Ofgem's 'Initial Proposals for Extending National Grid Electricity Transmission Ltd's Transmission Owner Price Control for 2006/07'

Response by National Grid

I Introduction

1 National Grid Electricity Transmission's (NGET's) existing Transmission Owner (TO) price control runs through to the end of March 2006. Ofgem have previously proposed to extend this control by one year, just as the TO price controls of the Scottish transmission businesses have previously been extended (through 2005/06 and 2006/07). This was to enable all three TO controls to be reviewed at the same time.

2 As has been recognised in previous Ofgem documents in this review (the Initial Consultation document[1], published in May 2004, and the Open Letter[2], published in July 2005) – as well as in Ofgem's proposals to extend the Scottish transmission controls – it is important to establish the scope and nature of the review and, in particular, what distinguishes such a 'Mini Review' from a normal price review, such as the Main Review which will set the price controls for NGET and the Scottish transmission businesses for the period from April 2007 to March 2012.

Ofgem's Initial Consultation

3 Ofgem's Initial Consultation on this review set out some ground rules for the review, for example:

(a) "In setting the price control for a one year period it will be important to meet the objectives of the review in an appropriate and proportionate way."

(b) "It is proposed that where appropriate, assumptions made in the present price control should be extended and applied to the additional year in a straightforward way. Where evidence exists that assumptions are no longer valid, some additional review work will be carried out. For example, a limited review of capital expenditure may be necessary to take account of the rising trend in essential asset replacements. It is also proposed to adjust the cost of capital in the light of work carried out as part of the review of the electricity distribution companies' price controls."

4 This general approach, as outlined in (a) and (b) above, and as elaborated in the rest of the document, seemed to outline the following approaches to the key areas of operating costs (opex), cost of capital and capital expenditure (capex):

(a) **Opex.** Ofgem proposed not to conduct a detailed review of NGET's operating costs but, instead to:

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[1] Extending the National Grid Company's Transmission Asset Price Control for 2006/07, Initial Consultation, May 2004

[2] Open letter on extending National Grid Company's Transmission Owner price control for 2006/07, 22 July 2005

(i) in some way, extrapolate the controllable opex reduction assumptions which underlie the current control. Thus "It is for consideration as to whether this requires a further real reduction of 2.5% in assumed controllable costs from 2005/06 [i.e. a continuation of the assumption made for cost reduction in 2005/06 itself], or whether they should be maintained at 2005/06 levels in real terms"[3]; and

(ii) consider whether "specific treatment may be required in respect of certain categories of cost over which NGC has limited control. This may, for example, be the case in assessing revised pension costs"[4].

In other words, the options for opex in 2006/07 seemed to be whether to apply RPI or RPI-2.5 to the controllable opex assumption in the current control for 2005/06.

(b) **Cost of capital.** As noted above, Ofgem proposed to take on board the cost of capital analysis from the 2004 Distribution Network Operator (DNO) price control review ('DPCR4'). As with opex, Ofgem seemed to be proposing two main options in how it used this analysis:

(i) use the cost of capital from DPCR4 "given the similarities between the businesses and the objectives and timing of each review"[5]; or

(ii) apply to the DPCR4 outcome the differential which emerged from the 1999 review of DNO price controls and the 2000 review of the NGC TO price control[6].

This differential amounted to 25 basis points when applied to a real pre-tax weighted average cost of capital (WACC), assuming a 30 per cent tax rate.

(c) **Capex.** There are two main capex issues to be determined as part of the mini review – NGET's regulatory asset value (RAV) as at April 2006 and the assumed level of capex for 2006/07. In the Initial Consultation, Ofgem noted that there were issues in relation to both which made the relatively simple solutions proposed for opex and cost of capital inappropriate for capex – specifically:

(i) during the current price control period, NGET has incurred significantly higher capital spend than was assumed in setting the current price control; and

(ii) NGET is forecasting increasing levels of spend on asset replacement throughout the six year period from 2005/06.

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[3] Para 4.11 of the Initial Consultation

[4] Also Para 4.11 of the Initial Consultation

[5] Para 4.19 of the Initial Consultation

[6] Para 4.20 of the Initial Consultation

For capex, Ofgem therefore proposed a limited review of NGET's capex requirements and of the spend incurred in the current price control period.

Ofgem's Initial Proposals

5 Against the background of what was originally intended to be the scope and nature of the NGET Mini Review, the main features of Ofgem's Initial Proposals are:

(a) **Opex -** an overall opex assumption for 2006/07 which is 2.5 per cent lower than what has been assumed for 2005/06, along with a proposal to look at pension costs for 2006/07 as part of the forthcoming main price review and to adjust revenue for 2007/08 onwards if necessary in the light of this analysis;

(b) **Capex –** capex assumptions which are significantly below both what we have spent, to date, and what we plan to spend through to March 2007 – but with the proposal to review all historic and forward-looking capex as part of the Main Review; and

(c) **Cost of capital** - a real pre-tax cost of capital of 6.25 per cent (i.e. 65 basis points below the equivalent cost of capital thought appropriate for DNOs as part of DPCR4), along with a proposal to consider an adjustment to revenue in the event that actual tax payments would be higher than the tax assumption underlying this number.

6 Our response to these proposals is that:

(a) We accept the proposed overall **opex** assumption, not least as being consistent with the approach to the review outlined in the Initial Consultation. In other words, we accept that opex (and cost of capital) were always slated for relatively mechanical resolution and that a reasonable range for that resolution was as indicated in the Initial Consultation. We also recognise that the pensions issue, in respect of 2006/07 and from 2007/08 onwards, is sufficiently complex to be better dealt with as part of the Main Review.

(b) We disagree with the **capex** assumptions which Ofgem are proposing, not least because Ofgem are proposing to ignore the published conclusions of their technical consultants. We hope to make progress in this area in the time before Ofgem make Final Proposals, albeit that we accept that the whole issue will be looked at again as part of the Main Review. **Our detailed analysis of Ofgem's capex proposals is in Sections II and III below, the first dealing with the setting of the NGET RAV value at 1 April 2006 and the second dealing with capex in 2006/07**.

(c) We think that Ofgem's **cost of capital** proposals are intrinsically flawed, as well as being inconsistent with the approach to the issue outlined in Ofgem's Initial Consultation for this review. This is not least because Ofgem is now proposing a cost of capital which, on an equivalent basis, is 65 basis points below the cost of capital underlying DNO price controls. This contrasts with the 25 basis points differential, flagged by Ofgem in the Initial Consultation as the lowest cost of capital being considered. Again, we hope to make progress in this area before Ofgem make Final Proposals. **Our analysis of this issue is in Section IV below**.

7 Our conclusions, based on the analysis in Sections II-IV, are summarised in Section V below.

II Re-set of NGET's regulatory asset value for 1 April 2006

Ofgem's view

8 In the Initial Proposals, Ofgem recommend establishing an interim RAV for the price control extension by using:

(a) our actual and forecast expenditure in respect of load-related investment; and

(b) the assumptions underlying the current control for non-load related investment.

9 The basis of the two component recommendations were described as:

(a) Ofgem accepted that we have limited discretion over the level and timing of load-related expenditure.

(b) Ofgem have a number of concerns regarding our current approach to asset replacement modelling and Ofgem's consultants have also commented that we have not provided sufficient evidence to demonstrate that our policies and processes are implemented effectively.

Our view

10 We agree with Ofgem that the most appropriate basis to reset the interim RAV with respect to load-related investment is to use our actual and forecast expenditure. However, we also believe that similar treatment should be applied in respect of non-load related investment.

