

RPI-X@20 stakeholder workshop – 6 April 2009

Summary of break-out session discussions

How can further innovation in the networks be encouraged?

Introduction

Two RPI-X@20 workshops were held in London on 6 April – one in the morning and one in the afternoon. The purpose of the workshops was to facilitate discussion on the initial consultation document regarding RPI-X@20 which was published in February. It was also intended to allow an exchange of views between interested parties over the issues that would need to be explored within the project going forward. This was achieved through the use of break-out sessions.

The topic for one of the break-out sessions was how innovation in the networks can be encouraged. To facilitate an exchange of views on this topic, the group were given a set of guiding questions. A summary of the discussions that took place during the morning and afternoon sessions is provided below.

Summary of Morning Break-out Session Discussions

The session began with a discussion of how innovation should be defined, with a distinction made between technical and operational innovation. In the context of the RPI-X@20 project, it was felt that both types of innovation were important.

Innovation was seen as positive thing, but it was recognised that there are difficulties facilitating it under the current regime. There was broad agreement from session members that:

- The current regime has been effective in last twenty years at encouraging innovation to improve the efficiency of network operation and investment.
- However, the current regime was not suitable to meet the significant challenges facing the industry, including meeting significant renewables targets and decarbonisation of the electricity system.

Several barriers to innovation under the current regulatory regime were identified by members including:

- Innovation involves embarking on more risky projects than the tried and tested status quo and there are potentially bigger rewards (through efficiencies) but also a higher risk that it will not work. The regulatory regime needs to recognise, a) that innovation that does not work should not necessarily be penalised and b) The efficiency gains from innovation should not be taken away immediately.
- Standards can be too rigid and act against innovation where no funding is provided to investigate alternative methods. One member identified HSE regulations as one example of a constraint in the gas sector.

- Making a commercial business case, particularly in the environmental areas, can be very challenging.
- It was felt by several members that there was a significant co-ordination problem which could also hold back innovative investment due to energy networks being decoupled from consumers/suppliers under the current structure of the marketplace. It was argued that this separation limits consumers/suppliers view of their impact on the network and the true costs of the network.

However, it was noted by one member that the challenges faced in the gas industry were not the same as in the electricity sector. Innovation was seen as far less of an issue, while managing the changes in supply and demand patterns in gas was seen as more important.

Ways to drive innovation were then discussed and range of ideas were put forward:

- One view, largely supported by the group, was that there needs to be a surrogate network customer (e.g. government or Ofgem) to deliver clear high level targets for the networks. It was felt that clear targets would create market conditions that would encourage innovation.
- If one wants to alter the shape of the network in a specific direction then an output based approach needs to be considered. Developing output measures could also allow the regulator to step back in the decision making process.
- A couple of members also suggested that customers should be directly part of the process. Under the current system, it was felt that customers are neither well informed about what the networks are doing, nor the role they are/should be playing.
- There was some discussion of the ENSG conclusions that £4.7bn of network investment was required to realise the 2020 renewables targets. The discussion highlighted this £4.7bn as a high level target against which innovation in network operation (e.g. through intelligent / smart grid operation) could be incentivised.

Two areas were identified that the RPI-X@20 team should investigate to see if there are any lessons that can be learned:

- One was the experiences in the UK water sector and how it has facilitated innovation.
- The other was looking at the New Zealand energy regulatory system - to see if there lessons that can be learnt from a system where the regulator has a very active role in making companies innovate.

Summary of Afternoon Break-out Session Discussions

The group agreed that innovation was an essential way to deal with the marked uncertainties and challenges that lie ahead in the energy sector. Furthermore, it was argued that Ofgem needed to play a significant role in encouraging this innovation. If Ofgem did not provide extra revenue to cover the additional costs, then networks would be unlikely to make the significant investment in innovation that is required.

The initial discussion focused on the sources of uncertainties which innovation could help to tackle. The sources of uncertainties were split into two types:

- New developments in energy generation - what are they going to look like?
- Demand – the introduction of smartgrids and active management systems is likely to change demand patterns.

Several innovative areas in the electricity sector were then discussed including:

- Developments in smart metering. Here the group expressed concern that co-ordination between suppliers and networks may act as a significant barrier to innovation.
- The growing importance of storage technologies, given the intermittent supply of renewables.

There was also some positive discussion on the IFI scheme, currently in place by Ofgem, to fund research into network innovations:

- One member commented that, although a relatively small scheme in terms of funding, it has had an effect on starting to change the culture of network operators to consider innovative investment.
- It was suggested that more focus was needed on the incentives for companies to deploy innovative technologies on the networks.

It was acknowledged by the group that if companies were to be encouraged to make significant innovative investments, then new appraisal procedures would need to be developed, recognising that the future was subject to different kinds of uncertainty now, and that some investments would be unsuccessful.

The group broadly agreed that there was a need to develop an auditable planning process for companies to identify both (1) valuable new techniques and (2) projects using those new techniques. This process would also help to mitigate the considerable uncertainty faced by the energy sector. The role of regulation could then be to:

- Approve (or merely review) the planning process used to identify the new techniques or the associated projects.
- Approve cost recovery for projects identified by this planning process, even if the decision to carry out the investment proves unsuccessful in the longer-term, on the grounds that it is possible to show that it was not the wrong decision to make at the time.

One member also suggested that Ofgem should have a more direct role in the planning process:

- However, several other members felt that this would be very resource intensive and questioned whether Ofgem had the expertise to do this better than the industry.

- One member suggested that Ofgem could look to develop an expert group to appraise innovative technologies and projects and suggested that this group could be industry led.