

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:

Initial proposals are an important milestone in the price control review process, setting out for the first time our initial views on the appropriate level of capital, replacement and operating expenditure required by GDNs for the five year period from 1 April 2008.

We are proposing a reduction in the GDNs' operating expenditure of 3.3 per cent a year from actual levels in 2006-07. We recognise that fulfilling the Health and Safety Executive's requirements on mains replacement and meeting steady growth in gas demand will result in higher capital and replacement expenditure than in the previous price control period (2002-2007). Nonetheless, Ofgem is proposing reductions in companies' forecasts for capital and replacement expenditure because it considers this investment can be delivered more efficiently. The net effect of Ofgem's initial proposals is a small increase in the revenue which GDNs can recover from their customers of on average 0.6 per cent a year in real terms.

In a number of areas the analysis is not yet complete. We are also expecting the GDNs to submit new information during the course of the summer. The new information, completion of ongoing analysis and responses to our initial proposals will feed through to our updated proposals in September.

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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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Summary

Our principal objective is to protect the interests of gas and electricity consumers. In the context of gas distribution networks (GDNs), one way we do this is by periodically reviewing the revenue which GDNs are allowed to recover from their customers and by establishing a framework that creates incentives for GDNs to operate efficiently, to deliver an agreed quality of service and contribution to sustainability and to meet their statutory obligations and licence conditions.

This price control review follows the sale by National Grid Gas (NGG) of four of its eight GDNs to three new owners on 1 June 2005. We started the price control review in December 2005. In April 2007 we implemented a one year price control in which we sought to address a number of the issues which had emerged during the previous five years. In putting forward these proposals, which are intended to apply for five years from April 2008, we have focused on the challenges facing the industry going forward and on making full use of the new information – albeit limited at this stage – available to us through comparison of independently owned and managed GDNs.

In assessing operating expenditure (opex), we have carried out extensive benchmarking at an individual activity level. This enables us to make comparisons with companies outside the sector and increases confidence in the overall result. We have compared the results of this analysis with a traditional benchmark based on total operating costs. We have also taken into account the arguments put forward by GDNs that in certain activities costs are increasing faster than the rate of inflation and that costs in certain parts of the country are higher, and made allowances for the scope for future efficiency savings. At this stage the net effect of our proposals is significantly lower than the companies have requested, giving rise to an average annual reduction in opex of 3.3 per cent in real terms from 2006-07 to the end of the price control period.

In assessing capital (capex) and replacement expenditure (repex) we have adopted a similar approach, although the scope for benchmarking for capex is more limited. In this case we have made extensive use of the recommendations of our technical consultants. At the time of the last price control review, we allowed for a significant increase in replacement expenditure to enable the GDNs to carry out the mains replacement programme approved by the Health and Safety Executive to address safety concerns. Changes in the makeup and volume of workload have continued to drive the cost of this programme up. We have reflected this in significantly higher repex allowances.

There remain potentially significant differences of view between us and the companies on future capex and repex requirements. We propose to implement an information quality incentive (IQI) which will encourage sensible projections from the GDNs and provide flexibility in the way allowances are set, reducing reliance on one view of the future. The effect of the IQI is to increase allowances by 4 per cent.

Our proposed allowances for opex, capex and repex (before the IQI) are summarised in the table.

£m in 2005-06 prices	Average annual actual 2002 to 2007	2007-08 Allowances	Average annual GDN forecast over 2008-13	Average annual Ofgem allowance over 2008-13	Difference GDN forecast to allowance
Opex	662.4	652.5	722.1	598.0	-17%
Capex	260.5	358.4	393.1	328.2	-17%
Repex	493.9	588.0	797.5	654.0	-18%

For the purposes of initial proposals we have calculated the GDNs allowed revenue using a vanilla cost of capital of 4.84 percent (equivalent to a post tax cost of capital of 4.2 percent). This takes account of changes in market conditions and trends since our review of the transmission companies' price controls last year. Before deciding on the appropriate cost of capital for the GDNs, we will want to consider the risk of gas distribution as an activity and how, in the light of these proposals, it compares with other energy networks and regulated utilities.

Taken together, our initial proposals are that GDNs be allowed to recover on average £2.369 billion (in 2005-06 prices) per annum from their customers. This represents a real increase of 0.6 per cent per annum. For the average domestic consumer this is likely to represent a real increase of less than £1 per annum.

We have reviewed the performance standards which GDNs are required to deliver and are proposing a number of changes. The effect of this package will be to provide a simpler package of measures for monitoring quality of service, with tougher standards in some cases. It will also enable more effective enforcement in the event that GDNs fail to deliver.

Extending the gas network to fuel poor communities can help to alleviate fuel poverty. We are putting forward a recommendation that GDNs take into account future revenue from these new connections in determining the connection charge. Even with this change we recognise that extending the network in this way can be complicated and requires the commitment and support of GDNs. We intend to recognise achievements by the GDNs through a Discretionary Reward Scheme valued in total at £4 million per annum.

Further work is still ongoing to understand the environmental implications of gas lost through leakage from the distribution network and whether it is appropriate to strengthen the incentive on GDNs to reduce this further. In addition, initiatives to reduce the environmental impact of gas distribution and to increase awareness of gas safety will form part of the Discretionary Reward Scheme referred to above.

At this stage we are still completing some of the analysis underpinning our proposals. Where this is the case, it is identified explicitly in the document. The GDNs will also be submitting revised data during the summer. Consideration of the new information, responses to this document and further analysis will result in changes to our proposals which may be significant. We will publish our updated proposals in September and our final proposals in December.

1. Introduction

Chapter Summary

This chapter sets out the purpose of the document and explains how the document is organised.

Question box

There are no specific questions in this chapter.

Purpose of this document

1.1. The price control that currently applies to GDNs expires on 31 March 2008. The GDPCR will reset the revenue allowances for the eight GDNs for the next price control period, 1 April 2008 to 31 March 2013.

1.2. We have now reached a key stage in the process where we have formed an initial view on what the allowances should be for operating, capital and replacement expenditure and set out appropriate revenue allowances for the price control period based on initial financial assumptions. It is the revenue allowances which GDNs will ultimately be asked to accept as part of final proposals.

1.3. The document sets out a range of incentives and quality of service outputs, along with a package of other proposals that together with the proposed allowances we think will best protect consumers' interests. The next stage is to seek wider views on these findings.

1.4. In a number of areas the analysis is incomplete. We are expecting the GDNs to submit new information during the course of the summer. This will include audited data on their costs for 2006-07 and their latest capital expenditure forecasts based on the proposed arrangements for buying capacity from the National Transmission System (NTS) and for purchasing the right to interrupt large customers. This new information and the completion of ongoing analysis will feed through to changes in our proposals.

Structure of this document

1.5. This consultation document is organised as follows:

- chapter 2 sets out our proposed approach on the form, structure and scope of the price control. This includes our approach to revenue drivers, excluded services

and deminimis activities, dealing with uncertainty and the revenue correction mechanism.

- chapters 3 and 4 set out our initial findings and basis for allowances for operating, capital and replacement expenditure.
- chapter 5 details our initial proposals to improve quality of service and outputs to customers.
- chapter 6 outlines a range of incentives that we propose to introduce or modifications that we propose to existing incentives. This includes capital expenditure (capex) rolling incentives and the information quality incentive, the mains and services replacement incentive and volume driver. We also consider the issues associated with operating expenditure (opex) rolling incentives and the capacity output incentives.
- chapter 7 details our thinking and initial proposals in the area of sustainable development. This includes gas shrinkage, network extension and a discretionary reward scheme.
- chapter 8 identifies other issues which make up the package of proposals which includes funding of xoserve and the next steps on approach to independent systems.
- chapter 9 provides Ofgem's thinking on the cost of capital and tax, and discusses the initial outcomes of our financeability review.
- chapter 10 draws together our analysis set out in earlier chapters in order to outline the overall impact of Ofgem's proposals.
- chapter 11 sets out our next steps and the GDPCR timetable.

2. Form, Structure and Scope of Price Control

Chapter Summary

The third consultation document set out a number of issues relating to form, structure and scope of the price control. This chapter outlines our proposals in a number of areas and provides further details on our thinking.

Question box

Question 1: Do you think that a wider deadband on the revenue recovery correction mechanism is appropriate in gas distribution?

Revenue Drivers

2.1. In the current price control 35 per cent of the GDNs' allowed revenue varies with gas throughput on the network. The rationale for a throughput-based revenue driver (or volume driver) was that the costs of operating the network increase as the overall capacity requirements increase and that changes in throughput would reflect changes in capacity (which cannot be directly independently measured).

2.2. In the previous price control period throughput did not grow steadily as forecast but fluctuated in response to weather and gas prices. This fluctuation did not trigger changes to peak demand. On the other hand the GDNs' cost base is only marginally related to throughput, via gas shrinkage and odorant costs. Odorant costs typically account for less than 0.2 per cent of revenues. The impact of throughput on shrinkage costs is already compensated for in the price control via the shrinkage incentive mechanism.

Ofgem proposals:

2.3. As a result of this analysis we noted in the fourth consultation document that it might be appropriate to remove the volume driver as it appears unlikely to be proportionate to the risks to which GDNs are exposed. Having reviewed respondents' views to the fourth consultation document as part of our initial proposals we have decided to remove the volume driver.

2.4. We also consulted on whether it would be appropriate to include any other revenue drivers. We concluded that there was limited merit in a capacity related or customer related revenue driver but suggested that a connections driver may be appropriate. In general, GDNs did not support any of these revenue drivers and considered that a connections related revenue driver would be difficult to implement

in practice and be overly complex. Shippers had mixed views on whether a connections related revenue driver was appropriate. In light of these responses we have decided not to include any revenue drivers as part of the initial proposals.

Scope of the Price Control

2.5. In the third consultation document we set out our view to clarify the circumstances in which costs or revenues should be excluded from the price control.

2.6. Responses to the third consultation document in general agreed with our proposed treatment for excluded services and pass-through items. A number of respondents considered that costs incurred by suppliers investigating theft of gas which they are entitled to recover from the GDN under the Reasonable Endeavours Scheme should be a pass-through item rather than an excluded service. In addition there was also a wide range of views on the treatment of costs from the potential loss of meterwork by the GDNs. This is discussed further in chapter 3.

2.7. Respondents generally supported the proposed approach to rates as it provided the appropriate incentives on GDNs. One respondent argued that such an approach would significantly and unnecessarily increase risk on the business.

2.8. Connection services for which GDNs receive customer contributions are currently treated as excluded services with the exception of services that GDNs are obliged to provide without charge (e.g. those provided under the 10 metre rule²). In the third consultation document we considered whether it was appropriate to introduce a revenue driver within the price control rather than continue to treat the income as an excluded service. Responses to the third consultation document in the main did not support a change in treatment due to the uncertainty and range of costs associated with connections making a revenue driver difficult to set.

Ofgem proposals:

2.9. We propose to maintain our approach as set out in the third consultation document with the exception of changing the treatment of supplier costs in relation to investigating theft of gas (see below). At this time we do not propose to change the treatment of costs associated with provision or modification of connections and as detailed above we do not propose to introduce a connections revenue driver.

2.10. In addition, GDNs provide certain services to the NTS, including emergency services and maintenance services at offtake points. NGG GDN provides certain

² Up to the first 10 metres of a connection in the public highway are provided free to the customer requiring the connection where the connection is within 23 metres of a relevant gas main. The costs are recovered from the generality of customers through the RAV.

services to other GDNs, including the provision of the national emergency phone number, and, for a transitional period, area control centre services under the SOMSA arrangements. We propose that when the present consents expire the appropriate treatment of these services will be considered. Any transitional arrangements will fall away with time but the treatment of services that are considered to be medium term needs to be determined. At this time we do not propose to change our approach in this area and these services will not be treated as excluded services.

2.11. We propose to make the following changes to the scope of the price control:

- payment claims associated with last resort supply will become a pass through item rather than excluded service;
- costs incurred by suppliers in investigating gas illegally taken which are in accordance by the Reasonable Endeavours Scheme will be treated as a pass through item rather than an excluded service; and
- "user-pays" services provided by xoserve will be treated as excluded service (see chapter 8).

2.12. We set out in the third consultation document our initial thinking on rates and their inclusion as a pass-through item. Since the last price control was set, the arrangements for setting network rates have changed. Rateable values are set independently by the Valuation Office Agency (VOA, for England and Wales) and Scottish Assessors (SAA) for Scotland and are subject to appeal. GDNs can influence the valuation of their networks for the purposes of setting network rates for the following five-year period via the revaluation process. The next rating valuation is scheduled for 2010. We propose to set an ex ante allowance based on the present level of rates, with a mechanism in the licences to allow companies to recover the difference between their out-turn costs and the allowance. This mechanism will be switched off from 2010-11 and it will be switched on if the companies can satisfactorily demonstrate that they have engaged efficiently with the VOA and SAA at the rating revaluation. This is consistent with the approach taken in the Transmission Price Control Review (TPCR) and the electricity Distribution Price Control Review (DPCR), although in DPCR4, since the ratings valuation coincides with the re-setting of the price control, the adjustment mechanism was not required.

Price indices

2.13. In the second consultation document we consulted on whether Ofgem should link some or all of allowed revenues to a price index other than the Retail Price Index (RPI). There was broad support among respondents for the continued use of the RPI. A few of the respondents considered that some revenue could be linked to other indices or that real price effects, e.g. those associated with contractor rates and material costs, should be incorporated into the allowances.

2.14. For reasons set out in the second consultation document, we continue to support the retention of the RPI as the key price index and we do not propose to link any cost allowances to alternative cost indices, apart from gas shrinkage. The cost

allowances and efficiency targets that we have set in this document do take account of real growth in input prices, including contractor and materials costs.

Dealing with uncertainty, new obligations and costs

2.15. We consulted on mechanisms for dealing with uncertainty, new obligations, and costs in the second and third consultation documents. We set out our initial view that we do not support the use of a generic mechanism for dealing with uncertainty because it dampens GDNs' incentives to manage costs and forecast accurately. We considered that it may be appropriate to include a specific reopener in circumstances where significant changes to costs are expected, but the level of impact is difficult to quantify prior to the price control being implemented.

2.16. In our third consultation document we identified that due to the on-going uncertainty around the Traffic Management Act 2004 (TMA) and Transport (Scotland) Act 2005 that these costs should be subject to a specific re-opener if there is not sufficient clarity on costs before we publish our final proposals. We also noted uncertainty over changes in the tax treatment of GDNs' expenditure, in particular, the impact of reclassification of repex as deferred revenue expenditure, during the price control period.

2.17. GDNs supported the inclusion of TMA as a reopener but also suggested reopeners for changes in safety or environmental legislation. Shippers noted concern over the impact of significant industry change on xoserve's costs and argued for a reopener if the "user pays" option is not adopted. Our views on funding options for xoserve are provided in chapter 8. GDNs were strongly of the view that any cost impact from changes in tax treatment should be allowed with two arguing for a price control mechanism or specific reopener. There was also significant comment on the effect of exit and interruption reform and both GDNs and a number of shippers argued that the costs associated with interruption and exit reform should be passed through.

Ofgem proposals:

2.18. There does not appear to be a case to change our position on reopeners and we intend to maintain the approach detailed in the third consultation document. We propose to include TMA as a specific reopener at this stage. If there are any developments before our updated proposals in September which provide further clarity on how the TMA will impact on the GDNs' costs and potentially enable us to make provision for an efficient level of TMA costs in allowances, we will do so.

2.19. The impact of tax changes is a potential risk that could occur within the price control period. In particular the impact of reclassifying repex as capital expenditure could be material on the GDNs. On this basis, we propose to include a specific reopener to address this risk. We will expect the GDN to have taken all possible steps to mitigate any liability from changes in tax treatment and only if they can demonstrate that they have satisfied this criterion, will we consider a specific reopener.

2.20. In both cases a specific reopener will be included in a relevant licence modification and any costs would be considered in isolation from the GDNs' financial performance under the price control.

2.21. We note the uncertainty at the end of the price control period over the impact of exit and interruption reform on capital investment plans. Our latest position is set out in chapter 6.

Correction mechanism

2.22. The correction mechanism adjusts the price control for any previous over or under recovery against allowed revenues. At present, the correction mechanism is applied in such a way that GDNs are penalised 3 per cent over and above the base rate for any over recoveries they incur. For any under recoveries the GDN may recover in the following year the amount of the under recovery is increased by interest charged at base rate. In the third consultation document we proposed to introduce a two-tier recovery mechanism similar to that introduced for DPCR4. The mechanism imposes a higher penalty on companies that incur large over recoveries compared to small over recoveries.

2.23. In DPCR4 the following approach was taken:

- If a company over recovers by more than 2 per cent, they suffer a punitive interest rate of 3 per cent higher than base rate;
- If a company over recovers by less than 2 per cent, they suffer an interest rate of 1.5 per cent higher than base rate;
- If a company under recovers by less than 2 per cent, they may recover interest at a rate of 1.5 per cent higher than base rate; and
- If a company under recovers by more than 2 per cent, they may recover interest at base rate.

2.24. In general, responses supported providing improved incentives on the GDNs to recover their revenue accurately. Predictability in charges is a key issue for shippers and a number raised their concern about the interaction with charging arrangements impacting on revenue. One party noted concern that a stronger incentive on GDNs may encourage them to change their transportation charges more frequently.

2.25. The GDNs were generally supportive of the two-tier recovery mechanism but argued that a larger deadband (e.g. 6 per cent rather than 2 per cent in electricity) was necessary in gas due to the greater volatility. They argue that gas charges and hence collected revenues are much more exposed to seasonal variation than electricity.

Ofgem proposals:

2.26. Although we acknowledge that the impact of weather on volatility of demand in gas compared to electricity is likely to be greater its impact on allowed revenue is

removed if the volume driver is removed. We know that changes are being considered by the industry to the structure of the charging arrangements such as changes to the capacity / commodity split. These proposals may impact on volatility of collected revenue. It is likely that any proposals in this area may be developed over the coming months.

2.27. We propose to introduce a two-tier revenue recovery correction mechanism similar to that applied in DPCR4 to incentivise greater accuracy. For the time being it will have the same interest rate parameters. We are still considering whether there is a sufficient case in gas distribution to apply a larger deadband than the 2 per cent used in DPCR4.

3. Operating expenditure analysis

Chapter Summary

This chapter sets out our views on a range of policy issues associated with our analysis of the GDNs' forecast operating expenditure along with our initial proposals for operating expenditure allowances.

Question box

Question 1: Do you agree with our approach for setting opex allowances and the proposed allowances we have derived using that approach?

Question 2: Do you agree with the proposals to uplift allowances derived from disaggregated benchmarking so that they are consistent with the power of a top down approach?

Introduction

3.1. The fourth consultation document set out our accounting adjustment and policy work to ensure that GDNs' costs are on a consistent cash cost basis with any disallowable costs removed. It also described the work undertaken by our consultants to assess an appropriate level of operating expenditure (opex) for 2008-09 to 2012-13 and their initial views on those allowances.

3.2. We consulted on this analysis and on a range of policy issues including:

- how the different elements of cost analysis should be combined to determine overall allowances;
- the application of benchmarking;
- the use of glidepaths;
- the treatment of regional differences; and
- growth in real input prices.

3.3. Over the last two months we have been considering the consultants' work, their recommendations and the policy issues arising from the costs analysis in detail in the light of responses to the consultants' draft reports and the fourth consultation document. The consultants have also updated their analysis in the light of comments on factual accuracy and substantive points raised by the GDNs.

3.4. The following sections set out the main issues relating to the analysis, our initial proposals on policies in relation to opex in general and the opex allowances which follow this work.

Accounting policy issues

3.5. This section sets out our initial proposals for some of the key accounting policy issues discussed in the fourth consultation document. Other accounting issues are discussed in appendix 5.

3.6. The first stage of our analysis was to normalise the cost data provided by the GDNs to ensure consistency and comparability. This was carried out in two steps. First we made accounting adjustments to ensure costs were on a cash cost basis and to remove any atypical or one-off costs. Then PB Power and LECG reviewed the costs that had been allocated to each activity to ensure that costs were being allocated on a consistent basis.

Related party margins

Related party margins

3.7. As explained in the fourth consultation document, in setting price controls we provide an allowed return for the GDNs equal to their RAV multiplied by the allowed cost of capital, plus or minus certain incentives. It is important that related party profit margins are removed so that GDNs do not earn a return twice. Our general policy developed as part of DPCR4 is that such margins are removed unless the related party earns 75 per cent of turnover externally and charges are consistent with those for external customers. We consider that this general policy remains appropriate for GDPCR.

3.8. For the purposes of the one year control, we decided that in the particular circumstances of NGN and UUOL, the profit margin should be allowed. This was on the basis of both NGN's small shareholding in UUOL and evidence that UUOL's contract is on normal commercial terms. We do not propose to change this treatment for the duration of the existing contract which runs until 2013.

3.9. xoserve is jointly owned by the GDNs and NGG(NTS) and carries out price control activities on their behalf. We consider that it is appropriate to remove xoserve's profit margin from the GDNs costs as the GDNs already receive an allowed return for their businesses through the cost of capital.

Connections margins

3.10. Effective competition has developed in the new housing and large non-domestic segments of the gas connections market. In these cases we propose to allow margins for costs that are rechargeable to the customer but to disallow margins on any costs that are recovered from the generality of customers through the RAV, subject to capex rolling incentives. Competition will limit the extent of any margins that can be included in connection charges for such activities. We propose to remove all margins for connections to existing housing or smaller non-domestic sites, where effective competition has not developed. This ensures that GDNs do not earn two

sets of returns and that customers only pay the underlying costs of the connections work.

3.11. We consider that it is appropriate to remove related party margins before benchmarking costs across GDNs. GDNs are expected to make their own decision on the most efficient way of carrying out work, whether this involves insourcing or outsourcing to a related party or to a third party. As part of this decision, GDNs will trade-off all of the potential costs and benefits, including whether a third-party's costs, including margins, are lower or higher than the costs of work being done within the group and any potential benefits from transfer of risk to a third party.

Treatment of non-operational capex

3.12. For the purposes of determining the allowance for initial proposals we have treated non-operational capex as capex. We are minded to retain this approach for the reasons set out in the fourth consultation document but we will take a final decision in September.

Benchmarking, real price effects, efficiency and regional prices

3.13. This section of our initial proposals summarises some of the key policy issues in determining allowances for the GDNs' operating, capital and replacement expenditure. Our conclusions on these issues are set out below with further detail in appendix 7.

Application of benchmarking

3.14. The recent separation of the GDNs means that there are relatively few data points to perform analysis of operating costs at a total level between the GDNs. Furthermore, prior to 2005-06 all GDNs were under common ownership so the costs would not reflect the current structure, and 2005-06 was a transition year into separate ownership so the costs may be atypical. For this reason we have focussed our analysis on an activity level where regression analysis can be supported by other techniques such as bottom up analysis. Carrying out analysis at an activity level also allows comparison to external benchmarks where appropriate benchmarks exist, particularly for the indirect operating cost activities.

3.15. 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.

3.16. 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.

3.17. We propose to adopt an upper quartile for the benchmarking based on disaggregated activity based analysis. One weakness with this approach, as noted by the GDNs, is that even on this basis the total operating cost benchmark based on disaggregated data is currently not achieved by any GDN and therefore represents a "frontier shift" for all companies. We have addressed this by adjusting the results of the disaggregated benchmarking so that they are consistent with the power of the top down approach set at the frontier. (In other words we have increased the allowances so that, on average, GDN allowances are equivalent to the result from the top down approach with the benchmark on the lowest cost GDN). This results in a 5.6 per cent increase in opex allowances relative to the disaggregated benchmarks. This is described in more detail in Appendix 7 together with the appropriate calculations.

3.18. The regression analysis used for the direct opex activities looked at both linear and logarithmic regressions. The logarithmic method has been used except where the linear method gave a significantly better fit to the data.

3.19. Where linear regression has been used, the benchmark regression targets have been set by keeping the intercept fixed and adjusting the slope of the regression line (the unit cost) to an upper quartile efficiency level. Where log regressions have been used a corrected ordinary least squares (COLS) approach has been used keeping the slope of the regression line fixed and moving the line down to an upper quartile efficiency level.

3.20. We considered whether to apply a glidepath to each category of operating expenditure to give the higher cost GDNs some time to achieve the targets set for them and to mitigate for any weaknesses in the data. However, the difficulty of achieving the targets has been reduced by providing the 5.6 per cent uplift discussed above. Also a glidepath only increases allowances for a company underperforming the benchmark rather than a relatively more efficient one. We have not included glidepaths in our allowances.

3.21. Two GDNs argued that our benchmarking and allowance setting process should take account of the fact that costs may be higher for a singleton GDN than where there is more than one GDN in the same ownership group because of the economies of scale available to the larger group. In accordance with the principles set out at the time of GDN sales, we do not propose to give any extra allowances to single GDNs for differences in economies of scale of the different ownership groups.

Real price effects and on-going efficiency

3.22. GDNs have all put forward strong arguments for including real price effects (i.e. price increases above RPI) in setting allowances. We 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. These are all at or below the lower end of the GDNs' submissions. In addition we intend to propose an ongoing efficiency target of 2.5 per cent per annum for opex. The net effect of these proposals is a frontier shift of 1.6 per cent. We are proposing ongoing

efficiencies of 2 per cent for mains reinforcement, 3 per cent for connections capex and 2 per cent for repex.

Regional labour rates

3.23. We consider that some of the differences in costs between GDNs can be explained by the area they serve. In particular labour rates in London are higher than for the rest of GB. This has been taken into account in our benchmarking and has the effect of increasing allowances for direct labour and for contractors for London and, to a lesser extent, Southern.

Other regional price effects

3.24. Some companies have argued for additional allowances for costs that they face for operating their own network which are not reflected in labour price differences: e.g. GDNs operating in dispersed rural areas may face additional costs to meet the one hour emergency response standard or face additional logistics costs for delivering materials to remote locations. GDNs operating in high density areas it is argued may face additional costs for longer travelling times or greater complexity of excavation. These factors have not been included in initial proposals but we intend to consider the merits of these arguments as part of the update work, taking into account the responses to the fourth consultation document and initial proposals.

Total operating costs

3.25. A comparison of our allowances for 2008-09 to 2012-13 with historical levels of opex and the one-year allowances for 2007-08 is set out in Table 3.1 below:

Table 3.1: Summary of average operating allowances vs expenditure (excluding shrinkage)

	GDN (£'m 2005-06 prices)	Average annual opex 2002-03 to 2006-07	2007-08 Allowances	Average annual GDN forecast 2008-09 to 2012-13	Average annual allowance 2008-09 to 2012-13	Difference forecast to allowance %
NGG	East of England	110.2	109.8	123.0	95.7	-22%
	London	74.5	71.7	86.4	67.0	-22%
	North West	82.9	80.4	93.8	74.0	-21%
	West Midlands	60.6	59.9	67.3	54.0	-20%
NGN	North England	77.6	77.3	81.8	73.0	-11%
SGN	Scotland	66.3	65.2	68.1	57.0	-16%
	Southern	111.0	105.5	117.7	105.4	-10%
WWU	Wales & West	79.3	82.7	84.0	71.9	-14%
	Total all GDNs	662.4	652.5	722.1	598.0	-17%

3.26. The breakdown of these allowances into direct opex, indirect opex, xoserve savings, 5.6 per cent uplift and Quality of Service allowances (each of which are discussed below) is given in Table 3.2.

