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Gas Distribution Price Control Review Initial Proposals Document

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Target audience: Consumers and their representatives, gas distribution networks (GDNs), independent gas transporters (IGTs), gas shippers and suppliers and any other interested parties

Overview:

This document contains the main supplementary appendices for the Gas Distribution Price Control Review's (GDPCR's) initial proposals document. The supplementary appendices provide more detailed information regarding the issues raised in the main document. It also contains a summary of responses to the fourth consultation document, together with Ofgem's views.

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Context

This is the first full distribution price control review since the sale by National Grid Gas plc (NGG) of four of its eight GDNs to three new GDN owners on 1 June 2005. As a result, the current industry structure is substantially different from that in place at the time of the previous price control review. Last year we extended the existing price control by one year. At that time we addressed a number of significant issues which had emerged since the last control was set. This included treatment of expenditure in the network which had been much higher than allowed for and the GDNs exposure to the price of gas through the way in which they were incentivised to reduce shrinkage gas.[1]

Work on the price control review has continued since then. In particular, the creation of separately owned, managed and operated GDNs has allowed effective comparisons to be made between the businesses despite only a short time in new ownership.

The primary focus of this document is to set out our initial proposals on appropriate operating, capital and replacement expenditure allowances and allowed revenues to take effect from 1 April 2008. It also sets out our proposals on a range of incentives and quality of service outputs.

Our next document on the GDPCR will be our updated proposals in September which will update our thinking for resubmissions during the summer by the GDNs. We expect to publish our final proposals in December 2007.

Associated Documents

- GDPCR Fourth consultation, March 2007 (Ref. 49/07);
- GDPCR One year control final proposals, December 2006 (Ref. 205/06);
- GDPCR Third consultation, November 2006 (Ref. 203/06);
- GDPCR One year control initial proposals, September 2006 (Ref. 169/06);
- GDPCR Second consultation, July 2006 (Ref. 123/06); and
- GDPCR Initial consultation, December 2005 (Ref. 259/05).

[1] Shrinkage is gas lost from the network through leakage, theft and own use gas.

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Appendix 5 – Responses to the fourth consultation document

1.1. This appendix summarises the responses received from GDNs and other interested parties to questions posed in the fourth consultation document, published in March 2007, together with our views.

1.2. We received 16 responses from the following organisations:

- Central Networks;
- Centrica;
- Chemical Industries Association (CIA);
- EDF Energy;
- Energywatch;
- GMB;
- Health & Safety Executive (HSE);
- National Grid Gas (NGG);
- Northern Gas Networks (NGN);
- RWE npower;
- SBGI;
- Scotia Gas Networks;
- Statoil UK;
- United Utilities (UU);
- Wales & West Utilities (WWU); and
- xoserve.

1.3. Responses are available on Ofgem's website (www.ofgem.gov.uk).

1.4. Please note that when summarising respondents' views, we have referred to each GDN company as a (single) GDN, even if the company owns more than one GDN.

Responses to Chapter 2 - Accounting policy and adjustments

1.5. Chapter 2 of the fourth consultation document discussed the work to review GDNs' costs submissions for the price control to ensure that they are on a consistent cash cost basis and that any inappropriate costs are removed. It also consulted on a number of policy issues arising from this work. Respondents were asked the following questions:

- Do you agree with our proposed accounting adjustments? Are there any other accounting adjustments that we should be considering?
- Do you agree with our adjustments for related party margins?
- Do you think we should change our treatment of non-operational capex?

Views of GDNs

1.6. GDNs broadly support our proposed accounting adjustments however two listed some areas they disagree with. In particular, one GDN does not agree with the adjustments to account for accrual releases and thinks that logistics costs should remain as a repex item. This GDN said that further work on operating strategies and organisational structures is required. The other GDN considers the BPQ more accurate than the Regulatory Accounts, and also considers that atypical costs relating to executive recruitment and compensation payment under the standards of performance arrangements should be allowed.

1.7. GDNs generally agree with our adjustments for related party margins. One GDN said that the choice of supplier should not dominate the decision of whether profit margins are allowed or not. One GDN considers that GDNs should earn an appropriate margin on xoserve reflecting the risk they are managing and another said xoserve must be allowed a return on its investments. Regarding connections, a GDN stated that margins should also be allowed in the non-competitive sector if it can be demonstrated that the cost has been market tested. Rather than eliminating the full margin achieved by the related party, another GDN considers it more appropriate to benchmark that margin and allow an efficient/market rate.

1.8. Three GDNs consider that non-operational capex should continue to be capitalised. The fourth GDN considers that it should be expensed as non-operational capex tends to be short-term so depreciating over 45 years may not provide incentives to achieve efficiencies, although this would have an impact on P0 but could be mitigated by capitalising more repex.

Views of other respondents

1.9. One non-GDN finds our accounting adjustments helpful but says it is having difficulty comparing them with previous price control values. With regard to non-cash costs, another respondent considers that costs should only be adjusted for accruals relating to atypical items and normal trading accruals should not be adjusted.

1.10. Four non-GDNs broadly agree with our adjustments for related party margins. One of them said that if Ofgem adopts the core services plus user pays model, which it strongly advises against, it may be necessary to reconsider the issue of xoserve margins.

1.11. One non-GDN respondent does not think non-operational capex should continue to be capitalised. It sees some merit in treating this as opex from an efficiency and consistency perspective but is concerned about the P0 impact. Another non-GDN suggests we consider using a shorter depreciation life for non-operational capex than operational assets.

Ofgem's views

Atypical adjustments

1.12. In TPCR, cash was interpreted as costs that are settled in cash rather than strictly cash paid during the year. No adjustments were made for changes in accrual balances as these represent short term timing differences rather than a cash/non cash distinction.

1.13. NGGD's accrual balance reduced substantially between 2004-05 and 2005-06. It considered that this movement was atypical and applied an adjustment to its Regulatory Accounts to include an additional £15 million of costs in its BPQ submission. NGG believes that these costs need to be included to reflect the costs of a typical year. We do not consider that the reduction in year end accruals between 2004-05 and 2005-06 was atypical. It was reasonable to expect a reduction in accruals after the sale of 4 GDNs. We have disallowed the additional costs.

1.14. We do not consider that executive recruitment costs incurred at the start-up phase of a GDN represent a typical cost of the business.

1.15. We accept that an efficient level of compensation payments under the standards of performance should be allowed. The GDNs' compensation costs have been removed to bring their costs onto a consistent basis for benchmarking. An allowance has then been applied for quality of service issues as part of the overall opex allowance.

Capitalisation

1.16. Our review of the GDNs' approach to capitalisation showed that there were differences in the capitalisation of indirect (support service) costs across GDNs. We added any capitalised indirect costs back to opex to ensure that the GDNs' costs were on a consistent basis for benchmarking. One of the GDNs has subsequently suggested that an element of procurement and logistics costs should be capitalised to repex, as such costs would be directly included in repex under alternative business models (i.e. using a third-party service provider). We will give this further consideration as part of our accounting adjustment work on the 2006-07 data.

Related party margins, connections margins and treatment of non-operational capex

1.17. Our initial proposals for each of these areas are discussed in paragraphs 3.5 to 3.12 of the main initial proposals document.

Responses to Chapter 3 - Operating expenditure analysis

1.18. This chapter set out the range of analysis undertaken by our consultants on operating costs. It considered how to draw this work together by benchmarking the companies to establish efficient allowances. It also considered our approach to pension costs and consulted on options to evolve our pension principles. Respondents were asked the following questions:

- How should we bring together the various consultants' analysis to establish an efficient cost benchmark and cost allowances? In the light of our approach to setting a benchmark, what approach should we take to glidepaths?
- Is there a case for making adjustments to allowances for real price effects, specifically direct labour, contract labour or materials?
- Is there a case for making adjustments to allowances for regional factors and if so what approach should be adopted?
- Should we adapt our pension principles to address the forecast defined benefit pension contributions, which are both extremely high and vary widely across GDNs (despite funding very similar benefit packages)?
- Should we change our pension recovery mechanism in order to avoid distorting incentives between making salary and non-salary cost savings?

Views of GDNs

1.19. GDNs prefer a top-down approach to benchmarking rather than bottom-up disaggregated analysis. They generally support using judgement based on evidence to bring together the various consultants' analysis to establish an efficient cost benchmark and cost allowance. However, one GDN is firmly opposed to benchmarking and wants Ofgem to roll forward 2006-07 actual costs subject to an assessment of additional cost pressures. Another GDN argues that the consultants' analysis is not robust enough. Two GDNs consider that the efficiency target should be set at upper quartile not frontier. There was some support for PB Power's approach to glidepaths (i.e. GDNs should be able to close 70 per cent of the gap with upper quartile by 2012-13). Two GDNs argue that singletons at the frontier have less scope for achieving future efficiencies.

1.20. Two GDNs said that the loss of meterwork is a material issue for them as meterwork provides 'filler' work for their emergency service staff so the loss of these contracts will expose them to significant increase in costs.

1.21. All GDNs consider there to be a case for making adjustments to allowances for real price effects. Most GDNs believe there is a case for making regional adjustments to allow either for higher costs providing coverage for services such as emergency service over a dispersed geographical area, or for the additional costs associated with operating in high population density areas. One GDN does not believe that making regional adjustments for these factors is appropriate, but that if adjustments are to be made, then it has a mixture of both remote geographical areas and high population areas so the adjustments would apply to it.

1.22. All GDNs believe that the current approach to setting pension allowances should be unchanged. Two GDNs support the principle of an ex post adjustment under option 3 subject to agreement on an appropriate actuarial approach. Two GDNs are opposed to any change. In general, the new GDNs argue that the differences in contribution rates were mainly driven by valuation timing plus minor assumptions and should not trigger a change in approach.

Views of other respondents

1.23. A non-GDN respondent considers that Ofgem should avoid using an artificial GDN and agrees that a mechanistic approach is unsatisfactory. To bring together consultants' analysis, another respondent thinks a virtual "best in class" GDN is sensible as a target and prefers a full gap closure approach. Three non-GDN respondents expressed support for benchmarking companies but one considers it too early. Energywatch stated that comparable external service providers should be used in benchmarking. Another respondent considers judgement based on all evidence the most sensible approach and thinks a glidepath should be assumed. Another party expressed support for a top-down view of each GDN using supporting benchmark studies to bring together opex data. Finally, a non-GDN respondent highlighted concerns over 'cherry-picking' if a bottom up approach is used and considers it sensible to avoid a mechanistic approach to set allowances. This respondent also said that a lack of confidence in benchmarks is not justification for glidepaths.

1.24. The non-GDNs who responded consider there to be a case for making adjustments to allowances for real price effects. Energywatch stated that RPI-X remains the most effective formula to assess and implement cost efficiencies.

1.25. In adjusting allowances for regional factors, one party thinks this should be done on a case-by-case basis and cautions against the blanket assumption that all indirect activities may be more efficient in different geographic locations. Another non-GDN respondent sees some merit in regional factors. Two parties argue that adjustments should be applied to all GDNs if any. Another party considers there to be a case for regional adjustments and agrees that regional adjustments should only be applied to activities where incurring the additional costs is unavoidable, however the blanket assumption that all indirect costs are not subject to regional costs may be overly simplistic. A non-GDN respondent considers regional variations to be important and listed other factors that should be considered. Finally one party does not consider there to be a case for regional factors and another only thinks there is one for the London area.

1.26. The majority of non-GDN respondents do not think Ofgem should change its Pensions Principles to address the forecast defined benefit pension contributions. One respondent sees the proposals as an attack on the pension arrangements. One non-GDN respondent supports option 1, and suggests benchmarking pension contributions to wider industry benchmarks.

1.27. Among those that responded, none of the non-GDNs disagree with the proposals to equalise incentives. One non-GDN asked for further information to understand the proposals in greater detail.

Ofgem's views

Benchmarking

1.28. As discussed in chapters 3 and 4, we have reviewed the consultants' work as well as responses both to the consultants' reports and to the fourth consultation

document. We consider that it is appropriate to form a judgement on the appropriate cost allowances for each GDN based on the detailed activity-based analysis using upper quartile benchmarking carried out by the consultants and using top-down benchmarking as a sense-check. Given the limited track record following GDN sales, we believe it is important to consider more detailed cost drivers for particular activities.

1.29. We consider that this approach strikes a reasonable balance between disaggregating costs into appropriate activities so that relevant external benchmarks and cost drivers are considered, and aggregating costs so that they are on a more consistent basis and differences in cost allocation, due to different business structures, are mitigated. We have assessed the strengths and weaknesses of different areas of the consultants' analysis, and have made a number of changes where we considered the evidence to support the recommendation to be weak or did not take into account arguments made to us by the GDNs.

1.30. One of the potential weaknesses of this approach is that a frontier based on a disaggregated level is currently not achieved by any GDN and represents a frontier shift for all companies. We have addressed this by increasing the allowances by 5.6 per cent, so that, on average, they are equivalent to a frontier approach if top-down benchmarking was used.

Regional factors and RPEs

1.31. As discussed in chapter 3, we have considered the evidence on both regional factors and real price effects.

1.32. We do not consider that there is sufficient robust evidence to apply regional factors for labour costs for GDNs operating outside London. There is a range of evidence supporting higher labour costs within London. We have applied adjustments based on a range of data.

1.33. There may be additional regional effects associated with both very low and high density areas. For example, GDNs may need additional staff to meet the 1 hour emergency standard in rural areas. Companies operating in high density areas may have additional costs due to longer travelling times and complexity of excavation. At this stage, we have not made any allowances for these issues but we will consider them further as part of the September update work, taking into account responses to both the fourth consultation and initial proposals documents.

1.34. The GDNs have all put forward strong arguments for including real price effects (i.e. price increases above RPI) in setting allowances. We have reviewed the available evidence and propose to take account of these by allowing for contract labour to increase by 2 per cent per annum, direct labour by 1 per cent per annum and materials by 1 per cent per annum.

Meterwork

1.35. We will be considering the potential impact of GDNs losing meterwork contracts on their direct opex costs as part of the ongoing work for the September update. We will also be considering whether it is appropriate to introduce incentives in this area.

Pensions

1.36. We have reviewed the consultation responses to the proposals on evolution of the pension principles. We have concluded that, on balance, where assumptions meet the test of being reasonable and in line with normal actuarial practice, the appropriate approach is for pension contributions to be funded on the basis of those assumptions, and therefore to reject options 1 and 2. We have set pension allowances based on the GDNs' forecast contribution rates. Option 3, which implies an adjustment only where a stranded surplus arises, is discussed further in chapter 3.

1.37. All respondents who referred to the proposals to equalise incentives offered full or indicative support for the proposals. Our current intention is therefore to apply this proposal in GDPCR.

Responses to Chapter 4 - Capital and replacement expenditure analysis

1.38. This chapter set out the analysis our consultants carried out in assessing the GDNs' forecast capital (capex) and replacement (repex) expenditure and their initial recommendations. Respondents were asked the following questions:

- What are your views on PB Power's adjustments to the GDNs' forecast capital and replacement expenditure?
- What are your views on PB Power's general approach to the assessment of costs?
- What are your views on PB Power's approach to the cost assessment for each activity?
- Is it appropriate at this time to reconsider the approach to prioritisation within the risk model for the Mains Replacement Programme and should the approach to encroachment and diversions be amended?

Views of GDNs

1.39. On PB Power's adjustments to GDNs' forecast capex and repex, GDNs either disagree with many or consider them too severe. One GDN considers that no adjustments should be made to capex and repex forecasts. Another stated it appears PB Power did not take full account of the different investment strategies being taken by GDNs in its adjustments. On PB Power's general approach to the assessment of costs, only one GDN expressed support but considers that PB has been less successful in some areas than others. Two GDNs think the approach has flaws and one has mixed views. Finally one GDN said SOMSA costs should be allowed.

1.40. Regarding PB Power's approach to cost assessment for each activity, one GDN considers the adjustments inappropriate and another expressed many concerns. For example, regarding connections, this GDN is concerned with the scale of adjustment, and regarding mains reinforcement, it considers that limiting adjustments to GDN forecasts to price using regression analysis can result in unrealistic proposals. Another GDN considers that regarding LTS capex, PB's analysis has not been detailed enough to achieve a proper bottom-up understanding of the underlying costs. With respect to connections, it also does not think the analysis is identifying inefficiency but instead indicating differences in cost allocations. Finally, another GDN expressed some concerns relating to PB's assessment on unit costs, mains reinforcement and other operational.

1.41. One GDN believes a move from a risk based to a zonal replacement approach could deliver some benefits but its current position on the risk profile makes the timing of such a move far off. Another stated it needs to continue with 20-70-10 to address its current risk profile. Finally, one GDN has no objection as long as it is done with HSE's full cooperation however it sees no benefit in a zonal approach.

Views of other respondents

1.42. Among PB Power's adjustments to forecast capex and repex, a non-GDN expressed agreement with the LTS & storage capex adjustments but would like more information to make detailed judgements on the other adjustments. It also requests that PB challenge GDNs on their levels of expenditure as robustly as possible. Another party stated that PB has adopted a hybrid approach to assess capex projections making it difficult to comment on their adjustments and approach to cost assessment.

1.43. One non-GDN respondent does not object to the zonal approach proposed by NGG provided customers are not disadvantaged. HSE stated that their mains replacement policy is primarily based on how quickly mains can be decommissioned and that risk models are secondary. Further, HSE said that Ofgem's analysis on NGG's safety case demonstration concerning the zonal approach to prioritisation, which showed they would need to replace an additional 110 km over the next 5 years, concentrated on the risk removed by this additional 110 km and whether this was statistically significant. HSE thinks it is also appropriate to look at what efficiency gains this would deliver. The additional 110 km may now be practicable under zonal methodology. Finally, HSE sees no reason to change policy on encroachment and diversions.

Ofgem's views

1.44. We have reviewed PB Power's overall approach to assessing capex and repex and consider it is reasonable. It includes a mixture of project specific analysis for LTS capex projects where benchmarking overall levels of work and cost is less applicable, assessment of the technical need for work and benchmarking the efficiency of costs across GDNs for high volume activities.

1.45. PB Power has updated their analysis in response to the GDNs' comments. In addition, we have made a number of changes where we considered the evidence to support their recommendation weak or did not take into account arguments made to us by the GDNs. For example, we have reinstated R6 governor replacement costs for NGG where inconsistent adjustments had been applied across GDNs and we have changed the approach for calculating GDNs' net capex from efficient gross connections costs.

1.46. The disallowance of SOMSA exit costs is consistent with our policy decision as part of the GDN sales process that capex incurred as a result of a loss of economies of scale would not be included in Ofgem's assessment of allowed revenues.

Responses to Chapter 5 - Incentives

1.47. Chapter 5 considered the issues associated with revenue drivers, the capex rolling incentive and information quality incentive as part of the gas distribution price control. Respondents were asked the following questions:

- Is it appropriate to retain the current volume driver?
- Is it appropriate to implement any of the revenue drivers discussed in this chapter and are there any other drivers that we should consider that we have not included in this chapter?
- Is it appropriate to strengthen the capex rolling incentives?
- Are our proposals for the treatment of offtake reform related costs and mains replacement costs under the IQI appropriate?

Views of GDNs

1.48. All of the GDNs support the reduction or removal of the current volume driver. Two GDNs stated that we should however consider the costs associated with weather related factors. One GDN suggested that allowances should be set to take account of the one-sided risk associated with cold weather and the impact on gas escapes. The other GDN proposed an adjustment allowing additional costs for gas escapes above those assumed at the price control.

1.49. Two GDNs do not consider it appropriate to implement any of the revenue drivers discussed (i.e. capacity, customer number or connections). One GDN provided analysis to indicate that a 247 per cent variation in connection costs in 2005-06 would have only resulted in an additional annual income of 0.21 per cent. One GDN thinks a customer number related revenue driver has some merit but could be taken into account through explicit allowances for underlying cost growth or through a reduction in any frontier shift assumption. Another GDN considers customer number and connections related drivers to have some merit but that network length and plant, such as district governors, are more appropriate.

1.50. One GDN supports strengthening the capex roller incentives. Another believes that having a strong capex incentive would not raise any issues on safety or standards of service. This GDN also raised some concerns over the IQI but supports

having a capex rolling incentive combined with an IQI in principle. Another GDN considers that this would give GDNs incentive to inflate plans to offset increased risk and, although the IQI could address this, the mechanism relies on consultants' assessment of submitted plans. If Ofgem strengthens the capex incentives, the same GDN suggests implementing a cap to protect unforeseen and unavoidable overspend. Another GDN considers it too early to comment.

1.51. One GDN does not consider our proposals for the treatment of offtake reform related costs and mains replacement costs under the IQI appropriate. Two GDNs agree that offtake and interruptions reform related costs should be excluded from the IQI. One of these GDNs supports an approach whereby any IQI is adjusted for anticipated capital costs of offtake and interruptions reform. The other supports inclusion of all repex costs within the IQI while retaining the mains replacement incentive to maintain the incentives for replacing larger and smaller diameter pipes. Another GDN considers that all LTS costs should be excluded from the IQI not just those related to offtake and interruptions reform. This GDN also suggests excluding repex from the IQI.

Views of other respondents

1.52. Among the non-GDN respondents, three want the current volume driver retained while one considers its removal appropriate. One non-GDN respondent stated that any removal of the volume driver could result in weaker incentives around the quality of forecasting and accuracy of revenue collection, which is a transfer of risk from GDNs to customers so there should be a commensurate reduction in their cost of capital. One respondent considers that the volume driver should be retained as it is the only incentive for the GDN to ensure that I&C customers remain connected to the network. Another party queried the difference between Ofgem's analysis on the percentage of costs that vary with throughput and GDNs' analysis while noting that the figures differ only marginally.

1.53. Three non-GDN respondents do not consider any of the revenue drivers identified appropriate although one considers customer numbers to have some merit. Another respondent thinks capacity could be considered as an alternative to throughput and there could be scope for a connections based driver.

1.54. Non-GDN respondents made no specific comments relating to the strength of the capex rolling incentive. One respondent said it has no strong opinion but expects Ofgem to consider the trade-offs that might result. Overall, three parties support the application of capex rolling incentives with IQI.

1.55. With respect to our proposals for the treatment of offtake reform related costs under the IQI, one non-GDN respondent considers it reasonable to mirror the incentive strength to avoid distortion while excluding capex costs from the IQI. Another party also consider it sensible to exclude certain items from the IQI, i.e. items where future spend levels are uncertain, items where spend levels are defined by a third party and items where expenditure will be shareholder funded. Finally, one non-GDN respondent is not convinced that an IQI is the correct form of incentive to adopt given the uncertainties associated with costs of offtake reform.

