April 2002

Mr Richard Rodgers Business Development Director Phoenix Natural Gas Ltd 197 Airport Road West BELFAST

Dear

PHOENIX CONVEYANCE PRICE CONTROL

We have now reached the point where we can set out our final decisions on the price caps that Phoenix Natural Gas's Conveyance Business should be allowed to charge, bearing in mind the revised forecast parameters and the other conditions in the licence pertaining to this calculation.

There are some points I'd like to make at the outset.

<u>1. Gas Extension Volumes</u>. The following determination is based on the assumption of no "transmission only" P5 volumes. As we know there is a strong possibility that gas extension developments in NI could lead to significant extra flows of gas through the Phoenix transmission system during the coming price control period. Assuming postalisation occurs as we foresee this shouldn't become a problem. Under the licence modifications needed for postalisation we foresee that the transmission related volumes (including those following gas extensions) and costs of Phoenix will go into the overall postalisation "required revenue" calculation. Thus the transmission volumes for the gas extensions would not be included in determining Phoenix's conveyance pricing and Phoenix's price caps would be re-calculated on the remaining costs and volumes.

However our concern is a scenario where significant new gas extension volumes arise but postalisation for some reason does not. If this were to occur, there would be a need to examine the implications for the prices determined under this control. As the licence stands, we would have no specific powers in the coming price control period to amend the Pi calculations to reflect these extra volumes. As you will appreciate we are concerned to ensure

that the benefit of these extra volumes would be reflected in lower prices.

As discussed with you, we are proposing a licence modification to deal with this issue – the text of which is attached. This price control determination is subject to the implementation of this modification and I reserve the right to re-open this determination if the modification is not introduced. We are formally seeking your agreement to the proposed modification.

2. The Pi calculations. My determination honours the £132m positive cashflow over the next fifteen years as the licence requires. The determination also results in a positive cashflow recovery in the next five years of $\pounds 21m - a$ slightly higher figure for this period than that set at the last price control. We discussed the issue in recent months of whether the £132m cashflow requirement also required keeping to the same distribution of this cashflow recovery as set out last time (£19m, £57m, £56m) for the three remaining price control periods. The £21m figure resulting from my determination nullifies your concerns on this issue. However we both agree that a licence modification is needed so that at the time of the next price control in 2007, it is the distribution of the cashflow recovery resulting from my determination now that should be the basis of the calculations at that stage, rather than the original cashflow generated by the first price control. Therefore our price control successors should ensure that the cashflow generates a positive recovery of £ 111m for the 2007-2016 period rather than the £113m resulting from the first agreement. We have attached a second draft licence modification dealing with this issue. Once more, this price control determination is subject to the implementation of this modification and I reserve the right to re-open this determination if the modification is not introduced. Again, we are formally seeking your agreement to the proposed modification.

<u>3. Market Development Activity</u>. In contrast with the first price control review where relevant overall Phoenix costs were allocated in a two way split between the conveyance and supply businesses, this price control allocates certain costs also to "market development". The agreement we've reached is that these costs will not be counted into the conveyance cost base for the 2002-2004 years, but will be counted as allowable for 2005 onwards – from the onset of full opening of the supply market to competition. In principle we feel that these cost lie in the supply arena, however we accept your argument that in a competitive environment the supply business may not be able to pay for and recover these costs. In terms of market incentives and advertising/PR spend we have some work to do in 2004/05 to consider the appropriateness of this spend and indeed the whole issue of cost allocations will no doubt feature at the time of the next price control where our price control successors will benefit from some experience of how competition has affected Phoenix's situation.

<u>4. Under-recovery and the "k" factor.</u> I understand the difficulties currently facing Phoenix in terms of pricing to market levels in order to develop the business and the implications this has

for Phoenix in terms of the accumulation of an under-recovery commonly referred to as "k". This is a wider issue outside the price control exercise and one we can discuss in the future.

I'd like to take this opportunity to fully thank you and those of your staff who have worked so hard to provide the Ofreg team, my consultants and myself with the information we required and am grateful for the co-operative attitude displayed by Phoenix.

I await your formal response to the two proposed licence modifications. Once received, we will proceed with processing the modifications as set out in the Gas Order.

Best Wishes

DOUGLAS McILDOON

1. INTRODUCTION AND SUMMARY

The purpose of this paper is to set out the rationale for deriving the P_i values set out in Table 1 below. Given the revenue stream agreement reached in the first price control in 1999, these values are calculated to generate a positive £131.885m cashflow in 1996 NPV terms and therefore fulfil licence condition 2.3.13. The figures are based on Ofreg's view as to the level of capital and operating expenditure that Phoenix Natural Gas's Conveyance Business will need to incur over this period to enable it to finance its licensed activities and our view of the associated volume sales.

Domestic (firm below 2500 therms per annum)	Small and Medium Industrial and Commercial (firm between 2500 and 75000 therms per annum)	Large Industrial And Commercial (firm over 75000 therms per annum)	Interruptible	Transmi ssion Only	Weighted average transportation charge (P ₀)
39.55	32.38	16.46	14.51	4.54	31.21

Table 1 P_i Values (pence per therm)

The overall Parameter forecasts of expenditure (C_t , O_t , G_t , Q_t), cashflow (F_{0t}) and volumes (V_{it}^f and W_{it}^f) for the period 2002 to 2016 are given in Appendix 1 and appendices 1(a) and 1(b) give a more detailed capex and opex forecast split.

In arriving at the projections on expenditure Ofreg commissioned consultants to examine the plans for expenditure for the period from 2002-2016 put forward by Phoenix Natural Gas's Conveyance Business and to consider the performance of the Conveyance Business in the first price control period. On the basis of final reports prepared by these consultants and the subsequent discussions both prior to and following on from my "minded to" proposals, I then formed a view as to the reasonable level of expenditure that should be allowed. In the succeeding analysis I will outline my reasoning in arriving at the relevant forecasts.

