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Gas Distribution Annual Report for 2007-08

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Target audience: This document may be of particular interest to users of the gas distribution networks, licensees, providers or finance, consumer groups and other interested parties.

Overview:

This document contains the supplementary appendices for the first annual report on the eight gas distribution businesses, based on the regulatory reporting process introduced as part of the Gas Distribution Price Control Review for 2008-2013 (GDPCR).

The appendices provide information on the updating of the cost benchmarking of particular operating activities for 2007/08. They also contain more details of capital expenditure for the industry in the year.

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Ofgem regulates the eight regional gas distribution networks (GDNs), which are all natural monopolies, to protect the interests of current and future customers. As part of the Gas Distribution Price Control Review for the period 2008-13, we worked with the industry to develop a process for annual reporting of performance. This is the first annual performance report produced under this regime, and draws on the precedents set by cost reports for the transmission and electricity distribution sectors. It also draws on some information on the quality of service we have already published (see Associated Documents below). It is our intention to merge these two reports in future years.

The aim of the report is to present key information on the licensee's costs and performance in a meaningful and user friendly format. It forms the basis for developing the annual reporting process over the next four years leading up to the next Price Control Review (GDPCR2) for the gas distribution networks.

- Gas Distribution Quality of Service Report, 2007-2008 (Ref164/08)
- Open letter - Reporting arrangements applying to gas distribution networks (Ref 22/08)
- GDPCR Final Proposals, December 2007 (Ref. 285/07);
- GDPCR Cost Reporting Consultation (Ref.185/07); and
- GDPCR One Year Control Final Proposals, December 2006 (Ref. 205/06).

Copies of these documents can be found on our website (www.ofgem.gov.uk)

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Appendix 4 - Regressions of Operating Costs by Activity

1.1. As explained in the main report, allowances for controllable operating costs were set in the One Year Price Control in a relatively simple manner, by rolling forward the average annual expenditure by GDN for the last two full years available, 2004/05 and 2005/06, with a common annual efficiency target of 2.5 per cent. Details of allowances for particular activities or functions within controllable operating costs are therefore not readily available. Benchmarking of particular activities and functions was, however, undertaken for the Five Year Price Control, based on 2006/07 actual costs. The adjustments for the additional costs of working within the M25, to the extent that they are beyond the control of prudent management, and the activity drivers applicable for undertaking comparisons between GDNs for particular activities, were consulted on at the time of the Review, but have not been revisited in the intervening period. They have not therefore been changed or otherwise updated for this report. However, the agreement of common definitions of activities for use in the annual regulatory reporting process does mean that expenditure for 2007/08, as reported by GDNs in their first annual cost reports, should be sufficiently comparable to be used to update the benchmarking undertaken as part of the Review. Reviewing the activity drivers and updating the regional factors used to adjust for the unavoidable additional costs of operating within the M25 will be considered as part of our workplan before the next Gas Distribution Price Control.

1.2. Four principal direct activities - accounting for 93 per cent of direct controllable operating costs for the industry as a whole - were subjected to regression analysis in the Five Year Price Control Review. No adequate cost driver was agreed for the remaining 7 per cent of miscellaneous "other" direct activities. We will be exploring appropriate drivers before the next Price Review begins.

Work Management

1.3. Work Management covers the planning, control and reporting of most direct activities, including asset, work and customer management as well as systems control, and at nearly £200m, accounts for 40 per cent of total industry spend on direct activities. Figure 1 below shows the regression undertaken on 2006/07 expenditure in the Five Year Price Control (updated to 2006/07 prices) alongside that based on 2007/08 expenditure.

