

THE UNIVERSITY OF MANCHESTER**PARTICULARS OF APPOINTMENT****FACULTY OF HUMANITIES****SCHOOL OF ENVIRONMENT, EDUCATION AND DEVELOPMENT****GEOGRAPHY****RESEARCH ASSOCIATE****Vacancy ref: HUM-06396****Salary: £30,434 - £31,342 per annum****Hours: Full time****Duration: Fixed term, two years****Location: Oxford Road, Manchester****Responsible to: Professor Stefan Bouzarovski**

Project title: Calculating and Operationalizing the Multiple Benefits of Energy Efficiency (COMBI)**BACKGROUND****The City and Region**

Manchester is one of the great post-1800 European cities and the University's main campus is located a short distance from the city centre. The city's architecture represents one of the high points of Victorian achievement. The modern city is a major centre of banking, commerce and manufacturing. It has a highly cosmopolitan atmosphere and its cultural life is internationally renowned. Within fifteen minutes walk of the campus, for instance, there are three outstanding professional theatre companies, the halls of the Hallé and BBC Philharmonic orchestras, the Cornerhouse as well as other cinemas, and Europe's fastest-growing Chinatown. Ten minutes in the opposite direction is perhaps the best stretch of road in the entire country for Indian and Pakistani food. Amongst developments enriching the area's cultural life have been: the opening of the Lowry Centre at Salford Quays; the opening of the Bridgewater Concert Hall; The move of the BBC to Media City in Salford; the refurbishment of the City Art Gallery; the opening of the National Football Museum in the centre of Manchester and of the Imperial War Museum North, designed by Daniel Libeskind, in Trafford.

Trafford, specifically Old Trafford, is known internationally for sport: it is a venue for Test cricket and the home of Manchester United FC. The Commonwealth Games were held in Manchester in 2002 and were highly acclaimed. There is an abundance of new sports facilities; the University is a stakeholder in the Commonwealth Pool – now known as the Aquatics Centre -- which offers on-campus, world-class swimming facilities. The Commonwealth Stadium became the home of Manchester City FC in 2003. Housing is varied, plentiful and, by English standards, moderately priced. Schooling ranges from world-famous private schools (such as Manchester Grammar School and Withington Girls School) to excellent sixth-form colleges and comprehensives.

Manchester is well served by a major international airport, with direct scheduled flights to many destinations in Europe as well as North America and Asia. Manchester Piccadilly railway station has been refurbished and is served by inter-city and other train services – with a direct link to Manchester Airport. The expanding network of Metrolink tram services offers an alternative mode of public transport from certain parts of the conurbation. Some of the most beautiful countryside in Europe is just over thirty minutes drive from the University, in the Peak District National Park, while the Lake District and Snowdonia are also within easy reach.

The University

The University of Manchester, formed in 2004 by bringing together The Victoria University of Manchester and UMIST, is Britain's first chartered university of the 21st century. With some of the highest quality teaching and research, and the broadest spread of academic subjects, the university will be able to compete with the best universities in the world. The University's vision for the future is the creation of a 21st century institution that will become an international research powerhouse and a favoured destination for the best students, teachers, researchers and scholars in the world. The merged University was established with an unprecedented £430 million capital programme to enhance research and teaching facilities and improve the campus. The new institution is the largest single-site higher education institution in the country, offering students a greater choice of degree programmes and options, and even better facilities and support services. A landmark document, *Towards Manchester 2020*, sets out the dynamic plan for making The University of Manchester one of the top 25 universities in the world by that date.

Manchester offers extensive provision for research. Library facilities include the John Rylands University Library and the Manchester Central Reference Library. The John Rylands library is the largest non-legal-deposit academic library in the United Kingdom, providing services and resources to students, researchers and academic staff as well as members of the public, schools and commercial companies. It holds the widest range of electronic resources of any UK Higher Education library.

General information about the University may be found on the University website (www.manchester.ac.uk).

The Faculty of Humanities

With the creation of the new University of Manchester, a Faculty of Humanities was formed encompassing academic areas as diverse as Arts, Education, Law, Development, Social Sciences, Business and Management, and Information Technology. With a total income over

£100m per annum, over 15,000 students and some 900 academic staff, the Faculty is equivalent to a medium-sized university in the UK. The School also has strong links with the School of Earth, Atmospheric, and Environmental Sciences with cooperation on both research and teaching fronts. There are also strong working connections with Engineering and Life Sciences.

REF 2014 results showed an outstanding performance by The University of Manchester, confirming its position as a genuine international powerhouse, with exceptional performances in a wide range of disciplines. <http://www.manchester.ac.uk/research/ref-2014/>

The School of Environment, Education and Development

The School of Environment, Education and Development (SEED) represents one of the most innovative academic structures of the University of Manchester. It forges an interdisciplinary partnership combining Geography and Planning and Environmental Management with the Institute for Development Policy and Management (IDPM), the Manchester School of Architecture and the Manchester Institute of Education, thus uniting research into social and environmental dimensions of human activity. The School of Environment, Education and Development has over 150 academic staff (within a total staff complement of over 200), over 1000 undergraduates and 800 postgraduate students, of whom over 200 are research students.

CURE

Closely associated with the work of the three human geography research group is the Centre for Urban Resilience and Energy, which brings together a diverse group of researchers and projects. CURE focuses on the relationships between sustainability transitions in the energy, urban and environment domains. We build on the intellectual strengths and traditions of the Centre for Urban and Regional Ecology, which was active at Manchester between 2000 and 2013. One of the main aims of the centre is to formulate and advance a new global research and policy agenda in the domain of social-ecological resilience and vulnerability, by addressing the key scientific and policy challenges associated with the movement towards a low carbon economy and society. We also investigate the manner in which sustainability transitions in the urban domain are embedded in broader governance practices at the urban and regional scale. More information is available at <http://www.seed.manchester.ac.uk/cure/> and <http://urban-energy.org>.

