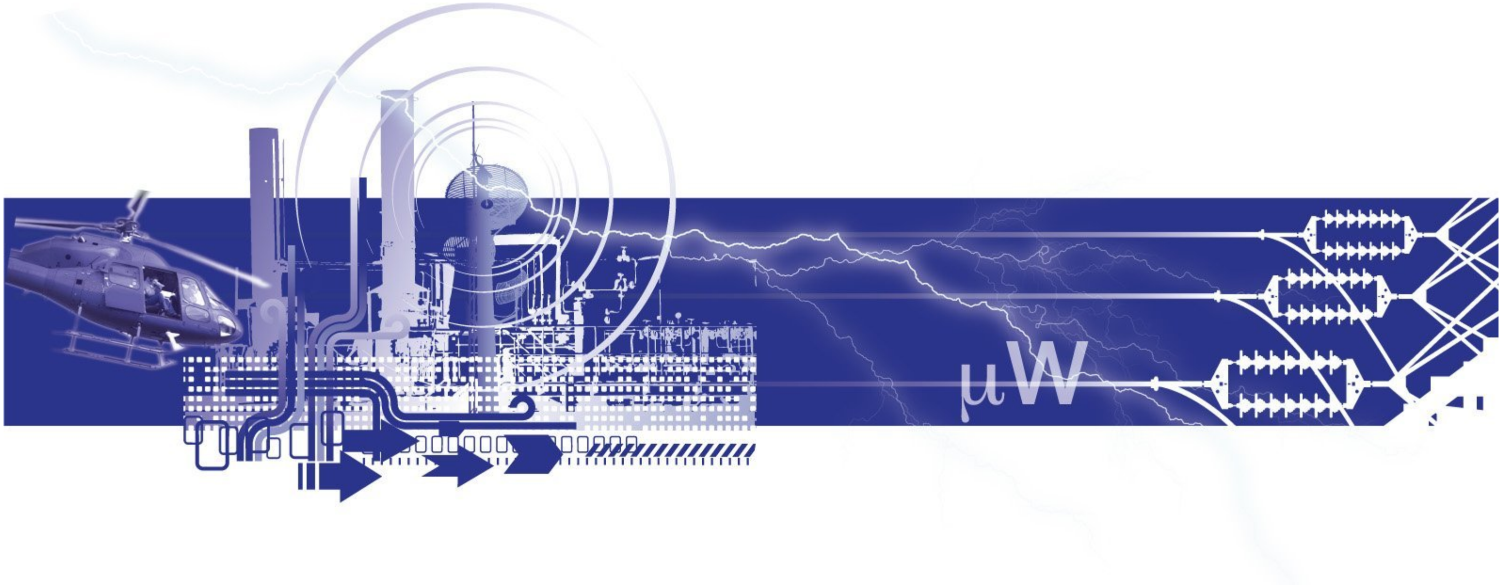
ea technology

UNRESTRICTED REPORT



Regulating energy networks for the future: RPI-X@20 Recommendations

EA Technology's submission to Ofgem's Consultation

September 2010

THE QUEEN'S AWARDS FOR ENTERPRISE: INNOVATION 2007

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1 EA Technology

EA Technology was established in the mid 1960's as the UK Electricity Industry's Research Centre, specialising in the Distribution and Use of Electricity. Despite a number of evolutions since to our present status as an independent limited company, we have never lost this focus and continue to supply innovative solutions to the Distribution and Supply sectors of the energy supply chain, within the UK and Internationally.

We provide a wide range of specialist services to the energy sector, particularly to electricity Distribution Network Operators and network users in the UK and overseas. These services include surveying and monitoring of asset condition; consultancy services on strategic asset management for ageing networks; failure investigation and analytical services, and supply of specialised instrumentation for condition assessment and fault location for cables and switchgear. We also coordinate a number of forums which the DNOs and other industry representatives participate in, enabling them to develop common approaches to tackling shared projects and to learn from each other's best practice.

We are therefore delighted to submit the following comments for consideration as part of this consultative process.

2 Our Submission

EA Technology's response to Ofgem's Consultation is provided in the following pages. We have targeted our response to those areas where we are qualified to contribute and have therefore not commented on areas outside our expertise. The relevant recommendations are indicated as appropriate to enable the reader to relate this response to the consultation document. Most notably, our responses are targeted to the needs of the electricity distribution networks, although we believe that our comments are likely to be transferable to electricity transmission and gas networks.

