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Dear Lewis,

**Response to consultation on the reform of interruption arrangements on gas distribution networks – An update**

Thank you for the invitation to respond to the Ofgem consultation on the reform of interruption arrangements on gas distribution networks – an update. We have structured our response to include some high level comments on DN Interruption reform which includes a summary of our thoughts on the draft impact assessment, incentives, and the structure of gas distribution charges, followed by a response to the questions outlined in the consultation document. This response is sent on behalf of National Grid's distribution business.

**General comments**

At the outset we would like to confirm that we support the reform of the current DN Interruption arrangements, which would allow for efficient decisions to trade off between interruption and capital investment. However we would also note that considerable concern has been expressed through the consultation on the revised DN Interruption arrangements proposed through Modification Proposal 0090. These concerns are by no means confined to the proposed provisions of the UNC and include the impact on emergency arrangements, the interaction with NTS Exit Reform, the challenging timescales for reform, the prospective charging arrangements, the incentive arrangements and whether there is a demonstrable benefit of reform. It is these latter concerns that should be addressed through this and the subsequent Ofgem consultations.

Regarding the draft impact assessment, we agree that:

- Reform should lead to better investment signals for GDNs, however we have concerns regarding Ofgem's estimates of the benefits and have suggested an alternative approach to determining the benefits arising;
- Reform should lead to greater flexibility in offering and purchasing interruptible services;
- The wider economic benefits of reform may be considerable and that these need to be considered in more detail. We have suggested an approach for doing this.

We do not agree on the following aspects of the draft impact assessment:

- Ofgem's treatment of the cost information provided by DNs;
- That reform is likely to lead to improved security of supply;
- That reform will lead to a noticeably more efficient operation of the wholesale electricity market;
- That GDNs having control of the amount of interruption purchased will reveal which GDNs are most efficient, as they will be responding to their customers' signals.

More detailed comments are provided below.

With regard to the proposed incentives:

- We do not agree with Ofgem's proposal for a one year incentive. This is likely to prevent any benefit accruing from any longer term interruptible contracts we enter into;
- Of the three incentive options presented we prefer Option 1, the sliding scale incentive, which provides facility for an appropriate structure for risk and reward sharing;
- We do not agree that the incentive (>15 days) allowance for the transitional offtake period (2009-10) should be set to zero; this exposes the DNs to downside risk with no upside.

More detailed comments are provided below.

With regarding to the issues on distribution transportation charges:

- We favour implementation of the change to the customer charge in April 2007 or, if this is deemed impractical, at October 2007;
- We consider that, once changes are made to the customer charge structure and to the capacity/commodity split of distribution system charges so as to better align the throughput sensitivity of collected revenue with the price control revenue, it will be beneficial to move to changing distribution charges in April each year. If charging structure changes are made by October 2007 then April price changes could be beneficially introduced from April 2008.

The rationale for these views is provided later.

Please note that all BPQ submissions have so far been provided on a base case premise which excludes NTS Exit and DN Interruption reforms. As such the costs associated with these reforms will need to be factored into any price control allowance.

**Detailed responses to the questions and issues arising in each of the chapters of the consultation document.**

**Chapter 3: GDN Incentives**

**1. Which of the options for setting a one year incentive for the GDNs purchases of interruption and NTS offtake capacity do respondents support and why ?**

Firstly, we believe that Ofgem should consider creating a single incentive mechanism for DN Interruption and NTS Offtake requirements because the products can be used as alternatives in certain circumstances. For example, a GDN may face a constraint on its high pressure system (LTS) whereby a peak day load might result in an unacceptable reduction in the operating system pressure at 2200hrs. In this scenario the GDN can choose between three alternatives. It can buy interruption rights to reduce the peak day load, it can invest in its Distribution network to alleviate the constraint, or it can buy capacity products from NTS to allow it to take more gas pre 2200hrs. Unless all three of these options are managed within one incentive mechanism it is possible that the GDN's decision will become biased by its relative performance in the individual mechanisms resulting in a sub-optimal outcome.

With regard to the potential trade-off between investment options and options involving annual payments, we consider that the incentive should be structured so that the incentive properties of the different types of payments are aligned.