Table 3.2: Breakdown of operating expenditure (excluding shrinkage) (£m, 2005-06 prices)

Ofgem Proposed total Opex allowances 2008 - 2013 (£m, 2005/06 prices)	NGG				NGN	SGN		WWU	Total GDN	Average annual allowance 2008-09 to 2012-13
	East of England	London	North West	West Midlands	North England	Scotland	Southern	Wales & West		
Direct Opex	325.1	228.2	252.8	181.2	265.6	205.0	402.1	259.4	2119.3	423.9
Indirect Opex	129.1	88.0	98.2	75.3	80.6	65.4	98.1	81.8	716.5	143.3
Less: Xoserve savings	-2.4	-1.4	-1.7	-1.4	-1.6	-1.1	-2.5	-1.5	-13.7	-2.7
5.6% Uplift	25.4	17.7	19.6	14.3	19.4	15.1	28.0	19.1	158.6	31.7
QoS allowance	1.3	2.6	1.1	0.5	0.8	0.7	1.6	0.6	9.2	1.8
Total Opex	478.5	335.1	370.0	270.0	364.8	285.1	527.2	359.3	2990.0	598.0

3.27. On a like-for-like basis with normalised pension contribution rates, the forecast controllable opex, excluding shrinkage, for 2006/07 is £683.8 million and our proposed allowances for 2012-13 are £559.3 million. This is equivalent to an average 3.3 per cent per annum reduction in controllable opex over the period. In addition the GDNs have been provided an allowance for changes in pension contributions resulting from changes in actuarially recommended rates.

Direct operating costs

3.28. As discussed in the fourth consultation document, there are a number of steps in our analysis of direct operating costs. The accounting adjustments discussed in chapter 3 of the fourth consultation document have been applied. PB Power has carried out additional adjustments to bring the costs of individual direct activities onto a consistent basis. There has then been a review of workload assumptions by the GDNs. Our assumptions on regional labour rates have been applied to bring costs onto a consistent basis for benchmarking. They have been reapplied after benchmarking to set actual targets for each GDN. Finally real price effects and ongoing efficiencies have been applied to determine efficient cost allowances. A similar approach has been carried out for capex and repex activity benchmarking (see chapter 4).

Table 3.3: Ofgem adjustments and proposed allowances for direct opex (£m, 2005-06 prices)

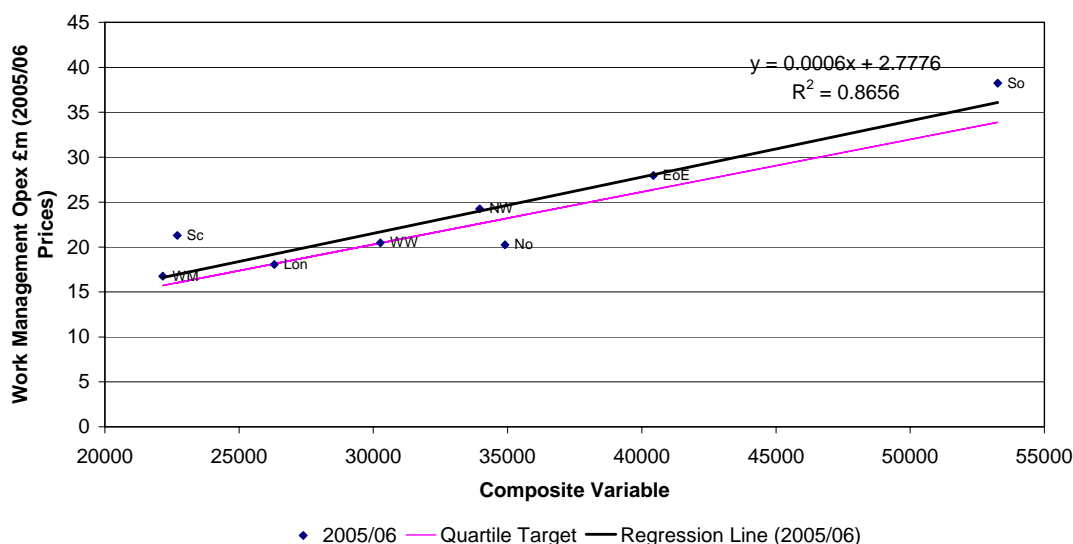
GDN Normalised Direct Opex 2008-09 to 2012-13 with additional pensions allowance	NGG				NGN	SGN		WWU	Total GDN	Average annual GDN spend
	East of England	London	North West	West Midlands	Northern	Scotland	Southern	Wales & West		
Work Management	155.7	89.0	115.4	79.6	102.9	106.9	191.0	94.2	934.7	23.4
Emergency	72.9	55.2	56.6	36.5	40.6	43.0	110.3	64.7	479.8	12.0
Repair	57.8	64.4	49.0	34.5	54.5	46.2	106.4	46.3	459.0	11.5
Maintenance	86.3	64.7	65.1	45.1	56.8	42.9	44.5	64.9	470.2	11.8
Other Direct Activities	13.7	6.7	6.6	5.7	10.8	5.7	15.5	13.2	77.9	1.9
Xoserve	26.5	13.2	17.3	14.5	16.2	10.8	24.5	15.5	138.5	3.5
LNG to SIUs						24.0			24.0	0.6
Total Direct Opex	412.7	293.3	310.1	215.9	281.8	279.4	492.2	298.7	2,584.1	64.6
Ofgem proposed allowances										
Work Management	126.9	81.7	97.5	67.9	99.7	72.5	155.9	97.3	799.4	20.0
Emergency	55.2	43.5	44.6	23.6	41.6	31.0	82.9	36.5	358.9	9.0
Repair	42.3	42.8	40.4	28.9	41.8	32.3	83.2	40.0	351.8	8.8
Maintenance	62.4	42.4	45.4	41.2	58.3	29.4	44.2	62.5	385.8	9.6
Other Direct Activities	11.9	4.5	7.6	5.2	8.0	5.0	11.3	7.6	61.1	1.5
Xoserve	26.4	13.1	17.3	14.5	16.2	10.8	24.5	15.5	138.3	3.5
LNG to SIUs	0.0	0.0	0.0	0.0	0.0	24.0	0.0	0.0	24.0	0.6
Total Direct Opex	325.1	228.2	252.8	181.2	265.6	205.0	402.1	259.4	2,119.3	53.0

Work management

3.29. For the work management activity PB Power based the analysis on a regression using a composite scale variable (CSV) combining the number of publicly reported gas escapes (PREs), the number of repairs and the length of below 7 bar main - the three biggest drivers of cost for this activity in their view. As discussed in the emergency and repair sections below, we have also adjusted the GDNs' forecast number of PREs and number of repairs, which then feeds through to the work management allowance.

3.30. We consider that this is an appropriate methodology for determining efficient work management costs. We have adjusted PB Power's regression to take account of our view on regional labour rates as described above. We also added £1 million back into WWU's regression figures for wayleave costs that had not been allocated to work management in the way that it was for other GDNs. The results of the regression after these adjustments are shown below.

Figure 3.1: Regression of Work Management vs composite variable



3.31. To set a work management allowance, the costs derived from this regression are rolled forward for workload based on the CSV forecast and adjusted for our assumptions on real price growth and ongoing efficiencies.

3.32. In addition, PB Power had assumed specific work management savings from IS investment. We consider that these savings should not be regarded as additional to the ongoing efficiency savings discussed above in paragraph 3.22, but are a part of how those savings might be achieved. Accordingly we have added back the specific work management IS savings identified by PB Power.

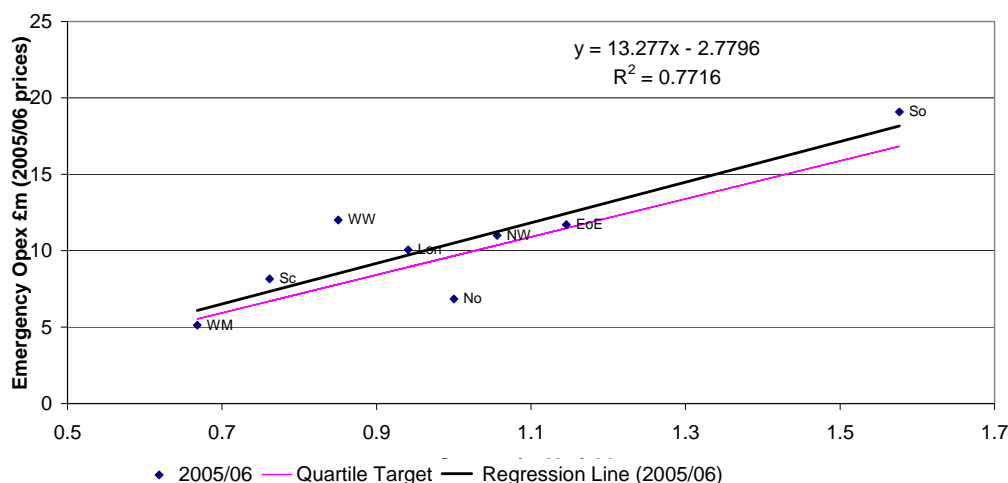
3.33. WWU's BPQ forecasts for work management included £2.3 million per annum for environmental remediation costs. These costs were excluded by PB Power as part of the normalisation process. In principle we agree that these costs should be allowed and further work will be necessary for the updated proposals to determine the appropriate allowance. For the purpose of these proposals we have included £1 million per annum for WWU based on a high level review of the level of costs being incurred by GDNs historically; further work will be carried out to assess these costs for our updated proposals in September.

Emergency

3.34. PB Power's analysis for emergency service costs was again based on regression using a CSV. The most appropriate CSV was considered to be a combination of number of PREs and number of repair jobs.

3.35. Ofgem adjusted PB Power's regression to take account of our view on regional factors and the results of this regression are shown below.

Figure 3.2: Regression of emergency cost vs composite variable



3.36. Our proposals for emergency service costs have been determined on the basis that there will be no further loss of metering work from the current levels. A further loss would increase standby times and hence the net costs in providing the emergency service. We will continue to review this assumption, as well as looking at possible mechanisms to strengthen the incentives on GDNs to minimise the increase in standby time that might be caused by loss of metering as part of the work for our updated proposals.

3.37. The GDNs' forecast workloads for the emergency activity have been reviewed by PB Power and adjusted for the following assumptions:

- the level of internal PREs will remain constant - although the housing stock is expected to gradually increase, historically there has been a reduction in internal PREs
- external PREs to reduce at 2.1 per cent per annum as a result of:
 - the replacement of 4 per cent per annum of the iron network reducing condition based PREs by 3 per cent per annum;
 - the proportion of external PREs due to interference damage falling by 1 per cent per annum; and
 - the proportion of external PREs with no trace remaining constant.

3.38. GDNs have forecast significantly lower reductions in PREs. They argue that replacing 4 per cent per annum of the iron mains will only reduce external PREs by 1 to 2 per cent per annum although the reasons they provide for lower reductions are inconsistent. GDNs did not generally accept that the historical reductions in internal PREs would continue, offsetting the impact of the increasing housing stock. We consider that the mains replacement programme should lead to a proportionate reduction in PREs and have accepted PB Power's workload adjustments.

3.39. As discussed in appendix 5, certain GDNs have argued that they face additional costs in providing the emergency service either because of the need to provide sufficient coverage to meet the 1 hour standard over a highly dispersed network or because of the increased travelling times that occur in highly congested areas. We are still reviewing the merit of these arguments so that we can take a view for the updated proposals. No provision for any such additional costs have been allowed in these initial proposals.

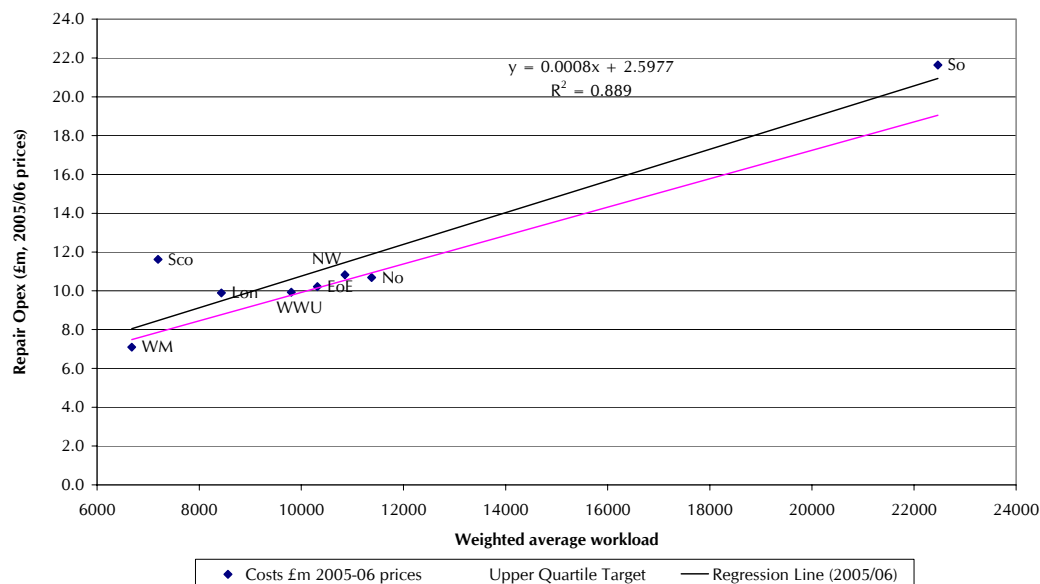
3.40. We are also considering whether there are safety benefits to the GDNs' Emergency Service personnel being required to carry and use carbon monoxide measuring equipment during gas emergency investigations. This will enable the presence and levels of this dangerous gas in the atmosphere within the affected and adjacent properties to be quantitatively established and appropriate action taken. The costs of purchase, maintenance and recalibration of equipment, initial and ongoing training and changes to the emergency service activity etc may be material. We will be writing to the GDNs to ask them to forecast potential costs associated with this activity. We welcome views on this issue from GDNs and others. We expect to follow up on this area in September.

Repair

3.41. The analysis of repair costs has been based on a regression using a weighted average of the number of repairs as a driver. It has been supported by bottom up analysis by PB Power based on their knowledge of the time taken to complete work of this nature, appropriate hourly rates and an allowance for materials and other costs.

3.42. PB Power's regression analysis has been updated following comments from the GDNs based on the initial draft findings. We have also revised the analysis for our own views on regional labour rates. The results of the regression are shown below.

Figure 3.3: Regression of repair cost vs workload



3.43. PB Power reviewed the GDNs' forecast of the number of repairs looking separately at condition and interference based repairs. As noted in the emergency section noted above, we have assumed a 3 per cent per annum reduction in condition based repairs as a result of replacement of iron mains. We have also assumed a 1 per cent per annum reduction in interference based repairs. In addition we have reduced East of England's forecast for interference repairs to make it consistent with the other GDNs. The allowances have been derived by combining the results of the regression with the adjusted workload forecasts and then applying regional and real labour price adjustments and ongoing efficiencies.

Maintenance

3.44. The analysis of the maintenance activity has been split into 3 areas:

- LTS maintenance;
- storage; and
- other maintenance

3.45. Regression analysis was inappropriate for LTS maintenance which is a function of the network in place and not necessarily comparable across GDNs. We have

determined allowances using a bottom-up estimate of the cost per pressure reduction station (PRS) and comparing this to the average GDN LTS maintenance cost per PRS. These methods gave similar results and were therefore used to determine an allowance per PRS. Specific adjustments were then applied to take account of the cost of online inspections and differences in the mix of assets including length of LTS pipelines, number of PRSs and number of NTS offtakes. As with other cost areas, PB Power's calculations were adjusted to take account of Ofgem's views for real price effects, regional labour rates and ongoing efficiency assumptions.

3.46. Storage maintenance costs have been determined by calculating a bottom-up estimate of the cost of carrying out regular maintenance and inspection tasks for each holder and adding to this an average annual painting cost derived from regression analysis of holder painting costs and assuming a 13-year painting cycle. Allowances have also been given to allow GDNs additional costs in order to comply with the Work at Height Regulations 2005 (as amended in 2007).

3.47. The PB Power methodology produces an average annual painting cost for holders. GDNs argued that this does not take account of the phasing of this work which they argued is cyclical. We examined the effect of phasing this allowance within the price control period and the impact was negligible. We have not made any further adjustment.

3.48. GDNs argued that the calculations for the allowance for Work at Height Regulations should only take account of the gasholders requiring handrails rather than being based on the total number of gasholders. We have again examined this issue and since the impact was again negligible have not made any further adjustments.

3.49. Other maintenance costs cover a number of activities (other leakage control, distribution services R&M, instrumentation R&M, district governors, etc) each of which represents a relatively small proportion of maintenance costs. The analysis of these costs was not sufficiently robust to give us confidence in its results. We propose to take the GDNs' normalised base year costs and roll these forward for our views for real price effects, regional labour rates and ongoing efficiency assumptions.

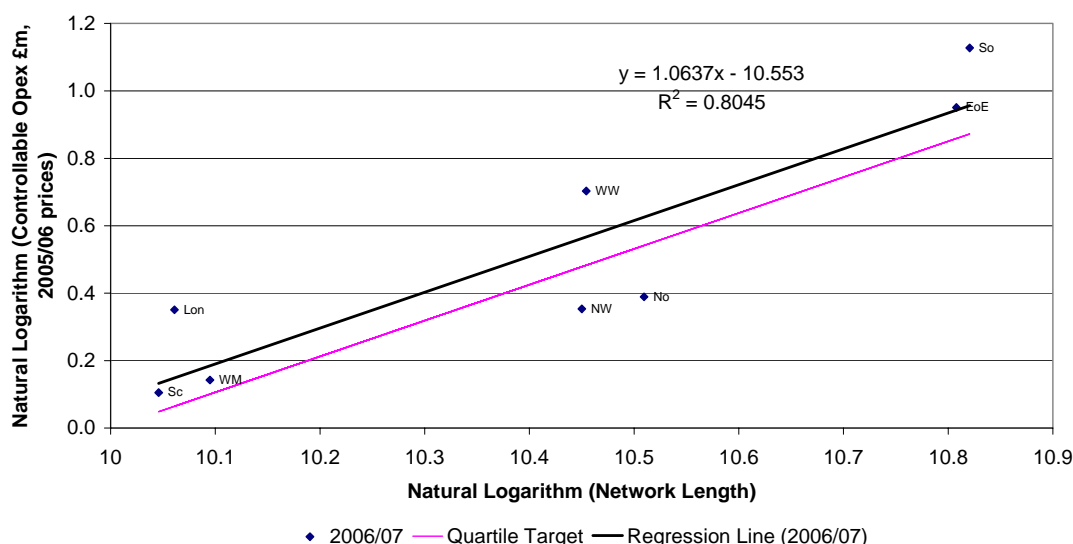
3.50. The GDNs all argued that they will need to recruit substantial numbers of employees to replace their ageing workforce and should be given an additional allowance for this. This applies across the emergency, repair and maintenance activities. We don't believe that any additional allowance is necessary as new recruits have the potential to be more efficient and will generally be at the lower end of pay scales than the ageing workforce they are replacing.

Other direct activities

3.51. Other direct activities cover a wide range of areas from tools and equipment to compensation payments. PB Power has analysed these costs using a regression with network length as the driver. For this activity the analysis using 2005-06 costs was not sufficiently robust so analysis has been carried out using 2006-07 data.

3.52. This regression has been adjusted for Ofgem's views on regional factors. The results are shown below. As with other activities the regression has been rolled forward using Ofgem's view of real price effects, regional labour rates and ongoing efficiency assumptions.

Figure 3.4: Logarithmic regression of other direct activities vs network length



Xoserve costs

3.53. xoserve costs were submitted and reviewed on the basis of the current funding model (see chapter 8 for funding model proposals). PB Power carried out a high level review of the major IS project spend and did not recommend any adjustments.

3.54. LECG reviewed xoserve's operating costs using the same benchmarking approach as applied to the GDN's indirect operating costs. We have accepted the analysis carried out by LECG but have adjusted their findings to take account of our own views of ongoing efficiencies and real price effects. The savings identified in xoserve have then been reflected in each GDN's costs in proportion to the share of xoserve costs for that GDN.

Indirect operating costs

3.55. LECG have updated their analysis as described in the fourth consultation document to take account of issues raised by the GDNs. We have based our view on LECG's high savings case which generally uses upper quartile benchmarks rather than median targets. We have also modified the way LECG's efficient costs are rolled forward through the price control period to take account of our views on ongoing efficiencies and real price effects. This results in the following allowances for indirect operating costs.

3.56. Indirect operating cost analysis has been carried out at ownership group level since, when there is more than one GDN within a particular ownership group, these activities are generally carried out by one central function that provides the service to each GDN.

Table 3.4: Ofgem adjustments and proposed allowances for indirect opex

	NGG				NGN	SGN		WWU	Total GDN	Average annual GDN spend
GDN Normalised Indirect Opex 2008-09 to 2012-13	East of England	London	North West	West Midlands	Northern	Scotland	Southern	Wales & West		
IS	46.1	34.8	30.9	23.0	39.0	21.6	32.5	41.5	269.4	6.7
Finance, Audit and Regulation	35.3	19.2	23.0	17.5	20.4	10.1	15.1	18.1	158.7	4.0
Insurance	32.7	19.2	24.5	19.7	16.5	11.7	17.6	17.8	159.7	4.0
Property management	28.0	25.5	30.5	24.5	13.6	7.4	11.1	20.9	161.4	4.0
Corporate Centre and Comms.	14.0	8.7	10.6	7.4	10.3	4.1	6.1	11.6	72.7	1.8
HR	28.2	15.1	19.9	13.8	5.6	4.7	7.1	5.5	99.8	2.5
Legal	2.9	2.4	2.6	2.6	5.8	2.1	3.1	3.5	25.1	0.6
Procurement and logistics	15.0	7.0	9.5	6.4	9.0	4.3	6.5	9.3	67.1	1.7
Total Indirect Opex	202.2	131.9	151.6	114.9	120.1	66.0	99.0	128.2	1,013.9	25.3
Ofgem proposed allowances										
IS	38.8	29.3	26.0	19.4	28.4	24.6	37.0	27.6	231.1	5.8
Finance, Audit and Regulation	23.7	12.8	15.4	11.7	9.1	8.0	11.9	10.0	102.7	2.6
Insurance	20.9	12.3	15.7	12.6	14.2	11.0	16.6	15.0	118.2	3.0
Property management	22.1	20.2	24.1	19.4	11.0	6.1	9.1	10.5	122.4	3.1
Corporate Centre and Comms.	8.8	5.5	6.7	4.6	7.0	6.1	9.2	7.3	55.2	1.4
HR	3.1	1.6	2.2	1.5	2.3	1.9	2.9	2.2	17.7	0.4
Legal	2.4	2.0	2.2	2.2	2.3	2.0	3.0	2.3	18.5	0.5
Procurement and logistics	9.3	4.3	5.9	3.9	6.4	5.6	8.4	6.8	50.7	1.3
Total Indirect Opex	129.1	88.0	98.2	75.3	80.6	65.4	98.1	81.8	716.5	17.9

3.57. GDNs disagreed with the level of analysis performed on indirect operating costs. Some argued that a higher level top down approach would be more appropriate, others that greater disaggregation into specific activities was required. They also argued that the mix of internal and external benchmarks amounted to inappropriate "cherry-picking". In the context of this price control review, we consider that the level of benchmarking and use of internal or external benchmarks carried out is appropriate and have determined allowances on this basis. Top down benchmarking at this stage would have resulted in us setting allowances on potentially only four data points (total indirect opex by ownership group for 2006-07). While it may be possible to disaggregate cost lines further this does not seem necessary because it would not change the drivers and the materiality of costs does not warrant it. Where it is possible to make meaningful external comparisons we consider it is in customers' interests to do so. It is not possible in all cases and inevitably this leads to a mix of internal and external benchmarks.

3.58. Issues relating to specific activities are discussed further below.

IS

3.59. IS costs tend to be cyclical with peaks in spend occurring around investments in new/updated systems. Since these peaks may occur in different years for different GDNs, the benchmarking has been carried out looking at the average annual spend of each GDN over the period 2005-06 to 2012-13. The benchmark for this activity was based on the lower quartile IS costs per unit of revenue.

Table 3.5: Summary of information systems benchmarking results

	Benchmark value	National Grid Gas	Northern Gas	Scotia Gas	Wales & West
Information Systems (% of revenue)	1.7%	1.9%	2.2%	1.3%	2.4%

Finance, audit and regulation

3.60. To enable comparability with external benchmarks, finance and audit costs were reviewed separately from regulation. Finance and Audit were benchmarked as a percentage of revenue and based on the upper quartile level from the Global Best Practices 2006 European companies data; this provided efficiency improvements for all GDNs to achieve. Regulation costs were benchmarked using an average of the benchmarks determined by Arthur Andersen for the 2001 Transmission Price Control Review and the upper quartile of GDN average costs over 2008-09 to 2012-13. The performance of the GDNs against these benchmarks is set out below.

Table 3.6: Summary of finance, audit and regulation benchmarking results

	Benchmark value	National Grid Gas	Northern Gas	Scotia Gas	Wales & West
Finance & Audit (% of revenue)	0.62%	1.16%	1.08%	0.74%	1.05%
Regulation (% of total operating costs)	0.20%	0.19%	0.29%	0.09%	0.23%

Insurance

3.61. Total insurance costs (including premiums and uninsured claims), as a percentage of revenues, have been benchmarked against other GDNs. The upper quartile level determined by this method has then been rolled forward to reflect the cyclical market view of Marsh (Ofgem's consultants) in the 2006 Transmission Price Control Review.

3.62. GDNs have argued against this cyclical market view stating that they do not expect any softening of insurance rates. We have looked at recent data for non-

marine insurance rates. This supports the trend suggested by the Marsh cyclical view. We have maintained that view in our analysis. We have also included an allowance for NGG of £1 million for uninsured liabilities in respect of certain liabilities arising prior to DN sales.

Table 3.7: Summary of insurance benchmarking results

	Benchmark value	National Grid Gas	Northern Gas	Scotia Gas	Wales & West
Base Year Insurance Costs (% of revenue)	0.98%	1.46%	1.08%	0.85%	1.02%
Insurance forecasts	Base year costs are forecast to follow the market cycle trend as identified in TPCR				

Property management

3.63. Property management costs have been determined by looking both at the levels of floor space (normalised for size of GDN by looking at floor space per km of pipeline) and also the facilities management costs per square foot of office space. The analysis has also taken account of benchmark rental costs for specific properties.

