



Energy Demand Research Champions

Applications for co-investigators and research co-investigators for the new energy demand research centre

Deadline for both routes:	Thursday 8 December at 12.00 (midday)
Decision for Co-Investigators:	By Thursday 15 December
Decision for Research Co-Investigators:	By Wednesday 21 December

If you have any questions, get in touch via energydemand@sussex.ac.uk

About this call

A reduction in energy demand is a global and UK priority. It is central to achieving the UK government's national target of carbon neutrality by 2050, and the interim target to cut emissions by 78% by 2035. Aside from these targets, ambitious and transformative changes are needed for the UK to transition to a secure and affordable, low carbon energy system.

Funded by UK Research and Innovation (UKRI), the [Centre for Research into Energy Demand Solutions \(CREDS\)](#) was established in 2018 to help address these challenges and to position the UK as a world leader in energy demand research through interdisciplinary and cross-sector collaboration.

UKRI will now fund a new energy demand research centre with a renewed focus, which must build on the knowledge and networks developed so far in CREDS. Two new Energy Demand Research Champions were selected to lead, design and engage on this new investment: **Professor Mari Martiskainen** (University of Sussex) and **Professor Sara Walker** (Newcastle University). Together, the Champions have subsequently been consulting on the principles for the new centre through interviews, workshops and a survey.

The Champions now welcome applications from prospective co-investigators (**Co-I**) who will have a pivotal role in helping to shape and lead the new research programme going forwards. The successful Co-Is will together form the **leadership team** for the new centre and be expected to demonstrate a strong commitment to working in an open, inclusive, transparent and collaborative manner.

What we are looking for

Our mission is to develop an interdisciplinary, inclusive and diverse centre that undertakes methodologically rigorous energy demand research, which can be applied at speed and scale for significant impact. As part of this, we will undertake a programme of research activities under four main research themes that were co-created following a stakeholder consultation process (see Annex 1). These research themes are: **Equity, Flexibility, Governance, and Place.**

We are looking for Co-Is who can lead or support the delivery of each of these themes, based on their experience and commitment to meeting the centre's wider objectives (see Annex 2).

All applicants must apply under a particular theme and can apply to be the theme lead or a theme member. Note that we will consider applications that propose a new theme where a strong case is made for its inclusion.

Co-Is

Applicants are invited to submit proposals to be a Co-I where they meet the [UKRI eligibility criteria](#). We are committed to promoting equality of opportunity and diversity in our team and welcome applications regardless of career stage. Applications are made on an individual basis.

Research Co-investigators (RCo-Is)

There is a separate route for identifying RCo-Is.

We welcome RCo-I applicants who are interested in joining the leadership team during the proposal development phase. RCo-I status is aimed at researchers who are not eligible to be principal investigator (PI) or Co-I on a grant but provide significant intellectual input to proposal writing and design. UKRI funding rules stipulate that RCo-Is must be based at an institution where an existing PI or Co-I is already in place. This means that we are unable to make final decisions on successful RCo-Is until we have selected the Co-Is, who will then have a role in reviewing their organisation's candidates. This is reflected in the different dates for communicating decisions between Co-Is and RCo-Is (see page one).

Please be aware that RCo-Is are separate to named researchers and research assistants. These roles will be considered as part of the proposal development process once the Co-Is of the centre have been finalised.

We recognise that this process will be frustrating to those applicants who are unable to be selected because they do not have an eligible Co-I in place at their host institution. This approach has been implemented to ensure fairness at a local level with potential applicants given the same opportunity across discipline and organisational boundaries.

If you are considering an RCo-I application, please ensure there is an eligible Co-I applying from your organisation. Co-I applicants should also encourage their experienced researchers to consider this opportunity.

Research themes

The following overarching research themes were identified by the Champion team and workshop facilitators Nile, based on the results of the workshops and surveys, as a reflexive practice activity. These key themes are, in alphabetical order: Equity, Flexibility, Governance and Place. The intention is for interdisciplinary approaches to these themes, covering engineering, science, and social science, for example. The themes will be developed further by the new centre leadership team and complemented by a social listening study commissioned by Nile.

