



UK Energy Research Centre

The UK Energy Research Centre (UKERC) carries out world-class research into sustainable future energy systems, addressing the big questions and uncertainties in the energy field as we move towards a low-carbon future.

As the hub of UK energy research and the gateway between the UK and the international energy research communities, we are a one-stop-shop for anyone seeking the most authoritative, up-to-the-minute information on the energy challenges the UK faces, or looking to access our unique networks, which bring together worldwide leading names in energy research.

UKERC's headquarters is hosted by Imperial College London, where we have a full administrative function providing support to 200 researchers, based in over 30 universities and research institutions across the UK.

Our innovative whole-systems interdisciplinary research programme plays a key role in informing UK policy development and research strategy, and promoting knowledge exchange and debate between the energy research community and other sectors. Our research addresses major issues ranging from the size of the biomass resource to UK smart grid capability and the cost of offshore wind, and is regularly cited by journalists and decision-makers. We advise the UK Government on areas as diverse as electricity market reform, nuclear research and consumption-based emissions reporting.

All UKERC publications and articles can be accessed via our online Publications Catalogue, which you can link to from our homepage, www.ukerc.ac.uk.

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Researching pathways to a low carbon future

www.ukerc.ac.uk



UKERC Research

UKERC's current key research priorities are quantifying the impact of global changes on the UK energy market, and addressing the issue of energy futures uncertainty, at a time when the potential of technologies such as carbon capture and storage and bioenergy is still unknown, and the level of public acceptance unclear.

These research objectives are being addressed within five broad themes, within which a number of co-ordinated, interdisciplinary projects are taking place:

Energy Demand, led by
University of Oxford

Energy Supply, led by
Cardiff University

Energy Systems, led by
University College London

Energy and Environment, led by
Plymouth Marine Laboratory

Technology and Policy
Assessment, led by
Imperial College.

UKERC funds and manages a large number of research projects. Here are a few examples:

Analysing media and public beliefs

Experts from the Glasgow University Media Group and Chatham House are analysing the role of the media in spreading awareness of climate change. The project's focus on public trust in different bodies in light of the increasingly diverse range of media views on climate change will offer a unique insight into the impact of different actors and the messages that they are conveying.

Assessing the acceptability of energy-efficient home renovations

Researchers from the University of East Anglia are testing the attractiveness of energy-efficient home renovations, including those covered in the proposed Green Deal. The project involves input from B&Q, the UK's largest home improvement retailer.

Examining policies which encourage low-carbon jobs

UKERC technology and policy experts are examining the economy-wide consequences of policies which encourage investment in energy efficiency and renewable energy, examining to the extent to which they lead to job creation.

Evaluating the eco-system impacts of oil and biofuel production

Researchers are developing a framework for quantifying the overseas ecosystem service impacts of transport fuel production used in the UK, in particular by comparing traditional oil production with biofuel production.

Bringing the Energy Research Community Together

International

UKERC is the bridge between the UK energy research community and the wider world. UKERC Director John Loughhead is a member of the EC Advisory Group on Energy, and sits on the Executive Committee of the European Energy Research Alliance, for which UKERC is the UK representative. UKERC also enjoys strong links with the International Energy Agency, and has been invited to give expert input by the French National Research Agency, the Governments of Victoria, Brunei and Chile. For a full list of our international partners, please visit our website and click on the 'International' tab at the top of the page.

In the UK

UKERC fulfils the role of a national energy research laboratory, actively networking, informing and representing the energy research community and acting as a catalyst for UK-wide collaboration in order to address the key energy challenges ahead.

UKERC's Meeting Place, based in Oxford, serves the whole of the UK research community and its popular events, designed to tackle interdisciplinary topics and facilitate knowledge exchange and collaboration, are regularly oversubscribed.

Meeting.Place@ukerc.ac.uk

The National Energy Research Network (NERN) is open to all energy researchers and other sectors, including business. It provides regular updates on news, jobs, events, opportunities and developments across the energy field in the form of a popular weekly newsletter. nern@ukerc.ac.uk

UKERC's Research Atlas <http://ukerc.rl.ac.uk/index.html> is the definitive information resource for current and past UK energy research and development activity. The online database also has information on energy-related research capabilities in the UK and a series of energy roadmaps showing research problems to be overcome before new technologies can be made commercially viable.

UKERC is also the research delivery partner in the Technology Strategy Board's Knowledge Transfer Network (KTN) for Energy Generation and Supply, with responsibility for analysis of future and emerging opportunities. The KTN aims to accelerate the innovation of technology across the energy generation and supply landscape.



Learning & Skills

Since its inception in 2004, UKERC has pioneered a number of innovative learning and skills opportunities for researchers and students active in the energy field.

UKERC's interdisciplinary research studentships have enabled whole-systems interdisciplinary research across scientific, engineering and socio-economic boundaries. Their work has focused on diverse issues ranging from enhancing woodland diversity and solar hydrogen generation to advanced computing techniques for modelling electricity markets.

Our prestigious and heavily oversubscribed annual International Summer School has become a highlight of the energy calendar. It is a unique week-long event, which combines seminars from internationally leading speakers with challenging project work and

professionally facilitated developmental activities, in a fun and innovative way.

UKERC is committed to fostering and nurturing new talent, and hosts Sparks, a networking group set up for, and run by, early-career energy researchers.

The group aims to share insights, enhance research and provide peer support while promoting interdisciplinary research and the exchange of ideas on all aspects of energy systems – technical, environmental, economic and social. sparksnetwork@ukerc.ac.uk

Contact Us

We are happy to respond to queries about any areas of our work or UK energy policy. For more information about UKERC, please see our website or email us at ukercpressoffice@ukerc.ac.uk

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You can also follow us on Twitter at [UKERCHQ](https://twitter.com/UKERCHQ)

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