Ofgem's views

1.56. We consider that the current revenue driver is not cost reflective and, in the context of the price control, should be removed as the costs directly related to throughput are either taken into account through the shrinkage incentive or not material. We note the comments of the non-GDN respondents with regard to revenue collection. In previous price controls, there has not been an impetus to align the recovery of allowances with charges and we do not necessarily consider that it should be an aim of the current price control review, particularly if this results in the retention of a non cost reflective adjustment mechanism. Moreover, as the recovery of allowances and charges are not currently aligned, the impact of removing the revenue driver is unlikely to have a material impact on the current variability of charges. Nonetheless, a recent GDN discussion paper[2] has put forward the case for an increase in the capacity: commodity split of use of system charges to 95:5. Such a move would result in a very close alignment of the fixed element of collected and allowed revenue if the volume driver was removed. Any change to charging methodology would come to Ofgem in due course and be considered on its merits at the time.

1.57. We note the respondent's concern that the volume driver provides incentives for the GDN to ensure that I&C customers remain connected to the network. Section 9(1)(a) of the Gas Act 1986 places a duty on the GDNs to develop and maintain an efficient and economical pipe-line system for the conveyance of gas to premises and to comply, as far as it is economic to do so, with any reasonable request for a connection to that system. Section 10 of the Gas Act generally requires the GDN to maintain the connection to the premises. This obligation does not apply for premises where the supply of gas is likely to exceed 75,000 therms in any year. Similarly, where the making or maintenance of the connection would involve a new or increased supply of gas to the premises, and the supply would exceed 2,500 therms a year, the GDN can insist on contractual terms with the customer for any necessary construction work, including the laying of a new main. If the GDN and the customer are unable to agree terms for a connection and maintenance of a connection Ofgem can make a determination on the dispute. Therefore, the revenue driver is not required to ensure that an I&C customer remains connected to the network.

1.58. One respondent queried the differences between Ofgem's analysis of the volume driver and the GDNs' analysis. The difference between Ofgem and GDN forecasts of the cost that vary with throughput are marginal and are likely to be associated with the assessment of total revenues. As stated in the fourth consultation document, for the purposes of the analysis, we calculated revenue on the basis of capex, opex and repex costs whereas the GDNs are likely to have included other revenues such as licence fees, rates etc. This has lead to a marginal difference and does not impact on our overall initial view that the costs that vary with throughput are relatively low.

[2] Joint Office Website - http://www.gasgovernance.com/industryinfo/TransportationCharges/Meetings/

1.59. We note the lack of support for alternative revenue drivers and have therefore not included any as part of the initial proposals document.

1.60. We note responses to the capex rolling incentives and IQI. We consider that the IQI provides sufficient incentives for GDNs not to inflate their capex and repex forecasts and note that the alternate options for setting allowances would equally rely on the consultants' assessment of forecasts. We do not think that it is appropriate to exclude repex from the IQI. Repex costs constitute a significant proportion of costs and the IQI will provide the GDNs with strong incentives not to inflate unit cost forecasts. Our detailed views on the capex rolling incentives and IQI are set out in chapter 6 and appendix 17.

Responses to Chapter 6 - Methodology for considering financial issues

1.61. This chapter set out our proposed methodology for determining the cost of capital to apply to the GDNs and our approach to assessing financeability. Respondents were asked the following questions:

- Do you agree with our proposed plan of work to determine the cost of capital? Are there other key areas of analysis that we should be carrying out?
- Is the range of key ratios we have identified adequate for carrying out an assessment of financeability?
- Is our approach to the issues raised by adjusted interest cover ratios appropriate (see appendix 10 of the fourth consultation document for details)?

Views of GDNs

1.62. Respondents generally agree with our proposed plan to determine the cost of capital. Two GDNs argue that gas distribution is more risky than transmission so a comparative risk analysis should be undertaken. A few GDNs noted that interest rates have risen since completion of TPCR.

1.63. To carry out an assessment of financeability, GDNs want Ofgem to consider ratios considered by ratings agencies, including PMICR.

1.64. In terms of our approach to the issues raised by adjusted interest cover ratios, one GDN agrees that PMICR is reduced to a function of cost of capital after depreciation is deducted and 50 per cent of repex is expensed however this only shows that funding for interest payments needs to come from cost of capital allowances. This GDN also considers that a consistently low PMICR should not be disregarded in our financeability assessment. Another GDN thinks there should not be any changes to modelling assumptions on index-linked financing based on the principle that Ofgem should not make adjustments to financial structures. Before we consider moving focus away from PMICR, this GDN is firmly of the view that extensive dialogue and consultation with credit lenders and rating agencies needs to occur. When PMICR is weak, another GDN recommended various options for Ofgem to use rather than assuming GDNs can adjust its financial structures. Another GDN

agrees that PMICR is improved if 50 per cent of debt is index linked but introducing a further modification to the well understood "notional" network has the potential to reduce regulatory certainty and may increase cost of capital.

Views of other respondents

1.65. Non-GDN respondents generally agree with our proposed plan to determine the cost of capital. However, one party is concerned that the timing of the price control creates considerable difficulties in planning and budgeting for the succeeding year. This respondent also stated that under TPCR, the cost of capital was not challenging and didn't properly take account of market evidence, especially in the area of cost of debt.

1.66. To carry out an assessment of financeability, non-GDN respondents want Ofgem to consider ratios considered by ratings agencies, including PMICR.

1.67. One non-GDN respondent considers it more appropriate to assume a proportion of index-linked financing in the first place as utilities companies are increasing the use of index-linked debt.

Ofgem's views

1.68. Based on the general support received, we intend to continue with our proposal of a comparative risk review between transmission and distribution. We have noted the specific areas identified by the GDNs, and these will be included within the categories that we consider when comparing the relative risk. We do not agree with the statement made by one GDN that Ofgem supports its view that distribution is more risky than transmission. We said in TPCR final proposals that there was some evidence that this may be the case but that a comprehensive review was appropriate as part of GDPCR. In any case, any comparison of risk between two regulated industries is only meaningful in the context of the specific terms of their price controls.

1.69. Further detail on our modelling assumption, and the proposed approach to assessing the cost of debt, are given in chapter 9.

1.70. Ofgem has a duty to enable licensees to finance their activities. Consistent with this, our assessment of GDNs' financeability will take into account the criteria commonly used by rating agencies and lenders, including PMICR. If the package of ratios does not appear to be consistent with a comfortable investment grade credit rating for any company, we will consider whether it is appropriate to take action to ameliorate the situation. Our judgment on the appropriate course of action will not be made on a mechanistic basis but will consider all factors relevant to companies' likely ability to maintain a comfortable investment grade position under our price control settlement. These factors will include market conditions, rating agency views and the advantages of regulatory consistency.

Appendix 6 - Additional outputs and quality of service information

Calculation of allowance for payments under the supply restoration standard

1.1. As part of the previous price control, GDNs were given an allowance for an efficient level of payments under this guaranteed standard. They were also given an allowance to procure insurance against large TPWI incidents and an allowance for payments that fell into the insurance excess. We consider it appropriate to provide GDNs with an allowance for an efficient level of compensation payments for the supply restoration guaranteed standard, both for unplanned and TPWI interruptions for this price control period. GDNs will be able to use this allowance to manage the impacts of the events through faster restoration of supplies and/or to insure against potential payments.

1.2. To derive each GDNs' allowance for a target level of unplanned interruption compensation payments, we reviewed data on the amount of compensation paid by each GDN under this standard for the periods from 2002-03 to 2006-07. Any outliers were removed and an amount of compensation each GDN paid per consumer was calculated. The upper quartile compensation amount per customer for each GDN was calculated for these five years and this was then multiplied by the number of customers to derive an annual allowance for 2008-09 for each GDN. An on-going efficiency saving of 2.5 per cent per annum was used to calculate the allowances for the years 2009-10 to 2012-13.

1.3. A different method was used to calculate the allowance for NGG's London network as it has paid significantly higher amounts of compensation under this standard when compared to all the other GDNs. NGG attribute these higher payment amounts to the high proportion of high rise buildings within the London network and the delays in restoring supplies to these buildings where the riser is contained within the infrastructure of the building. This has not impacted on the amount of compensation paid by SGN's Southern network which also has a relatively high proportion of high rise buildings.

1.4. To calculate the allowance for NGG London, we took the lowest level of compensation payments from the 2002-07 period and used this as the base allowance for 2008-09. The same on-going efficiency saving of 2.5 per cent per annum was then applied to this to calculate the allowances for the remaining years to 2012-13. Table A6.1 below sets out the proposed allowances for each GDN for the five year price control period for unplanned interruptions compensation payments.

1.5. A similar method was used to calculate an allowance for TPWI interruptions. An additional amount was also included to cover GDNs for the costs of making payments in relation to a large incident which did not meet the liability cap.

1.6. We have some high level interruptions data available for all GDNs dating back to 1986, which shows that there has been only one very large event which affected approximately 30,000 consumers. For the purposes of calculating an allowance we have assumed a probability of 1 in 50 years. The upper quartile amount was calculated and used as 'normal' yearly allowance for 49 years. We then calculated an amount for a 1 in 50 year event just below the liability cap (1.5 per cent of GDN's revenue). These amounts were then combined and divided by 50 to give an annual allowance. Table A6.1 below sets out the proposed allowances for TPWI interruptions compensation payments for the five year period.

Table A6.1 – Total proposed allowances for the quality of service arrangements for 2008-13, (£m, 2005-06 prices)

		GSOP1 compensation payments		Additional customer surveys	TOTAL
		Unplanned	TPWI		
NGG	East of England	0.160	0.974	0.175	1.309
	London	1.298	1.169	0.175	2.642
	North West	0.139	0.811	0.175	1.125
	West Midlands	0.036	0.332	0.175	0.543
NGN	Northern	0.038	0.542	0.175	0.756
SGN	Scotland	0.118	0.393	0.175	0.686
	Southern	0.195	1.198	0.175	1.568
WWU	Wales & West	0.026	0.407	0.175	0.608
	TOTAL	**2.010**	**5.825**	**1.400**	**9.236**

Proposed additional questions for GDNs customer satisfaction surveys

1.7. We are proposing to expand the existing quarterly customer satisfaction surveys to include additional key areas of service such as emergency services, connections and information provided to consumers during unplanned interruptions (previously OS3). The additional customer satisfaction survey questions we are proposing be included are set out below.

Unplanned interruptions - emergencies

- Did you ring the gas emergency telephone service (0800 111 999) to report the leak or interruption?
- If so, how satisfied were you with the length of time it took to get through to an operator?
- How satisfied were you with the information and safety advice provided by the operator?

Unplanned interruptions – notification of expected time of restoration

- Were you advised of the expected time of restoration of your gas supply? If so, how?
- How satisfied were you with the time it took to advise you of the expected time and date of restoration?
- Were you provided with updates throughout the duration of the interruption? If so, how satisfied were you with the updates provided?

Connections

- How satisfied were you with the information provided when obtaining your quotation?
- How satisfied were you with the application process and the clarity of the forms you were required to complete?
- How satisfied were you with the time taken to provide the quotation for your connection works?
- How satisfied were you with the time it took to schedule your connection works?
- How satisfied were you with the length of time it took for the work to be completed?
- How satisfied were you with the skill and professionalism of the workforce?
- How satisfied were you with the overall quality of work completed?
- How satisfied were you with the overall communication from the GDN?

Appendix 7 - Benchmarking, real price effects, regional factors and efficiency

Combining elements of cost analysis

1.1. The fourth consultation document discussed a number of ways of bringing together the different elements of opex analysis including a mechanistic approach (for example taking a weighted average of different elements of analysis), focussing on the more detailed activity based analysis carried out by PB power and LECG or forming a judgement based on all the available evidence.

1.2. The responses to this issue were mixed. One GDN considered benchmarking was inappropriate at this stage given uncertainties in the data and limited time since GDN sales, it preferred rolling forward 2006-07 costs taking account of future cost pressures; two GDNs thought opex allowances should be based on top-down benchmarking of total controllable opex; one GDN thought analysis should be carried out at a more disaggregated level to take account of the different drivers for different elements of each activity.

1.3. We consider it is appropriate to form a judgement on the appropriate cost allowances for each GDN based on the detailed activity-based analysis carried out by the consultants and using the top-down analysis as a sense check.

1.4. One issue with setting allowances based on benchmarking each activity is that setting an allowance based on achieving upper quartile performance in every individual activity would be a much tougher target than setting allowances on a top-down basis even using top-down frontiers rather than upper quartile. It may be impractical to expect upper quartile performance in every single activity given the range of different factors facing the GDNs and the different business models adopted.

1.5. We have compared the impact of benchmarking at each individual activity with the impact of top-down benchmarking at the frontier based on the GDNs' 2006-07 costs and found that this gives aggregate benchmarks which are on average 5.6 per cent lower than using a frontier under a top-down approach. We have adjusted the overall allowances upwards by this amount to ensure that overall the allowances are not set at a level that would be tougher than a top-down frontier.

Application of benchmarking

1.6. In the fourth consultation document we consulted on a number of possible ways of applying benchmarking or regression analysis to form a view on the future

efficient level of costs. For example, one could base the assessment of efficiency on the lowest cost company or “frontier GDN”. An alternative option is to apply an upper quartile benchmark which is between the average and the frontier.

1.7. The GDNs have raised a range of concerns regarding the use of comparative analysis and the application of benchmarking including that:

- it may be too early to start using comparative analysis given the short period since GDN sales
- there are only 8 GDNs and therefore the statistical robustness of the analysis will be limited;
- applying the consultants’ disaggregated activity-based analysis results in "cherry-picking", the creation of an artificially efficient GDN and unrealistic benchmarks. The GDNs have noted that SGN has a decentralised business structure and relatively low indirect opex but high direct opex while the reverse is true for NGG;
- there may be remaining differences in cost allocation; and
- other exogenous factors may be driving differences relative to the benchmarks.

1.8. In general GDNs prefer the use of an upper quartile benchmark to assessing efficiency based on the frontier, but other alternatives have been put forward such as using an average benchmark or using the GDN’s own historical costs. WWU was concerned about the reliability of the benchmarking, including "cherry-picking" of comparators. It stated that a more granular analysis of indirect costs and a top-down approach to direct opex should be used.

1.9. We consider that together with our consultants we have identified and adjusted for the key differences in cost allocation across GDNs. We have based our analysis on the upper quartile costs rather than the frontier level of costs. In practice for the LECG work comparing support service costs across the 4 GDN ownership groups, this means setting a benchmark three-quarters of the way between the most efficient and the second most efficient company (i.e. closer to the second best performer.) For the PB Power work on direct opex, capex and repex, this means setting a benchmark between the second and third best performing GDNs.

1.10. This approach reduces the reliance on the performance of just one GDN which may have achieved low costs because of quality issues, residual differences in cost allocation or specific factors relating to that GDN. It potentially addresses other exogenous factors which have not directly been taken into account in the analysis and mitigates concerns regarding the creation of an artificially efficient GDN.

1.11. The combination of a disaggregated approach to benchmarking and application of the upper quartile results in challenging targets for each of the GDNs. Table A7.1 which sets out the GDNs or ownership groups that are outperforming the benchmarks for each individual activity where benchmarking has been applied.

Table A7.1 - Outperforming GDNs/ownership groups for each activity

Cost category	Activity	Outperforming GDN/ownership group
Indirect Opex	IS	SGN
	Insurance	SGN
	Corporate Centre and Comms	SGN
	Legal	SGN
	Procurement and Logistics	SGN
	Regulation	SGN
	Property	WWU (floor space) SGN (facilities management costs)
	Other	External benchmarks
Direct Opex	Work management	Northern, London
	Emergency	Northern, West Midlands
	Repair	West Midlands, Northern
	Other direct opex	Northern, North-West
Capex & Repex	Mains reinforcement	East of England, Scotland
	Connections	West Midlands, Scotland
	Mains and services repex	West Midlands, Northern

1.12. SGN outperforms the benchmark for most support service activities while Northern is generally efficient for more direct opex activities such as work management and the emergency service. A number of different companies outperform the benchmark for capex and repex activities

1.13. We have also carried out analysis to compare the strength of the benchmarks under the disaggregated approach to benchmarking and under a top-down approach. Under the top-down approach we have benchmarked total controllable opex using regression analysis and a composite scale variable with a 50 per cent weighting on customer numbers and a 50 per cent weighting on network length. The results are set out in Table A7.2 below.

Table A7.2 - Comparison of top-down and bottom-up approaches[3], (£m, 2005-06)

Ownership group	Bottom-up approach based on analysis for individual activities	Top-down regression with benchmark at the upper quartile	Top-down regression with benchmark at the frontier
NGG	£282.5	£303.5 (+7%)	£291.5 (+3%)
NGN	£69.3	£77.4 (+12%)	£74.3 (+7%)
SGN	£143.4	£159.1 (+11%)	£152.8 (+6%)
WWU	£63.8	£75.0 (+17%)	£72 (+13%)
Total	£559.2	£615.0 (+10%)	£590.6 (+6%)

1.14. One of the weaknesses of this approach to benchmarking is that it leads to 5.6 per cent tighter benchmarks than a top-down approach using the frontier. As such all GDNs have to improve to reach the benchmarks and this leads to a further frontier shift.

1.15. We have addressed this by adjusting the bottom-up quartile results so that they are consistent with the top down benchmarking. Adjusting the benchmark in this way increases allowances by 5.6 per cent but has the advantage of benefiting those who are outperforming the benchmark as well as those below the benchmark in a way that a glide path does not.

Use of glidepaths

1.16. We consulted on a number of possible approaches to setting allowances in the fourth consultation document including full gap closure by inefficient GDNs by the beginning of the price control period (2008-09) and the use of a glidepath whereby cost reductions are phased over time.

1.17. A glidepath approach takes account of how quickly GDNs can make changes to practices and procedures to achieve the efficiencies identified through benchmarking. A disadvantage of a glidepath is that it gives more money to a less efficient GDN than it would to a GDN that is already at or near the benchmark.

1.18. Most GDN responses favoured a glidepath as they believe that benchmarking at a disaggregated level results in extremely challenging targets. We have recognised the challenging nature of disaggregated benchmarking by applying a 5.6 per cent uplift to the costs identified by bottom-up benchmarking (as discussed above) so we do not consider it is appropriate to give any additional allowance through a glidepath.

[3] Note that this is a comparison of the benchmarks rather than allowances. Further steps are taken to establish the allowances including adjustment for regional factors, real price effects and efficiency improvements

Regional differences

1.19. The GDNs have put forward a range of special factors for their networks which they suggest should be taken into account in carrying out benchmarking and setting allowances. NGG and SGN both argued that regional adjustments should be made to take into account the higher cost of both contract and direct labour in London due to shortages of skilled labour, labour market competition between gas, water and other utilities and the impact of major construction projects.

1.20. SGN and WWU consider that additional costs should be allowed for sparsity in Scotland and Wales and the West respectively. They note that there are additional costs associated with achieving the 1 hour emergency standard, increased property costs for local depots and additional logistical costs. NGG and SGN consider that an additional regional allowance should be made because of the higher costs of working in London such as congestion charging, longer travelling times and increased difficulty of excavations.

1.21. We have reviewed a range of evidence on possible regional effects for direct and contract labour costs. We do not consider that there is sufficient robust evidence to support specific regional adjustments for those GDNs working outside London. There is a range of consistent evidence showing higher direct and contract labour costs in London which supports a regional adjustment for GDNs operating in this area.

1.22. We have calculated a regional factor for contract labour for Southern of 1.09 and London of 1.16 by taking the average across a range of different indices.

1.23. The ONS Annual Survey of Hours and Earnings (ASHE) shows that London wages are on average 30 per cent higher than the national average. We have then estimated the proportion of the work associated with Southern and London GDNs that actually needs to be undertaken within the M25. We have estimated this to be 22 per cent for Southern and 53 per cent for London which results in regional factors of 1.07 and 1.16 respectively for direct labour. We have set the regional factors for the other GDNs equal to 0.96 so that the national average is equal to 1.

1.24. These regional factors are applied before the benchmarking is undertaken to bring the GDNs costs onto a consistent national basis. For example, the costs for Southern GDN are reduced by 7 per cent and West Midlands increased by 4 per cent. The benchmarking is carried out and the regional adjustments are then reversed to determine target costs for each GDN on a regional cost basis.

1.25. These factors focus on labour market effects. There may be additional regional effects associated with both very low and high density areas. For example, GDNs operating in dispersed rural areas may need additional staff to meet the 1 hour emergency standard or may face extra logistics costs for materials to be delivered to outlying areas. GDNs operating in high density areas may have additional costs due to longer travelling times and complexity of excavation, etc. These factors have not

been included in initial proposals but we intend to consider these factors further as part of the update work, taking into account the responses to the fourth consultation document and initial proposals.

Growth of real input prices

1.26. The GDNs have put forward a range of assumptions on the real growth (above RPI) of input prices over the next price control period. These are set out in Table A7.3.

Table A7.3 - Real growth in input prices

Real Price growth	East of England	London	North-West	West Midlands	Northern	Scotland	Southern	Wales and West
Contract Labour	2.2%	3.8%	2.2%	2.2%	4.0%	4.4%	4.4%	4.5%
Direct Labour	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%
PE	1.5%	1.5%	1.5%	1.5%	2.0%	2.5%	2.5%	2.5%
Steel	2.2%	2.2%	2.2%	2.2%	2.0%	0%	0%	2.5%

1.27. The real growth in input prices forecast by the GDNs is shown in Table A7.3 on a gross basis before any efficiency assumption. SGN is forecasting no increase in steel materials costs until 2009-10, then 5 per cent thereafter. NGG have forecast an increase in governor costs of 1.6 per cent per annum.

Contract labour

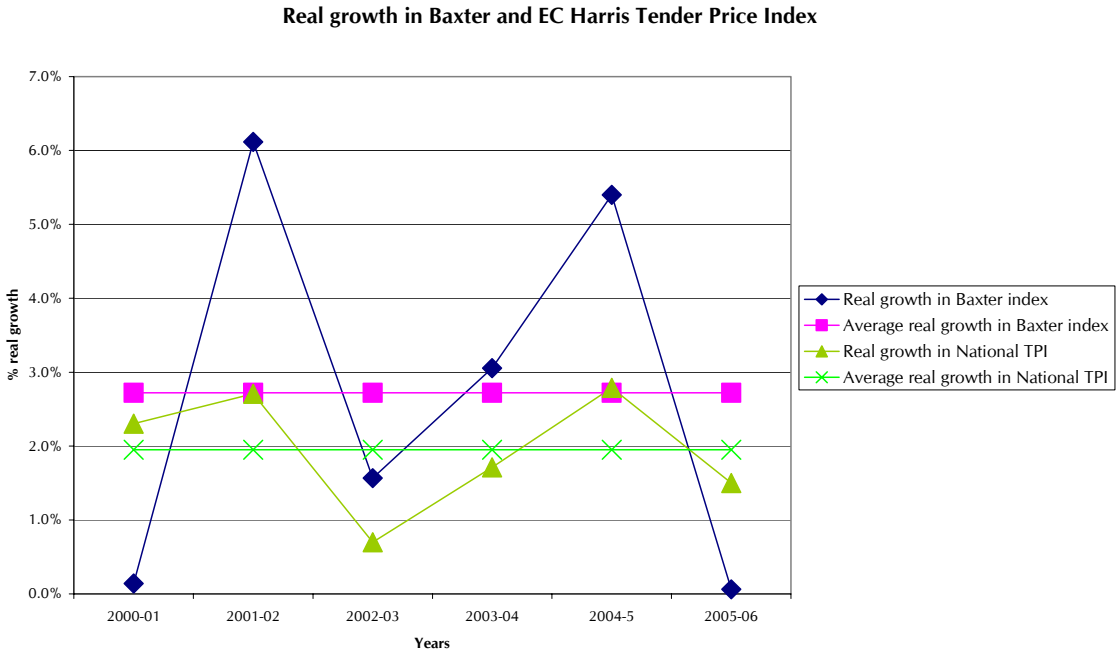
1.28. We have reviewed the evidence put forward by the GDNs, our consultants PB Power and other external data. Most of the evidence put forward on contractor prices is based on historical engineering cost indices. These indicate real growth of between 2 per cent and 4 per cent per annum depending on the period chosen. It is not clear that these rates can be reliably extrapolated forwards.

