Initial thoughts on the reform of interruption arrangements on gas distribution networks

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Overview:

This document sets out Ofgem's initial thoughts on the arrangements that should apply for gas transporter nominated interruption on the gas distribution network and the associated incentives from April 2010.

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Target Audience: This document is addressed to gas transporters, gas distribution networks, gas shippers, gas suppliers, gas users and other interested parties.

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Context

This document sets out Ofgem's initial thoughts on the arrangements that should apply for interruption on the gas distribution networks (GDNs) from April 2010. GDN interruptions reform is an important part of the overall reform of exit arrangements in gas. It aims to create a framework for GDNs to make informed trade-offs between interruptions, capacity investments, storage and other forms of flexibility. This framework complements the reform of NTS offtake arrangements by assisting GDNs in making efficient decisions about their required levels of NTS offtake capacity as well as investment on their own networks.

This consultation only affects GDN nominated interruption and does not affect agreements between shippers and customers about commercial interruption or reduction in offtake. Gas supply to domestic and small business customers will be unaffected by the issues raised in this consultation.

Any change to the interruption arrangements for GDNs requires a modification to the Uniform Network Code (UNC), which Ofgem would have to decide on. Rather than proposing a specific set of reforms, this consultation focuses on why Ofgem considers changes are required to the interruption arrangements on the GDNs, and the key principles Ofgem would expect any changes in the arrangements to address. Ofgem is committed to producing a full Impact Assessment (IA) for changes to interruption arrangements for the GDNs before making a decision about any UNC modification, and this consultation seeks information to inform the development of an IA.

Changes to the interruption arrangements on the GDNs will have important implications for the GDN price controls from April 2008, including projections for capital expenditure, the setting of operating incentives and the interaction with price control incentives. This document seeks views on how these issues should be addressed in the GDN price control review (GDPCR).

Associated Documents

- Transmission Price Control Review 2007-2012: Third Consultation. Consultation Document, March 2006. http://www.ofgem.gov.uk/ofgem/work/index.jsp?section=/areasofwork/transpcr
- Conclusions on the review of the structure of gas distribution charges. Conclusions Document, February 2006. http://www.ofgem.gov.uk/ofgem/work/index.jsp?section=/areasofwork/gasdistcharges
- Gas Distribution Price Control Review. Initial Consultation, December 2005. http://www.ofgem.gov.uk/ofgem/work/index.jsp?section=/areasofwork/gasdistpriccon

Table of Contents

Summary

This consultation seeks views on Ofgem's initial thoughts about reform of the interruption arrangements on the GDNs. It also sets out Ofgem's initial thoughts about the interactions with the Gas Distribution Price Control Review (GDPCR) and NTS enduring offtake reform. This consultation only affects GDN nominated interruption and does not affect agreements between shippers and customers for commercial interruption or supply reduction. Gas supply to domestic and small business customers will be unaffected by the issues in this consultation.

The need for reform

Since 2001 Ofgem has extensively reviewed the current interruption arrangements on the GDNs and NTS, and identified a number of weaknesses, including:

- **GDNs' lack of control of the amount and location of interruptible capacity** - Any daily metered customer can become interruptible even if the GDN does not require additional interruption. As GDNs do not determine the amount of interruptible capacity that is purchased they have no ability or incentive to minimise the costs. As many customers have rarely, if ever, been interrupted, there is uncertainty about how some customers would respond to being interrupted;

- **Too much interruption is made available, increasing costs for customers** - The uniform price for interruption (a discount from exit capacity charges) leads to too much interruption being available. Customers are interrupted on average less than twice a year. Firm customers are effectively paying for the extra interruption that is available;

- **Poor investment signals** - Currently customers can switch between firm and interruptible status at one years' notice. This gives little in the way of longer term signals about the cost of interruption to allow GDNs to make efficient trade-offs with buying NTS offtake capacity or investing in their network; and

- **Lack of flexibility in the interruption services offered** - There is currently only a 45 day interruptible product offered. This lack of flexibility might deter some customers and shippers from offering interruption services.