3.64. Some of National Grid's properties (such as the distribution control and emergency call centres) provide services to other GDNs which are reflected in Network Services Agreement (NSA) charges to the new independent GDNs but not reflected in their measured floor space. Since National Grid's own measured floor space includes its own share of these facilities, an allocated share of these needs to be added to the other GDNs to ensure comparability for benchmarking. We have made this adjustment and revised the benchmarking accordingly.

Table 3.8: Summary of property benchmarking results

	Benchmark value	National Grid Gas	Northern Gas	Scotia Gas	Wales & West
Property (floor space/km pipeline)	2.4	3.5	2.5	2.5	2.0
Property (FM costs per square ft office space)	13.2	31.8	14.1	10.3	40.7

Corporate centre and communications

3.65. Corporate centre and communication costs were benchmarked by comparing these costs as a percentage of total operating costs between GDNs and setting an upper quartile efficiency target. The benchmark score and the scores of each GDN are set out below.

Table 3.9: Summary of corporate centre and communications benchmarking results

	Benchmark value	National Grid Gas	Northern Gas	Scotia Gas	Wales & West
Corporate Centre & Communications (% of total operating costs)	0.91%	1.31%	1.05%	0.48%	1.21%

HR

3.66. Benchmark HR costs were set on the basis of HR costs as a percentage of revenue using the upper quartile level identified from the Global Best Practices comparator group of companies. The benchmark score and scores of each GDN are set out below. Allowances have not been made for training and apprentice costs pending further work on the different levels and treatment of these costs as part of our update work later in the year.

Table 3.10: Summary of HR benchmarking results

	Benchmark value	National Grid Gas	Northern Gas	Scotia Gas	Wales & West
Human Resources (excluding learning/development & apprentice/trainee costs, as % of revenue)	0.17%	0.44%	0.29%	0.54%	0.27%

Legal

3.67. Legal costs have been determined by benchmarking legal costs as a percentage of revenues between GDNs. The benchmark score and the scores of each GDN are set out below.

Table 3.11: Summary of legal benchmarking results

	Benchmark value	National Grid Gas	Northern Gas	Scotia Gas	Wales & West
Legal (% of revenue)	0.18%	0.18%	0.31%	0.17%	0.24%

Procurement and logistics

3.68. Procurement and logistic costs have been determined by benchmarking those costs as a percentage of total costs between GDNs. The benchmark score and the scores of each GDN are set out below.

Table 3.12: Summary procurement and logistics benchmarking results

	Benchmark value	National Grid Gas	Northern Gas	Scotia Gas	Wales & West
Procurement & Logistics (% of operating costs)	0.84%	1.27%	0.92%	0.60%	1.04%

3.69. Wales and West have argued that the dispersed shape of their network will lead to their procurement and logistics costs being higher. We have not yet been able to review this argument to determine what, if any, additional allowance might be appropriate. We will review this argument when carrying out work for our updated proposals later in the year.

Next Steps

3.70. As indicated in the third and fourth consultation documents, we will be updating our analysis to take account of the GDNs' actual performance during 2006-07, to take account of responses to these initial proposals and information provided to us as part of and following the fourth consultation document and to complete work in some areas that remains outstanding. Updated proposals will be produced in September 2007.

3.71. The main issues that remain outstanding include:

- to take account of regional factors (other than differentials in labour rates);
- reviewing further the costs associated with environmental remediation costs;
- potential impact of the loss of metering work on the GDNs' opex;
- costs associated with waste management regulations;
- consideration of potential cost implications of GDNs' emergency service personnel being required to carry and use carbon monoxide detecting equipment; and
- the consequences of any further developments or clarifications on the likely impact of the Traffic Management Act.

3.72. These proposals currently exclude any allowances for these items.

Quality of service allowance

3.73. In addition to the activities reviewed above, an allowance has been made for quality of service including an allowance for an efficient level of compensation payments. Further details of these amounts and their calculation are set out in chapter 5.

Pensions

3.74. Our pension principles state that “customers of network monopolies should expect to pay the efficient cost of providing a competitive package of pay and other benefits, including pensions, to staff of the regulated business, in line with comparative benchmarks”³.

3.75. Within the fourth consultation document we noted that contribution rates and deficit funding levels are very different for the four pension schemes, resulting in higher charges for current customers of SGN and WWU’s GDNs in particular. Following the Pensions Act 2004, this could be construed to be as a result of the higher gearing and weaker employer’s covenant of those employers, although there is no explicit evidence that this is the case.

3.76. We did not explicitly set out in the fourth consultation document how we intended to address these in line with our pension principles. We consider that the basic approach should be the setting of a total efficient operating cost (or employment cost) allowance including pensions, as an incentive to manage all operating costs, including pension costs, efficiently. In addition, in the light of the unprecedented high variance in contribution rates, we consulted on the alternatives of:

- benchmarking levels of pension contributions separately to operating costs;
- setting allowance for pension contributions for a notional GDN with a notional financing structure; or
- the current approach but carrying out an ex post assessment at the next review, should a stranded surplus arise, and reflecting this in lower contribution rates going forward if it is perceived to result from excessively prudent funding assumptions.

Responses

3.77. SGN’s actuaries have prepared a report on all GDNs’ pension contributions in response to our fourth consultation document. The report claims that NGN’s valuation is lower primarily because of being prepared at a different date (three months earlier) and that any difference in assumptions will not be impacted by the relative strengths of the employers’ covenant, within the investment-grade rating categories.

3.78. The new GDNs all responded with the argument that since all benefits are identical within the four pension schemes, it is not appropriate for those with higher contribution rates to be penalised, since it is inevitable that actuaries will have different views.

³ Developing Network Monopoly Price Controls, Initial Conclusions, 2003

3.79. The majority of other responses also rejected any change to Ofgem's pension principles. Where responses gave some support, in most cases they supported Option 3 (an ex post adjustment in the case of stranded surplus). Where there was support for change, respondents raised the proposal of an independent third party adviser being required to set the contribution rate.

Ofgem proposals:

3.80. We have reviewed the responses to our proposed options on dealing with the variance in scheme contribution rates. We recognise the concerns of the GDNs and others that actuarial variations may be outside the control of the GDNs. We consider that there may be some scope for GDNs to influence them, and that a full pass-through of pension costs does not correctly balance the risk between GDNs and consumers.

3.81. Nevertheless, we recognise differences may be largely to do with factors beyond the control of the GDNs, and that the presence of a difference does not itself imply that the GDNs with higher contribution rates should be penalised.

3.82. We have considered benchmarking total operating costs (including pensions) which we consider is consistent with our pension principles as quoted in paragraph 3.74. Having carried out some analysis on the impact of adopting this approach, we have concluded that it should be rejected within this review, since:

- the method is complex - and may introduce unnecessary uncertainty over the funding of current and future pension provision; and
- the impact on total GDN allowed revenue and therefore on customers is immaterial.

3.83. In addition, we recognise that any of the approaches would require the establishment of an objective test as to an appropriate level of funding of pension schemes. A number of consultation responses indicated support for a third party review of actuarial assumptions and therefore an appropriate actuarial rate. We have considered this concept, but our conclusion is that to introduce another valuation mechanism would have no benefit, since a third party actuary would be in no position to better establish a correct set of assumptions than the GDN actuaries.

3.84. While we are concerned that funding costs may be high at present, we also accept these are likely to balance out over time. The exception to this is where, as a result of overly conservative funding, a surplus is created that becomes effectively stranded under the new pensions regulatory regime; i.e. the company is not permitted to reduce future contribution rates to take into account this surplus. We consider this further in paragraphs 3.89 to 3.92 below.

3.85. We have also considered whether an adjustment should be made to deficit funding to reflect the costs associated with funding the deficits of employees of the metering business, which is an excluded service within the licensees.

3.86. We note that there are no dedicated metering staff within the licensees. All metering activity is carried out by staff who are primarily employed in the transportation business, and therefore the deficit is the same as would have arisen were there to be no metering business. On this basis, we have concluded that it is not appropriate to allocate any of the current deficit to the metering business.

3.87. As a result we have decided, within these initial proposals to allow: -

- individual GDNs to recover ongoing pension costs based on their individual actuarially recommended GDN contribution rates; and
- 100 per cent of scheme deficits to be recovered within the price control mechanism.

3.88. Since our opex allowances are based on benchmarking of opex costs (including normalised pension contribution rates), this has been done by taking the base year DB scheme salary levels, projected forward for each year of the price control, and assuming a modest turnover of DB staff. The opex allowances have then been adjusted to reflect the difference between actuarially recommended contribution rates, and the normalised contribution rates used in the benchmarking. Therefore the GDNs should have sufficient allowances to meet increases in actuarially recommended contribution rates contained in their forecasts.

Treatment of stranded surplus

3.89. Our pension principles state that deficits (including the difference between allowed and actual contributions) will be funded, but that equally the benefits of a surplus should be passed back to consumers. In particular, where companies fund their pension scheme liabilities on an accelerated basis, this funding will be allowed over time, unless it results in a stranded surplus.

3.90. Reviews of the sensitivities presented by GDN scheme actuaries demonstrate that the scheme deficits are still highly exposed to changes in market conditions, and that there is a material probability that the schemes will be in surplus at the date of the next price control review. This was confirmed recently by Aon⁴, who reviewed large UK schemes and concluded that there is a 60 per cent chance of schemes being in surplus within three years.

3.91. Within the fourth consultation document, we consulted on the possibility of maintaining the ex ante approach as at present, but, to the extent that a surplus arises in the future, to apply an ex post review. To the extent that the surplus appeared to have arisen as a result of accelerated funding, then we proposed to retain the benefit of the surplus for consumers, regardless of whether the Trustees agree to reduce future contribution rates.

⁴ Aon Consulting - 26 April 2007

3.92. Responses that supported this proposal requested greater clarity as to how such a calculation would be performed. We conclude that a review of Ofgem's approach to the treatment of future stranded surplus is appropriate, including the impact of recent legislation. Therefore, we intend to take this forward as a separate project. We will seek wider expert opinion on the appropriate treatment of future surplus, including from the Pensions Regulator, and report further, either in updated proposals, or as this impacts on all networks, we may take it forward as a separate workstream.

Equalisation of incentives

3.93. The fourth consultation document included a proposal to equalise incentive strengths between pensions and other operating expenditure, by adjusting the form of the Pension Correction Mechanism ("PCM").

3.94. Respondents who commented generally supported the proposal. As a result, our current intention is to implement the proposal within the current price control.

4. Capital and replacement expenditure analysis

Chapter Summary

This chapter sets out our analysis on the GDNs' capital and replacement expenditure and sets out our initial proposals for capital expenditure and replacement expenditure allowances.

Question box

Question 1: Do you agree with our approach for setting capex allowances and the proposed allowances we have derived using that approach?

Question 2: Do you agree with our approach for setting repex allowances and the proposed allowances we have derived using that approach?

Introduction

4.1. The fourth consultation document set out our work to ensure that GDNs' costs were on a consistent basis for comparison. It then described the work of our consultants, PB Power, to assess an appropriate level of capex and repex allowances and their initial recommendations. This included an assessment of

- the GDNs' assumptions for workload;
- benchmarking unit costs for LTS pipelines, connections, mains reinforcement and mains and services repex; and
- bottom-up analysis of projects where benchmarking was inappropriate.

4.2. We consulted on this analysis and a range of policy issues including the treatment of regional differences and growth in real input prices.

4.3. Over the last two months we have been considering PB Power's work, their recommendations and the policy issues arising from the cost analysis in detail in the light of responses to the consultants' draft reports and the fourth consultation document. The consultants have also updated their analysis in the light of comments on factual accuracy errors and substantive points raised by the GDNs.

4.4. Our initial proposals on policy issues relating to the cost analysis were discussed in chapter 2 and also apply to our analysis of capex and repex in this chapter. The following sections set out our analysis and our initial proposals for capex and repex allowances based on this work.

Capex allowances

4.5. Our proposed capex allowances are based on PB Power's assessment together with further work by ourselves to consider the GDNs' BPQ responses and their initial views on the PB Power reports. PB Power has also updated its analysis in the light of comments on factual accuracy and substantive points raised by the GDNs.

4.6. A summary of the GDNs' normalised forecast capex compared to our proposed allowances is set out in Table 4.1. Our cost allowances are set at an aggregate level for opex, capex and repex respectively. The additional detail shows how we have built up the allowances but does not imply they are set at a disaggregated level. A more detailed breakdown for each year by GDN is set out in appendix 9. There are some significant differences between us and the GDNs on their future capex requirements. One approach for resolving these differences is the use of an information quality incentive (IQI). This is described in chapter 6 together with the modified capex allowances implied by the GDNs' current BPQ submissions. For the avoidance of doubt the figures set out in this chapter do not take account of the IQI.

Table 4.1 - Ofgem adjustments and proposed allowances (pre IQI) for net capex (£m, 2005-06 prices)

GDN Normalised Net Capex 2008-09 to 2012-13	NGG				NGN	SGN		WWU	Total GDN	Average annual GDN spend
	East of England	London	North West	West Midlands	Northern	Scotland	Southern	Wales & West		
LTS & Storage	53.3	84.3	57.7	9.7	75.2	78.4	213.8	111.0	683.4	17.1
Connections	47.5	30.3	21.7	17.5	47.0	52.8	47.1	46.7	310.5	7.8
Mains Reinforcement	14.2	11.1	12.8	11.4	24.7	38.3	71.9	34.5	218.8	5.5
Governors	2.9	9.7	15.7	3.1	8.9	19.0	53.0	9.4	121.5	3.0
Other Operational	9.3	7.9	7.8	7.1	26.3	26.5	27.6	29.5	142.0	3.5
Non Operational	82.3	51.8	60.2	43.1	78.3	35.9	61.8	75.9	489.2	12.2
Total Net Capex	209.4	195.1	175.8	92.0	260.3	250.8	475.2	306.9	1965.5	49.1
Ofgem proposed allowances										
LTS & Storage	46.1	63.9	52.3	9.5	53.2	60.9	141.1	81.3	508.4	12.7
Connections	33.2	22.6	14.4	13.7	38.6	40.7	39.5	30.0	232.7	5.8
Mains Reinforcement	15.4	8.2	10.8	11.6	21.2	30.5	59.5	31.9	189.1	4.7
Governors	2.9	9.3	15.6	3.1	8.6	17.0	49.4	8.9	114.7	2.9
Other Operational	8.0	7.2	7.3	6.7	25.3	20.7	21.8	21.9	118.8	3.0
Non Operational	82.1	51.7	60.0	42.9	71.5	36.6	63.0	69.3	477.2	11.9
Total Net Capex	187.7	162.9	160.5	87.5	218.4	206.4	374.3	243.3	1640.9	41.0

4.7. A comparison of our allowances for 2008-09 to 2012-13 with historical levels of capex and the one-year allowances for 2007-08 are set out in Table 4.2 below.

Table 4.2 - Comparison of average annual GDN historical capex, forecast capex , 2007-08 allowances and proposed allowances for 2008-13 (£m, 2005-06 prices)

	GDN	Average annual net capex 2002-03 to 2006-07*	2007-08 Allowances	Average annual GDN forecast 2008-09 to 2012-13	Average annual Ofgem allowance 2008-09 to 2012-13	% difference
NGG	East of England	41.5	40.8	41.9	37.5	-10%
	London	18.4	44.1	39	32.6	-17%
	North West	26.1	27.1	35.2	32.1	-9%
	West Midlands	17.9	17.8	18.4	17.5	-5%
NGN	Northern	31.4	37.6	52.1	43.7	-16%
SGN	Scotland	36.8	61.8	50.2	41.3	-18%
	Southern	41.4	89.6	95	74.9	-21%
WWU	Wales & West	46.9	39.6	61.4	48.7	-21%
	Total GDNs	260.5	358.4	393.1	328.2	-17%

*The 2006-07 numbers are the latest forecasts provided by the GDNs in October 2006 BPQ returns.

Approach to the cost assessment for each activity

4.8. The following sections explain the adjustments made to the GDNs' normalised capex forecasts to determine our proposed allowances for each GDN.

Local Transmission System (LTS) & Storage Capex

4.9. We have considered the appropriate adjustment to the GDNs' LTS and storage capex forecasts taking into account PB Power's analysis and responses by the GDNs and other parties.

4.10. PB Power recommended high-level adjustments to the GDNs' LTS and storage capex based on the additional storage that would be provided by these projects and a reference cost of building diurnal storage on the LTS. Where GDNs' incremental costs of providing storage exceeded twice the reference level, PB Power recommended that the additional costs should be disallowed. This was based on the assumption that there would be a clear relationship between requirements for diurnal storage and other capacity requirements based on demand growth.

4.11. In practice a significant proportion of the GDNs' forecast LTS capex projects are primarily driven by demand growth and the need for additional flat capacity and provide only small amounts of diurnal storage. We consider that it is not appropriate for such costs to be disallowed on the basis of incremental storage costs.

4.12. Instead we have focused our analysis on individual named projects submitted by the GDNs. We applied three types of adjustment based on PB Power's analysis and additional work we have carried out:

- removal of LTS and storage capacity projects where there is insufficient evidence that they are required within the next price control period;
- adjustments to the timing of LTS and storage capacity projects based on a review of storage requirements, availability of storage within the GDNs' networks and NTS storage availability; and
- adjustments to the unit costs of building the LTS pipelines.

4.13. For the purpose of initial proposals we have considered the need for individual LTS projects and the appropriate timing of these projects on the basis of the existing transitional arrangements for NTS offtake assuming that NTS storage capacity is available economically and unless there is clear evidence of localised capacity constraints. This is consistent with the base case assumption in the Business Plan Questionnaire we issued to the GDNs in June 2006.

4.14. We have adjusted the unit costs for individual LTS projects based on PB Power's analysis comparing the unit costs (£million/km) of different diameters of LTS pipelines across a range of historical and forecast projects. A number of adjustments have been applied to these benchmark unit costs for individual projects where GDNs have provided sufficient evidence of specific circumstances that give rise to additional efficient costs.

4.15. A number of GDNs have argued that the unit cost benchmarking carried out by PB Power is inappropriate. We have compared the unit costs used by PB Power in the LTS benchmarking with an external report prepared by EC Harris⁵ and consider that PB Power's unit costs are reasonable. The benchmark unit costs are within the range of costs set out by EC Harris and as noted above, where appropriate, additional adjustments have been applied.

4.16. As part of the work for the September update paper we will be considering whether additional LTS capex is required in the light of revised NTS exit arrangements and the GDNs' revised BPO submissions which are due to be returned in mid-July. We will also be giving further consideration to the need for specific LTS projects, their timing and unit costs based on additional evidence put forward by the GDNs.

⁵ National Grid Transco Pipelines Capital Programme 2006-11 Market Trends Report, prepared for NGT by EC Harris, November 2005 updated with data for May 2006.

Connections

4.17. We have considered the appropriate adjustment to the GDNs' connections capex forecasts taking into account PB Power's analysis and responses by the GDNs and other parties.

4.18. We have applied two main types of adjustments to GDNs' forecast connections capex:

- changes to their forecast workload based on comparisons with historical data and justification for the work; and
- adjustments to the costs based on regression analysis and our assumptions for regional factors, real price effects and ongoing efficiency.

4.19. We have reduced WWU's mains connections workload as its forecast average length of main per service is high compared both to the other GDNs and its own historical data and is continuing to increase out to 2012-13. WWU considers that the differences are explained by the rural nature of its network and a forecast increase in the amount of infill work that typically requires longer mains for each connection.

4.20. WWU's network contains a mixture of rural areas and urban conurbations so it is unclear why its forecast length of main per service is significantly higher than for other GDNs. The impact of infills on the average mains length per new service is likely to be relatively small.

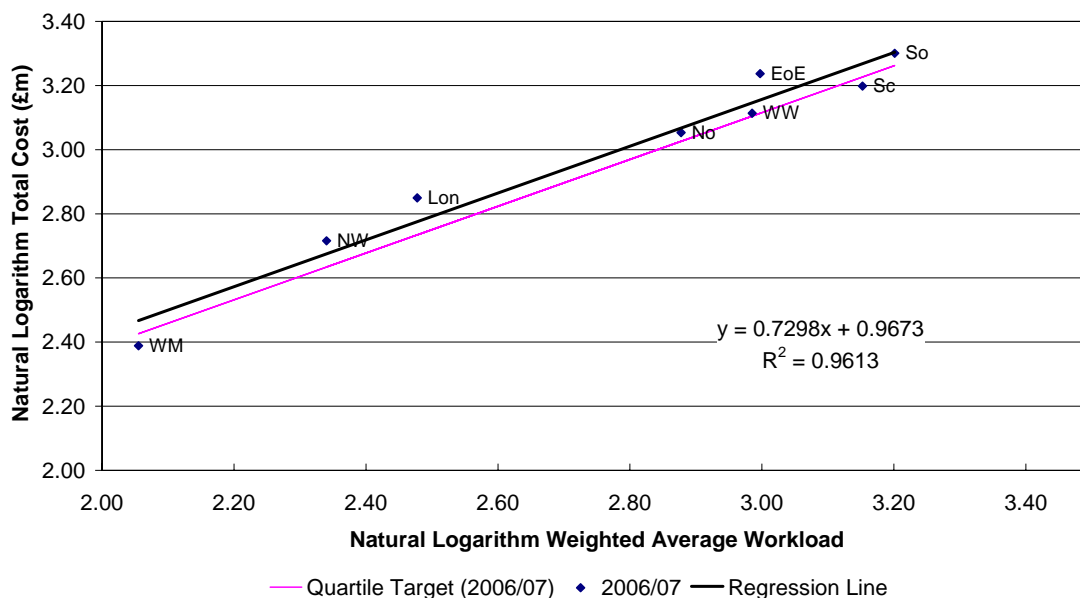
4.21. We have also removed 12,000 connections associated with modernisation work from Scotland's existing housing connections reflecting uncertainty associated with the ongoing level of Local Authority sponsored housing modernisation schemes. There is no commitment from the Local Authorities for a particular ongoing level of work in this area.

4.22. We have determined the efficiency of GDNs' gross connections costs using PB Power's regression analysis of total connections costs against weighted average workload as the cost driver. The weighted average workload is calculated by multiplying the volume of each element of work (e.g. governors, specific reinforcement work, mains and service work for existing housing, new housing and non-domestic connections) by average unit costs.

4.23. A number of alternative regressions were considered. The regression using logarithmic values of total connection costs and average workload for 2006-07 was found to be most appropriate. There were inconsistencies in the 2005-06 costs data as a number of GDNs had transferred connections activity in-house during the year and there were inconsistencies in the allocation of costs to the more detailed connections activities.

4.24. The results of the regression are presented in Fig 4.1.

**Figure 4.1 - 2006-07 Connections Gross Capex Regression Analysis
(2005-06 prices)**



4.25. West Midlands and Scotland GDNs are the top performing GDNs ahead of the upper quartile benchmark in 2006-07.

4.26. The results of the regression analysis have then been rolled forwards based on the adjusted GDN workload and our assumptions for real price effects and ongoing efficiencies.

4.27. We have calculated the GDNs' net capex based on our assessment of the efficient gross connections costs for each year and then using the GDNs' own figures for net capex as a percentage of gross capex. For WWU we have currently used the average GDN figure for net capex as a percentage of gross capex as they have taken a different assumption for final connections allowances compared to other GDNs.

4.28. GDNs have currently put forward two different interpretations of sections 10(2)(a) and 10(5) of the Gas Act. Under one interpretation GDNs are able to charge for final connections to customers within 23 metres of the relevant main. Under the other interpretation such costs are not recoverable from the customer requiring the connection and would form part of net capex that is recoverable from all customers through the RAV. For the purposes of initial proposals we have assumed that GDNs are able to charge for final connections. We are currently reviewing the legal position. On the basis of this advice we will make any necessary changes to the connections capex allowances will be included as part of the September update paper.

Mains Reinforcement

4.29. We have considered the appropriate adjustment to the GDNs' mains reinforcement capex forecasts taking into account PB Power's analysis and responses by the GDNs and other parties.

4.30. We have developed projections for the efficient level of mains reinforcement expenditure required by the GDNs through benchmarking across GDNs, analysis of their workload assumptions and review of their forecasts.

4.31. In a similar manner to the connections analysis we have applied two main types of adjustments to the GDNs' forecast capex:

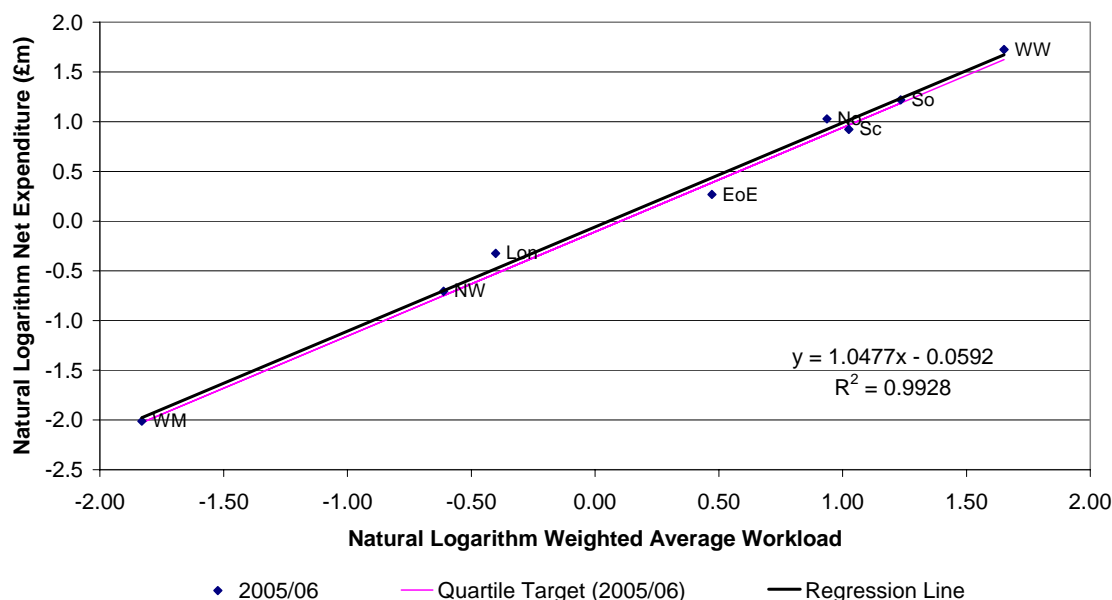
- changes to their workload forecasts based on comparisons with historical data and between GDNs;
- adjustments to the costs based on regression analysis of 2005/06 workload and costs and our assumptions for regional labour rates, real price effects and ongoing efficiency.