1.29. We consider that an alternative approach put forward by NGG is more robust. The Baxter Civil Engineering Index is the index most commonly used for gas distribution engineering contracts. As there are no forward projections available for Baxter index, NGG has considered the historical relationship between the Baxter Index and the EC Harris Tender Price Indices (TPIs). The forward-looking EC Harris TPIs are then used to estimate the real price effects for contractors in the next price control period.

1.30. We have applied this approach using updated data. On average between 2000 and 2006 real growth in the Baxter index was 0.8 of a percentage point above the national TPI index (see figure below). Our analysis of the EC Harris National TPI shows average real growth of 1.1 per cent per annum between 2006 and 2012. Applying the 0.8 percentage point uplift to real growth in the EC Harris index of 1.1 per cent gives a real price effect of around 2 per cent per annum.

1.31. In addition NGG and SGN consider that there should be an allowance for faster real growth in contractors' rates in London. We do not consider that an ongoing differential in real growth in contract prices between London and the rest of the country is sustainable as this would attract additional labour from other regions into London, having the effect of equalising rates of real growth in prices. We take into account absolute differences in prices between different areas of the country through the regional adjustments discussed in paragraphs 1.19 to 1.25 above.

Figure A7.1 - Real growth in the Baxter and EC Harris tender price index



1.32. The data in Figure A7.1 is in calendar years.

Direct labour

1.33. We have considered a range of evidence on real growth in salaries and earnings including work carried out as part of TPCR and more recent information.

Table A7.4 - Summary of real price effects

		%
1	Private sector average to Mar 06[4]	1.7
2	IDS average 6mths to Sept 06[5]	0.9
3	SSE recent pay settlement[6]	0.6 to 1.3
4	NGG recent pay settlement[7]	0.6
5	Utility sector average Apr 05-Apr 06[8]	0.4 - 1.4
6	Hay report (NGG commissioned)[9]	1.6
7	HM Treasury[10]	1.6
8	Inbucon (TPCR commissioned)[11]	1.0
9	Ernst and Young ITEM Club[12]	1.1
10	Annual Survey of Hours and Earnings[13]	1.1

1.34. The evidence shown in the table suggests that real growth in earnings ranges from 0.4 to 1.7 per cent per annum with recent utility settlements within a slightly lower range. On this basis we consider that real growth of earnings of 1 per cent per annum is appropriate.

Materials

1.35. We have reviewed the GDN evidence and other additional evidence. The Building Construction Information Service (BCIS) Quarterly Review from October 2006 highlighted that materials prices will rise slightly in the second half of 2006 to early part of 2007 due to increases in the price of steel, oil, copper etc. It suggested that following that prise rises should be broadly in line with inflation. The Penspen report commissioned as part of the TPCR forecast steel prices to rise until 2007. It considered that beyond that steel prices were likely to remain static or even fall slightly.

1.36. Overall we consider that an assumption of real price growth of 1 per cent per annum is appropriate. This is at the bottom end of the range forecasted by the GDNs.

[4] National Grid: Business Planning Process - Real Pay Growth, June 2006
[5] Income data Services Pay reports - Average earnings Index (including bonuses) less RPI
[6] Income Data Services: Pay Report 934 August 2005
[7] Income Data Services: Pay Report 941 November 2005
[8] Income Data Services: Pay Report 951 April 2006
[9] National Grid: Business Planning Process - Real Pay Growth, June 2006
[10] HM Treasury Forecasts for the UK Economy, November 2006
[11] TPCR & GDPCR Employment Cost Benchmark, October 2006
[12] Ernst & Young ITEM Club findings for the year to November 2006
[13] Annual Survey of Hours and Earnings (ASHE), April 2006

Ongoing efficiency assumptions

1.37. The overall level of efficiency challenge on the GDNs is the net impact of less efficient firms catching up with the benchmark companies, real price effects (discussed in paragraphs 1.26 to 1.36 above) and the assumption for ongoing productivity savings.

Consultants' analysis

1.38. As part of the cost assessment work we commissioned Europe Economics to carry out Total Factor Productivity (TFP) analysis to assess the scope for productivity growth for gas distribution as a sector. This is calculated based on a weighted average of productivity outperformance by comparators sectors in the UK compared to the UK economy as a whole. It reflects the underlying scope for productivity improvement achievable through technological progress and improvements in working practices. The Europe Economics analysis suggests cost reductions of 1.9 to 3.7 per cent per annum as shown in the table below.

Table A7.5 – Results of the Europe Economics analysis

	Lower	Higher
Benchmark TFP out performance 1973-1999	-0.6%	-0.6%
Privatisation effect	-0.5%	-2.0%
Capital substitution effect	-1.2%	-1.5%
Economies of scale adjustment	0%	0%
Gross frontier shift	-2.3%	-4.1%
Input price effect (Real price effect)	0.4%	0.4%
Net cost change	-1.9%	-3.7%

1.39. The GDNs have raised a range of concerns with the Europe Economics work and have also commissioned their own work by First Economics. They suggest that the benchmark TFP improvement of 0.6 per cent is not credible because it relies on UK productivity data for 1973 to 1999 which is out-of-date and that an ongoing privatisation effect is no longer likely to exist 20 years after privatisation. They have indicated that Europe Economics' calculations overstate the capital substitution effect. First Economics notes that the averages that Europe Economics uses to calculate productivity outperformance are not the averages built into RPI.

1.40. First Economics has examined an alternative approach to determining the appropriate rate of "frontier shift" for the gas distribution businesses. They note that the RPI is a weighted average of changes in average input prices and changes in total factor productivity. The RPI basket will include a range of inputs that are less relevant to gas distribution. For example, the goods sector has achieved large productivity savings and faced benign input prices due to shifts in production to developing countries. By contrast in the service sector of the UK economy, which is more relevant to gas distribution, very few companies have been able to hold their prices constant in real terms.

1.41. First Economics have benchmarked possible levels of frontier shift for gas distribution using two approaches: (1) excluding the contribution of firms that have different cost drivers to gas distribution from the RPI and (2) building a new more applicable inflation index based on firms with similar characteristics. The results of this work are shown below.

Table A7.6 – Results of the First Economics analysis

	Lower	Higher
Benchmark results (revised RPI index)	+1.8%	+2.1%%
Privatisation effect	0	0
Comparative competition effect	-1.0%	-1.0%
Capital substitution effect	-0.6%	-0.75%
Economies of scale adjustment	Small upward adjustment	
Net cost change	0	+0.5%

1.42. This suggests that growth in real input savings will outstrip the scope for efficiency savings resulting in overall real increases in costs.

Our analysis

1.43. We have considered the available evidence including the Europe Economics analysis and information put forward by the GDNs. We consider that the use of the 1973 to 1999 productivity data set by Europe Economics is a reasonable method for considering long-term trends in productivity improvement. We consider that a privatisation effect may be small so many years after privatisation but there will be a benefit from comparative competition following GDN sales. This was estimated as 1.13 per cent per annum as part of GDN sales.

1.44. We recognise that there is some uncertainty in the appropriate adjustment for the capital-labour mix and have considered a lower range of adjustments from 0.6 per cent (in line with First Economics) to 1.2 per cent. In the earlier section we set out real price effects of 2 per cent for contract labour, 1 per cent per annum for direct labour and materials and 0 per cent for other costs (an average of 0.9 per cent for total opex). The results of applying revised assumptions are set out in the table below.

Table A7.7 – Revised productivity analysis

	Revised assumptions
Bench mark TFP out performance 1973-1999	-0.6%
Privatisation effect	0%
Comparative Competition Effect	-1.1%
Capital substitution effect	-0.6% to -1.2%
Total ongoing productivity assumption	-2.3% to -2.9%
Real price effect	+0.9%
Net cost change	-1.4% to -2.0%

1.45. The First Economics analysis makes a number of assumptions about the components that should be stripped out of the RPI or the components that should be included in a bespoke index to develop a better comparator index for gas distribution. It is not clear that all the components that are included in its index are appropriate. For example, the entertainment and other recreation component has been growing by approximately 1.8 per cent per annum in real terms, domestic services has been growing at 2.9 per cent per annum and personal services has been growing at 2.7 per cent per annum. While these services will also make use of significant levels of direct labour it is unclear whether they have similar trends in productivity savings or that the type of direct labour is comparable. First Economics have also assumed lower adjustments for the capital-labour mix and comparative competition. As a result the First Economics benchmarks may be understating the scope for efficiencies. We intend to consider the First Economics work further as part of the September update.

1.46. Overall we consider that a 2.5 per cent per annum ongoing productivity assumption is a reasonable but challenging target for controllable opex taking into account our recommendations for real price effects which average to 0.9 per cent per annum.

Appendix 8 – Opex allowance tables

National Grid Gas - East of England, Ofgem proposed allowances

Table A8.1 - Direct opex, (£m, 2005-06 prices)

GDN Normalised Direct Opex with additional Pensions allowance	2008-09	2009-10	2010-11	2011-12	2012-13	Total	Average annual spend
Work Management	30.8	31.3	31.6	31.3	30.7	155.7	31.1
Emergency	13.9	14.5	14.7	14.9	14.9	72.9	14.6
Repair	11.4	11.6	11.6	11.6	11.6	57.8	11.6
Maintenanace	18.0	16.9	16.9	17.0	17.4	86.3	17.3
Other Direct Activities	2.7	2.7	2.7	2.8	2.8	13.7	2.7
Xoserve	5.4	5.3	5.3	5.3	5.3	26.5	5.3
LNG to SIUs						0.0	0.0
Total Direct Opex	**82.1**	**82.3**	**82.8**	**82.8**	**82.7**	**412.7**	**82.5**

Ofgem proposed allowances							
Work Management	26.8	26.0	25.4	24.7	24.1	126.9	25.4
Emergency	11.6	11.3	11.0	10.8	10.5	55.2	11.0
Repair	9.1	8.7	8.4	8.2	7.9	42.3	8.5
Maintenanace	13.3	12.7	12.3	12.1	12.0	62.4	12.5
Other Direct Activities	2.5	2.4	2.4	2.3	2.3	11.9	2.4
Xoserve	5.4	5.3	5.3	5.3	5.3	26.4	5.3
LNG to SIUs						0.0	0.0
Total Direct Opex	**68.5**	**66.4**	**64.7**	**63.4**	**62.1**	**325.1**	**65.0**

Table A8.2 - Indirect opex, (£m, 2005-06 prices)

GDN Normalised Indirect Opex with additional Pensions allowance	2008-09	2009-10	2010-11	2011-12	2012-13	Total	Average annual spend
Information Systems	10.4	10.2	9.0	8.2	8.3	46.1	9.2
Finance, Audit & Regulation	6.7	6.8	6.9	7.4	7.4	35.3	7.1
Insurance	6.0	6.2	6.5	6.9	7.1	32.7	6.5
Property Management	5.7	5.6	5.6	5.6	5.5	28.0	5.6
Corporate Centre & Comm	2.8	2.8	2.8	2.8	2.8	14.0	2.8
Human Resources	5.5	5.7	5.7	5.7	5.6	28.2	5.6
Legal	0.6	0.6	0.6	0.6	0.6	2.9	0.6
Procurement & Logisitics	3.0	3.0	3.0	3.0	3.0	15.0	3.0
Total Indirect Opex	**40.6**	**40.9**	**40.0**	**40.1**	**40.4**	**202.2**	**40.4**

Ofgem proposed allowances							
Information Systems	9.2	8.8	7.6	6.6	6.6	38.8	7.8
Finance, Audit & Regulation	4.7	4.6	4.6	5.0	4.8	23.7	4.7
Insurance	3.0	3.7	4.4	5.0	4.9	20.9	4.2
Property Management	4.7	4.6	4.4	4.3	4.2	22.1	4.4
Corporate Centre & Comm	1.8	1.8	1.8	1.7	1.7	8.8	1.8
Human Resources	0.6	0.6	0.6	0.6	0.6	3.1	0.6
Legal	0.5	0.5	0.5	0.5	0.5	2.4	0.5
Procurement & Logisitics	1.9	1.9	1.9	1.8	1.8	9.3	1.9
Total Indirect Opex	**26.5**	**26.5**	**25.6**	**25.5**	**25.0**	**129.1**	**25.8**

Table A8.3 - Total opex, (£m, 2005-06 prices)

Total Opex	2008-09	2009-10	2010-11	2011-12	2012-13	Total	Average annual spend
Direct Opex	68.5	66.4	64.7	63.4	62.1	325.1	65.0
Indirect Opex	26.5	26.5	25.6	25.5	25.0	129.1	25.8
Less: Xoserve savings	-0.4	-0.4	-0.5	-0.5	-0.6	-2.4	-0.5
5.6% Uplift	5.3	5.2	5.0	5.0	4.9	25.4	5.1
QoS allowance	0.3	0.3	0.3	0.3	0.3	1.3	0.3
Total Opex	**100.2**	**98.0**	**95.2**	**93.5**	**91.6**	**478.5**	**95.7**

National Grid Gas - London, Ofgem proposed allowances

Table A8.4 - Direct opex, (£m, 2005-06 prices)

GDN Normalised Direct Opex with additional Pensions allowance	2008-09	2009-10	2010-11	2011-12	2012-13	Total	Average annual spend
Work Management	17.4	17.9	18.1	17.9	17.6	89.0	17.8
Emergency	11.1	10.5	11.1	11.2	11.4	55.2	11.0
Repair	12.7	12.7	12.9	13.0	13.1	64.4	12.9
Maintenanace	12.5	12.4	12.6	13.5	13.7	64.7	12.9
Other Direct Activities	1.3	1.4	1.4	1.4	1.4	6.7	1.3
Xoserve	2.6	2.6	2.6	2.6	2.6	13.2	2.6
LNG to SIUs							0.0
Total Direct Opex	**57.6**	**57.5**	**58.7**	**59.6**	**59.8**	**293.3**	**58.7**

Ofgem proposed allowances							
Work Management	17.2	16.8	16.3	15.9	15.5	81.7	16.3
Emergency	9.1	8.9	8.7	8.5	8.3	43.5	8.7
Repair	9.2	8.9	8.6	8.3	8.0	42.8	8.6
Maintenanace	10.2	8.3	8.0	8.0	7.9	42.4	8.5
Other Direct Activities	0.9	0.9	0.9	0.9	0.9	4.5	0.9
Xoserve	2.6	2.6	2.6	2.6	2.5	13.1	2.6
LNG to SIUs							0.0
Total Direct Opex	**49.3**	**46.4**	**45.2**	**44.2**	**43.1**	**228.2**	**45.6**

Table A8.5 - Indirect opex, (£m, 2005-06 prices)

GDN Normalised Indirect Opex with additional Pensions allowance	2008-09	2009-10	2010-11	2011-12	2012-13	Total	Average annual spend
Information Systems	7.8	7.7	6.8	6.2	6.3	34.8	7.0
Finance, Audit & Regulation	3.7	3.7	3.7	4.0	4.0	19.2	3.8
Insurance	3.5	3.7	3.8	4.0	4.2	19.2	3.8
Property Management	5.2	5.1	5.1	5.1	5.1	25.5	5.1
Corporate Centre & Comm	1.7	1.7	1.7	1.7	1.8	8.7	1.7
Human Resources	2.9	3.1	3.0	3.0	3.0	15.1	3.0
Legal	0.5	0.5	0.5	0.5	0.5	2.4	0.5
Procurement & Logisitics	1.4	1.4	1.4	1.4	1.4	7.0	1.4
Total Indirect Opex	**26.7**	**26.8**	**26.1**	**26.0**	**26.2**	**131.9**	**26.4**

Ofgem proposed allowances							
Information Systems	7.0	6.7	5.7	5.0	5.0	29.3	5.9
Finance, Audit & Regulation	2.5	2.5	2.5	2.7	2.6	12.8	2.6
Insurance	1.7	2.2	2.6	2.9	2.9	12.3	2.5
Property Management	4.3	4.1	4.0	3.9	3.8	20.2	4.0
Corporate Centre & Comm	1.1	1.1	1.1	1.1	1.1	5.5	1.1
Human Resources	0.3	0.3	0.3	0.3	0.3	1.6	0.3
Legal	0.4	0.4	0.4	0.4	0.4	2.0	0.4
Procurement & Logisitics	0.9	0.9	0.9	0.8	0.8	4.3	0.9
Total Indirect Opex	**18.3**	**18.2**	**17.4**	**17.2**	**16.8**	**88.0**	**17.6**

Table A8.6 - Total opex, (£m, 2005-06 prices)

Total Opex	2008-09	2009-10	2010-11	2011-12	2012-13	Total	Average annual spend
Direct Opex	49.3	46.4	45.2	44.2	43.1	228.2	45.6
Indirect Opex	18.3	18.2	17.4	17.2	16.8	88.0	17.6
Less: Xoserve savings	-0.2	-0.2	-0.3	-0.3	-0.4	-1.4	-0.3
5.6% Uplift	3.8	3.6	3.5	3.4	3.4	17.7	3.5
QoS allowance	0.5	0.5	0.5	0.5	0.5	2.6	0.5
Total Opex	**71.7**	**68.5**	**66.4**	**65.0**	**63.5**	**335.1**	**67.0**

National Grid Gas - North West, Ofgem proposed allowances

Table A8.7 - Direct opex, (£m, 2005-06 prices)

GDN Normalised Direct Opex with additional Pensions allowance	2008-09	2009-10	2010-11	2011-12	2012-13	Total	Average annual spend
Work Management	23.1	23.2	23.5	23.1	22.6	115.4	23.1
Emergency	11.2	11.1	11.4	11.5	11.6	56.6	11.3
Repair	9.8	9.8	9.7	9.8	9.7	49.0	9.8
Maintenanace	12.2	12.7	13.0	13.0	14.0	65.1	13.0
Other Direct Activities	1.4	1.3	1.3	1.3	1.3	6.6	1.3
Xoserve	3.5	3.5	3.5	3.4	3.4	17.3	3.5
LNG to SIUs							0.0
Total Direct Opex	**61.2**	**61.6**	**62.4**	**62.1**	**62.6**	**310.1**	**62.0**

Ofgem proposed allowances							
Work Management	20.6	20.0	19.5	19.0	18.5	97.5	19.5
Emergency	9.4	9.1	8.9	8.7	8.5	44.6	8.9
Repair	8.6	8.3	8.1	7.8	7.5	40.4	8.1
Maintenanace	9.5	9.3	9.0	9.0	8.6	45.4	9.1
Other Direct Activities	1.6	1.5	1.5	1.5	1.5	7.6	1.5
Xoserve	3.5	3.5	3.5	3.4	3.4	17.3	3.5
LNG to SIUs						0.0	0.0
Total Direct Opex	**53.1**	**51.8**	**50.5**	**49.4**	**47.9**	**252.8**	**50.6**

Table A8.8 - Indirect opex, (£m, 2005-06 prices)

GDN Normalised Indirect Opex with additional Pensions allowance	2008-09	2009-10	2010-11	2011-12	2012-13	Total	Average annual spend
Information Systems	7.0	6.8	6.0	5.5	5.6	30.9	6.2
Finance, Audit & Regulation	4.4	4.4	4.5	4.9	4.8	23.0	4.6
Insurance	4.5	4.7	4.9	5.1	5.3	24.5	4.9
Property Management	6.2	6.1	6.1	6.1	6.0	30.5	6.1
Corporate Centre & Comm	2.1	2.1	2.1	2.1	2.1	10.6	2.1
Human Resources	3.9	4.0	4.0	4.0	4.0	19.9	4.0
Legal	0.5	0.5	0.5	0.5	0.5	2.6	0.5
Procurement & Logisitics	1.9	1.9	1.9	1.9	1.9	9.5	1.9
Total Indirect Opex	**30.4**	**30.6**	**30.0**	**30.1**	**30.3**	**151.6**	**30.3**

Ofgem proposed allowances							
Information Systems	6.2	5.9	5.1	4.4	4.4	26.0	5.2
Finance, Audit & Regulation	3.0	3.0	3.0	3.2	3.2	15.4	3.1
Insurance	2.2	2.8	3.3	3.7	3.7	15.7	3.1
Property Management	5.1	5.0	4.8	4.7	4.5	24.1	4.8
Corporate Centre & Comm	1.4	1.4	1.3	1.3	1.3	6.7	1.3
Human Resources	0.5	0.4	0.4	0.4	0.4	2.2	0.4
Legal	0.5	0.5	0.4	0.4	0.4	2.2	0.4
Procurement & Logisitics	1.2	1.2	1.2	1.2	1.1	5.9	1.2
Total Indirect Opex	**20.1**	**20.1**	**19.5**	**19.4**	**19.0**	**98.2**	**19.6**

Table A8.9 - Total opex, (£m, 2005-06 prices)

Total Opex	2008-09	2009-10	2010-11	2011-12	2012-13	Total	Average annual spend
Direct Opex	53.1	51.8	50.5	49.4	47.9	252.8	50.6
Indirect Opex	20.1	20.1	19.5	19.4	19.0	98.2	19.6
Less: Xoserve savings	-0.3	-0.3	-0.3	-0.4	-0.4	-1.7	-0.3
5.6% Uplift	4.1	4.0	3.9	3.8	3.7	19.6	3.9
QoS allowance	0.2	0.2	0.2	0.2	0.2	1.1	0.2
Total Opex	**77.3**	**75.9**	**73.8**	**72.5**	**70.5**	**370.0**	**74.0**

National Grid Gas - West Midlands, Ofgem proposed allowances

Table A8.10 - Direct opex, (£m, 2005-06 prices)

