

# JOB DESCRIPTION

<b>Vacancy reference:</b>	SRF32635
<b>Post Title:</b>	Post-Doctoral Research Associate (PDRA) for Energy Demand Flexibility
<b>Grade:</b>	Grade 7, spine point 37
<b>School/ Department:</b>	School of the Built Environment
<b>Reports to:</b>	Prof Jacopo Torriti
<b>Responsible for:</b>	NA

## Purpose

The purpose of this role is to support the Investigator in analysis of time use and smart metering data as part of the Flexibility Theme of Research under the UKRI funded Centre for Research into Energy Demand Solutions (CREDS).

## Main duties and responsibilities

Research:

- Undertake research under the supervision of the Investigator (Professor Torriti). This will include:
  - Lead on the collection and analysis of national UK time use data as part of understanding demand profiles and demand-side flexibility.
  - Identify secondary data on energy demand at high time granularity.
  - Critically review existing work and projects on flexibility metrics.
- Methods will involve:
  - Analysis of time use data;
  - Review of flexibility metrics
  - Analysis of baseline methodologies in DSR
  - Development of flexibility index
- Carry out independent research and supervise the work of (student) research assistants
- Contribute significantly to the writing of papers for publication in leading academic journals and other relevant media
- Prepare and disseminate research findings and establish a (inter)national reputation through participation in (inter)national conferences, exhibitions and workshop events
- Design and implement research methodologies that add to knowledge and understanding that are appropriate to the discipline

- Collaborate with colleagues within the University and at other institutions in the development of original research
- Provide specialist advice to other staff and students within the University
- Use initiative and creativity to synthesise, analyse, and interpret research data
- Contribute to the development and writing of research proposals and projects
- Participate in peer review activities appropriate to supporting the discipline

#### Enterprise & Outreach:

- Liaise closely with industry partners and clients external to the University, such as academics and potential research users, and researchers and partners involved with the project
- Development and maintenance of the project website and social media research user engagement
- Help organise relevant seminars, conferences, exhibitions and other events, especially at Flexibility Theme level within CREDS
- Participate in CREDS relevant activities that contribute to the widening participation agenda

#### Leadership & Management:

- Participate in School promotion and recruitment initiatives such as Open Days and Visit Days
- Participate in project teams and steering groups at a Research Group, Department or School level
- Contributing to the research culture within Schools of Built Environment, particularly pertaining to Energy and Environmental Engineering
- Undertake project-related administration such as organising regular project or client meetings, departmental presentations or seminars (e.g. impact activities and advisory panel meetings)

### **Supervision received**

Technical, regular, supervision with Professor Jacopo Torriti as well as general management (including finance, impact, and research planning).

### **Contact**

It is expected that the post holder will liaise with other academics and researchers on and off Campus involved in energy research. Specifically, this will be with staff and students belonging to the Energy and Environmental Engineering Research Group; the Investigators and research staff working under the Flexibility Theme of CREDS (particularly Investigators at Lancaster University); and the wider CREDS research community.

### **Terms and conditions**

The post is full-time for a fixed term of 12 months. There are no specific set hours of work, but the appointee will be required to work such hours as are necessary to carry out the duties associated with the post.

This document outlines the duties required for the time being of the post to indicate the level of responsibility. It is not a comprehensive or exhaustive list and the line manager may vary duties from time to time which do not change the general character of the job or the level of responsibility entailed.

**Date assessed:**

# PERSON SPECIFICATION

Job Title	School/Department
Postdoctoral Research Fellow on Flexibility in Energy Demand	Built Environment

Criteria	Essential	Desirable
<b>Skills Required</b>	<ul style="list-style-type: none"> <li>• Collation and interpretation of evidence from diverse types of sources</li> <li>• Collaborative approach to research and team-work</li> <li>• Ability to carry out advanced data analytics</li> <li>• Ability to work independently and as part of an interdisciplinary team</li> <li>• Ability to communicate effectively, both orally and in writing</li> <li>• Ability to work to deadlines</li> <li>• Ability to present data to a wide variety of audiences</li> </ul>	<ul style="list-style-type: none"> <li>• Ability to publish in top quality refereed journals relevant to area of specialist expertise</li> <li>• Project management skills</li> <li>• Research and project-related administrative skills</li> <li>• Proven social media and networking abilities</li> <li>• Excellent critical thinking, analytical and problem-solving skills</li> </ul>
<b>Attainment</b>	<ul style="list-style-type: none"> <li>• Strong track record of educational achievement in one of the following disciplines: social sciences, engineering, mathematical, or physical sciences</li> <li>• PhD in relevant subject or discipline</li> <li>• Appropriate publication record for career level</li> </ul>	
<b>Knowledge</b>	<ul style="list-style-type: none"> <li>• Understanding of a wide range of literature on the topic of energy demand, including from the social sciences</li> <li>• Knowledge of data sets for energy demand research</li> </ul>	<ul style="list-style-type: none"> <li>• Recent thinking on energy demand flexibility</li> <li>• Social theories applied to research on energy use</li> <li>• Current demand-side energy technologies</li> </ul>

<b>Relevant Experience</b>	<ul style="list-style-type: none"> <li>• Postgraduate level research on some aspect of energy demand</li> <li>• Professional presentations at workshops and conferences</li> <li>• Management of research projects</li> <li>• Experience of building and maintaining external contacts/ partners in order to drive mutual interests</li> <li>• Publishing in leading academic journals</li> </ul>	<ul style="list-style-type: none"> <li>• Industry or professional experience in a related field.</li> <li>• Experience of participating in knowledge exchange activities online and using social media and working with stakeholders</li> </ul>
<b>Disposition</b>	<ul style="list-style-type: none"> <li>• Willingness to travel nationally and internationally</li> <li>• Strong commitment to continuous professional development</li> </ul>	<ul style="list-style-type: none"> <li>• Willingness to instigate and deliver collaborative research with industry and wider research community</li> </ul>
<b>Other</b>		

Completed by: Jacopo Torriti	Date: 26/05/2020
------------------------------	------------------