Section 2 of this determination paper sets out the background to our decisions and agreements with Phoenix. Section 3 deals with our agreement on volume forecasts. Sections 4 and 5 deal respectively with our detailed views on capex and opex projections. Section 6 sets out for completeness in this Price Control, and for ease of reference for our successors at the next Price control, an explanation and table explaining the various "retrospective mechanisms"

included as part of my determination. We have also included a section (Section 7) dealing with the general operation of Phoenix Natural Gas's Conveyance Business. This section highlights some factors which in our capex consultant's opinion militate against the optimal operation of this Business and suggests mechanisms for improving its operation.

2. BASIS FOR CAPITAL AND OPERATING EXPENDITURE PROJECTIONS

In arriving at the projections on capital and operating expenditure Ofreg commissioned W S Atkins and Pannell Kerr Foster (PKF) respectively to examine the plans for expenditure for the period from 2002-2016 put forward by Phoenix Natural Gas's Conveyance Business. Their final reports were prepared for Ofreg following a series of meetings with Phoenix Natural Gas (Phoenix) and a review of data provided by them. The reports set out the consultants' positions on Phoenix's capital and operating expenditure requirements from 2002 to 2016 and a review of Phoenix's expenditure performance in the first Price Control period. These reports and subsequent discussions formed the basis of my "minded to" proposals.

The final reports of the consultants together with the useful discussions on the "minded to" proposals have enabled Ofreg to form a view as to the level of capital and operating expenditure that Phoenix's Conveyance Business needs to finance its licensed activities over the period from 2002-2016.

Our conclusions are examined in detail below.

3. VOLUME ASSUMPTIONS

Based on the forecast connections explained in section 4 below, total annual domestic volumes forecast for Phoenix from 2002 to 2016 are shown in the table below and are based on forecast connections and average therm usage per connection in the various P1 sub-sectors. We have decided to accept Phoenix's view of the time lags between connection and burn even though the performance in 2001 and our consultants indicated a shorter lag time. For the other sectors we have agreed that the Phoenix forecasts will be used.

The assumed volume forecast is as follows:

	2002	2003	2004	2005	2006	2007
P1 sector	20,686	30,216	40,456	51,177	60,573	71,650
P2 sector	15,929	18,141	19,686	20,656	22,270	23,565
P3 sector	13,978	14,258	14,543	14,834	15,131	15264
P4 sector	24,174	24,174	24,174	24,174	24,174	24,361
P5 sector	0	0	0	0	0	0
Total volumes	74,768	86,789	98,859	110,841	122,148	134,840

VOLUMES 2002 TO 2016 (000S Therms)

2008	2009	2010	2011	2012	2013	2014	2015	2016
82,885	92,933	101,785	109,645	115,566	121,045	126,489	132,214	137,050
24,590	25,297	25,732	25,982	26,100	26,158	26,206	26,253	26,302
15963	16398	16547	16627	16744	16877	17010	17063	17063
24,324	24,537	24,591	24,698	24,858	25,114	25,371	25,499	25,499
0	0	0	0	0	0	0	0	0
147,762	159,165	168,655	176,952	183,268	189,194	195,076	201,029	205,915

4. CAPITAL EXPENDITURE

Based on the capex consultants reports and subsequent discussions with Phoenix, there emerged a number of key issues which were constructively debated. Our decisions under each are addressed below.

Forecasts of connections

Domestic

Based on our consultant's advice we considered in our "initial thoughts" that Phoenix's forecasts in the original submission were based on penetration profiles which, while based on reasonable assessments, were inevitably uncertain and that the number of owner occupier connections proposed appeared high in certain years. In PNG's subsequent proposals on connections you suggested revised forecasts of NIHE, new build and owner occupier connections. We have taken on board your revised forecasts for new build and NIHE connections and have used a owner occupier connections profile below that suggested by our consultants but slightly above that in your re-forecasts. The revised profile is as Phoenix forecast for 2002-2004. From 2005 to 2010, owner occupier connections is based on proportions of owner occupier properties passed. This proportion varies over the years starting at 5% in 2005, then running 6%, 6.5%, 6%, 5%, 4% in subsequent years. The remaining years (2011 - 2016) are then backsolved to give the total owner occupier connections contained in your submission.

Our revised profile is shown in Appendix 2 (and includes the very small I&C connections in the P1 category).

However, in recognition that there are inevitably uncertainties about the above and given Ofreg's desire not to impede the development of the gas roll out, we have agreed to put in place a mechanism that ensures that Phoenix recovers the cost of any domestic connections above the total domestic annual agreed level. The mechanism will also come into play in reverse if the opposite occurs and Phoenix fails to reach the agreed annual connections forecast. This mechanism will work as follows and is further explained in Section 6.

The cost of domestic connections achieved <u>above</u> those forecast in Appendix 2 will be included as an allowable cost at the time of the next Price Control. The amount to be recovered will be the product of the number of extra domestic connections (above that forecast) in that year multiplied by the unit cost agreed at this Price Control. This mechanism will also operate if total domestic connections is below those forecast. Hence, if the number of domestic connections achieved by Phoenix falls <u>below</u> the yearly levels forecast, the underspent capex (ie that number of connections multiplied by the relevant unit cost for that year) will be retrospectively disallowed at the next price control.

For the avoidance of doubt, volume differentials between our forecasts and actuals will <u>not</u> be built into the retrospective mechanism.

I&C Connections We accept Phoenix's submitted figures.

Efficiency improvements

Our consultants advise that it would be prudent to make adjustments to your submission to reflect what we view as being realistic and achievable efficiency gains. We note that in your capital expenditure proposals no allowance has been made for any such general efficiency improvements as knowledge and expertise within Phoenix grows, procedures improve and general efficiency gains seen throughout the economy feed through into your operations.

Based on our consultant's advice at that time, our previous regulatory agreement report not only set out our proposals for the capex expenditure but also set down a list of suggested actions for Phoenix in order to assist them to achieve higher efficiency and effectiveness. We acknowledge and welcome that some improvements have been made that will have contributed to the efficiency improvements seen in Phoenix over the last number of years. Our consultants feel however that there are still some areas for improvement which could help to contribute to further efficiencies within Phoenix. For example, we had suggested that Phoenix take a more structured and analytical approach to management information and analysis. Our consultants are not convinced that this is happening to a sufficient level and would like to see more complete and organised plans and targets plus analysis of past performance. We have outlined more fully our consultant's suggestions in this area in Section 7 below.