4.32. SGN's forecast for the proportion of upsizing of mains replacement was significantly higher than all other GDNs. The volume of replacement upsizing is driven by SGN's policy to maintain network maximum operating pressures at current levels. For both Scotland and Southern GDNs we have transferred fifty per cent of the proposed mains reinforcement workload and costs associated with replacement upsizing from mains reinforcement capex into mains repex.

4.33. We have determined the efficiency of GDNs' net capex using PB Power's regression analysis of mains reinforcement costs with weighted average workload as the cost driver. The weighted average workload is calculated by multiplying the volume of each pipe diameter by average unit costs.

4.34. The results of the regression are presented in Fig 4.2.

Figure 4.2 - 2005-06 Reinforcement Mains Net Capex Regression Analysis (2005-06 prices)



4.35. The results of the regression analysis have then been rolled forwards based on the adjusted GDN workload and our assumptions for real price effects, regional labour rates and ongoing efficiencies.

4.36. The GDNs have questioned Ofgem on the increased productivity assumption for mains reinforcement from 1.75 per cent to 2.0 per cent per annum. We consider that the GDNs should be able to achieve similar efficiencies for mains reinforcement as those proposed for repex since the work could potentially be carried out by the same labour force and hence the assumptions are the same.

Governors

4.37. Governor cost projections for the forecast period have been reviewed taking into account PB Power's assessment of BPQ workload and unit cost forecasts for the renewal, growth and service governor activity categories, reviewing historical trends and GDN specific assumptions and considering responses by GDNs and other parties.

4.38. Unit cost performance for governor activity categories is significantly influenced by workload volumes, design parameters and cost allocation issues; e.g. whether a GDN includes telemetry costs, and pressure management costs within the activity. As such we have reviewed unit costs for renewal, growth and service governor activity categories taking into account historical and forecast trends.

4.39. PB Power proposed disallowance of costs for a number of GDNs for R6 governor replacement on the assumption that this workload was identified following the implementation of policy T/PL/R6 in October 2004 and hence the cost of this work had already been allowed for in a previous price control. We have removed this cost adjustment and allowed the workload submitted in the BPQ since no allowance has been made historically and we consider the case that NGG put forward for the deferral of this spend was reasonable.

Other Operational

4.40. We have considered the appropriate adjustment to the GDNs' other operational capex forecasts taking into account PB Power's analysis and responses by the GDNs and other parties.

4.41. Other operational costs are those associated with plant and equipment and with land and buildings. PB Power carried out a comparison of the expenditure between GDNs and identified upper quartile performance. This was used to set the benchmark for all GDNs. Expenditure above this allowance was proposed to be disallowed by PB Power.

4.42. During cost normalisation PB power transferred £5.9 million out of WWU's forecast service governor capex into other operational for consistency of expenditure reporting across GDNs. PB identified £3.5 million of this as expenditure on the Dangerous Substances and Explosive Atmospheres Regulations 2002 (DSEAR) which they removed. As part of the GDN comparison we have added these costs back into WWU's forecast as this was an inconsistent adjustment for WWU. Further consideration will be given to the costs associated with DSEAR regulations as part of the 2006-07 update.

4.43. NGN's BPQ forecast for other operational capex included £3.8 million to cover known land remediation projects. These costs were excluded by PB Power as part of the normalisation process. In principle we agree that these costs should be allowed and further work will be necessary for the updated proposals to determine the appropriate allowance. For the purpose of these proposals we have included £3.8 million based on a high level review of historical costs of other GDNs and NGN's forecast expenditure; further work will be carried out to assess these costs for our updated proposals in September.

Non Operational Capex

4.44. Non operational capex covers a number of different activities, including system operations, IS costs, xoserve, vehicle costs and other (which incorporates office, security, telecoms, furniture and fittings, and tools and equipment). We have considered the appropriate adjustment to the GDNs' other operational capex forecasts taking into account PB Power's analysis and responses by the GDNs and other parties.

4.45. The GDNs state that their suite of non-SCADA systems is technically obsolete, will be functionally obsolete when interruption reform is required and will require replacement following SOMSA exit. PB Power has estimated the costs for upgrading the non-SCADA systems if SOMSA exit did not take place and apportioned these costs across the GDNs. We propose to include the costs proposed by PB Power following the principles set out at the time of GDN sales that we would not allow the costs associated with establishing separate GDNs to be passed onto customers. The allowed costs would be set on the basis that only one new set of systems is required rather than one for each GDN owner.

Repex allowances

4.46. Our proposed repex allowances are based on PB Power's assessment together with further work by ourselves to consider the GDNs' BPQ responses and their initial views on the PB Power reports. PB Power has also updated its analysis in the light of comments on factual accuracy errors and substantive points raised by the GDNs.

4.47. A summary of the GDNs' normalised forecast repex compared to our proposed allowances is set out in Tables 4.3 and 4.4. A more detailed breakdown for each year by GDN is set out in Appendix 9. As with the capex allowances, these numbers do not include any adjustments as a result of applying an IQI.

Table 4.3 - Ofgem adjustments and proposed allowances for net repex (£m, 2005-06 prices)

	NGG				NGN	SGN		WWU	Total GDN	Average annual GDN spend
GDN Normalised Net Repex 2008-09 to 2012-13	East of England	London	North West	West Midlands	Northern	Scotland	Southern	Wales & West		
Mains	338.9	332.1	351.6	234.5	253.4	219.4	536.9	247.7	2,514.4	62.9
Services (excl. Riser costs)	175.0	132.3	145.1	107.5	121.6	118.3	316.4	140.6	1,256.9	31.4
Risers*	3.9	14.5	4.3	2.7	6.7	18.6	67.3	6.0	123.9	3.1
LTS	0.0	0.2	0.0	0.0	37.1	0.3	18.4	36.4	92.4	2.3
Total Net Repex	517.8	479.0	500.9	344.6	418.9	356.7	938.9	430.8	3,987.6	99.7
Ofgem proposed allowances										
Mains	332.0	278.7	304.9	223.7	229.2	152.7	369.3	223.9	2,114.3	52.9
Services (excl. Riser costs)	138.3	93.6	116.1	88.0	118.5	73.2	208.2	108.3	944.0	23.6
Risers*	3.9	14.5	4.3	2.7	6.7	18.6	67.3	6.0	123.9	3.1
LTS	0.0	0.2	0.0	0.2	35.7	0.3	17.4	34.0	87.7	2.2
Total Net Repex	474.1	386.9	425.2	314.5	390.0	244.8	662.1	372.3	3,270.0	81.7

* 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.

4.48. A comparison of our allowances for 2008-09 to 2012-13 with historical levels of capex and the one-year allowances for 2007-08 are set out in Table 4.4 below.

Table 4.4 - Comparison of average annual historical repex, GDN forecasts, 2007-08 allowances and proposed allowances for 2008-13 (£m, 2005-06 prices)

	GDN	Average annual net repex 2002-03 to 2006-07*	2007-08 Allowances	Average annual forecast repex 2008-09 to 2012-13	Average annual Ofgem allowance 2008-09 to 2012-13	% difference
NGG	East of England	83.2	103.8	103.6	94.8	-8%
	London	50.8	44.8	95.8	77.4	-19%
	North West	63.5	82.3	100.2	85.0	-15%
	West Midlands	50.0	55.6	68.9	62.9	-9%
NGN	Northern	60.2	69.3	83.8	78.0	-7%
SGN	Scotland	41.6	54.5	71.3	49.0	-31%
	Southern	94.3	123.8	187.8	132.4	-29%
WWU	Wales & West	50.2	53.9	86.2	74.5	-14%
	Total GDNs	493.9	588.0	797.5	654.0	-18%

* The 2006-07 numbers are the latest forecasts provided by the GDNs in the October 2006 BPO returns.

Mains and services repex

4.49. Our repex proposals have taken into account our consultant's recommendations for workload and costs. Our proposals incorporate mains workloads agreed with the HSE for the mains replacement programme to remove all iron mains within 30m of a property over a thirty year timescale.

4.50. We have applied two main types of adjustments to GDNs' forecast repex:

- changes to the GDN forecast workloads based on comparisons with historical data and justification for the work; and
- adjustments to the costs based on regression analysis and our assumptions for regional labour rates, real price effects and ongoing efficiency.

4.51. We have reinstated the full mains replacement workload that NGG and SGN have agreed with the HSE under the Mains Replacement Enforcement Policy. PB Power had identified possible reductions in workload for these GDNs based on their outstanding iron mains population, the remaining length of the programme and other related conditions and diversions work.

4.52. We have reviewed SGN's other policy and condition mains which includes small diameter steel mains and all other mains not covered by the HSE replacement policy and compared them to other GDNs. The proposed volumes were found to be out of proportion compared to other GDNs' workloads and to its own HSE enforcement policy workload, principally because of its view that they need to replace all unprotected steel over the next 50 years rather than on the basis of its condition as

other GDNs have done. The workload for Scotland has been scaled back by 25 per cent to restore proportionality and for Southern the workload proposed for 2008-09 has been maintained through to 2012-13.

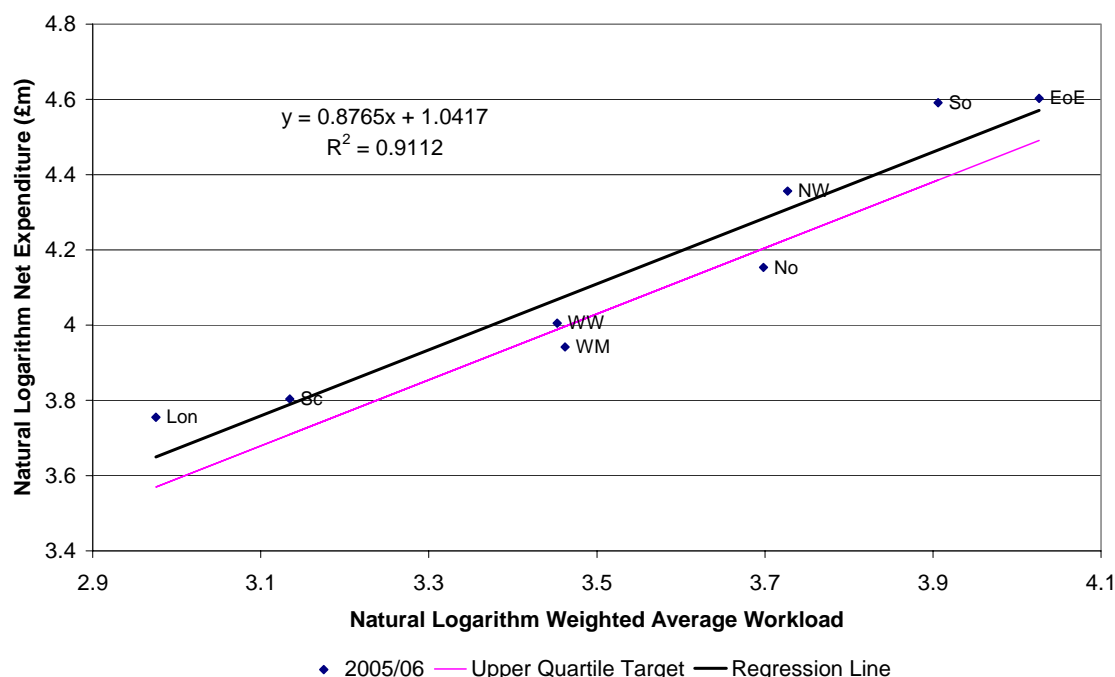
4.53. Our analysis identified a step change in the cost of service relay after gas escape from 2002-03 to 2005-06. We have reviewed costs included in the BPOs against submitted contractor prices for the work and there appears to be a significant difference between unit costs for this activity. NGG suggested there was a change of coding as part of their Way Ahead restructuring programme to ensure costs were coded more consistently and hence such items as reinstatement costs associated with a service relay are captured against repex. However, the unit costs appear to be increasing significantly year on year which is not explained by the one off change in reporting practice. We have allocated a proportion of the repex costs associated with this work to opex.

4.54 We have examined the GDNs' BPO workload submissions and noted the ratio of length of main installed to de-commissioned within their proposals. The ratios submitted by the GDNs ranged from 1.02 to 1.12 and based on a review of historic workloads and the GDNs' own forecasts we believe 1.05 is the minimum the GDNs should be achieving. After taking into account replacement upsizing an adjustment has been made to the GDNs' mains lay forecasts where the mains abandon to installed ratio is less than 1.05. This adjustment is made to the mains workload volumes prior to any cost assessment taking place.

4.55 One of the GDN owners indicated a ratio of 1:1 is more realistic and that the proposed ratio is likely to lead to longer service lengths, and hence costs, if the mains lay lengths are reduced. However, given the scale of mains replacement work and that mains insertion was being used significantly by the GDNs in 2005-06, the year used for the regression analysis, we believe the minimum ratio of 1:1.05 should be applied.

4.54. The results of the regression are presented in Fig 4.3.

Figure 4.3 - 2005-06 Total Net Repex Regression Analysis (2005-06 prices)



4.55. The results of the regression analysis have then been rolled forwards based on the adjusted GDN workload and our assumptions for real price effects and ongoing efficiencies.

4.56. Adjustments to the GDNs' mains replacement workload forecasts included an adjustment to the diameter mix of polyethylene mains to be laid based on a review of the historic mix of diameters. We compared historical lengths and diameters of mains abandoned with the diameter mix of mains laid. Where GDNs forecast a significant change to the mains lay mix we have made a revision to their lay diameter mix which feeds through into the unit cost of abandonment. This adjustment takes into account that mains insertion, which is the most economic method of replacement, creates a bias towards the smaller diameters of installed mains.

4.57. The GDNs all consider additional costs are required as a result of the Council Directive on the Landfill of Waste 1999 (EU landfill directive) and the Landfill (England and Wales) Regulations 2002 (as amended in 2005). In considering the 2006-07 audited actual data and in updating allowances we will be considering the appropriate level of waste management costs. No allowance has been included at this stage.

4.58. All GDNs have forecast a significant increase in workload and costs associated with riser replacement. The GDNs are in the process of completing a survey of high rise buildings within their networks. To avoid materially understating likely repex

allowances, within our initial proposals we have made an allowance for riser replacement costs based at this stage on the GDN forecast workload and costs. In considering the 2006-07 audited actual data which GDNs will be submitting in June and the results of the ongoing survey work being carried out by the GDNs we expect to update these allowances in September.

Next Steps

4.59. As indicated in our third and fourth consultation documents, we will be updating our analysis to take account of responses to initial proposals and complete our work in some areas that remain outstanding. This will be published in our updated proposals in September. The main issues that remain outstanding include:

- the appropriate level of allowances for riser replacement; and
- repex costs associated with the waste management regulations.

4.60. The allowances currently include the GDNs' forecast for riser replacement costs but exclude costs associated with the waste management regulations.

Impact on RAV

Table 4.5: Indicative RAV roll forward, 2008-13 (£m, 2005-06 prices)

	NGG				NGN	SGN		WWU
	East of England	London	North West	West Midlands	Northern	Scotland	Southern	Wales & West
Opening RAV 1 April 2008*	2191.7	1229.5	1402.4	1084.1	1340.0	975.9	2224.8	1234.0
Capex/repex additions	683.1	566.6	604.2	415.6	618.9	485.1	1114.0	637.0
Less: repex expensed (50%)	-245.3	-200.2	-220.0	-162.7	-198.7	-133.0	-359.7	-193.6
Depreciation	-396.4	-226.9	-255.3	-197.1	-245.4	-174.0	-412.5	-223.9
Closing RAV 31 March 2013	2233.2	1369.1	1531.3	1139.9	1514.9	1154.0	2566.5	1453.5

* As per one year control – will depend on GDNs' actual spend in 2006-07 and 2007-08

5. Outputs

Chapter Summary

This chapter sets out our proposals for improving quality of service outputs for consumers and the changes that we intend to make as well as setting out our view on issues relating to the scope of gas networks.

Question box

Question 1: Do you support our proposals for changes to the outputs and quality of service arrangements?

Question 2: Do you support our proposals for improving the accuracy of pipeline records?

Question 3: Is Ofgem's proposed approach to setting allowances for the outputs and quality of service arrangements for 2008-13 appropriate?

Quality of service

5.1. As price controls provide strong incentives for GDNs to reduce costs there is a risk that they may achieve this by providing a lower level of service to consumers. The outputs and quality of service arrangements provide an important counterbalance to this.

5.2. The current arrangements for GDNs are different to those for electricity DNOs because of the nature of these industries. Very few gas customers experience an interruption to their supply and often these are planned interruptions resulting from the Mains Replacement Programme. As such quality of service measures for GDNs have therefore tended to focus on key areas of service (such as connections) and are in the form of guaranteed and overall standards of performance.

5.3. The Gas Act 1986 (as amended) empowers the Authority to make regulations for guaranteed standards of performance, with the consent of the Secretary of State for Trade and Industry, and to determine overall standards of performance for GDNs and IGTs. These standards of performance were first introduced in April 2002.

5.4. Guaranteed standards of performance (GSOPs) set performance levels that must be met in each individual case. Currently GSOPs cover areas such as restoring supplies after an unplanned interruption, reinstating premises after works, providing quotations and the scheduling of connections works etc within a specified timeframe.

If a GDN (or IGT) fails to provide the level of service required then it must make a payment or payments to the consumer affected, subject to certain exemptions⁶.

5.5. Overall standards of performance (OSOPs) set minimum average levels of performance for a 12 month period. These cover areas such as answering telephone calls, notifying consumers of planned interruptions, responding to complaints and attending gas emergencies.

5.6. Section 33BA of the Gas Act requires licensees to conduct their business in such a way that they can reasonably be expected to achieve the overall standard performance levels set. In this way a failure to meet an overall standard will not in itself necessarily constitute a breach of section 33BA(3). However, it is possible that a significant breach of an overall standard could constitute such a breach. We consider that including precise performance levels in a licence condition would enable the Authority to take more appropriate enforcement action against a licensee in the event of a failure to meet the prescribed level of performance.

5.7. We have reviewed the existing quality of service arrangements and are proposing a number of improvements to ensure they remain relevant, address any gaps identified and provide an appropriate level of protection for consumers.

5.8. In the third consultation document we set out two options for the quality of service arrangements for 2008-2013:

- Option 1 – Do nothing, the existing arrangements are maintained; or
- Option 2 - Rationalising and updating the outputs and standards of performance arrangements and improving measurement.

5.9. We outlined our initial preference for Option 2 as we considered it would result in the following benefits:

- simplification of the quality of service arrangements;
- improved protection for consumers;
- improved accuracy and reliability of the data recorded and reported by GDNs;
- enhanced comparative competition between the GDNs; and
- improved ability to monitor how performance is improving both over time and between different GDNs.

5.10. Responses received to the third consultation document were supportive in principle of our preferred option⁷.

⁶ All payment amounts specified under the GSOPs are in nominal terms.

⁷ A summary of responses can be found in the fourth consultation document.

Consumer research

5.11. We commissioned a programme of consumer research to inform our proposals for changes to the outputs and quality of service arrangements. This research satisfies the requirement under section 33BAA(1)(a) of the Gas Act to undertake consumer research prior to making any changes to the guaranteed and overall standards of performance. Details regarding the research programme, its key findings and conclusions have been published in a separate report⁸.

5.12. This research sought views from a variety of different gas consumers including domestic, priority and small and large business consumers initially through qualitative focus groups and interviews and a subsequent quantitative questionnaire. These were used to gauge consumers' experiences and expectations of the quality of service provided to them by their GDNs.

5.13. The results identify key areas of quality of service for consumers and their relative importance. They highlight where GDNs are performing well, those areas where performance can be improved and where existing standards should be strengthened.

Ofgem proposals:

5.14. Our initial proposals build on the changes proposed under Option 2 and have been further informed by the findings of our programme of consumer research, the responses we received to the third consultation document and from the impact assessment we undertook⁹.

5.15. Our proposed changes to the outputs and quality of service arrangements will provide improved protection to consumers. We are proposing a simplification of the current arrangements and implementing requirements to improve the accuracy with which GDNs are measuring and reporting their performance to enable the possibility of moving to a stronger incentive package on quality of service at the next review.

Removal of the overall standards of performance

5.16. We propose to revoke the OSOPs and migrate these obligations to licence conditions or guaranteed standards of performance (GSOPs).

5.17. These changes will result in improved protection for consumers. Where existing obligations in the overall standards are migrated to precise performance levels in a licence condition, the Authority will be able to take more appropriate

⁸ Consumer Research Final Report - published alongside this document (ref 127/07).

⁹ See appendix 16.

enforcement action against a licensee in the event of a failure to meet the prescribed level of performance. Where they become GSOPs individual consumers will receive a compensation payment in the event that the standard is not met. We consider these proposals will have the additional benefit of simplifying the quality of service arrangements and are consistent with the removal of OSOPs for electricity DNOs under DPCR4.

Telephone calls

5.18. Overall standard (OS) 1 requires GDNs to answer at least 90 per cent of calls to the national emergency number, dedicated enquiry line and meter point reference number helpline within 30 seconds. For the emergency line this standard applies 24 hours a day and requires calls to be answered by a live operator. For the other two services performance is monitored only during the operating hours of these services, and calls can be answered using an automated system.

5.19. We propose to move this standard of answering 90 per cent of telephone calls within 30 seconds to Standard Special Condition D9 (Distribution Network transportation activity incentive scheme) (SSC D9), the outputs performance monitoring condition. Almost all domestic and business consumers (over 90 per cent) found this area of service to be important and considered the existing standard to be very good or reasonable.

5.20. Some GDNs raised concerns about including this performance level in a licence condition as it is measured and reported on a national basis by NGG, who operate these telephone services on behalf of all the GDNs. We do not consider this to be an issue as NGG has been measuring and reporting this data on behalf of the GDNs for the past two years. Including this performance level in GDNs' licences ensures that they have appropriate contractual arrangements in place when procuring or providing these services.

Advance notice of planned interruptions

5.21. OS2 requires GDNs to provide at least 95 per cent of consumers with written notice of a planned interruption at least five working days before the commencement of the interruption.

5.22. We propose to convert this standard into a guaranteed standard of performance as failures have a direct impact on individual consumers. We consider that this will better protect the interests of consumers as they will be entitled to a compensation payment in the event of a failure to provide the required period of notice.

5.23. Two GDNs while supporting the removal of this OSOP did not support its inclusion as a GSOP, suggesting that performance in this area could be assessed through the customer satisfaction survey or a licence condition. They noted that this standard can be difficult to achieve in all instances, as GDNs may not have all the

consumers' details and letters addressed to the occupier may be discarded unopened.

5.24. The consumer research highlighted that this was an important area of service for consumers. In the initial qualitative research consumers suggested that a notice one month in advance followed by an imminent reminder a week before the interruption would be ideal. The quantitative research found this had high levels of acceptability (approximately 95 per cent). 77 per cent of consumers found £20 an acceptable level of compensation. Businesses found this less acceptable and suggested higher compensation amounts.

5.25. We propose to introduce a guaranteed standard requiring GDNs to make a fixed compensation payment of £20 to domestic and £50 to non-domestic consumers where advanced written notice of a planned interruption is not provided five working days before the start of a planned interruption. We will also recommend, as best practice, that GDNs send out an additional earlier notification one month in advance of planned works. We are not proposing to provide GDNs with an allowance for any increase in costs associated with this change to a GSOP. Notifying consumers is a standard part of planned work and avoids subsequent delays in carrying out the work. GDNs should have appropriate records of which premises are connected to the relevant parts of their system and should have no difficulties in complying with this standard.

Informing consumers of when they are to be reconnected

5.26. OS3 requires GDNs to provide information to consumers affected by an unplanned interruption that is expected to last longer than 24 hours. GDNs are required to notify 97 per cent of consumers that an interruption has occurred and of the expected time of reconnection within 12 hours of the GDN being aware of the interruption. GDNs are also required to provide progress reports and revised information to at least 97 per cent of consumers after each succeeding period of 24 hours from the original notification or announcement.

5.27. The GDNs have advised that it is difficult for them to reliably record how many consumers are provided with the required information and at what intervals following an interruption. Data reported to Ofgem on GDNs performance against this standard is therefore not very robust.

5.28. The consumer research identified that this was an important area of service for consumers, particularly business consumers as it enables them to make appropriate alternative arrangements to mitigate the impact of an interruption on their business. The research found high levels of satisfaction with the frequency of updates provided (76 per cent satisfied) and with the communication and information given during works (80 per cent satisfied) among those consumers with recent experience of an unplanned interruption.

5.29. Consumers' satisfaction with the service provided by GDNs during interruptions is assessed through a postal survey that each GDN is required to undertake each

quarter. Both the GDNs and Ofgem publish the results of these surveys which incentivises GDNs to improve performance in these areas.

5.30. The consumer research highlighted this as an important area for consumers and that most were satisfied with the current level of performance. As such, we propose to remove this OSOP and assess performance through additional questions in the quarterly customer satisfaction survey. Should the survey results show a decline in GDNs' performance in this area, we will take further action to ensure appropriate service levels to consumers are maintained. As there is no requirement for IGTs to undertake customer satisfaction surveys, we propose to incorporate a requirement for IGTs to provide updates to their customers during unplanned interruptions in their licence.

Response to complaints

5.31. OS4 requires GDNs, in at least 90 per cent of cases, to issue a written or verbal response to a complaint within 5 working days of receipt. Where this response is not substantive the GDN is also required to issue a substantive response to the complaint within 10 working days of receipt in at least 90 per cent of cases.

5.32. The consumer research found that 55 per cent of domestic and 40 per cent of business consumers who had complained were dissatisfied. While consumers considered this standard relatively less important, the timeframe of 10 working days for response was found to have the lowest levels of acceptability of all the standards tested (70 per cent considered it reasonable). 71 per cent of domestic and 64 per cent of business consumers considered a compensation payment of £20 acceptable.

5.33. We propose to convert this standard to a GSOP as consumers have identified this as an area of service where performance can be improved. A GDN's failure to meet the required standard also has a direct impact on individual consumers and they should be eligible for compensation when this occurs.

5.34. We propose a fixed compensation payment of £20 to domestic and non-domestic consumers where a GDN fails to respond to a complaint within 10 working days. We propose that further compensation be paid for each additional period of 5 working days until the response is issued, capped at £100. We do not consider it appropriate to shorten the timeframe for response in addition to the introduction of compensation payments, as this may have significant resource implications for the GDNs. We are not proposing to provide GDNs with an allowance for the change to this standard as we consider that GDNs should have appropriate systems in place to deal with consumers' concerns regarding their performance.

Gas emergencies

5.35. OS5 requires GDNs to attend any reported gas leak or gas emergency as soon as possible. It also requires GDNs to attend 97 per cent of uncontrolled emergencies within 1 hour of receiving the report and 97 per cent of controlled¹⁰ emergencies within 2 hours of receiving the report.

5.36. The consumer research showed that this was considered the most important standard; it had high levels of acceptability and was not considered to be an area where GDNs' performance was lacking.