Principles for reform

Ofgem has identified four key principles that should be incorporated in any reform of the arrangements for interruption on the GDNs:

- **GDNs' freedom to contract and product flexibility** - GDNs should be able to choose the amount and type of interruption services they purchase. If GDNs offer a range of interruptible services it should reduce the costs by encouraging more customer and shipper participation. Those customers offering interruption services will also be aware that they are very likely to be interrupted, so they will consider in advance how to respond;

- **Efficient investment signals** - Revealing the costs of purchasing interruption services at least 3 years ahead should significantly enhance the information available to GDNs when making trade-offs with NTS offtake capacity and investing in their own network;

- **Reducing the scope for undue discrimination** - Existing and new customers, including interruptible customers should, as far as possible, be subject to equivalent arrangements for capacity allocation and use of interruption; and

- **Promoting competition** - More competition in the provision of interruptible services has the potential to reduce the costs to GDNs of purchasing interruption.

GDNs model for reform

The GDNs are developing a model for reform to fulfil their licence requirement to use reasonable endeavours to reform the interruption arrangements on their networks. The GDNs model, as shared with Ofgem, has the following key characteristics:

- all users in 2007 would be "firm" from October 2010, with firm users having the same commitments to pay distribution charges as they currently do;

- GDNs would offer to purchase a matrix of interruption products that customers could offer to sell up to 3 years ahead, with the first matrix offered in 2007; and

- if a customer is accepted by the GDN to provide interruption then the customer would have to commit to pay "firm" transportation charges, minus any payments for interruption, up to the end of their contract to provide interruption.

The GDNs are working to develop further their model.

Interactions with NTS enduring offtake reform and GDPCR

In the third consultation for the Transmission Price Control Review (TPCR), published in March 2006, Ofgem has set out its current view on reforms to the NTS enduring offtake arrangements. While Ofgem will seek to ensure that reforms of the NTS and GDN arrangements are compatible, differences in the reform arrangements are likely to be appropriate to maximise the benefits of reform on each network.

Ofgem is seeking views on the appropriate form of incentives on the GDNs as part of the GDPCR to minimise the costs of buying interruption services on their own network and NTS offtake capacity. We will consider the interaction with wider price control incentives in the July 2006 second consultation for the GDPCR.

Next steps

Ofgem would like to meet with interested parties to discuss the issues raised in this consultation, including the request for information to inform the development of an Impact Assessment (IA). Appendix 5 seeks information for Ofgem's IA, which it is expected will be published as a draft in Ofgem's follow-up paper in Autumn 2006.

1. Background

Chapter Summary

This chapter summarises the work carried out by Ofgem since 2001 to consider and develop proposals for the reform of interruption arrangements on the gas transportation and distribution networks. This consultation is focused on reform of the interruption arrangements on the GDNs, but the interactions with reform of the arrangements on the NTS are also explained.

Identifying the need for change

1.1. In March 2001 Ofgem consulted on proposals to make changes to the gas trading arrangements on the NTS.[1] This consultation included a detailed review of the interruption arrangements and identified a number of significant weaknesses with the existing regime, which Ofgem considered justified the need for reform. The consultation highlighted that the current arrangements offered customers no flexibility regarding the terms of their interruptible contracts and provided Transco, as it was then, with poor investment signals regarding the value of interruption compared to investing in new capacity, diurnal storage or other forms of flexibility.

1.2. Following from these concerns, in its 2001 review of Transco's System Operator incentives, Ofgem proposed interim reforms of the exit capacity regime which became effective from April 2002.[2] The changes allowed Transco to continue to offer a 45 day interruptible contract, but it was required to make additional payments to customers interrupted for more than fifteen days in any year by making additional fixed payments per additional day of interruption. This proposal was envisaged as a transitional arrangement until 31 March 2004. A licence modification was also made which imposed a requirement on Transco to use reasonable endeavours to introduce the universal firm registration of exit capacity rights on the NTS from 1 April 2004 or as soon as practicable thereafter.

Interruption reform and GDN sales

1.3. Following discussions with the industry, which highlighted the interactions between NTS and GDN interruption arrangements, in May 2003 Ofgem published an open letter setting out its view that the interruptions reform programme should be re-scoped to include arrangements on the GDNs. Later in May 2003, Ofgem published another letter acknowledging that the potential sale of GDNs by National Grid Transco (NGT) would have significant implications for the reform of the exit capacity regime at both an NTS and GDN level. Given the interaction between the two it was decided that the GDN interruption reform programme should form part of Ofgem's proposed consultation on disposals of GDNs by National Grid.