The derivation of an appropriate capital efficiency factor is not an exact calculation but more a comparative view based on a number of elements: historical achievement by Phoenix in achieving high year on year efficiency gains; the relative performance against other gas and similar utilities in planning and managing assets; and the potential to bring in new technologies, improved procurement and design effectiveness. We have therefore taken a broad view of these factors in proposing an appropriate efficiency profile.

Based on the consultant's advice and our subsequent discussions, our proposals on efficiency are that given the industry trends and potential for ongoing savings, an annual efficiency factor of 2% for the first three years of the next Price Control period is appropriate. We propose to apply this efficiency factor to distribution capex via the yearly unit costs applied. The efficiency factor will not be applied to the "infill" unit cost nor to the "other capex" or "engineering other" lines – the latter includes largely the management fee and network code expenditure forecasts both of which are addressed seperately below. As with other efficiency factors elsewhere in the Price Control, we have agreed that these will be reviewed at the time of the next Price Control.

Unit Costs

The Table below shows the various unit costs proposed for calculating Phoenix's expenditure under the main headings. We have decided to accept your arguments concerning the need for your unit cost estimates for 4 bar and feeder mains. However for the "infill" unit costs we have decided to use a £21.50 unit cost, although as mentioned above, no efficiency factor will be applied to this infill unit cost in light of your argument as to the likelihood of reduced future use of the cheaper "insertion" technique.

Phoenix are proposing to install prepayment meters in 33% of new domestic connections in the next Price Control. Since the licence sets down a ceiling of 13% for allowable cost we have used this value in our calculation of the weighted unit cost of domestic meters. Phoenix have suggested that you intend to seek a licence modification to have this limit raised. I have decided to agree that the extra costs associated with a raised level of prepayment meters will be allowed retrospectively at the time of the next Price Control. See section 6 for further details.

For pressure reduction stations Phoenix have forecast the cost of individual units based on their capacity. We have accepted Phoenix's estimates however the actual cost in both 1999 and 2000 were much lower than forecast and we would like Phoenix to ensure that they have systems in place to regularly update their forecasts in the light of actual performance.

	2002
7 bar £/km	134
4 bar £/km	63
PRS £/unit	As costed
Infill £/km	21.50
Feeder £/km	44
Domestic £/services & meter	396
I&C £/services & meter	1040
Large loads £/services & meter	32000

Management Fee

Phoenix proposed to base the Management Fee on 18% of distribution capital spend rather than the methodology outlined in the Regulatory Agreement which was based on a formula identifying fixed and variable elements of the relevant spend up to 2007 and a straight 15% thereafter.

Our consultants were informed that the reasons for this increase are factors such as: -extra training costs;

-increased fuel costs - since the network has expanded over a wider area and the new works site are more dispersed;

-increased focus by local government on the safety of works sites leading Phoenix to introduce a new improved barrier system which they argue will increases costs by £80,000 to $\pm 100,000$ per year;

-Phoenix now have to pay a higher proportion of the utilities communication system due to lower workloads of the other utilities.

We consider that there are counter arguments working to reduce the relevant costs such as the co-location of McNicholas and Phoenix, which will bring significant communication benefits and efficiency gains. Also since McNicholas have won the new contract there should be significant continuity benefits such as reductions in training required for learning a new contractor's processes and systems. In addition, the extra fuel costs argument should have been anticipated and factored into the cost forecasts at the time of the last Price Control.

We intend to follow Phoenix's methodology of applying a straight percentage of distribution capex as the derivation of this figure. However we have asked our consultants to make some comparisons to test the level of Management Fees elsewhere and we feel that the 18% level proposed by Phoenix is high. We consider that the actual level should be reduced to the 15% figure used in the last price control, which is more akin to the average levels seen in other management fees. However in recognition of Phoenix's arguments to us on extra costs and to give Phoenix time for the Phoenix/McNicholas co-location economies to bed in, we propose to stagger the reduction from 18% to 15% over several years, i.e. 2002 - 18%, 2003 - 17%, 2004 - 16%, 2005 onwards 15%.

In addition there is the issue of the appropriate level of capex to apply this percentage to. The allowed level of management fee spend at the time of the last Price Control was linked to the allowed level of distribution capital spend and its related activity. Given that some of this same activity/capital spend was then deferred to post 2002, it would be inappropriate to allow this element of deferred capital spend to again command the 15% management fee (in effect the management fee related to the same piece of capital spend would be double counted). To calculate the management fee line for 2002 onwards, we have applied the management fee percentage to total distribution capex net of deferrals.

As regards the mechanism set out above and in Section 6 for the inclusion of extra allowable costs if the number of domestic connections in a given year rises above that forecast, or the exclusion of the appropriate spend if the number of connections falls below that forecast, there needs to be a related adjustment for associated management fee expenditure. Accordingly, we consider that Phoenix will be allowed an amount of management fee spend to cover the extra connections above forecast, equivalent to the resulting extra retrospectively allowed capex multiplied by the relevant management fee percentage. Similarly, if connections turn out below those forecast, the appropriate amount of management fee will be retrospectively clawed back.

Network Code Costs

The previous regulatory agreement allowed £6m for the cost of network code capex (for clarity-this was included under the "engineering other" line, rather than the "other capex" line as noted in the regulatory agreement) although this £6m was subject to a 2% efficiency deflator. However the agreement noted that there was no firm basis for this spend at that time and hence specifically allowed for the disallowance of half of this amount at the time of the current review subject to full justification of the £6m figure. We have discussed this and as you know it is our belief that the costs underpinning this element are still not based on any firm foundation, have not been adequately justified and appear unduly high when considered against elsewhere.

We intend to invoke the mechanism agreed with the Director General at the time of the last Price Control and allow a total network code capex spend of a value of £3m.

The Treatment of Deferred Capital Expenditure.

We accept the unit deferred table put forward in capex 6.1.1 version 3 and as agreed will subtract the value of the deferred capex from your proposed capex spend – that value to be calculated based on the above unit costs.