GDN Normalised Direct Opex with additional Pensions allowance	2008-09	2009-10	2010-11	2011-12	2012-13	Total	Average annual spend
Work Management	15.7	16.0	16.1	16.0	15.7	79.6	15.9
Emergency	6.5	7.1	7.3	7.7	7.8	36.5	7.3
Repair	6.8	7.0	6.9	6.9	6.8	34.5	6.9
Maintenanace	8.7	9.8	8.8	8.8	8.9	45.1	9.0
Other Direct Activities	1.1	1.1	1.1	1.2	1.2	5.7	1.1
Xoserve	2.9	2.9	2.9	2.9	2.9	14.5	2.9
LNG to SIUs						0.0	0.0
Total Direct Opex	**41.8**	**44.0**	**43.2**	**43.6**	**43.4**	**215.9**	**43.2**

Ofgem proposed allowances							
Work Management	14.3	13.9	13.6	13.2	12.9	67.9	13.6
Emergency	5.0	4.8	4.7	4.6	4.5	23.6	4.7
Repair	6.1	6.0	5.8	5.6	5.4	28.9	5.8
Maintenanace	6.8	15.6	6.3	6.3	6.2	41.2	8.2
Other Direct Activities	1.1	1.1	1.0	1.0	1.0	5.2	1.0
Xoserve	2.9	2.9	2.9	2.9	2.9	14.5	2.9
LNG to SIUs						0.0	0.0
Total Direct Opex	**36.2**	**44.3**	**34.3**	**33.6**	**32.9**	**181.2**	**36.2**

Table A8.11 - Indirect opex, (£m, 2005-06 prices)

GDN Normalised Indirect Opex with additional Pensions allowance	2008-09	2009-10	2010-11	2011-12	2012-13	Total	Average annual spend
Information Systems	5.2	5.1	4.5	4.1	4.2	23.0	4.6
Finance, Audit & Regulation	3.3	3.4	3.4	3.7	3.7	17.5	3.5
Insurance	3.6	3.8	3.9	4.1	4.3	19.7	3.9
Property Management	5.0	4.9	4.9	4.9	4.9	24.5	4.9
Corporate Centre & Comm	1.5	1.5	1.5	1.5	1.5	7.4	1.5
Human Resources	2.7	2.8	2.8	2.8	2.7	13.8	2.8
Legal	0.5	0.5	0.5	0.5	0.5	2.6	0.5
Procurement & Logisitics	1.3	1.3	1.3	1.3	1.3	6.4	1.3
Total Indirect Opex	**23.0**	**23.2**	**22.8**	**22.8**	**23.0**	**114.9**	**23.0**

Ofgem proposed allowances							
Information Systems	4.6	4.4	3.8	3.3	3.3	19.4	3.9
Finance, Audit & Regulation	2.3	2.3	2.3	2.5	2.4	11.7	2.3
Insurance	1.8	2.2	2.6	3.0	2.9	12.6	2.5
Property Management	4.1	4.0	3.9	3.8	3.6	19.4	3.9
Corporate Centre & Comm	1.0	0.9	0.9	0.9	0.9	4.6	0.9
Human Resources	0.3	0.3	0.3	0.3	0.3	1.5	0.3
Legal	0.5	0.5	0.4	0.4	0.4	2.2	0.4
Procurement & Logisitics	0.8	0.8	0.8	0.8	0.8	3.9	0.8
Total Indirect Opex	**15.4**	**15.4**	**15.0**	**14.9**	**14.6**	**75.3**	**15.1**

Table A8.12 - Total opex, (£m, 2005-06 prices)

Total Opex	2008-09	2009-10	2010-11	2011-12	2012-13	Total	Average annual spend
Direct Opex	36.2	44.3	34.3	33.6	32.9	181.2	36.2
Indirect Opex	15.4	15.4	15.0	14.9	14.6	75.3	15.1
Less: Xoserve savings	-0.2	-0.3	-0.3	-0.3	-0.4	-1.4	-0.3
5.6% Uplift	2.9	3.3	2.8	2.7	2.6	14.3	2.9
QoS allowance	0.1	0.1	0.1	0.1	0.1	0.5	0.1
Total Opex	**54.3**	**62.9**	**51.9**	**51.0**	**49.9**	**270.0**	**54.0**

Northern Gas Networks - Northern, Ofgem proposed allowances

Table A8.13 - Direct opex, (£m, 2005-06 prices)

GDN Normalised Direct Opex with additional Pensions allowance	2008-09	2009-10	2010-11	2011-12	2012-13	Total	Average annual spend
Work Management	21.4	21.9	19.8	19.9	19.8	102.9	20.6
Emergency	7.9	7.9	8.0	8.3	8.5	40.6	8.1
Repair	10.5	10.8	10.9	11.1	11.3	54.5	10.9
Maintenanace	11.1	11.2	11.2	11.5	11.7	56.8	11.4
Other Direct Activities	2.0	2.2	2.2	2.2	2.2	10.8	2.2
Xoserve	3.2	3.3	3.2	3.2	3.3	16.2	3.2
LNG to SIUs						0.0	0.0
Total Direct Opex	**56.1**	**57.3**	**55.3**	**56.2**	**56.8**	**281.8**	**56.4**

Ofgem proposed allowances							
Work Management	21.1	20.5	19.9	19.4	18.9	99.7	19.9
Emergency	8.8	8.5	8.3	8.1	7.9	41.6	8.3
Repair	9.0	8.7	8.3	8.1	7.8	41.8	8.4
Maintenanace	11.8	11.7	11.6	11.6	11.5	58.3	11.7
Other Direct Activities	1.7	1.6	1.6	1.6	1.5	8.0	1.6
Xoserve	3.2	3.3	3.2	3.2	3.3	16.2	3.2
LNG to SIUs						0.0	0.0
Total Direct Opex	**55.4**	**54.4**	**53.0**	**51.9**	**50.9**	**265.6**	**53.1**

Table A8.14 - Indirect opex, (£m, 2005-06 prices)

GDN Normalised Indirect Opex with additional Pensions allowance	2008-09	2009-10	2010-11	2011-12	2012-13	Total	Average annual spend
Information Systems	6.4	8.0	8.1	8.1	8.2	39.0	7.8
Finance, Audit & Regulation	4.0	4.0	4.0	4.1	4.2	20.4	4.1
Insurance	3.2	3.3	3.3	3.3	3.3	16.5	3.3
Property Management	2.7	2.7	2.7	2.7	2.7	13.6	2.7
Corporate Centre & Comm	2.0	2.0	2.1	2.1	2.1	10.3	2.1
Human Resources	1.1	1.1	1.1	1.1	1.2	5.6	1.1
Legal	1.1	1.1	1.2	1.2	1.2	5.8	1.2
Procurement & Logisitics	1.8	1.8	1.8	1.8	1.8	9.0	1.8
Total Indirect Opex	**22.4**	**24.1**	**24.4**	**24.5**	**24.8**	**120.1**	**24.0**

Ofgem proposed allowances							
Information Systems	4.7	6.1	6.0	5.8	5.8	28.4	5.7
Finance, Audit & Regulation	1.9	1.9	1.8	1.8	1.7	9.1	1.8
Insurance	1.9	2.5	3.0	3.4	3.3	14.2	2.8
Property Management	2.3	2.2	2.2	2.1	2.1	11.0	2.2
Corporate Centre & Comm	1.5	1.4	1.4	1.4	1.3	7.0	1.4
Human Resources	0.5	0.5	0.5	0.5	0.4	2.3	0.5
Legal	0.5	0.5	0.5	0.5	0.4	2.3	0.5
Procurement & Logisitics	1.3	1.3	1.3	1.3	1.2	6.4	1.3
Total Indirect Opex	**14.6**	**16.4**	**16.6**	**16.7**	**16.4**	**80.6**	**16.1**

Table A8.15 - Total opex, (£m, 2005-06 prices)

Total Opex	2008-09	2009-10	2010-11	2011-12	2012-13	Total	Average annual spend
Direct Opex	55.4	54.4	53.0	51.9	50.9	265.6	53.1
Indirect Opex	14.6	16.4	16.6	16.7	16.4	80.6	16.1
Less: Xoserve savings	-0.2	-0.3	-0.3	-0.4	-0.4	-1.6	-0.3
5.6% Uplift	3.9	4.0	3.9	3.8	3.8	19.4	3.9
QoS allowance	0.2	0.2	0.2	0.2	0.2	0.8	0.2
Total Opex	**73.8**	**74.5**	**73.4**	**72.2**	**70.8**	**364.8**	**73.0**

Scotia Gas Networks - Scotland, Ofgem proposed allowances

Table A8.16 - Direct opex, (£m, 2005-06 prices)

GDN Normalised Direct Opex with additional Pensions allowance	2008-09	2009-10	2010-11	2011-12	2012-13	Total	Average annual spend
Work Management	20.9	21.2	21.4	21.3	21.9	106.9	21.4
Emergency	8.4	8.6	8.6	8.7	8.8	43.0	8.6
Repair	9.7	9.4	9.2	9.0	8.9	46.2	9.2
Maintenanace	8.4	8.7	8.5	8.7	8.6	42.9	8.6
Other Direct Activities	1.1	1.1	1.1	1.2	1.2	5.7	1.1
Xoserve	2.1	2.2	2.2	2.2	2.1	10.8	2.2
LNG to SIUs	4.8	4.8	4.8	4.8	4.8	24.0	4.8
Total Direct Opex	**55.4**	**56.0**	**55.8**	**56.0**	**56.4**	**279.4**	**55.9**

Ofgem proposed allowances							
Work Management	15.2	14.9	14.5	14.1	13.8	72.5	14.5
Emergency	6.5	6.3	6.2	6.1	5.9	31.0	6.2
Repair	6.8	6.6	6.5	6.2	6.1	32.3	6.5
Maintenanace	6.0	5.8	6.4	5.6	5.6	29.4	5.9
Other Direct Activities	1.0	1.0	1.0	1.0	1.0	5.0	1.0
Xoserve	2.1	2.2	2.2	2.2	2.1	10.8	2.2
LNG to SIUs	4.8	4.8	4.8	4.8	4.8	24.0	4.8
Total Direct Opex	**42.5**	**41.7**	**41.6**	**40.0**	**39.2**	**205.0**	**41.0**

Table A8.17 - Indirect opex, (£m, 2005-06 prices)

GDN Normalised Indirect Opex with additional Pensions allowance	2008-09	2009-10	2010-11	2011-12	2012-13	Total	Average annual spend
Information Systems	4.5	4.4	4.3	4.3	4.2	21.6	4.3
Finance, Audit & Regulation	2.0	2.0	2.0	2.0	2.0	10.1	2.0
Insurance	2.3	2.3	2.3	2.4	2.4	11.7	2.3
Property Management	1.5	1.5	1.5	1.5	1.4	7.4	1.5
Corporate Centre & Comm	0.8	0.8	0.8	0.8	0.8	4.1	0.8
Human Resources	0.9	0.9	0.9	0.9	0.9	4.7	0.9
Legal	0.4	0.4	0.4	0.4	0.4	2.1	0.4
Procurement & Logisitics	0.9	0.9	0.9	0.9	0.9	4.3	0.9
Total Indirect Opex	**13.4**	**13.2**	**13.1**	**13.2**	**13.2**	**66.0**	**13.2**

Ofgem proposed allowances							
Information Systems	5.2	5.1	4.9	4.8	4.7	24.6	4.9
Finance, Audit & Regulation	1.7	1.6	1.6	1.5	1.5	8.0	1.6
Insurance	1.5	1.9	2.3	2.7	2.6	11.0	2.2
Property Management	1.3	1.3	1.2	1.2	1.1	6.1	1.2
Corporate Centre & Comm	1.3	1.3	1.2	1.2	1.2	6.1	1.2
Human Resources	0.4	0.4	0.4	0.4	0.4	1.9	0.4
Legal	0.4	0.4	0.4	0.4	0.4	2.0	0.4
Procurement & Logisitics	1.2	1.1	1.1	1.1	1.1	5.6	1.1
Total Indirect Opex	**13.0**	**13.1**	**13.2**	**13.3**	**12.9**	**65.4**	**13.1**

Table A8.18 - Total opex, (£m, 2005-06 prices)

Total Opex	2008-09	2009-10	2010-11	2011-12	2012-13	Total	Average annual spend
Direct Opex	42.5	41.7	41.6	40.0	39.2	205.0	41.0
Indirect Opex	13.0	13.1	13.2	13.3	12.9	65.4	13.1
Less: Xoserve savings	-0.2	-0.2	-0.2	-0.2	-0.3	-1.1	-0.2
5.6% Uplift	3.1	3.1	3.1	3.0	2.9	15.1	3.0
QoS allowance	0.1	0.1	0.1	0.1	0.1	0.7	0.1
Total Opex	**58.5**	**57.8**	**57.7**	**56.2**	**54.9**	**285.1**	**57.0**

Scotia Gas Networks - Southern, Ofgem proposed allowances

Table A8.19 - Direct opex, (£m, 2005-06 prices)

GDN Normalised Direct Opex with additional Pensions allowance	2008-09	2009-10	2010-11	2011-12	2012-13	Total	Average annual spend
Work Management	37.8	38.1	38.2	38.4	38.4	191.0	38.2
Emergency	21.6	21.7	22.0	22.3	22.7	110.3	22.1
Repair	23.3	20.9	20.7	20.7	20.7	106.4	21.3
Maintenanace	9.4	8.2	8.1	10.0	8.9	44.5	8.9
Other Direct Activities	3.1	3.1	3.1	3.1	3.1	15.5	3.1
Xoserve	4.9	4.9	4.9	4.9	4.9	24.5	4.9
LNG to SIUs						0.0	0.0
Total Direct Opex	**100.0**	**96.9**	**97.1**	**99.5**	**98.8**	**492.2**	**98.4**

Ofgem proposed allowances							
Work Management	33.0	32.0	31.1	30.3	29.5	155.9	31.2
Emergency	17.4	17.0	16.6	16.2	15.8	82.9	16.6
Repair	17.9	17.2	16.6	16.0	15.5	83.2	16.6
Maintenanace	9.4	9.2	8.9	8.5	8.3	44.2	8.8
Other Direct Activities	2.3	2.3	2.3	2.2	2.2	11.3	2.3
Xoserve	4.9	4.9	4.9	4.9	4.9	24.5	4.9
LNG to SIUs						0.0	0.0
Total Direct Opex	**84.9**	**82.7**	**80.3**	**78.1**	**76.1**	**402.1**	**80.4**

Table A8.20 - Indirect opex, (£m, 2005-06 prices)

GDN Normalised Indirect Opex with additional Pensions allowance	2008-09	2009-10	2010-11	2011-12	2012-13	Total	Average annual spend
Information Systems	6.7	6.6	6.5	6.4	6.4	32.5	6.5
Finance, Audit & Regulation	3.0	3.0	3.0	3.0	3.0	15.1	3.0
Insurance	3.4	3.4	3.5	3.6	3.7	17.6	3.5
Property Management	2.3	2.2	2.2	2.2	2.2	11.1	2.2
Corporate Centre & Comm	1.2	1.2	1.2	1.2	1.2	6.1	1.2
Human Resources	1.4	1.4	1.4	1.4	1.4	7.1	1.4
Legal	0.6	0.6	0.6	0.6	0.6	3.1	0.6
Procurement & Logisitics	1.3	1.3	1.3	1.3	1.3	6.5	1.3
Total Indirect Opex	**20.0**	**19.8**	**19.7**	**19.7**	**19.8**	**99.0**	**19.8**

Ofgem proposed allowances							
Information Systems	7.8	7.6	7.4	7.2	7.0	37.0	7.4
Finance, Audit & Regulation	2.5	2.4	2.4	2.3	2.3	11.9	2.4
Insurance	2.3	2.9	3.5	4.0	3.9	16.6	3.3
Property Management	2.0	1.9	1.8	1.7	1.7	9.1	1.8
Corporate Centre & Comm	1.9	1.9	1.8	1.8	1.8	9.2	1.8
Human Resources	0.6	0.6	0.6	0.6	0.5	2.9	0.6
Legal	0.6	0.6	0.6	0.6	0.6	3.0	0.6
Procurement & Logisitics	1.8	1.7	1.7	1.6	1.6	8.4	1.7
Total Indirect Opex	**19.5**	**19.6**	**19.7**	**19.9**	**19.4**	**98.1**	**19.6**

Table A8.21 - Total opex, (£m, 2005-06 prices)

Total Opex	2008-09	2009-10	2010-11	2011-12	2012-13	Total	Average annual spend
Direct Opex	84.9	82.7	80.3	78.1	76.1	402.1	80.4
Indirect Opex	19.5	19.6	19.7	19.9	19.4	98.1	19.6
Less: Xoserve savings	-0.4	-0.4	-0.5	-0.6	-0.6	-2.5	-0.5
5.6% Uplift	5.8	5.7	5.6	5.5	5.3	28.0	5.6
QoS allowance	0.3	0.3	0.3	0.3	0.3	1.6	0.3
Total Opex	**110.1**	**107.9**	**105.5**	**103.2**	**100.5**	**527.2**	**105.4**

Wales and West Utilities - Wales and West, Ofgem proposed allowances

Table A8.22 - Direct opex, (£m, 2005-06 prices)

GDN Normalised Direct Opex with additional Pensions allowance	2008-09	2009-10	2010-11	2011-12	2012-13	Total	Average annual spend
Work Management	18.1	20.1	18.4	18.6	18.9	94.2	18.8
Emergency	12.5	12.7	12.9	13.2	13.4	64.7	12.9
Repair	8.9	9.1	9.2	9.4	9.6	46.3	9.3
Maintenanace	13.0	13.0	13.2	12.8	13.1	64.9	13.0
Other Direct Activities	2.5	2.6	2.6	2.7	2.8	13.2	2.6
Xoserve	3.1	3.1	3.1	3.1	3.1	15.5	3.1
LNG to SIUs						0.0	0.0
Total Direct Opex	**58.1**	**60.6**	**59.4**	**59.8**	**60.9**	**298.7**	**59.7**

Ofgem proposed allowances							
Work Management	20.4	19.9	19.5	19.0	18.6	97.3	19.5
Emergency	7.6	7.5	7.3	7.1	7.0	36.5	7.3
Repair	8.5	8.2	8.0	7.7	7.5	40.0	8.0
Maintenanace	13.8	14.0	12.1	11.4	11.2	62.5	12.5
Other Direct Activities	1.6	1.5	1.5	1.5	1.5	7.6	1.5
Xoserve	3.1	3.1	3.1	3.1	3.1	15.5	3.1
LNG to SIUs						0.0	0.0
Total Direct Opex	**55.0**	**54.2**	**51.5**	**49.8**	**48.8**	**259.4**	**51.9**

Table A8.23 - Indirect opex, (£m, 2005-06 prices)

GDN Normalised Indirect Opex with additional Pensions allowance	2008-09	2009-10	2010-11	2011-12	2012-13	Total	Average annual spend
Information Systems	8.4	8.6	8.8	8.3	7.4	41.5	8.3
Finance, Audit & Regulation	3.5	3.6	3.6	3.7	3.7	18.1	3.6
Insurance	3.2	3.4	3.5	3.7	3.9	17.8	3.6
Property Management	4.1	4.2	4.2	4.2	4.2	20.9	4.2
Corporate Centre & Comm	2.3	2.3	2.3	2.3	2.4	11.6	2.3
Human Resources	1.1	1.1	1.1	1.1	1.1	5.5	1.1
Legal	0.7	0.7	0.7	0.7	0.7	3.5	0.7
Procurement & Logisitics	1.8	1.8	1.9	1.9	1.9	9.3	1.9
Total Indirect Opex	**25.1**	**25.7**	**26.1**	**25.9**	**25.3**	**128.2**	**25.6**

Ofgem proposed allowances							
Information Systems	5.9	5.9	5.9	5.3	4.5	27.6	5.5
Finance, Audit & Regulation	2.0	2.0	2.0	2.0	2.0	10.0	2.0
Insurance	2.1	2.6	3.1	3.6	3.6	15.0	3.0
Property Management	2.2	2.1	2.1	2.0	2.0	10.5	2.1
Corporate Centre & Comm	1.5	1.5	1.5	1.4	1.4	7.3	1.5
Human Resources	0.5	0.5	0.4	0.4	0.4	2.2	0.4
Legal	0.5	0.5	0.5	0.5	0.5	2.3	0.5
Procurement & Logisitics	1.4	1.4	1.4	1.3	1.3	6.8	1.4
Total Indirect Opex	**16.1**	**16.5**	**16.9**	**16.7**	**15.6**	**81.8**	**16.4**

Table A8.24 - Total opex, (£m, 2005-06 prices)

Total Opex	2008-09	2009-10	2010-11	2011-12	2012-13	Total	Average annual spend
Direct Opex	55.0	54.2	51.5	49.8	48.8	259.4	51.9
Indirect Opex	16.1	16.5	16.9	16.7	15.6	81.8	16.4
Less: Xoserve savings	-0.2	-0.3	-0.3	-0.3	-0.4	-1.5	-0.3
5.6% Uplift	4.0	4.0	3.8	3.7	3.6	19.1	3.8
QoS allowance	0.1	0.1	0.1	0.1	0.1	0.6	0.1
Total Opex	**74.9**	**74.6**	**72.0**	**70.0**	**67.8**	**359.3**	**71.9**

Appendix 9 – Capex and repex allowance tables

National Grid Gas - East of England, Ofgem proposed allowances

Table A9.1 - Net capex, (£m, 2005-06 prices)

GDN Normalised Net Capex	2008-09	2009-10	2010-11	2011-12	2012-13	Total
LTS & Storage	6.9	7.8	9.1	19.0	10.5	53.3
Connections	9.6	9.4	9.3	9.5	9.8	47.5
Mains Reinforcement	3.5	2.2	3.1	2.7	2.8	14.2
Governors	0.5	0.7	0.5	0.5	0.7	2.9
Other Operational	1.9	2.0	1.8	1.8	1.8	9.3
Non Operational	13.8	10.1	16.7	23.8	17.9	82.3
Total Net Capex	**36.1**	**32.1**	**40.4**	**57.3**	**43.4**	**209.4**

Ofgem proposed allowances						
LTS & Storage	6.7	6.9	7.1	15.3	10.2	46.1
Connections	6.8	6.7	6.6	6.5	6.5	33.2
Mains Reinforcement	3.9	2.5	3.3	2.9	2.8	15.4
Governors	0.5	0.7	0.5	0.5	0.7	2.9
Other Operational	1.9	2.0	1.4	1.4	1.3	8.0
Non Operational	14.1	10.1	16.5	23.6	17.9	82.1
Total Net Capex	**33.9**	**28.8**	**35.5**	**50.1**	**39.3**	**187.7**

Table A9.2 - Net repex, East of England GDN (£m, 2005-06 prices)

GDN Normalised Net Repex	2008-09	2009-10	2010-11	2011-12	2012-13	Total
Mains	57.9	66.3	67.9	72.5	74.4	338.9
Services (excl. Riser costs)	32.2	35.6	35.9	35.1	36.2	175.0
Risers*	0.7	0.8	0.8	0.8	0.8	3.9
LTS	0.0	0.0	0.0	0.0	0.0	0.0
Total Net Repex	**90.8**	**102.7**	**104.5**	**108.4**	**111.3**	**517.8**

Ofgem proposed allowances						
Mains	60.6	66.3	66.6	69.0	69.5	332.0
Services (excl. Riser costs)	26.7	28.6	28.4	27.2	27.3	138.3
Risers*	0.7	0.8	0.8	0.8	0.8	3.9
LTS	0.0	0.0	0.0	0.0	0.0	0.0
Total Net Repex	**88.0**	**95.7**	**95.8**	**97.0**	**97.6**	**474.1**

* The riser costs included in Ofgem's proposed allowances are as per the GDN submissions. Riser replacement costs will be subject to further review by Ofgem as part of the update work for final proposals.