In coming to our conclusions on the options we considered the following factors:

- the extent to which each mechanism could balance the associated risk and reward during the period of uncertainty at the start of the reform;
- how well the incentive copes with extreme outcomes; and
- whether the incentive encourages GDNs to make appropriate decisions throughout the range of expected outcomes.

Managing Risk and Reward during Uncertainty

NTS Exit and DN Interruption reform mark a significant change in the way in which the gas industry functions. These changes bring with them a large degree of uncertainty.

*NTS Exit Reform*

Under NTS proposals for Enduring Gas Offtake arrangements it is proposed that NTS will publish indicative prices, which the GDNs will use to establish the level of capacity that they require at each offtake. However under NTS's present proposals the outturn price would potentially differ from the indicative price. This may expose the GDN to a financial penalty if the incentive mechanism does not take this variation into account, for example by being based on the indicative rather than outturn price.

*DN Interruption Reform*

Due to the level of uncertainty surrounding DN Interruption reform and the volumes and prices of interruption that will be offered it is not possible to estimate accurately the likely level of interruption payments. As a result a mechanism such as Option 2, an allowance within the RPI – X mechanism, which exposes the GDNs to the total variability in interruption payments, is not appropriate. In addition such a mechanism has the drawback that the incentive allowance is not explicit. Subject to the parameters set, both Options 1 and 3 could work effectively during the early period of the reforms.

Extreme Outcomes

There is also a significant degree of uncertainty associated with the outcome of both of the proposed reforms even once they have become established. This is particularly the case for DN Interruption reform. This may result in extreme outcomes which could result in a significant gain or loss for the GDNs. As a result it is important that the chosen mechanism balances the need to provide an incentive to encourage GDNs to make efficient decisions whilst also providing protection from extreme or uncertain outcomes which are largely or wholly beyond their control.

The GDNs ability to influence the outturn of DN Interruption rights payments is limited to the decision on which tender bids to accept. Dependent upon the make up of the bid between option and exercise elements, the weather conditions during the year may have a considerable impact upon the outturn of the mechanism which may result in a significant gain or loss which is beyond the control of the GDN. However, if the main revenue price control has throughput as a driver, as at present, then this gain or loss is likely to be offset by the variation in the main allowed revenue. For example, in a warm winter the GDN might gain under an interruption incentive but lose out overall due to the loss of revenue under the main price control.

With regard to NTS offtake products, we believe that there is less scope for extreme outcomes under the present NTS Exit Reform proposals as we have more certainty over prices and proposed levels of investment.

Due to the restricted ability of the GDNs to influence the eventual interruption payments made it is important that the incentive mechanism chosen provides all parties with some protection from such extreme outcomes. As outlined above, Option 2 (RPI – X Allowance) does not provide sufficient flexibility to cope with such outcomes. Provided the scheme parameters are correctly set both option 1 and 3 could work effectively.

Encouraging Correct Decision Making

In making the choice between buying interruption rights, investing in the network, or buying capacity products from NTS, the GDN should choose the most economic alternative and hence the incentive mechanism should be structured to encourage the most economic choice in most circumstances.

Of the options proposed by Ofgem Options 1 and 2 provide an incentive for the GDN to make the most economic decision. Within the range of any caps or collars for Option 1, and for the whole range of Option 2, each economic decision is rewarded with additional return. However under Option 3, the GDN is only encouraged to make the most economic choice as its performance approaches one of the "trigger points" which results in a reward or penalty.

This point also further emphasises the need for a single incentive mechanism. If there are a number of incentive mechanisms then the GDN could face perverse incentives if one mechanism's penalty is limited by the collar whilst there is still headroom for achieving incentive payments under another scheme.

Whilst there is still a great deal of uncertainty around each of the proposed options, for example the level of the incentive target and the structure of any sharing factors or caps and collars, we believe that Option 1 - separate sliding scale incentive for NTS exit capacity and interruptions - is the most appropriate incentive mechanism. This option also benefits from being well understood and proven in other regimes.