5 OPERATING EXPENDITURE

In assessing the level of operating expenditure that an efficiently run Phoenix Conveyance Business would require in order to undertake its licensed activities a thorough and detailed analysis has been conducted of this business's actual and projected operating costs as contained in the 2001 Base Value Submission and subsequent re-submissions. This analysis was conducted against the background of the definition of Allowed Operating Expenditure and Working Capital Adjustment set out in condition 2.3.15 of Phoenix's conveyance licence. The conclusions that I have drawn from this analysis are set out below with each category of cost being examined in turn.

Transmission Costs

Operations Allowed as in Phoenix submission.

Inspection Allowed as in Phoenix submission.

Own use Gas Amended to reflect 0.1% of <u>revised</u> volumes.

Site and utility services

Site and utility services relate to electricity, security and certain maintenance costs. As with Operations costs, this category of expenditure is now being projected at less than those proposed by the Regulatory Agreement and maintained at a fixed level throughout the period. This category of expenditure is based on the following annual costs:

	£000
Electricity – Knocknagoney	7
- Torytown	2
Maintenance	4
Pressure regulators	9
Security monitors – Ballylumford	8
	30

Given the reduction in the absolute level of costs now being forecast we do not propose that this category of costs should be subject to any further deflation. The higher costs in 2002 and 2003 relate to flow meter replacements, which are anticipated to be required in these years. The underlying cost of £30k per annum for other costs is unchanged. The flow meter replacements were originally planned for 2000 and 2001 and we are of the opinion that this

expenditure has already been treated as allowable under the Regulatory Agreement. This expenditure should therefore be disallowed in the current review period.

Control and Information Services and Maintenance & Emergency response services The costs arise from contracts with Transco and are for Control and Information Services and Maintenance and Emergency Response Services ("MERC"). Both of the related contracts were subject to re-negotiation in the period since the last review and costs are below those levels envisaged by the Regulatory Agreement. These contracts have still not been subject to competitive tendering on the grounds that Transco is the only practical supplier of these services. As the contracts are all for two years, the possibility of competitive tendering should continue to be explored, particularly as the market develops, on expiry of these agreements either for bundled or individual services.

As noted at the time of the first price control, Transco is a "monopoly" supplier and its own costs are subject to regulatory review. The last Transco review resulted in a one-off reduction in prices of some 20% and an RPI - 2% deflator thereafter. PNG noted however that the actual first year reduction was restricted to only 9% because of various correction factors and Ofreg accepted this argument. Although it was suggested at the time that the -2% deflator be applied throughout the whole period, the Regulatory Agreement noted that the deflator would apply to the then current Price Control period and that this would be reassessed at this review.

In our view the principle remains that charges through to PNG should reflect the efficiency savings sought by OFGEM on Transco's regulated business.

PNG will have to renegotiate its MERC and Control contracts again towards the end of 2001 and should be seeking to reduce its costs further. Initial proposals from Ofgem suggested that Transco should be able to make ongoing efficiency savings efficiency in the region of 2-4% per annum. Based on this, Ofreg made initial proposals that a 3% efficiency deflator should be applied to the PNG spend on Transco contracts in the coming Price Control period.

We note that latest indications are that Ofgem have made "final proposals" on relevant deflators of 2.5% per annum. However, given your arguments that some level of ad hoc costs may arise in the future as the Phoenix system ages, which to a degree will offset the gains from the proposed efficiencies, we have decided to apply a lower efficiency deflator of 2% to PNG's proposed spend on a cumulative basis to the end of the current Price Control period (to be reviewed then).

Land-owner liaison compensation

Land-owner liaison compensation comprises two elements, an underlying consultancy fee of $\pounds 20k$ per annum plus the actual cost of the compensation to be paid. The consultancy fee is for the use of an agent who visits the areas through which the transmission pipe passes and liaises with land owners on issues of drainage, crop loss and various complaints. At present there is apparently no one within PNG who has the expertise to perform this specialised service. However, it is worth noting that this cost does not continue indefinitely and we are of the opinion that as the majority of construction work on the main pipeline has been

completed this role should become less important. In particular we do not consider it costeffective to be incurring £20k of consultancy fees to administer, in 2009 for example, £2k of actual compensation. Indeed the projected costs appear to substantially exceed any costs incurred to date and apparently no cost has been budgeted for 2001. Forecast costs for 2000 are only £18k, just under 50% of the estimated cost for 2002. We are of the opinion that PNG should allocate an existing member of staff to takeover this role as soon as possible. In our view an allowance of 50% of that projected is reasonable based on the ratio of actual 2000 costs to those forecast for 2002.

Distribution Costs

Odorisation-environmental duty Allowed as in Phoenix submission.

Grid control, Telemetry and other Distribution costs

As appropriate in this section we have amended the value of the various cost drivers to reflect the overall regulatory agreement values, e.g. agreed level of cumulative distribution capex.

The largest cost within this category is for Operational Maintenance, which is provided by Transco under their contract dated 1 October 1997 for the "Provision of Commissioning and Monitoring Services in relation to the Belfast Distribution System". The estimated cost of the contract in 2002 is £135,000 (£113,000 in 1996 values). We believe that efficiencies should continue to be driven through this contract. As elsewhere, we have decided on 2% to the end of the current Price Control period. This deflator has only been applied to the fixed element of maintenance costs and plant protection.

We have been informed that the unit costs are based on actual experience to date. Certain items are driven by cumulative capex. We have discussed the rationale for this with WS Atkins who consider that this is a somewhat simplistic approach and that if capex is to be used as the basis then it should be the relevant capex. For example, the governing site costs element of the IT monitoring costs is dependent on the number of PRSs and customer meter monitoring costs on the number of large customers. Based on an extrapolation of the existing number and related costs in respect of the PRSs we estimate that costs in 2016 should be of the order of £19k rather than the £43k estimated, a saving of £24k. Similarly meter monitoring costs should be in the region of £13k in 2016 as compared with the £25k estimated. We have adjusted these costs based on the number of PRSs and number of large customers using 2001 budgeted costs as the base figure.