1.4. As part of this review, in March 2004 the Commercial Interfaces Working Group (CIWG) looked at a range of proposals for reform of interruption arrangements on

[1] "The New Gas Trading Arrangements: Review of Transco's exit capacity, interruption and liquefied natural gas arrangements, A consultation document", Ofgem, March 2001.
[2] "Transco's National Transmission System, System Operator incentives 2002-7, Final Proposals", Ofgem, December 2001.

the GDNs. The options favoured by Ofgem included a variety of market based options for allocating interruptible rights and proposed that the NTS and GDNs should not have to contract for more interruptible rights than they needed. A number of participants in CIWG were not convinced that reform of interruption arrangements on the GDNs was fundamental to consideration of GDN sales, and recommended that no change to the existing regime be implemented until the completion of the disposals. Another option suggested by some participants in the group was to stagger the move towards a market based system by providing a series of transitional payments to shippers where the interruption they offered exceeded the amount needed by the network operator.

1.5. In June 2004 Ofgem published a Regulatory Impact Assessment (RIA) of proposals discussed to date.[3] This document provided an overview of the costs and benefits of a series of options compared to the status quo. The RIA did not express a preference for a specific model but concluded that there was a case for change. The responses to the consultation indicated some agreement that the standard 45 day interruptible contract was unnecessarily inflexible, but there was concern that Ofgem's proposals where overly complex, and would lead to increased administration and transaction costs for shippers and customers.

1.6. After further consideration, in August 2004, Ofgem accepted the prevailing industry view that although there were important interactions between the NTS and GDN interruption regimes, it was appropriate to de-link reform of interruption arrangements on the GDNs from the GDN sales process.[4] A new licence condition requiring each GDN to use reasonable endeavours to implement revised interruptions arrangements by April 2006 was introduced as part of the licence changes that came into effect on 1 May 2005 as part of the GDN sales process.

1.7. Also as part of the GDN sales process, Ofgem put in place incentives on the GDNs to provide incentives for the efficient purchasing of NTS offtake capacity (flat and flex). These incentives were initially set for the 3 years of the interim period until NTS enduring offtake reforms where due to take effect in 2008.

Transitional arrangements

NTS

1.8. In June 2005 Ofgem published a letter[5] explaining that the implementation of the reformed enduring offtake arrangements, which had previously been envisaged to take effect on 1 September 2005, would be delayed until September 2007, for the allocation of offtake rights from October 2010 onwards. This allowed the enduring arrangements and associated incentives to be considered and consulted upon as part of the TPCR. Since the interim arrangements and the allocation of NTS offtake rights under those arrangements did not extend beyond 2008, the decision to delay implementation of the enduring arrangements necessitated the introduction of transitional offtake arrangements to provide for the allocation of rights between October 2008 and September 2010.

[3] National Grid Transco - Potential sale of gas distribution network businesses, Interruptions arrangements, Regulatory impact assessment, Ofgem, June 2004.
[4] National Grid Transco - Potential sale of gas distribution network businesses, Interruptions arrangements, Conclusions document on framework, Ofgem, August 2004.
[5] Enduring Offtake Arrangements, Ofgem, June 2005.

1.9. The transitional offtake arrangements constituted a development of the interim offtake arrangements adopted for 2005 to 2008. Following the delay to the enduring offtake arrangements Ofgem consulted on proposals to introduce NTS and DN incentives in the transitional offtake period.[6] As part of these proposals Ofgem concluded that the NTS's 15 day interruptions incentive should remain in place for the transitional period, but the setting of this incentive would be deferred until the TPCR. In addition to introducing incentives for the transitional period, Ofgem also accepted UNC modification proposal 0046 which introduced NTS offtake capacity reservation arrangements for the transitional period.[7]

Distribution Networks

1.10. In July 2005[8] Ofgem published a letter postponing the deadline for the final implementation of GDN interruption reform from April 2006 until April 2007. The letter emphasised that the review of NTS enduring offtake arrangements, due for implementation in 2007, had implications for GDN interruption reform and that it would be beneficial to coordinate the two.

1.11. In the conclusions document on the structure of GDN charges published in February 2006, Ofgem provided further detail on the timetable for GDN interruption reform. This included publishing a consultation document in May 2006 and issuing a follow-up paper and initial impact assessment by October 2006. The timetable also reaffirmed Ofgem's present view that, given the interaction between the amount and price of interruption, the amount and price of NTS offtake capacity and investment on a GDNs network, implementation should ideally recognise the lead time for investment. The implementation of enduring offtake arrangements and reform of GDN interruption arrangements would also require Ofgem to introduce incentives on GDNs to ensure efficient purchasing.