- **Equity.** The term Equity refers to fairness and justice, and the recognition that not everyone in society has the same starting opportunities in life due to various reasons. Equity therefore means careful consideration, especially for those who may be unreasonably impacted within energy demand solutions, be it individuals, households or certain communities. We should consider ways in which technologies and digital platforms enable access. Equity featured strongly both in the workshops and the survey. The current energy crisis has made the issue of energy prices headline news and while it is important to examine current trends, the need to develop a just and equitable transition into a lower energy-demand future is likely to continue to be a key area of concern. In our survey, 87% of respondents thought that issues of justice and sufficiency (i.e. energy demand that is affordable and fairly distributed within environmental limits) are important; while 76% thought that transport equity was important and 71% that uneven distribution of energy consumption across society was important. Research questions developed in the workshops that link to the theme Equity included, for example: How can we ensure the transition to low-carbon future is socially just?; How can energy demand reduce while acknowledging inequality in the UK?; How can evidence on people's lived experiences influence just energy policy?; What are energy vulnerabilities along lines of gender, ethnicity, race, disability, citizenship and class?; and What is the UK's fair share of resources for the net zero transition?
- **Flexibility.** The term Flexibility refers to the ability to adjust energy demand, and involves a mixture of socio-technical drivers and solutions. In our consultation process, flexibility was also highlighted from the perspective of flexibility services for networks, the technologies which enable flexibility, as well as individual and organisational flexibility. Flexibility was highlighted in combination with a whole systems approach in both the survey and the workshops. 83% of survey respondents considered whole energy systems and the impacts of demand (e.g. heat networks) to be important, with 88% thinking flexibility of demand is important. The workshop research questions addressed some co-benefits of flexibility, and flexibility was seen from the perspective of a system service, as well as being related to personal or organisational behaviour. For example, questions included: How do we unite efficiency and flexibility under one analytical framework?; What are the spatial aspects of flexibility?; How can we promote/design tools that enable end-user demand flexibility?; How can we embed flexibility in day-to-day life?; and How can data, automation and AI help with energy demand management to enable demand flexibility?
- **Governance.** The term Governance refers to ways in which decisions are made, and enacted, and by whom. This includes how energy and transport systems, for example,

are governed through various policies and mix of policies, governance structures (whether national, regional or local) and different actors. In the survey, 84% of respondents thought that the lack of policy and regulatory measures for energy demand reduction was an important challenge, and similarly, 85% of respondents thought that the lack of political will to reduce energy demand was an important challenge. Governance was widely discussed in the workshops, with key questions such as: Can energy demand be controlled? By who and for whom?; Who needs to be involved in designing local flexible systems?; Why do policy makers tend not to give attention and resources to demand reduction policies?; and How is evidence on energy demand used meaningfully in policy making?

- **Place.** The term Place refers to not just a physical or geographical location, but also to notions of identity and community, availability of infrastructure, supply changes and regional/local industrial requirements. In our survey, 68% of respondents considered spatial aspects of energy demand reduction to be important. In the workshops, place featured particularly in discussions on place-based approaches to energy demand solutions. Research questions under this theme included, for example: How can we build homes that do not need energy from the grid?; Why do we need place-based/neighbourhood-scale demand reduction activities?; How can an energy demand agenda be delivered and what place based delivery models are needed?; What are the opportunities and barriers for different regions in transitioning to low energy demand futures?; and How can we identify and support 'the missing' in the energy transition, including localised/regional perspectives?

Connecting research themes via 'use cases'

Each theme is expected to include theoretical and conceptual development, using interdisciplinary approaches and both qualitative and quantitative research methods and tools. To consolidate this, the themes will then be connected via several 'use cases' that will consider equity, flexibility, governance and place implications in combination, in order to provide an interdisciplinary and connected research programme (Figure 1). The intent with the use cases is to enable an in-depth, detailed examination of a particular case within a real-world context. Furthermore, the use cases will enable us to validate and test the methods and tools emerging from the themes, through their application.

