

## Doing Interdisciplinary Whole Systems Research: Looking back on UKERC's first 10 years

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The UK approach to university-based energy research is distinctive in a number of ways. Two defining features are its *newness* and its *fragmentation*. The newness reflects its rapid recent growth, after a near-total turn-away from energy research in the UK in the 1990s (other than on oil and gas). This means that UK energy research capacities have been rebuilt almost from scratch since 2000, in response to new drivers, especially climate change mitigation.

The fragmentation relates to the way in which the research capacities were rebuilt – mostly not through new long-lasting national research labs, centres or institutes, but mainly through more temporary and dispersed university institutes, consortia and public-private partnerships (the strong role played by private industry in academic research is another distinctive feature of the UK way of doing academic energy research).

For over 10 years, since 2004, the UK Energy Research Centre (UKERC) has been addressing these issues, by building-up capacity and improving the co-ordination of the UK academic energy research community, and undertaking its own research programme. UKERC was created with an interdisciplinary 'whole systems' remit, across different parts of the energy system (supply, demand, networks, etc.) but also across different academic disciplines reflecting the Centre's three different Research Council funders: Engineering and Physical Sciences, Natural Environment, and Social and Economic.

UKERC has received its main funding in consecutive 5-year Research Council awards. Towards the end of 'Phase 2', we carried out a review of the Centre's achievements in interdisciplinary whole systems research. The review involved consulting almost 100 members of the UKERC's research and stakeholding communities. The findings are now available on the UKERC website [insert link].

The review found that much has been achieved in terms of in capacity building, networking and research outcomes, but we also found some persistent barriers to whole systems interdisciplinary research in the UK. As well as the organisational and conceptual divides, there is also a difficult balancing act between interdisciplinary work and disciplinary identity for many individual researchers.

One important overall finding was that the achievement of any single research initiative such as UKERC should not be judged in isolation, as it reflects wider academic and funding contexts. Looking ahead, we concluded, improving interdisciplinary energy and climate research in the UK requires a joint approach from research funders, assessors and managers – as well as the researchers themselves.

Please read the report (or just the summary), and let us know your experiences and views.

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