2.1 The Objectives of Sustainable Regulation

Recommendation: 1

The UK is in for a decade of transformation, as international and national energy policy gear into action to decarbonise our energy supply. By 2020, the way we generate the energy we use will be radically different from what we're all used to. This, in turn, will fundamentally affect the transportation and control of energy, and how we use that energy in our homes and businesses is likely to be very different too, as electric vehicles take to the roads and heat pumps become more widely adopted. We therefore welcome the inclusion in the stated objectives for network companies that they "*play a full role in the delivery of a sustainable energy sector*," as we believe that it is essential that the role of networks in delivering a low carbon future is properly recognised.

We also agree that it is important that network companies "*deliver long-term value for money network services*," although our view of what constitutes value for money is not necessarily the same as that proposed. We are concerned that a significant element of the focus of regulation is on the measurement and reporting, rather than actual delivery. Whilst measurement can identify whether or not objectives are being achieved, it is not the same as delivery. We believe that there is a risk that a significant proportion of time, money and effort is required for measurement and consequently taking resources from core activities. We therefore recommend that Ofgem may wish to review this with the network companies to ensure that measurement and reporting are proportionate to the desired end result.

2.2 Enhanced engagement

Recommendation: 3

We agree that engagement with affected stakeholders is often beneficial and recognise the importance of mechanisms to capture this. It can come at a cost, which may lead to greater benefits in the longer term, but this cost needs to be accepted and budgeted for.

We suggest that increased engagement over Price Control Reviews may not necessarily be the most appropriate way to engage stakeholders, particularly smaller consumers who may struggle to relate to the concept. In our experience, stakeholder engagement is most effective when related to a project or activity that has a direct impact on the parties concerned. There is a risk that stakeholder engagement, particularly if linked to an aspect of network companies' business that is more abstract for the end user, attracts pressure groups with specific aims, rather than the 'ordinary' consumer. However, transparency, generally, is a good thing, and therefore greater engagement with stakeholders is to be welcomed.

2.3 Outputs-led regulation

Recommendation: 5

We welcome the extension of Outputs-led regulation. Our experience to date suggests that output measures are beneficial to network operation and provide a transparent way to assess whether companies are effectively managing risk in an economically efficient way. However, we suggest that it is important to ensure that the measures are truly 'output' driven and not focussed on inputs such as volumes delivered.

We agree that the relative importance of the output categories is likely to vary across the sectors. It would be helpful to understand how these will be interpreted and applied, perhaps via examples.

Whilst we see many benefits in a consistent approach across the sectors, we believe it is important that a degree of flexibility is retained in determining the outputs and deliverables to achieve the stated objectives. Such flexibility will stimulate innovative thinking and allow network companies the scope to achieve the objectives in the most appropriate manner given the existing nature of the assets and geographical area covered within the licence area.

It would be helpful for Ofgem to describe how the primary objectives (which are likely to have a substantial subjective element) will be judged. Also, if Ofgem intends to work with individual companies to identify the most appropriate secondary deliverables, some thought needs to be given to how these 'company tailored' deliverables will be compared to enable customers to understand what they get for their money in a given network area, and whether this represents good value.

2.4 Longer term thinking and the length of price controls

Recommendation: 6 and 7

We support the recommendation to move to longer term price control periods and strongly believe that a long term view on investment is essential to deliver the step change that is required in network operation to support the country's energy policy. We believe that stable regulation and market certainty will be vital to deliver the level of investment that is likely to be required over the next twenty years. These factors will, in turn, support long term ownership and confidence in the sector at large.

We note Ofgem's intention to continue with the use of Regulatory Asset Value (RAV) as a mechanism for calculating the returns a network company can make. Whilst we are not in a position to comment in depth on this recommendation, we can highlight that RAV is effectively a 'made-up' number and, as evidenced by the recent press coverage of the sale of EDF Energy's network business and indeed previous sales of network businesses, does not necessarily reflect the value of the underlying assets.

With the proposed introduction of longer price controls, we recognise that there remains a degree of uncertainty as to the challenges that will face network companies over the next decade or so. What new technologies will come forward and what will their impact on the network be? Electric vehicles and heat pumps being commonly cited challenges. We appreciate the need to accommodate changes in the regulatory process but are a little concerned that mid-period reviews may not effectively resolve this.