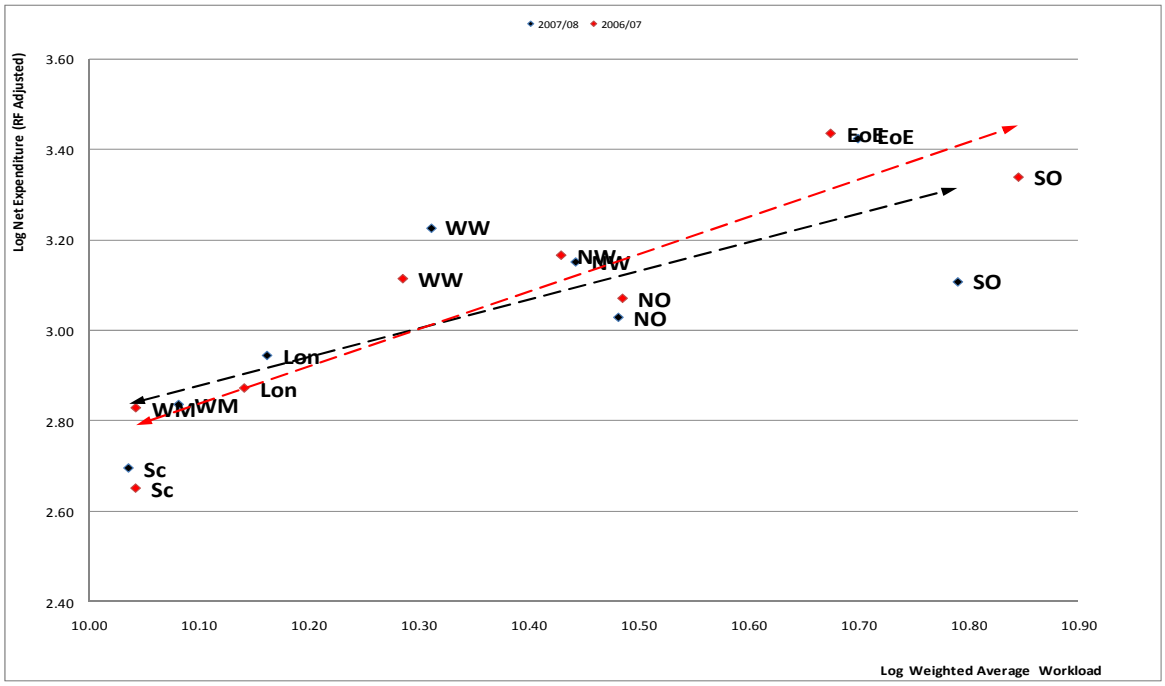


Figure 1 - Regression of Work Management Activities, 2006/07 & 2007/08

1.4. Given the nature of the agreed activity drivers - the length of low pressure mains and the proportion of the industry's publicly reported escapes and associated repairs on each network - no major shifts in workload are either expected or observed. Total industry costs have actually fallen (despite general inflation and other upward cost pressures), but the pattern across GDNs is by no means uniform. Most networks saw only modest changes in costs, but major cost reductions in Southern moved this network to the frontier, and reduced the correlation of the regression with the data points. Nevertheless, the ranking of no network changed by more than one place between the two years and the four networks which moved into independent ownership in 2005 occupy three of the top four places as measured by this regression of work management expenditure.

1.5. The breakdown of work management into four separate elements - asset, work, customer and systems management - now incorporated into regulatory reporting analyses will provide an opportunity to consider the development of specific activity drivers appropriate to each.

Emergency Services

1.6. The industry's total spend on emergency services in 2007/08 was just under £88m; virtually the same as the previous year. However, the pattern varied across networks, with four GDNs reporting increased costs and four reductions. Nevertheless, all networks reported a reduction in the number of emergency call outs for publicly reported escapes - the principal driver of the cost of emergency services - which fell by over 15 per cent in aggregate.

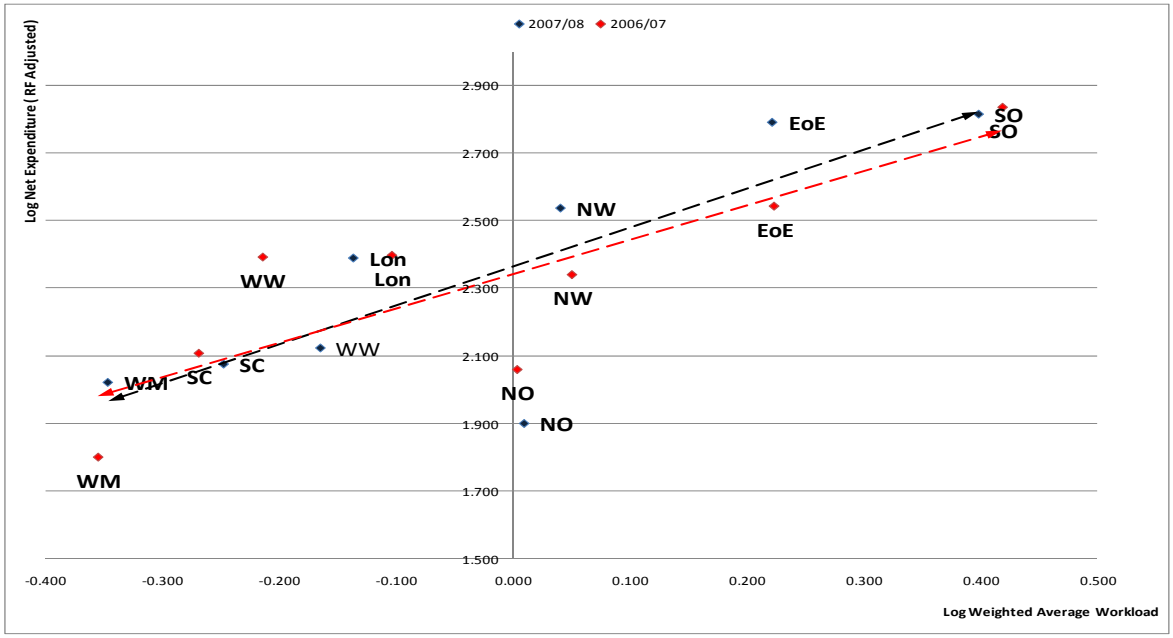


Figure 2 - Emergency Service Regression, 2006/07 and 2007/08

1.7. Figure 2 above plots the cost of the emergency service against the volume of activity undertaken for 2006/07 and 2007/08, and shows significant changes in ranking of networks, driven almost entirely by the increase or decrease in reported costs (given the small variations in relative workloads). Such an apparent disconnect between the principal activity driver used in this regression and the movement in actual reported costs requires further investigation, and possible refinement of the activity driver and cost categorisation.