11 We believe that Ofgem's proposed approach for non-load related expenditure is not appropriate for three main reasons:

(a) Ofgem's appointed consultants, PB Power, have undertaken a review of the actual and forecast expenditure in the period and stated in their own report that **"they found no evidence to conclude that NGC's capital expenditure was not needed or inefficiently incurred"** in the four years to 31 March 2005, and also recommended a level of expenditure for 2005/6 £72m greater than the original allowance for that year.

(b) The reasons stated by Ofgem in the Initial Proposals for not going forward with NGET's actual expenditure and either of PB Power's or NGET's forecast expenditure do not provide an adequate justification for such treatment.

(c) Given the power of RPI-X controls to discourage companies from investing in excess of what has been assumed in setting their controls, and given that, at previous price reviews, NGET have never had investment disallowed on the grounds of being inefficiently or inappropriately incurred, it is difficult to understand why Ofgem should base these proposals on the **presumption** that the company have undertaken unnecessary and/or inefficient investment in the period, particularly in a period when we have described to Ofgem on a number of occasions the need for an increase in asset replacement expenditure.

12 We take each of these points in turn:

PB Power's report

13 As Ofgem set out in the Initial Consultation paper, it would be inappropriate to roll forward the existing price control without conducting a review of both our historic and forecast level of capital investment. Ofgem appointed PB Power to carry out such an assessment in February 2005.

14 PB Power undertook the substance of this role in the period between April and July 2005 and produced a report which was published at the end of July 2005 to accompany Ofgem's Open Letter on the price control extension. In the executive summary to this report, PB Power state that, for the period up to 2004/5, they **"found no evidence to conclude that NGC's capital expenditure was not needed or inefficiently incurred."**

15 PB Power produced **no arguments** why historic expenditure should not be allowed in full at this time, and indeed supplemented the statement in the executive summary by also stating in the section considering the largest area of increased non-load related expenditure **to 31 March 2005**, Overhead Lines, by also stating "we have carried out an analysis in some **depth** of the reasons behind the variances in expenditure" and then going on to state in the concluding comments in this section "there is no evidence to suggest that expenditure was not justified or inefficient".

16 With such clear and compelling statements by Ofgem's appointed consultants, we find it extraordinary that the issue of allowing our actual expenditure into the **interim** RAV is still subject to uncertainty following Ofgem's Initial Proposals.

17 The position **in respect of 2005/6** is equally perplexing. While we recognise that 2005/6 does, as a forecast level of expenditure, contain some uncertainty, it is hard to understand why Ofgem consider that the original allowance for 2005/6, at £166m, would be a more relevant measure to be used in setting the interim RAV, in preference to any of:

(a) the NGET forecast of £262m;

(b) the PB Power View of £239m; or even

(c) the PB Power Low sensitivity £200m.

18 In PB Power's review of NGET's expenditure forecast for 2005/6, they identified **higher** expenditure requirements than proposed by NGET in five out of six categories of asset replacement spend, and recommended expenditure £72m higher than the original 2005/6 allowance. In the one category in which NGET forecast a higher value of expenditure (overhead lines), we believe it has been clearly proven that this is because of an omission made by PB Power as they failed to consider "fittings-only" schemes appropriately. This omission is described in greater detail in Section III below when considering capital expenditure for 2006/7, but was discussed in our response to Ofgem's Open Letter and was clearly established in a meeting between PB Power, Ofgem and NGET, subsequent to the Initial Proposals being drafted. Correcting for this omission, we believe PB Power would have forecast a level of expenditure consistent with NGET's forecast.

Ofgem's reasons for choosing not to follow PB Power's or NGET's recommendations

19 The grounds described by Ofgem that may account for their choice not to follow PB Power's or NGET's views are the statements:

(a) “Ofgem has a number of concerns regarding NGET’s current approach to asset replacement modelling”

(b) “Ofgem’s consultants have also commented that NGET have not provided sufficient evidence to demonstrate that its policies and processes are implemented effectively”

(c) “Ofgem’s consultants suggest that increased asset replacement expenditure may be driven by NGET’s prioritisation and strategic considerations, rather than convincing requirements from asset condition and system need”

“Ofgem has a number of concerns regarding NGET’s current approach to asset replacement modelling”

20 This statement would appear to refer to the differences between PB Power’s modelled volumes and the **lower** level of replacement volumes that we propose. It would appear perverse that a discrepancy between **higher** volumes modelled by their appointed consultants and **lower** volumes proposed by us would lead Ofgem to propose an allowance based on a value for 2005/6 which has **even lower volumes** than that proposed by us. We believe that the discrepancies in modelled volumes were to be expected and reflect differences in asset modelling and our prioritisation practices which have led to the deferment of as much asset replacement as is practical and prudent.

“Ofgem’s consultants have also commented that NGET have not provided sufficient evidence to demonstrate that its policies and processes are implemented effectively”

21 This statement is not materially supported in the PB Power report. PB Power do state that there are certain areas of ‘uncertainty’, which is entirely understandable in carrying out their review, and PB Power did go on to identify two sensitivities to their best view to put a measure on these uncertainties. However, **in no part of their report** was any argument developed to suggest that there was any concern which would lead to a challenge of the validity of the complete expenditure programme between 2001/2 and 2005/6.

“Ofgem’s consultants suggest that increased asset replacement expenditure may be driven by NGET’s prioritisation and strategic considerations, rather than convincing requirements from asset condition and system need”

22 This statement is repeated a number of times in the Initial Proposals. The actual quote within the PB Power report is in the section considering the range of non-load-related capex “….increased asset replacement expenditure may be driven by NGET’s prioritisation and strategic considerations..”. Quoting PB Power in full they say that, “.. the major influence on variances appears to be company policy on prioritising schemes and not necessarily determined by factors that could be modelled as part of a sensitivity analysis.” We agree with this statement and have explained, and continue to explain, to Ofgem that NGET’s approach is to:

(a) derive the long term replacement requirements through modelling;

(b) identify specific schemes based on asset condition in the short term; and then

(c) apply a prioritisation methodology recognising practical constraints to delivery of that plan.

23 Indeed PB Power's concern revolved around the fact that their (unconstrained) modelling appeared in a number of instances to produce **higher** volumes of asset replacement than NGET was forecasting.

24 The further assertion in the same sentence that our forecasts of increased non-load-related expenditure are not justified by, "…convincing requirements from asset condition and system need", appears to derive from Ofgem's current belief, and from statements made by PB Power on other issues. In the section on scheme authorisation and control, PB Power are concerned that, for some unsanctioned schemes, full scheme papers, summarising the detailed asset condition justification for replacement, were not available. This will always be the case for schemes further out in the programme, since scheme papers containing detailed and up to date condition information are only drawn up when sanctioning the expenditure is necessary. We believe that this is a prudent approach, to ensure that schemes are sanctioned on the best available information. The robustness of our forecasts should therefore not be judged only on the existence of scheme papers, but on the robustness of the overall process for modelling, assessing asset health, collecting detailed condition information and refining plans accordingly. We believe the evidence of the existence both of such processes and the condition information to support them is manifest and thus does not support Ofgem's statement.

25 In addition to asset condition, we can demonstrate, both in specific scheme papers and in our scheme prioritisation process, that continued system need for existing assets is a key driver on whether and, if so, how and when to proceed with asset replacement.

26 We have continued to develop our asset management processes since the last Price Review and these have been subject to rigorous examination by a number of external bodies, including:

(a) DTI Resilience Study (2002);

(b) Ofgem's Asset Risk Management survey (2002);

(c) Ofgem, DTI and the Trade and Industry Select Committee's investigations into the London and Birmingham Power Cuts (2004); and

(d) Lloyds Certification process for the PAS-55 asset management standard (current).

