

ESRI Response to Consultation Paper on Energy Research, Development and Demonstration

We fully support the proposals set out in the April 2005 Consultation Paper.

The proposal to set up an energy research council seems the best option. It should minimise the overheads in establishing and managing the programme. It should be feasible to implement such a solution in a reasonable time scale. An energy research institute or agency could well be less responsive to policy needs than the model of a coordination council.

We would favour Science Foundation Ireland (SFI) as the home in which to locate the coordination council. There would be significant synergies with SFI's current work. However, it would be important to emphasise that the research required differs somewhat from that prioritised in SFI's current programmes in ICT and Biotechnology. The envisaged energy research programme has strong applied and policy dimensions and needs an interdisciplinary approach involving physics, engineering, economics, environmental sciences and other disciplines. Provided the terms of reference are clearly specified along these lines, and stress the need, *inter alia*, to be responsive to the policy-making community, it should meet the Department's objectives.

It is important that the energy issues affecting the whole island are considered to be part of the remit of the body. In the case of basic research this is probably less important as such research may be theoretical in nature. However, to carry out effective applied research it will be desirable to encourage comparative research covering not just the island of Ireland, but also a wider set of energy markets. Such collaborative and comparative research could prove very effective in elucidating the best approach to meeting Ireland's future energy needs. Because of the changing dynamic on the island, it will be important that policy-related research should, where appropriate, focus on all-island issues rather than concentrating solely on the Republic.

The research remit should cover environmental issues directly related to the production and use of energy. Many of the most important challenges facing the energy sector in Ireland and the rest of the EU arise from the developing body of environmental legislation. While there could be some overlap between the work of the new research council and that of the EPA, this is probably best dealt with by a provision for *ad hoc* coordination between the new research council and other related organisations. For example, it could be desirable to ensure that projects seeking funding should apply to one or other funding mechanism rather than entering multiple applications. In addition, a member of the EPA could be involved in the decision making process in order to facilitate co-ordination. However, this should not preclude different projects from the same institution or individual being funded under different mechanisms. All of this is best left to the new organisation to determine itself in consultation with the other relevant bodies

Research, of its nature, must be fairly open-ended in its outlook if it is to be successful. It is unlikely that good research can be undertaken within a time-scale of less than 9 months to a year. As a result, it will not be able to continually respond to immediate policy needs. However, if a "research community" develops in Ireland the growing "wisdom" of the researchers should be available to policy makers.

The experience in other fields, such as macro-economics, is that good researchers can respond rapidly with policy advice on an *ad hoc* basis, even if this is not part of a programme of research. If the programme of R, D&D in energy is successful it should result in capacity building in energy research in a number of institutions. This should be a secondary objective of the programme. A *quid pro quo* for significant financial support should be that the relevant institutions should agree to encourage key researchers to devote a limited amount of time to public good activities, for example through providing ad hoc policy advice, or through participating in advisory committees. It would be difficult to spell out such a requirement in detail. It would be better, instead, to include it as a secondary objective for the new Council: that the R, D&D programme should contribute to capacity building in the energy research area with a view to enhancing the human resources available to provide policy advice.

We strongly endorse the objective of a “light-handed” approach as mentioned in paragraph 3.4. However, this may be difficult to achieve and we have encountered a number of instances where the procedures set up to administer research grant schemes were so cumbersome and costly that they ended up deterring useful research. It will be very important to balance the required level of accountability with a set of procedures which do not involve excessive administrative costs and delays. To the extent that funding is provided on a programme basis, the average administrative cost for funder and researcher alike per unit of research funding allocated should be minimised.

Funding should be made available on a rolling five-year (or possibly three-year) basis for suitable programmes of research. It is only through the provision of funding on a multi-annual basis that recipients will be able to hire new staff and to build research capacity in the area. The funding should concentrate on supporting programmes of research rather than on a wide range of individual projects. This too will encourage capacity building and will permit incentives for collaborative and comparative research. Such programmes should facilitate the development of multidisciplinary research and also collaboration between institutions, companies and individuals.

The programme of research should allow institutions and individuals to obtain additional funding from other sources for their programmes – the EU, industry etc. Experience suggests that industry involvement, including financial involvement, can help generate greater collaboration and ensure greater relevance.

The funding should be made available on a competitive basis. Individuals or institutions should be able to bid for support for well-specified programmes of research. As well as the academic excellence of programmes the funders may wish to take into account some other secondary criteria such as:

How well the programme or research project would contribute to our understanding of the behaviour and needs of the Irish energy sector?

How will it contribute to capacity in research and policy analysis in the Irish energy field?

Whether it promises enhanced interdisciplinary research?

Will it enhance our understanding of crucial energy issues through co-opting the wider international research community?

Will it enhance our understanding of the energy issues facing Ireland through drawing on experience in other countries and in other parts of the world?

The funding should not be restricted to traditional academic research bodies. Private individuals and private companies should be permitted to compete for funding, either on their own or on a collaborative basis.