Grid Edge Policy

Regulation · Energy · Consumers

Maxine.Frerk@gridedgepolicy.com
Grid Edge Policy Ltd.
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Ofgem's RIIO2 Sector methodology consultation

Dear RIIO team,

Until 2016 I was Senior Partner Networks at Ofgem where I led on the RIIO ED1 price control. I am now an independent consultant and thought leader on energy regulation with a particular focus on the consumer interest. I also chair SGN's Consumer Engagement Group and have responded separately on behalf of that group in relation to the GD2 sector specific methodology. This response is submitted in a personal capacity and is focused on more technical regulatory issues in the over-arching methodology consultation, drawing on my 20+ years of regulatory experience across the public and private sectors.

There are two specific areas that I want to touch on around incentive design and the handling of uncertainty which are discussed in the consultation and I have provided comments / answers to the relevant questions below.

Q5 – Dynamic and relative incentives

I have raised concerns previously about Ofgem's proposal to set incentives on a relative basis. From a regulatory design point of view this is misguided because:

- to be most effective companies need to be clear what they need to do to earn rewards (or avoid penalties). It will be much harder for them to make the business case for investment to support improved service if they cannot be confident of the financial impacts of so doing;

- companies will be discouraged from sharing best practice which is important in raising standards across the industry;

- it is hard to talk to customers about willingness to pay for improvements in service when what they will have to pay will depend on the performance of other companies. Where performance can be objectively measured what matters to customers is how their local network performs;

- Ofgem suggest that this will drive competition between the companies. In practice there is already a level of rivalry (as each wants to be top of the performance tables) but not such as to hamper co-operation where needed.

- Moreover – applying game theory concepts - it will not be hard for companies to reach a common understanding that they will all take a cautious approach to maximise industry returns.

I have argued previously that there should be no rewards for "winning the fat boys race" – it is absolute not relative performance that matters. Clearly there can be some areas where absolute performance is hard to measure – for example on stakeholder engagement – and in such cases a relative incentive would be reasonable (and probably happens de facto anyway). That said in most such cases where performance is harder to quantify Ofgem seems to be planning to drop financial incentives so the point is moot.

On the issue of dynamic incentives, it makes sense in most areas that targets should get tougher over time. However there is still a difference between setting targets that tighten in a pre-defined way and targets that change depending on industry performance. These issues were explored during the CMA appeal and at that time Ofgem argued that it was important that DNOs understood what was expected of them in terms of performance in setting their business plans. It remains unclear how the costs of delivering improved performance are meant to be recovered – whether from the incentive rewards or as part of base business case costs. If the latter then Ofgem needs to be clear how that is taken into account in benchmarking (to avoid costs being determined on the basis of an unambitious plan from a customer service perspective). Ofgem also needs to think through how changing the targets based on performance during the price control would impact on incentives to improve (if the reward will be a tougher target). Again this was explored in the CMA appeal. While dynamic targets may sound intuitively appealing from a consumer perspective Ofgem needs to ensure that it has worked through all the potential unintended consequences before experimenting with a new model.

Chapter 7: Managing Uncertainty

I fully support the focus on handling uncertainty and the desire to avoid asset stranding given the uncertainty that exists in particular around the future of heat de-carbonisation and the long-term role of the gas networks.

As a part of that I welcome Ofgem exploring the potential role of real options theory. Having identified this as an area that I felt needed more thought when I was at Ofgem, I have undertaken research on it since leaving and have published a paper on "Real Options" on my website www.gridedgepolicy.com which was shared with Ofgem's working group on de-carbonisation. I was therefore disappointed that the messages have not been taken on board. A copy is attached and I would ask that it be considered as part of this response.

The methodology document refers to existing Ofgem guidance (which to be honest is fairly thin) and says that for any new investments where the need is fairly certain (ie not anticipatory investment) companies must meet a "higher hurdles" test and specifically states (7.30-7.32) that companies must have:

- explored alternatives and considered the option value of deferral;
- undertaken "least worst regrets" analysis;
- provided evidence through probabilistic CBA that they have considered different scenarios;
- considered whole systems solutions;
- made "explicit consideration of the option value (technically the quasi option value) of deferring investments".