The leadership team will determine the number and scope of the use cases for the first year of the centre's operation, with a view that more will be added as the programme develops. Use cases could include the following types of examples:

- Active travel, such as walking and cycling, and low energy neighbourhoods.
- Low carbon heating and cooling technologies such as heat pumps.
- Lower energy lifestyles (involving for example cultural practices).
- Skills and supply chain for retrofitting homes.
- Co-benefits, such as improved health, from energy demand reduction.
- Developing low energy and inclusive digital innovations.

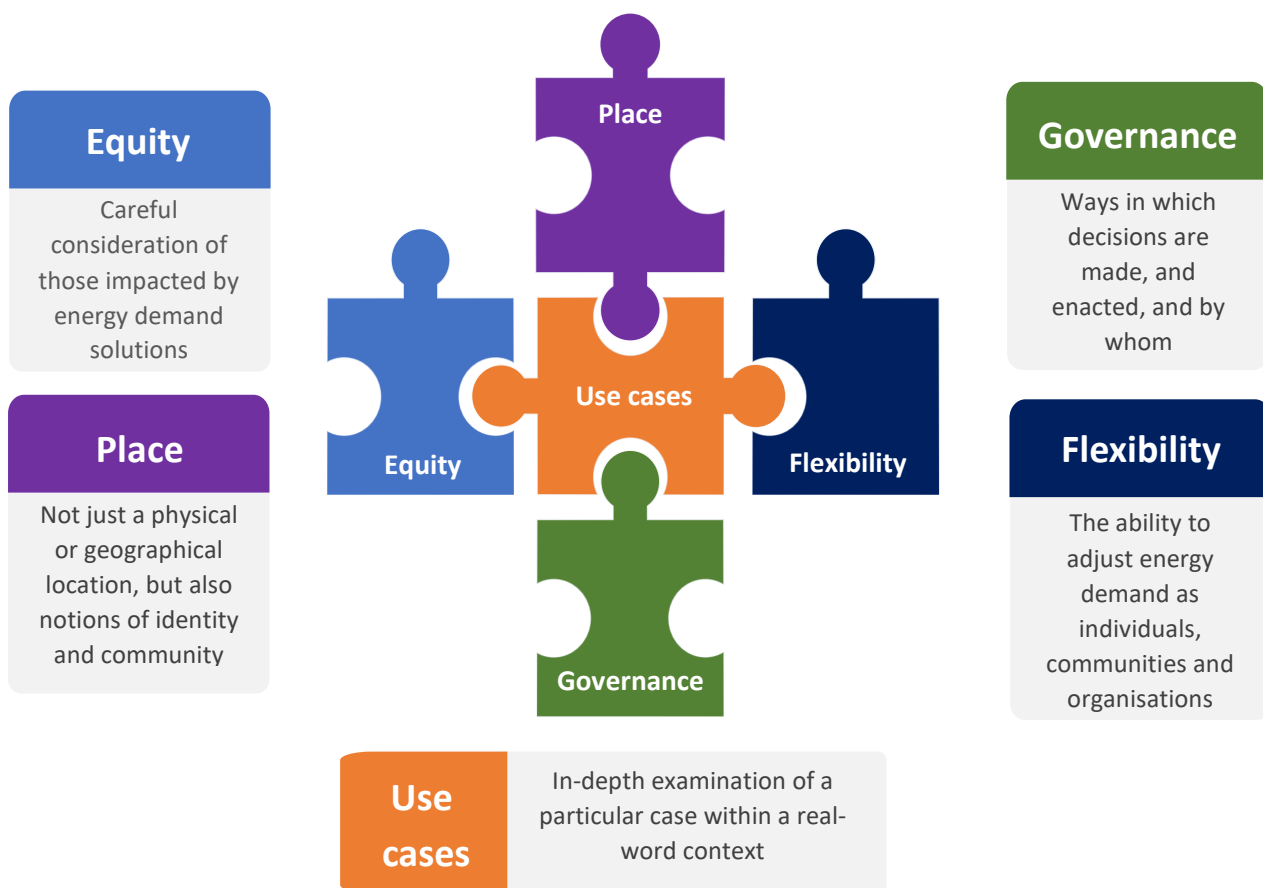


Figure 1: Proposed themes and connectivity through use cases

Applicants for both Co-Is and RCo-Is will be able to put forward use cases (see question 3). The centre will also include a Flexible Fund which is expected to fund new use cases as part of separate funding calls. The use cases will be a key part in the centre’s communication and impact work, and it is expected that many of them will be developed in close co-operation with external partners.

