



**Electricity Distribution Price Control Review – Initial
Consultation – July 2003**

A Response by British Gas Trading

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Document ref : H:\regulatory affairs\raffairs\tahir
Version No : 1-0
Status : Final
Issuing Authority : Group Regulatory Affairs
Date Issued : 22/08/2003

EXECUTIVE SUMMARY

British Gas Trading (British Gas) welcomes the opportunity to respond to Ofgem's consultation in respect of the 'Electricity Distribution Price Control Review' and is happy for this non-confidential response to be placed in the Ofgem library.

Current performance

In simplistic terms, the current 40 per cent price control out performance of Distribution Network Operators (DNOs) should translate into future incremental revenues falling by about 40 per cent at the start of the next price control.

RPI-X

The existing form of RPI-X control should be complemented by an expansion in the number of outputs that are either directly financially incentivised or simply measured to ensure that future efficiency savings are real and not illusory.

Business rates and NGT exit charges

DNOs can to a certain extent forecast and influence the level of business rates and NGT exit charges. Consequently, there should be some limited incentive on DNOs to ensure that those costs are at an appropriately efficient level.

Revenue Drivers

The existing revenue driver should be reviewed to ensure continued appropriateness and to ensure it is applied on a consistent basis between opex and capex.

Excluded services

It is far from clear that the existing excluded services incentive on DNOs is operating in customers' best interests. Ofgem should review each of the excluded services activities to establish what form of incentives should be in place.

Rolling 5-year incentives and capex

We welcome the mechanism to allow a company to retain the benefit of out performance for a five-year period irrespective of when the improvement was made. However, we have concerns regarding the incentive mechanism for capex. The incentive mechanism for companies to pursue efficiency savings should be capex / opex neutral and accordingly, we believe that developing a mechanism that achieves parity warrants further investigation.

5-year rolling capex incentive

Qualification to the 5-year capex efficiency incentives should include: -

- Achievement of the IIP quality targets;
- A broader assessment of output delivery; and
- A review of capex expenditure to ensure that the savings made by DNOs are genuine efficiencies rather than inappropriate under spending; especially in light of the experience of customers during last year's storms.

The new mechanism should be equivalent (in NPV terms) for any year of efficiency improvement to the capex efficiency incentive in year-1 of the previous price control.

Company:customer retention

Ofgem does not agree that a 50:50 company:customer is appropriate. However, no justification for this view is given. We believe that as the marginal rate of out performance declines i.e. greater efficiencies become more difficult to achieve, the incentives provided need to be greater. We believe that Ofgem should consider this further.

Reducing the risk of under-investment

One way to significantly reduce the risks of the DNO from under investing would be to extend the period over which the cost efficiency incentives would be returned to DNOs. Beyond the initial 5-year control, the additional incentive would only be paid to the DNO if it had met the necessary quality and security obligations. The extended period over which the incentive is paid combined with the regular 5-yearly entitlement test would not only reduce any short term DNO or management incentives to perverse behaviour but it would also increase the likelihood of any inappropriate behaviour being revealed to Ofgem before the full value of the incentive is returned to the DNO.

Reducing risk of erroneous benchmarks

One important way of reducing the possibility of exporting the DNO specific risk of illusory (and hence unsustainable) efficiencies to all other DNOs is to set benchmarks at perhaps the upper quartile rather than using the frontier company benchmark. This approach also has the added advantage of increasing the rewards of top performing. It might be appropriate to further enhance the reward for top performing companies by adding a multiplier to the out performance reward.

Planned interruptions

There does not appear to be any rationale for excluding planned interruptions from the existing quality of supply financial incentives scheme. As customers value advance notification, DNOs should have a limited, say 90%, financial exposure to this interruption.

Treatment of exceptional events

Any strengthening of the obligations on DNOs that lead to material additional costs should only be implemented if it is supported by customers' willingness to pay.

Incentives for the speed and quality of telephone response

British Gas shares the concerns of some of the DNOs in relation to the appropriateness of the existing quality of telephone response incentive scheme. A more appropriate scheme would appear to be something akin to the quality of supply incentive scheme where each DNO has a target performance level with an incentive payment (penalty) for improved (reduced) performance.

Connection charges

NGT are pursuing a proposal to introduce super shallow connection charges. Distribution networks are moving to a shallowish connection policy. Unless there is convergence, to shallow(ish) charges, there may be perverse incentives to site generation on transmission rather than distribution networks (or vice versa).

Distributed Generation Incentive requirements

Losses

The main DNO incentive requirement for facilitating Distributed Generation (DG) would appear to be an effective DNO losses incentive. Consequently, it is important for Ofgem to satisfactorily complete its current review of that area and bring that into the consideration of DG incentive requirements.