1.12. In the interim, in order to mitigate a tendency for GDNs to overbook NTS exit capacity, they continue to have an incentive to minimise the costs of purchasing NTS flat and flex offtake rights. The GDNs' 15 day interruptions incentive remains in place for the transitional period, but the setting of this incentive for the GDNs has been deferred, to be set in 2007 as part of the GDPCR.

Key points

1.13. Ofgem, in consultation with other interested parties, has undertaken a significant amount of work to consider the case for reform of the interruption arrangements on the GDNs. Since 2001 the weaknesses associated with the existing regime, the links between interruption and other system offtake arrangements, and Ofgem's principles for reform have been outlined on a number of occasions.

[6] Initial proposals on transitional incentive schemes supporting the offtake arrangements, Ofgem, September 2005. Final proposals on transitional incentive schemes and formal licence consultation under section 23 of the Gas Act 1986 and paragraph 3(a) of Standard Special Condition A2, Ofgem, November 2005.
[7] UNC Modification proposal 0046, Extension of the sunset clauses for registration of capacity at NTS exit points.
[8] Reform of Distribution Network Interruption Arrangements, Ofgem, July 2005.

1.14. Ofgem's principles for reform have gathered some support from industry participants, but opposition has been expressed by some shippers and customers. Doubts have been expressed over the likely costs involved in making the changes and over whether the changes considered will be workable in practice. In particular, the extent to which selling interruptible rights will provide cost reflective investment signals for the GDNs has been questioned.

1.15. The next chapter considers the case for reform of the interruption arrangements on the GDNs, and the principles which should guide reform.

2. Principles for reform

Chapter Summary

This chapter sets out the key concerns Ofgem has with the current arrangements for interruption on the GDNs, acknowledges that other stakeholders see strengths in the current arrangements and sets out the key principles Ofgem expects any reforms to meet. The key principles for reform provide a qualitative framework for evaluating any UNC modification that is proposed, and identify the factors to be considered in Ofgem's IA.

Question box

Question 1: Has Ofgem identified the key weaknesses of the current interruption arrangements for GDNs?

Question 2: To what extent do interested parties consider the current arrangements have significant strengths, and if so, what are these strengths?

Question 3: Do you agree with Ofgem's key principles for reform?

Weaknesses with the current arrangements

2.1. As explained in Chapter 1, Ofgem identified significant weaknesses in the current interruption arrangements on the NTS and GDNs (LDZs at the time) in March 2001. These weaknesses remain in the arrangements in place currently, and are discussed below.

GDNs' lack of control of the amount and location of interruption

2.2. The choice as to whether to be interruptible is made by the customer without reference to the volume or location of interruption required by the GDN. Under the current arrangements any daily metered customer, through their shipper, can choose to become interruptible by giving one year's notice. By allowing customers to become interruptible irrespective of the volume and location of interruptible capacity required, under the current arrangements GDNs are effectively offering to accept an unlimited amount of interruption from daily metered customers. As GDNs do not control the amount or location of interruption that is available they have no mechanism or incentive to minimise the costs of interruption, which raises the costs of interruption for firm customers.

2.3. Ofgem is also concerned that a number of customers have nominated to be interruptible, but have never been interrupted. This might create uncertainty about how they would manage being interrupted. Some examples of particular concern include NHS Hospital Trusts who have entered into these arrangements.

2.4. The current arrangements also allow the GDNs to require certain sites, called Network Sensitive Loads (NSLs), at the time they are connected to the GDN, to be

interruptible, sometimes for more than 45 days, rather than investing where that might be efficient. So in some cases GDNs might under invest because they can require sites in constrained parts of the network to be interruptible.

Too much interruption is made available, increasing costs for customers

2.5. As well as there being no limit on the number of daily metered customers that can be interruptible, the current arrangements encourage large numbers of customers to be interruptible because of the size of the discount on exit capacity charges and the relatively low risk of being interrupted. The GDNs have stated that over recent years sites have been interrupted on average between zero and twice a year. While the average includes a number of sites that will have been interrupted much more frequently, it suggests that the supply of interruption on 45 day contracts significantly exceeds GDNs' requirements. Firm customers, including all domestic customers, are paying for the over supply of interruption.