Compensation payments are incurred when there is a loss of supply. Whilst some of this cost may be due to inefficiency on the part of Phoenix, some will be caused by factors outside Phoenix's control. We intend to allow 75% of the proposed costs to reflect this.

Temporary fuel costs are incurred when customers have expressed the wish to change to natural gas but are unable to do so immediately because, for example, there may be some

delay in making gas available. In the interim customers are provided with LPG as an alternative. We consider that these costs should be allowed for the coming Price Control period as this coincides with the period when the network is being substantially developed. The need for this spend will therefore be reviewed at the next Price Control.

Network code opex costs

Proposals by PNG for forecast spend under this heading were based on assumptions as to both the volume of relevant activity (number of competitive suppliers, the number of competitor customers, the number of licence modifications), and to the level of costs associated with each of these three activities. We believe that there is a significant amount of uncertainty attached to the forecasting of these costs.

Given that there is so much uncertainty over the extent and nature of future costs under this heading and the lack of evidence for the proposed activities and costs underlying the spend forecasts we have decided to amend the required level of opex spending under this heading. In addition, there is also an argument that the significant element of network code opex costs will relate to manpower resourcing of the work and therefore the required spend should have been covered by the proposed manpower FTE levels dealt with below.

Nevertheless we do recognise that there will be a requirement for some level of resource and hence cost within Phoenix Conveyance to be allocated to gas supply competition issues. We believe however that this should be minimal in the short term as neither of the two other gas suppliers currently holding licences has achieved any customers and opportunities for further gas competition are limited in the short term.

Based on one of the Transco figures used by Phoenix the minimum estimated costs for two suppliers in the market, is in the region of £40,000. In our view, until there is sufficient evidence of a number of suppliers wishing to enter and effectively compete in the market, projected costs over and above this minimum requirement are purely speculative and should currently not be accepted as allowable costs for Price Control purposes. We have therefore adjusted these projected costs to a constant £40k in each of the years 2002 to 2006. For the 2007 to 2016 period, given the lack of clarity on the level of required opex spend on network code issues, it is our intention to review the required level of network code opex spend at the time of the next Price Control review to determine the required spend for the 2007 to 2016 period with the benefit of actual experience at that stage providing a firmer cost foundation.

Service Agreements – Emergencies

As with other areas of contracted spend, we have decided to apply a 2% efficiency deflator to the unit costs in the three relevant areas of spend - Heat, McNicholas and Killingworth up to 2006 with this to be reviewed at the next Price Control.

We accept your methodology for the McNicholas and Killingworth contract underlying costs. For the Heat contract, we note that your re-submitted figures represent a significant deviation

from your original submission. You argue that this is caused by experience in 2001 of a higher number of Service Work Requests. Although we have some difficulty accepting your re-submitted figures on this because it is very difficult to work out the different underlying costs and their drivers, we have decided to allow extra expenditure based on 5000 SWRs per annum. With so much uncertainty over these costs we have decided to only apply these extra costs up to the start of the next price control. Clearly all parties will be much better informed then on an appropriate methodology and cost profile for determining these cost lines. We have also decided to maintain the deflator on customer numbers at that set out for the "minded to" proposals.

The calculated allowed spend will of course be driven by the final agreed figures for the relevant cost drivers (distribution capex and customer numbers burning).

Insurance

With reservations, we have decided to allow the revised PNG revised forecasts of Business Interruption Insurance at £250k per annum with 95% allocated to Conveyance. However we are concerned at the very significant increase in these forecast costs from the original submission. In light of our discussions on the treatment of insurance costs and the uncertainty surrounding particularly the Business Interruption costs, we have decided to include this cost in terms of both an actual annual over spend or actual annual under spend in the retrospective mechanism as detailed in Section 6.

Given the significant forecast cost rises, we consider that it would be appropriate to place a cap on the overall limit of allowable costs. Broadly, we intend that Phoenix will be allowed to recover any differential between 95% of the actual level and our allowed Business Interruption insurance cost up to a maximum of +25% of our allowed costs per year. Any under-spend will be retrospectively disallowed and therefore clawed back.

Other insurance costs are derived from the PKF methodology adjusted to remove Business Interruption with the cost drivers already agreed with you.

Free Gas Safety Check

We understand that the free gas safety check is available under PNG's Energy Care Scheme, which it must operate under its licence. The scheme provides additional facilities to customers who are older, disabled or chronically sick. We understand that this scheme was arranged as a result of licence conditions 3.12 and 3.13 and is therefore only applicable to PNG's supply business. These costs have, therefore, been disallowed. As the competitive market develops we may decide to review the justification for placing these costs into the conveyance cost base.

Unaccounted for Gas

Unaccounted for gas is gas that is lost as a result of damage or theft, or can arise as new connections are commissioned. This is estimated at 0.4% of total volume at 22p per therm. We are of the opinion that unaccounted for gas represents to some degree certain costs that

may be covered by insurance e.g. damage and theft and also think that the amount of therms lost based on the 0.4% figure appears unduly high. With the actual figures submitted being negligible, we see little justification for such costs rising to the levels projected. Based on the above we intend to allow costs based on 0.3% of volumes up to 2010, then 0.2% of volumes thereafter as the number of connections per annum declines.

Rates

As agreed with Phoenix in 12.3 version 3.

Manpower

Direct Manpower Costs

We have decided to allow the forecast total FTE numbers in the Phoenix business as a whole including the extra 8 FTEs in sales from 2005 onwards and the proposed salary levels. However in terms of FTE allocation between conveyance and supply, following our discussions on the manpower issues we propose to apply the allocations as shown in Appendix 3 to the agreed manpower levels. This appendix shows the impact of the introduction of market development associated manpower into the figures from 2005 onwards.

The resulting overall manpower allocations to conveyance for this and the remaining Price Control periods are:

	2002	2003	2004	2005	2006	2007-11	2012-16
%	52.27	50.31	51.62	80.86	80.56	77.63	67.07

Director's Expenses

Directors expenses have been fully allocated in your proposals to conveyance. We do not consider that this is appropriate and are of the opinion that the allocation of these costs should match that of the CEO.