Connection

There would also appear to be a requirement for an additional incentive on DNOs to connect to facilitate the non-DNO renewable or good quality CHP benefits but not to be incentivised to connect other generators. Initially it would be appropriate to construct a simple incentive for DNOs to connect the qualifying DG. This could be in the form of a target cost/price for each unit of DG connected. The DNO should then be incentivised a symmetrical proportion (perhaps 10 per cent) of any variance around that price with an additional cap and collar.

DETAILED COMMENTS

In the main this response uses the paragraph numbering used in Ofgem's document.

1. Introduction

Objectives for the price control review

- 1.12 British Gas welcomes the working groups set up by Ofgem with network monopoly companies to help meet the review objectives. However, Ofgem should enhance transparency and inclusion from other stakeholders in this area by publishing on its website: -
- Workgroup agendas in advance of the meetings;
 - Notes of the meetings; and
 - Papers produced for the meetings.
- 1.13 The public workshops that have taken place to date that have provided updates of the consultation documents and Ofgem's developing views have been useful. However, these workshops could additionally be used to tackle and discuss specific issues or concerns. For example, future topics could include capex incentives and forecasting.

2. Background

DNOs' performance under the existing price controls

2.22 It was interesting to note that for the 2001/2 regulatory year Distribution Network Operators (DNOs) were earning a 9 per cent rate of return against a Weighted Average cost of Capital (WACC) allowance of 6.5 per cent. This is a relative out performance of nearly 40 per cent. However, only some of this out performance is explained by operating expenditure (opex) and capital expenditure (capex), 22 per cent and 12 per cent respectively. We would urge Ofgem to analyse where the remainder of the out performance is occurring, for example cost of capital or excluded services, and to include this analysis in a future consultation document.

We believe this analysis would help to focus Ofgem's efforts for the forthcoming price control review to ensure that the out performance revealed by DNOs in this price control period is passed on to customers in the form of lower bills at the next price control period as expected under an RPI-X regime.

In simplistic terms, all other things being equal, 40 per cent out performance should translate into future incremental revenues falling by about 40 per cent at the start of the next price control, for example via a significant Po cut. This expectation is subject to the: -

- Remuneration of any incentive mechanisms for out performance in this price control period that are not paid to DNOs until the next price control period, e.g. the rolling 5-year capital expenditure efficiency mechanism; and
- Additional need to ensure continuing funding for past investments that are part of the Regulatory Asset Base.

3. Form, Structure and Scope of the price controls

Structure of the existing price controls

3.8 RPI-X form of price control

- There is plenty of evidence to suggest that this is the right form of control both now and into the future. However, the existing control should be complemented by an expansion in the number of outputs that are either directly financially incentivised or simply measured to ensure that future efficiency savings are real and not illusory. That is, it is essential that companies are not perversely incentivised to reduce short term costs below efficient levels at the expense of either: -
 - A reduction in short term outputs; or
 - Investment in longer-term security (effectively outputs with a time lag).
- Possible solutions to these problems are discussed elsewhere in this response.

Pass through for the costs of prescribed business rates on network assets, licence fees and NGT electricity transmission (NGT) exit charges

- DNOs have no real influence on the level of licence fees; consequently a continuation of pass through is appropriate for this cost.
- DNOs can to a certain extent forecast and influence the level of business rates and NGT exit charges. Consequently, there should be some limited incentive on DNOs to ensure that those costs are at an appropriately efficient level. The level of DNO incentive (risk) should be proportionate to the amount of DNO predictability and influence. Perhaps there should be a scheme similar in structure to the NGT System Operator incentive scheme, i.e. a central forecast with the DNO exposed to some symmetrical proportion, say 5 per cent, of the upside or downside of actual costs around that central value. A cap and collar would additionally protect customers and limit the risk on DNOs.

Distribution losses

3.11 An incentive mechanism to encourage distribution businesses to reduce the level of electrical losses on their distribution networks and become more energy efficient: -

- The current losses incentive appears to have little or no effect on DNOs' behaviour. There is evidence for this in the apparent constant level of losses in recent years and the confirmation from many DNOs that technical losses play little or no part in their investment plans. However, there would appear to be relatively stronger incentives on DNOs' behaviour with respect to non-technical losses. This arises from the additional effect of the units distributed revenue driver that applies to non-technical losses.
- Greater emphasis should be placed on loss reduction for two reasons: -
 - To ensure that customers are getting value for money. The value customers place on technical loss reduction can be equated to at least the direct costs to them of having to purchase an additional kWh of electricity for each kWh of electricity lost on the distribution system; and

- To ensure that the environmental effects of losses is minimised to economic levels. This can be achieved by adding the cost of this environmental externality to the value (direct costs) that customers place on loss reduction, i.e. including this cost in the incentive placed on DNOs to reduce losses. The important relationship between losses and distributed generation incentives is discussed later in this response.
- The current losses incentive appears to require significant strengthening with respect to technical losses. British Gas supports Ofgem’s review of the losses incentive currently taking place and will respond to Ofgem’s June consultation document in due course.

