meeting the Paris targets whilst avoiding significant co-disbenefits or unintended consequences. We intend to explore these questions as part of a comprehensive multi-scale modelling approach.

## The role

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Cambridge is responsible for overall coordination of the work package on public and stakeholder perceptions of CDR options. The goals of the Cambridge-led element of the project are: to conduct original analysis of the political economy of CDR technologies in comparative context, to examine social license to operate of different CDR technologies, to explore the framing of different CDR technologies, to understand the political limitations on scaling up of different configurations, to design realistic CDR deployment scenarios working closely with other partners in the project. There are two main elements to the research on social license to operate and on stakeholder perceptions although we will also be assisting colleagues at Groningen on public perceptions of NETPs and at Imperial College on the costs and risks of NETPs.

### **Social license to operate (SLO)**

Drawing on studies of other emergent technologies such as fracking (shale gas) and carbon capture and storage (CCS) as well as the longer history of biofuels, nuclear power, and soil carbon and forest management, we will map the work conducted under the technology, commercial, impact and cost assessment elements of NEGEM to provide a preliminary overall assessment of potential SLO issues and business case challenges associated with different NETPs. We will explore past experiences in scaling up other technologies both in terms of barriers and constraints. This preliminary assessment will, in turn, inform our interviews with key stakeholders among NGOs and industry and the public surveys to be conducted later in the project.

### **Stakeholder perceptions of NETPs**

Our efforts to assess stakeholder views will involve a range of activities including stakeholder interviews and workshops, expert elicitations, and a Europe-wide stakeholder survey.

#### Stakeholder interviews and workshops

We will first conduct interviews with a small number of stakeholders to help design the workshops, expert elicitations and survey. We will seek to return to this initial core group of stakeholders over the course of the project for advice, consultation and wider dissemination. Based on this initial assessment, we will then carry out workshops with key stakeholder groups (NGOs, industry, government as well as leading analysts and observers) at the EU and national level to better understand the perceived costs, risks, and benefits of NETs, and the factors that influence these perceptions, such as knowledge and information, values, and trust. We will engage with Brussels-based stakeholders (conducting three workshops in Brussels) and with national-level stakeholders (in Berlin, Paris, London, Helsinki, Oslo, Stockholm, Rome, The Hague) working closely with NEGEM colleagues to help with logistics and to identify relevant stakeholders. These preliminary interviews and workshops will be used as inputs to getting feedback on stakeholder perceptions of initial proposals formulated under WP2 on commercial potential and WP6 on governance.

## Expert elicitations

We will carry out more detailed expert elicitations (see Morgan, *PNAS*, 2014) to help inform the reliability and robustness of the key input parameters used in the analysis of both the more qualitative analyses (commercial potential and governance aspects) and the more quantitative analyses (earth systems and techno-economic energy systems modelling) being conducted in NEGEM. We will work closely with our partners leading on commercial potential to explore stakeholder perspectives on what business case would best suit different NETPs and with those exploring European and international governance on stakeholder views of alternative governance arrangements. We will also use expert elicitation to better quantify and validate the inputs into earth systems and energy systems models.

## Stakeholder survey

The stakeholder interviews and workshops will offer insights that enable us to carry out a more comprehensive survey of stakeholder views to better understand the political challenges and business case for scaling up different configurations. We will conduct a first-ever pan-European stakeholder survey to evaluate the potential for scaling up NETPs within the broader context of climate and energy policy priorities.

One key goal of our research at Cambridge is to provide inputs into existing energy system modelling approaches and integrated assessment models (IAMs). We will be working closely with our project partners at VTT and their bottom-up TIMES-VTT model, at PIK with their REMIND integrated assessment model and the Imperial College suite of electricity system optimisation models, both to help improve the specification of CDR technologies in their models, and to assist in scenario design.

A PhD in a related area such as public policy, energy economics, applied economics, social psychology, political science, or geography is essential. Additional knowledge or background in adjacent areas is not necessary but would be desirable. In addition, good writing skills and attention to detail are important to complete project tasks. The candidate will work closely with researchers at RUG (University of Groningen), Imperial College and other partner institutions (notably at Oxford, ETH, PIK, Bellona and VTT) but they should be able to work independently and may also contribute to other aspects of the work of EPRG.

Our EPRG research team have broad expertise in economics, technology policy and political science. Our core research discipline is applied economics, within a framework that encourages collaboration between experts from different academic traditions, drawing on insights from engineering, political science and law.

## **Main responsibilities**

### The NEGEM project

- Contribute primarily to a programme of work being undertaken as part of the NEGEM project, funded by the European Commission as part of its Horizon 2020 framework programme.
- Work closely with colleagues at VTT, the University of Groningen, Imperial College, as well as others across the consortium as necessary.

### Conduct and analyse interviews and surveys

- Conduct a series of interviews on CDR technologies (and climate policy more generally) with relevant stakeholders and experts from government, industry, non-governmental organisations (NGOs) and academia. Stakeholders consulted will be drawn from across Europe.
- Contribute to the design and analysis of large-scale national public opinion surveys across Europe on subjects related to CDR technologies and on climate policy and energy technologies more widely. This element will be led by our colleague at the University of Groningen.

### Other responsibilities

- Contribute to other aspects of [EPRG's](#) work programme.
- Participate in [weekly seminars](#).
- Publish in our [working paper series](#).
- Engage with other researchers at EPRG and CJBS more widely and actively engage with the other project partners at VTT, Imperial, Oxford, Groningen, ETH, PIK, etc and, in particular, to work closely with relevant PDRAs and researchers at the other institutions.
- Travel between the partner institutions to foster closer collaboration and travel to carry out interviews and workshops in the relevant countries as part of the comparative political economy research – the costs of this is built into the grant. Modalities for carrying out the anticipated research and travel will, of course, depend on existing conditions and restrictions with regard to public health and COVID-19. We may decide, for example, to move some stakeholder engagement online or to delay or shift some of the proposed activities.