Repairs

1.8. In 2007/08 the industry spent £92m on repairs. Figure 3 below shows significant changes in both workload and expenditure between 2006/07 and 2007/08. Whilst the total number of repairs has reduced by just under 4 per cent for the industry as a whole, the year on year change varied enormously, from a reduction of over 21 per cent (Southern) to an increase of nearly 12 per cent (West Midlands). Similarly, gross expenditure for the industry fell by nearly 6 per cent, but the change by GDN varied enormously, with one GDN (Scotland) reporting a reduction of over one-third. Hence both the line of best fit and the position of individual networks have moved in relation to both axes of the regression.

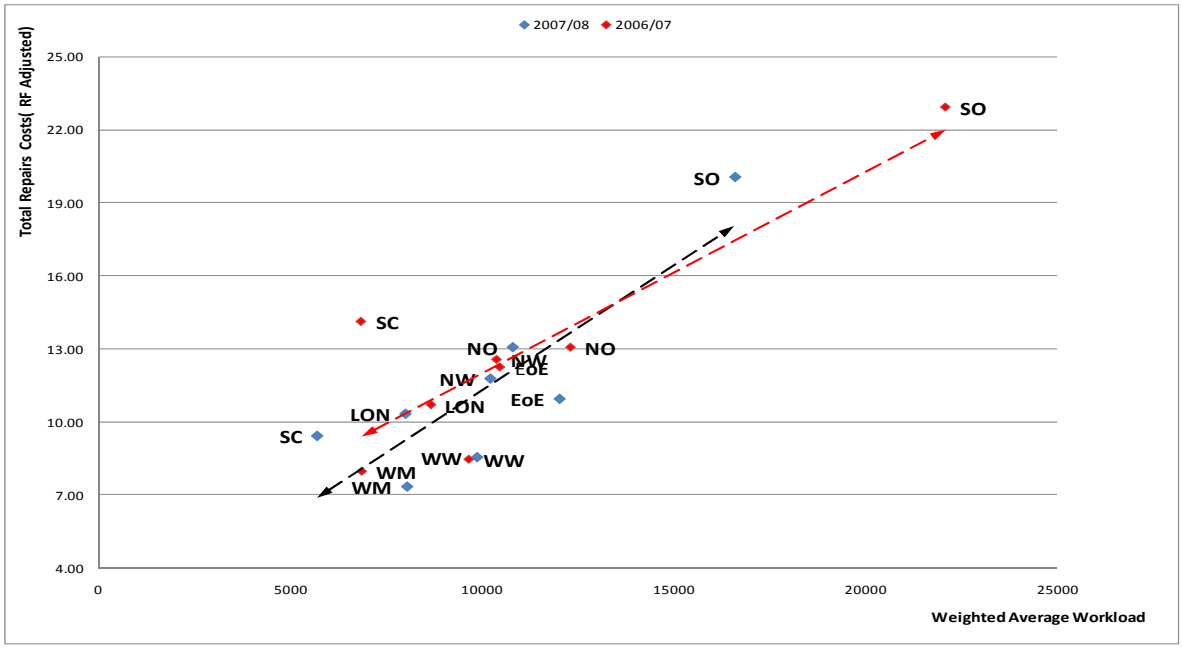


Figure 3 - Repairs Regression, 2006/07 and 2007/08 Actuals

Maintenance

1.9. The industry spent £82m on maintenance in 2007/08, 16 per cent less than in the previous year. Four GDNs - Northern, Southern, Scotland and Wales & West - together accounted for about 90 per cent of the reduction in expenditure, reducing their individual expenditures by between 16 per cent and 42 per cent. This is consistent with the major shifts in the efficiency rankings shown in Figure 4 where Scotland have moved from being one of the least to the most efficient in a single year.