5.37. As this is an essential area of service, closely linked to the GDNs' safety responsibilities, we propose to move this standard to attend 97 per cent of uncontrolled emergencies within 1 hour and 2 hours for controlled emergencies to the outputs performance monitoring condition (Standard Special Licence Condition D9). This provides improved protection for consumers as the Authority will be able to take more appropriate enforcement action against a licensee in the event of a failure to meet the precise performance levels prescribed in the licence condition for this important area of service.

Changes to the guaranteed standards of performance

5.38. We are proposing some minor changes to these standards to provide improved protection for consumers and to simplify the presentation of the standards making them easier to understand.

Supply restoration

5.39. Guaranteed standard (GS) 1 requires GDNs to make a fixed compensation payment of £30 to domestic consumers where they fail to restore their gas supply within 24 hours following an unplanned interruption on their networks. Further compensation must be paid for each additional period of 24 hours until the consumer's supply is restored with the total payment for any consumer capped at £1,000 per incident. This standard does not apply where the event originated on another gas transporter's network or where the interruption affects more than 50,000 consumers. Compensation arrangements for business consumers are set out in the Uniform Network Code (UNC).

5.40. The consumer research showed this was a key area of service, with 89 per cent of consumers finding it important or very important. 77 per cent of businesses and

¹⁰ "Controlled gas escape or other controlled gas emergency" means a gas escape or other emergency where the person reporting the escape or other emergency, after carrying out (or causing to be carried out) the actions required by the telephone operator, advises the operator that the escape of gas or other emergency appears to have ceased.

85 per cent of domestic consumers found the existing standard acceptable, although business consumers were less satisfied with the compensation amount associated with this standard.

5.41. We are proposing to amend the supply restoration guaranteed standard to include smaller non-domestic consumers. Most respondents to the third consultation document supported this but felt that compensation arrangements for larger and interruptible consumers (where annual consumption exceeds 73,200kWhs) should remain in the Uniform Network Code (UNC).

5.42. Having reviewed high level data on gas supply interruptions over the past 20 years, we are also proposing to reduce the event cap from 50,000 consumers to 30,000. There has only been one incident during this period where more than 10,000 consumers were affected, this involved approximately 30,000 consumers in 1994. Based on standard network planning, the maximum number of consumers likely to be fed from a single supply point is around 30,000. It is therefore highly unlikely that an incident would affect more than this number of consumers. Reducing GDNs' liabilities through this smaller event cap will have the benefit of reducing the cost of the standard without, in reality, altering the protection afforded to consumers.

5.43. We are also proposing to amend this standard so that in instances where an interruption originating on one gas network affects consumers connected to another GDN or IGT network, those consumers will receive compensation from the GDN where the interruption originated. This is consistent with the arrangements in electricity distribution.

Compensation arrangements for third party damage and water ingress interruptions

5.44. Interruptions to consumers' gas supplies resulting from third party damage or water ingress (TPWI) are currently exempted from the supply restoration guaranteed standard. Ofgem agreed equivalent compensation arrangements with the GDNs in a Letter of Understanding which expires on 31 March 2008¹¹.

5.45. We are proposing to include TPWI interruptions within the supply restoration guaranteed standard. As mentioned above, the standard will apply to domestic and smaller non-domestic consumers. This change will also ensure that consumers connected to GDN and IGT networks receive an equal level of protection regardless of the cause of the interruption and it simplifies the arrangements.

5.46. We are also proposing to introduce a cost pass through mechanism to limit more effectively GDNs' exposure to liabilities for these types of interruptions. GDNs

¹¹ <http://www.ofgem.gov.uk/Networks/GasDistr/GDPCR7-13/Documents1/17064-20070202%20TPWI%200708%20LoU%20NGG.pdf>.

will be liable for payments under this standard for TPWI interruptions up to 1.5 per cent of their annual revenue and beyond that limit 95 per cent of the costs of the payments will be passed through to consumers. GDNs would be liable to pay the remaining 5 per cent of any payments in excess of the threshold amount.

5.47. Most respondents also supported including TPWI interruptions within this guaranteed standard so that consumers connected to IGT networks were captured by the arrangements. One GDN did not support this proposal as these types of interruptions are largely outside the GDNs control. We consider that separate performance reporting for TPWI incidents will address this concern. Most GDNs supported the introduction of a cost pass through mechanism to limit GDNs liabilities in the event of a large incident, however three GDNs did not support retaining 5 per cent of liabilities above the pass through threshold. We consider that it is important for GDNs to retain some liability to ensure they are appropriately incentivised to restore consumers' supply quickly in all instances.

Allowance for payments under the supply restoration standard

5.48. 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.

5.49. 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 impact of the events through faster restoration of supplies and/or to insure against potential payments. We have calculated an allowance which is shown below in Table 5.1. An explanation of how this allowance has been calculated is included in Appendix 6.

Table 5.1: Total proposed allowances for 2008-13 for the quality of service arrangements (£m, 2005-06 prices)

		GSOP1 Compensation payments		Additional Customer satisfaction surveys	TOTAL
		Unplanned	TPWI		
NGG	East of England	0.16	0.97	0.18	1.31
	London	1.30	1.17	0.18	2.64
	North West	0.14	0.81	0.18	1.12
	West Midlands	0.04	0.33	0.18	0.54
NGN	Northern	0.04	0.54	0.18	0.76
SGN	Scotland	0.12	0.39	0.18	0.69
	Southern	0.19	1.20	0.18	1.57
WWU	Wales & West	0.03	0.41	0.18	0.61
TOTAL		2.01	5.83	1.40	9.24

Reinstatement

5.50. GS2 requires GDNs to make a fixed compensation payment of £50 to domestic consumers and £100 to non-domestic consumers where they fail to reinstate premises within 10 working days following completion of gas related works. Further compensation must be paid for each subsequent period of 5 working days until the consumers' premises are reinstated.

5.51. We did not propose any change to this standard in the third consultation document. It did emerge as an area of concern through the consumer research. 77 per cent of domestic consumers and 82 per cent of businesses considered this standard important. 19 per cent of domestic consumers and 25 per cent of businesses found this standard unacceptable. Business consumers were particularly dissatisfied with the level of the compensation payment in the event that their premises were not reinstated within the specified timeframe.

5.52. We consider it appropriate to strengthen incentives on GDNs to improve performance in this area by tightening the timeframe associated with the completion of the reinstatement works rather than increasing payment levels. We are proposing to amend this standard to require the completion of the reinstatement works within 5 working days. Where specialist materials or finishes are required and this shortened timeframe is not practicable, we will provide an exemption from this standard.

5.53. Most GDNs indicated that this would have limited impact on their costs as their existing contracts regarding private reinstatement works require completion within 2-4 days. As such we are not proposing to provide GDNs with an allowance to fund costs associated with this change.

Alternative heating and cooking facilities

5.54. GS 3 requires GDNs to provide alternative heating and cooking facilities to priority consumers if there is an interruption to their gas supply. GDNs are required to provide these facilities within 4 hours for planned and unplanned interruptions affecting less than 250 consumers. For an unplanned interruption affecting 250 customers or more, the GDN must provide these facilities within 8 hours. Where the GDN fails to provide this, it must make a fixed compensation payment of £24 to the priority consumer.

5.55. GDNs find it very difficult to report against this standard, as they make alternative heating and cooking facilities available to all customers in the event of an interruption. GDNs do not record the number of facilities provided to priority

customers and do not restrict this service to only those customers on the Priority Services Register (PSR)¹².

5.56. In the third consultation document, we proposed removing GS3 and replacing it with a licence condition to remove the reporting burden on GDNs and extend the requirement to reflect current practice of offering facilities to all customers rather than just those on the PSR.

5.57. There was some opposition to the removal of this GSOP. In particular energywatch was concerned about the potential loss of individual redress for priority consumers in the event that this service is not provided. The consumer research also showed this was a key area of service for consumers, with 91 per cent of consumers considered this standard important and 94 per cent finding it acceptable. Consumers found the compensation amount associated with failing this standard much less acceptable.

5.58. In light of the importance of this standard to consumers and the opposition to its removal, we are proposing to retain this guaranteed standard. We consider it appropriate to change the scope of the standard so that GDNs will be required to provide alternative heating and cooking facilities to both priority consumers and those who request it. This will ensure that the standard is consistent with current practice and that any incentive for GDNs to reduce costs will not result in a decline in service levels currently experienced by consumers in this area.

Connections guaranteed standards of performance

5.59. We are not proposing any substantive changes to the connections guaranteed standards. We are proposing to merge the three existing standards on provision of quotations into a single standard whilst maintaining the current timeframes and reporting arrangements. Similarly we are proposing to merge the two existing standards on offering dates for connection works into another single standard, again maintaining the current timeframes and reporting arrangements. These changes will have the benefit of simplifying and rationalising the presentation of the standards. They will not impact upon the protection afforded to customers or the systems GDNs have put in place to monitor and report on these standards.

5.60. We do not agree with one GDNs' view that the connections GSOPs and the overall performance levels specified under SSLC D10 are duplicate obligations. Given the historical problems with performance in gas connections we consider it appropriate to retain both individual guarantees and average performance measures.

¹² Provided for in standard condition 37(Provision of Services for Persons who are of Pensionable Age or Disabled or Chronically Sick) of the gas suppliers licence.

Other changes to the outputs and quality of service arrangements

Performance reporting under licence conditions

5.61. GDNs are required to report on a number of outputs and performance measures under SSC D9. This condition gives effect to the Regulatory Instructions and Guidance (RIGs) document which provides additional guidance on reporting.

5.62. We are proposing to review and amend SSC D9 and the RIGs to:

- remove any gas transmission related outputs;
- remove any duplication in reporting requirements and assess which outputs are best collected as part of the RIGs and as part of the cost reporting framework;
- improve the measurement and reporting of the number and duration of interruptions;
- expand the scope of the customer satisfaction surveys; and
- introduce reporting requirements regarding the accuracy of pipeline records and for a balanced score card.

GDNs' interruptions reporting

5.63. Under the last price control, GDNs were given a total allowance of £5 million (in 2000 prices, across all GDNs for the period 2002-07) to develop systems and processes to monitor, record and report interruptions data. During 2004, it became evident that the information reported by GDNs on interruptions was not as robust as expected. An assessment of GDNs' reporting showed that the reported number of interruptions is understated and the duration of interruptions is significantly overstated due to problems with the data and the way that it was collected¹³.

5.64. Improvements to the reporting of interruptions data have since been made, through changes to the reporting requirements in the RIGs which GDNs have advised has improved both the accuracy and completeness of data reported.

5.65. We consider that further improvements in the quality of this data can be made and that it is appropriate to strengthen incentives on GDNs to improve reporting in this key area of performance. We are proposing to publish interruptions performance on a disaggregated basis for each GDN in the annual Gas Distribution Quality of Service report from 1 April 2008. This will result in further benefits for consumers through enhanced comparative competition, as GDNs' interruptions performance can be assessed relative to one another and over time.

¹³ An assessment review of Transco's measurement systems and RIGs reporting. September 2004. 04/06

5.66. We are proposing to introduce a licence condition requiring minimum performance levels for the completeness (95 per cent) and accuracy (90 per cent) of GDNs interruptions data which will take effect on and from 1 April 2009. This will allow the GDNs 12 months to ensure they have appropriate systems and procedures in place to monitor, record and report interruptions on their networks and to ensure that the data produced is robust and reliable. GDNs will also be required to develop appropriate auditing and governance procedures to demonstrate to Ofgem that they have satisfied the requirements for the completeness and accuracy of this data.

5.67. In addition, Ofgem shall also undertake an audit of GDNs reporting systems and data early in this price control period and where information is not sufficiently robust take appropriate action to ensure future compliance in this area. Having established these targets for completeness and accuracy, we shall be looking to improve these over time, subject to any significant cost implications.

Expanding GDNs quarterly customer satisfaction surveys

5.68. 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). This would allow the intangible aspects of the service provided to customers to be measured in a way that would complement the existing standards of performance. The additional customer satisfaction survey questions we are proposing be included are set out in Appendix 6.

5.69. We are proposing to provide GDNs with an additional allowance to fund the costs of these additional surveys. Based on the costs of the current surveys, we consider an allowance of £35,000 per GDN per annum is appropriate.

Accuracy of pipeline records

5.70. GDNs need accurate records of their pipeline system to maintain their assets efficiently and safely. Third parties use these records to enable them to connect efficiently to the network or to safely avoid existing gas pipes when they are carrying out excavation works in an area.

5.71. Maintaining accurate pipeline records is part of a GDN's normal business as prudent and efficient asset managers. We are aware of issues with the accuracy of this data and consider that the GDNs' current processes do not provide sufficient incentives to maintain accurate pipeline records. The forthcoming price control provides an ideal opportunity to strengthen incentives as GDNs continue their extensive mains replacement programme. This will enable the accuracy of older pipeline records to be improved (as these mains are replaced) with limited additional cost or effort.

5.72. Strengthening incentives will further encourage GDNs to improve their record keeping and utilise new technologies available to locate and trace polyethylene (PE)

pipes, which are more difficult to locate once in the ground. It may also result in greater efficiency by GDNs as with improved records they will be able to locate their assets more quickly when attending gas emergencies and undertaking repair and replacement work and should experience less accidental damage to assets. It will also benefit Independent Connection Providers (ICPs) and Independent Gas Transporters (IGTs) who will be able to undertake connections to the network more efficiently and enable other third parties to safely avoid existing gas pipes when they are carrying out excavation works.

5.73. We propose to introduce an output reporting requirement to monitor GDNs' asset record error correction processes ("DR4 and DR8s"). It will include:

- total number of DR4 and DR8s submitted and as a proportion of length (km) of main replaced;
- percentage of pipeline records digitised within 30 working days;
- number of undigitised pipeline records; and
- date of the oldest 'undigitised' record.

5.74. Focusing GDNs' management attention on these processes through this reporting regime will demonstrate how pipeline records are managed and the timeliness with which they are updated by each GDN and should improve the accuracy of new and historical records over time.

5.75. The complexity of this issue makes developing and implementing additional incentives difficult. Financially incentivising the reporting of these error correction processes would not be robust as:

- the generation of a portion of the error correction reports is within the control of the GDN and this may discourage the reporting of inaccuracies;
- incentivising the submission of error reports by third parties may create perverse incentives to increase the reporting of more minor inaccuracies, which could result in a significant auditing and administrative burden on the GDNs; and
- some level of inaccuracies in 'legacy' records of older pipelines which have not been subject to repair or replacement is expected.

5.76. We consider that this reporting regime will provide sufficient incentive to the GDNs to improve performance in this area and will enable us to monitor their performance in this area comparative to one another and over time. Should this monitoring and reporting regime demonstrate deterioration in performance we will consider how these incentives can be strengthened further.

Mains Location Process

5.77. In September 2005, GDNs implemented a Mains Location Process (MLP) as a mechanism to resolve disputes that arise when IGT/ICPs undertaking works are unable to locate the relevant gas pipes as their actual location does not correspond with the details provided by the GDN. The MLP sets out the steps an IGT/ICP should

follow to locate the relevant main/pipe and agree any compensation that may be paid by the GDN to the IGT/ICP to cover a reasonable level of costs incurred.

5.78. A number of shortcomings with the MLP were highlighted in Ofgem's consultation on the Designated Registrar of Pipes¹⁴ and GDNs were asked to consider whether the MLP could be enhanced to ensure that the level of compensation takes account of size and complexity of particular works.

5.79. We consider that the MLP can be further improved, particularly in the following areas:

- the 'reasonable site investigation' required to be undertaken by IGT/UIP's which currently necessitates excavation of three trial holes up to the width of the footpath to a depth of 1.2m (twice the normal depth of gas pipes);
- the lack of timescales for the GDN to complete the mains location or additional mains laying where the IGT/UIP declines to do this itself; and
- that payment for additional main laying is only possible when the main is inaccurately recorded +/- 3.0m from its actual location (10 times the prescribed accuracy standard).

5.80. We expect GDNs to undertake to improve their MLPs to address these shortcomings by 1 April 2009. Should improvement in this area not occur, Ofgem will consider undertaking further action to address these limitations.

Balanced score card

5.81. We are proposing to start collating some of the quality of service information in the form of a "balanced score card". Over time this may be a basis for making meaningful comparisons of performance between GDNs. It will focus on GDNs' performance across a number of key areas and those measures which are most valuable to consumers and to GDNs.

5.82. We are proposing to implement the balanced score card outlined below. We have selected a number of existing measures from key service areas which GDNs already report to Ofgem to minimise any reporting and data collection burden.

5.83. At this time, the different areas will not be weighted to create an overall performance score for GDNs and there will be no financial incentive attached to this measure. In future, however, once confidence in this data improves this may provide a basis for an incentive.

¹⁴ Ofgem 191/05, Consultation letter – Designated Registrar of Pipes licence conditions / Accuracy of Gas Pipeline Records, 24 August 2005 and Ofgem 52/06, Decision letter – Designated Registrar of Pipes licence conditions / Accuracy of Gas Pipeline Records, 30 March 2006.

Proposed Balanced Score Card for GDNs
Gas supply
Number of unplanned interruptions per 100 customers
Average duration of interruptions
Accuracy of data submitted
Gas safety
Per cent of gas emergencies attended within timeframes
Accuracy of pipeline records
Number of error correction reports per km of network
Number of undigitised mains pipeline records
Environmental performance
Methane emissions per km of metallic main in network
Customer service
Customer satisfaction survey results for:
<ul style="list-style-type: none"> • Repair • Replacement • Emergencies • Connections
Per cent of complaints responded to within timeframe
Per cent of reinstatement jobs completed within timeframes

Auditing the outputs and quality of service arrangements

5.84. We are not proposing to specify an audit regime with regard to the data collected and reported by GDNs on the standards of performance, interruptions and other outputs specified under the performance reporting licence condition.

5.85. We consider that GDNs should have appropriate and robust corporate governance procedures in place to ensure that data collected and reported to Ofgem is reliable and accurate. As mentioned above, Ofgem will be undertaking an audit of GDNs' reporting systems and data early in this price control period to ensure that this is the case. Where information is not sufficiently robust or GDNs do not have appropriate systems in place, Ofgem will take appropriate action to ensure future compliance.

Consulting on changes to the Standards of Performance and Licence

5.86. To give effect to our proposed changes, we will be required to revoke the existing Overall Standards of Performance determinations and make a number of amendments to the Gas (Standards of Performance) Regulations and modify some of the gas transporter licence conditions. We are required formally to consult on these proposed changes.

5.87. Before initiating a formal consultation we will be carrying out informal consultations on the licence modifications and amendments to the Gas (Standards of Performance) Regulations as part of updated proposals in September 2007 and final proposals in December 2007. These informal consultations enable us to seek

comments from the GDNs, the DTI and interested parties on early drafts of the regulations and licence modifications.

5.88. The Gas (Standards of Performance) Regulations can only be made with the consent of the Secretary of State for Trade and Industry. To prescribe guaranteed standards of performance in regulations we are required to undertake appropriate research to discover the views of those persons likely to be affected¹⁵; publish a notice of our proposals and consider any representations made in respect of the proposals; and to consult with energywatch, gas transporters, gas suppliers and persons likely to be affected by the changes. This process will commence in July and run in conjunction with the consultations on changes to the licence conditions described in Appendix 13. These changes will take effect on 1 April 2008.

Scope of networks

Riser replacement

5.89. There are large numbers of high rise blocks of flats with gas supplies in major cities including London, Birmingham and Glasgow. Many of these properties were built during the 1960s and gas supplies were usually installed during construction. Gas is typically connected to the flats within the buildings by means of a vertical steel riser and lateral service pipes. Those parts of the riser and service laterals not actually within the individual flats are typically routed within service ducts through the fabric of the structure, which may lead to the riser being locally encased in concrete. This makes it difficult to assess the condition of the pipes, limiting inspection to exposed areas.

5.90. Historically the need for riser repairs or replacement has usually been identified following a reported gas escape or as part of mains replacement work. In such cases an inspection and risk assessment are carried out. Where appropriate, permanent repairs are carried out but it may be necessary to replace the riser on safety grounds.

5.91. In the third consultation document we sought views on whether a more proactive approach was needed to riser replacement, considering the appropriate volume of replacement, the efficient costs of carrying out this work and whether in some cases where the costs per customer are disproportionate it would be appropriate, in consultation with those affected, to adopt alternative arrangements, such as conversion to electric heating and cooking.

¹⁵ As previously mentioned, we have already undertaken a programme of consumer research to satisfy this requirement, the findings of which are summarised in a separate report. See Chapter 5 and Consumer Research Final Report - published together with this document (ref. 127/07).

5.92. GDNs are currently undertaking surveys to identify the total number of high rise buildings with gas supplies and those needing immediate repair or replacement. Based on the analysis so far, GDNs are considering moving towards a proactive policy to replace a certain volume of risers each year. They have not provided sufficient evidence to support this approach to date. We understand that their views will be developed further as more surveys are undertaken. At this stage a number of the GDNs have included within their forecasts costs for proactive repair and replacement of risers.

Ofgem proposals

5.93. We support considering alternatives to replacement where there is likely to be economic benefit, but note that this will need to be in full consultation with the connectees, particularly considering the social and environmental issues with conversion to electric heating and cooking. We would also need to consider whether in these circumstances, where a GDN proactively choose to reduce the scope of the gas network, it was appropriate to reduce the RAV.

5.94. We will consider any proposals that the GDNs bring forward in this area but in considering the move to a more proactive replacement programme it is important to consider the cost implications. This work involves significant additional costs including scaffolding and compliance with Work at Height Regulations. The exact costs will vary significantly depending on the type of building and supply options but they are much higher than those associated with the mains replacement programme. GDNs have estimated costs in excess of tens of thousands of pounds per high rise building. The GDN forecast costs for riser replacement are detailed in chapter 4.

Private networks

5.95. There are a few gas networks in the UK that are not owned by GDNs or IGTs, and which are known as private gas networks. These networks offtake gas from the GDN to supply downstream premises. The owners of some of these networks include local authorities and universities. Based on available information, Ofgem estimates that up to approximately 80,000 domestic customers are currently being served by such networks. These networks are exempt from the prohibition of unlicensed conveyance of gas, under section 5(1) of the Gas Act 1986, providing they have a gas supplier licence.¹⁶ For private networks, Ofgem issues a supply licence without standard conditions. The regulatory framework for private networks means that customers on these networks have less protection through the licence than customers on GDNs or IGTs, although these networks are covered by the HSE's requirements including adherence to the Gas Safety (Management) Regulations 1996 in the same way as other networks.

¹⁶ Gas Act 1986 (Exemptions) (No.1) Order 1996 and schedule 2A (exceptions to Prohibition on Unlicensed Activities) to the Gas Act.

5.96. Ofgem is aware that some private networks have previously been “adopted” or “engineered out” by GDNs during re-development projects for housing estates and the GDN network. The GDNs have concerns about facilitating such approaches in the future, because of the lack of information about the location and condition of the assets, the risks associated with adopting networks whose assets were constructed and maintained to a lower standard than the GDN’s networks, the need for a transitional period to avoid breaches of their safety cases and standards of performance, and recovery of their costs.

5.97. Ofgem recognises the potential difficulties but does not want the regulatory framework to be a barrier where the owner of a private network and the GDN are interested in considering adoption of an existing network by a GDN. We consulted in the third consultation document on whether we needed to do more now to facilitate adoption of private networks. Ofgem received very few responses on this issue with some supporting a more proactive approach while others considered it not to be a significant enough issue.

Ofgem proposals

5.98. In general we support any developments by gas transporters to adopt private networks due to the potential benefits to consumers on these networks. We propose that these developments should be considered on a case by case basis in agreement with the GDN at the time due to the costs, risks and uncertainties. We propose that any costs associated with adoption of the network that are efficiently incurred could be logged up and included as appropriate in the RAV at the end of the price control period.

5.99. In view of the unique circumstances surrounding each private network, we would encourage GDNs and parties interested in adoption to approach us at an early stage to discuss the best way to take this forward.

6. Incentives

Chapter Summary

This chapter sets out our initial proposals for:

- ➔ Capex rolling incentives and the IQI
- ➔ Mains and services replacement incentive

In this chapter we also consider the issues associated with opex rolling incentives and the capacity output incentives.

Question box

Question 1: Are the proposals for the capex rolling incentive and IQI appropriate?

Question 2: Are the proposals for the mains and services replacement incentive appropriate?

Question 3: Is it appropriate to implement an opex rolling incentive?

Introduction

6.1. RPI-X creates strong incentives to reduce costs. It also can create other less desirable effects, for example it creates incentives on GDNs to forecast higher allowances than they may actually require. This chapter considers other incentives or modifications which mitigate some of these undesirable effects.

Capex rolling incentive and Information Quality Incentive

6.2. Under RPI-X GDNs have an incentive to outperform against their allowances as they retain the savings for the remainder of the price control period. Consequently GDNs have stronger incentives to make savings at the start of the price control when savings are retained for a longer period than mid way through the control. Our concern is that the incentives could influence the extent and timing of efficiency savings. Rolling incentives address this issue by ensuring that the GDNs retain the savings for a fixed duration regardless of when the savings are made. Any variances in the retention of capex savings over a price control are adjusted for at the end of the 5 years.

6.3. We are also concerned that GDNs are likely to have better quality information about the need for expenditure than we do and they also have incentives to inflate their forecasts in order to benefit from the rewards for cost savings. In setting the allowances it can therefore be difficult for us to differentiate between investment costs necessary to maintain network integrity and artificially inflated capex forecasts. In DPCR4 we addressed this concern by implementing the IQI, known then as the sliding scale incentive. The incentive rewarded those companies with forecasts similar to our forecasts and the rewards declined the further away the companies' forecasts were from our forecast.

6.4. We propose to implement the IQI and capex rolling incentives to incentivise GDNs to provide us with realistic forecasts of their capex spend and to ensure that they retain any savings or are exposed to any additional costs for a fixed duration. Appendix 17 sets out the impact assessment for the capex rolling incentive and IQI. GDNs maximise their overall income by choosing a forecast that matches their intended capex spend. The IQI will provide GDNs with a fixed reward for a capex forecast which matches or is close to our consultant's forecast. The IQI will also set a fixed incentive rate for future efficiency savings or over-spend (i.e. once fixed the strength of the incentive will be constant through the price control period).