As an SME supplying many of the UK's network companies, we have first-hand experience of the impact of cyclical review periods on the procurement behaviour of many companies. It is noticeable, for example, that their expenditure tails off once the review process starts and only picks up once the new settlement is agreed and is firmly established. Consequently, the majority of expenditure occurs in three years out of every five-year period. Unless handled very carefully, the introduction of a mid-period review runs the risk of effectively shortening the review period to four years and thereby undermining the intention of moving to a longer review period.

As an alternative to the mid-period reviews, we propose introducing clear triggers within the respective settlements that will lead to a re-opening or other uncertainty mechanisms, but otherwise keeping the review and reporting during the review period to a minimum to allow the network companies to focus on delivery.

2.5 Proportionate assessment, Third parties and Incentives

Recommendations: 8, 9 and 10

Whilst we support Ofgem's aims in this section, we are very concerned about a number of the proposed mechanisms and are not convinced that they will deliver the networks that Ofgem, the industry and the country at large wish to see.

The 'Whistleblower Effect'

We support the Proportionate Assessment approach, as this is likely to be the most cost efficient way of assessing each company's business plan, focussing assessment resources on the companies that have not produced high quality, coherent and well-justified business plans. However, we are concerned about the proposed introduction of the 'Whistleblower Effect'.

We recognise the importance of (and the legal requirement under the Third Package for) regulation remaining independent. However, we firmly believe that in order to achieve the low carbon policy objectives a different stance needs to be adopted to regulation whereby the Regulator and the Industry work alongside each other. We are very concerned that the proposed 'Whistleblower effect', in particular, sets network companies and the Regulator up against one another and we think this will be very damaging for the whole industry.

Increasing competition in this manner between network companies runs the risk of fragmenting relationships. There are finite resources available to deliver the energy policy objectives, both in terms of time and the suitably skilled workforce, and it is generally recognised that the shortage of these resources is likely to worsen over the next 15 years. We therefore strongly believe that the network companies need to share information in an open and transparent manner and collaborate further to maximise the UK's capabilities. We are concerned that the introduction of the 'Whistleblower Effect' risks creating a culture of fear and distrust, where companies are unwilling to discuss their challenges openly to be able to learn from others' experiences for fear of their comments being used to their disadvantage.

Network companies are not homogenous and neither are the experiences of consumers. We do not believe Ofgem will get the visibility it is hoping for through this approach and that any benefits will come at a very high cost. We strongly recommend that Ofgem review its position on this.

Mechanism for addressing underperforming companies

We recognise that Ofgem wishes to develop a mechanism to incentivise network companies that perform well and address those experiencing difficulties. However, the approach proposed may be slow to deliver improved performance from failing networks, with consumers experiencing the consequences of any financial punishment instigated to address underperformance.

We believe that Ofgem is trying to create an approach similar to that seen in unregulated markets in a capital economy. In these instances, companies that underperform see this impact on their share value until the management or market intervenes in some way to address the difficulties. Consumers are not damaged by this as they have the option of changing provider if they are unhappy with the service received.

However, in relation to underperforming network companies, we believe that there is a significant risk that consumers may suffer significant detriment. The probability of a network company that is financially punished deteriorating further is high, in our opinion, as there is likely to be a significant problem that has led to the company being in that position in the first place. Until a correction (probably in the form of purchase by a well-performing company) occurs, the service provided by the underperforming company is likely to continue to deteriorate. Even if a sale is agreed immediately, there will be a time lag while the new owners return the network to good order. This time lag will negatively impact on the consumers connected to that network as, unlike most goods and services, consumers cannot change network provider and are exposed to the impacts of the company's underperformance.

Creation of artificial markets

We are unsure about the use of third parties to create competitive markets where they do not naturally exist as we are aware that there is a risk that ring-fenced areas or 'islands' are created that deliver exceptional performance but do so by passing the majority of costs out of the area, hence increasing the costs experienced by the wider system. We believe that there is a balance to be struck between competition and efficiency and that artificial markets may result in inefficiencies.

We are aware that certain third parties already active in the sector do not operate on a level playing field with the network companies. As a consequence, they often 'cherry-pick' activity such as connections for large estates, leaving it to the network companies to pick up the more costly, universal service elements of network provision like individual, bespoke connection requests. The economies of scale that might be delivered by combining these activities are then lost, increasing the costs incurred in providing the universal service aspects.

We recommend a cautious approach to the licensing of third parties and suggest that the question be consistently posed as to whether and how the introduction of competition, where it does not naturally exist, will ultimately deliver benefits for consumers.