27 The processes on which our investment plans are based have been found to be robust by these examinations. A combination of such robust processes with our extensive condition information and experience gives us a leading approach to asset management and replacement. We are disappointed that Ofgem have stated in their Initial Proposals that "NGET have not provided sufficient evidence to demonstrate that its policies and processes are being implemented effectively", despite carrying out their own ARM study in 2002.

28 In the absence of **any** substantiated grounds for Ofgem to have concerns to indicate that the actual and forecast expenditure programme is likely to be flawed, Ofgem should not provisionally disallow the non-load-related overspend.

29 The position taken by Ofgem in these initial proposals for 2005/6 is also inconsistent with the statement made by Ofgem that they recognise the need for "increasing investment in renewing the network", as the original allowance for 2005/6 would represent a 13% reduction in asset replacement for NGET between 2004/5 and 2005/6.

Dis-Incentive to over-spend

30 The RPI-X control has a very strong dis-incentive for companies to invest in excess of what has been assumed in setting the control in question. This dis-incentive comes about because companies have no guarantee that they will ever recover the lost return and regulatory depreciation when the investment is incorporated into the RAV at the beginning of the next price control period. Against this background, it has been difficult to justify within the company any expenditure in excess of price control assumptions during this price control period.

31 Directors of NGET have robustly challenged all investments proposed in the period and have, wherever possible, deferred investment to future periods. In this period of necessary overspend, we have been comforted that it would be unprecedented for investment by us not to go into the RAV at the end of the price control period, albeit that we have always understood that we would need to justify the need for, and efficiency of, the investment.

32 In these circumstances, it would seem to us unreasonable for Ofgem to go into the main price review with a mini review interim conclusion that presumes that we have undertaken unnecessary and/or inefficient investment in the period, contrary to the evidence collected by Ofgem's technical consultants.

Overall

33 Notwithstanding the strength of the three arguments set out above, we believe that the RAV being determined in this Price Control Extension should be based upon the best available information at this time (our forecast and the PB Power report), rather than a forecast level of expenditure set in 2000. While we understand that further assessment will be undertaken through the main price review, we do not believe that it is in long term customers' interests to defer the recognition of our increased investment. This is not least because, although Ofgem have made it clear that the RAV issue will be re-visited as part of the main review, even provisional partial disallowance, **as part of the mini review**, sends a poor signal to all of those who will be involved in undertaking the ramp-up of our asset replacement programme, including our suppliers whose own timely investment in their own capabilities will be critical to delivery of the programme.

III NGET's capital spend in 2006/07

Ofgem's view

34 In the Initial Proposals, Ofgem recommend a capital expenditure allowance for 2006/7 of £470 million based upon:

(a) PB Power's best view of load related expenditure (£229 million), less expected capital contributions of £14 million; and

(b) PB Power's low case estimate of non-load related spend (£255 million).

35 The basis for these two elements were described as follows:

(a) Ofgem recognise the importance of load-related expenditure, especially expenditure to ensure that connections to distribution networks are adequate to meet the applicable planning standards. Ofgem therefore consider that the proposed allowance will provide for sufficient expenditure to strike an appropriate balance between protecting consumers' interests and enabling NGET to fulfil their statutory and licence obligations.

(b) Ofgem recognises that an increasing trend in asset replacement expenditure is likely to be required over the coming price control period. However, they do not accept the technical arguments provided by NGET, to date, as justifying a more significant step change in asset replacement activity relative to historic levels. Ofgem consider that the evidence put forward by NGET does not demonstrate that this increase is justified by asset condition or system need.

Our view

36 In describing our view on these proposals, we consider load-related and non load-related expenditure in turn.

Load-related investment

37 Ofgem suggest that, by adopting PB Power's central view of load related expenditure, they consider this will provide for sufficient expenditure to strike an appropriate balance between protecting consumers' interests and enabling NGET to fulfil their statutory and licence obligations.

38 However, we believe that PB Power's arguments for the reduction between our forecast expenditure and PB Power's central view in load-related expenditure are weak and do not appropriately recognise the drivers for load-related investment. We believe that the assumptions which we have made for the generation and demand background are robust. This is, not least, because of the short timescales for any significant changes. The whole issue of forecasting load-related capex over a full five year price control period is fraught – and this is why we are keen to engage with Ofgem in finding suitable mechanisms for dealing with such uncertainties. However, for the mini review, we are only looking at a period of 18 months from now

39 We are disappointed that PB Power have stated that very little detail has been provided to support our load-related projections, as we have responded to all questions from PB Power on this issue and have given further information in presentations. We outline below the reasons why, in particular, in respect of Exit expenditure we believe that our forecasts remain valid, and why PB Power's View is unrealistically low.

Exit Expenditure - Ofgem's view

40 PB Power's analysis of exit expenditure for 2006/07 was based on their estimate of the likelihood of certain exit schemes not coming to fruition or being deferred, reducing the proposed allowance from our best view of £101m to £76m. Although not stated by PB Power in their report, it was our belief that this estimated reduction was based on a statistic of a 75% "historic success rate" (to convert applications to timely completion of schemes), derived from data provided by us. In a recent meeting, PB Power have confirmed that this was indeed their approach. Ofgem's Initial Proposals use PB Power's view as the proposed allowance for exit expenditure in 2006/07.

Exit Expenditure - Our view

41 We believe PB Power have made the following two errors in the assessment of exit expenditure in 2006/07:

(a) The first error is in the derivation of the 75% "historic success rate" of exit schemes. To derive this, PB Power took the number of DNO exit schemes that have been completed as a percentage of the total offers made by National Grid, both historic **and future.** Clearly, this in no way fairly represents a **historic** rate of completion of DNO exit schemes, as the schemes for which offers have been made recently have not had the opportunity to complete. Indeed, of the future schemes, 10 are under construction and proceeding to forecast timescales. Had these been included in the analysis, PB Power would have produced a much higher percentage. PB Power have, therefore, taken an overly pessimistic view of the likelihood of exit schemes proceeding to completion.

(b) The second error made by PB Power is that they applied this flawed statistic of historic success rate to our **best view** of the likely expenditure on exit schemes. Our best view is produced by taking the population of potential exit schemes for 2006/07, and making a judgement on the likely profile of our expenditure on those schemes, or indeed the likelihood of the schemes proceeding at all. At the time of submission, we forecast £154m of expenditure in 2006/07 on exit and exit related infrastructure schemes. However, as discussed with PB Power in June 2005, this figure was our best view of what expenditure would be required from a larger **potential** pool of exit schemes - i.e. our best view had already taken the likelihood of schemes proceeding into account. PB Power, therefore, applied their abatement of exit schemes to a figure that had already been abated by us, rather than assessing the potential expenditure from which we had derived its best view.

42 As it happens, this potential pool of schemes in 2006/07 has continued to increase over the time since we submitted our forecast earlier in the year. At present, we have made offers to customers of £158m, will shortly make further offers totalling £8m, and may receive applications for further works totalling £29m - i.e. the total potential pool of schemes would require expenditure of almost **£200m.** A list of the potential schemes and associated expenditure in 2006/07 is given in Appendix 1 (attached only to our confidential response).

43 PB Power's assessment of exit expenditure, therefore, seems particularly arbitrary, and does not provide a proper assessment of the validity of the schemes. For many of the schemes which make up National Grid's submission, National Grid is now contractually committed to deliver, and both National Grid and the DNO will need to deliver the schemes in order to maintain compliance with the SQSS and Engineering Recommendation P2/5.

