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

Introduction

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International Panel for the RCUK Review of Energy

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”.

Progressing UK Energy Research for a Coherent Structure with Impact

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.
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
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

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