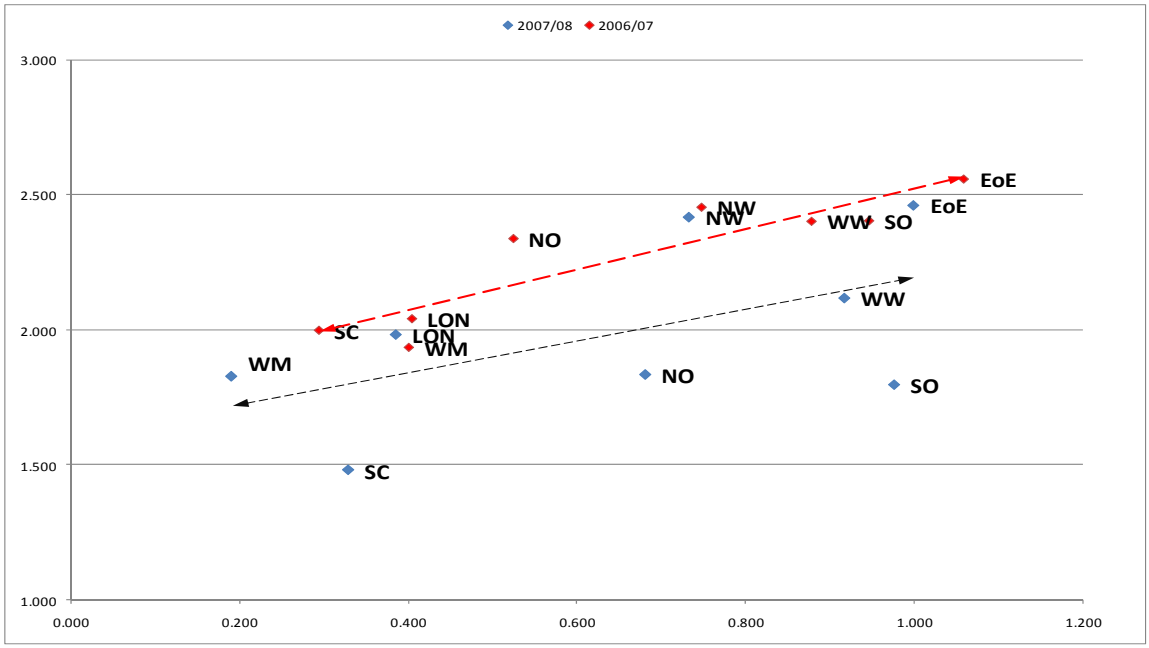


Figure 4 - Maintenance Regression, 2006/07 and 2007/08 Actuals

1.10. Some GDNs have acknowledged that an element of this reduction arises from the deferral of non-critical work. Some is also attributable to normal variations in non-routine maintenance (which, by its very nature, does not need to be carried out every year). Some may also be attributable to continuing differences between GDNs in what activities are counted as "routine" (and are therefore included in the above regression) and what are "non-routine". There is clearly more work to be done on improving consistency of definitions and testing workload drivers. However, GDNs in aggregate report a 24 per cent reduction in routine maintenance expenditure and attribute much of this to improvements in efficiency. Clearly, it is not in customers' long term interests for maintenance expenditure to be cut at the expense of asset serviceability, and we will continue to monitor this area carefully for any signs that reductions in expenditure are not attributable to efficiency and are starting to impact upon the reliability of assets and service to customers.

Appendix 5 - Analysis of Capital Expenditure

LTS Pipelines and Storage Schemes

1.1. Table 1 below sets out the GDN allowances and actual expenditure for LTS and storage in 2007/08.

Table 2.2 2007/08 - LTS & Storage net capex, actuals against allowances

£m net, 2007-08 prices	NGG				NGN	SGN		WWU	
GDN	**East of England**	**London**	**North West**	**West Midlands**	**Northern**	**Scotland**	**Southern**	**Wales & West**	**Total**
2007/08 Allowances	10.4	29.8	6.3	3.3	2.4	26.0	37.0	9.7	**124.8**
2007/08 Actuals	3.4	11.3	2.9	1.5	2.6	3.7	26.8	8.5	**60.7**
% (Under)/over spend against allowance	-67%	-62%	-54%	-55%	8%	-86%	-27%	-12%	**-51%**

Table 1 - LTS and Storage Capital Expenditure

1.2. The Local Transmission System (LTS) operates at pressures >7barg and transports gas from NTS offtakes to distribution systems and directly to some large users. The LTS is the primary source of additional diurnal storage related to demand growth, and is also required to transmit diurnal storage where this is procured from the NTS. Expenditure to reinforce the LTS is driven by increases in demand, but investment in reinforcement pipelines is generally more economic where a project provides capacity to meet more than one year's growth in demand. Therefore expenditure on LTS projects tends to be sporadic unless a policy change is made.

1.3. NGG deferred two major projects previously scheduled for 2007-08. The Cambridge to Matching Green pipeline uprating project in East of England was deferred in response to both planning and environmental issues identified as part of initial feasibility works. The Harefield to Southall LTS pipeline reinforcement project in London GDN was deferred by one year following a re-tendering process prior to completion of the one year price control leading to an under spend of £14m for London pipelines.

1.4. SGN Scotland were significantly under spent on LTS and storage, with a spend of £3.7m against an allowance of £26m. The allowances were based on specific named projects provided by SGN as part of the price control review. A large component of the allowance (£10.6m) was allocated to construction work on four offtakes including two new offtakes at Moss Side and Lauderhill and rebuilds at Aberdeen and Glenmavis. SGN stated that some of the underspend is due to the phasing of the costs and also due to delays in completion of feasibility studies. SGN also state that further analysis led to the deferral of Moss Side and Lauderhill to later years.

1.5. The GDNs all highlighted significant delays in specialist equipment and steel pipe delivery as being a major issue causing project delays. Consequently spend has been lower than expected on a number of upgrade projects in 2007-08. Most of the materials required are of a specialist nature and delivery of some components is taking in excess of a year to be manufactured and delivered. This has been caused by both the level of industry demand and the limited number of available suppliers.

1.6. All GDNs continued with ongoing remedial and minor works on LTS pipelines and storage including PRS rebuilds, mechanical and electrical/instrumentation upgrades and water bath heater replacement. However, changes in the peak demand forecasts enabled GDNs to defer proposed expenditure on a number of PRS and LP storage activities where the longer term future use of the asset is under review.

1.7. The annual demand forecasting cycle and review of peak capacity requirements also enabled additional capital investment to be deferred by all GDNs due to the review of storage requirements and hence expenditure on LTS and storage. Figure 5 below shows the changes between the 1 in 20 peak demand forecast published by the NTS in December 2008 compared to December 2005. LDZ peak demand was anticipated to grow by 9.5 per cent over the period 2007/08 to 2014/15 in the Ten Year Statement (TYS) published in 2005. The latest forecast published in December 2008 indicates peak demand to grow by just 4.3 per cent over the same period, less than half the growth forecast used when setting price control allowances.

