Research Councils UK Energy Programme Strategy Fellowship

PRESS RELEASE

Energy research prospectus calls for better coordination and funding support that matches ambitious policy goals

The UK needs to improve its co-ordination of energy R&D and ensure that the resources allocated match its ambitious energy and climate change policies, according to an independent team established by Research Councils UK.

The RCUK Energy Strategy Fellowship team, based at Imperial College London, will today publish its report ‘Investing in a brighter energy future: energy research and training prospectus’. It sets out the background to the UK’s energy R&D needs, identifies priority research challenges and recommends ways in which the UK’s research and innovation bodies can meet these challenges.

The report concludes that, despite world class scientific capabilities in the energy field, the UK is now 19th out of 25 in the International Energy Agency league table as measured by the proportion of GDP invested in energy R&D. The authors make a number of recommendations on key issues such as the development of research portfolios, training models for young researchers, enhanced collaboration between different Research Councils and international collaboration.

Professor Jim Skea, RCUK Energy Strategy Fellow, comments: “Our work has confirmed that UK scientific capabilities in the energy field are world-class. The research councils have made good progress in fostering collaboration between different branches of science and training a new generation of researchers to meet tomorrow’s energy challenges. However, we identified missed opportunities and areas of siloed thinking. The UK possesses competitive advantage in some energy areas but stronger support for applied R&D and demonstration would allow research findings to be exploited to the UK’s benefit. It is hard to avoid the conclusion that more investment in energy R&D is needed. The resources we allocate are low historically, low in comparison to our competitors and, perhaps more importantly, low in comparison with our ambitious energy and climate change policy goals”.

Recommendations include:

- The Research Councils should maintain a diverse portfolio of investment in energy research given uncertainties about the direction of UK and global energy markets.
Younger researchers need to be aware of the wider energy context and acquire transferable skills that can be applied under different energy futures. A variety of training models is needed.

The UK can leverage its own investments in energy research through international collaboration and by shaping and participating in European Research Programmes. The aim should be ‘best with best’ collaboration with China, India the US and other world-leading countries.

The links from basic science through to development and demonstration could be strengthened by collaboration between the Research Councils and innovation bodies working closer to market.

Many energy areas, including bioenergy, carbon capture and storage, and energy demand, require inputs from different areas of science. More sharing of activities between the different Research Councils would improve the effectiveness of research.

Some types of energy research – e.g. energy crop trials or the environmental impacts of fossil fuel extraction – can bear fruit only over long periods. There is a good case for longer-term funding cycles in such areas. Long-term strategic planning that goes beyond current budgetary cycles is justified.

Ambitious investments in experimental facilities that underpin basic energy science have not been matched by operating budgets that would allow them to be fully exploited. Separate decision-making processes for capital and operating budgets should be brought together.

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Notes to editors

1. For further information, please contact:
   Iris Kammerer, 020 7594 9294, i.kammerer@ic.ac.uk

2. The RCUK Energy Strategy Fellowship team is based at Imperial College London. It has organised 12 workshops engaging nearly 250 researchers, business representatives, policymakers and other stakeholders over the last year. The team was established in response to a recommendation from an RCUK International Review Panel in 2010 that a fully integrated ‘roadmap’ for UK research targets should be developed. See: http://www3.imperial.ac.uk/rcukenergystrategy

3. The Research Councils UK (RCUK) Energy Programme aims to position the UK to meet its energy and environmental targets and policy goals through world-class research and training. The Energy Programme is investing more than £625 million in research and skills in the current Comprehensive Spending Review period to pioneer a low carbon future. Led by the Engineering and Physical Sciences Research Council, it integrates work from engineering and the physical sciences, biological science, environmental science, social science and economics. See:
   http://www.rcuk.ac.uk/research/xrcprogrammes/energy/Pages/home.aspx

4. The Research Councils are charged with supporting high-quality basic, strategic and applied research, advancing knowledge and technology and providing trained scientists and engineers to advance the economic competitiveness of the UK and the quality of life. See: http://www.rcuk.ac.uk/Pages/Home.aspx

RCUK Energy Strategy Fellowship
Centre for Environmental Policy, Imperial College, 13 Princes Gardens, London SW5 9NR
Web: http://www3.imperial.ac.uk/rcukenergystrategy
Email: rcep.energystrategy@imperial.ac.uk