44 In proposing to use PB Power's analysis as the basis of the Initial Proposals, **Ofgem is proposing an allowance which will not be sufficient for National Grid to fulfil its licence obligations to comply with the SQSS**, and to provide offers to customers.

45 Ofgem's response, in a recent meeting, to the evidence of a much higher potential expenditure than Ofgem propose to allow was that we should not be concerned about spending more than our allowance for expenditure driven by customers, as Ofgem have demonstrated in their Initial Proposals their willingness to include load-related overspend in the RAV. However, we do not believe that this is an appropriate position for Ofgem to take. Ofgem have a duty to ensure that licensees are appropriately funded for the duties which the licensees are required to carry out – and the conventional and appropriate way of achieving this is, in the first instance, through forward-looking price controls. In this case, customers have the added protection of knowing that all of this spend will be examined again as part of the main price review.

Non-load-related investment

46 Ofgem state that they recognise that an increasing trend in asset replacement expenditure is likely to be required over the coming price control period. However, they do not accept the technical arguments provided by us, to date, to justify a more significant step change in asset replacement activity relative to historic levels. Ofgem consider that the evidence put forward by us does not demonstrate that this increase is justified by asset condition or system need.

47 In considering the proposed non-load-related expenditure we need to consider three separate issues

(a) the derivation of PB Power's central view of overhead lines expenditure;

(b) the derivation of PB Power's Low Scenario for non-load-related spend;

(c) the decision by Ofgem to base the allowance on the PB Power Low Scenario.

These three issues are considered in turn below:

Overhead Lines – PB Power's central view

48 PB Power's view was derived from modelled volumes of full conductor system replacement, with the modelling based on the asset life data provided by National Grid. The asset life data itself is based on the end of life criteria for various families of conductor systems. PB Power also modelled tower lives and added in EMI (Equipment Modification Instruction) schemes to produce their best view. PB Power, therefore, considered only 'full refurbishment' schemes. PB Power's only consideration of 'fittings-only' schemes was that if allowance was to be made, that "the proposed expenditure…..would be reduced".

Overhead Lines assessment - Our view

49 **Fittings-only schemes.** Our view is that PB Power have misunderstood the issue of fittings-only schemes (which are complementary to, rather than substitutes for, full refurbishment schemes) and, as a result, have completely omitted this expenditure from their analysis. We have acknowledged that it would not have been possible for PB Power to model fittings-only schemes, as we have not yet developed the asset life data required for long term modelling. However, for the mini review period, modelled volumes are nothing more than a sense check – the expenditure in this period is based on real individual schemes, each backed by compelling condition information,

which has been offered to both PB Power and Ofgem. Indeed, most of the expenditure at issue has already been incurred during the period 2003-2005, with most of the schemes completed.

50 PB Power's statement that the inclusion of fittings-only schemes would **reduce** the expenditure based on their modelling displays a misunderstanding of the issue. PB Power's modelled volumes are based on the **end of life** criteria for conductor systems. Where the conductor has reached the end of its life and its condition has deteriorated, the only option is to fully replace that conductor system. **Fittings-only schemes do not substitute for full refurbishment schemes.** Fittings only schemes are required on circuits where the conductor is relatively young – the fittings need to be replaced in order to ensure that the full life of the conductor is achieved. These circuits, therefore, would not feature in the volumes derived by PB Power requiring full refurbishment. The fittings only schemes are, therefore, **additional** to the full refurbishment work.

51 In order to correct this clear omission, £42m would need to be added to PB Power's assumed expenditure for 2005/06, and £10m added to the proposed allowance for 2006/07.

52 **Full refurbishment schemes.** For full refurbishment schemes, our expenditure is based on individual schemes, backed by detailed condition information. The process that National Grid adopts to assess the requirement for overhead line replacement schemes has been discussed with PB Power and Ofgem on a number of occasions, and examples of this information have been made available to PB Power and Ofgem. However, PB Power's best view for overhead line expenditure is based on modelled volumes.

53 As discussed above, modelled volumes should be used to indicate long term replacement requirements, and can provide misleading results when considering the expenditure in a single year. This is particularly the case for "lumpy" investment, such as on overhead line schemes, where individual schemes are made up of fixed lengths of many tens of kilometres of circuit. The volume of replacement that can be carried out in a single year, given the resource and system access constraints, is highly unlikely to equal the volume suggested by the model.

54 A proper assessment of efficient expenditure, therefore, would involve the assessment of the individual schemes and the condition information on which they are based. As stated above, this information was made available to PB Power during the process, and has been offered to Ofgem more recently in light of the statements made in the Initial Proposals regarding a lack of information provision by us.

55 To date, Ofgem and PB Power have not shown much interest in the detailed Pre-Sanction Engineering reports which are available for all the Overhead Lines schemes, maybe because they think that these are for the main price review. However, having not reviewed these schemes, it is hard to understand how Ofgem can conclude that the information put forward does not demonstrate that the proposed replacement programme is justified by asset condition. In light of this, Ofgem should respond by allowing the expenditure on overhead lines, required by the individual schemes, (on the provisional basis which characterises all the capex proposals for the mini review), resulting in an increase in allowance for full refurbishment schemes of £35m in 2006/07.

The assessment of a Low Scenario for non-load related – PB View

56 PB Power developed a Low Scenario, in which they contend that a reduction of 20% from their best view may be appropriate, quoting the following reasons:

(a) Unsanctioned schemes not proceeding amounted to some 26 per cent of allowed expenditure in the present Price Control.

(b) The unit costs underlying the transformer and switchgear forecast expenditures appear to reflect betterment which may not necessarily happen.

(c) The major influence on variances appears to be company policy on prioritising schemes and not necessarily determined by factors that could be modelled as part of a sensitivity analysis.

PB Power's Low Scenario for non-load related - Our view

57 We believe that, for non load-related expenditure, with the exception of overhead lines, PB Power's modelling agrees closely with our own modelling. We fully agree with PB Power's assessment that the modelling indicates the need for more replacement work. However, our investment plans reflect a 'constrained' level of investment once the resource and system outage constraints within which it needs to operate are properly taken into account. In this respect we agree with PB Power's statement that expenditure is unlikely to be greater than that forecast by us, due to these constraints.

58 We do not believe that a low scenario could be reasonably be developed for either 2005/6 or 2006/7 for a reduction anywhere near as large as 20% because of the advanced stage of development of the actual schemes within this investment plan. However, PB Power presented three reasons to justify their Low Scenario and these are discussed below:

(a) *Unsanctioned schemes not proceeding amounted to some 26 percent of allowed expenditure in the present price control.* This issue represents a somewhat selective view of history. **It ignores the fact that new schemes came into the plan over the current price control period**, resulting in more expenditure and a significant overspend on non load-related expenditure. We cannot understand, therefore, how this can seriously be considered as a reason for cutting the proposed non-load-related capex assumption by 20%. In addition, expenditure for 2005/06 is now fully sanctioned, whilst sanctioning of 2006/07 expenditure is already well advanced. PB Power's observations of the level of unsanctioned schemes that did not progress during a full five year Price Control period are therefore irrelevant to the assessment of expenditure during this year and the next.