Revenue drivers

3.15 A revenue driver linking revenue to the number of units distributed and a predetermined projection of the number of consumers. The revenue driver is weighted equally between the two: -

- The existing revenue driver should be reviewed in light of the performance of DNOs over the course of the existing price control. This review should ensure that: -
 - Any efficiencies revealed by DNOs are passed on to customers;
 - The use of a variable units driver and predetermined projection of the number of consumers is still appropriate going forward; and
 - The underlying methodology for varying opex and capex revenues to take account of marginal cost changes (increases or decreases) as a consequence of changes to units distributed and customer numbers is applied on a consistent basis.

Scope of the price controls

3.17 Excluded services are outside the existing price control – they include extra high voltage charges, top-up and standby charges, non trading rechargeables, pre-payment meter distribution business surcharges, special metering charges, other minor activities and charges, and connection charges: -

- Though the breakdown of excluded services varies greatly between DNOs at both the aggregate and activity level, these activities account for approximately 10 per cent of all DNOs’ revenues.
- There are little or no incentives on DNOs to be efficient, i.e. carry out a given activity at least cost. Conversely, DNOs are perversely incentivised to increase their total costs, hence revenues in this area. This would occur where DNOs increased their unit costs or allocated an inappropriately high proportion of shared (overhead) costs to these activities.
- Where it is possible to increase the competitive pressure on DNOs, for example connections and metering arrangements, then competition will ultimately protect customers. However, where it is not possible to introduce competition or until competition is fully established then customers will continue to need protection.
- It is far from clear that the existing excluded services incentive on DNOs to outperform the price control forecast revenues is operating in customers’ best interest.

Ofgem should review each of the excluded services activities, applying the recently developed uncertainty framework where appropriate, to establish what form of DNO incentives should be in place to best protect customers.

Duration of price controls

- 3.21 We support the continuation of a five-year price control in light of future electricity distribution cost uncertainty and realistic expectations that RPI-X will continue to deliver out performance opportunities for at least another price control.

Fixed retention period for efficiency savings

- 3.22 We welcome the mechanism to allow a company to retain the benefit of out performance for a five year period irrespective of when the improvement was made and not only for the remainder of the then current price control period.

However, we have concerns regarding the incentive mechanism for capital expenditure.

Firstly, as clearly demonstrated by previous Ofgem analysis, the reward for an operational expenditure saving is considerably greater than that for a similar capital expenditure saving. Ideally, the incentive mechanism for companies to pursue efficiency savings would be capex / opex neutral and accordingly, we believe that developing a mechanism that achieves parity warrants further investigation.

Secondly, differential incentive rates perpetuate perverse incentives to reclassify opex as capex to inappropriately qualify for higher illusory operational efficiency incentives.

Also, the benefit to the company of out performance in capex is limited to a proportion of the savings made (five years of rate of return and depreciation), whereas for under performance the company has to carry the total additional expenditure. We believe that this provides a strong incentive for companies to cap their capital expenditure irrespective of the requirement. We agree that one way to mitigate this would be to cap the exposure a company would have to the proportion of justified under performance.

- 3.23 The Information and Incentives (IIP) quality of supply targets set at the last price controls were of differential difficulty. Consequently, the capex retention commitment should not be limited to only an achievement of those targets. However, the IIP quality targets can be considered as part of the overall Distribution Price Control Review 3 (DPCR3 - current price control period) package agreed by all DNOs. In other words, where a DNO considered that it had challenging IIP targets then it must have considered that this was balanced by for example having a sufficiently generous capex allowance to allow it to deliver those quality improvements.

In light of the above, and as the capex commitment given at DPCR3 was conditional on companies meeting their security and quality of supply obligations, qualification to the 5 year capex efficiency incentives should be based on: -

- Achievement of the IIP quality targets;

- A broader assessment of output delivery including IIP quality of telephone response;
- Achievement of a satisfactory asset risk management survey score;
- Level of customer complaints; and
- A review of capex expenditure to ensure that the savings made by DNOs are genuine efficiencies rather than inappropriate under spending to the detriment of quality of supply (short term outputs) and security of supply (long term outputs – effectively quality of supply with a time lag). For example, Ofgem should: -
 - Assess the levels of postponed/delayed expenditure and the reasons for this;
 - Fault level trends;
 - Age of network;
 - Performance during and after a storm;
 - Level of Guaranteed Standards (GSs) and Overall Standards (OSs) performance (including the level of ex-gratia payments made in lieu of or in addition to); and
 - Worse served customer performance.

Ofgem's original proposals to link qualification to the 5-year capex efficiency incentive simply to an attainment of the IIP quality targets would have had little or no link to the commitment to meet security obligations.

- 3.24 An important requirement of implementing the rolling retention of capex efficiency incentives will be to ensure that the new mechanism is equivalent in NPV terms for any year of efficiency improvement to the Distribution Price Control 2 (DPCR2 – previous price control) capex efficiency incentive in year 1 of that control.

