

Response from Viridian dated 20th May 2005

Executive Summary

Viridian welcomes the Department's paper as an opportunity to better focus and coordinate Irish activities in energy R, D and D on our economic and environmental goals and would welcome consideration on an all island basis.

Stimulation of cooperation between the public and private sectors is the key to focusing the limited energy R, D and D resource on projects which will be of specific benefit to Ireland. We consider that coordination of the energy R, D and D functions would be best served by an energy research coordination council, as proposed in the paper. The obvious synergies between energy R, D and D in NI and ROI would dictate that these activities should be coordinated on an all island basis by a single body of governance.

Our comments below are structured around the sections and related questions as presented in the consultation paper:

Institutional and Governance Options

Viridian concur with the Department that "Option 2" - which proposes an energy research coordination council as a single coordinating body for all aspects of energy R, D and D - would best serve the governance requirements. We agree that the Department would not be best placed to perform this function (Option 1) as, in addition to requiring extra financial and human resources, the breadth of organisational representation would be limited. Industry representation should be on the council. Similarly Option 3 (an energy research agency or institute) would be limited in its' breadth of organisational representation, and primary legislation may be required to set it up.

There is a necessity for a central body with wide and informed representation to co-ordinate what would be considered, on a world wide scale, to be a very limited resource. Such a single body could best target resources to address the specific needs of Ireland with cognisance of international activities in energy R, D and D. The central body should determine the allocation of resource across the various academic and research organisations on a fair and competitive basis, ensuring accountability and efficient expenditure.

Careful consideration is required in order to achieve a wide representation on the energy research coordination council. Representation from the following areas should be considered for inclusion:

- energy market participants
- domestic and international representative academic organisations
- equality of representation from both NI and ROI

Independent chairing or oversight by the Department would help overcome the issue of conflicts of interest, which would be likely given the necessary representation by stakeholders. In order to gain individuals with the required experience and expertise some form of remuneration for the members would be required.

All Island Perspective

Within the All Island context both jurisdictions are pursuing the same goals in the same environment. Both regulators are working towards a Single Electricity Market on an All Island basis for July 2007. Viridian consider that there should be a single body of governance for energy R, D and D on an all island basis. It would not be sensible to have two jurisdictions working in parallel towards the same goals. Combining the relatively limited resources and coordinating activities on an all island basis is clearly the most efficient way forward.

EU Perspective

There are benefits to be had in leveraging from work that has been done and is being undertaken in the EU. Additionally there are gains to be had by influencing and informing the EU agenda with the Irish perspective, which is unique in terms of natural resources and geographical location in comparison to mainland Europe. The small size and electrical isolation of the island of Ireland is somewhat unique in the European context.

There is however a limited Irish energy R, D and D resource for fully engaging in the EU. Thus activities should be mainly focused on influencing the EU agenda where possible and informing Irish bodies about relevant EU energy R, D and D activities. A full and engaging presence within the EU in terms of involvement in energy R, D and D projects may not be cost effective.

Links with Environment

Environmental considerations are becoming increasingly important in the energy sector and are changing the economic dynamics within the sector. The price of carbon emitting is one example of an environmental consideration which has economic effects influencing the technological choices. The extent to which social and economic drivers along environmental lines are influencing the energy sector necessitates some kind of an integrated approach to the technical, economic and environmental aspects of the energy sector.

Some resource should be allocated, with oversight by the governing body, to multidisciplinary projects to include environmental and resultant economic considerations. This is one area where a central coordinating body can be especially useful in encouraging different organisations and departments within organisations to work together along non-traditional lines.

Long-term vs. short-term goals

A stable energy R, D and D environment is required to engage and retain people with high levels of expertise in the required disciplines. There are benefits to the energy industry of having home grown indigenous expertise, rather than relying on expensive international expertise which is less focused on the specific issues relating to Ireland.

There is currently a skills shortage in the energy industry. Academic institutions should be encouraged to educate the required number of people in the relevant disciplines.

Funding

We have already alluded to the relatively small resource available and we consider that the available funds should therefore be specifically targeted at the requirements of our energy industry. Other larger jurisdictions (eg. the EU and the US) can afford to undertake fundamental energy research in areas such as nuclear, hydrogen technologies, superconductors etc. which we cannot hope to compete with. We should however be cognisant of these activities and keeping abreast of them and informing the wider industry is one important function that Irish institutions can perform. Benefiting by leveraging from these activities elsewhere by the collation of energy R, D and D information and communication to the wider industry is an activity worthy of funding in its' own right. Institutions undertaking technical and policy research relating specifically to our smaller scale situation should form the main basis for allocation of funds. The type of research currently engaged by the Economic and Social Research Institute and the Electricity Research Centre at UCD is in our view in line with these goals and worth building on.

There should be a competitive environment whereby institutions tender for funding and allocation is made on the basis of the best proposals. Gaining funding from industry could signal the value of a given project or institution thus triggering further funding.

Those bodies receiving funding should assume the responsibility of informing the governing body, and wider industry, of their activities. Feedback should be of the form of:

- Classic research outputs such as publications in scholarly journals for peer review
- Progress reports
- Information relating to specific technological improvements
- Performing the function of a conduit for wider information in energy R, D and D
- Financial status of organisation and project budgets

Performance monitoring should be a function of the governing body ensuring accountability in how allocated funds have been spent and measuring performance.

Funders should be the recipients, at least in part, of any material benefits gained from the licencing of new technologies/discoveries.

Capacity Building

A longer term goal of building and underpinning the necessary institutions is necessary to ensure the infrastructure is in place to undertake the energy R, D and D activities. Similarly the academic institutions should have the capacity to address the general shortage of expertise in the industry at all levels.