How do I submit my application?

Your application must be via the relevant online form by midday on Thursday 8th December. The forms will not save your progress unless you are using a Google account, though you do not need one to submit. We have provided a list of the assessed questions in Annex 3 (Co-I) and Annex 4 (RCo-I).

Application form for **Co-Is**:

<https://forms.gle/MQZsn3aspi5Dipja9>

Application form for **RCo-Is**:

<https://forms.gle/dUqkwW8nHyDRNv6Z9>

How will applications be assessed?

We will undertake an anonymised assessment process as we believe this will enhance inclusivity, reduce unconscious bias and lead to a more diverse range of skilled candidates.

All identifying personal information will be stored separately from the assessed questions to enable anonymous evaluation by the selection panel. You should ensure the free text responses do not include your name. You may refer to existing projects, programmes, and networks you have had a role in, but please avoid naming individuals.

Anonymised applications will be initially reviewed by the Energy Demand Research Champions. They will consider:

- Vision and how ambitious and achievable that is.
- Fit with the centre’s wider objectives (see Annex 2).
- Commitment to Equality, Diversity and Inclusion (EDI).
- Experience as a Co-I and research leader.
- Research skills, including evidence of different methodological skills and interdisciplinary approaches.
- Impact and engagement experience, including networks and partnerships.
- Where a new theme is proposed, there is a robust argument for its inclusion.

A selection of the strongest candidates will be put forward to the evaluation panel consisting of the Champions and four external stakeholders in research, industry, and policy. Where we receive several high quality applications under a particular theme, the panel may recommend that candidates collaborate as co-leads.

What happens if I am successful?

Successful applicants will be invited to join the new energy demand centre leadership team and will be required to assist in the preparation and writing of the full project proposal, which will be submitted to UKRI on **28 February 2023**. They will need to attend the following meetings:

What	Date	Format/Location
Consortium meeting with Co-Is only	Thursday 15 December 2022 (2:00-3.30pm)	Online
Consortium meeting with all (Co-Is and RCo-Is)	Thursday 5 January 2023 (2.30-4:00pm)	Online
Writing workshop 1 (Co-Is and RCo-Is)	Monday 9 January (pm-only) to Tuesday 10 January 2023 (whole day)	University of Sussex (with overnight accommodation in Brighton)
Writing workshop 2 (Co-Is and RCo-Is)	Wednesday 25 January 2023 (10:00am – 3:00pm)	Urban Sciences Building, Newcastle University

Successful Co-Is will also be asked to help with the final selection of the RCo-Is submitted from within their organisation (if any). We would like Co-Is to dedicate time on **Friday 16th December** to provide feedback on these candidates by 5pm. We appreciate that this is a tight deadline but we want to provide decisions before the end of year academic break.

Annex 1 – Consultation process to develop research themes

The Energy Demand Research Champions undertook a consultation phase for the new centre design during September - November 2022. This included the following stakeholder events and activities:

- A launch webinar attended by 158 people, and follow-up Q&A document.
- A public survey of 191 people.
- Three online workshops with a total of 80 participants involving researchers, policy makers, industry, NGOs and charities.
- Interviews with 23 members of the current CREDS.
- Ongoing meetings with senior industry, government, civil society and funder stakeholders.

The survey was used to seek views on overarching research priorities from key stakeholders, whilst the workshops were used to develop more refined key research questions and the subsequent potential research themes. Both of these activities were used to develop the overarching themes for the centre. The ongoing meetings with stakeholders will be used to finetune the centre proposal, and to develop early connections, networks and impact pathways. The confidential interviews held with existing members of CREDS were used to provide feedback on the workings of a large research centre.