National Grid Gas - London, Ofgem proposed allowances

Table A9.3 - Net capex, (£m, 2005-06 prices)

GDN Normalised Net Capex	2008-09	2009-10	2010-11	2011-12	2012-13	Total
LTS & Storage	26.3	8.6	8.8	22.7	17.9	84.3
Connections	5.9	5.9	6.1	6.2	6.3	30.3
Mains Reinforcement	1.6	1.5	1.5	3.2	3.3	11.1
Governors	2.2	2.2	2.3	2.4	0.6	9.7
Other Operational	1.6	1.5	1.7	1.5	1.6	7.9
Non Operational	9.0	7.2	10.4	14.5	10.7	51.8
Total Net Capex	**46.6**	**26.9**	**30.8**	**50.4**	**40.4**	**195.1**
Ofgem proposed allowances						
LTS & Storage	25.1	6.6	6.7	7.5	17.9	63.9
Connections	4.6	4.6	4.5	4.5	4.4	22.6
Mains Reinforcement	1.2	1.2	1.2	2.4	2.4	8.2
Governors	2.1	2.1	2.2	2.3	0.6	9.3
Other Operational	1.5	1.4	1.6	1.4	1.2	7.2
Non Operational	9.2	7.2	10.3	14.4	10.7	51.7
Total Net Capex	**43.7**	**23.1**	**26.5**	**32.4**	**37.2**	**162.9**

Table A9.4 - Net repex, (£m, 2005-06 prices)

GDN Normalised Net Repex	2008-09	2009-10	2010-11	2011-12	2012-13	Total
Mains	70.6	62.4	66.3	67.9	64.9	332.1
Services (excl. Riser costs)	26.7	24.4	25.8	27.8	27.6	132.3
Risers*	2.8	2.8	3.0	3.2	2.8	14.5
LTS	0.0	0.0	0.0	0.1	0.1	0.2
Total Net Repex	**100.0**	**89.6**	**95.1**	**98.9**	**95.4**	**479.0**
Ofgem proposed allowances						
Mains	61.5	53.7	55.1	55.7	52.6	278.7
Services (excl. Riser costs)	19.8	17.5	18.1	19.4	18.8	93.6
Risers*	2.8	2.8	3.0	3.2	2.8	14.5
LTS	0.0	0.0	0.0	0.1	0.1	0.2
Total Net Repex	**84.1**	**74.0**	**76.2**	**78.4**	**74.3**	**386.9**

* The riser costs included in Ofgem's proposed allowances are as per the GDN submissions. Riser replacement costs will be subject to further review by Ofgem as part of the update work for Final Proposals.

National Grid Gas - North West, Ofgem proposed allowances

Table A9.5 - Net capex, (£m, 2005-06 prices)

GDN Normalised Net Capex	2008-09	2009-10	2010-11	2011-12	2012-13	Total
LTS & Storage	8.8	13.5	22.2	9.3	3.9	57.7
Connections	3.8	4.2	4.3	4.7	4.7	21.7
Mains Reinforcement	0.8	2.8	2.8	2.2	4.2	12.8
Governors	2.8	2.7	3.5	3.0	3.7	15.7
Other Operational	1.5	1.6	1.5	1.6	1.6	7.8
Non Operational	9.6	7.8	12.4	16.2	14.2	60.2
Total Net Capex	**27.3**	**32.6**	**46.8**	**36.9**	**32.3**	**175.8**

Ofgem proposed allowances						
LTS & Storage	8.7	12.2	19.3	8.5	3.8	52.3
Connections	3.0	2.9	2.9	2.8	2.8	14.4
Mains Reinforcement	0.9	2.8	2.8	2.0	2.3	10.8
Governors	2.8	2.7	3.5	2.9	3.7	15.6
Other Operational	1.5	1.6	1.5	1.6	1.2	7.3
Non Operational	9.9	7.8	12.2	16.0	14.2	60.0
Total Net Capex	**26.6**	**29.9**	**42.2**	**33.8**	**28.0**	**160.5**

Table A9.6 - Net repex, (£m, 2005-06 prices)

GDN Normalised Net Repex	2008-09	2009-10	2010-11	2011-12	2012-13	Total
Mains	70.7	71.0	70.0	71.7	68.3	351.6
Services (excl. Riser costs)	29.7	29.7	28.9	29.0	27.9	145.1
Risers*	0.8	0.9	0.9	0.9	0.9	4.3
LTS	0.0	0.0	0.0	0.0	0.0	0.0
Total Net Repex	**101.2**	**101.5**	**99.7**	**101.5**	**97.1**	**500.9**

Ofgem proposed allowances						
Mains	63.3	62.4	61.0	61.0	57.1	304.9
Services (excl. Riser costs)	24.0	23.6	23.2	23.1	22.1	116.1
Risers*	0.8	0.9	0.9	0.9	0.9	4.3
LTS	0.0	0.0	0.0	0.0	0.0	0.0
Total Net Repex	**88.1**	**86.9**	**85.1**	**85.0**	**80.1**	**425.2**

* The riser costs included in Ofgem's proposed allowances are as per the GDN submissions. Riser replacement costs will be subject to further review by Ofgem as part of the update work for Final Proposals.

National Grid Gas - West Midlands capex, Ofgem proposed allowances

Table A9.7 - Net capex, (£m, 2005-06 prices)

GDN Normalised Net Capex	2008-09	2009-10	2010-11	2011-12	2012-13	Total
LTS & Storage	2.0	2.2	2.1	1.7	1.7	9.7
Connections	3.3	3.4	3.5	3.6	3.6	17.5
Mains Reinforcement	1.9	2.1	2.5	2.7	2.2	11.4
Governors	1.1	0.2	0.2	0.6	1.1	3.1
Other Operational	1.2	1.5	1.4	1.5	1.5	7.1
Non Operational	8.2	5.4	8.9	11.7	8.9	43.1
Total Net Capex	**17.7**	**14.8**	**18.7**	**21.8**	**19.0**	**92.0**
Ofgem proposed allowances						
LTS & Storage	2.0	2.2	2.0	1.7	1.6	9.5
Connections	2.8	2.8	2.7	2.7	2.7	13.7
Mains Reinforcement	2.2	2.4	2.1	2.8	2.1	11.6
Governors	1.1	0.2	0.2	0.5	1.1	3.1
Other Operational	1.2	1.5	1.4	1.5	1.2	6.7
Non Operational	8.4	5.4	8.7	11.5	8.9	42.9
Total Net Capex	**17.7**	**14.4**	**17.1**	**20.7**	**17.5**	**87.5**

Table A9.8 - Net repex, (£m, 2005-06 prices)

GDN Normalised Net Repex	2008-09	2009-10	2010-11	2011-12	2012-13	Total
Mains	48.8	47.2	46.1	47.1	45.3	234.5
Services (excl. Riser costs)	21.5	22.0	21.8	20.9	21.4	107.5
Risers*	0.5	0.5	0.5	0.5	0.5	2.7
LTS	0.0	0.0	0.0	0.0	0.0	0.0
Total Net Repex	**70.8**	**69.6**	**68.5**	**68.5**	**67.2**	**344.6**
Ofgem proposed allowances						
Mains	48.7	46.3	43.7	43.3	41.7	223.7
Services (excl. Riser costs)	17.9	18.1	17.8	17.0	17.2	88.0
Risers*	0.5	0.5	0.5	0.5	0.5	2.7
LTS	0.0	0.0	0.0	0.1	0.1	0.2
Total Net Repex	**67.2**	**64.8**	**62.0**	**60.9**	**59.5**	**314.5**

* The riser costs included in Ofgem's proposed allowances are as per the GDN submissions. Riser replacement costs will be subject to further review by Ofgem as part of the update work for Final Proposals.

Northern Gas Networks - Northern, Ofgem proposed allowances

Table A9.9 - Net capex, (£m, 2005-06 prices)

GDN Normalised Net Capex	2008-09	2009-10	2010-11	2011-12	2012-13	Total
LTS & Storage	4.1	8.8	3.0	29.0	30.3	75.2
Connections	9.0	9.2	9.5	9.5	9.7	47.0
Mains Reinforcement	4.8	4.8	5.0	5.0	5.1	24.7
Governors	1.6	1.8	1.8	1.9	1.8	8.9
Other Operational	7.4	5.2	4.7	4.7	4.2	26.3
Non Operational	26.3	17.5	10.8	14.5	9.3	78.3
Total Net Capex	**53.2**	**47.3**	**34.8**	**64.6**	**60.4**	**260.3**
Ofgem proposed allowances						
LTS & Storage	4.1	8.6	2.4	10.3	27.9	53.2
Connections	7.6	7.7	7.7	7.8	7.8	38.6
Mains Reinforcement	4.2	4.2	4.2	4.2	4.2	21.2
Governors	1.5	1.7	1.8	1.8	1.7	8.6
Other Operational	7.3	5.1	4.5	4.5	4.0	25.3
Non Operational	21.2	14.7	11.1	15.2	9.3	71.5
Total Net Capex	**46.0**	**42.0**	**31.7**	**43.8**	**54.9**	**218.4**

Table A9.10 - Net repex, (£m, 2005-06 prices)

GDN Normalised Net Repex	2008-09	2009-10	2010-11	2011-12	2012-13	Total
Mains	46.2	48.9	51.2	52.7	54.4	253.4
Services (excl. Riser costs)	23.6	24.0	24.2	24.7	25.1	121.6
Risers*	1.4	1.4	1.3	1.3	1.3	6.7
LTS	6.5	27.5	1.5	0.9	0.9	37.1
Total Net Repex	**77.7**	**101.8**	**78.3**	**79.5**	**81.7**	**418.9**
Ofgem proposed allowances						
Mains	44.3	45.7	46.4	46.2	46.6	229.2
Services (excl. Riser costs)	24.0	23.8	23.7	23.5	23.4	118.5
Risers*	1.4	1.4	1.3	1.3	1.3	6.7
LTS	6.3	26.4	1.4	0.8	0.8	35.7
Total Net Repex	**76.0**	**97.2**	**72.8**	**71.9**	**72.1**	**390.0**

* The riser costs included in Ofgem's proposed allowances are as per the GDN submissions. Riser replacement costs will be subject to further review by Ofgem as part of the update work for Final Proposals.

Scotia Gas Networks - Scotland, Ofgem proposed allowances

Table A9.11 - Net capex, (£m, 2005-06 prices)

GDN Normalised Net Capex	2008-09	2009-10	2010-11	2011-12	2012-13	Total
LTS & Storage	21.2	11.1	27.8	8.0	10.3	78.4
Connections	10.7	10.7	10.6	10.5	10.4	52.8
Mains Reinforcement	7.9	7.7	7.5	7.0	8.2	38.3
Governors	4.0	3.9	3.7	3.6	3.7	19.0
Other Operational	6.0	5.1	8.6	3.6	3.2	26.5
Non Operational	12.0	7.1	3.6	3.9	9.2	35.9
Total Net Capex	**61.9**	**45.6**	**61.7**	**36.6**	**45.0**	**250.8**

Ofgem proposed allowances						
LTS & Storage	13.6	10.2	19.8	8.2	9.0	60.9
Connections	8.5	8.3	8.1	7.9	7.8	40.7
Mains Reinforcement	7.1	6.6	5.6	5.3	5.9	30.5
Governors	3.0	3.8	3.5	3.3	3.4	17.0
Other Operational	5.6	4.8	4.3	3.2	2.8	20.7
Non Operational	11.5	7.1	4.3	4.5	9.2	36.6
Total Net Capex	**49.4**	**40.8**	**45.6**	**32.6**	**38.0**	**206.4**

Table A9.12 - Net repex, (£m, 2005-06 prices)

GDN Normalised Net Repex	2008-09	2009-10	2010-11	2011-12	2012-13	Total
Mains	41.6	41.9	43.5	45.2	47.2	219.4
Services (excl. Riser costs)	22.3	23.0	23.6	24.3	25.1	118.3
Risers*	3.5	3.6	3.7	3.8	4.0	18.6
LTS	0.3	0.0	0.0	0.0	0.0	0.3
Total Net Repex	**67.7**	**68.4**	**70.9**	**73.4**	**76.3**	**356.7**

Ofgem proposed allowances						
Mains	30.9	30.3	30.6	30.6	30.4	152.7
Services (excl. Riser costs)	14.8	14.7	14.6	14.5	14.5	73.2
Risers*	3.5	3.6	3.7	3.8	4.0	18.6
LTS	0.3	0.0	0.0	0.0	0.0	0.3
Total Net Repex	**49.5**	**48.6**	**48.9**	**49.0**	**48.9**	**244.8**

* The riser costs included in Ofgem's proposed allowances are as per the GDN submissions. Riser replacement costs will be subject to further review by Ofgem as part of the update work for Final Proposals.

Scotia Gas Networks - Southern, Ofgem proposed allowances

Table A9.13 - Net capex, (£m, 2005-06 prices)

GDN Normalised Net Capex	2008-09	2009-10	2010-11	2011-12	2012-13	Total
LTS & Storage	31.0	105.9	23.2	15.0	38.7	213.8
Connections	9.6	9.5	9.4	9.3	9.2	47.1
Mains Reinforcement	13.2	15.4	14.6	14.0	14.7	71.9
Governors	9.7	10.5	10.6	10.9	11.3	53.0
Other Operational	6.7	4.7	9.6	3.0	3.6	27.6
Non Operational	19.7	11.7	6.7	6.8	16.9	61.8
Total Net Capex	**90.0**	**157.7**	**74.1**	**59.0**	**94.3**	**475.2**
Ofgem proposed allowances						
LTS & Storage	24.8	56.7	44.7	7.4	7.5	141.1
Connections	8.3	8.1	7.9	7.7	7.5	39.5
Mains Reinforcement	11.6	12.8	12.2	11.4	11.6	59.5
Governors	9.4	9.7	9.9	10.1	10.2	49.4
Other Operational	6.4	4.3	5.3	2.7	3.1	21.8
Non Operational	19.1	11.7	7.6	7.7	16.9	63.0
Total Net Capex	**79.6**	**103.3**	**87.6**	**47.0**	**56.8**	**374.3**

Table A9.14 - Net repex, (£m, 2005-06 prices)

GDN Normalised Net Repex	2008-09	2009-10	2010-11	2011-12	2012-13	Total
Mains	86.5	99.4	109.8	118.0	123.2	536.9
Services (excl. Riser costs)	57.0	61.9	64.3	65.7	67.5	316.4
Risers*	12.6	13.0	13.4	13.9	14.4	67.3
LTS	2.1	16.0	0.3	0.0	0.0	18.4
Total Net Repex	**158.1**	**190.3**	**187.8**	**197.5**	**205.1**	**938.9**
Ofgem proposed allowances						
Mains	68.5	73.2	74.7	76.3	76.6	369.3
Services (excl. Riser costs)	41.6	42.8	42.0	41.2	40.7	208.2
Risers*	12.6	13.0	13.4	13.9	14.4	67.3
LTS	2.0	15.1	0.3	0.0	0.0	17.4
Total Net Repex	**124.7**	**144.0**	**130.4**	**131.4**	**131.6**	**662.1**

* The riser costs included in Ofgem's proposed allowances are as per the GDN submissions. Riser replacement costs will be subject to further review by Ofgem as part of the update work for Final Proposals.

Wales and West Utilities - Wales and West, Ofgem proposed allowances

Table A9.15 - Net capex, (£m, 2005-06 prices)

GDN Normalised Net Capex	2008-09	2009-10	2010-11	2011-12	2012-13	Total
LTS & Storage	16.0	44.2	29.3	11.9	9.6	111.0
Connections	8.7	9.1	9.4	9.7	9.8	46.7
Mains Reinforcement	5.5	10.2	6.0	6.3	6.5	34.5
Governors	1.9	2.0	1.9	2.0	1.6	9.4
Other Operational	8.3	7.4	5.2	4.9	3.7	29.5
Non Operational	20.1	9.8	9.7	17.8	18.4	75.9
Total Net Capex	**60.5**	**82.7**	**61.6**	**52.5**	**49.7**	**306.9**
Ofgem proposed allowances						
LTS & Storage	14.4	16.3	25.2	14.1	11.4	81.3
Connections	6.0	6.1	6.0	6.0	5.9	30.0
Mains Reinforcement	5.4	9.7	5.5	5.6	5.7	31.9
Governors	1.9	1.9	1.8	1.8	1.5	8.9
Other Operational	6.0	5.2	4.1	3.8	2.8	21.9
Non Operational	14.9	8.5	10.0	18.1	17.8	69.3
Total Net Capex	**48.5**	**47.7**	**52.7**	**49.3**	**45.1**	**243.3**

Table A9.16 - Net repex, (£m, 2005-06 prices)

GDN Normalised Net Repex	2008-09	2009-10	2010-11	2011-12	2012-13	Total
Mains	40.1	45.8	50.1	53.8	57.8	247.7
Services (excl. Riser costs)	26.1	27.1	28.1	29.1	30.2	140.6
Risers*	1.1	1.2	1.2	1.3	1.3	6.0
LTS	1.6	12.6	8.4	7.7	6.2	36.4
Total Net Repex	**68.9**	**86.7**	**87.8**	**91.9**	**95.5**	**430.8**
Ofgem proposed allowances						
Mains	40.2	43.6	45.5	46.7	48.0	223.9
Services (excl. Riser costs)	22.1	21.8	21.6	21.5	21.3	108.3
Risers*	1.1	1.2	1.2	1.3	1.3	6.0
LTS	1.6	12.0	7.9	7.1	5.5	34.0
Total Net Repex	**64.9**	**78.6**	**76.2**	**76.5**	**76.1**	**372.3**

* The riser costs included in Ofgem's proposed allowances are as per the GDN submissions. Riser replacement costs will be subject to further review by Ofgem as part of the update work for Final Proposals.

Appendix 10 - Mains and services incentive cost matrices for the GDNs

National Grid Gas - East England

Table A10.1 - Services replacement matrix for 2008-09 to 2012-13, (2005-06 prices)

	2008-09			2009-10		
Services Replacement	**Number of services replaced**	**unit cost (£/service)**	**Matrix costs (£m)**	**Number of services replaced**	**unit cost (£/service)**	**Matrix costs (£m)**
Services relaid	29,944	481.7	14.4	33,112	473.3	15.7
services transferred	36,598	250.0	9.1	40,470	244.8	9.9
non domestic services	36	1,408.8	0.1	38	1,383.0	0.1
Total	**66,578**		**23.6**	**73,619**		**25.6**
	2010-11			**2011-12**		
Services Replacement	**Number of services replaced**	**unit cost (£/service)**	**Matrix costs (£m)**	**Number of services replaced**	**unit cost (£/service)**	**Matrix costs (£m)**
Services relaid	32,983	471.3	15.5	31,566	469.3	14.8
services transferred	40,312	243.8	9.8	38,580	243.1	9.4
non domestic services	36	1,363.0	0.0	39	1,394.2	0.1
Total	**73,331**		**25.4**	**70,185**		**24.2**
	2012-13					
Services Replacement	**Number of services replaced**	**unit cost (£/service)**	**Matrix costs (£m)**			
Services relaid	31,957	466.7	14.9			
services transferred	39,059	241.7	9.4			
non domestic services	41	1,364.2	0.1			
Total	**71,057**		**24.4**			

Table A10.2 - Mains replacement matrix for 2008-09 to 2012-13 (excluding rechargeable diversions), (2005-06 prices)

	2008-09			2009-10		
Diameter of mains abandoned	Length of mains abandoned (Km)	Unit cost (£/metre)	Matrix costs (£m)	Length of mains abandoned (Km)	Unit cost (£/metre)	Matrix costs (£m)
</=3"	35	58.7	2.1	38	57.8	2.2
4-5"	383	64.1	24.5	407	63.1	25.7
6-7"	98	90.2	8.8	139	88.8	12.3
8-9"	50	166.9	8.4	42	164.2	6.9
10-12"	39	233.1	9.1	42	229.4	9.7
>12-18"	12	338.1	4.0	13	332.7	4.5
>18-24"	7	472.5	3.2	8	465.0	3.9
>24"	1	583.1	0.4	2	573.8	1.0
Total	**625**		**60.5**	**692**		**66.1**
	2010-11			**2011-12**		
Diameter of mains abandoned	Length of mains abandoned (Km)	Unit cost (£/metre)	Matrix costs (£m)	Length of mains abandoned (Km)	Unit cost (£/metre)	Matrix costs (£m)
</=3"	30	57.1	1.7	30	54.5	1.6
4-5"	409	62.3	25.5	369	59.5	22.0
6-7"	130	87.7	11.4	120	83.7	10.0
8-9"	53	162.2	8.6	59	154.9	9.2
10-12"	48	226.6	10.8	53	216.4	11.4
>12-18"	11	328.6	3.8	23	313.8	7.2
>18-24"	8	459.2	3.5	13	438.6	5.6
>24"	2	566.7	1.2	4	541.3	1.9
Total	**691**		**66.5**	**669**		**68.9**
	2012-13					
Diameter of mains abandoned	Length of mains abandoned (Km)	Unit cost (£/metre)	Matrix costs (£m)			
</=3"	28	54.2	1.5			
4-5"	391	59.1	23.1			
6-7"	116	83.2	9.6			
8-9"	50	153.9	7.7			
10-12"	50	215.0	10.9			
>12-18"	28	311.8	8.8			
>18-24"	14	435.7	6.3			
>24"	3	537.7	1.4			
Total	**681**		**69.3**			

National Grid Gas - London

Table A10.3 - Services replacement matrix for 2008-09 to 2012-13, (2005-06 prices)

	2008-09			2009-10		
Services Replacement	**Number of services replaced**	**unit cost (£/service)**	**Matrix costs (£m)**	**Number of services replaced**	**unit cost (£/service)**	**Matrix costs (£m)**
Services relaid	20,911	561.1	11.7	17,976	567.9	10.2
services transferred	17,109	281.2	4.8	14,707	284.9	4.2
non domestic services	165	1,686.4	0.3	69	1,716.4	0.1
Total	**38,184**		**16.8**	**32,752**		**14.5**
	2010-11			**2011-12**		
Services Replacement	**Number of services replaced**	**unit cost (£/service)**	**Matrix costs (£m)**	**Number of services replaced**	**unit cost (£/service)**	**Matrix costs (£m)**
Services relaid	18,837	563.5	10.6	20,513	559.4	11.5
services transferred	15,412	282.6	4.4	16,783	280.5	4.7
non domestic services	144	1,691.0	0.2	231	1,690.5	0.4
Total	**34,393**		**15.2**	**37,527**		**16.6**
	2012-13					
Services Replacement	**Number of services replaced**	**unit cost (£/service)**	**Matrix costs (£m)**			
Services relaid	19,845	560.5	11.1			
services transferred	16,237	281.1	4.6			
non domestic services	156	1,685.9	0.3			
Total	**36,238**		**16.0**			