2.6. It has been argued that the large amount of available interruption increases security of supply and reduces the need for investment in new capacity by the GDNs. However, as discussed below, customers' ability to move between firm and interruptible contracts annually, and therefore, the absence of long term signals, reduces significantly the reliance GDNs can place on these signals when deciding on the need for new investment. Although there is a large amount of interruption available, GDNs, and ultimately other customers, might be paying more than is required to secure the amount of interruption the GDNs require.

Lack of investment signals

2.7. As customers can nominate to be firm (where the network can support a firm offtake point) or interruptible each year, the current arrangements are not a good basis for GDNs to make decisions about the trade-offs between buying interruption or NTS offtake capacity, and investing in new capacity or diurnal storage on their own network. Contracts further ahead for interruption services could improve the investment signals for GDNs by signalling when using interruption would be more cost effective than new investment and vice versa.

2.8. By providing an unlimited supply of interruptible rights for the same price, i.e. avoiding all firm exit capacity charges, GDNs are unable to determine the cost of interruption services compared to building new capacity. There is no clear link between what customers are paid to be interruptible and the costs they incur from being interrupted, so an accurate signal about the value to customers of additional capacity is not provided. If GDNs purchase interruption rights in ways that better reveal customers' costs of being interrupted they will be able to make better investment decisions.

2.9. Over the current control period of 5 years, a capital expenditure allowance of £774m was made for the GDNs.[9] Information from the GDNs shows that in a number of cases actual capital expenditure has exceeded the allowance by a factor of two. This indicates the scale of expenditure that would be affected by better signals about the trade-offs with interruption and buying NTS offtake capacity. While Ofgem

[9] The capital expenditure figures are in real terms for 2005/6.

considers that the reform of interruption arrangements is likely to reduce required investment by providing more reliable signals about the longer term cost of interruption, there might be circumstances in which the cost of interruption identifies a cost effective investment that the GDN had not previously proposed. Ofgem's Impact Assessment will consider the scale of potential benefits that reforming interruption arrangements on the GDNs could deliver in more efficient capital expenditure.

Poor signals about customers' costs of being interrupted

2.5. As the same discount is provided to all interruptible customers, customers are unable to indicate the cost to them of providing interruption services. It is not possible to identify which customers would be willing to be interrupted at a lower discount from the exit capacity charge. This rigidity potentially inflates the cost of providing interruption services for all customers.

Lack of product flexibility

2.10. The current interruptible contract offers a one size fits all approach to interruption. This lack of flexibility prevents customers from indicating the full range of terms over which they would be willing to be interrupted, and may deter some customers from offering interruptible services.

Distributional impact of current arrangements

2.11. Under the present structure of distribution charges, GDNs recover half of their use of system revenue from capacity charges and half from commodity charges. By allowing interruptible customers to avoid paying capacity charges this concentrates the burden of capacity charges on firm customers only. Although in the longer term GDNs should not build new capacity for interruptible sites, the ability of sites to become interruptible at a years' notice, even when the GDN would not place value on having the customer as interruptible, potentially increases the costs to be recovered from remaining firm users. Given that many interruptible customers are rarely, if ever, interrupted, and that non-daily metered customers, including all domestic customers, can only be firm, this raises questions over the appropriateness and distributional impact of the current charging arrangements.

2.12. Ofgem indicated in its February 2006 conclusions document on the review of the structure of gas distribution charges that it considered that any increase in the proportion of charges recovered in the capacity element of charges should only be brought in at the same time as reform of the interruption arrangements on the GDNs. Without reform of the interruption arrangements, an increase in the capacity: commodity split would increase concerns about the distributional effects of the current arrangements.

Shippers and large customers' views of the strengths of the current arrangements

2.13. In the discussions and consultations Ofgem has had on reform of interruption and exit capacity arrangements since 2001, many shippers and large industrial and

commercial customers have strongly opposed major changes to the current arrangements. These shippers and customers considered that the current arrangements, while not necessarily without shortcomings, had in general worked well in ensuring security of supply. Shippers and large industrial and commercial customers noted that the network operators had always had a large amount of interruption available, which should improve security of supply and minimise the need for investment in new capacity. Overall, many shippers and large industrial and commercial customers have been sceptical that the benefits of the proposals for reform put forward by Ofgem would exceed the implementation and additional ongoing costs associated with the proposals.