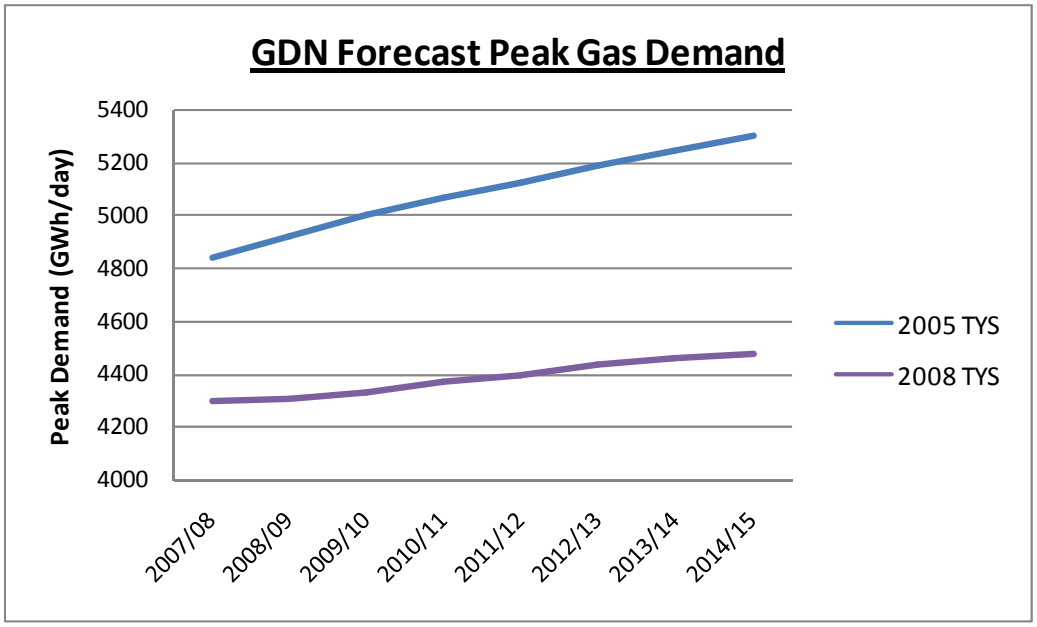


Figure 5 - Change in Demand Forecasts

1.8. We reviewed the requirements of the GDNs for LTS capacity over the period 2008 to 2013 during the Five Year Price Control Review, which concluded in December 2007. The review of LTS capacity included the requirement for both NTS flex capacity and for LTS projects within the GDNs.

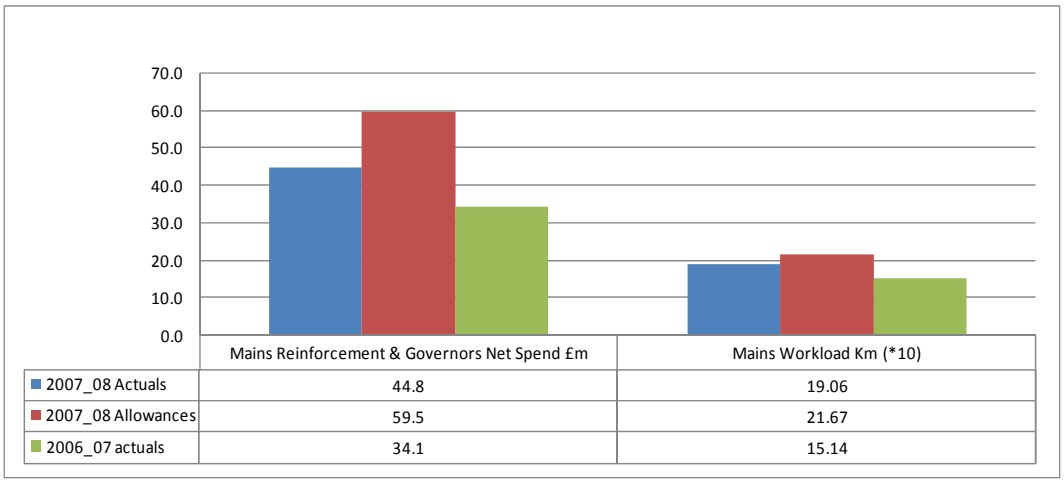
1.9. In March 2007, Ofgem announced its intention to modify the regime for interruptible contracts, and these revised arrangements took effect from 1 April 2008.

1.10. For the Five Year Price Control period, capital expenditure allowances were set on the basis that all existing interruptible customers would retain their interruptible status following the reform to the GDN interruption arrangements. Following the first year of the tender process, with auctions in June and in October 2008, not all previously interruptible customers retained their interruptible status from 2011/12. Subsequently GDN's reviewed their capital expenditure requirements and SGN's Scotland GDN requested provision for additional reinforcements to its network. The analysis of this reopener is ongoing but once concluded has the potential to adjust the future capital expenditure allowances for LTS and distribution, with a resulting adjustment to the GDN's operating cost allowance for interruption payments.