Improving the incentive and price control framework

- 3.26 We see that a key aim in the regulation of network monopolies is to stimulate the characteristics of a competitive market where possible. We believe that this can be successfully achieved through the use of an incentive mechanism that provides meaningful and worthwhile rewards for genuine out performance, and adequate penalties for under performance, of regulatory expectations.

We believe that this challenge is becoming increasingly more difficult as efficiency savings become more elusive and difficult to achieve. It is therefore essential that the incentive mechanism creates a climate where companies seek continuous improvements and implement these as soon as identified. We note that Ofgem does not agree that a 50:50 company:customer share of future unanticipated efficiencies is appropriate. However, no justification for this view is given. We believe that as the marginal rate of out performance declines i.e. greater efficiencies become more difficult to achieve, the incentives provided need to be greater. We believe that Ofgem should consider this further.

3.27 Benchmarking

British Gas supports the need to reward best performers. Consequently, the use of benchmarking should be continued both to assess historical efficiency and to set future revenues. Moreover, benchmarking can provide significant company incentives in addition to the incentive properties of RPI-X regulation. However, we consider that the: -

- Rewards for the top performers at DPCR3 were too weak and believe that there is a need for these to be reviewed. The net benefit to all customers arising from a company being the frontier benchmark, or contributing to say an upper quartile performance benchmark, will exceed, by a considerable margin, the additional return earned by its owners. It is therefore important to ensure companies continue to have strong incentives to out perform and achieve top performing status; and
- The use of benchmarks can be problematic especially when frontiers are used.

Interpretation of results

As with any benchmarking care should be taken when interpreting the results. Observed company performance differences can be a consequence of one or more of: -

- Statistical error especially where there are only a small number of comparators (fourteen licensees but only eight independent management teams);
- Incomparable data (e.g. different accounting and capitalization policies and genuine opex and capex tradeoffs and different levels of output delivery);
- Data that has not been normalized for all material factors;
- Differences in allocation of overheads and shared costs; and
- Differences in efficiency.

Overheads and shared costs

The allocation of overheads and shared costs can be problematic between: -

- Different legal entities (particularly the case where there are merged DNO entities present or where the DNO has a sister supply company); and/or
- Different activities (particularly the allocation between price controlled activities and excluded service activities).

This problem arises because allocation is to a certain extent a matter of choice and judgment. DNOs can have perverse incentives to allocate these costs in inappropriate ways.

Ideally DNOs should be required to minimize the shared costs between DNOs and other legal entities. This should be achieved via full physical separation including the use of fully separate IS systems as has been achieved by a number of DNOs, e.g. WPD, and has been achieved in gas, with the separation of British Gas' previously integrated network and supply businesses. Shared and overhead costs should be limited to genuine corporate costs only. An added benefit of full physical separation is that any advantages that the DNO's sister supply company enjoys in

relation to advantageous IS interfaces and other processes (that are likely to distort supply competition) are removed.

However, in the meantime, Ofgem should: -

- Pay particular attention to these allocations to avoid inappropriate results. Moreover, Ofgem should be particularly cautious of the data provided by companies if DNOs under common ownership appear to have significantly different efficiency levels. This is to avoid the perverse incentive of allowing any erroneously more efficient DNOs to benefit from frontier rewards whilst allowing any erroneously inefficient DNOs to benefit from the financial value of any catch-up period until they are required to meet the frontier/benchmark cost levels; and
- Ensure that the Regulatory Accounting Guidelines minimize inappropriate cost allocations.

Erroneous frontier benchmarks from illusory efficiencies

A significant problem can arise where the observed level of lowest cost is not an efficient level, i.e. it is an erroneous benchmark. Companies can increase their rates of return to levels greater than the WACC allowance by either reducing the cost of delivering a given set of outputs (efficiency improvements) or by reducing the level of outputs (illusory efficiency).

Many company outputs cannot be readily measured. In particular, security of supply can be regarded as an output with a time lag. That is, under-investment today may not be visible until a number of years have elapsed or until such time as the network is exposed to an uncommon event such as an infrequent and strong storm.

It is important to reduce any perversities on individual DNOs to under-invest in the network. Where companies do undertake this inappropriate action then they and not future customers should face the consequences of that under-investment. Furthermore, it is important not to export that inappropriate risk to all other DNOs and hence all other customers. The exporting of risk could arise where: -

- It was not immediately apparent to Ofgem that under investment was taking place;
- That company was a lowest cost company; and
- Ofgem proposed that that company's costs were to be the benchmark for setting all other companies' costs, i.e. Ofgem was to set costs on the basis of a frontier company benchmark.

We consider two mechanisms where incentives to top performing companies may be enhanced and the current perversities may be reduced.