(b) *Unit prices reflect betterment that may not necessarily happen.* For switchgear costs, PB Power's suggestion of betterment refers to the choice of gas-insulated switchgear (GIS), rather than air-insulated switchgear (AIS). In a recent meeting, PB Power have indicated that they felt that we may change policy to replace with AIS only, taking the benefit of the cost difference between AIS and GIS costs. However, our policy is to use AIS unless it is not possible or it is not the most economic solution. GIS switchgear is **only** chosen due to site specific issues such as constraints on land availability, environmental pollution or the requirement to interface with DNO equipment where they have used GIS. In any case, as stated earlier, our plans are based on real individual schemes, where the decision on which technology to use has already been taken, and schemes are in progress. The potential for us to benefit from being awarded a Price Control allowance on one basis, and then subsequently choosing to undercut the allowance by opting for the cheaper technology during this mini review period, is therefore not present. For transformers, we simply do not understand PB Power's suggestion of potential betterment – PB Power's own unit costs agree closely with our own.

(c) *Prioritisation of schemes*. In developing the capital plan, we are mindful of the capital, resource and system access constraints within which we operate. Due to these constraints, it is necessary to prioritise schemes, such that the most critical schemes go ahead, and that both the short and long term capital plan is deliverable. In order to do this, we scoe schemes against a number of criteria to enable the ranking of schemes. PB Power have indicated that it is not clear to them how schemes are selected, and whether we simply deliver whatever we can within the constraints, regardless of the criticality. We acknowledge that PB Power have not been provided with a demonstration of the prioritisation process for the 2005/6 and 2006/7 schemes – however, it should be pointed out that PB Power did not indicate these concerns during the process. In addition, we find the use of this line of argument to justify a 20% reduction in spend inconsistent with PB Power's view that we should be carrying out **more** work than is in the plan for 2005/6 and 2006/7.

59 In summary **we strongly believe that the reasons quoted by PB Power provide no justification for a 20% reduction in non load-related expenditure.** However, it should be remembered that this is only PB Power's low sensitivity – PB Power's best view is that, for all non load-related expenditure apart from overhead lines, our forecast should be accepted.

Judgement to propose the PB Low Scenario for 2006/7 – Ofgem's view

60 Ofgem have chosen to base the allowance on their consultants' Low Scenario, rather than on their consultants' best view. This judgement is justified in the proposals through statements that they consider that "the evidence put forward by NGET does not demonstrate that this increase is justified by asset condition or system need".

Judgement to propose the PB Low Scenario for 2006/7 – Our view

61 We fundamentally object to Ofgem's decision to ignore their technical consultant's best view, and instead choose a level of expenditure **below** that proposed by either their technical consultants' best view or our own. This is particularly surprising when the PB Power Low Scenario is so weakly argued and arbitrarily defined.

62 Ofgem suggested in the Initial Proposals that PB Power expressed concern at the quality of information provided, and that the information provided was insufficient. We acknowledge that it would have been possible to provide more information to support our case, as a great deal more supporting information is available.

63 However, we did answer over 100 questions from PB Power and Ofgem, and held two workshops at our offices at which PB Power were invited to raise issues and at which detailed condition information was made available. At no stage in the process up to the publication of Ofgem's Open Letter, did either Ofgem or PB Power indicate to us that further information was required. Also, if PB Power had these concerns, we do not understand why they did not raise them in their report, which gives no indication of such serious concerns.

64 In summary, Ofgem appear to have **no justification** for proposing to base the allowance for non load-related expenditure in 2006/7 on a low scenario, rather than their technical consultants' best view.

Clarity on treatment of overspends in 2006/7

65 Finally on 2006/07, we would like to raise a particular issue about just how Ofgem will treat any eventual over-spend (against whatever is finally assumed in the price control) **which is deemed to have been efficiently incurred**. Ofgem have previously set out their thinking on price review treatment of efficient capex over-

spend in an Open Letter in respect of gas distribution price controls[7]. In this, they propose that there are, in effect, three regulatory 'pots' - and the retrospective treatment of the spend depends on the pot to which the particular over-spend is assigned. Thus, excess spend would be allocated to:

(a) 'Pot 1' "if there is clear evidence of wasteful and unnecessary spending", in which case this would not be included in RAV; or

(b) 'Pot 2' "if costs are higher than allowed at the last price control review but are nevertheless consistent with efficient spending" - in which case, "in general there will be a symmetrical treatment of under and over spend. Therefore a licensee could expect to have to meet at least the return element of financing costs of overspend for a full five year period, after this full five year period had elapsed the amount of the overspend would be added to its regulatory asset value"; or

(c) 'Pot 3' "where costs are higher, consistent with efficient spending and this can be clearly shown as providing significant benefits to consumers" – in which case, "Ofgem would consider allowing the licensee to recover the regulatory depreciation and or return from the year the expenditure is incurred".

66 We assume that the discussion of how to apply this methodology to over-spend in the period 2001/02 to 2005/06, as well as for 2006/07, will be part of the forthcoming main review. However, we would make the following points at this stage:

(a) NGET does not currently have a rolling mechanism, either with respect to opex or capex, in its current price control. Therefore, it is not clear that the five year rolling part of the proposed methodology would apply to NGET.

(b) The mechanism has been formulated in terms of a firm 'baseline' level of capital spend which has been determined after the usual exhaustive processes of a main review. **In respect of 2006/07**, the level of capex which will be incorporated into the NGET TO control will explicitly not have been determined on this basis – but will, in fact, be a **provisional** figure, pending the full analysis to be conducted as part of the main review. **In these circumstances, and for this period, it is our view that <u>any over-spend which is eventually deemed to have been efficiently incurred</u> should be deemed to require retrospective funding in respect of the depreciation and return on that spend in the period through to the end of March 2007.**

[7] Open Letter on Gas Distribution Price Controls, 16 March 2004

IV Cost of capital and tax

Ofgem's proposal

67 Ofgem's Initial Proposals suggests that, for the purposes of setting NGET's revenue in 2006/07:

(a) NGET should be deemed to have a real post-tax weighted average cost of capital (WACC) of 4.4%.

(b) Tax will be allowed for, in the first instance, by calculating revenue by using a real pre-tax WACC of 6.25%. This assumes a tax rate of 30%. Ofgem will continue to consider the issue of tax, including the issue of retrospective adjustment in the event that NGET's actual tax payments are different from what Ofgem eventually assume.

68 Ofgem's basis for a real post-tax WACC of 4.4%, in contrast with the 4.8% assumed in setting the current price controls for DNOs and the transmission businesses of Scottish Power and Scottish and Southern, is:

(a) a real post-tax cost of equity of 7% (as against the 7.5% assumed for DNOs and Scottish transmission);

(b) a real pre-tax cost of debt of 3.75% (as against the 4.1% assumed for DNOs and Scottish transmission); and

(c) gearing of 60% (as against the 57.5% assumed for DNOs and Scottish transmission).

69 The basis, in turn, of Ofgem's calculation of the cost of equity and the cost of debt is not explicit. In previous price reviews, Ofgem have built up their primary cost of capital calculation from a Capital Asset Pricing Model (CAPM) analysis which requires the following components:

(a) a risk-free rate of interest;

(b) a debt premium for the company in question;

(c) a beta for the company in question;

(d) an equity risk premium; and

(e) an assumed level of gearing for the company.

70 However, in these proposals, Ofgem have simply stated the overall cost of equity and cost of debt without explicitly deriving them from these components.