All Other Staff-related Costs

Some other manpower associated costs are driven by manpower numbers (i.e. recruitment pensions and life assurance). These costs have been amended to reflect the FTE conveyance staff allocations noted above. Other manpower associated costs are driven by higher proportions of costs falling into conveyance (e.g. company cars and travel/subsistence). We have amended these costs accordingly to reflect the higher allocations.

Office and Related Costs

Office costs

Based on Phoenix's estimates we estimate a reasonable office cost, inclusion of rates and running costs in 2002 to be as follows:

	£000	
Rent	303	
Facilities management	26	
Rates	148	
Cleaning	11	
Energy	43	
Office equipment	23	
Catering	13	
Maintenance	41	
Other	8	
	616	

The corresponding totals for 2003 onwards are: $2003 - \pounds 608k$, $2004 - \pounds 600k$, $2005 - \pounds 591k$, 2006 onwards $\pounds 635k$. We propose to allocate to conveyance an amount estimated using the percentages set out above for the manpower allocation.

IT opex

Phoenix provided an analysis of IT showing corporate system costs of £93k (in 2002), Custima (customer management system) £43k, transportation systems £259k and ancillary costs of £40k

Also included within Conveyance IT expenditure are energy balancing costs, £39k in 2004 and approximately £16k per annum thereafter. These costs relate to systems that will be required when competitors enter the market. We have included allowed spend elsewhere in the distribution costs in relation to gas supply competition costs and consider that sufficient for all relevant costs up to review in 2007. These energy balancing costs will therefore be disallowed and reviewed in 2007 together with other supply competition related costs.

In our view a reasonable allocation of the IT costs would be:

Corporate systems	-	same as manpower percentage allocation
Custima	-	to Supply
Transportation	-	to Conveyance
Ancillary costs	-	same as manpower percentage allocation

Corporate systems comprise finance, human resource and telephone systems. We have agreed

to allocate the Corporate opex costs on the basis of the manpower allocators. Custima is a billing system and therefore relates entirely to the supply business. The transportation systems relate to various aspects of the conveyance system e.g. the DRS will monitor the capital assets, and hence is fully allocated to conveyance. The various ancillary costs include cabling and consumables, car kits, mobile phones etc and have been driven by PNG on the basis of manpower numbers. We have therefore reallocated these costs on the basis of our manpower allocation percentages.

Postage and Telephones

We accept your latest resubmission on these costs and allocators including the core and market development allocations for postage costs. We have amended as necessary to reflect the now agreed manpower allocators.

Bad debts

Provision has been made for bad debts based on 0.25% of net transportation revenue. Given the likely nature of PNG's "customer" companies in the conveyance business (blue-chips) we do not consider that any bad debt allowance should be made.

Customer support services Allowed as in Phoenix submission.

Other costs

Security costs have been allocated on the agreed manpower allocator basis. The individual components of stationary costs have been allocated on two different bases – fixed costs on a manpower basis and variable costs increasing from £15k to £29k. We have reallocated fixed costs based on the manpower percentages discussed earlier.

Advertising and PR

The advertising costs stem from the licence definition of Allowed Operating Expenditure as follows:

"The Allowed Operating Expenditure will include an allowance for advertising, promotion and public relations costs as reported in the financial statements required by Condition 1.3, that allowance being no more than the following amounts in the relevant Formula Years: 1996 £1.1 million 1997 £1.1 million 1998 £1.1 million 1999 £0.55 million and as such amounts thereafter as the Director determines are attributable to the business of the Licensee in providing conveyance services;"

The previous Regulatory Agreement specified costs of £350,000 in 2002, £200,000 in each of 2003-2005, £110,000 in 2004 and £100,000 thereafter.

We agreed that advertising/PR spend should be viewed as either "market development" or supply activity. As agreed in terms of "market development" issues, no costs will be allowable in 2002-2004. From 2005 onwards, the market development element of advertising/PR spend will be allowable. We have however explicitly agreed that this allowable spend will be solely for generic gas advertising and not for the self-promotion of the "Phoenix" brand name. Therefore I intend to keep an active watching brief on this expenditure and will discuss with you in 2004 the appropriate ways to spend this allowance.

Licence, Legal and Professional Costs

Licence Fee

We have been looking at licence fees in the wider context of reviewing the methodology Ofreg uses to allocate the licence fees and feel that your forecast figures for licence fee expenditure are somewhat high. Therefore we intend to allow a per annum figure of $\pounds 250k$. However, given the lack of control Phoenix have over this and the possible impact of further gas licences on the value of the licence fees allocated to Phoenix, we have decided to include a retrospective mechanism for licence fees at the time of the next Price Control – allowing any spend required by Phoenix above that allowed level and disallowing any underspend. This item is further identified in Section 6.

Agency Staff

We accept the need for these staff and agree to your forecast totals and associated direct and indirect costs.

Shareholders Expenses

We have agreed to the total of these costs and to splitting these costs in the same way as the CEO manpower costs.

Consultancy costs

We discussed the issue of your consultancy requirements. On the basis of these negotiations following on from the minded to proposals, we have agreed to an overall reduction of $\pounds 45k$ from your submitted totals.

Audit

Audit costs are estimated at $\pounds40,000$ and comprises two elements, $\pounds25,000$ for the statutory audit and $\pounds15,000$ for the regulatory audit. The regulatory audit is, of course, peculiar to the conveyance business, the statutory audit is required for the business as a whole. 85% of the statutory audit fees are allocated to conveyance, with no change to the allocator over time. We consider that as the supply part of the business becomes more established and provides a greater contribution to the overall business then it should bear a greater proportion of the

statutory audit costs, increasing to 50% in due course.

BG Service Agreements

The Service Agreement costs relate to contracts with BG for the provision of various services. Corporate/Other, HR Resource Services and Insurance Services are all based on historic retainer costs. All other services – Management Consulting, Engineering Consulting, Technical Service (Health and Safety, and Technical Services (Legal) – are based on a given number of days of advice at £1,000 per day. We consider that these contracts should also be subject to the same efficiency deflator as dealt with above -2%.

We taken your figures for resubmitted BG service agreement costs including the various cost drivers used. We have applied the agreed manpower allocators as necessary and a 95% allocator for insurance services.