### The person

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The ideal candidate should have the following qualities, skills and attributes. You are asked to provide a CV and a covering letter demonstrating how your own experience meets these requirements:

#### **Essential**

- PhD in public policy, political science, economics, geography, social psychology or other relevant discipline.
- Strong qualitative research skills, such as experience in designing and carrying out interviews or stakeholder surveys.
- Strong quantitative skills, particularly in applied econometrics.
- Knowledge of climate change policy and/or energy economics and policy.
- Excellent writing skills and attention to detail.
- Able to work independently and as part of an interdisciplinary and collaborative project.
- Driven and committed, demonstrating initiative and self-motivation.
- Good time management and planning skills with an aim to produce relevant academic papers in leading international academic journals.

## **Desirable**

- Previous experience designing and/or carrying out stakeholder engagement exercises such as focus groups, citizens' juries or stakeholder workshops.
- Demonstrated ability to design, conduct, analyse and write up survey research.
- Familiarity with techno-economic modelling, integrated assessment models or expert elicitations.
- Knowledge of one or more carbon dioxide removal (CDR) technologies.
- Knowledge of one or more languages used in any of the key countries where research will be conducted.

## **Benefits**

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The salary will be in the range £30,942-£40,322 per annum. Our preference is to appoint someone with a PhD in hand, but successful candidates at Research Associate level who have not been awarded their PhD by the appointment date will be under-appointed as a Research Assistant (Grade 5) employed on a salary of £26,715 per annum. Upon award of the PhD the individual will be promoted to Research Associate (Grade 7).

This is a fixed term appointment for two years, which will include a six-month probationary period. Holiday entitlement is 33 days per annum plus eight days of public holidays.

The full incremental salary range for the position is advertised in order to demonstrate the progression for the Grade. In the majority of cases appointments will be made at the Grade minimum; only in very specific exceptional circumstances can a higher salary be offered.

The University of Cambridge comprises more than 150 departments, faculties, schools and other institutions, plus a central administration and 31 independent and autonomous Colleges. It is one of the world's oldest and most successful universities, with an outstanding reputation for academic achievement and research.

With excellent benefits, extensive learning opportunities and a stimulating and attractive environment, the University of Cambridge is a great place to work. Our employees are eligible for a wide range of competitive benefits and services. We give them access to numerous discounts on shopping, health care, financial services and public transport. We also offer final salary pensions and tax-efficient bicycle and car lease schemes.

We have two nurseries and a holiday play scheme to help support those with childcare responsibilities and we offer various types of family-friendly leave to aid employees' work-life balance. In addition we operate a number of initiatives to promote career development, health and well-being.

Further details can be found at [www.admin.cam.ac.uk/offices/hr/staff/benefits](http://www.admin.cam.ac.uk/offices/hr/staff/benefits). There is also a range of information about living and working in Cambridge at [www.jobs.cam.ac.uk](http://www.jobs.cam.ac.uk).

## **Application arrangements**

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To submit an application for this vacancy, please search for this position on the University's Job Opportunities website at [www.jobs.cam.ac.uk](http://www.jobs.cam.ac.uk) and click on the "Apply online" button at the bottom of the relevant job description. This will route you to the University's Web Recruitment System, where you will need to register an account (if you have not already) and log in before completing the online application form.

**The closing date for applications is 6 September 2020.**

Applicants are required to provide details of two referees. These will not be contacted unless the applicant is shortlisted. We expect to conduct interviews of shortlisted applicants shortly after the closing date in March.

Equality of opportunity at the University

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The University of Cambridge is committed to a proactive approach to equality, which supports and encourages all under-represented groups, promotes an inclusive culture and values diversity. Entry into employment with the University is determined by personal merit and by the application of criteria required for the post. No applicant for an appointment or member of staff will be treated less favourably than another on the grounds of sex (including gender reassignment), marital or parental status, race, ethnic or national origin, colour, disability (including HIV status), sexual orientation, religion, age or socio-economic factors.

The University has various diversity networks which help it to progress equality; these include the Women's Staff Network, the Disabled Staff Network, the Black and Minority Ethnic Staff Network and the Lesbian, Gay, Bisexual and Transgender Staff Network. In addition, the University was ranked in the top 100 employers for lesbian, gay and bisexual (LGB) staff in Stonewall's Workplace Equality Index 2013.

Information if you have a disability

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The University welcomes applications from individuals with disabilities and is committed to ensuring fair treatment throughout the recruitment process. Adjustments will be made, wherever reasonable to do so, to enable applicants to compete to the best of their ability and, if successful, to assist them during their employment.

We encourage applicants to declare their disabilities in order that any special arrangements, particularly for the selection process, can be accommodated. Applicants or employees can declare a disability at any time.

Applicants wishing to discuss any special arrangements connected with their disability can, at any point in the recruitment process, contact a member of Cambridge Judge Business School's HR team who are responsible for recruitment to this position, on (01223) 768497 or by email on [hr@jbs.cam.ac.uk](mailto:hr@jbs.cam.ac.uk). Alternatively, applicants can contact the HR Business Manager responsible for the department they are applying to via [hrenquiries@admin.cam.ac.uk](mailto:hrenquiries@admin.cam.ac.uk).