71 Given this, we have used the information provided in the proposals to back-solve for the other components of the calculation (notably, beta) which we assume Ofgem have carried out. These components would seem to be as follows:

Risk-free rate	2.75%
Debt premium	1.00%
Pre-tax cost of debt	**3.75%**
Equity beta	0.894
Equity risk premium	4.75%
Post-tax Cost of equity	**7.00%**
Gearing	**60%**
Post tax WACC @30% tax rate	**4.4%**
Pre-tax WACC @ 30% tax rate	**6.25%**

72 On this basis, the key areas of difference between these proposals and Ofgem's final proposals for the last DNO price review (DPCR4) are as follows:

	DPCR4	**NGET Initial Proposals**
Debt premium	1.35%	1%
Equity beta	1	0.894
Gearing	57.5%	60%

73 Ofgem's justification for these differences are considered in our response below.

Our response

74 In our view, Ofgem's proposals for NGET's deemed post-tax cost of capital are unreasonable and poorly founded. On tax, Ofgem have said that they are still considering the issue, albeit that we consider their initial proposal to be unreasonable.

Tax

75 We consider the **tax** issue first. As noted above, Ofgem are proposing that, in the first instance, tax in 2006/07 will be allowed for by deeming a 6.25 per cent **pre-tax** WACC (albeit that thought is still being given to allowing subsequent retrospective allowance for the tax actually paid in 2006/07). Ofgem base this proposal on the implicit assumption that the 30 per cent tax rate used to derive the 6.25 per cent pre-tax WACC from the post-tax cost of capital of 4.4 per cent is a reasonable approximation to NGET's likely tax rate in 2006/07.

76 This is not the case. As Ofgem have recognised in the roll-overs of the Scottish transmission price controls for 2005/06 and 2006/07, the relevant tax rate in setting a pre-tax WACC (which is applied to **regulatory** asset value) is derived by dividing tax by regulatory profits, rather than accounting profits, where regulatory profits are struck

after deducting regulatory depreciation, rather than accounting depreciation. On this basis, NGET's 'regulatory' tax rate is substantially in excess of 30 per cent.

77 It is our view that NGET's regulated revenue in 2006/07 should be set by making the best estimate of NGET's cash tax bill in 2006/07 and then either:

(a) using this to set a pre-tax WACC as was done as with the Scottish transmission roll-overs; or

(b) calculating our revenue, in the first instance, on the basis of a post-tax cost of capital and then adding the estimated tax bill. With this method, there could then be a subsequent correction for any difference between the estimated tax bill and the out-turn. We believe that Ofgem's latest modelling is using this approach.

78 Whichever option is chosen by Ofgem, it will be important to ensure that the capital allowances which are assumed in deriving NGET's tax rate for 2006/07 are consistent with Ofgem's capex assumptions for the mini review and are on the correct price base.

Post-tax cost of capital and gearing

79 As noted above, the key areas of difference between the DPCR4 outcome on cost of capital and Ofgem's Initial Proposals are:

(a) credit spreads; and

(b) equity beta/gearing.

80 Ofgem's logic in reaching the conclusions it reaches on these variables (1 per cent for credit spread, approx 0.89 for equity beta against the background of 60 per cent gearing) is not totally clear from the Initial Proposals document and we address each in turn.

Credit spreads

81 **Our interpretation** of Ofgem's logic on credit spreads is as follows:

(a) Ofgem assumed a credit spread of 1.35 per cent for DNOs as part of DPCR4. "This reflected average bond spreads over the preceding five years and expectations that both gearing and bond spreads would rise over the period of the next price control."

(b) "Examination of the same dataset for NGET bonds indicates an average spread of 0.82 per cent."

(c) According to Stephen Wright, credit spreads have risen somewhat since Ofgem published its DPCR4 Final Proposals but, at the same time, "NGET appears to be perceived as having somewhat lower business risk than DNOs".

(d) Mixing all of the above together suggests that a spread of 1 per cent would be a reasonable assumption for NGET in 2006/07.

82 We start with the observation that we can find no evidence, including in the Stephen Wright publication[8] on which Ofgem have apparently drawn (despite it being published two weeks after the publication of the Initial Proposals) that NGET's credit spreads were anything like an average of 0.82 per cent over the period of the last DNO price control. Instead:

(a) The graph in Stephen Wright's analysis (which starts at April 2000) shows "the yield on a representative National Grid Transco Bond with quite long maturity (ranging from 24 down to 19 years over the sample shown)". This shows (over a period in which National Grid Company's credit rating was changing along with its gearing):

(i) the National Grid spread starting at around 120 basis points,

(ii) rising to around 180 basis points;

(iii) fluctuating around an apparent mean of around 130 basis points through to April 2003; and then

(iv) moving to a lower range (around 70 to 100 basis points) for the period April 2003 to March 2005.

(b) Our own information on some of the relevant bonds in Stephen Wright's analysis is that the average spread of the specified National Grid bond over the period November 1999 to November 2004 (i.e. the five year period up to the DPCR4 Final proposals) was **122** basis points.

83 On this basis, the Ofgem observation that NGET's bonds averaged a spread of 0.82 per cent over the period 2000-2005 would seem to be factually incorrect. We would submit that this more than somewhat undermines Ofgem's position on an appropriate credit spread to be assumed for 2006/07. (If Ofgem are simply saying that a spread of 0.82 per cent applies to the end of the period 2000-2005, then this would be potentially correct, depending on the time period chosen, but of little relevance, given Ofgem's, and indeed all regulators', unwillingness to base key cost of capital inputs on very short runs of data.)

84 However, we would also want to make a broader, and at least equally important, point. This is that, in trying to decide on an appropriate cost of capital for NGET in 2006/07, an awful lot hinges on what exactly is the question being asked.

85 To start with the obvious, it is common ground between Ofgem and ourselves – and is echoed through all of the main documents published by Ofgem as part of this price review - that the question being asked is not "What is NGET's cost of capital?" If this latter was indeed the question, then Ofgem would have conducted a full analysis of the issue and would not be coming to conclusions on the basis of two pages in the Initial Proposals document.

86 Instead, as with the roll-over of the Scottish transmission price controls for 2005/06 and 2006/07, Ofgem have, reasonably enough, been looking for ways to infer appropriate costs of capital for short term price control extensions from the analysis which they undertook as part of the last major price review, i.e. DPCR4. In other

[8] "Beta estimates and bond spread analysis for: Scottish Power; Scottish & Southern Energy; Viridian Group; Centrica; International Power; National Grid Transco; United Utilities; Kelda Group; Severn Trent – provided to Ofgem by Stephen Wright, Birkbeck College and Smithers & Co, 11 October 2005

words, DPCR4 is the starting point and the question which has been effectively posed is what is the **relative** business risk faced by the company in question, when compared with the DNOs.

87 **In the case of the Scottish roll-overs**, Ofgem concluded that the appropriate costs of capital for the transmission businesses of Scottish Power and Scottish and Southern Hydro Electric should be the same as decided for the DNOs as part of DPCR4. This was justified on the basis that:

> "Given the similarity in the transmission and distribution activities, Ofgem does not consider that different cost of capital considerations should apply to the Scottish transmission companies compared to the electricity distribution companies."

88 Ofgem clearly feel that this identified similarity between transmission and distribution activities is not sufficient to justify a similar treatment of cost of capital for NGET. However, the same basic methodology of trying to infer the NGET mini review cost of capital from other main price review which Ofgem have conducted is also spelled out in Ofgem's Initial Consultation on the NGET mini review and in the more recently published Open Letter.

89 In the **Initial Consultation**, Ofgem stated that "In extending NGC's price control, Ofgem will need to consider whether the cost of capital assumed in the current price control should apply for 2006/07. In doing so, it will be appropriate to consider the suitability of the above assumptions in the light of more recent evidence that **has** [our emphasis] become available."[9] As the rest of this section of the paper (notably paras 4.19 and 4.21) makes clear, this other evidence is what had become available as part of DPCR4.

