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Real Options and Investment Decision Making

Dear James

Thank you for the opportunity to respond to this consultation. This is a non-confidential response on behalf of the Centrica Group excluding Centrica Storage.

We believe that real options analysis will be useful as one of a number of investment appraisal tools. Overall, whilst it should not necessarily be relied upon in isolation, we are supportive of Ofgem's proposals in this area, subject to those issues set out below, and believe that they will be helpful in keeping costs to consumers down.

Do you consider that a real options approach is useful (or not useful) in the context of investment appraisal in the energy sector? Please provide reasons.

A real options approach should prove useful. As your consultation identifies, a real option approach is likely to give a significantly different (and more accurate) appraisal of an investment in situations where there are large, long-lived assets, and where there is significant uncertainty about the future need for those assets. Both of those apply to the energy sector.

We would also note that a real options approach – if done well - is likely to lead to companies making fewer unnecessary investments. This can only be helpful in keeping costs to consumers down.

Do you have any views on the practical applications of real option pricing set out in this paper in relation to: (i) scale and timing of network investment, and (ii) valuing interruptible contracts (see also supporting appendix)?

We have no specific comments here. The areas identified appear to be sensible ones in which to consider the use of real options.

In what other policy areas, if any, do you consider the real options approach could help improve decision making?

We consider that there is scope for applying it in electricity distribution as well as gas distribution. Ofgem is of course already considering a real options approach in its work on valuing smart grid proposals, which we would support. Ofgem should consider what scope there might be for extending the approach to other issues in distribution – for example, demand side response or storage projects that do not fall within the scope of the work on smart grids.

Do you have any views on our approach to estimating the option value associated with interruptible contracts?

Our major issue with the approach is the way in which you have estimated the probability distribution of future gas demand, and in particular your assumption that the central case for demand is mid-way between the high and low cases. While we recognise the dangers of spurious accuracy, we would also make the general point that the results may be sensitive to the distribution chosen. Ofgem should consider how robust its conclusions are to alternative plausible distributions – say, to a skewed distribution in which the “central” demand case is closer to the high case than to the low case. Options to delay investment are more valuable when the downside risk is large, and the assumption that demand is as likely to be above the central demand forecast as below it may underestimate the value of the option.

Do you have any views on how we should apply the estimated option values for interruptible contracts in practice?

It seems reasonable, as Ofgem has proposed, to use a default value in cases which are not marginal. We would though propose that a materiality test is also applied. This follows the general principle that the degree of analysis should be proportional to the size of the project. One option here could be a threshold (in £m) above which a real options approach is always or almost always used.

I trust our response is helpful to you in forming your decision in this important area. If you have any questions on any of the issues raised in this response please do not hesitate to get in touch.

Kind regards,

[by e-mail]

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