**2. What are respondents views on the factors that should determine the level at which the interruptions and NTS exit capacity incentives are set?**

There is no evidence at present about the likely level of tenders that the GDNs may receive for DN interruption rights. However it is clear that GDN's expected expenditure on interruption rights (considered over a number of years) would not exceed the alternative annualised cost of reinforcement since otherwise it would be uneconomic to contract for the interruption rights.

As a result we believe that the incentive target should be set at a level conceptually based on the alternative annualised investment cost. To ensure that this does not result in an inappropriate reward for the GDN, sharing factors can be applied such that customers also benefit from any savings achieved.

There is less uncertainty surrounding NTS Exit Capacity because targets have already been set twice and indicative prices will be available at the time of setting the incentive. However we believe that it is inappropriate that GDNs should be exposed to the price risk associated with booking NTS exit capacity at an indicative price that can subsequently alter.

**3. Do respondents agree with Ofgem's proposal to set a one year incentive for GDN's purchases of interruption and NTS offtake capacity from October 2010 and longer term incentives as part of GDPCR?**

Whilst we understand the rationale behind Ofgem's proposal for a one year incentive plan we believe that this needs to be carefully considered because it could expose the GDN to considerable risk.

*DN Interruption Reform*

Parties can tender for up to five years for interruptible rights, whilst the proposed incentive mechanism will only be in place for one year. As a result Ofgem may be able to capture the benefits that a GDN has secured by efficient contracting for interruption rights by reviewing the tenders agreed when extending the incentive mechanism. However Ofgem may choose not to reflect inefficient contracts in the extension to the incentive mechanism. This exposes the GDNs to additional risk. There is also the risk of rewarding participants who deliberately take little action to control costs against the one year scheme in order to enjoy the benefits of their actions over the following five years. It would be perverse to reward a party doing this over one who implemented savings in year one.

We believe that the incentive mechanism should reflect the duration of the contract because it offers the most appropriate balance of risk and reward for the GDN. As a result we would suggest that Ofgem consider whether a longer term incentive mechanism can be established, with the use of sharing factors and caps and collars to manage the uncertainty during the early period of the reforms.

*NTS Exit Reform*

As outlined above, we believe that the additional certainty associated with NTS Exit Reform allows Ofgem to set longer term incentive mechanisms.

Finally, given the need to maintain equivalent incentives over both exit capacity and interruption, it is imperative to set the incentives for the same period. Otherwise there will be a perverse incentive to target making savings against the longer duration scheme where the benefits can be retained for longer. One possibility might be to set targets both NTS Exit Reform and DN Interruption Reform for three years from the start of the scheme. This would then require a further scheme duration of three years before the incentive scheme could be lined up with the price control.

Investment over and above the final capital expenditure allowance within the main price control which arises as a result of DN Interruption Reform may need to be the subject of a specific price control re-opener, particularly for the later years.

## Chapter 4: Draft Impact Assessment

1. **Do interested parties agree with the estimates of the costs of implementing GDN interruptions reform? Interested parties are requested to provide information about any costs they expect to incur to implement interruptions reform**

We have previously provided an estimate of its cost of implementing DN interruption reform. We note that Ofgem has adjusted the information provided by the DNs and has developed its own estimate of DN costs, which we consider is below the likely true cost. We note that Ofgem has not provided any detailed justification for the adjustments which it has made.

With regard to the discount rate used for determining the NPV we consider that a discount rate consistent with the assumed cost of capital underlying the main price control is appropriate.

**2. Do interested parties agree that Ofgem has identified the appropriate benefits of reform of the GDN interruption arrangements?**

We do not agree that Ofgem has identified the appropriate benefits of reform. Regarding the six potential benefits identified by Ofgem:

- We agree that reform should lead to better investment signals for GDNs, however we have concerns (outlined below) regarding Ofgem's estimates of the benefits in this respect;
- We do not consider that reform is likely to lead to improved security of supply. Distribution planning and operation under the current DN arrangements contributes to a very high level of supply security which is unlikely to be improved through reform;
- We agree that reform should lead to greater flexibility in offering and purchasing interruptible services;
- We consider that reform will not lead to a noticeably more efficient operation of the wholesale electricity market. Very few gas-fired power stations are connected to the gas distribution system, with low levels of interruption in recent years, and so reform is unlikely to have a noticeable impact on the overall wholesale electricity market;
- We consider that the wider economic benefits of reform may be considerable and that these need to be considered in more detail (see below);
- We do not agree that GDNs having control of the amount of interruption purchased will reveal which GDNs are most efficient since the amount of interruption purchased will depend upon the particular network characteristics and alternatives to interruption, and upon customers' responses within a network area.