The consultation has provided a wide range of views, which was expected on a topic as complex as energy demand. An overarching message was that the new centre will need to develop an actionable and flexible programme of research that is based on a broader strategy and vision, yet can be mobilised rapidly in the here and now.

The detailed outputs from the consultation will be made available to the centre leadership team once selected, including the social listening study currently being undertaken by Nile.

Annex 2 – UKRI’s draft objectives for the new centre

UKRI have provided a draft call document with guidance on the key objectives the investment must achieve.

- Deliver a world-leading, transformative, interdisciplinary research programme focused on solutions for energy demand reduction in the UK which builds on existing research, evidence and infrastructure, and builds on from the champion role.
- Engage a critical mass of interdisciplinary researchers (across all career stages) with the knowledge and skills to transform our understanding of reducing energy demand, with each challenge / theme bringing together the engineering, physical and social sciences expertise required to deliver the interdisciplinary research programme and enable the vision of the centre to be achieved.
- Engage a diverse and evolving set of partners and stakeholders (e.g. academic, government, business, industry, civil society) throughout the lifetime of the centre to address the pressing challenges of energy demand reduction and enable enhanced evidence informed actionable solutions in a national and international context.
- Promote and maximise the value of data and data infrastructure to transform our understanding of a reduction in energy demand, working across the landscape including through championing the use of existing data infrastructure, such as Smart Energy Research Lab (SERL) (and its successors), the Administrative Data Research UK (ADR UK) and longitudinal studies, such as Understanding Society.
- Ensure knowledge mobilisation is integral to the programme, by making information useable and accessible, with the aim of building capacity, informing decision making and accelerating the impact of research between academia, policy makers and energy users.
- Develop mechanisms that enable the centre to rapidly respond to the changing energy landscape and that will create a culture that encourages agility.
- Be an exemplar of Equality Diversity and Inclusion practices and enable those involved to have and be EDI role models.

The long-term goals of the centre are to:

- Provide leadership and coordination on interdisciplinary energy demand research through the delivery of a world-leading energy demand research centre
- Contribute towards the evidence base for energy demand across interdisciplinary research themes that fulfil the scope above (i.e. energy demand solutions with communities which include technological, social, policy experts, those focussed on economics and business models etc) from the outset of the investment, informing strategies to help meet the UK’s 2050 net zero target, interim net zero targets and broader global environmental and sustainability goals
- Enhance utilisation and engagement with energy demand research across society and other stakeholders including business and policy, to ensure more sustainable and equitable decision making
- Develop a legacy in energy demand research which will outlast the centre and provide a long-term benefit to national and international policies and priorities.

Annex 3 – Assessed questions for co-investigators (Co-Is)

All identifying personal information will be stored separately from the assessed questions to enable anonymous evaluation by the panel. You should ensure the free text responses do not include your name. You may refer to existing projects, programmes, and networks you have had a role in, but please do not name individuals.

All applicants must indicate which theme they would like to be a Co-I on. Applicants can then select if they would like to apply to be the theme lead. We acknowledge themes are cross-cutting and your interests may overlap.

1. Research themes and leadership

- Which of the four research themes are you applying to be a Co-I on: Equity, Flexibility, Governance, or Place. Note that we will consider applications that propose a theme that has not already been identified where a strong case is made for its inclusion.
- Are you applying to lead this theme?

2. Why is this research theme important to you? (2,500 characters)

- What is your main motivation to apply for this theme.

3. What is your vision for how the theme will be delivered? (4,500 characters)

- Outline your vision for the successful development and delivery of the theme, including examples of use cases.
- The outcomes you want to achieve.
- How you will involve others, both existing and new, to accomplish these goals.

4. Why you are the most suitable person to lead/join this theme? (4,500 characters)

- Your experience of managing successful projects.
- The research skills you will bring to the team, including evidence of different methodological skills and interdisciplinary approaches.
- *If you are applying to be a theme lead:* how you will be a research leader for the new centre.
- *If you are **not** applying to be a theme lead:* how you envisage helping the theme lead to deliver successfully.