Research

The University of Manchester is home to one of the UK's most dynamic groups of geographical researchers, scholars and teachers. Geography at Manchester has risen to become one of the top tier institutions for its size. In the 2014 QS World rankings Geography in Manchester was ranked 8th. Our 32 staff and our research fellows are widely recognised for the quality of their contributions to the international research community. In REF 2014, 96% of our outputs were considered internationally-recognised, with 70% judged to be internationally-excellent or world-leading. Geography at Manchester also sets international research agendas in other ways. Many of our staff members hold editorial positions with leading research publications, including major journals such as Geoarchaeology, Geography Compass, International Journal of Urban

and Regional Research, the Journal of the Geological Society and Urban Geography. Manchester is known too for the impact and influence of its post-docs and PhD students. Recent graduates have been appointed to Chairs at leading universities in Europe, North America and the Far East, while others now shape national and international policy environments through their work in government agencies, research institutes and activist organisations.

Research at Manchester makes significant contributions to some of the most important intellectual and practical issues facing society through several research groups:

- Quaternary environments and Geoarchaeology
- Environmental processes
- Society and Environment
- City, Politics and Economies
- Social and Cultural Geography

The Society and Environment research group focuses on the critical theoretical and empirical analysis of the relationship between nature, environmental change, social processes and political dynamics. Key perspectives include the study of political ecology, environmental politics, urban socio-ecological change, energy, resources, and water, among others. The academic mission of this research group is to engage with state-of-the-art perspectives that focus on how social, political, cultural and economic relations of power intersect with processes of environmental change and the transformation of the physical environment.

The Cities, Politics and Economies research group brings together scholars working at the interface of urban, political and economic geography. Drawing on Manchester Geography's international reputation for agenda-setting urban research, the group provides a forum to explore, analyse and address contemporary political, economic and urban challenges. From analysing the construction and performance of contemporary urban identities and economies, to the nature and mobility of policy and politics, the group develops original understandings of how cities, economies and political practices are assembled, mobilised, mediated and governed. The work of the group is focused on international workshops, departmental seminars and the development of research conversations through reading groups, presentations and discussions of 'research challenges'.

Social and Cultural Geography at SEED has a long tradition of international research excellence. A new research group, established on 2014, is set to advance this tradition and build on long standing expertise through cutting edge research and theoretical and methodological innovation. Our international expertise is recognised with regard to urban encounters, creativity and cultural economy, community and urban austerity, mapping and power, transport and mobilities and critical approaches to health.

Full details of the research activities within Geography can be found at: <http://www.seed.manchester.ac.uk/subjects/geography/research/>

The COMBI Project

In recent years, research has shown that energy savings resulting from energy efficiency improvements have wider benefits for the economy and society such as increases in employment, GDP, energy security, positive impacts on health, ecosystems and crops or resource consumption. In order to develop more cost-effective energy efficiency policies and optimised long-term strategies in the EU, these multiple benefits have to be accounted for more comprehensively in the future.

Although this field of research is growing, the findings are dispersed and mostly have important gaps regarding geographic, sectorial or technical measure coverage and findings vary largely. This makes a consideration of multiple benefits in policy making and policy evaluation difficult today. COMBI project addresses these issues and aims to close the identified gaps via five central research innovations:

- Data gathering on energy savings and technology costs per EU country for the most relevant 20 to 30 energy efficiency measures in the residential, commercial, industrial and transport sectors;
- Developing adequate methodologies for benefit quantification, monetization and aggregation;
- Quantifying the most important multiple benefits and where adequate, monetizing them;
- Developing an openly available calculation tool that greatly simplifies the evaluation of co-impacts for specific energy efficiency measures to enable decision-making and
- Developing a simple online visualization tool for customizable graphical analysis and assessment of multiple benefits and data exportation.

Project outcomes can thus directly be used by stakeholders and will help to define cost-effective policies and support policy-makers and evaluators in the development and monitoring of energy efficiency strategies and policies in the future.

JOB DESCRIPTION

You will support Professor Stefan Bouzarovski in delivering the project's objectives outlined above. Your primary task will be to plan and carry out research, using appropriate methodology and techniques, in order to fulfil the project aims as outlined above. You will also contribute towards the dissemination of research findings, which involves writing reports and papers, updating the urban-energy.org website, as well as organising a project meeting. You will have the opportunity to publish work in relation to the research in appropriate authorship arrangements with the project leader and other members of the research team. You will be based in Geography within the School of Environment and Development and will contribute to the activities of the Society and Environment research group, and the Centre for Urban Resilience and Energy.

PERSON SPECIFICATION

Essential

- Hold or about to obtain a PhD (or equivalent) in economics, geography, environment, energy, or other closely related subject areas;
- Research experience and scholarship in the domains of environmental economics, social environmental science and/or energy;
- Evidence of high quality research work and publications, focusing particularly on the benefits of energy efficiency;
- Knowledge of quantitative social science and economic valuation research methods;
- High degree of organisational and time-management skills and the ability to work to deadlines;
- Commitment to working in cross-disciplinary teams and international environments in a collegiate manner;
- Excellent written and verbal communication skills;
- Readiness to present and discuss findings at international conferences and meetings;
- Willingness to engage social media and non-academic organisations in the dissemination of research outcomes.

Desirable

- Interest in the development and submission of future funding/research bids in collaboration with Professor Stefan Bouzarovski and other researchers at the University of Manchester.