DPC Working Group – Uncertainty under price controls

Note of meeting 2 – Summary

7 October 2002

I. Introduction

Notes from the last meeting (held 30.08.02) were generally agreed, subject to the amendments detailed below. A detailed discussion of the mechanisms for dealing with uncertainty identified at the last meeting followed, and the meeting closed with a first effort to classify these different mechanisms by their characteristics.

II. Amendments to 30 August 2002 meeting note

Areas of uncertainty

1. Point 1, 'Uncertainty Outside the control of companies' should be changed to 'External Uncertainty'
2. Point 3, 'Uncertainty arising due to industry/firm specific factors' should include Distributed Generation
3. Some of the points considered under point 4, 'Other Uncertainties' should be moved so that they appear under point 2 (those that relate to the regulator). The title for point 2 should be changed to 'Uncertainties outside of the control of the regulator'.

Impact of Uncertainty

1. Point 5, 'Government' should be deleted.
2. Point 6, 'Efficiency' should be linked to Point 2, 'Decision making'.
3. No further impacts were identified.

III. Discussion of detailed mechanisms for dealing with uncertainty

1. **Pass through** – this is less risky if ex post than if ex ante.

2. **Conditional pass through** - prescriptive tests for companies to meet to make it easier to assess efficiency. Behavioural or process-based tests applied mechanically would be both more prescriptive and less risky than an efficiency test, depending on the number of companies affected. Ofgem should identify these tests in broad terms, and their risk would vary depending on whether the tests were applied by Ofgem (potentially with a degree of discretion), or mechanistically by an external auditor.

3. **Error correction** – although we can have certainty about how such a mechanism would work, but not about how well it would align with actual outcomes.

4. **Interim determination** – the group discussed whether this is a mechanism for dealing with uncertainty in itself or rather a trigger, for the use of some mechanism. The answer to this depends on the scope of the interim determination: allowing it to re-open the entire price control was seen as less desirable than focusing it on a specific event, for which the worst-case scenario would be that no change was made. The auditability of the original price control assumptions was seen as a major complement to these types of

regulatory mechanisms. The aim of the regulatory accounts (RAs) is to enable out-turns to be measured against price control assumptions, and the group considered it necessary to provide a strong linkage of transparency of the price control, at the time it was agreed, with the mechanisms for re-opening the price control.

5. **Logging up** – this was seen as exposing companies to slightly more risk compared to error correction, because expenditure (which can be backward and forward looking) is assessed at the next price control review (PCR). One member noted that in the past, if the company did not exceed the amount assumed at the last PCR, then their expenditure was not assessed in detail. Logging up expenditure incurred is linked to the broader question of how the RAV is rolled forward, as the risk of losing the expenditure is reduced if the baseline is clear.

   The group discussed whether logging up would take place for individual unexpected categories of expenditure or only if expenditure in aggregate exceeded overall revenue forecasts. This would depend in part on the extent to which efficiency tests can be applied to that expenditure. This goes back to linking spend to outputs, more easily done in water or rail. This [what??] will be exacerbated by the tradeoffs between opex and capex for DNOs, because the opex will be written off, while capex may not, subject to a test (tests distort behaviour and should be minimised). One member noted that an exogenous shock in a competitive market would eventually lead to increased costs for all, which would be a form of logging up. The group considered whether it was possible to mechanise a filter into logging up, for example, can expenditure be mechanically differentiated into "reinforcement" and other categories.

   One member believed this mechanism reduces uncertainty by offering assurance that sooner or later costs will be addressed, although the costs could be lost in the overall PCR process. One group member saw logging up as a means to address minor items that built up into a substantial sum over the course of the price control period, not suitable for a well-defined project that has a known impact on costs. However, another saw this as deviating from the concept of an automatic mechanism.

   The group discussed the different circumstances in which logging up and interim determinations are applicable. Logging up is more suitable for uncertainty smaller scale and materiality, and which is relatively easy to specify, and that has a revenue impact not now but in the future. If it was of a greater materiality, waiting until the next PCR to review it could lead to financial instability. The time element, among other things, differentiates it from pass-through.

   The different options for logging up in water and rail were discussed. Broadly, there are three ways to log up, for example, £10m of expenditure made in the third year of a five-year control. First, to add £10m to the RAV at the end of the price control period; second, to carry out the first option and add an element for finance costs; third, to allow only £9.5m because of the depreciation over years 3, 4 and 5.

6. **Contingency allowance** – the group said that this differed from an ex-ante pass-through because it specifies caps and collars. Only deep SO incentive schemes

have relevance to DNOs, because if providing a service in excess of the baseline, then revenue will be allowed, provided it was reasonably incurred. There is a sub-variant of the current SO mechanism in which revenue is linked to extra output not extra expenditure. We could also have explicit sharing. Risk sharing can be considered where there are opportunities for companies to outperform which have desirable incentive properties.

SO schemes can allow you to outperform the cost of capital, subject to certain boundaries. Any SO type scheme for distributed generation could be either revenue or output driven, and a simple target should be set although it may prove incorrect.

7. **Unbundled risk** – if we unbundle risk we can get a better idea of risk associated with baseline compared with that for additional projects. This relates to the degree of regulatory intrusiveness, as one school of thought is that regulated businesses are given a cost of capital by the regulator and should carry out their duties with a minimum of interference. In relation to connection charges, one member noted that if charging is too shallow, this leads to a big change in the risk profile—if this is done for public interest reasons, then the company should be compensated. One member's view was that if shareholders were to fund a renewals project, they would expect to have detailed information on costs, etc., and the regulator should exercise similar control where customers fund projects. However, another member thought this approach could lead to rate of return regulation when in fact companies can manage the additional risk—so the question should be, which risks are companies capable of managing? Including an element to reflect additional risk into the cost of capital (CoC) introduces an inherent inconsistency into estimating the CoC, as these risks are non-systematic and Ofgem's approach has been to take account only of systematic risks. Where the risks do not materialise, a separate allowance of this nature might be fed through to customers anyway, leading to higher but potentially more stable prices.