Table A10.4 - Mains replacement matrix for 2008-09 to 2012-13 (excluding rechargeable diversions), (2005-06 prices)

	2008-09			2009-10		
Diameter of mains abandoned	Length of mains abandoned (Km)	Unit cost (£/metre)	Matrix costs (£m)	Length of mains abandoned (Km)	Unit cost (£/metre)	Matrix costs (£m)
</=3"	22	63.3	1.4	21	63.9	1.3
4-5"	159	69.1	11.0	150	69.8	10.4
6-7"	70	97.2	6.8	48	98.2	4.7
8-9"	33	179.9	6.0	25	181.6	4.6
10-12"	38	251.3	9.5	36	253.7	9.1
>12-18"	29	364.4	10.6	25	367.9	9.2
>18-24"	12	509.3	6.2	10	514.2	5.4
>24"	17	628.5	10.7	15	634.6	9.5
Total	**380**		**62.1**	**330**		**54.2**
	2010-11			**2011-12**		
Diameter of mains abandoned	**Length of mains abandoned (Km)**	**Unit cost (£/metre)**	**Matrix costs (£m)**	**Length of mains abandoned (Km)**	**Unit cost (£/metre)**	**Matrix costs (£m)**
</=3"	21	64.2	1.3	21	63.1	1.3
4-5"	146	70.1	10.2	155	68.9	10.7
6-7"	67	98.6	6.6	88	97.0	8.5
8-9"	29	182.4	5.4	30	179.4	5.4
10-12"	29	254.9	7.4	29	250.6	7.2
>12-18"	25	369.6	9.4	25	363.5	9.0
>18-24"	12	516.6	6.0	15	508.0	7.8
>24"	15	637.6	9.3	10	626.9	6.1
Total	**344**		**55.6**	**373**		**56.1**
	2012-13					
Diameter of mains abandoned	**Length of mains abandoned (Km)**	**Unit cost (£/metre)**	**Matrix costs (£m)**			
</=3"	21	63.8	1.4			
4-5"	148	69.7	10.3			
6-7"	75	98.0	7.3			
8-9"	34	181.3	6.1			
10-12"	32	253.3	8.1			
>12-18"	22	367.3	8.2			
>18-24"	12	513.3	6.2			
>24"	8	633.5	5.3			
Total	**354**		**53.1**			

National Grid Gas - North West

Table A10.5 - Services replacement matrix for 2008-09 to 2012-13, (2005-06 prices)

	2008-09			2009-10		
Services Replacement	**Number of services replaced**	**unit cost (£/service)**	**Matrix costs (£m)**	**Number of services replaced**	**unit cost (£/service)**	**Matrix costs (£m)**
Services relaid	33,156	469.6	15.6	32,724	468.5	15.3
services transferred	21,904	238.0	5.2	21,614	237.4	5.1
non domestic services	59	1,389.8	0.1	59	1,389.8	0.1
Total	**55,119**		**20.9**	**54,398**		**20.5**
	2010-11			**2011-12**		
Services Replacement	**Number of services replaced**	**unit cost (£/service)**	**Matrix costs (£m)**	**Number of services replaced**	**unit cost (£/service)**	**Matrix costs (£m)**
Services relaid	32,186	467.7	15.1	32,276	465.7	15.0
services transferred	21,256	237.1	5.0	21,315	236.0	5.0
non domestic services	59	1,389.8	0.1	59	1,389.8	0.1
Total	**53,501**		**20.2**	**53,650**		**20.1**
	2012-13					
Services Replacement	**Number of services replaced**	**unit cost (£/service)**	**Matrix costs (£m)**			
Services relaid	30,445	467.5	14.2			
services transferred	20,100	237.2	4.8			
non domestic services	59	1,389.8	0.1			
Total	**50,603**		**19.1**			

Table A10.6 - Mains replacement matrix for 2008-09 to 2012-13 (excluding rechargeable diversions), (2005-06 prices)

	2008-09			2009-10		
Diameter of mains abandoned	Length of mains abandoned (Km)	Unit cost (£/metre)	Matrix costs (£m)	Length of mains abandoned (Km)	Unit cost (£/metre)	Matrix costs (£m)
</=3"	99	56.2	5.6	98	56.0	5.5
4-5"	248	61.4	15.2	244	61.2	14.9
6-7"	110	86.3	9.5	109	86.1	9.4
8-9"	41	159.7	6.6	40	159.3	6.3
10-12"	34	223.2	7.6	34	222.5	7.6
>12-18"	31	323.6	9.9	32	322.7	10.2
>18-24"	15	452.3	6.6	14	451.0	6.4
>24"	5	558.1	2.5	4	556.5	2.3
Total	**582**		**63.5**	**575**		**62.6**
	2010-11			**2011-12**		
Diameter of mains abandoned	**Length of mains abandoned (Km)**	**Unit cost (£/metre)**	**Matrix costs (£m)**	**Length of mains abandoned (Km)**	**Unit cost (£/metre)**	**Matrix costs (£m)**
</=3"	91	55.2	5.0	84	54.7	4.6
4-5"	236	60.3	14.2	234	59.7	14.0
6-7"	109	84.9	9.3	108	84.0	9.1
8-9"	54	157.0	8.5	49	155.4	7.6
10-12"	29	219.3	6.3	46	217.1	10.0
>12-18"	28	318.1	8.8	27	314.8	8.5
>18-24"	14	444.5	6.0	11	440.0	5.0
>24"	6	548.6	3.2	5	543.0	2.4
Total	**565**		**61.3**	**564**		**61.2**
	2012-13					
Diameter of mains abandoned	**Length of mains abandoned (Km)**	**Unit cost (£/metre)**	**Matrix costs (£m)**			
</=3"	73	54.4	4.0			
4-5"	239	59.4	14.2			
6-7"	92	83.5	7.6			
8-9"	46	154.5	7.1			
10-12"	41	215.9	8.8			
>12-18"	33	313.1	10.2			
>18-24"	9	437.6	3.9			
>24"	3	540.0	1.5			
Total	**535**		**57.3**			

National Grid Gas - West Midlands

Table A10.7 - Services replacement matrix for 2008-09 to 2012-13, (2005-06 prices)

	2008-09			2009-10		
Services Replacement	**Number of services replaced**	**unit cost (£/service)**	**Matrix costs (£m)**	**Number of services replaced**	**unit cost (£/service)**	**Matrix costs (£m)**
Services relaid	21,206	493.7	10.5	21,400	493.4	10.6
services transferred	20,745	254.8	5.3	20,945	254.7	5.3
non domestic services	115	1,452.2	0.2	115	1,452.2	0.2
Total	**42,066**		**15.9**	**42,460**		**16.1**
	2010-11			**2011-12**		
Services Replacement	**Number of services replaced**	**unit cost (£/service)**	**Matrix costs (£m)**	**Number of services replaced**	**unit cost (£/service)**	**Matrix costs (£m)**
Services relaid	21,007	494.1	10.4	19,982	493.9	9.9
services transferred	20,569	255.1	5.2	19,544	255.4	5.0
non domestic services	115	1,452.2	0.2	115	1,452.2	0.2
Total	**41,690**		**15.8**	**39,641**		**15.0**
	2012-13					
Services Replacement	**Number of services replaced**	**unit cost (£/service)**	**Matrix costs (£m)**			
Services relaid	20,405	492.9	10.1			
services transferred	19,967	254.8	5.1			
non domestic services	115	1,443.5	0.2			
Total	**40,486**		**15.3**			

Table A10.8 - Mains replacement matrix for 2008-09 to 2012-13 (excluding rechargeable diversions), (2005-06 prices)

	2008-09			2009-10		
Diameter of mains abandoned	Length of mains abandoned (Km)	Unit cost (£/metre)	Matrix costs (£m)	Length of mains abandoned (Km)	Unit cost (£/metre)	Matrix costs (£m)
</=3"	42	54.8	2.3	27	55.7	1.5
4-5"	170	59.9	10.2	180	60.8	11.0
6-7"	76	84.2	6.4	80	85.6	6.8
8-9"	45	155.8	7.1	44	158.4	7.0
10-12"	34	217.7	7.4	43	221.2	9.6
>12-18"	26	315.7	8.1	23	320.8	7.3
>18-24"	14	441.3	6.3	5	448.4	2.3
>24"	2	544.6	1.0	2	553.3	1.0
Total	**410**		**48.9**	**404**		**46.5**
	2010-11			**2011-12**		
Diameter of mains abandoned	Length of mains abandoned (Km)	Unit cost (£/metre)	Matrix costs (£m)	Length of mains abandoned (Km)	Unit cost (£/metre)	Matrix costs (£m)
</=3"	18	55.8	1.0	20	54.7	1.1
4-5"	195	60.9	11.9	163	59.7	9.7
6-7"	72	85.7	6.1	88	84.0	7.4
8-9"	47	158.5	7.4	38	155.3	5.9
10-12"	34	221.4	7.5	37	217.0	8.0
>12-18"	19	321.1	6.2	22	314.6	6.8
>18-24"	6	448.8	2.8	7	439.8	3.1
>24"	2	553.8	0.9	3	542.7	1.4
Total	**392**		**43.8**	**377**		**43.4**
	2012-13					
Diameter of mains abandoned	Length of mains abandoned (Km)	Unit cost (£/metre)	Matrix costs (£m)			
</=3"	26	56.5	1.5			
4-5"	177	61.7	10.9			
6-7"	77	86.9	6.7			
8-9"	46	160.7	7.5			
10-12"	28	224.5	6.2			
>12-18"	19	325.5	6.3			
>18-24"	4	455.0	1.7			
>24"	2	561.5	1.0			
Total	**379**		**41.7**			

Northern Gas Networks - Northern

Table A10.9 - Services replacement matrix for 2008-09 to 2012-13, (2005-06 prices)

	2008-09			2009-10		
Services Replacement	**Number of services replaced**	**unit cost (£/service)**	**Matrix costs (£m)**	**Number of services replaced**	**unit cost (£/service)**	**Matrix costs (£m)**
Services relaid	27,198	489.4	13.3	27,187	486.6	13.2
services transferred	16,565	251.2	4.2	16,558	249.7	4.1
non domestic services	379	1,440.6	0.5	379	1,430.1	0.5
Total	**44,142**		**18.0**	**44,124**		**17.9**
	2010-11			**2011-12**		
Services Replacement	**Number of services replaced**	**unit cost (£/service)**	**Matrix costs (£m)**	**Number of services replaced**	**unit cost (£/service)**	**Matrix costs (£m)**
Services relaid	27,188	484.2	13.2	27,193	482.2	13.1
services transferred	16,559	248.5	4.1	16,562	247.6	4.1
non domestic services	379	1,424.8	0.5	379	1,416.9	0.5
Total	**44,126**		**17.8**	**44,134**		**17.8**
	2012-13					
Services Replacement	**Number of services replaced**	**unit cost (£/service)**	**Matrix costs (£m)**			
Services relaid	27,190	480.0	13.1			
services transferred	16,561	246.5	4.1			
non domestic services	379	1,411.6	0.5			
Total	**44,130**		**17.7**			

Table A10.10 - Mains replacement matrix for 2008-09 to 2012-13 (excluding rechargeable diversions), (2005-06 prices)

	2008-09			2009-10		
Diameter of mains abandoned	Length of mains abandoned (Km)	Unit cost (£/metre)	Matrix costs (£m)	Length of mains abandoned (Km)	Unit cost (£/metre)	Matrix costs (£m)
</=3"	89	57.3	5.1	77	55.9	4.3
4-5"	390	62.6	24.4	368	61.1	22.5
6-7"	52	88.0	4.6	72	85.9	6.2
8-9"	15	162.8	2.5	24	158.9	3.8
10-12"	12	227.5	2.6	16	222.0	3.6
>12-18"	15	329.9	5.0	15	321.9	4.9
>18-24"	1	461.1	0.4	1	450.0	0.4
>24"	0	0.0	0.0	0	0.0	0.0
Total	**574**		**44.5**	**573**		**45.6**
	2010-11			**2011-12**		
Diameter of mains abandoned	Length of mains abandoned (Km)	Unit cost (£/metre)	Matrix costs (£m)	Length of mains abandoned (Km)	Unit cost (£/metre)	Matrix costs (£m)
</=3"	73	55.5	4.0	67	55.2	3.7
4-5"	349	60.6	21.1	345	60.3	20.8
6-7"	95	85.2	8.1	105	84.8	8.9
8-9"	20	157.7	3.2	19	157.0	3.0
10-12"	21	220.3	4.6	21	219.3	4.5
>12-18"	15	319.4	4.8	15	318.0	4.8
>18-24"	1	446.4	0.4	1	444.4	0.4
>24"	0	0.0	0.0	0	0.0	0.0
Total	**574**		**46.2**	**574**		**46.2**
	2012-13					
Diameter of mains abandoned	Length of mains abandoned (Km)	Unit cost (£/metre)	Matrix costs (£m)			
</=3"	63	54.6	3.5			
4-5"	332	59.6	19.8			
6-7"	119	83.9	10.0			
8-9"	20	155.2	3.2			
10-12"	23	216.9	5.0			
>12-18"	15	314.5	4.7			
>18-24"	1	439.5	0.4			
>24"	0	0.0	0.0			
Total	**573**		**46.5**			

Scotia Gas Networks - Scotland

Table A10.11 - Services replacement matrix for 2008-09 to 2012-13, (2005-06 prices)

	2008-09			2009-10		
Services Replacement	**Number of services replaced**	**unit cost (£/service)**	**Matrix costs (£m)**	**Number of services replaced**	**unit cost (£/service)**	**Matrix costs (£m)**
Services relaid	13,224	513.2	6.8	13,234	511.9	6.8
services transferred	16,923	263.7	4.5	17,329	263.1	4.6
non domestic services	329	1,507.6	0.5	326	1,503.1	0.5
Total	**30,476**		**11.7**	**30,889**		**11.8**
	2010-11			**2011-12**		
Services Replacement	**Number of services replaced**	**unit cost (£/service)**	**Matrix costs (£m)**	**Number of services replaced**	**unit cost (£/service)**	**Matrix costs (£m)**
Services relaid	13,243	509.4	6.7	13,252	507.3	6.7
services transferred	17,729	261.7	4.6	18,129	260.7	4.7
non domestic services	324	1,500.0	0.5	321	1,492.2	0.5
Total	**31,296**		**11.9**	**31,702**		**11.9**
	2012-13					
Services Replacement	**Number of services replaced**	**unit cost (£/service)**	**Matrix costs (£m)**			
Services relaid	13,250	505.4	6.7			
services transferred	18,508	259.7	4.8			
non domestic services	319	1,485.9	0.5			
Total	**32,077**		**12.0**			

Table A10.12 - Mains replacement matrix for 2008-09 to 2012-13 (excluding rechargeable diversions), (2005-06 prices)

	2008-09			2009-10		
Diameter of mains abandoned	Length of mains abandoned (Km)	Unit cost (£/metre)	Matrix costs (£m)	Length of mains abandoned (Km)	Unit cost (£/metre)	Matrix costs (£m)
</=3"	51	61.4	3.1	49	61.6	3.0
4-5"	128	67.0	8.6	136	67.3	9.2
6-7"	61	94.2	5.8	59	94.7	5.5
8-9"	24	174.3	4.1	24	175.2	4.2
10-12"	19	243.6	4.6	14	244.7	3.5
>12-18"	9	353.2	3.3	9	354.9	3.3
>18-24"	2	493.7	1.1	2	496.0	1.2
>24"	0	609.2	0.3	0	612.1	0.3
Total	**294**		**30.8**	**294**		**30.2**
	2010-11			**2011-12**		
Diameter of mains abandoned	Length of mains abandoned (Km)	Unit cost (£/metre)	Matrix costs (£m)	Length of mains abandoned (Km)	Unit cost (£/metre)	Matrix costs (£m)
</=3"	43	61.3	2.7	43	61.4	2.7
4-5"	141	66.9	9.4	141	67.0	9.4
6-7"	59	94.1	5.5	59	94.3	5.5
8-9"	23	174.1	4.1	23	174.4	4.1
10-12"	17	243.3	4.1	17	243.6	4.1
>12-18"	9	352.8	3.2	9	353.3	3.3
>18-24"	2	493.1	1.1	2	493.8	1.1
>24"	1	608.5	0.5	1	609.4	0.4
Total	**295**		**30.5**	**295**		**30.5**
	2012-13					
Diameter of mains abandoned	Length of mains abandoned (Km)	Unit cost (£/metre)	Matrix costs (£m)			
</=3"	43	61.0	2.6			
4-5"	141	66.6	9.4			
6-7"	59	93.7	5.5			
8-9"	23	173.3	4.0			
10-12"	17	242.1	4.0			
>12-18"	9	351.1	3.2			
>18-24"	2	490.7	1.1			
>24"	1	605.5	0.4			
Total	**295**		**30.4**			

Scotia Gas Networks - Southern

Table A10.13 - Services replacement matrix for 2008-09 to 2012-13, (2005-06 prices)

	2008-09			2009-10		
Services Replacement	**Number of services replaced**	**unit cost (£/service)**	**Matrix costs (£m)**	**Number of services replaced**	**unit cost (£/service)**	**Matrix costs (£m)**
Services relaid	46,277	522.2	24.2	49,181	516.9	25.4
services transferred	25,132	268.4	6.7	27,008	265.7	7.2
non domestic services	727	1,533.7	1.1	775	1,520.0	1.2
Total	**72,136**		**32.0**	**76,964**		**33.8**
	2010-11			**2011-12**		
Services Replacement	**Number of services replaced**	**unit cost (£/service)**	**Matrix costs (£m)**	**Number of services replaced**	**unit cost (£/service)**	**Matrix costs (£m)**
Services relaid	49,189	514.3	25.3	49,183	511.8	25.2
services transferred	26,420	264.3	7.0	26,175	263.0	6.9
non domestic services	787	1,510.8	1.2	780	1,503.8	1.2
Total	**76,397**		**33.5**	**76,137**		**33.2**
	2012-13					
Services Replacement	**Number of services replaced**	**unit cost (£/service)**	**Matrix costs (£m)**			
Services relaid	49,161	509.8	25.1			
services transferred	26,352	262.0	6.9			
non domestic services	777	1,496.8	1.2			
Total	**76,290**		**33.1**			

Table A10.14 - Mains replacement matrix for 2008-09 to 2012-13 (excluding rechargeable diversions), (2005-06 prices)

	2008-09			2009-10		
Diameter of mains abandoned	Length of mains abandoned (Km)	Unit cost (£/metre)	Matrix costs (£m)	Length of mains abandoned (Km)	Unit cost (£/metre)	Matrix costs (£m)
</=3"	20	59.1	1.2	28	57.5	1.6
4-5"	500	64.5	32.2	491	62.8	30.9
6-7"	115	90.8	10.4	152	88.4	13.5
8-9"	30	168.0	5.1	40	163.5	6.5
10-12"	20	234.7	4.8	24	228.4	5.5
>12-18"	26	340.3	8.8	28	331.3	9.3
>18-24"	6	475.6	3.0	7	463.0	3.2
>24"	5	587.0	3.1	5	571.4	2.7
Total	**723**		**68.6**	**775**		**73.2**
	2010-11			**2011-12**		
Diameter of mains abandoned	Length of mains abandoned (Km)	Unit cost (£/metre)	Matrix costs (£m)	Length of mains abandoned (Km)	Unit cost (£/metre)	Matrix costs (£m)
</=3"	29	55.4	1.6	30	54.5	1.6
4-5"	477	60.5	28.9	440	59.4	26.1
6-7"	158	85.2	13.5	167	83.6	14.0
8-9"	51	157.5	8.1	66	154.7	10.3
10-12"	34	220.1	7.5	42	216.2	9.0
>12-18"	30	319.2	9.5	31	313.5	9.6
>18-24"	7	446.1	3.3	8	438.1	3.3
>24"	4	550.5	2.4	4	540.7	2.4
Total	**791**		**74.8**	**788**		**76.4**
	2012-13					
Diameter of mains abandoned	Length of mains abandoned (Km)	Unit cost (£/metre)	Matrix costs (£m)			
</=3"	27	54.0	1.4			
4-5"	440	58.9	25.9			
6-7"	163	82.9	13.5			
8-9"	69	153.3	10.6			
10-12"	46	214.2	9.8			
>12-18"	30	310.6	9.3			
>18-24"	7	434.1	3.2			
>24"	5	535.8	2.8			
Total	**788**		**76.6**			

Wales and West Utilities - Wales and West

Table A10.15 - Services replacement matrix for 2008-09 to 2012-13, (2005-06 prices)

	2008-09			2009-10		
Services Replacement	**Number of services replaced**	**unit cost (£/service)**	**Matrix costs (£m)**	**Number of services replaced**	**unit cost (£/service)**	**Matrix costs (£m)**
Services relaid	25,096	495.4	12.4	25,096	490.5	12.3
services transferred	23,472	254.4	6.0	23,472	251.9	5.9
non domestic services	349	1,455.6	0.5	349	1,441.3	0.5
Total	**48,917**		**18.9**	**48,917**		**18.7**
	2010-11			**2011-12**		
Services Replacement	**Number of services replaced**	**unit cost (£/service)**	**Matrix costs (£m)**	**Number of services replaced**	**unit cost (£/service)**	**Matrix costs (£m)**
Services relaid	25,096	486.9	12.2	25,096	483.9	12.1
services transferred	23,472	250.1	5.9	23,472	248.6	5.8
non domestic services	349	1,429.8	0.5	349	1,421.2	0.5
Total	**48,917**		**18.6**	**48,917**		**18.5**
	2012-13					
Services Replacement	**Number of services replaced**	**unit cost (£/service)**	**Matrix costs (£m)**			
Services relaid	25,096	480.9	12.1			
services transferred	23,472	247.1	5.8			
non domestic services	349	1,412.6	0.5			
Total	**48,917**		**18.4**			

Table A10.16 - Mains replacement matrix for 2008-09 to 2012-13 (excluding rechargeable diversions), (2005-06 prices)

	2008-09			2009-10		
Diameter of mains abandoned	**Length of mains abandoned (Km)**	**Unit cost (£/metre)**	**Matrix costs (£m)**	**Length of mains abandoned (Km)**	**Unit cost (£/metre)**	**Matrix costs (£m)**
</=3"	46	61.3	2.8	44	61.0	2.7
4-5"	232	67.0	15.5	206	66.6	13.7
6-7"	77	94.2	7.3	78	93.7	7.3
8-9"	37	174.3	6.5	55	173.4	9.5
10-12"	18	243.5	4.3	27	242.2	6.4
>12-18"	10	353.0	3.7	11	351.3	3.8
>18-24"	0	0.0	0.0	0	0.0	0.0
>24"	0	0.0	0.0	0	0.0	0.0
Total	**420**		**40.1**	**420**		**43.5**
	2010-11			**2011-12**		
Diameter of mains abandoned	**Length of mains abandoned (Km)**	**Unit cost (£/metre)**	**Matrix costs (£m)**	**Length of mains abandoned (Km)**	**Unit cost (£/metre)**	**Matrix costs (£m)**
</=3"	43	60.1	2.6	39	59.1	2.3
4-5"	191	65.7	12.5	183	64.6	11.8
6-7"	71	92.4	6.6	67	90.8	6.1
8-9"	73	170.9	12.6	83	168.0	14.0
10-12"	30	238.8	7.2	35	234.8	8.3
>12-18"	11	346.3	3.9	12	340.4	4.1
>18-24"	0	0.0	0.0	0	0.0	0.0
>24"	0	0.0	0.0	0	0.0	0.0
Total	**420**		**45.4**	**420**		**46.6**
	2012-13					
Diameter of mains abandoned	**Length of mains abandoned (Km)**	**Unit cost (£/metre)**	**Matrix costs (£m)**			
</=3"	39	60.2	2.4			
4-5"	172	65.8	11.3			
6-7"	78	92.5	7.2			
8-9"	83	171.2	14.3			
10-12"	35	239.2	8.4			
>12-18"	12	346.8	4.3			
>18-24"	0	0.0	0.0			
>24"	0	0.0	0.0			
Total	**420**		**47.9**			

Appendix 11 – Calculating allowed revenue

Allowances

1.1. We have calculated our initial proposals for the five year control using an Excel spreadsheet (the financial model). We have had this model audited by an external form (PKF) to ensure its arithmetic accuracy and that its calculations of allowed revenues are consistent with our financial, regulatory and economic assumptions. The model, along with explanatory documentation and PKF's audit opinion, will be published shortly after this document.