Market Incentives

The level of allowable market incentive spend agreed is set out in the table below.

First, to clear up the matter of allowed incentives from the first price control period, we intend to include an allowance in 2002 for the extra incentive allowance agreed with OFREG in June 2000 – this equates to ± 341 k in 2002 (± 209 k in 1996 NPV terms). I also intend to allow other market incentive spend in 2001 which Phoenix wish to have retrospectively included on the "warmth" "free cooker" and "half price gas" schemes. In total these amount to an additional $\pm 1,112,000$ retrospective allowance.

Table 1: Allowed Expenditure on market incentives (000)								
2002 2003 2004 2005 2000								
Retrospective 2000	1112	0	0	0	0			
allowance								
Domestic incentive	200	200	200	200	200			
allowance								
I&C incentive allowance	99	37	23	0	0			

We have agreed on the treatment of "market development" costs – part of which relate to domestic incentives. Basically, in light of a review in 2004/05 we will agree as to the appropriateness and need for market incentive expenditure for 2005 onwards. If we consider it appropriate, we intend to allow market development related costs for 2005 and 2006 retrospectively at the next Price Control but consider that it will be prudent to evaluate again the role and extent of incentives at the time of the full opening to competition and with three years of operation to consider further the performance of and justification for these incentives. Both

parties would be in a much firmer position to assess the need and level of incentives necessary then for the 2005 and 2006 years of this Price Control period then and any allowance agreed at this moratorium for 2005 and 2006 would be factored into the next Price Control as allowable spend in a similar manner to that set out in the opening paragraph of this section.

As regards other "non-market-development" domestic incentives, I consider that the market incentives expenditure I have allowed to be included in the conveyance cost base should be directed towards energy efficiency schemes as vouched through the normal EST route. The amount allowed above (£200k per annum) is the maximum permitted for inclusion in the conveyance cost base for 2002 to 2006 and will not be subject to further additions during those years. Any domestic market incentive spend not used for energy efficiency schemes will be retrospectively clawed back at the time of the next price control.

We have agreed to the I&C allowance as set out in the table with the market incentive spend identified being that applicable to the competitive market segment. The moratorium after 2004 will again be reviewed in 2004/05 to review the need for I&C incentives at that stage.

6 **RETROSPECTIVE MECHANISM**

There are $\underline{6}$ areas set out in this regulatory agreement where we have identified certain items of spend which will be either retrospectively allowed or disallowed at the time of the next Price Control. Appendix 4 sets out in tabular form the six areas of the retrospective mechanism and the agreed mechanism of calculation. The general principle applicable to this retrospective mechanism is that the associated costs will be either allowed or disallowed at the time of the next price control based on 1996 NPV values (i.e. taking into account the time value of money). Also, for the sake of clarity, the retrospective mechanisms will work on an annual basis, i.e. there will be no accumulation of over or under – recoveries between years.

Domestic connections

We have agreed to put in place a mechanism that ensures that Phoenix recovers the cost of any domestic connections above the total domestic annual level agreed for this Price Control. The mechanism will also come into play in reverse if the opposite occurs and Phoenix fails to reach the agreed annual connections forecast.

The cost of domestic connections achieved <u>above</u> those forecast in Appendix 2 will be included as an allowable cost at the time of the next Price Control. The amount to be recovered will be the product of the number of extra domestic connections (above that forecast) in that year multiplied by the unit cost agreed at this Price Control. This mechanism will also operate if total domestic connections is below those forecast. Hence, if the number of domestic connections achieved by Phoenix falls <u>below</u> the yearly levels forecast, the underspent capex (i.e. that number of connections multiplied by the relevant unit cost for that year) will be retrospectively disallowed at the next price control.

Management Fee

As regards the item above for the inclusion of extra allowable costs if the number of domestic connections in a given year rises above that forecast, or the exclusion of the appropriate spend if the number of connections falls below that forecast, there needs to be a related adjustment for associated management fee expenditure. Accordingly, we consider that Phoenix will be allowed an amount of management fee spend to cover the extra connections above forecast, equivalent to the resulting extra retrospectively allowed capex multiplied by the relevant management fee percentage. Similarly, if connections turn out below those forecast, the appropriate amount of management fee will be retrospectively clawed back.

Prepayment meters

Phoenix are proposing to install prepayment meters in a significantly increased proportion of domestic customers in the next Price Control. Since the licence currently sets down a ceiling of 13% of total meters being prepayment for conveyance "allowable cost" purposes, we have used this value in our calculation of the weighted unit cost of domestic meters. Phoenix have suggested that they intend to seek a licence modification to have this limit raised. I have decided to agree that the extra costs associated with a raised level of prepayment meters will

be allowed retrospectively at the time of the next Price Control based on the extra costs identified in the Appendix 4 table.

Insurance

We have decided to allow the PNG forecasts of Business Interruption Insurance at £250k per annum with 95% allocated to Conveyance. However we are concerned at the very significant increase in these forecast costs from the original submission. In light of our discussions on the treatment of insurance costs and the uncertainty surrounding particularly the Business Interruption costs, we have decided to include this cost in terms of both an actual annual over spend or actual annual under spend in the retrospective mechanism.

Given the significant forecast cost rises, we consider that it would be appropriate to place a cap on the overall limit of allowable costs. Broadly, we intend that Phoenix will be allowed to recover any differential between actual and our allowed Business Interruption insurance cost up to a maximum of +25% of our allowed costs per year. Any under-spend will be retrospectively disallowed and therefore clawed back.

Licence Fees

We have currently allowed a per annum figure of $\pounds 250k$. However, given the lack of control Phoenix have over this and the possible impact of further gas licences on the value of the licence fees allocated to Phoenix, we have decided to include a retrospective mechanism for licence fees at the time of the next Price Control – allowing any spend required by Phoenix above that allowed level and disallowing any underspend.

Market Incentives

As explained more fully in section 5 above, in light of a review in 2004/05, if it is considered appropriate to include market incentive costs in the conveyance cost base for 2005 and 2006, then these will be retrospectively allowed at the time of the next Price Control.

