

22nd November 2010

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Dear Ms Fletcher

Anyone who has an interest in the future form of energy networks in the UK has seen the IFI scheme in action. Imperial College has engaged in several IFI supported projects first hand and so we think we appreciated how and where they have played their role in preparing the UK industry for a very challenging future. It is from that perspective that we write to warn of the dangers of losing something important if RIIO does not include comparable support for research and development projects.

In most industries there is a lengthy and notoriously tricky process that takes bright ideas and matures them into engineering applications that improve services to customers or society. That process is often described as the stages of research, development, demonstration and deployment. We see that process as a pipeline process that needs to be nurtured at each stage. It is also recognised that project risk reduces but project cost increases as ideas pass through that process and that selection of the most promising projects happens at each transition. As a research organisation we concentrate our efforts at the beginning of that chain but our motivation is to generate ideas and solutions capable of progressing through the pipeline. Further, as consultants and as educators we have a direct interest in all the subsequent stages.

Our concern is that, under the current innovation stimulus proposals, a gap will emerge between early stage research, as supported by the research councils (notably EPSRC) and the demonstration phases as currently supported by LCN Fund and ETI. No one expects all ideas emerging from research to be successful enough to pass to the following stages but the IFI funding has been crucial in many cases in picking up ideas that need a development phase to establish if the promise in the research idea is maintained as a more detailed design is tested in case studies. There are funding mechanisms such as the TSB programmes and the EU Framework Programmes that focus more on development than research. For these to work for our industry sector, the engagement of network operators is needed so that the research community properly appreciates the constraints and concerns of the real network. Our experience is that the IFI mechanism has been central to encouraging network operators to engage with these programmes and to independently fund other projects. This is what makes the development phase meaningful.

The state of research and development in the energy networks area has been transformed out of all recognition in the last 10 years or so by the dramatically raised expectations of the change needed in our sector. This is not just a comment on the volume of projects but on the number of people being engaged and trained in innovation, and the rejuvenation of that as an ethos. The huge interest now in major demonstration projects (as envisaged in LCN Fund) can only have been arrived at through several years of progress in earlier stage innovations. It is hugely encouraging to see support for demonstration projects and we look forward to exciting results. Our fear is that without a ring-fenced budget to support early stage innovation projects, such projects will be squeezed out in favour of demonstration projects. The result would be that the innovation pipeline runs dry at the intermediate stage and we also neglect the recruitment and retention of people able to pursue development projects in an industrial setting.

Yours sincerely,