90 The Initial Consultation goes on to lay out two alternative ways in which the DPCR4 outcome could be used, specifically:

(a) "It may be appropriate for the cost of capital that is derived as part of the distribution price control review to be considered for use in extending NGC's price control given the similarities between the businesses [echoing the sentiment expressed by Ofgem in relation to the roll-over of the Scottish transmission price controls] and the objectives and timing of each review."[10]

(b) "At the last review of NGC's TO control in 2000, Ofgem used a real pre-tax cost of capital of 6.25 per cent. When the electricity distribution companies' price controls were last reviewed in 1999 a real pre-tax cost of capital of 6.5% was used. It is for consideration as to whether a differential should apply during 2006/07."[11]

91 In other words, the Initial Consultation suggested that, on a real pre-tax basis (at a 30 per cent tax rate), the cost of capital for NGET in 2006/07 should be either the DPCR4 outcome, i.e. 6.9 per cent, or the DPCR4 outcome minus 25 basis points, i.e. 6.65 per cent (in contrast with Ofgem's current proposal which is equivalent to 6.25 per cent on the same real pre-tax basis). On a real **post-tax** basis, these two rates translate to

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[9] Para 4.18 of the Initial Consultation

[10] Para 4.19 of the Initial Consultation

[11] Para 4.20 of the Initial Consultation

4.8 per cent and **4.7 per cent** respectively (in contrast with Ofgem's current proposal of **4.4 per cent**).

92 More broadly, it is clear from the Initial Consultation what questions about cost of capital are being asked in respect of the extension of NGET's price control. These are:

(a) Are the business risks facing NGET's business broadly similar to those facing a DNO? In this case, NGET should, for the year in question and prior to the forthcoming main review of NGET's price control, be deemed to have the same cost of capital as for a DNO.

(b) Is there a differential business risk of the size determined when Ofgem last properly looked at the issue? In this case, and on the same basis as in (a) above, NGET should be deemed to have a cost of capital which is lower than a DNO's but lower to the extent previously determined by Ofgem.

93 Ofgem's more recent Open Letter could be read as confirming that the question being asked is still about the relative business risk facing NGET, when compared with that facing a DNO. Thus, in their preferred 'Option 2', Ofgem proposed to "derive a value for the cost of capital based on the common components of the DPCR conclusion, but taking a view of specific risks and tax liabilities pertaining to NGC". However, this depends on what Ofgem means by 'specific risks'.

94 If the issue is one of NGET's risk relative to a DNO, then the evidence used by Ofgem itself points clearly to NGET being no less risky than the relevant comparators. Thus, the graphs in Stephen Wright's paper show spreads for all the companies covered (including Scottish Power, Scottish & Southern, Viridian, Severn Trent, Kelda and United Utilities, as well as National Grid) varying substantially over the last five years. At the end of the period, most of the companies (including National Grid) show spreads around 75-80 basis points, except for Scottish Power and Scottish Hydro Electric, whose spreads are shown as being significantly lower.

95 Nor is this relative relationship a feature of the end of the period alone. Over the period examined for DPCR4, i.e. November 1999 and November 2004, the spreads for National Grid, Scottish Power and Scottish Hydro Electric were as follows:

National Grid	122 basis points
Scottish Hydro	110 basis points
Scottish Power	108 basis points

96 It is therefore clear that, **if the question is about the risks facing National Grid relative to the other companies**, then there is no basis in the credit spread data quoted by Ofgem (or in any other data of which we are aware) for assuming that National Grid's credit spread should be 35 basis points less than assumed for distribution businesses, including those of Scottish Power and Scottish & Southern. Ofgem's statement that "NGET appears to be perceived as having somewhat lower business risk than DNOs" would seem to be no more than hearsay and in contradiction with the available evidence, including the evidence apparently used by Ofgem.

97 If Ofgem are indeed asking a different question about National Grid's credit spreads, then it is not clear what that question is. For example, if the question is "What is National Grid's current spread?", then that would justify a spread of 100 basis points or less – but Ofgem have never before given such weight to current spreads – and for good reason, given the volatility which is observable in Stephen Wright's graphs. If, instead, Ofgem are assuming that credit spreads have moved to a new long term equilibrium, then this is not a question which Ofgem has explicitly addressed and is a

question which, in any event, would be more appropriately addressed as part of the upcoming main price review.

98 We therefore conclude that there is no reasonable basis in evidence for Ofgem assuming a 35 basis points lower credit spread than was assumed for DNOs – in fact, no basis in the evidence of Stephen Wright for using a credit spread which is any lower than what was used for DNOs.

Beta/gearing

99 Ofgem's use of beta evidence would seem to us to be just as flawed as their use of evidence on credit spreads. Our interpretation of Ofgem's logic on betas is as follows:

(a) Ofgem failed to find evidence of stable betas for DNOs and so assumed a beta of 1, i.e. the market average. (Implicitly, this market average for equity **equity** beta was also secured by assuming 57.5 per cent RAV gearing.)

(b) National Grid's beta is well determined statistically and is around 0.6.

(c) This therefore justified using an equity beta which is lower than for DNOs, despite the simultaneous assumption of higher gearing for NGET.

100 We take the point about statistical determination of betas first. Ofgem's point is that DNO betas are/were poorly determined – but National Grid's beta is well determined. This conclusion is flatly contradicted by Stephen Wright's paper, the only piece of independent evidence which Ofgem adduce for their conclusions on National Grid's cost of capital. In fact, Stephen Wright concludes that the betas for Scottish Power, Scottish & Southern and United Utilities are reasonably well determined, albeit subject to judgement in deducing a point estimate. On National Grid, in contrast, Stephen writes:

> "The evidence of parameter instability is significant on both CUSUM and CUSUMSQ tests, and, in contrast to a number of the other companies examined, it continues even on the most recent data."

101 Stephen **does** conclude that his best point estimate of National Grid's current beta is 0.6 but this is hedged around with qualifications, including the thought that part of the problem may lie with National Grid's US operations which, as he points out, made up nearly half of its turnover in 2003/04.

102 Thus any thought that Ofgem can rely on statistics to determine National Grid's beta in a way which is impossible for DNOs (even those DNOs with quoted entities which might give some indication of the betas of the distribution businesses) is completely undermined by Stephen Wright's analysis.

103 However, even if the estimate for National Grid's beta was to be taken at face value, in spite of Stephen Wright's own qualifications, then the question arises as to what it would show. As with credit spreads, this depends on the question being asked. **If the question is about National Grid's beta relative to those of DNOs'**, then Stephen Wright's analysis suggests that National Grid, even at the Group level, has a beta which is as high as, or higher than, all of the network comparators analysed by Stephen Wright. Thus Stephen's point estimates of equity betas would, albeit hedged around with qualifications, seem to be as follows:

National Grid	0.6
Scottish Power	0.6
United Utilities	0.47
Scottish & Southern	0.4
Severn Trent	0.35
Kelda	0.32
Viridian	0.2

104 Thus, not only is National Grid's beta, on the basis of the evidence used by Ofgem, at least as high as any of the comparators, but this comparison of betas for quoted entities almost certainly understates the relative beta for NGET. This is because:

(a) Scottish Power and Scottish & Southern have businesses with substantial supply and generation interests – and therefore the betas of the respective network businesses might normally be expected to be lower than the corporate betas.