Better Investment Signals and Wider Benefits

We consider that there are three ways in which the proposed reform will improve investment signals and give wider benefits:

a) By providing location-specific payments for interruption, the proposed reform may lead to situations where customers who are currently or potentially firm would choose to be interruptible because the interruption payment was greater than the current transportation discount but still below the alternative cost of investment. Such situations could lead to demand growth being handled in a more economic manner than through investment.

   The appetite of current firm customers to become interruptible under the proposed reform is unknown at present. However, under the present arrangements there has been a net movement towards more customers becoming, or wishing to become, firm rather than interruptible.

   We think it is likely that the potential benefits in this respect are relatively small. We note that Ofgem has considered two scenarios whereby reform may lead to savings of 3% or to 6.5% of investment. Ofgem has not provided any justification for these levels of savings and we do not support their use.

   We consider that the proposed interruption reform will lead to better investment signals but that the net impact may be higher levels of investment than at present with the benefits that some current and potential future interruptible customers would be firm. In this situation customers would have placed a higher value on the difference between firm and interruptible status than the cost of investment to make them firm. The customer would thus have obtained a level of transportation service which was valued more highly than the investment cost and so there would be a net benefit to customers arising from the outcome. This benefit relates to the benefits of security of supply and to the avoided alternative costs relating to being interruptible such as investment in alternative fuelling arrangements or the business costs arising from an interruption to their gas supply.

   If more customers are firm than at present then, so long as the annuitised investment cost is less than the present level of interruptible discounts for customers becoming firm, the average distribution transportation charge for firm customers should be lower than would otherwise occur.

   In summary, the net impact should be that more customers receive a higher level of transportation service but with a lower transportation charge on average for firm customers.

   We consider that these wider potential benefits are likely to be more significant than reductions in the level of investment. We therefore do not agree with Ofgem's concentration on the key benefit being the level of investment that might be avoided through reform.

b) Providing multi-year signals of the requirement for interruption or investment should give benefits. At present there is the potential that investment may be undertaken to support a customer as firm, only for the customer to become interruptible soon after. Although this is a potential problem at present, in practice it has not been a major issue and so we do not consider that reform would provide great benefit in practice in this respect.

   Multi-year contracts for DN Interruption are expected to be beneficial for many customers since they can provide greater certainty of the benefits to the customer over these years so allowing more efficient decision-making for customers, especially those needing to invest to support providing interruptible services.

c) A further benefit of the proposed reform is that the net cost of providing transportation services to interruptible customers should be more reflective of the costs involved for each customer. Even if the overall cost of interruption were to be little different from at present, the introduction of more cost-reflective net charges for such interruptible customers should give economic benefits, for example by potentially attracting some customers to have an interruptible gas supply who might otherwise not have a gas supply at all, so leading to economies of scale for the gas transportation system, and current customers, and to the (chosen) benefit of gas supply for the new customer.

**3. Do interested parties agree with Ofgem's estimate of the range of potential quantitative benefits of GDN interruptions reform?**

We do not agree with the estimated range of potential quantitative benefits since these have been determined solely in terms of potential reduced investment. As discussed above, we think there are other potential benefits arising from the reform which are likely to be more significant than any investment saving and which should be a major part of the estimated quantitative benefits.

## Chapter 5: Developments to the structure of gas distribution charges

1. **Do interested parties have any views about the timing of the introduction of the new arrangements for the customer charge?**

We consider that the proposed change to the customer charge should be made in April 2007 for a number of reasons. Firstly it is important that it is implemented within the formula year 2007/8 to better align the variability in the allowed and collected revenue, so as to improve cost-reflectivity and give more stable charges from year to year. Under the current price control (2002/3 – 2006/7) the allowed revenue is 35% variable whereas the collected income is 63% volume variable (see Table 1 below). However the proposed extension year price control does not include a volume dependent revenue driver. As a result there is a far greater difference between the volatility of the allowed and the collected income with the potential for a high level of over- or under-recovery for the year, dependent primarily on the weather experienced, leading to unstable charging levels. This can be mitigated by the proposed change to the customer charge within the year 2007/8.