7 GENERAL ISSUES RAISED BY THE CAPEX CONSULTANTS

Background

The final section of the last price control suggested, based on the consultant's advice at that stage, some actions that Phoenix might consider in order to improve their business efficiency and effectiveness.

The actions identified were aimed at various goals. We hoped that the proposed changes to Phoenix's processes would contribute to a more transparent capex review process. Some, such as benchmarking and cost analysis, should have directly assisted Phoenix to improve its efficiency and effectiveness. Others such as capex monitoring would utilise Phoenix management information to inform us and should ensure greater shared understanding of the business of delivering a natural gas system in Northern Ireland.

General

Our consultant's views for this exercise are that though some of the proposals have been implemented, many of the key proposals have not been taken up by Phoenix. They tell us that:

they have no evidence of comprehensive cost analysis of the Work Packages.

they have seen no impact of the impact of value engineering as a means to provide technical innovation;

they remain unconvinced that strategic planning is more structured and transparent. Phoenix has not developed a capex model.

though you have a medium term demand forecasting model, the important link through to capex is missing, therefore sensitivity and scenarios cannot be tested in a holistic fashion.

Phoenix appear not to use capital efficiency targets;

Phoenix do not have an annual plan in the form they would expect. The 1999 Development Plan Report (the latest plan that they saw) is primarily concerned with past performance and contains no numerate forecasts. Phoenix appear to perceive a series of linked spreadsheets as their business plan. They consider that without a proper written discussion it is difficult to understand how such a plan works.

It would appear vital that Phoenix improves its strategic and business planning. Phoenix needs to consider the matter of the focus on engineering (without affecting the improved concentration on customers). You also need to decide, in a structured fashion, what the costs

and benefits to the business are, of implementing our suggestions. Also what the risks are, if they are not implemented.

Unit Costs

You have developed your unit cost data from when our consultants last reviewed the capital unit cost base in 1999. Our consultants suggest that you should continue to build up this unit cost database and reduce the number of unit costs developed from tender costs rather than out-turn costs. The further development of the unit cost database should enable you to develop capital works forecasts to a greater degree of accuracy and improve capital efficiency. The use of target unit costs would also improve the prospects for capital efficiency.

Phoenix now have 42 Key Performance Indicators, none of which are financial. In the new contract the management information that the new contractor has to provide (Section 8) is solely physical. We believe that that it is important that you undertake cost reconciliation of the work packages as soon as possible after they are complete and feeds the results into a comprehensive cost analysis.

Benchmarking

In response to a question on benchmarking studies you told our consultants 'We have been unable to carry out meaningful benchmarking because of the unique nature of our network development. However, we are confident that the contract process underway will provide cost data that we can use for benchmarking purposes'.

Benchmarking of capital unit costs and understanding the reasons for significant differences in costs will lead to the prospect of understanding the real cost drivers for capital works in your environment. By understanding the drivers for these costs then the works items could be subject to value engineering techniques to enhance the value gained per unit cost spent. They do not think that it is sufficient to be reliant on the bid process for the distribution contract to provide you with benchmark data. Obtaining benchmarks every five or so years is not sufficiently regular.

Phoenix needs to undertake a number of benchmarking partnerships. Transco (now renamed Lattice Group) would be a useful partner who would have probably been more willing to join in when BG was an investor. It is vital that you now undertake a structured and timely approach to benchmarking.

Strategic planning

You have now augmented your strategic planning team which we consider a positive action, however despite this the consultants noted there was no written business plan available for

review. In June 2000 a document entitled '1999 Annual Development Plan Report ' was issued. The consultants felt it was disappointing to see that there was no cost or output based analysis in the part of the document that covered the future network plan. We would like to see Phoenix producing an annual plan in the last quarter of each year which comments on past outputs, costs and performance up to the end of September and set out a clear plan for the next year in detail and the following four years in outline, in physical, cost and performance terms. The provision of a business plan for the next price review will be fundamental. An important part of the business planning process should be the use of a model which links together connections, outputs, capex and volumes. Though you analyse these elements in separate spreadsheets our consultants saw no sign of a coherent approach to modelling and planning.

Monitoring of Expenditure And Outputs

At the time of the last review our consultants felt that it would be difficult to see how these efficiency savings were being progressed without monitoring both outputs, activities and expenditure over a period. This information would also help to build up a time series data of good quality data to inform Ofreg, third parties and future price reviews. The only monitoring that our consultants have seen in the current review relates to very detailed physical performance indicators that concern McNicholas's performance. They saw no sign of monitoring of the key outputs of the development plan. Many other utilities are recognising the benefit of an output based approach and it is unfortunate that Phoenix are ignoring this technique.

Our consultants propose that a formal outputs and investment reporting system should be established by Phoenix. We suggest that one useful vehicle for this monitoring would be the annual Development Plan report, suitably extended and reformatted. We think that a reporting system based on the key performance measures and asset information could be established with little additional input by the Company. This reported data could be derived from your current business systems. We envisage a straightforward reporting system which would not require any undue additional effort from Phoenix, beyond working to sound quality assurance systems.

Asset Management

The regulatory process requires a sound and comprehensive plan for the management of long life assets. Phoenix's approach to the previous Review did not provide us with the comfort that their plan has been robustly prepared. We do not feel that Phoenix has moved forward as fast as possible with this area and our consultants question whether you think asset management has much merit. These are areas which all of the Regulators see other utility organisations adopting and obtaining significant benefit

Phoenix should put sound asset management procedures in place, particularly as it moves from a development role to a maintenance one over the next few years. An Asset

Management Plan as an essential tool for long term capital planning. It provides a rolling integrated systems approach to the planning, management and running of a monopoly business with the objective of ensuring the effective, economic and profitable long-term provision of appropriate services to customers. It is a tool which has been developed for regulated utilities and has been applied in the UK and other countries world-wide.'

Other Issues

If in the lifetime of this price control cost effective investment opportunities arise for Phoenix I would be happy at the Company's request to consider how this could be taken into account in the price control process.

Conclusions

Our consultants suggest that Phoenix should examine whether these best practices would add value to their business, improving their efficiency and effectiveness and to decide, in a structured manner, whether they perceive that there is a good business case for implementing the proposals.