Calculating allowed revenue

1.2. Tables 11.1 to 11.8 demonstrates the calculation of the price control allowances and projected RAV roll forward for 2008-13 for each of the eight GDNs. The calculation of the movement in the RAV is shown on lines 1 to 7. The opening value of the RAV (line 1) is equal to the closing value of the RAV under our one year control final proposals. The different elements of capital expenditure (lines 2-3) are as follows:

- new capital expenditure (line 2); and
- 50 per cent of new replacement expenditure (line 3).

1.3. These elements are added to the opening RAV, and the allowed level of depreciation (line 4) is subtracted from it to give a closing asset value (line 5). The closing value in any year then becomes the next year's opening value.

1.4. The present value of the closing RAV in 2007-08 is shown in line 6. The present value movement in the RAV is then derived by subtracting the present value of the closing RAV from the opening RAV (line 7). Present value calculations involve discounting values by the vanilla WACC of 4.84 per cent.

1.5. The allowed levels of costs and associated items are shown in lines 8 to 18. Operating costs include:

- operating expenditure including ongoing pensions costs but excluding shrinkage, which has been considered separately (line 8);
- shrinkage allowances which for our initial proposals are assumed to be equal to those underlying our one year control final proposals (line 9);
- funding of pensions deficits (line 10); and
- 50 per cent of new replacement expenditure (line 11).

1.6. Our proposed allowances for corporation tax are set out on line 12. The cash allowance for capital expenditure in each year is the sum of lines 13 and 14, being

the return on the RAV plus the depreciation allowance. This is equal to the sum of lines 2, 3 and 7.

1.7. Line 15 shows the additional income earned or penalty incurred by the company under the information quality incentive. Line 16 represents the portion of the capital expenditure allowance which is disallowed under the rolling incentive from 2002-07, where the companies do not receive allowances for five years. Finally, line 17 is the allowance for under-recoveries from the 2002-07 control (Pot 3 capital expenditure and pensions) and under-recovery of tax from the 2007-08 control. Line 18 is the sum of lines 8-17.

1.8. The total price control revenue is shown in lines 19-22. Line 19 is equal to line 18, and lines 20 and 21 are estimated non-controllable costs, being the NTS pension charge, rates and the licence fee. Line 22 is the sum of lines 19 to 21, and is the total price control revenue allowance. Line 23 is the equivalent for the 2007-08 control, and line 24 shows the percentage change in total allowed costs.

Table A11.1 - National Grid Gas - East of England price control allowances, 2008-13, (£m, 2005-06 prices)

		2008-09	2009-10	2010-11	2011-12	2012-13	5 yr avg
		£m	£m	£m	£m	£m	£m
	Regulatory Asset Value (RAV)						
1	Opening asset value	2,191.7	2,193.8	2,194.2	2,201.1	2,223.0	2,200.8
2	Total capital expenditure	34.9	29.6	36.5	51.4	40.3	38.5
3	Replacement expenditure added to RAV	45.5	49.5	49.5	50.2	50.5	49.1
4	Depreciation	-78.2	-78.7	-79.1	-79.7	-80.6	-79.3
5	Closing asset value	2,193.8	2,194.2	2,201.1	2,223.0	2,233.2	2,209.1
6	Present value of opening/closing RAV (at vanilla WACC of 4.84%)	2,092.5	2,092.9	2,099.4	2,120.3	2,130.0	2,107.0
7	Allowance for change in RAV (=1 - 6, forward valued 6 months)	101.6	103.4	97.1	82.8	95.2	96.0
	Allowed costs						
8	Controllable operating costs (incl. pensions, excl. shrinkage)	100.2	98.0	95.2	93.5	91.6	95.7
9	Shrinkage allowance	14.2	14.2	14.2	14.2	14.2	14.2
10	Pension deficit funding	1.0	1.0	1.0	1.0	0.9	1.0
11	Expensed repex allowance	45.5	49.5	49.5	50.2	50.5	49.1
12	Tax allowance	4.2	4.9	6.4	7.1	8.7	6.2
13	Return on RAV	103.7	103.8	104.0	104.6	105.4	104.3
14	Depreciation	78.2	78.7	79.1	79.7	80.6	79.3
15	IQI incentive allowance	1.0	1.0	1.1	1.1	1.1	1.1
16	Incentive allowance / (disallowance) under capex roller from 2002-07 control	-6.8	-5.7	-4.2	-1.7	0.0	-3.7
17	Under-recoveries from 2002-07 and 2007-08 controls	6.1	6.1	6.1	6.1	6.1	6.1
18	Total of allowed costs	347.5	351.5	352.3	355.8	359.1	353.2
	Price Control Revenue						
19	Total of allowed costs (non-pass through)	347.5	351.5	352.3	355.8	359.1	353.2
20	NTS charge for pensions	4.4	4.3	4.2	4.1	4.0	4.2
21	Non-controllable costs	59.3	59.3	59.3	59.3	59.3	59.3
22	Price control revenue	411.2	415.1	415.8	419.2	422.4	416.8
23	Price control revenue for 2007-08	427.2					
24	Change in allowed revenue as %age	-3.7%	1.0%	0.2%	0.8%	0.8%	-0.8%

Table A11.2 - National Grid Gas - London price control allowances, 2008-13, (£m, 2005-06 prices)

		2008-09	2009-10	2010-11	2011-12	2012-13	5 yr avg
		£m	£m	£m	£m	£m	£m
	Regulatory Asset Value (RAV)						
1	Opening asset value	1,229.5	1,273.8	1,291.0	1,312.2	1,339.9	1,289.3
2	Total capital expenditure	44.4	23.6	27.2	33.3	37.8	33.3
3	Replacement expenditure added to RAV	43.5	38.3	39.4	40.5	38.4	40.0
4	Depreciation	-43.5	-44.8	-45.4	-46.1	-47.1	-45.4
5	Closing asset value	1,273.8	1,291.0	1,312.2	1,339.9	1,369.1	1,317.2
6	Present value of opening/closing RAV (at vanilla WACC of 4.84%)	1,215.0	1,231.3	1,251.6	1,278.0	1,305.8	1,256.3
7	Allowance for change in RAV (=1 - 6, forward valued 6 months)	14.9	43.5	40.3	35.1	34.8	33.7
	Allowed costs						
8	Controllable operating costs (incl. pensions, excl. shrinkage)	71.7	68.5	66.4	65.0	63.5	67.0
9	Shrinkage allowance	8.3	8.3	8.3	8.3	8.3	8.3
10	Pension deficit funding	0.6	0.6	0.6	0.6	0.5	0.6
11	Expensed repex allowance	43.5	38.3	39.4	40.5	38.4	40.0
12	Tax allowance	0.0	0.0	0.0	0.0	0.0	0.0
13	Return on RAV	59.2	60.7	61.6	62.7	64.1	61.6
14	Depreciation	43.5	44.8	45.4	46.1	47.1	45.4
15	IQI incentive allowance	0.9	0.8	0.8	0.9	0.8	0.8
16	Incentive allowance / (disallowance) under capex roller from 2002-07 control	-4.4	-3.6	-2.5	-1.1	0.0	-2.3
17	Under-recoveries from 2002-07 and 2007-08 controls	4.2	4.2	4.2	4.2	4.2	4.2
18	Total of allowed costs	227.5	222.4	224.1	227.2	226.9	225.6
	Price Control Revenue						
19	Total of allowed costs (non-pass through)	227.5	222.4	224.1	227.2	226.9	225.6
20	NTS charge for pensions	2.6	2.5	2.5	2.4	2.3	2.5
21	Non-controllable costs	33.1	33.1	33.1	33.1	33.1	33.1
22	Price control revenue	263.2	258.0	259.7	262.7	262.3	261.2
23	Price control revenue for 2007-08	245.1					
24	Change in allowed revenue as %age	7.4%	-2.0%	0.6%	1.2%	-0.2%	2.2%

Table A11.3 - National Grid Gas - North West price control allowances, 2008-13, (£m, 2005-06 prices)

		2008-09	2009-10	2010-11	2011-12	2012-13	5 yr avg
		£m	£m	£m	£m	£m	£m
	Regulatory Asset Value (RAV)						
1	Opening asset value	1,402.4	1,426.0	1,451.4	1,487.4	1,514.0	1,456.2
2	Total capital expenditure	27.3	30.5	42.9	34.7	28.8	32.8
3	Replacement expenditure added to RAV	45.6	45.0	44.0	44.0	41.4	44.0
4	Depreciation	-49.3	-50.1	-50.9	-52.0	-53.0	-51.1
5	Closing asset value	1,426.0	1,451.4	1,487.4	1,514.0	1,531.3	1,482.0
6	Present value of opening/closing RAV (at vanilla WACC of 4.84%)	1,360.1	1,384.3	1,418.7	1,444.1	1,460.5	1,413.5
7	Allowance for change in RAV (=1 - 6, forward valued 6 months)	43.3	42.6	33.4	44.4	54.8	43.7
	Allowed costs						
8	Controllable operating costs (incl. pensions, excl. shrinkage)	77.3	75.9	73.8	72.5	70.5	74.0
9	Shrinkage allowance	11.2	11.2	11.2	11.2	11.2	11.2
10	Pension deficit funding	0.7	0.7	0.7	0.7	0.6	0.7
11	Expensed repex allowance	45.6	45.0	44.0	44.0	41.4	44.0
12	Tax allowance	0.0	0.0	0.0	0.0	0.0	0.0
13	Return on RAV	66.9	68.0	69.5	71.0	72.0	69.5
14	Depreciation	49.3	50.1	50.9	52.0	53.0	51.1
15	IQI incentive allowance	0.9	0.9	0.9	1.0	0.9	0.9
16	Incentive allowance / (disallowance) under capex roller from 2002-07 control	-4.2	-3.9	-3.0	-1.3	0.0	-2.5
17	Under-recoveries from 2002-07 and 2007-08 controls	3.2	3.2	3.2	3.2	3.2	3.2
18	Total of allowed costs	251.0	251.1	251.4	254.2	252.9	252.1
	Price Control Revenue						
19	Total of allowed costs (non-pass through)	251.0	251.1	251.4	254.2	252.9	252.1
20	NTS charge for pensions	3.0	3.0	2.9	2.8	2.8	2.9
21	Non-controllable costs	31.7	31.7	31.7	31.7	31.7	31.7
22	Price control revenue	285.7	285.8	285.9	288.7	287.3	286.7
23	Price control revenue for 2007-08	285.5					
24	Change in allowed revenue as %age	0.1%	0.0%	0.1%	1.0%	-0.5%	0.1%

Table A11.4 - National Grid Gas - West Midlands price control allowances, 2008-13, (£m, 2005-06 prices)

		2008-09	2009-10	2010-11	2011-12	2012-13	5 yr avg
		£m	£m	£m	£m	£m	£m
	Regulatory Asset Value (RAV)						
1	Opening asset value	1,084.1	1,098.6	1,108.1	1,118.4	1,131.4	1,108.1
2	Total capital expenditure	18.2	14.9	17.7	21.3	18.1	18.0
3	Replacement expenditure added to RAV	34.7	33.6	32.1	31.5	30.8	32.5
4	Depreciation	-38.4	-39.0	-39.4	-39.9	-40.4	-39.4
5	Closing asset value	1,098.6	1,108.1	1,118.4	1,131.4	1,139.9	1,119.3
6	Present value of opening/closing RAV (at vanilla WACC of 4.84%)	1,047.9	1,056.9	1,066.8	1,079.2	1,087.3	1,067.6
7	Allowance for change in RAV (=1 - 6, forward valued 6 months)	37.1	42.7	42.3	40.2	45.2	41.5
	Allowed costs						
8	Controllable operating costs (incl. pensions, excl. shrinkage)	54.3	62.9	51.9	51.0	49.9	54.0
9	Shrinkage allowance	8.7	8.7	8.7	8.7	8.7	8.7
10	Pension deficit funding	0.5	0.5	0.5	0.5	0.5	0.5
11	Expensed repex allowance	34.7	33.6	32.1	31.5	30.8	32.5
12	Tax allowance	0.0	0.0	0.0	1.2	2.9	0.8
13	Return on RAV	51.6	52.2	52.7	53.2	53.7	52.7
14	Depreciation	38.4	39.0	39.4	39.9	40.4	39.4
15	IQI incentive allowance	0.7	0.7	0.7	0.7	0.7	0.7
16	Incentive allowance / (disallowance) under capex roller from 2002-07 control	-2.7	-2.0	-1.4	-0.5	0.0	-1.3
17	Under-recoveries from 2002-07 and 2007-08 controls	3.4	3.4	3.4	3.4	3.4	3.4
18	Total of allowed costs	189.7	198.8	187.9	189.6	191.0	191.4
	Price Control Revenue						
19	Total of allowed costs (non-pass through)	189.7	198.8	187.9	189.6	191.0	191.4
20	NTS charge for pensions	2.2	2.1	2.1	2.0	2.0	2.1
21	Non-controllable costs	24.7	24.7	24.7	24.7	24.7	24.7
22	Price control revenue	216.7	225.7	214.7	216.4	217.7	218.3
23	Price control revenue for 2007-08	217.8					
24	Change in allowed revenue as %age	-0.5%	4.2%	-4.9%	0.8%	0.6%	0.1%

Table A11.5 - Northern Gas Networks - Northern price control allowances, 2008-13, (£m, 2005-06 prices)

		2008-09	2009-10	2010-11	2011-12	2012-13	5 yr avg
		£m	£m	£m	£m	£m	£m
	Regulatory Asset Value (RAV)						
1	Opening asset value	1,340.0	1,378.6	1,422.8	1,442.8	1,473.8	1,411.6
2	Total capital expenditure	46.8	42.7	32.2	44.4	55.4	44.3
3	Replacement expenditure added to RAV	38.7	49.5	37.1	36.7	36.7	39.7
4	Depreciation	-46.9	-48.0	-49.3	-50.1	-51.1	-49.1
5	Closing asset value	1,378.6	1,422.8	1,442.8	1,473.8	1,514.9	1,446.6
6	Present value of opening/closing RAV (at vanilla WACC of 4.84%)	1,314.9	1,357.1	1,376.1	1,405.7	1,444.9	1,379.7
7	Allowance for change in RAV (=1 - 6, forward valued 6 months)	25.7	22.1	47.8	37.9	29.6	32.6
	Allowed costs						
8	Controllable operating costs (incl. pensions, excl. shrinkage)	73.8	74.5	73.4	72.2	70.8	73.0
9	Shrinkage allowance	10.7	10.7	10.7	10.7	10.7	10.7
10	Pension deficit funding	3.4	3.4	3.4	3.4	3.4	3.4
11	Expensed repex allowance	38.7	49.5	37.1	36.7	36.7	39.7
12	Tax allowance	0.0	0.0	0.0	0.0	0.0	0.0
13	Return on RAV	64.3	66.2	67.8	69.0	70.7	67.6
14	Depreciation	46.9	48.0	49.3	50.1	51.1	49.1
15	IQI incentive allowance	2.0	2.2	1.7	1.8	1.7	1.9
16	Incentive allowance / (disallowance) under capex roller from 2002-07 control	-2.8	-2.2	-1.7	-0.7	0.0	-1.5
17	Under-recoveries from 2002-07 and 2007-08 controls	3.5	3.5	3.5	3.5	3.5	3.5
18	Total of allowed costs	240.5	256.0	245.1	246.6	248.6	247.4
	Price Control Revenue						
19	Total of allowed costs (non-pass through)	240.5	256.0	245.1	246.6	248.6	247.4
20	NTS charge for pensions	2.8	2.8	2.7	2.6	2.6	2.7
21	Non-controllable costs	30.9	30.9	30.9	30.9	30.9	30.9
22	Price control revenue	274.2	289.6	278.7	280.1	282.1	281.0
23	Price control revenue for 2007-08	273.5					
24	Change in allowed revenue as %age	0.3%	5.6%	-3.8%	0.5%	0.7%	0.9%

Table A11.6 - Scotia Gas Networks - Scotland price control allowances, 2008-13, (£m, 2005-06 prices)

		2008-09	2009-10	2010-11	2011-12	2012-13	5 yr avg
		£m	£m	£m	£m	£m	£m
	Regulatory Asset Value (RAV)						
1	Opening asset value	975.9	1,022.9	1,058.9	1,098.5	1,123.8	1,056.0
2	Total capital expenditure	52.5	43.4	47.8	34.7	40.6	43.8
3	Replacement expenditure added to RAV	26.9	26.4	26.6	26.6	26.5	26.6
4	Depreciation	-32.5	-33.8	-34.8	-36.0	-36.9	-34.8
5	Closing asset value	1,022.9	1,058.9	1,098.5	1,123.8	1,154.0	1,091.6
6	Present value of opening/closing RAV (at vanilla WACC of 4.84%)	975.6	1,010.0	1,047.8	1,071.8	1,100.7	1,041.2
7	Allowance for change in RAV (=1 - 6, forward valued 6 months)	0.3	13.2	11.5	27.3	23.7	15.2
	Allowed costs						
8	Controllable operating costs (incl. pensions, excl. shrinkage)	58.5	57.8	57.7	56.2	54.9	57.0
9	Shrinkage allowance	6.3	6.3	6.3	6.3	6.3	6.3
10	Pension deficit funding	3.8	3.7	3.6	3.5	3.4	3.6
11	Expensed repex allowance	26.9	26.4	26.6	26.6	26.5	26.6
12	Tax allowance	0.0	0.0	0.0	0.0	0.0	0.0
13	Return on RAV	47.3	49.2	51.0	52.6	53.9	50.8
14	Depreciation	32.5	33.8	34.8	36.0	36.9	34.8
15	IQI incentive allowance	-2.1	-2.0	-1.8	-1.8	-1.9	-1.9
16	Incentive allowance / (disallowance) under capex roller from 2002-07 control	-6.8	-6.3	-4.1	-1.5	0.0	-3.7
17	Under-recoveries from 2002-07 and 2007-08 controls	1.8	1.8	1.8	1.8	1.8	1.8
18	Total of allowed costs	168.2	170.8	176.0	179.7	181.9	175.3
	Price Control Revenue						
19	Total of allowed costs (non-pass through)	168.2	170.8	176.0	179.7	181.9	175.3
20	NTS charge for pensions	2.0	1.9	1.9	1.8	1.8	1.9
21	Non-controllable costs	15.6	15.6	15.6	15.6	15.6	15.6
22	Price control revenue	185.7	188.2	193.4	197.1	199.2	192.7
23	Price control revenue for 2007-08	194.3					
24	Change in allowed revenue as %age	-4.4%	1.4%	2.7%	1.9%	1.1%	-0.3%

Table A11.7 - Scotia Gas Networks - Southern price control allowances, 2008-13, (£m, 2005-06 prices)

		2008-09	2009-10	2010-11	2011-12	2012-13	5 yr avg
		£m	£m	£m	£m	£m	£m
	Regulatory Asset Value (RAV)						
1	Opening asset value	2,224.8	2,298.9	2,404.5	2,483.8	2,520.5	2,386.5
2	Total capital expenditure	84.3	107.3	91.3	50.5	61.1	78.9
3	Replacement expenditure added to RAV	67.7	78.2	70.8	71.4	71.5	71.9
4	Depreciation	-77.9	-80.0	-82.8	-85.2	-86.6	-82.5
5	Closing asset value	2,298.9	2,404.5	2,483.8	2,520.5	2,566.5	2,454.9
6	Present value of opening/closing RAV (at vanilla WACC of 4.84%)	2,192.7	2,293.4	2,369.1	2,404.1	2,448.0	2,341.4
7	Allowance for change in RAV (=1 - 6, forward valued 6 months)	32.8	5.6	36.3	81.6	74.3	46.1
	Allowed costs						
8	Controllable operating costs (incl. pensions, excl. shrinkage)	110.1	107.9	105.5	103.2	100.5	105.4
9	Shrinkage allowance	16.8	16.8	16.8	16.8	16.8	16.8
10	Pension deficit funding	8.8	8.5	8.3	8.1	7.9	8.3
11	Expensed repex allowance	67.7	78.2	70.8	71.4	71.5	71.9
12	Tax allowance	0.0	0.0	0.0	0.0	0.0	0.0
13	Return on RAV	107.0	111.2	115.6	118.4	120.3	114.5
14	Depreciation	77.9	80.0	82.8	85.2	86.6	82.5
15	IQI incentive allowance	-4.4	-4.7	-4.3	-4.2	-4.5	-4.4
16	Incentive allowance / (disallowance) under capex roller from 2002-07 control	-5.3	-4.1	-3.3	-1.7	0.0	-2.9
17	Under-recoveries from 2002-07 and 2007-08 controls	2.5	2.5	2.5	2.5	2.5	2.5
18	Total of allowed costs	381.1	396.4	394.8	399.7	401.7	394.7
	Price Control Revenue						
19	Total of allowed costs (non-pass through)	381.1	396.4	394.8	399.7	401.7	394.7
20	NTS charge for pensions	4.5	4.4	4.3	4.2	4.1	4.3
21	Non-controllable costs	51.4	51.4	51.4	51.4	51.4	51.4
22	Price control revenue	437.0	452.2	450.5	455.3	457.2	450.4
23	Price control revenue for 2007-08	432.4					
24	Change in allowed revenue as %age	1.1%	3.5%	-0.4%	1.1%	0.4%	1.4%

Table A11.8 - Wales &West Utilities - Wales & West price control allowances, 2008-13, (£m, 2005-06 prices)

		2008-09	2009-10	2010-11	2011-12	2012-13	5 yr avg
		£m	£m	£m	£m	£m	£m
	Regulatory Asset Value (RAV)						
1	Opening asset value	1,234.0	1,275.5	1,321.9	1,370.6	1,415.0	1,323.4
2	Total capital expenditure	49.9	48.9	53.8	50.7	46.5	50.0
3	Replacement expenditure added to RAV	33.8	40.9	39.6	39.8	39.6	38.7
4	Depreciation	-42.2	-43.4	-44.7	-46.1	-47.5	-44.8
5	Closing asset value	1,275.5	1,321.9	1,370.6	1,415.0	1,453.5	1,367.3
6	Present value of opening/closing RAV (at vanilla WACC of 4.84%)	1,216.6	1,260.8	1,307.3	1,349.6	1,386.4	1,304.1
7	Allowance for change in RAV (=1 - 6, forward valued 6 months)	17.8	15.0	15.0	21.5	29.3	19.7
	Allowed costs						
8	Controllable operating costs (incl. pensions, excl. shrinkage)	74.9	74.6	72.0	70.0	67.8	71.9
9	Shrinkage allowance	11.9	11.9	11.9	11.9	11.9	11.9
10	Pension deficit funding	5.1	4.9	4.8	4.7	4.6	4.8
11	Expensed repex allowance	33.8	40.9	39.6	39.8	39.6	38.7
12	Tax allowance	0.0	0.0	0.0	0.0	0.0	0.0
13	Return on RAV	59.3	61.4	63.7	65.9	67.8	63.6
14	Depreciation	42.2	43.4	44.7	46.1	47.5	44.8
15	IQI incentive allowance	0.6	0.6	0.6	0.6	0.6	0.6
16	Incentive allowance / (disallowance) under capex roller from 2002-07 control	-5.1	-3.8	-2.8	-1.1	0.0	-2.6
17	Under-recoveries from 2002-07 and 2007-08 controls	3.2	3.2	3.2	3.2	3.2	3.2
18	Total of allowed costs	225.7	237.0	237.7	241.1	242.9	236.9
	Price Control Revenue						
19	Total of allowed costs (non-pass through)	225.7	237.0	237.7	241.1	242.9	236.9
20	NTS charge for pensions	2.7	2.6	2.6	2.5	2.5	2.6
21	Non-controllable costs	22.3	22.3	22.3	22.3	22.3	22.3
22	Price control revenue	250.7	261.9	262.6	265.8	267.7	261.7
23	Price control revenue for 2007-08	252.0					
24	Change in allowed revenue as %age	-0.5%	4.5%	0.3%	1.3%	0.7%	1.3%

Appendix 12 – Impact of proposals

1.1. The price control allowances represent the maximum revenue that the GDNs can collect via gas transportation charges (primarily use of system charges and customer charges) under our baseline assumptions. Other revenue streams such as connections contributions, metering and meter reading are not affected.