Table 1 – Breakdown of collected income

| Charge Type | Charge Basis | Collected Revenue | Commodity / Capacity |
|---|---|---|---|
| Commodity Charge | Commodity Related | 35% | 63% |
| Customer Charge | Commodity Related | 28% | |
| | Capacity or Fixed | 2% | 37% |
| Capacity Charge | Capacity Related | 35% | |

We believe that the change should be made in April 2007 so that the capacity-based charge could be set at a level forecast to recover the equivalent level of revenue as the present commodity-based charge for the formula year as a whole. Making the change as soon as possible would also give the maximum benefit in terms of mitigating the potential volatility of under- or over-recovery for 2007/8.

If the change were implemented in October 2007 then, since the present commodity charge recovers around 70% of its income between October and March, it would be necessary to set the initial domestic capacity-based customer charge at a higher level so as to recover the equivalent forecast level of revenue for the formula year 2007/8. This charge level would then be too high for the following year and so the charge will need to be significantly reduced. This pattern would continue until the price is set in April on a full year basis, giving charging instability.

Given the proposed non-volume dependent price control for 2007/8, we consider it is highly beneficial to make the change to the customer charge structure within the period 2007/8. Therefore if April 2007 implementation is not considered practical, it would be better to make the change in October 2007 rather than wait to April 2008, so as to mitigate the potential volatility within 2007/8. If the change were to be made at October 2007, it would then be best to reset the level of the domestic customer capacity charge at April 2008 so as to minimise the charging instability referred to above.

**2. Do the benefits outweigh the costs associated with changing the timing of changes to gas distribution charges from October to April each year to align with changes in allowed revenue?**

We consider that a move to changing distribution charges in April each year would be beneficial for charging stability once the level of variability of the allowed and collected income has been better aligned.

Under the current arrangements charges are set for October each year with the aim of not over-recovering against allowed revenue for that Formula Year, which runs from April to March. As a result, in terms of not over-recovering during the Formula Year when they are set, the revised charges are only effective for six months, albeit a period during which around 70% of the annual volume of gas is transported. The effect of this is that changes to the charges need to be around 1.5 times larger than they would be if they were changed in April. This effect could be eliminated under an April price change so giving better charge level stability.

If changes to the level of charges were made in April, notice would need to be given by 1st February and so the decision on the level of charges would need to be made in January before the majority of winter throughput had occurred. With the present level of variability between collected and allowed revenue there could therefore be considerable over- or under-recovery at formula year end (March) which could not be taken into account when setting charges for April. This could lead to the charges being misaligned with the price controlled revenue. A further drawback of changing charges in April is that the updated forecast of demand produced in May each year would not be taken into account leading to potentially more misalignment.

We consider that in order to achieve the benefits of changing charge levels in April each year rather than in October, changes to the structure of charges need to be made as soon as practical. These changes should involve both the customer charge structure and a change to the capacity/commodity split of the distribution system charges so as to recover more of the revenue through capacity charges. We consider that the proposed customer charge change and an initial change to the capacity/commodity split in October 2007 could reduce the volatility in the allowed-collected revenue difference with throughput variations to a level to make it beneficial to introduce April charge level changes from April 2008. This would also align this change with the new distribution price control which could be beneficial for charging stability.

Provided that the variability in the collected revenue is fairly well aligned to the variability in the allowed revenue in the forthcoming price control period we would be supportive of a move to an April price change because it would eliminate a significant proportion of the year on year variability in charges. Without such alignment setting charges for April each year could lead to greater over or under recovery than at present and to charging instability in the longer term.

A further benefit of the move to April changes would be that should there be an unexpected event impacting upon revenue levels there would not be ongoing instability in the charges as there would be under the current arrangements. This additional stability would be a significant benefit.

If you have any queries, or would like to discuss this response, please do not hesitate to contact me.

Yours sincerely,

Steve Armstrong