5. What are your priorities in the first year of the new centre? (2,500 characters)

- What you see as the main priorities for research, engagement and impact, and other areas you see as important.

6. How will you consider equality, diversity and inclusion throughout your involvement? (2,500 characters)

- Why you think EDI is important.
- Examples of EDI activities you have done, or would plan to do.

7. How will you ensure that the research generated by the programme has long-term impact? (4,500 characters)

- How the centre can build on what has come before.
- What you would do, as part of a team, to ensure that new knowledge is mobilised effectively.

Annex 4 – Assessed questions for researcher co-investigators (RCo-Is)

All identifying personal information will be stored separately from the assessed questions to enable anonymous evaluation by the panel. You should ensure the free text responses do not include your name. You may refer to existing projects, programmes, and networks you have had a role in, but do not name individuals.

All applicants must indicate which theme they would like to be a RCo-I on. We acknowledge themes are cross-cutting and your interests may overlap.

1. Research theme

- Which of the four research themes are you applying to be a Co-I on: Equity, Flexibility, Governance, or Place. Note that we will consider applications that propose a theme that has not already been identified where a strong case is made for its inclusion.

2. Why is this research theme important to you? (2,500 characters)

- What is your main motivation to apply for this theme.

3. Why you are the most suitable person to join this theme? (4,500 characters)

- Your experience of managing successful projects.
- The research skills you will bring to the team, including evidence of different methodological skills and interdisciplinary approaches.
- How you envisage helping the theme lead to deliver successfully, including examples of the use cases you'd propose.

4. What are your priorities in the first year of the new centre? (2,500 characters)

- What you see as the main priorities for research, engagement and impact, and other areas you see as important.

Annex 5 - Responding to your questions

1. I am interested in applying as theme lead. However, if my application is not successful as theme lead, would I be considered for joining the theme?

Yes, you will still be considered as a member of that theme if you are not successful as theme lead.

2. I'm on an open-ended contract, would I be eligible to apply as RCo-I?

Based on the UKRI eligibility criteria, you would be eligible to apply as a Co-I. The RCo-I role is intended for individuals who are not eligible to be PI or Co-I in their own right, which isn't the case for yourself.

3. Technical issues with accessing Google form

We're sorry you have encountered some technical issues with this. Two things you could try – (1) copy and pasting the link into a browser window, as apparently that can sometimes sidestep the problem; (2) trying a different browser.

4. Are we allowed to include references to academic papers and reports in our submissions, and, if so, is there a preferred referencing style, e.g. hyperlinks?

Yes you may refer to published materials in your response – we would prefer hyperlinks so that these can be checked by the support team prior to sharing the anonymised form with the Champions/Panel. Note that references should not be used as a substitute for full written responses to the assessed questions.

5. In relation to referring to existing projects, programmes, and networks that we have had a role in, how specific can we be without risking jeopardising anonymity?

You can refer to these by name. Note that the reviewers will be interested in the skills these enabled, the outcomes achieved and ideal follow-on steps rather than general specifics about the projects, programmes and networks themselves.

6. The application deadline and our timelines

We have a tight timeline, which is due to the national mourning period delaying the start of our project by 3 weeks. The deadline was set to be in December to avoid people having to work on applications over the Christmas period.

7. Staggering of RCo-I application process and assessing their eligibility

We are conscious of this and therefore made the restrictions on eligibility clear in the call guidance and ensured the RCo-I application form was considerably shorter than the Co-I application form (3 assessed questions). This approach has been implemented to ensure fairness at a local level with potential applicants given the same opportunity across discipline and organisational boundaries. We also wanted to give RCo-Is an opportunity to be involved in writing workshops.

8. Anonymity

All of the applications will be checked and stripped of any identifiers before they go to the shortlisting panel and subsequent selection panel. There is a vast amount of evidence

which shows that anonymous applications processes increase diversity – something which the energy demand research community can do better on, as also recognised by EPSRC on gender and the ongoing work by CREDS on racial justice for example. We have a whole team reviewing the applications, including our internal team helping with anonymity screening, CREDS Advisory Board member for shortlisting and four external stakeholders in the final panel.