

**Imperial College
London**

RCUK Energy Strategy Fellowship

Overview and links to Nuclear Academics

**2013 Nuclear Academics Meeting
University of Birmingham**

18-19 September 2013



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”.

But.....

- **Impact:** On the whole, the academic community is very well regarded on the international scene. *However, in terms of impact on economic benefit, industry development and quality of life, we have concerns that much more can be done.*
- **Skills base:** There is a good pipeline of doctoral students and post doctoral research associates. *The availability of long-term career paths is less than clear.*
- **Targeted programmes:** These have produced impressive results. There are significant issues, in particular *the communication of the balance between open ended discovery and targeted strategic programmes. There is a distinct lack of transparency of process.*

Energy Research and Training *Prospectus*

“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:

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

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 Innovation Landscape:*
20 February 2013
- *Synthesis:*
15 July 2013

Expert workshops: January – June 2013

Fossil Fuels and CCS
8-9 January 2013
with UK CCS Consortium

**Energy in the Home
and Workplace**
5-6 February 2013
with EEDO

Energy Infrastructure
17-18 April 2013
*with Ofgem, Smart Grid
Forum*

Bioenergy
14-15 May 2013
*with BSBEC and Biomass
SUPERGEN*

Transport Energy
11-12 June 2013
*with Low Carbon Vehicle
Partnership and DfT*

**Electrochemical
Energy Technologies
& Energy Storage**
25-26 June 2013
*with Royal Society for
Chemistry, IoM3*

Light-touch review:
nuclear fission;
wind/wave/tide;
industrial energy

Prospectus Process: expert workshops

Workshop

Draft Workshop Summary



Working Paper: Workshop Summary



Energy Research Prospectus: **Report**



← *Participants review*

← *Peer review*

Prospectus Document Outline

1. Introduction

2. Current and future role of XXXXX in the energy system

3. UK research capabilities

4. Existing roadmaps and innovation needs assessments

5. Research challenges

6. Research needs

7. Research support

8. Training

9. Connections

10. Conclusions and recommendations

What we want to achieve at the Nuclear Academics meeting

- To present our initial findings and conclusions – of a more cross-cutting nature - to the nuclear community
- Check that the views of the nuclear community resonate with the previous findings – and bottom out any differences
- Ensure that the particular characteristics and needs of nuclear research are reflected
- Not to reinvent the wheel and replicate the work already done in this area!

Session 15:00-16:00 Thursday 19 September 2013

- A 1-hour consultation session
- We will present emerging findings of a cross-cutting nature from the previous expert workshops
- Examples include models for PhD training, data collection and curation procedures and suggestions for longer-term research cycles.
- Leading a discussion to test the validity of these findings in the nuclear domain
- Ensuring that any nuclear-specific challenges are recorded and incorporated into our findings.