The IQI matrix

6.5. Table 6.1 below sets out our proposals for the IQI matrix.

Table 6.1: The IQI matrix

GDN:Ofgem ratio	100	105	110	115	120	125	130	135	140
Efficiency incentive	40.0%	37.5%	35.0%	32.5%	30.0%	27.5%	25.0%	22.5%	20.0%
Additional income	2.50	1.97	1.38	0.72	0.00	-0.78	-1.63	-2.53	-3.50
Allowed expenditure	100	101.25	102.5	103.75	105	106.25	107.5	108.75	110
Actual expenditure									
70	14.50	13.69	12.75	11.69	10.50	9.19	7.75	6.19	4.50
80	10.50	9.94	9.25	8.44	7.50	6.44	5.25	3.94	2.50
90	6.50	6.19	5.75	5.19	4.50	3.69	2.75	1.69	0.50
100	2.50	2.44	2.25	1.94	1.50	0.94	0.25	-0.56	-1.50
105	0.50	0.56	0.50	0.31	0.00	-0.44	-1.00	-1.69	-2.50
110	-1.50	-1.31	-1.25	-1.31	-1.50	-1.81	-2.25	-2.81	-3.50
115	-3.50	-3.19	-3.00	-2.94	-3.00	-3.19	-3.50	-3.94	-4.50
120	-5.50	-5.06	-4.75	-4.56	-4.50	-4.56	-4.75	-5.06	-5.50
125	-7.50	-6.94	-6.50	-6.19	-6.00	-5.94	-6.00	-6.19	-6.50
130	-9.50	-8.81	-8.25	-7.81	-7.50	-7.31	-7.25	-7.31	-7.50
135	-11.50	-10.69	-10.00	-9.44	-9.00	-8.69	-8.50	-8.44	-8.50
140	-13.50	-12.56	-11.75	-11.06	-10.50	-10.06	-9.75	-9.56	-9.50

6.6. **GDN: Ofgem ratio** Row (1) is the ratio, in percentage terms, of the GDNs' forecast of capex and repex (after accounting adjustments and the additional adjustments described in paragraph 6.13 and 6.14) to PB Power's forecast (as modified by us as described in chapters 3 and 4). This ratio determines the efficiency incentive rate, the additional income and the allowed expenditure. For example if a GDN bid £250 million over 5 years and we forecast £200 million, their ratio would be 125 ($250/200 \times 100$).

6.7. **Efficiency incentive** Row (2) is the efficiency incentive rate (equivalent to a capex rolling incentive) that will apply to any underspend or overspend on capex and repex. GDNs with high capex bids will keep less of any underspend than those who have bid closer to our view. In the example above, the GDN would face a 27.5 per cent incentive on under/overspend. As GDPCR uses a lower depreciation rate, and is

currently assuming a lower cost of capital, these fixed percentages are arguably equivalent to retaining benefits or penalties for a longer period than in DPCR4.

6.8. Additional income Row (3) is the additional income (or penalty in the case of negative figures) expressed as a percentage of our forecast of capex and repex. In the example above the GDN receives a penalty of -0.78 per cent of £200 million = -£1.56 million. This element is required to ensure incentive compatibility by which we mean a GDN receives the best financial outcome by forecasting what it actually needs.

6.9. Allowed expenditure Row (4) is the allowed expenditure expressed as a ratio of our forecast. In the example above, the GDN would receive capex and repex allowances of 106.25 per cent of £200 million, i.e. £212.5 million.

6.10. Actual expenditure Grid (5) demonstrates how the matrix is incentive compatible. The figures in the matrix demonstrate the total reward or penalty (the sum of the additional income and the capex incentive income, being the incentive rate multiplied by their under or overspend) as a percentage of our forecast. If the GDN in the example above genuinely expects to spend £250 million (i.e. a ratio of 125), then their expected total net penalty is calculated as $(106.25 - 125) \times 27.5$ per cent - $0.78 = -5.94$ per cent of £200 million = £11.88 million. If one follows the row for 125 actual expenditure across, it can be seen that this is the best the GDN can expect to do – either overbidding or underbidding results in a greater penalty.

6.11. Unlike the matrix used in DPCR4 we are not proposing to give GDNs a 5 per cent uplift to their allowances for agreeing with the consultants' forecast. This is because in DPCR4 the consultant's forecasts were based on a base case scenario rather than the companies' view of their requirements. The ratio is therefore a ratio of the GDNs' forecast to our forecast rather than to our consultant's forecast due to the adjustments we have made. We have retained the same incentive rates as DPCR4. We have also used the same additional income as DPCR4, although in that case it was presented as an additional return on RAV.

The scope of the IQI

6.12. We set out below in Table 6.2 each GDN's ratio for the IQI. It shows each GDN's initial forecast of their allowances, our forecast, the ratio between our forecast and the GDNs' forecast and the allowance, incentive rate and additional return (which takes the form of a cash bonus) arising from the ratio. We have applied the same ratio to all GDNs in the same group ownership to avoid any perverse incentives.

6.13. The ratio is based on each GDN's total repex and capex forecast compared to our consultant's forecast with some adjustments. The IQI ratio is based on GDN and Ofgem forecasts which both currently exclude LTS capex since GDNs are likely to re-submit their capex forecasts in July to take account of the impact of changes to the offtake and interruption regimes.

6.14. For mains and services repex we have used the same workloads for both the GDNs' and our consultant's forecast, with some normalised adjustments, but have used the GDNs' and our unit costs to determine the ratio. We also propose that the efficiency incentive for the mains replacement incentive should be the same as the capex incentives. Each GDN will have a different incentive rate applicable to the mains replacement incentive.

Table 6.2: Comparison of allowances to forecasts 2008-13 (£m, 2005-06 prices)

	Total 5Yr capex + repex forecast	Total 5Yr capex + repex allowance (pre IQI)	IQI Ratio (post adjustment)	Allowance (post IQI)	Incentive	Additional income
	£m	£m		£m		£m
East of England	727.2	661.8	114	683.1	33%	5.4
London	674.1	549.8	114	566.6	33%	4.2
North West	676.7	585.7	114	604.2	33%	4.6
West Midlands	436.6	402.0	114	415.6	33%	3.4
Northern	679.3	608.4	108	618.9	36%	9.3
Scotland	607.4	451.3	135	485.1	23%	-9.6
Southern	1,414.1	1,036.4	135	1,114.0	23%	-22.1
Wales and West	737.7	615.6	116	637.0	32%	3.0
Total	5,953.1	4,910.9		5,124.5		-1.8

6.15. The IQI matrix set out in table 6.1 above shows the GDNs how much additional revenue they can earn (or how they can minimise their losses) by reducing their capex forecasts. GDNs will have an opportunity to resubmit their capex forecasts in light of the IQI matrix in July 2007. This will enable them to respond to the incentive properties of the matrix which rewards the GDNs to forecast capex in line with their intended spend.

Mains replacement incentive

6.16. As part of the 2002 price control review we set a mains replacement allowance with a supplementary incentive which adjusted GDN revenue depending on the volume and diameter mix of mains replacement. This was in response to the HSE requirement to accelerate the replacement of iron mains within 30 metres of premises over 30 years in response to safety concerns. The supplementary incentive provided the GDNs with flexibility to vary their annual spend in line with their need to replace a different diameter mix of pipes from that originally forecast. It also protects consumers by capping the mains replacement allowance to the total of the five year forecast of spend.

Refinements to the mains replacement incentive

6.17. Appendix 18 sets out our impact assessment for the mains replacement incentive. This shows that it has worked well to provide GDNs with flexibility over the diameter mix of mains replaced while keeping unit costs of mains replacement down. As part of the impact assessment we have determined that there should be some refinements to the mains replacement incentive. We propose to:

- include service costs related to mains replacement in the incentive;
- include unit costs for larger diameter pipes; and
- align the mains replacement incentive with the capex incentives.

6.18. Appendix 10 sets out the mains and services replacement matrices for each of the GDNs. Under the refined incentive GDNs will be subject to separate unit costs for re-laid services associated with mains replacement, service test and transfer to new or other mains and non domestic service replacement. However, GDNs will be subject to a single allowance for mains and services costs.

6.19. In the last price control we set an incentive rate of 33 per cent for underspend and 50 per cent for overspend with a total cap over the five years. As we are aligning the mains replacement incentive with capex incentives GDNs will be subject to the same efficiency incentive strength for under and over spend. Also as each GDN group will have different capex incentive rates as determined by the IQI so they will have different incentive rates for the mains replacement incentive. We will maintain the five year cap and will apply it on an individual GDN basis rather than on a GDN group basis.

6.20. We have included three additional diameter sizes to the mains incentive to take account of 13-18", 19-24" and greater than 24" diameter mains.

6.21. We note that including services costs in the mains replacement incentive, together with the overall increase in mains replacement costs could result in greater charging volatility for consumers. We will review whether the current arrangements for recovering mains replacement revenue is appropriate. An alternative option could be to include all mains replacement adjustments in the RAV allowance from the period that the costs are incurred similar to adjustments to capex and non-mains repx. We will come forward with a view in the September 2007 updated proposals document.

Opex rolling incentive

6.22. Under the current arrangements GDNs retain any opex savings for the duration of the price control. As opex efficiencies tend to be recurring (e.g. the implementation of an IS system is likely to yield long term cost savings) the incentives can skew GDNs' decisions on when efficiency savings are made to maximise the duration that they can retain these savings. An opex rolling incentive would address these periodicity issues arising from the incentives by ensuring that

GDNs retain the savings for a fixed period of time regardless of when the savings are made.

6.23. In previous consultation documents we have outlined a number of issues that the opex rolling incentives raise. In DPCR4 we considered the risks associated with the rolling incentives outweighed the benefits. In particular, opex rolling incentives may encourage GDNs to capitalise opex costs. The opex rolling incentives strengthen the incentives to make efficiency savings, particularly in the middle of the price control when incentives are otherwise lower. In comparison the incentives to make capex savings tend to be lower than for opex savings. Where the boundaries between opex and capex costs are blurred companies may be able to report opex costs as capex to maximise opex savings. Where there are genuine trade offs between opex and capex, companies are more likely to choose to incur capex costs because of the strength of the opex incentives.

6.24. With the benchmarking of opex allowances a GDN's allowance for the next price control may not be directly based on its own costs in the current control. An exception is where we benchmark at the upper quartile, which allows companies who are more efficient than the benchmark to retain opex savings through the next price control, regardless of rolling incentives. With both benchmarking incentives and opex rolling incentives there would be a strong reward for a frontier company to outperform its allowances.

6.25. We consider that the risks associated with implementing an opex rolling incentive which were identified at the time of DPCR4 are in general applicable in GDPCR. However, circumstances in gas distribution may mitigate those risks more effectively. For example as the separation and sale of the gas distribution companies only occurred recently, GDNs are likely to have more consistent procedures for collecting and reporting information on capex and opex costs than the DNOs. Indeed at the time of the sale of the four networks, we made it clear that we would shortly begin collecting detailed cost information in a standard format and our first consultation on this cost reporting process will be published in the summer. In comparison, electricity distribution companies have historically reported costs differently. It has been difficult to obtain alignment in the way they report costs. That said, there are fewer GDNs than DNOs and the greater the number of companies the easier it is to spot anomalous data.

6.26. We note that benchmarking of costs ensures that some GDNs keep some opex savings into the next price control period. Benchmarking therefore reduces the periodicity effect but GDNs are still incentivised to make efficiency savings earlier in the price control period to order to retain savings for longer.

6.27. We also note that GDNs have supported separate funding for areas such as skills and training and research and development. They have argued that these costs can lead to long term savings, from which consumers should ultimately benefit but the savings may take some time to occur. It could be argued that periodicity of opex incentives discourages them from taking the necessary long term outlook. We are still considering the merit of these arguments and whether it is appropriate to set specific incentives to encourage spending in these areas as we have done for R&D in

Electricity Distribution and Transmission with the Innovation Funding Incentive. If we determine that there is merit in these arguments, an opex rolling incentive could potentially address these concerns without the need for separate incentives.

6.28. We welcome respondents' views on whether it is appropriate to implement an opex rolling incentive. We will set out our decision in the September 2007 updated proposals document.

Capacity outputs incentive

6.29. The capacity output incentives are intended to encourage GDNs to make efficient trade offs between a number of capacity output products including: use of interruption, procuring NTS flat and flexibility offtake capacity; utilising their own existing flat, flexibility and storage capacity; or investing in flat and flexibility capacity on their networks to meet their licence obligation to develop and maintain their pipeline system to meet gas demand on their networks on 1 in 20 peak demand days.

6.30. Under the current arrangements GDNs have a sliding scale incentive for the procurement of NTS flat and flexibility capacity and for procuring interruption of supply points for greater than 15 days. The capacity output incentives are due to expire in October 2010/11. At the time of setting the incentives we considered that it would be appropriate to review the incentives in light of the implementation of enduring offtake arrangements and reform of interruption arrangements. A description of these arrangements is set out below. We are separately consulting on extending these incentives for an additional year to take account of the proposed one year delay to the implementation of interruption and offtake reform.

The current interruption arrangements and uniform network code (UNC) modification 090

6.31. Under the current interruption arrangements the shipper, on behalf of its customer, can nominate a site as interruptible. The GDN is obliged to accept a supply point as interruptible on request whether the interruptible site is required to meet 1 in 20 peak demand or not. Interruptible sites receive a 100 per cent discount from transportation use of system capacity charges. Consequently, some interruptible sites get a reduction in transportation charges whether the GDN requires the interruption service or not.

6.32. On 15 March 2007 Ofgem directed implementation of UNC modification proposal 90 'Revised GDN interruption arrangements' with effect from 1 April 2008. Via annual tenders with three year lead times, the GDNs will offer interruptible capacity in the locations, volumes and duration (interruptible days) they require to meet their 1 in 20 obligations. Shippers on behalf of customers will have the flexibility to specify the length of contract they would be willing to enter into (up to five years), as well as the option and exercise prices at which they would be willing to be interrupted. The reformed interruption arrangements will provide the GDNs with better long term signals regarding how much customers value interruption. In

turn this should enable the GDNs to make more efficient tradeoffs between the various capacity managements options available to them.

Offtake arrangements over the next price control period

6.33. At the time of the sale of the GDNs we put in place interim arrangements to cover the short term period 1 May 2005 to 30 September 2008 before enduring arrangements could take effect. In June 2005 the Authority decided to delay the introduction of enduring arrangements by a further two years to align it with TPCR. Consequently transitional arrangements were implemented to cover the period between interim and enduring arrangements. As each of these arrangements will apply for part of the next GDPCR period these arrangements are described below.

Interim offtake arrangements

6.34. During the interim period the GDNs have been given an initial allocation of NTS exit capacity rights for flat and flexibility capacity. The GDNs are required to review their allocation against their 1 in 20 obligations and can seek to change these allocations.

6.35. In terms of incentive the GDNs have a target cost for flat and flexibility capacity and for the interruption of sites for more than 15 days. Target exit volumes are set out in the GDNs' licences while the target costs are determined on the basis of these volumes and the relevant NTS exit charges. If the GDN is able to reduce its costs below the target it keeps 100 per cent of the savings and if the costs are greater than the target it is exposed to 100 per cent of the costs. This exposes the GDNs to any costs of overbooking capacity. The incentive is capped and collared at 7.5 per cent of the target cost.

Transitional offtake arrangements

6.36. Under transitional arrangements the GDNs are not assigned an initial allocation of exit rights. GDNs must request their total requirement for exit rights and if NGG is required to undertake any NTS offtake reinforcement the GDN would enter into a contractual agreement, through an advanced reservation of capacity agreement (ARCA), with NGG. To set the target volumes of flat and flexibility capacity we reviewed GDN forecasts of capacity and undertook additional analysis to determine a methodology for the derivation of targets.

6.37. The GDN incentives for flat and flexibility capacity were extended into the transitional period. We are currently consulting on extending the transitional arrangements for one year to take account of the one year delay to the implementation of enduring offtake arrangements.

Enduring offtake arrangements

6.38. On 5 April 2007 we approved the implementation of UNC modification proposal 116V, Reform of the NTS offtake arrangements, which would apply from 1 October 2008. Under these arrangements GDNs will have prevailing rights to existing flat capacity and will need to give 14 months notice to reduce these rights. GDNs will be able to signal demand for NTS flat and flexibility capacity up to five years in advance. For long term NTS flat capacity rights GDNs will be subject to a regulated price. GDNs can signal demand for incremental flat capacity and must commit to pay the prevailing regulated price for four years. GDNs can also book flat capacity in the short term through pay as bid auctions. Flexibility capacity prices would be determined through pay as bid auctions with a zero reserve price. The baseline volume of NTS flexibility capacity is an aggregate 22mcm per day but NGG NTS will determine how to allocate this capacity across the exit points. Data indicates that the maximum volume of flexibility capacity used in one day is currently approximately 14mcm.

Respondents' views

6.39. In the October 2006 third consultation document we consulted on the incentives for the capacity outputs incentive and suggested three options:

- sliding scale incentives for NTS flat and flexibility capacity and interruptions similar to the current arrangements;
- setting allowances for the capacity outputs with RPI-X incentives for efficiency;
- a flexibility capacity incentive which encourages GDNs to make efficient trade offs between the flexibility products.

6.40. Many respondents expressed support for simple and straight forward incentives and noted the difficulties in setting the incentive with insufficient clarity on long term exit arrangements. Some respondents also considered that it was not appropriate to focus the incentives on flexibility capacity and also that it should not be considered separately from the flat capacity.

6.41. One GDN considered that it was important to have a single incentive to cover flat and flexibility capacity to minimise the perverse incentives created by multiple incentives. The GDN proposed an alternative sliding scale incentive which incorporated capex costs in the incentive.

6.42. One GDN supported simple incentives for the next price control to allow a better understanding of the capacity outputs with a view to more targeted incentives in the following price control review period.

Issues associated with the capacity outputs incentive

6.43. GDNs have argued that the uncertainty associated with offtake and interruption reform can make it difficult to make an assessment of the appropriate level of capex

required. As a result of the delay to interruption and enduring offtake arrangements we will not have data from the first round of auctions to inform setting the capacity allowances for the period of the price control. E.ON UK plc has been granted permission to appeal to the Competition Commission against the decision to implement UNC modification 116V. We expect a decision on this appeal in July.

6.44. We consider that it is not appropriate to set out the capacity outputs incentive arrangements in the initial proposals document as the incentive will need to be compatible with any changes that result from the Competition Commission's decision. We propose to come forward with incentives for capacity outputs in the September 2007 update document.

7. Sustainable development

Chapter Summary

This chapter sets out our initial proposals in a number of areas related to sustainable development. This includes gas shrinkage arrangements, our proposals on extensions to the gas network and the introduction of a discretionary reward scheme.

Question box

Question 1: Do you agree with our assessment of the risks, costs and benefits attributable to the options for facilitating network extensions (Appendix 14)?

Question 2: Do you agree with our initial proposal (i.e. Option 3 complemented by a discretionary reward scheme)?

Question 3: Do you consider our proposed method to implement Option 6 appropriate (i.e. through GDNs' connection charging statements)?

Question 4: Do you consider the Government's Index of Multiple Deprivation to be an appropriate index to identify which fuel poor non-gas communities qualify for special treatment for gas network extensions? If not, what do you recommend?

Question 5: Do you support our proposals for the introduction of a Discretionary Reward Scheme for GDNs and its format given the larger reward?

Gas shrinkage arrangements

7.1. Gas shrinkage is gas lost from the network through leakage, theft and own use gas. Gas leaking from the gas distribution networks is a significant source of greenhouse gas emissions representing circa 0.75 per cent of GB emissions. The GDNs are already reducing leakage through investment in mains replacement - a HSE programme that has been undertaken for safety reasons. We estimate the GDNs have reduced the shrinkage rate by a quarter from 0.88 to 0.66 per cent of GDN throughput over the last price control period.

7.2. Gas shrinkage was an important part of the one year control which focussed on removing the risk of wholesale variations in gas prices from the GDNs. We modified the shrinkage incentive by basing allowances on three-month ahead monthly forward prices adjusted by a 3.5 per cent uplift to take into account within month fluctuations and within day trends. This addressed the price risk. We maintained the incentive on the GDNs to reduce shrinkage volumes through basing their allowance on a target shrinkage factor (percentage of throughput).

7.3. We can see merit in strengthening the financial incentives on shrinkage to reflect the environmental cost of leakage gas. In the third consultation document we considered whether the measurement of leakage was sufficiently robust and whether the incentives on GDNs to control leakage were strong enough. We consider that to facilitate this, further work is required on measurement and estimation of shrinkage in advance of updated proposals.

Ofgem proposals:

7.4. We propose to roll forward the shrinkage incentive arrangement with a modification to the uplift factor. We propose to replace the point estimate with a predetermined licence based methodology for determining the uplift factor based on the prevailing market conditions. This may be a slightly more complicated approach but it is likely to better reflect the costs incurred by the GDNs removing further the risk of windfall gains or losses and providing a clearer incentive to reduce shrinkage volumes. We propose to maintain the incentive on the GDNs to reduce shrinkage volumes by basing their allowance on a target shrinkage factor (expressed as a percentage of throughput).

7.5. We also propose to work with the industry over the course of the summer to review the current leakage model, the robustness of the data entered into the model and the governance arrangements surrounding its collection and changes to the model. In particular we will consider:

- whether the leakage model is fit for purpose (including for example clarity about the network boundaries and whether it captures appropriately all the actions which GDNs could undertake to reduce shrinkage);
- the robustness of the data which is collected on annual basis to produce the modelled leakage numbers, in particular we would want to understand carefully the process for recording average operating pressures, lengths and types of pipe in the model, the use of leakage reduction techniques (such as monoethyleneglycol injection), etc; so that we could be sure that this information could be audited and the scope for gaming the incentive was reduced;
- whether it is appropriate to update or augment the leakage survey or to perform more extensive research on leakage;
- adjustment of the shrinkage model to remove components not associated with leakage (e.g. theft of gas);
- the ongoing process for making changes to the shrinkage model, for example to accommodate new innovative (unforeseen) means of reducing leakage that may not be rewarded under the current arrangements;
- the governance arrangements surrounding the model. In particular whether the current shrinkage forum is sufficiently robust to govern the substantial increase in financial importance of the shrinkage incentive or whether new governance arrangements need to be put in place; and
- whether the increase in value of the shrinkage incentive would justify additional investment to better monitor leakage, for example the scope for increasing the amount of metered information available and in particular the costs and benefits of metering own use gas.

7.6. Based on this analysis we intend to consider further whether the shrinkage incentive should be strengthened as part of our updated proposals in September.

7.7. To facilitate further innovation and development in this area we also propose to allow developments in this area to be recognised as a part of the discretionary reward scheme (one criterion is around sustainable development).

Network extensions

Background

7.8. Based on responses to the third consultation document, we narrowed the original 6 options to encourage GDNs to undertake network extensions to the following:

- Option 1 - No regulatory intervention or “do nothing”;
- Option 3 - Implement an incentive scheme by either following a discretionary reward scheme (Option 3a) or linking funding to an output measure (Option 3b);
- Option 5 - Treat income from network extensions that tackle fuel poverty as excluded revenue (as proposed by WWU); and
- Option 6 - Amend the Economic Test for network extensions that tackle fuel poverty (as proposed by NGG).

A full description of these options can be found in Appendix 14.

7.9. As part of the third consultation document we also included an initial impact assessment. This included a qualitative assessment and described our proposed methodology to quantify the costs and benefits for the final impact assessment. The initial impact assessment provided an early view that either Option 5 or 6, complemented by Option 3, would result in the most favourable solution to all affected parties.

Ofgem proposals:

7.10. Based on the results of our final impact assessment, which can be found in appendix 14, our initial proposal to facilitate network extensions is Option 6 complemented by a discretionary reward scheme, i.e. Option 3a. Details of the discretionary reward scheme can be found below in paragraphs 7.15 to 7.24 .

7.11. Ofgem considers that option 6 will provide the best means of securing network extensions to fuel poor communities. We expect that the GDNs would modify their existing connection charging statement under standard licence condition 4B (Connection Charges etc) to give effect to these arrangements detailing how the economic test would be amended and for which communities the amended test would apply. It should be noted that we are considering amending this licence condition and further detail can be found in appendix 13. We consider that this is coupled with option 3a based on analysis from our impact assessment. Option 3a is

preferable to option 3b as its purpose is to encourage the GDN to find ways to increase affordability to these communities through the coordination of various sources of government funding. It does not represent an operating cost allowance to cover the costs of this activity, but is intended to provide an incentive to take forward these initiatives to promote network extensions.

7.12. GDNs will also need to consider how this approach will impact on other transporters carrying out network extensions within the GDN's area, in particular IGTs, and what charging arrangements are required to ensure that they are not disadvantaged in competing for new extensions.

Treatment of spend and inclusion in RAV

7.13. We consider it appropriate for net capex from network extensions to be capitalised and logged up with interest and added to the GDNs' RAVs at the next price control review, assuming it is efficient. The net capex will be capitalised based on the actual uptake rate.

Eligibility

7.14. Option 3a & 6 will only apply to fuel poor non-gas communities. Consequently, we will set some criteria for eligibility. We consider the Government's Index of Multiple Deprivation (IMD) to be an appropriate index to identify which communities qualify for special treatment. This index assesses the deprivation level of every ward and local authority by combining a number of indicators covering a range of areas into a single deprivation score for each area. The DTI recommend using an IMD score of at least 20 as a high concentration of fuel poor communities have these scores.

Discretionary reward scheme

7.15. In the third consultation document we sought views on whether to introduce a Corporate Social Responsibility (CSR) incentive scheme, similar to the electricity distribution customer reward scheme that was introduced as part of DPCR4. This scheme was established as a means of identifying best practice among the DNOs and promoting improvements in the areas CSR, their overall approach to priority customer care, and wider communication strategies. It was also used to reward DNOs whose approach best served the interests of consumers.

7.16. We proposed that a similar scheme could be introduced for the GDNs and initiatives regarding network extensions and the provision of carbon monoxide (CO) detectors may be appropriate categories to include in such a scheme. This proposal was generally well received, although there was some concern about the value of the scheme in relation to network extensions.

Ofgem proposals:

7.17. We consider that it is appropriate to introduce a Discretionary Reward Scheme (DRS) for GDNs. The scheme has been positively received in electricity distribution, companies have responded appropriately and we have been able to implement it at little cost. Implementing a similar scheme for GDNs will encourage and drive performance in areas that cannot be incentivised through more mechanistic regimes. It will also result in further benefits for consumers through enhanced comparative competition, as GDNs' initiatives and their relative success will be assessed under the scheme.

7.18. We acknowledge that there are inherent benefits to businesses in undertaking CSR activities and consider that it would not be appropriate to incentivise these activities further as part of the price control. Rather the emphasis of the scheme will be to improve service and benefits for consumers by recognising best practice and driving innovation in areas identified by Ofgem where improvements or further incentives are needed.

7.19. We remain convinced that initiatives to facilitate network extensions and gas safety, particularly CO poisoning awareness, are two key areas where GDNs can do more to benefit consumers. We consider that it is appropriate to incentivise GDNs' performance in this area under this scheme. Another area we consider as appropriate to incentivise under this scheme is initiatives to reduce the environmental impact of gas distribution, particularly initiatives to reduce shrinkage and to improve the accuracy of its measurement.