This shopping list of tools and techniques fails to engage with what sorts of decisions these different techniques are best suited for and the nature of the different decisions being taken across different sectors. Specifically my report argues that:

- looking at coherent broad scenarios is appropriate for major investments at transmission level where it is not practical to assess probabilities of eg government policy being delivered;
- however at distribution level the projects involved are typically much smaller eg reinforcement decisions driven more by local factors and where simple probabilistic CBAs or "trigger point" rules (as ENW have developed) are more appropriate.

For gas distribution a large proportion of investment (aside from repex) is about asset maintenance. The choices here are about repairing versus replacing assets which Ofgem does not touch on.

In GD1[1] Ofgem provided explicit guidance to the companies in developing their business plans on the payback period that should be used in assessing investment given the uncertainty that existed:

"Our preliminary view is that for investment in network assets, to take into account the uncertainty over future network use, we would expect the project to have a positive NPV over a much shorter economic life than 45 years (eg 16 years) to justify inclusion in GDNs' plans. Adopting a shorter economic life provides a heuristic approach to dealing with uncertainty over future network use. Such an approach incorporates an implicit option value or insurance value of deferring the investment decision (until a future date when the uncertainty will be at least partially) within the investment decision." (Appendix 9)

While there may be questions as to whether this payback period remains appropriate (and whether it should be applied to all asset classes) this sort of heuristic is clearly a more manageable way of looking at smaller scale investments – and as I understand it is still used within the businesses now when faced with new projects during the plan period.

My report also stresses that what "real options" theory drives is a new way of thinking about what the options are (invest to learn, keeping options open, etc) and the value in breaking decisions down into phases with regular re-appraisal. This is also reflected in academic work on decision making under uncertainty, for example a recent presentation at UCL by Dr Katy Roelich[2] which points to techniques such as "adaptive decision making". This required "mindset shift" does not come through in Ofgem's consultation.

In the context of GD2 Ofgem has picked up the language of real options theory by talking about low or no regrets actions in the context of heat de-carbonisation. It defines this simply as low cost options or investments with a low risk of stranding across all plausible scenarios. This feels unduly narrow. There may be cases where companies need to spend more in the short term to avoid the risk of assets being stranded (as with repair which is more expensive long term but avoids the cost of replacement assets being stranded). There may also be critical path steps that companies need to take to keep options open if there are hard deadlines that need to be met in future. Ofgem should be encouraging companies to be thoughtful and explicit about how they are dealing with uncertainty.

Carbon impacts

Finally, as an aside I note that in the guidance that Ofgem points to as the authority on quasi-real options (Ofgem's 'Discussion Paper on Strengthening Strategic and Sustainability Considerations in

[1] https://www.ofgem.gov.uk/ofgem-publications/48209/gd1-outputs-and-incentives-initial-proposals-270712pdf

[2] https://www.ucl.ac.uk/bartlett/energy/sites/bartlett/files/decision_making_under_uncertainty_katy_roelich.pdf

Ofgem's Decision Making'[3]) there is significant discussion on how Ofgem's duties have evolved over time to place more weight on sustainability considerations, including defining consumers interests as including their interests in the reduction in greenhouse gases. As a result it suggests Ofgem will take account in its assessments of the implications of its decisions for the "UK's legally binding energy targets, to ensure that our decisions do not impede the UK‟s achievement of its legally binding national targets, and to assess potential contributions of our decisions to these targets, taking account of our legal duties and objectives under both UK and European law".

I would encourage Ofgem to review this document and ensure that its approach to RIIO2 is in line with its espoused position on these issues given the concerns that I have raised on behalf of SGN's CEG (and that have also been raised by Sustainability First) on Ofgem's lack of ambition in this area for GD2.

Yours faithfully

Maxine Frerk

Director Grid Edge Policy

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[3] https://www.ofgem.gov.uk/publications-and-updates/discussion-paper-strengthening-strategic-and-sustainability-considerations-ofgem-decision-making