(b) National Grid's non-UK network businesses are overwhelmingly US distribution and transmission networks. These latter businesses can be expected to have relatively low betas (especially when measured against UK equity indices) – and our initial work confirms that this is so. The implication of this is that NGET's beta can be expected to be significantly higher than the beta for National Grid as a whole.

105 Thus, on the basis of betas (as well as on the basis of credit spreads), NGET would look to be at least as risky as DNOs which are assumed by Ofgem to have equity betas of 1 with lower gearing than Ofgem have assumed for NGET.

106 **If, however, Ofgem is trying to infer something from the absolute level of National Grid's beta**, then it is not clear what this might be. Even ignoring the above point about the relationship between National Grid's beta and that of NGET, Ofgem would seem to be saying that a beta of 1 was deemed for DNOs, in the absence of evidence to the contrary, but that a lower beta (with a higher gearing) is appropriate for NGET which, on the basis of the evidence provided to Ofgem by its own adviser, has an estimated (but unstable) beta which is at least as high as the DNO (or at least DNO-linked) betas. Such a position would be hard to sustain.

Our overall conclusion on Ofgem's cost of capital analysis

107 Overall, it is our view that, if Ofgem had followed the path mapped out in their own Initial Consultation on cost of capital, they would have reached a range for NGET's cost of capital for 2006/07 which would have been, on a real pre-tax basis (and with tax at 30 per cent) between 6.9 per cent (the conclusion of DPCR4) and 6.65 per cent (DPCR4, adjusted for Ofgem's previous analysis of the risk differential between NGET and DNOs). On a real post-tax basis, this would have translated into a range of 4.8 per cent to 4.7 per cent (to the nearest decimal point). Somewhere in this range, **on the basis of regulatory precedent rather than on the basis of evidence**, would have been consistent with Ofgem's original intentions as to what was a proportionate amount of work to devote to this topic.

108 In their Initial Proposals, Ofgem seem to be straddling an uncomfortable position in which precedent and evidence are mixed in a way which is made none the clearer because Ofgem's conclusions from its own evidence seem incompatible with that evidence itself. **On the basis of the evidence assembled**, Ofgem would seem to have no basis for reaching a different conclusion on NGET's cost of capital from that so recently deemed appropriate for both the DNOs and apparently so easily read across to the Scottish transmission businesses.

109 It is our view, therefore, that, on a real post-tax basis, Ofgem's own analysis, in both these Initial Proposals and in its previous papers, produces two options for NGET's cost of capital for 2006/07, viz:

(a) 4.8 per cent, alongside gearing of 57.5 per cent on the basis of DPCR4 and evidence which shows NGET facing at least the same business risks as DNOs; or

(b) between 4.7 per cent and 4.8 per cent, with gearing of 60 per cent, on the basis of the combined precedent of DPCR3, DPCR4, the roll-over of the price controls for the Scottish transmission businesses and the last NGC price review.

110 None of the above should be seen as, in any way, prejudging the full cost of capital debate which will take place as part of the forthcoming main price reviews. Such a review will need to pay due attention to the reasons why NGET actually faces higher business risks than DNOs. These include:

(a) a larger and more volatile capex programme;

(b) weaker cash flows due to lower regulatory depreciation (in turn, due to longer regulatory asset lives); and

(c) the additional risks associated with managing incentive programmes which do not themselves necessarily provide adequate compensation for those risks.

V Our overall conclusions

111 To sum up:

(a) We accept Ofgem's initial proposals on **opex for 2006/07** as being consistent with the options set out in the Initial Consultation for this mini review and consistent with the overall approach to the mini review, to which Ofgem have, at least until recently, seemed to be committed. We also agree that the pensions issue for 2006/07, as well as for the following five years, should be dealt with as part of the forthcoming main price review.

(b) We believe that Ofgem's initial proposals on our **RAV, as at April 2006,** are unreasonable because:

(i) Provisional exclusion of non-load-related capex overspend, **through to March 2005**, from the NGET RAV for April 2006 flies in the face of their technical consultants' view that there was no evidence to conclude that the capex in question was not needed or inefficiently incurred.

(ii) Provisional exclusion of non-load-related capex over-spend **for 2005/06** is despite the fact that the number chosen by Ofgem (i.e. the number embedded in the current price control) is lower not only than PB Power's Best View but also lower than PB Power's Low Scenario.

(c) For these reasons, we believe that, on the provisional basis which characterises all of the mini review capex proposals, the RAV at April 2006 should be on the basis of:

(i) our actual spend through to March 2005; and

(ii) PB Power's View for 2005/06, corrected for an appropriate treatment of fittings-only overhead line schemes.

(d) We believe that Ofgem's initial proposals on **capex for 2006/07** are unreasonable because:

(i) There is no good justification for the use of PB Power's Low Scenario for **non-load-related** spend.

(ii) Ofgem's proposals for **load-related** spend fly in the face of best available evidence on demand for exit connections and of our licence obligations to meet to connect and to comply with the SQSS.

(e) Instead, we believe that, for 2006/07:

(i) **Non-load-related** spend should reflect PB Power's View, corrected to allow for the overhead line spend required by the identified actual individual schemes, rather than reflecting a single year snap shot of a long term model output.

(ii) **Load-related** spend is inherently more uncertain than non-load-related. However, especially given that we are only looking forward for at most 18 months for this mini review, the allowance for exit-

driven load-related expenditure should be based on a more appropriate assessment of the likely outcome, both in respect of the total pool of potential schemes and the percentage of those schemes which will be go ahead in the relevant time period.

(f) Overall on capex, and in addition to the above, we are concerned that Ofgem seem to see the provisional nature of the mini review proposals as implying their relative unimportance. Clearly, there are bigger issues to be addressed, and to be addressed more thoroughly, as part of the main review. However, Ofgem should not assume that mini review proposals will not potentially have long term consequences. The willingness of all parties, including our suppliers, to make the necessary timely investments in their capabilities depends, in large part, on confidence that such investment will be properly remunerated. These Initial Proposals, if carried forward into Final Proposals, risk undermining that confidence.

(g) We believe that Ofgem's initial proposal for **cost of capital for 2006/07** (65 basis points below the outcome for DNOs at DPCR4) is unreasonable because:

   (i) The proposal is inconsistent with the approach outlined in the Initial Consultation for this review, the basis on which this review has been conducted from May 2004 until Ofgem's Open Letter in July 2005 (which itself did not seem inconsistent with the Initial Consultation). The original approach envisaged a maximum difference from the DPCR4 outcome of 25 basis points, as well as limiting the evidence which would be adduced in deciding on any risk differential which should be deemed as between NGET and DNOs.

   (ii) Ofgem's analysis of the relative business risks faced by NGET (compared with those faced by a DNO), as well as being inconsistent with the ground rules apparently established for a mini review assessment of cost of capital, flies in the face of Ofgem's own evidence on betas and credit spreads. In addition, one of the key pieces of evidence quoted by Ofgem (NGET's credit spread over the relevant historic period) would seem to be factually incorrect.

   (iii) Ofgem's assumption of a 30 per cent regulatory tax wedge is a substantial under-estimate of NGET's likely tax liabilities for 2006/07.

(h) Instead, we believe that Ofgem should:

   (i) use a real post-tax cost of capital in the range 4.7 – 4.8 per cent. This would reflect regulatory precedent (DPCR4, Scottish transmission roll-over, DPCR3 and the last NGC review) alongside a reasonable interpretation of the evidence considered by Ofgem; and

   (ii) make appropriate allowance for NGET's cash tax position as a stand-alone entity.

112 As noted throughout this response, we hope to make progress with Ofgem on the above issues in advance of Final Proposals being made.

NGET, 25 October 2005