Scheme format

7.20. The scheme will have a total annual reward of £4 million available across all the GDNs (£20 million across the price control period). The categories to be covered by the scheme are:

- Initiatives which reduce the environmental impact of gas distribution including initiatives which reduce shrinkage but which may not be rewarded through the shrinkage incentive and improvements in the measurement of shrinkage;
- Initiatives which facilitate network extensions, particularly initiatives which increase the affordability of network extensions for fuel poor consumers; and
- Schemes to promote gas safety including awareness of carbon monoxide (CO).

7.21. Given the importance of the issues under consideration for gas distribution and the concerns raised by respondents about the potential value of the scheme in relation to network extensions, we consider it appropriate to increase the amount of reward available under the scheme to £4 million per annum (£20 million across the price control).

7.22. The reward may be awarded annually to one or more GDNs or not at all. Where a reward is made under the scheme, the amount of that reward will be

recovered from the GDNs' consumers; i.e. a GDN who provides better service will be able to charge marginally higher transportation charges to its consumers. Should no GDN receive a reward under the scheme, there will be no financial impact on consumers. The reward amount available under this scheme is not intended to fund GDNs' initiatives but to provide an additional incentive to GDNs to better serve their consumers in these areas.

7.23. Consistent with the DNO scheme, GDNs will be required to complete and submit an application detailing why they should receive a reward under the scheme. Applications will be reviewed by a multi-disciplinary Panel who will make recommendations to the Authority as to who should receive a reward and why.

7.24. The focus of the scheme and the weighting of the reward across the categories will be decided by Ofgem, in conjunction with the Panel, at the start of each year. The rewards will then be decided in the following May and will feed into revenue allowances on 2-year lagged basis (i.e. 2008-09 reward will feed into revenue in 2010-11). We would welcome views on whether given the larger size of the reward, this approach remains appropriate and whether there is merit in fixing the proportions to be allocated to the three different areas from the outset.

8. Other issues

Chapter Summary

This chapter describes other issues that make up the price control package and include our proposals on the funding of xoserve and also next steps on arrangements for independent systems.

Question box

Question 1: Do you agree with our proposed approach to the funding of xoserve?

Question 2: How should we address any benefits arising to xoserve from redundancy created from the replacement of UK Link?

Question 3: Do you agree with our approach of modifying SSC A15 to facilitate governance arrangements for user-pays?

Question 4: Do you think that the existing arrangements are adequate to ensure enforcement of the range of services and outputs delivered by xoserve in light of these proposals?

Funding of xoserve

8.1. This section describes the industry dialogue, the key features of the two options considered in our final impact assessment, and sets out our initial proposals on the funding of xoserve. Our final impact assessment on the funding of xoserve is set out in Appendix 15.

8.2. In the third consultation document we set out two potential options for the funding of xoserve:

Option 1 - Do nothing

8.3. Xoserve currently provides services on behalf of the GDNs and NGG NTS in accordance with the terms of the Agency Services Agreement (ASA).¹⁷ The ASA details the services to be provided by xoserve and the service standards to be achieved. It also sets out the arrangements by which xoserve charges GTs for its services. GTs pay these charges using price controlled revenue.¹⁸

¹⁷ The Agency Services Agreement is available on the Joint Office website. See <http://www.gasgovernance.com/Publications/Misc/>.

¹⁸ The current price control includes an allowance for Transco plc's "shipper services" which reflects the industry structure in place at the time the control was set.

8.4. At present, around 99 per cent of xoserve's revenue is derived from the ASA. Xoserve also enters into contracts with parties other than GTs for the provision of additional services. For instance, xoserve provides ad-hoc data extracts and training services to shippers and data transfer services to meter asset managers. Xoserve reports that where ASA resources have been used to deliver these additional services, it has attributed the value of these resources back to the ASA, so there has been no cross subsidy between regulated and commercial activities.

8.5. The Uniform Network Code (UNC) refers to a process where shippers are able to initiate (and pay for) changes to UK Link - the Class 3 modifications process. Historically, this process has not been fully utilised as parties have not been able to reach agreement on the level and allocation of costs.

8.6. Under Option 1, these arrangements would be retained in their current form. Ofgem has formed a view on the level of efficient costs associated with providing central information services through the price control process. Under this option GTs would receive a price control allowance to cover xoserve's costs, which xoserve would recover through the ASA charging arrangements.

Option 2 - Core services plus user pays

8.7. Under a core services plus user pays approach, regulated services provided by xoserve would be classified as one of:

- *Core services.* Regulated services that it is appropriate to fund using price control allowed revenues. The costs associated with these services are spread across all customers through transportation charges.
- *User pays services.* Regulated services that it is appropriate to fund using charges levied directly upon the party requesting the service. For the purposes of the price control, such services would be excluded services¹⁹.

8.8. In the second and third consultation documents we have set out that option 2 has the following benefits compared to the status quo:

- GDNs (xoserve) would have an incentive to provide additional services and respond to the needs of shippers due to the opportunity to earn additional revenue above their costs;
- it gives users an incentive to manage the costs they impose on xoserve because they would pay for the additional services they request / use;
- it would enable the price control arrangements to respond more flexibly in the event of modifications to section u of the UNC; and

¹⁹ While we would expect xoserve to invoice shippers for these services, they would do so on behalf of GTs.

- xoserve's preliminary cost forecasts include a significant amount of expenditure on an upgrade of UK-Link. User pays would help to make sure that the incremental capacity of these new systems is given to those who value it most.

Industry dialogue on the funding of xoserve

8.9. Following the second consultation we established an industry dialogue involving xoserve, GTs and shippers and other interested parties.²⁰ The dialogue covered five key areas:

- *Features of xoserve's systems* – the high level features of the gas industry central information systems following planned rewrites;
- *Cost requirements* – the level of costs that dialogue participants are willing to incur in order to receive an agreed level of xoserve services;
- *Xoserve funding arrangements* – which of xoserve's services should be funded through the price control and which should be subject to user pays;
- *Service standards* – the service standards to be associated with core services; and,
- *Governance* – the governance arrangements that could be used to support a user pays approach to the funding of xoserve.

8.10. The final report to Ofgem from the group was provided at the end of February. In addition we received responses to the third consultation document at the end of January. The report from the industry dialogue was useful in considering some of the issues involved in option 2 and potential approach but in the time available the group were only able to provide a high level consideration.

8.11. The report and the responses to the third consultation document raised a number of issues with option 2. The final impact assessment considers a number of these, particularly assessing the concern that the costs may outweigh the benefits of implementing option 2. In addition, although the industry dialogue identified 5 existing service lines that could be candidate user pays service lines, the group and a number of responses argued that the existing services were all "mandatory" with little scope for them to be considered user pays. Xoserve highlighted that there could be a shortfall in their funding if some of the service lines were exposed to user pays and argued that the UK Link replacement was on a like for like basis with no scope to provide for additional services. If further services were required then these would need to be funded by users anyway. Lastly a number of parties considered that this should not be a means of funding significant industry change and that this would need to be dealt with through alternative approaches.

²⁰ Further information on the dialogue is available at www.gasgovernance.com.

Ofgem proposals:

8.12. Our impact assessment on the funding of xoserve is set out in appendix 15. In summary this considers that, on balance, although there will be some set up costs and on going operational costs, a user-pays approach is likely to bring about benefits in the medium term to consumers, particularly with the potential for new or enhanced user pays services and the large capital investment that xoserve proposes to undertake towards the end of the price control period.

8.13. As detailed above option 2 would be implemented with core services being funded through price control revenue (and recovered through gas transportation charges) and user-pays services identified as excluded services. In effect the costs assessed as efficient for providing central information services will be reduced by the amount that is considered to cover the costs of the user-pays service lines. It should be noted that at this stage the funding split between core and user-pays services lines has not been undertaken for the purposes of the GDN revenue allowances detailed in this document as further scrutiny of the split of costs is required. The costs are included fully in the allowances.

8.14. In addition we consider that with any large replacement IT system there is an inherent "redundancy" or "spare capacity" designed-in to provide some level of robustness to future change. On this basis we consider that xoserve could facilitate further user-pays services without incurring material costs. We are keen for this value to be shared with consumers. On this basis we consider that a number of options could be adopted:

- identify the value of this redundancy and include a sharing mechanism to limit the revenue xoserve could make from additional services derived from this capacity;
- identify the value of this redundancy and take this off the cost allowances provided for through the price control;
- do nothing accepting that the replacement of UK Link will occur in the latter half of the price control and therefore scope for creating additional value from this redundancy is limited.

8.15. Due to the complexity of a sharing mechanism, and the difficulty of valuing the redundancy our current preference is to not factor this in ex ante and address any benefits arising to xoserve from this opportunity ex post but we would welcome any views.

Governance of user-pays regime

8.16. For Option 2 to be effective in promoting the introduction of services between price control reviews, the parties need to be able to agree how much the service should cost, and who should bear the cost associated with the service.

8.17. GDPCR is concerned with the price control arrangements for the funding of xoserve. The governance arrangements that support user-pays are relevant, but they are not part of the price control arrangements. We do not propose to develop governance arrangements as part of GDPCR, but would expect the GDNs, xoserve and the industry to work together in coming up with suitable arrangements that are fit for purpose. Two aspects are important for GDPCR which is the timing of implementation and the scope of user-pays services.

8.18. The industry has raised concern that the timescale to implement user-pays arrangements for 1 April 2008 is achievable but very challenging. It is important that the price control allowances and commercial arrangements line up. At this time we support the industry working to this date and intend to set allowances on this basis. It is also important that the scope of the user-pays services determined as part of the price control settlement are equivalent to those that the GDNs and xoserve actually charge to ensure there is no gap or double charging. We would therefore expect to approve the necessary charging arrangements. We are considering what modifications are required to standard special condition A15 (Agency) (SSC A15) to facilitate this approach.

8.19. Xoserve has also raised concern over their funding. For instance, if there is a reduction in demand for a user-pays service, due to the level of fixed costs, there could be a shortfall in funding. We consider that there is a financial risk although, with the relatively slim user-pays model being proposed by the industry, the risk to the GDNs is small. This does though raise wider questions about the status of xoserve and its financial relationship with the GDNs. Obligations are placed on the GDNs through SSC A15 to have in place an agency to provide common services and systems. The scope of these services is set out within the network code and not the GDN's licence. We are currently considering whether these obligations are adequate to ensure continued performance on the full range of services provided by xoserve and are considering what action could be taken by the regulator or others if it failed to deliver in future. We would welcome views on this.

Independent systems

8.20. Independent systems are small gas networks serving communities that are not connected to the main gas transportation system. They are supplied by lorries or boats carrying natural gas in liquefied form, or with propane. Independent systems are more costly to operate than the main distribution network. The large majority of these networks are in Scotland.²¹

8.21. A series of Determinations issued by the Secretary of State provided the GDNs and NGG NTS with approval for a set of suitable alternative arrangements to protect

²¹ In addition, small independent systems are located in Wales and North England.

the interests of consumers connected to independent systems located within their distribution area.²²

8.22. The current alternative arrangements, which take the form of a series of undertakings by GTs, have the effect that customers connected to independent systems pay no more than the average GB transportation charge. The undertakings expire on 31 March 2008. We consulted in the third consultation document on what form the arrangements should take in the event that the Secretary of State required the GDNs to put in place further alternative arrangements, in particular whether the additional costs should be spread across all GB consumers or borne by consumers located in the relevant gas distribution areas.

8.23. There was a range of responses with some parties arguing that the costs should be smeared across all consumers while others noting that an arrangement to smear the costs across all GB consumers was disproportionate. One response argued for costs to be smeared but charges to be localised. Another response noted that if the alternative arrangements were to be amended it would necessitate a licence modification consultation.

8.24. In recent correspondence, DTI officials have indicated to Ofgem that, subject to the views and evidence of interested stakeholders, the Secretary of State for Trade and Industry is minded to require that there should continue to be arrangements to protect the interests of consumers connected to independent systems. He proposes to consult on this question, and the form that any future arrangements might take (including the mechanism for recovering the additional costs).

8.25. We expect this consultation to be undertaken during the summer such that any decision, where appropriate, can be taken into account in adjusting the price control arrangements and amending the relevant licence conditions. At this stage, we have assessed the efficient costs that will be incurred by the GDNs in operating and maintaining these networks and an appropriate allowance has been made in the allowances proposed. These allowances will then be adjusted accordingly subject to any decision by the Secretary of State.

²² Set out in 'National Grid Transco – Potential Sale of Gas Distribution Networks: Statement of Reasons Following the Secretary of State's Decision', February 2005. See www.dti.gov.uk/energy/index.html

9. Financial Issues

Chapter Summary

This chapter sets out Ofgem's proposals on the cost of capital and tax, and discusses the initial outcomes of our financeability review.

Question box

Question 1: What are your views on the factors relevant to our consideration of cost of capital?

Question 2: Are the factors affecting financeability set out in paragraph 9.36 the responsibility of shareholders or the regulator to address and how should they be addressed?

Cost of capital

9.1. We have stated within previous GDPCR consultation documents that our work on cost of capital will be informed by a comparative risk analysis, to be performed in the period between initial proposals and updated proposals. In our initial proposals, we are using a modelling assumption which is likely to be adjusted prior to final proposals to reflect, amongst other things, the conclusions of that risk analysis.

9.2. Following analysis of changes in market conditions and trends since TPCR, our modelling assumption is a vanilla WACC of 4.84 per cent (equivalent to 4.2 per cent post-tax). This is based on the individual components of the cost of capital set out below:

Table 9.1: Proposed Cost of Capital for GDPCR Initial Proposals

	GDPCR	TPCR	One Year Control ²³
Cost of debt	3.55%	3.75%	4.65%
Cost of equity	7.00%	7.00%	6.25%
Gearing	62.5%	60%	62.5%
Vanilla WACC	4.84%	5.05%	5.25%
Post-tax WACC	4.22%	4.38%	4.38%

²³ Note that this was simply a rollover of the cost of capital as set in 2001 for the 2002-2007 Transco review, and had ceased to reflect market data.

9.3. The GDPCR review is being performed on a similar timetable to the CAA review of the landing charges at Heathrow and Gatwick airports. This review has a mandatory reference to the Competition Commission, the conclusions of which will be published around the same time as GDPCR final proposals. For reference, the CAA has proposed a cost of debt of 3.0 per cent, a cost of equity for Heathrow of 7.7 per cent (Gatwick's was higher due to a higher beta) and a gearing ratio of 60 per cent debt, resulting in a Vanilla WACC of 4.88 per cent.

Responses to the Fourth Consultation Document

9.4. Centrica, in conjunction with CEPA, has put forward, as a response to the fourth consultation document, a proposal that the Vanilla WACC should be approximately 4.5 per cent, primarily as a result of using a shorter-term cost of debt with triggers to protect against rising rates during the price control period (discussed in paragraph 9.5).

9.5. CEPA argue that regulators have tended in recent reviews to set costs of debt in excess of those indicated by prevailing market rates. They ascribe this approach to a concern that the recent trend of low rates might reverse during the price control, leaving companies exposed to financing difficulties. They suggest that this risk could be mitigated by setting a cost of debt closer to prevailing market rates with a trigger mechanism to adjust the allowance if the cost of debt rose above the set rate, by reference to a pre-determined benchmark of market debt costs outwith the companies' influence. The additional revenue could be allowed via a logging-up mechanism, a pre-agreed re-opener threshold, or an automatic tracker. To maximise the benefit to customers it should be symmetric.

9.6. This approach, particularly if combined with an automatic adjustment mechanism, is similar to the principle of indexing the cost of debt, which we agreed to review in the context of the Financing Networks joint project with Ofwat. We would welcome consultation responses on this approach.

Cost of debt

9.7. With respect to the cost of debt, we stated in the fourth consultation document that we will have regard to the following:

- short-term trends in the market cost of debt including evidence from actual debt costs achieved by the companies;
- trends in the market cost of debt over a ten-year period; and
- longer-term equilibria in the market cost of debt.

9.8. The advantage of taking greater account of long run equilibria is that it provides greater certainty of future returns and increases perceptions of regulatory certainty - which in due course should feed through to a lower risk premium. The disadvantage of this approach is that when the market is at a low point in the cycle, it can be perceived as giving companies windfall gains. Conversely, when interest rates are

above the long run trend, it may be difficult for the regulator to resist pressure to reflect this in allowances, particularly if the overall price control package would otherwise result in financeability problems for the companies.

9.9. As a result, some would argue that an approach based purely on long run data would over reward the companies over the cycle. Since this is likely to be unacceptable in practice, regulatory commitment is unlikely to endure over time, in which case, this approach will fail to obtain the benefit of a reduction in the risk premium.

9.10. At the other extreme, the cost of debt could be set in line with market evidence at the time of the review. This would avoid the difficulties at high and low points of the market cycle but, in its simple form, would leave the companies more exposed to short term movements in the debt market. This is unlikely to be appropriate for businesses with long life assets and could distort companies' financing decisions.

9.11. Against this background, Ofgem's approach to the cost of debt has been to look for something between these extremes which in effect smoothes the market cycle and, by creating a sustainable basis for setting the cost of debt going forward, should improve regulatory certainty. It may be that there is further scope to formalise such an approach and increase regulatory certainty still further.

9.12. An alternative model has been discussed in regulatory circles in recent years. Professor Dieter Helm has suggested that the cost of debt should be indexed to an appropriate market rate benchmark²⁴, and his arguments have been discussed in Ofgem's joint financing networks paper²⁵. The CEPA model described in paragraph 9.5 is based on a similar approach.

9.13. For the purposes of determining a modelling assumption for the cost of debt, we have reviewed trends in relevant debt benchmarks since the TPCR outcome in December 2006. Longer-term equilibria, by their nature, will not be materially different now. Spot rates have increased, but are still at historically low levels. The 10 year trailing average continues to fall, and on current trends we expect it to fall by approximately 20 basis points between 2006 and 2007. Similarly the costs of debt achieved by the GDNs have all been well below the 3.75 per cent real rate allowed within TPCR. This indicates that there is unlikely to be any basis for considering a higher cost of debt than TPCR.

9.14. On the other hand, if we were to take more account of shorter-term trends in debt financing, as recommended by CEPA, then the cost of debt could fall to as low as 3 per cent.

²⁴ Dieter Helm, July 2005 "Unfinished Business - Regulatory Reform" (monthly commentary) available at www.dieterhelm.co.uk

²⁵ Financing Networks: A discussion paper 25/06, February 2006

9.15. On balance, and in the context of Initial Proposals, we consider it is appropriate to use a modelling assumption 20 basis points lower than the figure used in TPCR. Our risk analysis may have implications for the assumed cost of debt of these businesses as well as the cost of equity. At this stage however, there appears to be little or no observable difference in the market data for the cost of debt for comparably rated companies within the utilities sector.

Cost of equity

9.16. DPCR4 and then TPCR both concluded on a range of 6.5 to 7.5 per cent for the cost of equity, on a long run total market return basis. We intend to continue with this assumption. The position within the range will be influenced by the relative risk analysis, which will assess whether gas distribution faces higher risks as a result of our overall package of proposals than the transmission companies as a result of their price control. If such evidence on risk suggests that this is the case it might suggest that a cost of equity towards the higher end of our range would be appropriate. In the meantime the most appropriate modelling assumption would appear to be to use the TPCR level of 7.0 per cent. If we make any substantial change to the gearing assumption (see below) we would have to consider whether the range for the cost of equity was still appropriate.

Gearing

9.17. The Transco Price Control in 2002 used 62.5 per cent gearing. Since this date, the IDNs have been funded with gearing levels of 70 - 80 per cent of RAV.

9.18. It appears clear that a 70 per cent gearing level can be consistent with a rating that is comfortably within investment grade. This can be observed from the ratings for Northern and Wales and West, and guidance from the agencies. The agencies have also commented that these ratings are restricted by the lack of experience from the management teams and the new sector. All other things being equal, such risks should reduce over time and the credit quality of the GDNs should strengthen.

9.19. It should be noted that a 70 per cent gearing level may not reduce the cost of capital, as traditional finance theory posits that higher levels of gearing result in higher costs of equity, resulting in an unadjusted WACC. In practice, we can observe from public statements of infrastructure funds that the required cost of equity will increase as gearing rises. We will consider whether this impact is consistent with the increased risk implied at a level of 70 per cent.

9.20. Given the trend towards increased gearing for GDNs, we do not consider that there is justification for using a modelling assumption of lower than the current level of 62.5 per cent. The TPCR review reduced the allowed gearing for the NTS to 60 per cent to be consistent with electricity transmission.

Presentation of range of potential outcomes

9.21. The broad conclusions of the discussion above are presented in the table below. We would note that taking a combination of all the high or all the low assumptions may not result in a plausible or financeable outcome.

Table 9.2: Expected range of individual inputs to cost of capital within GDPCR.

Input factor	Low	High	Point Estimate
Cost of debt	3.0%	3.75%	3.55%
Cost of equity	6.5%	7.5%	7.0%
Gearing	60%	70%	62.5%

Tax

9.22. We have calculated the tax allowance for each GDN on a similar basis to the one year control. We have used information provided to us by the GDNs, in particular with respect to capital allowances. Tax rates and capital allowance rates are as announced in the recent budget. We have assumed notional gearing and real cost of debt in line with our modelling assumption for the cost of capital. Consistent with our approach in DPCR4 and TPCR we intend to make ex post adjustments to reduce the tax allowance when both actual gearing and actual interest expense exceed the level assumed in the financial model..

9.23. Our modelling of tax allowances suggests that some GDNs are forecast to make tax losses. As in the one year control we do not propose to give these GDNs negative tax allowances but we will log up any tax losses as calculated on a regulatory basis and deduct them from expected tax allowances when the timing differences that led to the loss reverse.

Profiling

9.24. We are not at this stage applying any “smoothing” to revenue allowances in our financial model. That is, revenues in a given year are based on our assessment of the relevant costs and a return on investment for that year. This has the advantages that it does not create financeability issues, it is cost-reflective, and it avoids the need for a correction to revenues at the start of the next price control. This approach could be argued to create greater volatility in charges, but in practice, the changes from years 2-5 of the price control are relatively small, when compared to the effect that the settling of specific incentive mechanisms may have. We will decide on the appropriate approach in final proposals.

9.25. We consulted on our approach to profiling in the third consultation document. The views of both the GDNs and other respondents were mixed. The main concerns appeared to be:

- avoiding large price changes from one control to the next;
- avoiding creating financeability problems by the timing of allowances as compared to costs; and
- predictability of changes in charges was more of a concern for shippers than volatility per se.

9.26. Since the variation of unprofiled revenues is not large, even if we did apply a smoothing profile to allowed revenues, it would be unlikely to lead to serious problems in any of these areas. As it is, we consider that our current approach takes account of the concerns highlighted above.

Assessing financeability

9.27. This section sets out our initial assessment of the financeability of the GDNs, assuming a notional capital structure, based on the assumptions underlying the cost of capital used for the financial model.

Issues considered

9.28. We have tested our financial model of each of the GDNs against four key ratios: Funds From Operations ("FFO")/Interest, Retained Cash Flow ("RCF")/Debt, Debt/RAV (all as per DPCR4) and Post Maintenance Interest Cover Ratio ("PMICR").

9.29. In the fourth consultation document, we noted our reservations about the usefulness of PMICR for testing the financeability of an Ofgem financial model, where it reduces to a function of the cost of capital. We also noted that in the sectors where PMICR was a key metric, most companies had adopted a certain proportion of index-linked debt, which reduced their annual cash interest payments and thus improved this ratio. While we are not presuming any index-linked debt in our financial model, we will make our financeability assessment with regard to whether a GDN, under our notional modelling assumptions, could meet the PMICR ratio with a conservative level of index-linked debt.

9.30. In their responses, GDNs emphasised that PMICR was a key ratio for lenders and rating agencies, and raised concern over any potential loss of focus on this ratio. GDNs also felt that it was inappropriate to assume a proportion of index linked debt in our modelling.

9.31. We recognise the importance of PMICR to GDNs and financial institutions, and do not consider that our proposed approach undermines the ratio's significant role in lending and borrowing decisions. In considering whether it is appropriate to assume a proportion of index linked debt when making financeability assessments, we will have regard to all relevant factors. These will include the likely availability of index linked debt and whether the individual GDN's actual capital structure would be able to support a proportion of this type of debt. Our modelling assumptions do not presume that we know what the optimum financial structure is for GDNs, but we based them on a prudent view of observable trends in the industry.

9.32. The results of our financeability review will be materially affected by decisions on the timing of allowances for capex and repex. There are principally three areas, which we will need to consider:

- Repex - currently funded 50 per cent in the year incurred and 50 per cent over 45 years;
- Non-operational capex - currently funded over 45 years; and
- Capex - currently funded over 45 years.

9.33. The assumptions underlying our initial proposals are in line with those set out above, which were used in the one year control. We will review these assumptions in detail ahead of updated proposals. In particular, we intend to review the 50/50 treatment of repex in light of its increasing contribution to GDN spending since the current funding treatment was introduced in 2002. In practice considerations of financeability and the effect on customer charges effectively preclude large-scale adjustments, but a small change to the percentage that is expensed may be appropriate.

Outcomes

9.34. Our review of financeability indicates that for the majority of GDNs, the package of ratios arising from our notional assumptions is consistent with a comfortable investment grade credit rating.

9.35. One GDN, Scotland, is a low outlier, performing poorly on all ratios except debt/RAV. Its PMICR is particularly weak. Introducing a proportion of index linked debt consistent with our assessment of all relevant factors causes this ratio to improve but does not allow it to reach the benchmark levels associated with a comfortable investment grade credit rating. Another GDN, Southern, performs better than Scotland on the majority of ratios but has a similarly weak PMICR position.

9.36. Our assessment of the reasons for these poor results include:

- For Scotland, the impact of a relatively high level of 'pot 2'²⁶ expenditure in 2002-07, which is excluded from the RAV until five years after it is incurred, and
- For Scotland and Southern, the cash penalty under the information quality incentive that results from the high bids (relative to Ofgem's view) submitted by these companies.
- For Scotland, there may also be an impact from the RAV sculpting carried out in order to allow the previous Transco price control to be split between the GDNs in advance of GDN sales. The "sculpting" of the RAV was designed to minimise the

²⁶ The allocation of expenditure from 2002-07 into pot 2 is detailed in the one year control final proposals document, ref. 206/06

variation in charges between the regions. This reduced Scotland's RAV, and hence its future returns.

9.37. As the first factor is the result of GDNs' decisions on past expenditure or on BPQ submissions, the impact on financeability is arguably a matter for shareholders rather than customers. Similarly, the bid against the IQI is in the company's control, and so may not justify a financeability uplift. In both cases, if we take this approach, we would accept the converse: that rewards for outperformance or for lower capex bids should not count towards our financeability assessment.