Reducing the risk of under-investment

In addition to increasing the range of output measures, one way to significantly reduce the risks of the DNO from under investing would be to extend the period over which the cost efficiency incentives would be returned to DNOs (though the Net Present Value of the received incentive need not be changed) from say the

envisaged five years to ten years. At regular intervals, say successive price control reviews or where company output performance deteriorates significantly; the additional (say five years of) incentive would only be paid to the DNO if it had met the necessary quality and security obligations. The extended period over which the incentive is paid combined with the 5-yearly entitlement test would not only reduce any short term DNO or management incentives to perverse behaviour but it would also increase the likelihood of any inappropriate behaviour being revealed to Ofgem before the full value of the incentive is returned to the DNO. The latter would reinforce the former.

This proposal is merely an extension of the current Ofgem proposal with respect to the receipt of the 5-year capex efficiency incentive where it is intended that entitlement to payments for capex efficiencies made in this price control period beyond the end of the existing price control period will be linked to meeting relevant quality and security obligations at the next (DPCR4) review.

Reducing risk of erroneous benchmarks

One important way of reducing the possibility of exporting the DNO specific risk of illusory (and hence unsustainable) efficiencies to all other DNOs is to set benchmarks at perhaps the upper quartile rather than using the frontier company benchmark. That is, all upper quartile, not just frontier performers receive the benefits of stretch performance and all other (poorly performing) companies would be set targets that further stretch their performance to the upper quartile performance level. With potentially only seven separate management groups, it might be appropriate only to reward the two best performing groups.

This approach also has the added advantage of increasing the rewards of top performing companies over and above the DPCR3 frontier benchmark approach. This is a desirable outcome. It might be appropriate to further enhance the reward for top performing companies by adding a multiplier to the out performance reward. This would maintain the link between the amount of out performance and the amount of reward.

Together these mechanisms appear far superior to the DPCR3 use of a simplistic frontier benchmark with additional rewards related to a percentage of company turnover.

Table 3.2 – The incentive framework for DNOs

- CAPEX
 - It is unclear how reclassifying non-operational capex, from the current opex revenues to the proposed capex revenues, will work in practice. In particular, if this reclassification were to be achieved by a simple move from the current standard opex incentive regime to the current standard capex incentive regime then this would result in a reduction in the effective incentive rate. That would appear to be a retrograde step in light of the recent and proposed increases in capex and opex efficiency incentives respectively.
 - However, if the reclassification was to be accompanied by a much shorter regulatory depreciation period for non-operational capex whilst allowing the company to retain capex efficiencies for 5 years then it might be possible to

maintain the incentive status quo. However, it is unclear what if any benefits (apart from giving DNOs an additional cost of capital out performance opportunity) this would achieve. If the amount of non-operational capex spend were to be material then it could also increase the recent pressure to move to accelerated depreciation for general capex expenditure against a background, for example, of increased distributed generation expenditure.

- Further clarification of Ofgem's thinking in this area would be appreciated.

4. Quality of service and other outputs

Form of the incentive scheme, targets and incentive rates

- 4.17 There does not appear to be any rationale for excluding planned interruptions from IIP performance. DNOs should be incentivised to carry out maintenance on an efficient basis. I.e. maintenance should be carried out as soon as it is reasonable and practicable to do so and the length of that maintenance, especially with respect to the effects on supply interruptions, should be as short as practicable.

Excluding planned interruptions from the IIP scheme is likely to mean that DNO behaviour is driven only by the strong opex/capex incentives, i.e. desire to reduce costs by avoiding expenditure today, rather than the more balanced outcome that is likely to arise from the combination of the opex/capex cost incentives and IIP quality/output incentive scheme.

As customers value advance notification of interruptions, DNOs should have a smaller, say 90%, financial exposure compared to the standard IIP equivalent interruption.

The treatment of exceptional events

- 4.21 There should be consistent treatment of exceptional events both between and within the different output measures (GSs) and incentive schemes (IIP). The definition of exceptional events should be transparent and straightforward. It is not clear to customers or suppliers how the current provisions apply in relation to individual events.

However, any strengthening of the obligations on DNOs that lead to material additional costs, via for example a significant reduction in the scope of exceptional events, should only be implemented if it is supported by customers' willingness to pay.

Phase one of customer research

- 4.24 British Gas welcomes the carrying out of customer research both to identify customers' key priorities and their willingness to pay. However, customer research should include the views of suppliers as well as end consumers. Suppliers are customers of the services provided by DNOs. The range of outputs should be influenced by the views of customers and the government's social and environmental guidance.

Phase two of customer research

- 4.26 It will be important for DNOs to cost the delivery of all potential key outputs via the forecast Business Planning Questionnaire. Transparency would be aided by the publication of the quality of supply scenarios that DNOs would be required to cost. These scenarios should include the delivery of an efficient level of losses.