2.6 Innovation stimulus

Recommendation: 12

EA Technology has strongly advocated the need for innovation in the sector for many years and one of our strategic priorities is to deliver high quality, innovative solutions that meet our customers' needs. We therefore welcome the inclusion of Innovation as a distinct element of the RIIO metric. We also support a single mechanism across the Technology Readiness Levels and the sharing of information and ideas between transmission and distribution.

We do, however, have a number of concerns regarding some of the specifics of the proposals presented as we are concerned that they may fail to deliver the degree of quality innovation that we believe Ofgem, the network companies and the country as a whole need over the next ten to twenty years.

The Competitive Element

Since the introduction of the Low Carbon Networks' Fund (LCNF), we have noticed a significant change in the DNOs stance on innovation and collaboration. The competitive nature of the reward mechanism has resulted in unnecessary anxieties about the need to 'win'. As we have previously commented, we are seeing evidence that DNOs are uncomfortable collaborating in LCNF Tier 1 projects or IFI projects that might lead to an LCNF project, for fear that they give an unfair advantage to one of the collaborating DNOs if it results in a larger Tier 2 project in the territory of that DNO. Ultimately, this behaviour could have a significant and detrimental impact on all innovation activities, including IFI. We do not believe that this was the intention in the design of LCNF or the proposed Innovation Stimulus but envisage an increased focus on competition further increasing this stance.

The competitive nature proposed, particularly when combined with Proportionate Assessment, will create unnecessary division in the industry at a time when we need to pull together to deliver the UK's energy policy requirements. The National Skills Academy for Power have estimated that the energy sector workforce will need to increase by in excess of 38,000 people by 2024, which is more than 108% of the current workforce. Furthermore, of today's workforce, it is estimated that approximately 90% will have left the sector by 2024, of which almost half will leave as a result of retirement. Given the size of the current and future workforce available to the network companies, there is a significant risk that measures that lead to increased barriers between network companies will delay, and potentially prevent, the adoption of learning that can lead to enhanced network performance and/or facilitation of the low carbon policy agenda.

Whilst we recognise that competition can, in certain markets, lead to innovative breakthroughs, we do not believe it will deliver what the energy sector requires, especially in light of the timescale proposed and the size of the skills pool in the UK. We urge Ofgem to review their stance on this to ensure that UK PLC's interests are protected, that duplication is avoided and that learning is shared openly and in a timely manner.

The Time-limited nature of the Stimulus

We are unclear as to the need to introduce a time-limited stimulus for innovation. In our experience, innovation is a continuous process that builds on previous success. Once stalled, there can be significant lead time required to restart the process (we estimate this to be approximately 3 years). We believe that innovation needs to take a similarly long-term view to investment and that market certainty for the outputs from innovation are required to support invention and creativity.

We do, however, appreciate that the level of stimulus required may vary over the next twenty plus years. To manage this, we propose the use of a base level ‘collar’ (perhaps 0.5% of turnover as adopted for IFI) that can be cranked up as required but can be returned to a known level to support longer-term developments.

We are also concerned about the introductions of specific ‘competitions’. Our experience in facilitating the Energy Innovation Centre is that projects do not necessary arise when competitions or calls are open but when invention strikes. We are aware of many projects that have been ineligible for calls or competitions when they were open as they had not quite reached the relevant stage of development and were then unable to apply once the projects were ready because the call had closed. An ongoing mechanism that can optimise great ideas as and when they arise is likely to offer greater benefits to the industry.

Eligibility of third parties

We remain unconvinced that third parties should be eligible to receive funding directly from the Innovation Stimulus. From our experience in developing and supplying innovative solutions to network companies, there is significant value in collaborating with the end user to ensure that our activity meets a genuine and identified need. We believe that enduring innovation delivery to meet the needs of the network companies must be directly engaged with one or more of the companies that will use the ultimate product or solution and it is therefore appropriate that funding flows via those companies.

Screening of projects

With the greatest respect to GEMA and the panel appointed to screen the LCNF Tier 2 projects, we strongly believe that the network companies are best placed to identify and screen the projects they participate in to deliver the innovation their network requires. We therefore recommend that screening remains with the companies.

3 Our Submission

We have endeavoured to ensure that our response to this consultation is a useful and concise contribution to the process. We would welcome a discussion on any of the issues raised in further detail, if required. In the first instance, please contact Dave A Roberts (email: DaveA.Roberts@eatechnology.com or phone number: 0151 347 2318).