

Review of GB Innovation Projects

Background

Great Britain (GB) gas and electricity networks have delivered a range of innovation projects throughout their recent regulatory period (RIIO-ED1). These projects have allowed the industry to test and refine new technical and commercial approaches to the planning, development and operation of the energy industry.

The continued innovation throughout GB is valuable to other distribution and transmission networks wishing to adopt a 'fast follower' approach. This allows them to leverage learning from GB and apply this to their own network's unique characteristics.

EA Technology were engaged by a distribution and transmission network operator ahead of their next price control. They required a specialist technical consultancy with knowledge of the GB innovation landscape to provide recommendations for the innovation strategy in their next price control. EA Technology provided an expert team to provide recommendations based on the following areas:

- GB network operators' innovation strategies for RIIO-ED1, RIIO-T1, RIIO-ED2 and RIIO-T2.
- Understanding of the direction of travel for network innovation in GB.
- An overview of the innovation process in RIIO-1 and the planned process for RIIO-2.
- Highlighting RIIO-1 innovation projects and learning in areas of specific interest to this network owner
- Recommendations for their price control innovation strategy and approaches to innovation funding.

Our Approach

The review of innovation strategies focussed on identifying priority areas for and high-level drivers of innovation. From this, 8 broad themes covering the 137 priorities and 77 drivers were found with 5 of these themes being of immediate interest to our client:

- Network monitoring and data.
- Connections, network capacity, distributed energy resources and low carbon technologies.
- Customer participation and demand-side response.
- Customer satisfaction and bills reduction.
- Whole system integration.

Each of these 5 themes were then analysed, with the volume and content of the network operators' priorities and drivers for RIIO-1 and RIIO-2 compared. This brought into relief the changes taking place: Which themes are changing prominence and what emphasis shifts there are within themes in RIIO-2 because of learning in RIIO-1.



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Our Approach

A review of the RIIO-1 innovation projects focussed on those within these 5 themes. For each theme, 3 projects were presented which had value and learning for consideration in their next price control. The 15 project summaries combined to give both deep knowledge and cutting-edge insights of relevant GB work.

Tailored recommendations were then produced on specific areas that would align particularly well with the 'fast follower' approach. These focus areas were:

- Low voltage network monitoring.
- Electric vehicles and vehicle-to-grid.
- Customer engagement.
- Flexibility forecasting.
- New services and customer opportunities.
- Whole system integration.

Tailored recommendations were also produced on higher level elements to consider in the development of the innovation strategy.



Client Benefits

Learnings and recommendations were disseminated to via a workshop and report. The workshop gave a wide cross-section of the client's team the chance to question EA Technology's findings and to discuss how the recommendations could best be put into practice.

The distribution and transmission network owner benefitted from this piece of work, coming away better informed of innovation in GB over RIIO-1 and going into RIIO-2, and with recommendations applicable to its networks for incorporation into its RP7 planning.



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Global Footprint

At EA Technology we specialise in asset management solutions for owners and operators of power network assets.



Founded in 1966 we have over 50 years' experience in the industry and 6 regional offices around the world to support our global customer base.

We help clients to safeguard their networks. Advising them on strategy and implementation of a range of technology solutions to manage power assets, delivering maximum life and minimising cost



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