Comparing quality of supply performance

- 4.28 Ideally quality of supply performance, in addition to opex and capex expenditure levels, should be used to assess historical efficiency. Where comparable data is available, benchmarking of performance across all DNOs should be used in the

efficiency assessment. Benchmarking can also be used to set future quality of supply performance targets and associated capex expenditure levels. Consequently, British Gas welcomes the work with companies in this area. However, as for any other benchmarking where there are fourteen separate licensed entities and potentially only seven independent management groups, the results of any benchmarking should be treated with some care.

Rewarding frontier performance

4.31 In principle, frontier performance should be rewarded. However, as noted earlier in this response, the use of frontiers and benchmarking can lead to inappropriate results.

One way to mitigate the above problems is to set benchmarks at perhaps the upper (best performing) quartile rather than using frontier performance. That is, all upper quartile, not just frontier performers receive the benefits of stretch performance and poorly performing companies would be set future targets that further stretch their performance. As noted earlier, perhaps rewards should only go to the two best performing management groups.

British Gas agrees that companies should only be rewarded for frontier performance if as a minimum they had met their 2004/5 IIP targets, this would be consistent with the DPCR3 settlement and would further support the need to have in place an appropriate framework for entitlement to the five year capex efficiency incentives.

Incentives for the speed and quality of telephone response

4.41 The speed and quality of telephone response are important indicators of a customer's experience with a DNO. Consequently, it is important that DNOs are incentivised in these areas. However, British Gas shares the concerns of some of the DNOs in relation to the appropriateness of the existing quality of telephone response incentive scheme. Moreover, Ofgem's own economic consultants criticized exactly such a scheme in their report to Ofgem¹. The report notes:

“Two conclusions which emerge from the economic literature on ‘races’ of this type are that:

- There may be excessive effort (quality improvement) in a race in which the two firms start from the same point because they each need only make a little more effort to win the whole prize; and
- There may be very little effort by either firm if the starting points differ, because they recognize the danger of excessive effort and those least likely to win simply opt out of the race.

A race, leading to a prize, could result in continuous excessive gold plating or to a race to the bottom, in which most firms simply decide that they will not receive the prize and follow the alternative strategy of minimizing costs. Relative payments schemes require very careful design, since behaviour under such regimes is highly sensitive to that design.”

¹ Developing Network Monopoly Price Controls: Workstream B – Balancing incentives – A final report prepared for Ofgem – Frontier Economics – March 2003 – section 5.2.5

Though there is likely to be a desire not to be seen as the worst performing DNO, it is far from clear that the current scheme is in the interests of customers. Ofgem should consider amending the existing scheme to remove the current inequities and perversities. A more appropriate scheme would appear to be something akin to the quality of supply elements of the IIP scheme where each DNO has a target performance level with an incentive payment (penalty) for improved (reduced) performance. The incentive rate should be set on some approximation of the value customer's place on the quality of telephone response. There should be some cap and collar beyond which the incentive does not operate. The collar should be an approximation of the minimum acceptable performance and/or limit of DNO risk and the collar should be an approximation of the upper limit of customer requirements (willingness to pay).

Interim measures for this price control period for exemptions for exceptional events

- 4.43 If, as Ofgem suggests, DNOs are to pay out all valid claims for interruptions exceeding a given duration accompanied by pass through of efficiently incurred costs, this would amount to an increase in the effective standards of performance that DNOs are obliged to meet. This should only be implemented if supported by customers' willingness to pay, especially if the future costs of meeting the new standard or paying the compensation are likely to be material.

5. Distributed Generation

The numbering in this section does not refer to the numbering in Ofgem's consultation document.

British Gas welcomes the continued formulation of Ofgem's ideas in this area. Distributed generation (DG) will provide an important contribution to the government's environmental targets and aspirations. Helping to facilitate distributed generation can in many instances directly benefit customers (in the form of lower final costs) and society as a whole (in the form of lower emissions). If the government is to meet its environmental targets and further aspirations then the DG contribution has to increase significantly.

5.1 Connection charges

This response assumes that there will be a move to shallowish up front connection charges with the remainder recovered over time via GenDUoS charges.

Currently, NGT are pursuing a proposal to introduce super shallow connection charges, we suggest that this is a step too far and will remove many of the beneficial locational signals in this area. It will additionally result in higher TNUoS charges to demand customers. Distribution networks are moving to a shallowish connection policy. We urge Ofgem to encourage convergence from the current positions to a shallow or shallowish policy, as this will ensure a consistent approach as well as continuing to provide robust locational signals.

Moreover, unless there is convergence in the arrangements in calculating generator connection charges, there may be perverse incentives to site generation on transmission rather than distribution networks (or vice versa). This would not lead to an efficient outcome.

5.2 Incentives

The effects of connecting differing forms of DG, the current and required incentive arrangements are discussed in table 5.1 below.