Mains Reinforcement & Governors

1.11. Industry expenditure on mains reinforcement and governors together increased in 2007/08, but not as much as anticipated in the One Year Price Control, and actually fell nearly 25 per cent below anticipated levels.

1.12. Figure 6 (below) shows that the 190.6km of mains reinforced was only 12 per cent below the levels anticipated at the time of the One Year Price Control. Expenditure on reinforcement of mains was, however, £9.8m (21 per cent) below anticipated levels, with a higher proportion of the work being done on smaller diameter pipes than had been expected.



	Mains Reinforcement & Governors Net Spend £m	Mains Workload Km (*10)
2007_08 Actuals	44.8	19.06
2007_08 Allowances	59.5	21.67
2006_07 actuals	34.1	15.14

Figure 6 - Mains Reinforcement and Governors

1.13. GDNs have explained that lower than anticipated levels of growth in demand have meant that many specific and general reinforcement schemes have not been required on the timescales envisaged only two years ago, and indeed some may not be required in the period covered by the Five Year Price Control. Of course, other

reinforcement schemes not anticipated in the forecasts for either the One Year or the Five Year Controls are more than likely to be required, but the net impact emerging from the changed growth picture evident from this first round of regulatory reporting is one of lower demand and lower investment requirements.

1.14. GDNs have generally been slow to realise the anticipated increase in work on replacement of critical governors, with spend across the industry over 35 per cent below the provision in the One Year Price Control. We have been assured that this small but critical programme will ramp up in subsequent years and achieve the overall level of activity envisaged in the period 2007/08 - 2012/13. We shall continue to monitor progress carefully.

1.15. Allowances for mains reinforcement in the Five Year Review were based on a regression of general and specific reinforcement costs and workloads for two years (2005/06 and 2006/07), partly in recognition that the relatively low workload in any single year made for above normal volatility in unit costs. However, SGN costs have increased substantially from 2006/07, with a corresponding increase in workload. Such costs were accounted for in the price controls allowances for these GDNs. SGN made a case for more reinforcement work to maintain existing network pressures rather than elevating system pressures which would lead to higher leakage. The update of the regression for 2007/08 cost in Figure 7 below is consistent with experience during the Five Year Price Control Review, with significant shifts in both the line of best fit and the relative ranking of individual GDNs. Building up a picture over a number of years' experience during the Five Year Price Control period will overcome this volatility going forwards and provide a more robust basis for assessing performance than the single year's data available here.

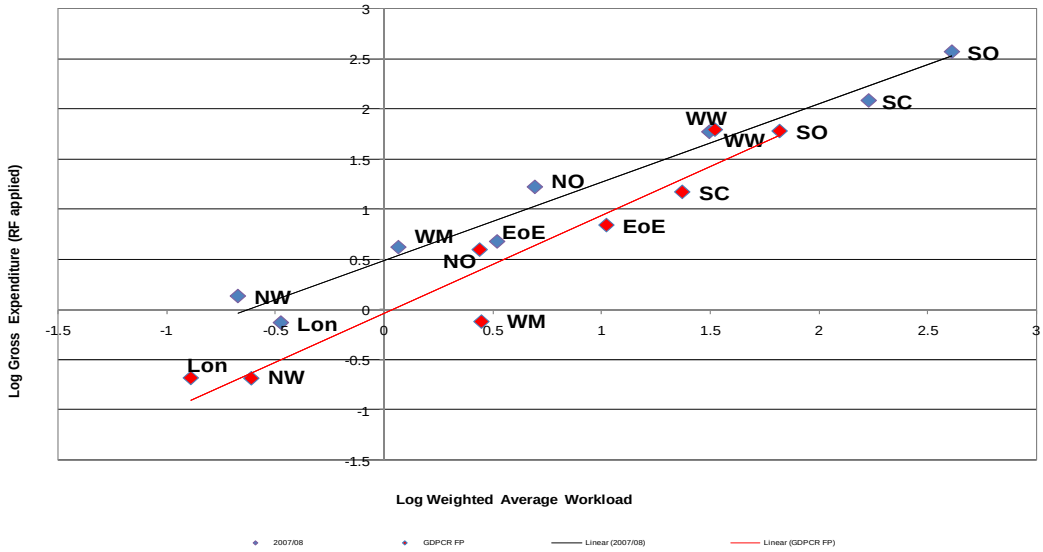
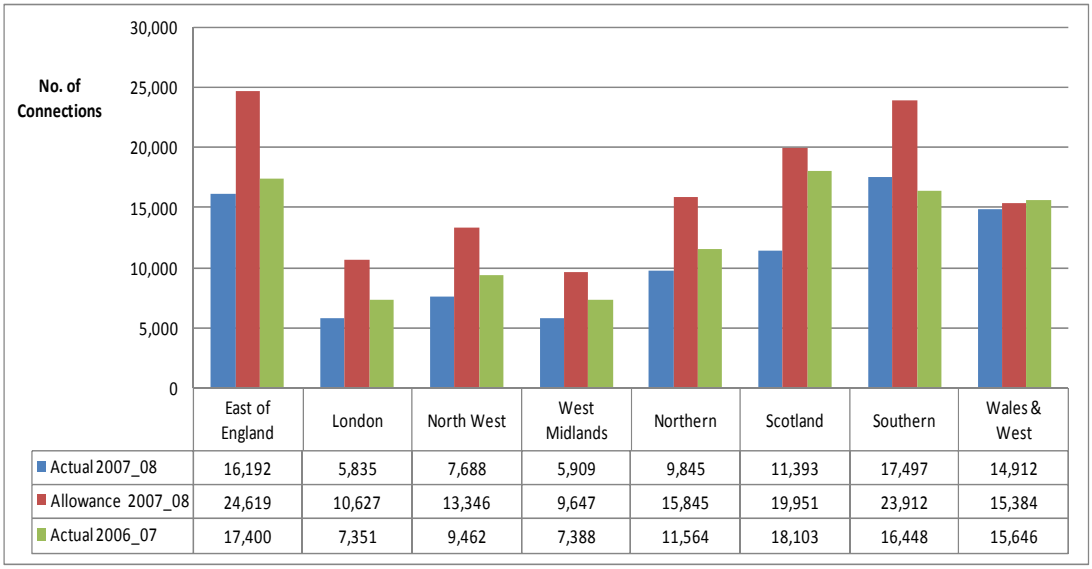


