

Workshop on the Role of Environmental Science, Social Science and Economics

Introduction

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International Panel for the RCUK Review of Energy

Progressing UK Energy Research for a Coherent Structure with Impact

Report of the International Panel for the
RCUK Review of Energy 2010



Is the energy research funded by the UK government through the RCUK energy programme delivering impact in the UK and worldwide?

“Across almost all areas reviewed by us we found interesting, leading edge and world class research. The excellent international reputation of UK research is deservedly earned”.

Overarching conclusion and recommendation

- There are, however, fundamental weaknesses ...these arise because of ***a lack of a sustained long-term coherent energy research programme across the different funding bodies***, competition between the funding bodies, a lack of transparency ***and poorly executed or non-existent mechanisms for moving technologies from the research stages to early demonstration, application and deployment.***
- The Panel therefore recommends: ***a fully integrated “roadmap” for UK research targets*** be completed and maintained to allow all to know and understand what is considered essential to meet society’s needs.

Research Councils response : Energy Strategy Fellow

Develop a “roadmap” of research, skills and training needs across the energy landscape to meet the UK 2050 targets:

- Identify gaps and misalignments of activities with UK goals
- Research needs to be evaluated, prioritised and implemented
- Work closely with the Research Councils and the Department of Energy and Climate Change
- Organise meetings and workshops
- Act as advocate for the Energy Programme
- Act impartially and independently

A vision for the “prospectus” not a “roadmap”

“The evidence base upon which the RCUK Energy Programme can plan its forward activities, acting in concert with Government, other RD&D funding bodies, the private sector and other relevant stakeholders.”

Key issues:

- the interface between RCEP and other RD&D activity/funders
- Not just climate change: security; affordability; economic opportunity
- Robust against uncertainty
- Ensuring links with underpinning science and engineering
- Training/human capital as well as research

The Prospectus: workplan

1. Scoping phase: documentary review; bilaterals with stakeholders; scoping top-level road-map – *Spring-summer 2012*
 2. Data-gathering: topic-focused workshop activity - *Autumn 2012- Summer 2013*
 3. Synthesis: peer review; top-level document; publication - *Summer-autumn 2013*
- Throughout: Steering Group; website development

The Scoping Phase : bodies consulted

BBSRC

Carbon Trust

Defra

Energy Efficiency Deployment Office

Energy Institute

Energy Research Partnership

Energy Technologies Institute

EPSRC

ESRC

IET

Institute of Biology

Institute of Chemical Engineering

Institute of Mechanical Engineering

Institute of Physics

Institution of Civil Engineers

International Energy Agency

IoM³

Low Carbon Innovation Coordination Group

NERC

Ofgem

Royal Society of Chemistry

Science and Technology Facilities Council

Science and Innovation Group, DECC

Shell

US Department of Energy

Welsh Assembly Government

Strategic workshops

- Energy Strategies and Energy Research Needs:
24 October 2012
- The Role of the Environmental Sciences, Social Sciences and Economics:
13 November 2012
- Research Councils and the Energy Funding Landscape:
4 December 2012

Expert workshops

Six workshops January – June 2013

- Fossil Fuels and CCS (9-10 January 2013)
with UK CCS Consortium
 - Energy in the Home and Workplace (5-6 February 2013)
with EEDO
 - Bioenergy (w/c 4 March 2013)
with BSBEC and Biomass SUPERGEN
 - Electrochemical Energy Technologies (tbc)
 - Energy Infrastructure (tbc)
 - Transport Energy (tbc)
with Low Carbon Vehicle Partnership
- + light-touch review: nuclear fission; wind/wave/tide; industrial processes

Updating

- Annual consultation with RCUK Energy Programme and other key stakeholders
- Annual revision of top-level roadmap in light of policy change, technological developments etc
- Revision of /development of new topic roadmaps according to needs identified during revision of top-level roadmap
- The latter cannot be planned five years ahead – prudent resource provision in budget

Workshop Agenda

- Introduction
 - Overview of workshop and wider process
 - Outcomes of Workshop I
- External views
- First break-out session
 - Work within broad research communities
 - How does your discipline need to interface with others?
- Lunch
- Second breakout session
 - Designing interdisciplinary research initiatives
- Wrap-up