Table 5.2 Additional Incentive requirements

Form of distributed generation	Effects	Current Incentives	Additional incentive requirements
Small to medium renewables	Generation greenhouse gas emissions avoided; and	ROCs already incentivise the medium sized generators in this area	Smaller generators need an additional mechanism to value / incentivise their contribution to the environment equivalent in financial terms to ROCs ²
	Transmission losses avoided ³ – hence reduced energy purchase / generation and greenhouse emissions of equivalent other fuel avoided; and	NGT already has incentives that capture movement in losses on its system – however the incentive reference price does not currently take account of the value of the environmental externality	Add the cost of the environmental externality to the NGT incentive reference price – this will also provide consistency with the likely new regime for DNO losses.
	Distribution losses may increase; or	<p>Losses</p> <ul style="list-style-type: none"> • Current weak DNO losses incentive • Does not include environmental externality • Includes arbitrary DG adjustment <p>Duty to connect but no incentive</p>	<p>Amend existing DNO losses incentive to: -</p> <ul style="list-style-type: none"> • Strengthen incentive • Add environmental externality to incentive valuation • Add transmission losses avoided to incentive valuation <p>Additional material DNO incentive to connect to facilitate non-DNO-renewable benefits</p>

² When a generating set's output falls below 0.5MWH in a given month, ROCs are not available for that month's production.

³ The effect on transmission losses is likely to vary significantly by DNO. Generally speaking, DG connected to the northern DNOs, is likely to have a smaller (or even negative) effect on transmission losses compared to DG connected to southern DNOs. Consequently, to avoid undermining the recent changes to more cross-reflective NGT losses charges and NGT's losses incentive scheme; the transmission losses component of the DNO losses incentive should either be DNO specific or it should be directly related to the effect (positive or negative) on transmission losses.

	Distribution losses may decrease.	<p>Losses</p> <ul style="list-style-type: none"> • Current weak DNO losses incentive • Does not include environmental externality • Includes arbitrary DG adjustment <p>Duty to connect but no incentive</p>	<p>Amend existing DNO losses incentive to: -</p> <ul style="list-style-type: none"> • Strengthen incentive • Add environmental externality to incentive valuation • Add transmission losses avoided to incentive valuation <p>Additional marginal DNO incentive to connect to facilitate non-DNO-renewable benefits</p>
Small to medium good quality combined heat and power (CHP)	CHP is generally more energy efficient than many other forms of generation. For non-renewable CHP (for renewable CHP see above), reduced primary fuel use hence reduced greenhouse emissions; and	None?	Small to medium generators need an additional mechanism to value / incentivise their contribution to the environment especially if micro-CHP takes off
	Transmission losses avoided – hence reduced energy purchase / generation and reduced greenhouse gas emissions; and	As for renewables above	As for renewables above
	For customers receiving energy directly from CHP– distribution losses avoided; and	<p>Duty to connect but no incentive</p> <p>Current DNO losses incentive is unaffected by this beneficial effect</p>	<p>Additional material DNO incentive to connect to facilitate non-DNO good quality CHP benefits; and/or</p> <p>amend DNO losses incentive to reflect losses avoided on the DNO and transmission systems</p>

	For customers receiving energy from CHP generation that is exported to the DNO system - distribution losses may increase; or	None?	As for renewables above; however No additional DNO incentive to connect as there are no non-DNO benefits? [Have assumed that export does not have higher efficiency than other non-renewable DG]
	For customers receiving energy from CHP generation that is exported to the DNO system - distribution losses may decrease.	As for renewables above	As for renewables above; however No additional DNO incentive to connect as there are no non-losses non-DNO benefits? [Have assumed that export does not have higher efficiency than other non-renewable DG]
Small – medium 'Other'	Transmission losses avoided – hence reduced energy purchase / generation and greenhouse emissions of equivalent other fuel avoided; and	As for renewables above	As for renewables above
	Distribution losses may increase; or	As for renewables above	As for renewables above; however No additional DNO incentive to connect as there are no non-losses non-DNO benefits
	Distribution losses may decrease	As for renewables above	As for renewables above; however No additional DNO incentive to connect as there are no non-losses non-DNO benefits

5.3 Additional Incentive Requirements

5.3.1 Generators

Smaller renewable and good quality CHP generators need an additional mechanism to value / incentivise their contribution to the environment.

5.3.2 NGT

Add the cost of the environmental externality to the NGT incentive reference price. This will also provide consistency with the likely new regime for DNO losses.

5.3.3 DNOs

Losses

The main DNO incentive requirement for facilitating DG would appear to be an effective DNO losses incentive. Consequently, it is important for Ofgem to satisfactorily complete its current review of that area and bring it into the consideration of DG incentive requirements. However, the effect on transmission losses is likely to vary significantly by DNO. Generally speaking, DG connected to the northern DNOs, is likely to have a smaller (or even negative) effect on transmission losses compared to DG connected to southern DNOs. Consequently, to avoid undermining the recent changes to more cross-reflective NGT losses charges and NGT's losses incentive scheme; the transmission losses component of the DNO losses incentive should either be DNO specific or it should be directly related to the effect (positive or negative) on transmission losses.