9.38. On the other hand, the RAV sculpting was an Ofgem decision, and so it may be more appropriate to make an adjustment for financeability if this is the cause of a financeability issue. Since this is only our initial proposals, and changes to the package may impact financeability in either direction (especially the cost of capital) we do not propose any specific adjustments at this stage. We outline below some of the options we have, should we determine a financeability adjustment is required.

Options for addressing financeability concerns

9.39. At updated and final proposals, we will consider whether to adjust for any of the factors listed in paragraph 9.36 and repeat our financeability assessment having made any appropriate adjustments. If any GDN appears weak under this assessment, we will review whether further measures are appropriate. This may include:

- measures that advance cash while having an overall neutral effect on NPV, such as assuming a shorter asset life for depreciation purposes, or varying the proportion of repex that is expensed; or
- NPV positive measures such as an allowance for the direct costs of sufficient equity share capital to maintain a comfortable investment grade credit rating.

10. Overall impact of the proposals

Chapter Summary

This chapter draws together our analysis set out in earlier chapters in order to outline the overall impact of Ofgem's initial proposals.

Question box

There are no specific questions in this chapter.

Calculating allowed revenue

10.1. Allowed revenue represents the sum of the costs that we consider would be incurred by an efficient GDN in each year of the price control, including a return on capital sufficient to enable it to finance its activities. Within GDPCR it is calculated as the sum of allowances for the following items:

- operating expenditure, including pensions and our assumed shrinkage allowance;
- the expensed portion of replacement expenditure (currently 50%);
- a cash allowance equal to the return on RAV plus the depreciation. We assume that companies incur expenditure and receive allowances throughout the year, and therefore calculate this cash allowance indirectly using a 'change in RAV' methodology. This is explained in appendix 11;
- corporation tax;
- the effect of disallowance of a portion of 2002-07 capital expenditure under the rolling incentive. Companies do not receive an allowance on this expenditure for five years;
- any additional income or penalty under the Information Quality Incentive; and
- allowance for pension deficit recoveries and under recoveries from the 2002-08 controls.

Overall impact of proposals

10.2. The overall result of our proposals is an average annual revenue allowance for all GDNs of £2,369 million for the period 2008-09 to 2012-13, representing an average annual increase over this five year period of £14 million or 0.6 per cent²⁷.

²⁷ The 0.6% per cent figure represents the average annual increase in allowed revenues (in real terms) over the five years of the price control. This measure is the best way of reflecting the price control settlement, but it is not exactly the same as the impact of our proposals on actual charges levied by GDNs on shippers. Appendix 12 provides more detail on the impact of our proposals on charges.

Table 10.1 breaks these figures down by year, while Appendix 11 gives more detail on allowed revenues for each GDN.

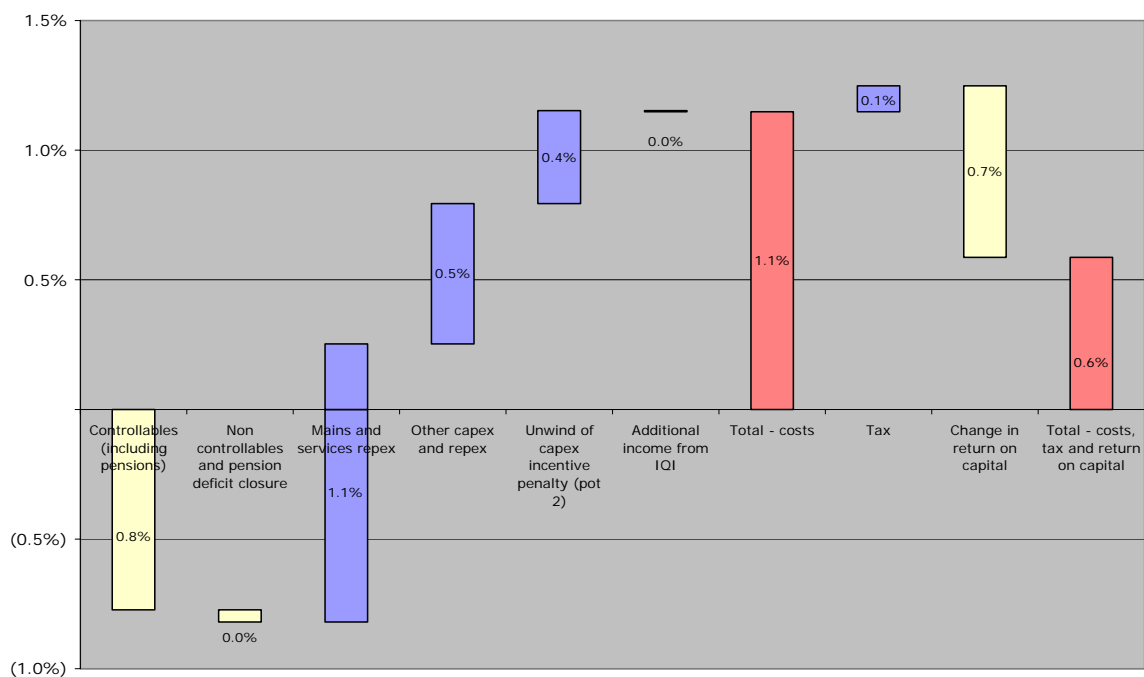
Table 10.1 Changes in allowances²⁸ (average all GDNs, £m, 2005-06 prices)

	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	Total	Average
Allowed revenue	2327.7	2324.4	2376.5	2361.4	2385.4	2395.8	11843.6	2368.7
X	-	0.1%	-2.2%	0.6%	-1.0%	-0.4%	-2.9%	-0.6%

10.3. The net increase in allowances can be explained by a number of factors. The principal ones are listed below and represented graphically in Figure 10.1:

- increase in impact of mains and services repex (+1.1 per cent)
- increase in other capex and repex (+0.5 per cent)
- impact of 2002-07 'pot 2' expenditure entering the RAV (+0.4 per cent)
- reduction in controllable opex (-0.8 per cent)
- reduction in cost of capital (-0.7 per cent)

Figure 10.1: Principal drivers of change in allowances



²⁸ Since we refer to the price control model as RPI-X incentive regulation, a positive value for X represents a fall in allowances and vice versa.

10.4. Table 10.2 shows the allowances for each GDN.

Table 10.2: Allowances by GDN (£m, 2005-06 prices)

	GDN	Allowed revenue 2007-08	Average annual allowed revenue 2008-13	Average X
NGG	East of England	427.2	416.8	0.8%
	London	245.1	261.2	-2.2%
	North West	285.5	286.7	-0.1%
	West Midlands	217.8	218.3	-0.1%
NGN	Northern	273.5	281.0	-0.9%
SGN	Scotland	194.3	192.7	0.3%
	Southern	432.4	450.4	-1.4%
WWU	Wales and West	252.0	261.7	-1.3%
	Total	2,327.7	2,368.7	-0.6%

Implications for gas distribution charges

10.5. The price control allowances represent the maximum revenue that the GDNs can collect via gas transportation charges between 2008-09 and 2012-13. They are not the same as the impact of our proposals on the charges levied by GDNs to shippers. Appendix 12 sets out the reasons for this difference and presents an indicative impact on charges.

11. Next steps

Chapter Summary

Where chapters are long or complex you should consider providing a short non-technical summary of the chapter contents. Focus on a few key messages that you want to get across.

Question box

There are no specific questions in this chapter.

GDPCR Seminar

11.1. We are holding a seminar to discuss our initial proposals on the 5 July 2007. If you would like to attend please contact Paul Newman on 020 7901 7026 or email GDPCR@ofgem.gov.uk by no later than 15 June 2007.

Consultation on licence drafting

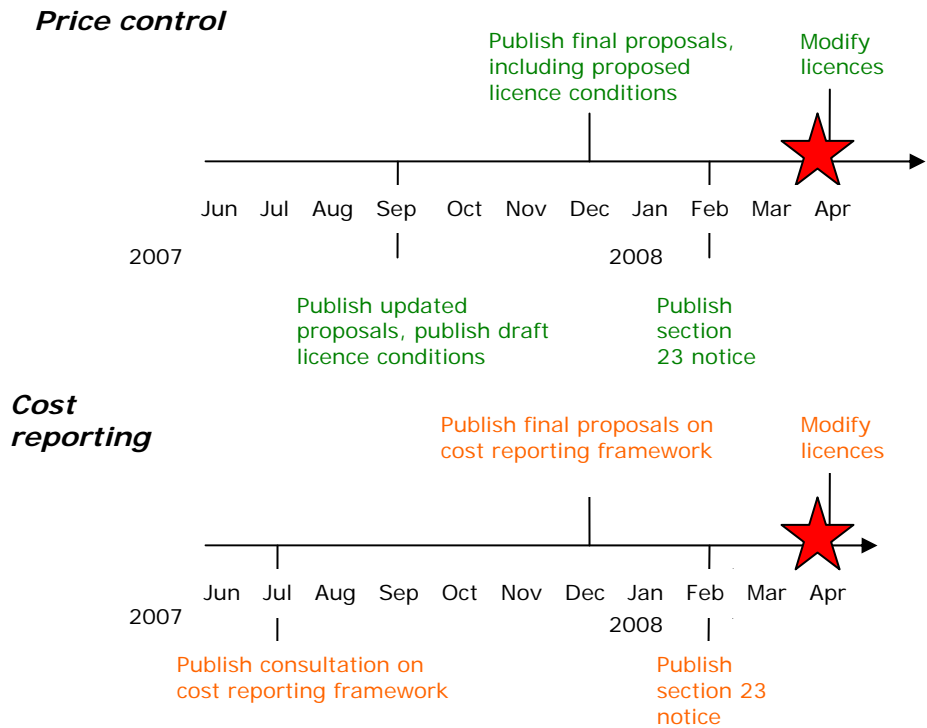
11.2. Appendix 13 of this document details our initial thinking on the potential licence changes required as part of the GDPCR. We intend to publish a consultation during September, separate from our updated proposals document, that will set out in more detail our proposed changes and approach.

Consultation on cost reporting

11.3. We propose to consult in July on the cost reporting framework that we intend to implement as part of the GDPCR. This will take effect from 1 April 2008.

Timetable going forward

Figure 7.1: Ofgem's timetable for completing the gas distribution price control review.



Appendices

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17	Final impact assessment on the capital expenditure rolling incentives and the IQI
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19	Final impact assessment for the volume driver

Appendix 1 - Consultation Response and Questions

1.1. We would like to hear the views of interested parties in relation to any of the issues set out in this document. In particular, we would like to hear from gas consumers and their representatives, gas distribution networks and any other interested parties.

1.2. We would especially welcome responses to the specific questions which we have set out at the beginning of each chapter heading and which are replicated below.

1.3. Responses should be received by 13 July 2007 and should be sent to:

- GDPCR Responses
- Ofgem
- 9 Millbank
- London SW1P 3GE
- Email: GDPCR@ofgem.gov.uk

1.4. Unless marked confidential, all responses will be published by placing them in Ofgem's library and on its website www.ofgem.gov.uk. Respondents may request that their response is kept confidential. Ofgem shall respect this request, subject to any obligations to disclose information, for example, under the Freedom of Information Act 2000 or the Environmental Information Regulations 2004.

1.5. Respondents who wish to have their responses remain confidential should clearly mark the document/s to that effect and include the reasons for confidentiality. It would be helpful if responses could be submitted both electronically and in writing. Respondents are asked to put any confidential material in the appendices to their responses.

1.6. Any questions on this document should, in the first instance, be directed to:

- Mark Cox
- Price Control Policy & Management
- Ofgem, 9 Millbank, London, SW1P 3GE
- Tel: 020 7901 7458
- Email: mark.cox@ofgem.gov.uk

11.4. The remainder of this appendix restates the consultation questions for convenience.

CHAPTER: One

There are no specific questions in this chapter.

CHAPTER: Two

Question 1: Do you think that a wider deadband on the revenue recovery correction mechanism is appropriate in gas distribution?

CHAPTER: Three

Question 1: Do you agree with our approach for setting opex allowances and the proposed allowances we have derived using that approach?

Question 2: Do you agree with the proposals to uplift allowances derived from disaggregated benchmarking so that they are consistent with the power of a top down approach?

Question 3: Do you agree that GDNs Emergency Service personnel should be required to carry and use carbon monoxide measuring equipment during gas emergency investigations?

CHAPTER: Four

Question 1: Do you agree with our approach for setting capex allowances and the proposed allowances we have derived using that approach?

Question 2: Do you agree with our approach for setting repex allowances and the proposed allowances we have derived using that approach?

CHAPTER: Five

Question 1: Do you support our proposals for changes to the outputs and quality of service arrangements?

Question 2: Do you support our proposals for improving the accuracy of pipeline records?

Question 3: Is Ofgem's proposed approach to setting allowances for the outputs and quality of service arrangements for 2008-13 appropriate?

CHAPTER: Six

Question 1: Are the proposals for the capex rolling incentive and IQI appropriate?

Question 2: Is it appropriate to implement an opex rolling incentive?

CHAPTER: Seven

Question 1: Do you agree with our assessment of the risks, costs and benefits attributable to the options for facilitating network extensions (Appendix 14)?

Question 2: Do you agree with our initial proposal (i.e. Option 3 complemented by a discretionary reward scheme)?

Question 3: Do you consider our proposed method to implement Option 6 appropriate (i.e. through GDNs' connection charging statements)?

Question 4: Do you consider the Government's Index of Multiple Deprivation to be an appropriate index to identify which fuel poor non-gas communities qualify for special treatment for gas network extensions? If not, what do you recommend?

Question 5: Do you support our proposals for the introduction of a Discretionary Reward Scheme for GDNs and its format given the larger reward?

CHAPTER: Eight

Question 1: Do you agree with our proposed approach to the funding of xoserve?

Question 2: How should we address any benefits arising to xoserve from redundancy created from the replacement of UK link?

Question 3: Do you agree with our approach of modifying SSC A15 to facilitate governance arrangements for user-pays?

Question 4: Do you think that the existing arrangements are adequate to ensure enforcement of the range of services and outputs delivered by xoserve in light of these proposals?

CHAPTER: Nine

Question 1: What are your views on the factors relevant to our consideration of cost of capital?

Question 2: Are the factors affecting financeability set out in paragraph 9.36 the responsibility of shareholders or the regulator to address and how should they be addressed?

CHAPTER: Ten

There are no specific questions in this chapter.

CHAPTER: Eleven

There are no specific questions in this chapter.

Appendix 2 - The Authority's Powers and Duties

1.1. Ofgem is the Office of Gas and Electricity Markets which supports the Gas and Electricity Markets Authority ("the Authority"), the regulator of the gas and electricity industries in Great Britain. This Appendix summarises the primary powers and duties of the Authority. It is not comprehensive and is not a substitute to reference to the relevant legal instruments (including, but not limited to, those referred to below).

1.2. The Authority's powers and duties are largely provided for in statute, principally the Gas Act 1986, the Electricity Act 1989, the Utilities Act 2000, the Competition Act 1998, the Enterprise Act 2002 and the Energy Act 2004, as well as arising from directly effective European Community legislation. References to the Gas Act and the Electricity Act in this Appendix are to Part 1 of each of those Acts.²⁹

1.3. Duties and functions relating to gas are set out in the Gas Act and those relating to electricity are set out in the Electricity Act. This Appendix must be read accordingly³⁰.

1.4. The Authority's principal objective when carrying out certain of its functions under each of the Gas Act and the Electricity Act is to protect the interests of consumers, present and future, wherever appropriate by promoting effective competition between persons engaged in, or in commercial activities connected with, the shipping, transportation or supply of gas conveyed through pipes, and the generation, transmission, distribution or supply of electricity or the provision or use of electricity interconnectors.

1.5. The Authority must when carrying out those functions have regard to:

- The need to secure that, so far as it is economical to meet them, all reasonable demands in Great Britain for gas conveyed through pipes are met;
- The need to secure that all reasonable demands for electricity are met;
- The need to secure that licence holders are able to finance the activities which are the subject of obligations on them³¹; and
- The interests of individuals who are disabled or chronically sick, of pensionable age, with low incomes, or residing in rural areas.³²

²⁹ entitled "Gas Supply" and "Electricity Supply" respectively.

³⁰ However, in exercising a function under the Electricity Act the Authority may have regard to the interests of consumers in relation to gas conveyed through pipes and vice versa in the case of it exercising a function under the Gas Act.

³¹ under the Gas Act and the Utilities Act, in the case of Gas Act functions, or the Electricity Act, the Utilities Act and certain parts of the Energy Act in the case of Electricity Act functions.

³² The Authority may have regard to other descriptions of consumers.

1.6. Subject to the above, the Authority is required to carry out the functions referred to in the manner which it considers is best calculated to:

- Promote efficiency and economy on the part of those licensed³³ under the relevant Act and the efficient use of gas conveyed through pipes and electricity conveyed by distribution systems or transmission systems;
- Protect the public from dangers arising from the conveyance of gas through pipes or the use of gas conveyed through pipes and from the generation, transmission, distribution or supply of electricity;
- Contribute to the achievement of sustainable development; and
- Secure a diverse and viable long-term energy supply.

1.7. In carrying out the functions referred to, the Authority must also have regard, to:

- The effect on the environment of activities connected with the conveyance of gas through pipes or with the generation, transmission, distribution or supply of electricity;
- The principles under which regulatory activities should be transparent, accountable, proportionate, consistent and targeted only at cases in which action is needed and any other principles that appear to it to represent the best regulatory practice; and
- Certain statutory guidance on social and environmental matters issued by the Secretary of State.

1.8. The Authority has powers under the Competition Act to investigate suspected anti-competitive activity and take action for breaches of the prohibitions in the legislation in respect of the gas and electricity sectors in Great Britain and is a designated National Competition Authority under the EC Modernisation Regulation³⁴ and therefore part of the European Competition Network. The Authority also has concurrent powers with the Office of Fair Trading in respect of market investigation references to the Competition Commission.

³³ or persons authorised by exemptions to carry on any activity.

³⁴ Council Regulation (EC) 1/2003

Appendix 3 - Glossary

A

Agency Services Agreement (ASA)

Agreement for the provision of information, data processing, invoicing and supply point administration services in relation to the transmission and distribution of gas in Great Britain.

Area Control Centres (ACC)

The Area Control Centres currently carry out system control activities on behalf of all the GDNs and are located at National Grid Gas' facilities in Hinckley. Activities carried out include monitoring system pressures, flows and alarm management at LTS (Local Transmission System) sites and other key sites on the distribution networks.

B

Business Plan Questionnaire (BPQ)

Expenditure information requested by Ofgem from the GDNs to inform decisions about setting the price control.

C

Capacity (Gas)

The amount of natural gas that can be produced, transported, stored, distributed or utilized in a given period of time under design conditions.

D

Direct activities (operating expenditure)

Direct activities are the core activities carried out by GDNs eg repair and maintenance of pipelines, provision of emergency service response to reported gas leaks, etc.

Distribution Network Operator (DNO)

DNOs are holders of electricity distribution licences. Licences are granted for specified geographical areas. Currently in Great Britain there are seven companies who own the fourteen licensed distribution areas.

Distribution Price Control Review 4 (DPCR4)

The price control review for the electricity distribution network operators which covers the five years from 1 April 2005 to 31 March 2010.

F

[Flat capacity](#)

Flat capacity gives the holder the right to offtake a volume of gas during the day at a constant hourly rate

[Flexibility \(flex\) capacity](#)

Flex capacity gives the holder the right to offtake a volume of gas according to a profile that varies over the day.

G

[Gas Distribution Network \(GDN\)](#)

GDNs transport gas from the NTS to final consumers and to connected system exit points. There are currently eight GDNs in Great Britain which comprise twelve LDZs.

[Gas Distribution Price Control Review \(GDPCR\)](#)

The review of the price control applying to gas distribution networks. The review will extend the existing price control for the year 2007-8 and reset the control for the period commencing 1 April 2008.

[Gas Transporter \(GT\)](#)

The holder of a Gas Transporter's licence in accordance with the provisions the Gas Act 1986.

[Gas Transportation Management System \(GTMS\)](#)

GTMS is the interface between the GDN outstations and the control centre.

[Gemini system](#)

The Gemini information system replaced the AT Link (energy balancing) information system and the RGTA (entry capacity trading) information system.

[Guaranteed Standards of Performance \(GSOP\)](#)

Guaranteed standards of performance set service levels that must be met in each individual case. If a gas transporter fails to provide the level of service required, it must make a payment to the consumer affected, subject to certain exemptions.

H

[Health and Safety Executive \(HSE\)](#)

The Health and Safety Commission is responsible for health and safety regulation in Great Britain. The Health and Safety Executive and local government are the enforcing authorities who work in support of the Commission.

I

Independent Gas Transporter (IGT)

IGTs are GT licence holders that own and operate small local gas networks and levy distribution charges on shippers.

Indirect activities (operating expenditure)

Indirect activities are activities that are not part of the core services of a GDN but which are undertaken to support those activities eg human resources.

L

Local Distribution Zones (LDZs)

LDZs are low pressure pipeline systems which deliver gas to final users and Independent Gas Transporters. There are twelve LDZs which take gas from the high pressure transmission system for onward distribution at lower pressures.

Local Transmission System (LTS)

The pipeline system operating at >7barg that transports gas from NTS offtakes to distribution systems. Some large users may take their gas direct from the LTS.

N

National Grid Gas (NGG)

The GT licence holder for the North West, West Midlands, East England and London GDNs. NGG also hold the GT licence for the gas national transmission system (NTS). Prior to 10 October 2005, NGG was known as Transco.

National Transmission System (NTS)

National Grid's high pressure gas transmission system. It consists of more than 6,400 km of pipe carrying gas at pressures of up to 85 bar (85 times normal atmospheric pressure).

NTS offtake capacity

Built to ensure sufficient pipeline capacity is available to convey gas from the NTS to the GDNs and NTS direct connects at the required rate and quantities.

Northern Gas Networks (NGN)

The GT licence holder for Northern GDN.

O

One in twenty planning standard (1 in 20)

A licence obligation imposed on GDNs under Standard Special Condition A9 (Pipe-Line System Security Standards). A GDN is required to plan and develop its pipe-line systems so as to enable it to meet peak aggregate daily demand for gas which is likely to be exceeded (whether on one or more days) only in one year out of twenty years.

Overall Standard of Performance (OSOP)

Overall standards of performance set minimum average levels of performance in areas where it is not necessarily appropriate to put in place guarantees for individual consumers. These are determined separately for each gas transporter by the Authority.

P

Priority Services Register (PSR)

PSR includes domestic consumers who are of pensionable age, have a disability, have long term ill health, and/ or are blind or visually impaired. Individuals on this register qualify for a selection of free services by gas and electricity suppliers.

R

Regulatory Asset Value (RAV)

The value ascribed by Ofgem to the capital employed in the licensee's regulated distribution business (the 'regulated asset base'). The RAV is calculated by summing an estimate of the initial market value of each licensee's regulated asset base at privatisation and all subsequent allowed additions to it at historical cost, and deducting annual depreciation amounts calculated in accordance with established regulatory methods. These vary between classes of licensee. A deduction is also made in certain cases to reflect the value realised from the disposal of assets comprised in the regulatory asset base. The RAV is indexed to RPI in order to allow for the effects of inflation on the licensee's capital allowances for the regulatory depreciation and also for the return investors are estimated to require to provide the capital.

RPI-X

The form of price control currently applied to network monopolies. Each company is given a revenue allowance in the first year of each control period. The price control

then specifies that in each subsequent year the allowance will move by 'X' per cent in real terms.

S

Scotia Gas Networks (SGN)

The GT licence holder for Southern GDN and Scotland GDN.

Shrinkage

Shrinkage gas is gas lost from the network through leakage, theft or own use gas.

System Operation Managed Service Agreements (SOMSAs)

SOMSAs are contracts between NGG and each GDN purchaser under which NGG carries out system operation on behalf of the new GDNs. They provide for the scheduling, monitoring and control (under the direction of the independent distribution network, i.e. IDN) of flows of gas in the parts of the GDN system operable remotely from the control centre using the control system, in order to achieve a physical balance. Other services provided under the SOMSAs include:

- services for the notification of call-outs, alarms and faults;
- coordination services in the event of contingencies and emergencies;
- services to support the preparation of a plan covering scheduling of engineering works and maintenance affecting the remotely operable parts of the GDN system; and,
- recording details of engineering works and maintenance carried out.

T

Therm

A unit of heating value equivalent to 100,000 British thermal units (Btu) (0.1 MMBtu).

Third party damage or water ingress (TPWI)

Third party damage occurs when a gas supply interruption is caused by a third party. Water ingress is an incident whereby water has escaped from pipes vested in water companies and entered pipes operated by public gas transporters. From there, water has then sometimes penetrated into domestic premises, causing damage to the customers' gas appliances³⁵.

³⁵ <http://www.ofwat.gov.uk/aptrix/ofwat/publish.nsf/Content/rd032001>

Traffic Management Act (TMA)

The Traffic Management Act is intended to provide better conditions for all road users through proactive management of the national and local road network³⁶.

Transco plc (see National Grid Gas)

Transco plc changes its name to National Grid Gas on 10 October 2005.

Total factor productivity (TFP)

TFP is a measure of the level of outputs produced from a given quantity of input factors. Changes in TFP reflect changes in the efficiency with which those factors are used.

Transmission Price Control Review (TPCR)

The TPCR will establish the price controls for the transmission licensees which will take effect in April 2007 for a 5-year period. The review applies to the three electricity transmission licensees, National Grid Electricity Transmission, Scottish Power Transmission Limited, Scottish Hydro-Electric Transmission Limited and to the licensed gas transporter responsible for the gas transmission system, NGG.

U

UK-Link

UK-Link is the central information system that shippers and suppliers use to interface with the GTs and each other.

Uniform Network Code (UNC)

As of 1 May 2005, the UNC replaced National Grid Gas' Network Code as the contractual framework for the NTS, GDNs and system users.

W

Wales & West Utilities (WWU)

The GT licence holder for Wales & West GDN.

Water ingress

An incident where water enters gas pipes resulting in a loss of gas supply.

³⁶ Department for Transport:
http://www.dft.gov.uk/stellent/groups/dft_roads/documents/divisionhomepage/032064.hcsp

[Water Services Regulation Authority \(Ofwat\)](#)

Ofwat is the economic regulator of the water and sewerage industry in England and Wales.

X

[xoserve](#)

A transporter agency which provides a single, uniform interface between the IT systems of relevant GTs and shippers.

Appendix 4 - Feedback Questionnaire

1.1. Ofgem considers that consultation is at the heart of good policy development. We are keen to consider any comments or complaints about the manner in which this consultation has been conducted. In any case we would be keen to get your answers to the following questions:

1. Do you have any comments about the overall process, which was adopted for this consultation?
2. Do you have any comments about the overall tone and content of the report?
3. Was the report easy to read and understand, could it have been better written?
4. To what extent did the report's conclusions provide a balanced view?
5. To what extent did the report make reasoned recommendations for improvement?
6. Please add any further comments?

1.2. Please send your comments to:

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