1.2. The precise impact of these proposals on charges to different types of customers will depend on a number of additional factors, including:

- the rate of inflation;
- the gains or losses that may be made by GDNs due to specific incentive schemes,
- uncertainty over the gas price index, which will affect GDNs' allowance under the shrinkage incentive;
- changes in the level of business rates, due to be re-evaluated in 2010;
- the application of a k factor as a result of under or over-recoveries; and
- potential changes to the structure of charges.

1.3. We appreciate that shippers and consumer groups are keen to understand the overall change in charges, which is the cumulative effect of all factors. In our one year proposals, we published a table showing the likely change in charges to customers between 2006-07 and 2007-08.

1.4. Below, we set out the likely impact of our initial proposals for the main control on GDNs' allowed revenues once inflation, and the impact of changes to the gas price index on shrinkage allowances, are taken into account. We assume that GDNs do not make gains or losses under their incentives and that they recover their allowed revenue in each year with no adjustments for over or under-recoveries.

1.5. Table A12.1 shows the results in terms of forecast values for the licence terms DNZ (baseline allowance), DNSh (shrinkage) and DNF (non controllables) in 2007-08 and 2012-13, the final year of the price control period. We compare the 2007-08 forecast with the figures published in our one year control final proposals; the differences between the two values for this year are due to updated information on inflation and shrinkage gas prices.

1.6. We have also included a figure to show the impact on a typical domestic consumer (this cannot be simply derived by dividing total allowed revenue by number of customers, since each GDN has a number of large industrial users that use much more gas than a domestic customer). This is calculated as follows:

- starting with current charges for an average domestic customer, calculate forecast charges in 2007-08 for each GDN, assuming that GDNs recover their allowed revenue during that year; and
- apply our per cent increase figure, calculated from adjusted allowed revenues, to the 2007-08 charges to give a forecast customer charge for 2012-13. This

represents the amount that a typical domestic customer might expect to pay to cover gas distribution charges in this year.

1.7. This calculation is not dependent on the proportion of the total bill that relates to gas distribution charges, which varies with gas prices.

Table A12.1 - Changes in allowed revenue from 2007-08 to 2012-13 (nominal prices, unless stated)[14]

£m	2007-08 per one year control final proposals	2007-08 latest view	2012-13 latest view	Change from 2007-08 to 2012-13 latest views
Baseline allowance (2005-06 prices) less shrinkage	1945.8	1945.8	2015.7	70
Shrinkage assumed within baseline allowance (2005-06 prices)	88.1	88.1	88.1	0
Non controllables assumed in total allowances (2005-06 prices)	293.8	293.8	292.0	-2
Total allowances (2005-06 prices)	2327.7	2327.7	2395.8	68
Baseline allowance less shrinkage, adjusted for inflation (DNZ)	2045.9	2070.1	2426.3	356
Shrinkage, after price adjustment and inflation (DNSh)	92.7	53.6	71.6	18
Total non controllables, adjusted for inflation (DNF)	308.9	315.8	355.2	39
Total revenue	2447.4	2439.6	2853.1	414
Average revenue per domestic customer	£94.26	£94.17	£110.17	£16.00

1.8. The change in forecast revenues shown above is equivalent to a 3.3 per cent average annual rise. This can be reconciled to the 0.6 per cent average annual increase presented in previous chapters as follows: we assume inflation of 2.5 per cent per annum between 2007-08 and 2012-13 while a rise in expected prices paid for shrinkage gas adds a further 0.2 per cent p.a.: 0.6 + 2.5 + 0.2 = 3.3 per cent.

[14] Figures in the first column may differ slightly from those published in our one year control final proposals due to rounding.

Shrinkage allowances for 2007-08 and 2008-09 are based on average forward gas prices for the relevant periods, taken from Heren at 1 April 2007. These prices are lower than those underlying our one year control final proposals. Gas prices are assumed to rise by inflation in the remaining years of the price control. Shrinkage volumes are assumed to be constant.

Inflation adjustments for shrinkage and non controllables reflect actual inflation between 2005-06 and 2006-07. We assume inflation of 3% in 2007-08 and 2.5% thereafter. For the baseline allowance we calculate 2006-07 and 2007-08 inflation according to the formula in the DNZ licence term and assume 2.5% annual inflation thereafter.

1.9. In our final proposals for the main control we hope to update this table to include more accurate information on likely charges to customers in 2008-09.

1.10. We would welcome respondents' views on the most helpful way to present the impact of our proposals on customers.

Appendix 13 – Licence drafting

1.1. This appendix sets out the process for modifying the licences and provides our initial thoughts on the licence conditions that will be modified or introduced in order to implement the price control for the GDNs from 1 April 2008. We may also look to modify the IGT licences to give effect to our proposals on quality of service. We have not identified the relevant licence conditions at this stage. Our initial thoughts for the licence drafting are based on our initial proposals. Any changes to the licence will obviously reflect our final proposals. The scope and content of the changes discussed below will also need to change. Where possible we have also identified potential licence drafting associated with outstanding issues we intend to resolve as part of the September 2007 updated proposals document. The appendix also sets out our views on improvements that can be made to certain licence conditions. We are seeking views on whether these improvements are appropriate and whether there are other areas of the licence which should be modified.

Modifying the licence conditions

Background

1.2. The current licence GDN licence obligations are set out in:

- Standard Conditions - which apply to all gas transporters (i.e. IGTs, GDNs and NTS);
- Standard Special Conditions - these conditions were introduced as part of DN sales. Part A applies to both the NTS and GDNs and part D applies to the GDNs only; and
- Special Conditions - these conditions are specific to each GDN licensee.

1.3. Special conditions and standard conditions of a particular licence can be modified under section 23 of the Gas Act 1986 with the agreement of the licensee. If the licensee does not give consent then Ofgem can make a reference to the Competition Commission.

1.4. Standard conditions and Standard Special Conditions can be modified through collective modifications to licences of a particular type. For standard conditions this “statutory” collective licence modification (CLM) is made under section 23 of the Gas Act. Standard Special Conditions are modified through the “private” CLM procedure set out for the relevant Standard Special Condition.

1.5. Under the CLM procedures if 20 per cent of the relevant licence holders (either based on number or weighted by market share) register a formal objection to the licence modifications a reference would need to be made to the Competition Commission to determine whether the licence modifications should be implemented.

Process for modifying the licence conditions

1.6. Before initiating a formal licence consultation we will be carrying out informal consultations of the licence modifications as part of the updated price control proposals in September 2007 and final proposals in December 2007. The informal consultations enable us to seek comments from the GDNs and interested parties on the modification proposals and early drafts of the licence text.

1.7. Before making a modification to the licences we must carry out a formal consultation on the proposals under the relevant Gas Act or licence provisions. As part of this process we will publish a modification notice on our website. The modification notice will set out the modifications we propose to make and the effects of the proposed modification, the reasons for the modification and the period within which representations or objections can be made. This period cannot be less than 28 days. We are required to serve copies of the modification notice to the relevant licence holders, the Secretary of State, energywatch and the HSE. During the consultation period the Secretary of State has the power to veto the licence modifications.

1.8. Once the consultation period has closed we will review any representations and objections and determine whether to proceed with the licence modifications. If appropriate, we will make the licence modifications; specifying when they will take effect and our reasons for making them.

Modifications to the Special Conditions in Part E

1.9. This section sets out our initial views on the modifications to each of the conditions in Part E: Special Conditions Applicable to the Licensee (DN) of the gas transporter licence. For the purposes of simplicity, we will be issuing a single draft of the licence modifications for the retained DNs (RDNs), clearly identifying the data which applies to specific RDNs, for both the informal and formal consultations.

Special Condition E2A

1.10. Special Condition E2A, sets out the definitions applicable to the special conditions. We will update this condition to include any new terms or to remove any redundant terms resulting from modifications to the conditions in Part E. We will also seek to ensure consistency between these definitions and those in Standard Special Condition A3 and in standard condition 1.

Special Condition E2B

1.11. Special condition E2B 1b(8)(1) sets out the principal formula for calculating the price control revenue, which is currently defined as:

$$DNMR_t = DNZ_t + DNF_t + DNEx_t + DNIAE_t - DNMRA_t + DNSh_t - DNK_t$$

1.12. We intend to re-structure Special Condition E2B so that it is easier to navigate through the terms. One option is to re-number the licence conditions so that each of the principal terms set out above are set out in separate licence conditions. Another option is to set out each of the principal terms in separate sections of Special Condition E2 so that the re-numbering of the licence conditions is not necessary.

1.13. The DNZt term sets out the RPI-X allowance, which will be adjusted to reflect the baseline allowance for each year of the price control determined as a result of our final proposals.

1.14. The DNFt term allows the pass through of certain items which currently includes DN prescribed rates, licence fees and the pension deficit charge to be passed through. We will amend the term to also include payment claims associated with last resort supply, third party water ingress costs and the costs incurred by suppliers in investigating gas illegally taken, as set out in chapter 2. One option is to include our best forecast of each of these items in the DNZt term, so that it better reflects the total allowances figures set out in our proposals. The DNFt term would then be used to allow the difference between outturn costs and the forecast figures. We will include a forecast allowance for prescribed rates in the DNZt term so that the DNFt term will be amended to allow companies to recover the difference between outturn prescribed rates and the allowance. We will also provide for switch off arrangements on adjustments to the allowance for DN prescribed rates, in line with our approach in the transmission licences unless companies can demonstrate that they have engaged efficiently with the relevant bodies at the ratings evaluations, as set out in chapter 2.

Mains replacement incentive

1.15. The DNMRAt term sets out the principal formula term for the mains replacement incentive. The mains replacement incentive initial proposals are set out in chapter 6. Consistent with these proposals, we will re-define DNMRAt as the mains and services replacement expenditure adjustment.

1.16. Special Condition E2B1b(8)(3) sets out the matrix of costs for each mains diameter band. We will update the matrix to include larger diameter bands. We will also include a matrix for services replacement costs. The matrix mains cost term, AMt, will be re-defined as the matrix mains and services cost and will be the aggregate of the mains unit cost multiplied by the length of pipe replaced for each diameter of mains replaced and the number of each type of services work multiplied by unit cost.

1.17. Special Condition E2B1b(8)(2) sets out the calculation for the mains replacement adjustment and is determined by the AMt term, the price control initial projection allowance term, Jt, and the outturn mains cost term, Et. The Jt term includes a matrix of allowances which will need to be updated for the price control (and will include services replacement allowances) and the Et term will be re-defined to include outturn mains and services costs.

1.18. The formula for calculating the mains replacement expenditure adjustment will be amended to reflect the strength of the incentive as determined by the operation of the IQI.

DN transportation activity revenue adjustment

1.19. Special Condition E2B1b(8)(4) adjusts the price control, for any previous over or under recovery against allowed revenues and is a fixed amount for the first year of the price control. The adjustment will be amended to allow a two tier revenue recovery correction mechanism, as set out in chapter 2.

DN exit capacity incentive revenue

1.20. Special Condition E2B1b(8)(5) sets out the principal formula term for the DN exit capacity incentive. In the current licence condition the parameters for the incentive have been set up to 30 September 2010. As part of a separate consultation[15] we have consulted on extending initial volume allocations of NTS exit flat capacity, NTS exit flow flexibility capacity and the incentive target for the curtailment of rights to offtake gas on plus 15 curtailment days from October 2010 to 30 September 2011. We will come forward with proposals in the September 2007 update proposals to either amend/ update the exit incentive parameters or propose alternate arrangements as discussed in chapter 6.

Shrinkage incentive

1.21. Special Condition E2B1b(8)(7) sets out the principal formula term for the shrinkage incentive. We will update the allowed shrinkage factors. As set discussed in chapter 7, the shrinkage uplift factor term will be amended to include a methodology for the calculation of the uplift based on prevailing market conditions.

Reporting obligations and calculation of quantities

1.22. Special Condition E2b1b(8)(10) sets out the reporting obligations requiring GDNs to provide certain information in reference to the transportation revenue. There is some overlap between these reporting obligations and reporting obligation set out in Special Condition E6. We therefore propose to move the reporting obligations of Special Condition E2B1b(8)(10) into Special Condition E6 for consistency and to avoid any duplication. Special Condition E2B1b(8)(9) sets out the requirements for calculating volumes for commercial user quantity, very large user quantity and small interruptible user quantity for the purposes of reporting these volumes in Special Condition E2B (8)(10). The requirement for this data is connected to the volume driver, which we are proposing to remove, so we will consider whether it is still required.

Disapplication of the DN transportation activity revenue restriction

1.23. Special Condition E2B1b(8)(11) sets out the arrangements under which the GDNs can request that the principal formula for calculating the price control allowed

[15] NTS Exit capacity and interruption incentive for Gas Distribution Networks 2010/11. Ref 116/07

revenue does not apply. We intend to review Special Condition E2B1b(8)(11) to ensure consistency with Transmission and to consider whether the provisions provide adequate protection for customers.

Special Condition E3

1.24. Special Condition E3 sets out the requirements for the GDNs to attribute revenues, costs, assets and liabilities to its various business activities in a manner that is objective and not unduly to their benefit. The condition requires the GDNs to provide a statement on the methods it will use for the attribution. The GDNs are also required to report on the extent to which it complied with the statement and to provide an independent auditor's report. We will review whether an audit is appropriate and in particular whether it delivers value. We will also review whether these obligations should be removed from the licence and included as part of the GDNs' cost reporting obligations in Standard Special Condition A40.

Special Condition E4

1.25. Special Condition E4 specifies the services which will be treated as excluded services for the purposes of price controlled revenues. As set out in chapter 2, Special Condition E4 will have to be modified to remove payment claims associated with last resort supply and for costs incurred by suppliers in investigating gas illegally taken. Special Condition E4 will also need to include a provision for the treatment of user pays services provided by xoserve. We also intend to review the interaction between Special Condition E4 and the permitted purpose definitions in Standard Special Condition A36(4)

Special Condition E5

1.26. Special Condition E5 sets out the tariff caps for metering activities which the GDNs cannot exceed when setting its charges for each of the activities. We intend to review whether these tariff caps are appropriate in light of competition in metering services.

Special Condition E6

1.27. Special Condition E6 sets out the GDNs' cost reporting obligations. The particular data requirements are partially dependent on the form of the price control and specific incentives. We will therefore review this condition to ensure it obliges the GDNs to submit the relevant data to us to enable us to monitor the amount of revenue they are allowed to collect.

Modifications to Standard Special Conditions in Part A

1.28. This section considers amendments to the Standard Special Conditions which apply to both NTS and GDNs and so require the NTS to be included in the modification process.

Standard Special Condition (SSC) A3

1.29. SSC A3 sets out the definitions for conditions in the SSCs. We will amend the definitions in light of the amendments to SSC A and D. We may also seek to ensure consistency between these definitions and those in Special Condition E2A and in Standard Condition 1.

SSC A10, A43 and A46

1.30. SCC A10, A43 and A46 set out the obligations for the provision and return of meters, the provision of metering and meter reading services and non-discrimination in the provision of metering services. Along with Special Condition E5, we will review these provisions in light of metering competition.

SSC A15

1.31. SSC A15 sets out the obligations for each GDN to enter into an agency services agreement with the other GDNs. As set out in chapter 8 we will review what modifications are required to facilitate user pays arrangements.

SSC A19 to A25

1.32. SSC A19 to A25 sets out the obligations for: the provision of services to persons who are of pensionable age, disabled or chronically sick arrangements in respect of meters; provision of services for persons who are blind or deaf; arrangements in respect of power of entry; authorisation of officers; exercise of powers of entry; complaint handling procedure; preparation, review of and compliance with statements and codes; and record of and report on performance respectively. As set out in chapter 5, we intend to review these obligations as part of our review of the quality of service obligations. We will seek to ensure that, where appropriate, changes made to these conditions are consistent with those under the Supply Licence Review and the Electricity Distribution Licence Review.

SSC A33 and A34

1.33. SSC A33 and A34 set out the obligations for: the restriction on use of certain information and independence of the transportation business; and the appointment of compliance officer respectively. We will review whether it is relevant to include provisions to appoint a compliance officer to review to review business separation requirements for singleton companies. We will also review whether consent may need to be granted to allow meter providers to have access to xoserve data under SSC A33.

SSC A35 to A39

1.34. SSC A35 to A39 set out the obligations for: prohibition of cross subsidies; restriction on activity and financial ring fencing; availability of resources; credit rating of the licensee; and indebtedness respectively. We will review these ring fencing conditions for consistency with the Electricity Distribution and Transmission licence obligations, and any other relevant changes.

SSC A40

1.35. SSC A40 sets out the obligations for price control information. We will review whether the licence condition is appropriately drafted to allow us to collect all the data we require for the cost reporting programme. We will also review consistency of SSC A40 with the Electricity Distribution and Transmission licence obligations.

SSC A55

1.36. SSC A55 sets out the obligations for implementing enduring offtake arrangements by 1 September 2005. We propose to remove this licence condition as it has become redundant.

Modifications to Standard Special Conditions in Part D

1.37. This section considers amendments to SSC licence conditions which apply to GDNs only.

SSC D5 and D7

1.38. SSC D5 and D7 set out the obligations for: the procurement and use of system management services; and exit code statement. We will review whether these obligations remain appropriate to GDNs.

SSC D9

1.39. SSC D9 sets out the obligations for DN transportation activity incentive scheme and performance reporting and will be reviewed as part of the review of the quality of supply obligations. As set out in chapter 5, we intend to review these obligations to:

- remove any gas transmission related outputs;
- specify accuracy and completeness performance levels to improve the measurement and reporting of the number and duration of interruptions;
- expand the scope of the customer satisfaction surveys;
- introduce reporting requirements regarding the accuracy of pipeline records and for a balanced score card;
- include performance obligations which were previously overall standards of performance, such as answering telephone calls and attending reported gas emergencies; and
- review whether there is any duplication in reporting requirements with Special Condition E2B1b(8)(10) and Special Condition E6.

SSC D10

1.40. SSC D10 sets out the obligations for the provision of connections information. We will review this condition to clarify the reporting periods for the performance levels specified.

Amendments to standard conditions

Standard Condition 1

1.41. Standard Condition A1 sets out the definitions for the standard conditions and may be amended in light of any changes to other standard conditions. We may also seek to ensure consistency between these definitions and those in SSC A3 and Special Condition E2A.

Standard Condition 4B

1.42. Standard Condition 4B sets out the connections charging obligations. We plan to include a requirement to seek Authority approval to connection charging methodologies consistent with other charging methodologies. In light of responses, we may also need to consider amending Standard Condition 4B to take account of our proposals for network extensions.

Potential additional licence conditions

1.43. Set out below are areas where additional licence obligations are likely to be appropriate to implement our initial proposals:

- discretionary reward scheme – as set out in chapter 7, this will include provisions for the treatment of any revenues associated with the discretionary reward scheme;
- capacity outputs incentive for last year and half of price control – as set out in chapter 6, we will come forward with proposals in the September 2007 updated proposals document on the capacity outputs incentive and we will identify the amendments to make these proposals effective. We will also review the current DN exit capacity incentives; and
- independent networks – as set out in chapter 8 we are awaiting the results of a DTI consultation into independent networks and will come forward with consistent licence drafting in September 2007 updated proposals.

Timetable for consultation

1.44. We intend to circulate a first draft of the licence conditions to the GDNs before the end of August and will hold a working group meeting to discuss the draft. We intend to consult further on the Licence drafting in September with the updated proposals document. We plan to have another informal licence consultation in December with the final proposals and intend to issue the statutory consultation on the licence modifications in February 2008.