Also discussed were the following points:

8. The group discussed the role of detail in price control proposals as a major means of reducing uncertainty, in particular the risk that although expenditure from one category is reimbursed through a specific mechanism, the allowance for another category may be reduced, as part of the 'swings and roundabouts' of a price control.

9. It was noted that uncertainty was built into the last DPCR for various schemes, which in future should be minimised. This was achieved for the IIP by limiting exposure to up to 2%of revenue. One method of protecting companies was to treat as a licence modification any scheme not fully specified at the time the price control was agreed, as was done for the IIP as well as for Transco and NGC in the past. This again links back to how well defined the scheme is. One member said that more streamlined appeals mechanism would reduce risk, and another stressed the need for regulatory impact assessments prior to implementing any scheme not fully agreed at the time of the price control.

IV. Classification of mechanisms

The group then went on to discuss how different mechanisms could be classified in terms of their suitability for different circumstances. A change in circumstances implies that two things can be demonstrated: first, that something has happened, and second, that it is different from what was assumed in the price control. Therefore, a fundamental assumption underlying this discussion is that the baseline is known.

The values of these attributes that different risks have will determine whether we use cost pass-through or some other mechanism. These criteria are not for directly assessing these mechanisms but to assess the nature of the risk associated with potential changes in circumstances—which will determine choice of mechanism. The attributes identified are:

1. **Predictability** – if the risk is realised, how predictable is its impact in size and costs?
2. **Materiality** – what is the scale and will it impact on financeability?
3. **Manageability** – can the company manage the risk and exposure to it?
4. **Outputs** – do defined outputs exist, and if so can we link revenue to output rather than spend? Does the 'risk' lead to a new output?
5. **Location/Scope** – is the risk national, or is it company or area specific, and is the magnitude the same across different areas? This will affect the generality of a solution. The discussion revealed that location/scope is unclear as an attribute.
6. **Measurability** – if the risk is realised, can you measure clearly its impact, relative to the baseline? This has a link to clearly establishing the baseline, as a risk could be manageable, material, and measurable, but without a clear baseline, it will be difficult to address.

For each of the mechanisms for dealing with uncertainty which have been identified, the matrix below answers these questions, and is accompanied by the commentary made during its construction.

Risk attribute	A. Pass-through ex post	B. Conditional pass-through	C. Interim determination	D. Error correction	E. Logging up	F. Contingency allowance (ex ante pass-through)	G. Unbundled risks	H. All Included in cost of capital
i) Predictability	X 1	X 7	X 13	X √ 19	X √ 25	√ 31	√ 37	√ 43
ii) Materiality	√ 2	√ 8	√ 14	X 20	X 26	X 32	√ 38	X 44
iii) Manageability	X 3	√ 9	√ 15	√ 21	X √ 27	√ 33	√ 39	√ 45
iv) Outputs	X 4	X ? 10	X 16	√ 22	X 28	X ? 34	√ 40	N/A 46
v) Location/Scope								
National	X √	X √	X √	√	√			√
Co. specific	X √ 5	X √ 11	X √ 17	X √ 23	√ 29	√ 35	X 41	X 47
vi) Measurability	√ 6	√ 12	√ 18	X √ 24	√ 30	X 36	√ 42	X 48

A. **Pass-through ex post**. This is for dealing with discrete outcomes, which are separately identifiable and measurable (after the fact). Actual cost pass through would only be a fallback position.

B. **Conditional pass-through**. This is an enhanced version of pass-through, where manageability is the key difference, as will be trying to incentivise. In addition, this would be a less material item than if used (A).

C. **Interim determination**. This would be for large items, and would not be suitable for a predictable or unmanageable risk—if it was unmanageable, revert to (A). If outputs were known, would not use a discretionary mechanism.

D. **Error correction mechanisms**. Not suitable for large cost items, but because it share risks, would expect to use it where risks are manageable and occur nationally. As the actual costs may never be known precisely, these do not necessarily need to be measurable, but whatever is driving the mechanism must be.

E. **Logging up.** This would be suitable for individual licensees, as well as at a national level. Suitable for risks with a predictable level of materiality, but the group did not consider this answer as always applicable, as it would depend on whether the costs logged up are 'actual' or 'efficient'. The event is logged up and costs separated, but the treatment of those costs is not guaranteed ex ante. Would be suitable for more manageable risks, and for those especially manageable might expect an efficiency study, where the potential for costs being disallowed implies a less material item.

F. Contingency allowance, also described as ex ante pass-through. This differs from (D) because it is riskier, and risk sharing has incentivising element. It is suitable for regional costs, and is less suitable as items become more material. Although there is a broad idea ex ante of necessary expenditure, it is not tied to outputs except in terms of if an allowance is for a project, the project must be delivered (e.g. 1998 costs for PESs). Network rates were a contingency allowance for DNOs, while NGC has it as pass-through.

G. Unbundled risks. The answer for outputs depends on how output is defined, it should be as a trigger. For example if extra capacity is built to anticipate demand growth that does not materialise, the output should be defined as the tangible capacity. Would not do for the entire industry but for one or two companies, and it must be measurable.

H. All in cost of Capital. This is acceptance of all risk and would not be suitable for material or unmanageable items, or for individual companies.