SP ENERGY NETWORKS

Regulation & Commercial

James Grayburn

(by email to)

james.grayburn@ofgem.gov.uk

Your ref

Our Ref
Jim McOmish

Date
June 2012

Contact / Extension
0141 614 1953

Dear James,

Consultation on Real Options and Investment Decision Making

Please find enclosed SP Energy Networks (SPEN) response to your 19th March consultation.

A key challenge of RIIOED1 is to develop and implement a regulatory regime that enables DNOs to take investment decisions on behalf of our stakeholders that factor in probable lifetime costs and benefits. There are number of risks that may result in a sub-optimal solution including:

- Efficiency assessments simply based upon on lowest unit costs;
- Competition-in-connections with no minimum technical standards (e.g. transformer losses);
- Incentive mechanisms that limit the period that benefits are assessed across;

DNO's networks are likely to experience significant demand growth under all long term scenarios. We believe that it would be helpful if there was an agreed way for the industry to account for this and other long term investment drivers in developing and delivering our ED1 plans.

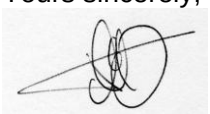
As a consequence we believe there is potentially merit in applying a real options approach to larger distribution investments, however:

- Careful consideration is required to the model parameters as we do not believe that the current model is appropriate for use by DNOs or Ofgem in considering RIIOED1;
- It can only usefully be used where the quality of information would improve over the period.

In relation to RIIOED1 we believe that a more practical solution may be for Ofgem to agree a set of principles with DNOs, consistent with the principles of the real options approach, to enable DNOs to build well justified business plans that meet Ofgem's expectations. We would welcome early involvement in developing these principles or a model appropriate to electricity networks should Ofgem wish to consider the application for RIIO-ED1.

The following attachment provides our responses to the questions raised in the open letter, we have no comments regarding the supplementary annex as this relates specifically to gas networks. If you have any queries regarding these please do not hesitate to contact us.

Yours sincerely,



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SP Energy Networks Response - Ofgem Consultation on Real Options and Investment Decision Making (ref 32/12)

Executive Summary

Real Options analysis is potentially a useful tool in the context of investment appraisal in the energy sector. Careful consideration of the model parameters is required and can only usefully be used where the quality of information would improve over the period.

Real Options in contrast to DCF or NPV

Ofgem: Do you agree or disagree that a real options approach is useful in the context of policy and investment appraisal in the energy sector? Please provide reasons.

SP believes that a real options approach is potentially a useful tool in the context of investment appraisal in the energy sector.

In summary:

- the real option approach is useful where there is an expectation that the quality of decision information will improve during the decision period.
- The accuracy of valuation of that flexibility will depend on the accuracy with which the initial and modified project parameters can be estimated.
- It will always be important to critically assess these estimates, and the sensitivity of the valuation to them.

Real Options in Energy Networks

Ofgem: Do you have any views on the practical applications of real options analysis set out in this paper in relation to: (i) scale and timing of network investment, and (ii) valuing interruptible contracts?

Real options analysis may be practicable on large distribution investment decisions where there are a number of solutions which vary dependent on the assumptions being made. Where there was an innovative solution, either commercial or technical, which may "buy time" before the reinforcement investment real options analysis would allow consideration of deferral of a project until such time as the assumptions are more certain.

(i) The timescales of the benefits need to be considered over the asset life, rather than over a regulatory timeframe.

(ii) Counterparties on an interruptible contract may use differing criteria to value that contract, eg an industrial customer might be inclined to consider the value of lost output which may significantly outweigh the network cost and financial benefit through the contract.

Real Options in Energy Networks

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

The real options approach could help to inform decision making in any area where it may be optimal to defer a policy or commercial decision until better information is available (always provided the alternatives and the impact of the improved information can be expressed quantitatively).

It would seem preferable to consider the applicability of the real options approach with reference to specific decisions, rather than draw general conclusions excluding or including any policy areas.

Successful application of the real options approach depends crucially on the quality and completeness of the valuation model.

In many situations (particularly regarding innovative technologies, or evolution of the low carbon networks), limited historical data is available to calibrate quantitative models.

Although the real options approach has value the sensitivity to the degree of assumption must be borne in mind when evaluating model outputs.

Supplementary annex

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

Supplementary annex

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