Figure 7 - Mains Reinforcement Regression

Service Connections

1.16. The lower level of growth in demand than anticipated in One Year Price Control has also become evident in the number of new connections to the networks. Service connections for 2007/08 were one-third less than the workload assumed in price allowances and over 13 per cent below recorded activity for 2006/07. Figure 8 below shows the position for each network.



	East of England	London	North West	West Midlands	Northern	Scotland	Southern	Wales & West
Actual 2007_08	16,192	5,835	7,688	5,909	9,845	11,393	17,497	14,912
Allowance 2007_08	24,619	10,627	13,346	9,647	15,845	19,951	23,912	15,384
Actual 2006_07	17,400	7,351	9,462	7,388	11,564	18,103	16,448	15,646

Figure 8 - Service Connections by GDN

1.17. Only Southern showed a year on year increase in the number of service connections, with all other network areas seeing a decline of between 5 per cent (Wales & West) and 37 per cent (Scotland).

1.18. Allowances for the net cost of new connections in the Five Year Price Control were based on a regression of gross costs of the connections work including services and associated mains. Figure 9 over updates this regression for 2007/08 expenditure. The line of best fit has not moved or changed slope, suggesting that industry average costs have not changed over the two years, and reductions in workload have generally been reflected in reduced expenditure. However, this is not the case in all instances and the ranking of individual networks show some significant changes. GDNs are required to provide a quote and carry out connections workload where customers accept the quotation. In the case of Scotland, the 2007/08 forecasts included a significant amount of rehabilitation works to local authority and high rise properties which may explain some of the significant increase in unit costs.

1.19. So whilst the regression continues to perform well in correlating expenditure with workload overall, further review of individual movements with additional years' data will be interesting.

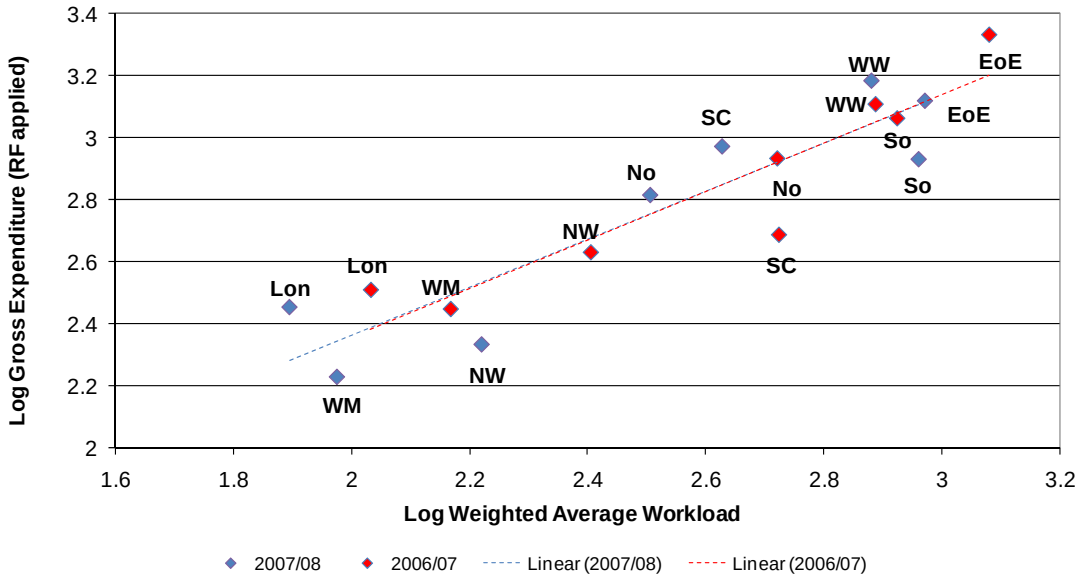
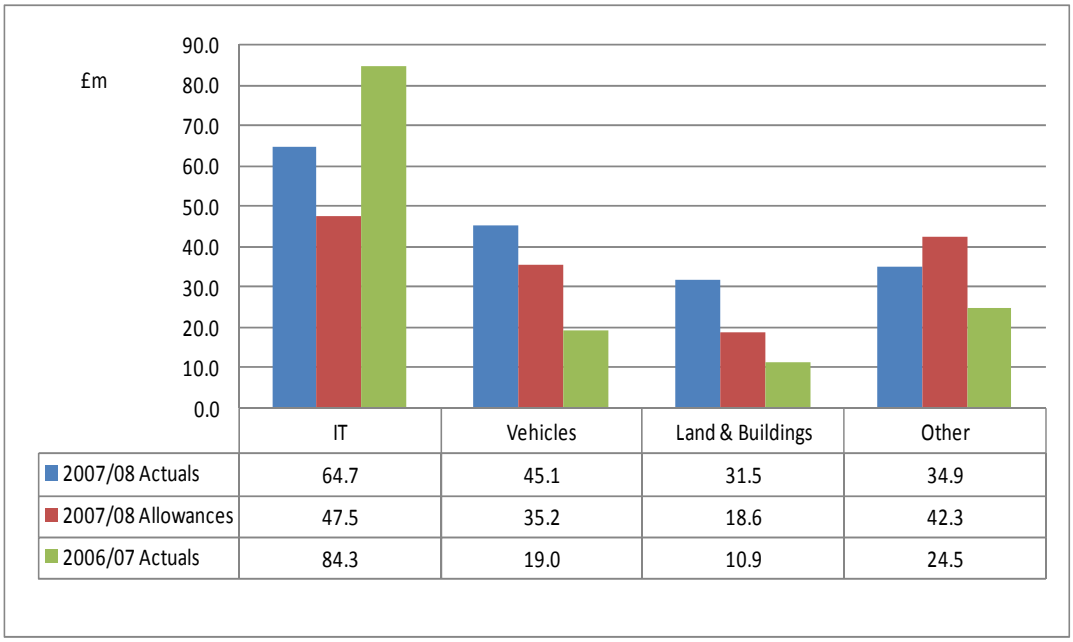