Connection

There would also appear to be a requirement for an additional DNO incentive to connect DG to facilitate the non-DNO renewable or good quality CHP benefits. Apart from the effect on losses, there appears to be little reason to incentivise DNOs to connect the small to medium 'other' generators nor to facilitate export of energy onto the DNO networks from good quality CHP. If DNOs were incentivised to connect the latter generators, then they might be incentivised to connect diesel-powered generators that could worsen, not improve, the overall impact on the impact on the environment.

For simplicity it is likely to be appropriate to strike a balance between a marginal and material incentive via the use of a single incentive value to connect qualifying DG.

5.3.4 Form of DNO incentive to connect

There is a great deal of DNO DG-related uncertainty. This uncertainty relates to: -

- Location;
 - Timing;
 - Volume;
 - Connection and reinforcement cost; and
 - Effect on losses.
-

This high degree of uncertainty would imply a high degree of pass through of DG related costs. This might imply a small/marginal incentive, of say 5 per cent of a DG reference cost/price, to incentivise the DNO to connect DG.

However, the need to provide DNOs with sufficient incentives to meet the increasingly important contribution DG can make to the environment might imply a higher small/marginal incentive, of say 15 per cent of a DG reference cost/price, to incentivise the DNO to connect DG.

A balance of the two factors might imply a compromise small/marginal incentive, of say 10 per cent of a DG reference cost/price, to incentivise the DNO to connect DG. The simplest form of this DG connection incentive would be to introduce a mechanism similar to the NGT SO incentive scheme. That is there should be a target cost/price for each relevant unit of qualifying DG. The DNO should then be incentivised a symmetrical proportion (perhaps 10 per cent) of any variance around that price. Additional risk reduction (customer protection) could be provided with a cap and collar.

5.4 Who should pay?

Demand customers ultimately pay for any generation costs. However, if generation connection/reinforcement costs are directly paid for by demand customers then inefficient generation entry could be facilitated. Conversely, smearing the costs directly across demand customers may be the only way of achieving the government's environmental targets.

In general terms, where the costs of meeting government objectives is material (this includes the material transfer of risk or costs between different groups) then this should be a matter for parliament (e.g. ROCs) and not Ofgem. This principle is included in the latest draft of the government's Environmental and Social Guidance to Ofgem. Consequently, Ofgem should undertake an RIA to establish the likely materiality of the additional costs of facilitating DG before deciding on the allocation of those additional costs, including the allocation of the costs of the DNO incentives. However, in the absence of any new legal requirement, if the additional costs are likely to be material then the majority of those costs should fall directly on generators and not demand customers.

This response on DG incentives should be read in conjunction with our response to Ofgem's "Innovation and Registered Power Zones – Discussion paper – July 2003", and our response to Ofgem's losses paper.

6. Assessing Costs

See our comments elsewhere in this response.

7. Financial Issues

The cost of capital

- 7.8 With regard to taxation, as we have previously stated, whilst we acknowledge that companies must be given the incentives to manage their tax liabilities efficiently, we have concerns that a pre tax cost of capital will encourage companies to move toward a higher leveraged structure irrespective of the efficient equity / debt structure. We do not believe that this will necessarily prove beneficial in the long run and therefore we support Ofgem's intention to introduce a company specific tax liability allowance, as this will lessen the incentives for companies to move to inappropriately high levels of debt.

Since the effective average tax rate for DNOs is likely to be below the marginal rate for new investment, applying a marginal tax wedge could lead to an over-recovery of revenue on the asset base to cover tax liabilities. This is particularly important when the marginal tax rate is significantly above the effective tax rate on the basis of the projected future tax liability say over a period of 10 to 15 years.

Treatment of pension fund costs

- 7.17 We acknowledge that, in determining price limits, Ofgem has a duty to ensure that companies can finance their functions that include the funding of efficient pension costs. We agree that this will need to be assessed in a transparent, fair and consistent way.

We also accept that the recent substantial falls in the equity markets have resulted in a growing shortfall in companies' pension funds to meet their future liabilities.

We consider that where customers, as well as companies, have previously benefited from pension fund surpluses, in the form of pension holidays, that they share the responsibility to cover the current deficits. We therefore agree that, in principle, additional revenues should be allowed to cover companies' legitimate pension shortfalls.

That said, whilst we accept the principle, we see the key challenge to Ofgem will be to correctly identify any historic benefit sharing and thus determine the legitimate exposure customers should face in the forthcoming price control. This mechanism must not provide companies with a gaming opportunity where they stand to be rewarded for windfall returns to shareholders or inappropriate investment decisions.

We therefore agree with Ofgem that increases or decreases in the future cost of providing accrued benefits resulting from differences in ex ante and ex post investment returns in prior periods will need to be considered on a case-by-case basis.

Tahir Majid/Regulatory Affairs/British Gas/ 22.08.2003