Figure 9 Regression of Gross Cost of New Connections by GDN

Other Capital Expenditure

1.20. As Figure 9 shows, "Other" capital expenditure is actually the largest single category in the industry's capital investment programme for 2007/08, accounting for just over 50 per cent of total investment. Actual spend of £176.3m was, moreover, nearly 23 per cent above allowances implicit in the One Year Price Control, and 27 per cent above actual spend in 2006/07. Figure 10 below shows the major components.



	IT	Vehicles	Land & Buildings	Other
2007/08 Actuals	64.7	45.1	31.5	34.9
2007/08 Allowances	47.5	35.2	18.6	42.3
2006/07 Actuals	84.3	19.0	10.9	24.5

Figure 10 - Industry Total "Other" Capital Expenditure by Type

1.21. Investment in IT systems (including associated infrastructure and operational systems) of £64.7m was over 35 per cent higher than assumed in One Year Price Control (albeit lower than in the previous year). Both back-office and field-force systems are naturally managed by each network owner on an integrated basis and allocated to distribution network areas using appropriate drivers (usually number of customers). In fact, three of the four ownership groups spent more on IT systems and infrastructure in 2007/08 than was funded in one year allowances. National Grid Gas spent £9.5m (over 36 per cent) more than in allowances for 2007/08, the two largest contributors to the over spend being systems for Traffic Management Act compliance, and an increase in the cost of back-office systems replacement. Scotia overspent allowances by £7.7m, reflecting investment in desktops, mid-range computing and data centre LANs (on top of the IT costs of exiting from National Grid systems).

1.22. Vehicle replacement expenditure in aggregate was 30 per cent more than forecast in One Year Price Control allowances and nearly two and a half times the spend in the previous year. This substantial increase in investment was attributable exclusively to the Scotia group decision to accelerate replacement of a large part of the vehicle fleet for the Scotland and Southern networks, using up most of the allowance built into both the One and Five Year Price Controls in a single year.

1.23. Expenditure on Land and Buildings was nearly 70 per cent more than allowances in aggregate, with both Scotia and National Grid taking strategic decisions to invest in buildings not anticipated at the time of the One Year Price Control. Scotia invested in several properties in both networks in an attempt to

reduce reliance on leased properties, achieve operating cost efficiencies and implement its chosen depot structure. National Grid's additional investment arose from the creation of new, purpose-built Operational Training Facilities and some bringing forward of planned buildings refurbishments. We shall expect both ownership groups to be able to track and identify the benefits from these additional investments going forwards.

1.24. Other capital investment - including expenditure on tools, plant, equipment, and security as well as the replacement of shared systems by xoserve - was £7m less than assumed in the One Year Price Control allowances, but over £17m more than in 2006/07. The principal under spend against allowances (and a slowdown from investment in the prior year) arose in the networks owned by National Grid, with lower spend on enhanced security at critical national infrastructure sites and lower than anticipated recharges from xoserve for the systems replacement work being undertaken for all networks.

1.25. Not evident from the analysis of capital expenditure by GDNs is the investment being made by xoserve in the replacement and upgrade of the supply point data management and billing systems serving the industry as a whole. This is because the investment is recovered from GDNs and National Grid Gas Transmission through xoserve's charges. Capital expenditure to maintain the performance of the UK LINK system was accelerated compared to the forecasts made at the time of the Price Control Review, increasing from £1.8m in 2006/07 to £6.1m in 2007/08.