2.14. This scepticism about whether proposals for reform would pass a cost benefit test increases the importance of the IA that Ofgem will be undertaking before making a decision about reform proposals. Ofgem encourages all interested parties to provide as much information as possible in response to the questions in Appendix 5 to ensure that the IA is well informed.

2.15. There has been broad agreement that the current 45 day interruption product is unnecessarily inflexible. It constrains choice and flexibility, which could disadvantage network operators and customers. Many shippers and large industrial and commercial customers have indicated that they would support more flexible interruption products within the framework of the current arrangements.

Principles for reform

2.16. Given the weaknesses of the current arrangements, Ofgem has identified the key principles required for any reform of GDN interruption arrangements. These principles follow from Ofgem's statutory objectives and duties, and are consistent with the principles used to carry out a qualitatively assessment of the options for reform in the June 2004 RIA.

GDNs' freedom to contract and product flexibility

2.17. Ofgem considers that it is important that shippers and customers are able to signal the terms on which they are willing to provide interruptible services and that the respective network operators accept or reject these terms based on their network requirements. Network owners should not be required to offer interruption services that they do not need. By having an incentive to minimise the costs of interruption on their network the GDNs will have an incentive to offer a range of interruption products that attracts as many customers as possible to offer interruption services. For example, a firm customer unwilling to bear the risk associated with a standard interruptible contract may be willing to be interruptible for a period shorter than 45 days.

2.18. As customers with interruptible contracts will in the future have a much greater likelihood of being interrupted, because GDNs are unlikely to contract for an excessive amount of interruption, there will be less uncertainty as to how customers will manage when they are actually interrupted.

Efficient investment signals

2.19. A reformed interruptions regime should provide the GDNs with better long-term signals about the need for investment in network capacity. In response to these signals, network owners should be able to make better trade-offs between investing in new pipeline capacity or diurnal storage, purchasing NTS offtake capacity and the use of interruption, selecting whichever option is the most economic and efficient. Longer term signals about the cost of interruption can be expected to reduce the need for new capacity on the GDNs. However, there maybe some occasions where the longer term cost of interruption signals a cost effective investment that the GDN had not previously identified.

2.20. Ofgem considers that better signals of the value of capacity from users can provide important additional information for the GDNs, in addition to the planning information they gather to make supply and demand forecasts for their networks. In this context, signals will increase security of supply and reduce the risk that inefficient pipeline investments are undertaken by network owners.

Reducing the scope for undue discrimination

2.21. It is important that the scope for undue discrimination is reduced for the capacity rights of existing and new gas distribution customers. Currently new customers can only become firm if the GDN is able to accommodate a firm load or the customer is prepared to contribute to reinforcement costs to allow a firm load on to the system.

Promoting competition

2.22. It is important that where possible the interruption arrangements promote competition for the provision of interruption services. This will ultimately reduce the costs incurred by all customers to pay for system operation.

2.23. Reforms of the interruption arrangements on the GDNs also have the scope to promote further competition between electricity generators, as payments for interruption will better reflect generators' costs of being interrupted.

Implementing reform

2.24. In addition to the key principles for reform, Ofgem has identified two factors that it will be important to take into account when implementing new arrangements.

Reducing costs

2.25. The benefits of reform of interruption should be balanced against the costs of implementing the changes and participating in the new arrangements. Any change will involve some cost for participants, but even for large gas users, selling interruption services is not a core business activity and represents a relatively small part of their operating costs, so it is important that the cost of change and subsequent participation is reduced, without undermining key benefits.

Compatibility with NTS enduring offtake reforms

2.26. It is important that changes to the GDN interruption arrangements take account of the NTS enduring offtake reforms which are being developed as part of the TPCR. The NTS and GDNs have different characteristics, including the number and nature of customers connected to their networks. While it is important for efficient system operation that the reforms are compatible, it may be appropriate for the detailed aspects of reforms to be different, reflecting the nature of the different networks.

Key points

2.27. Ofgem considers that there are significant weaknesses in the interruption arrangements on the GDNs. In particular, Ofgem is concerned that the current arrangements do not give GDNs enough control over the amount and location of interruption available or an incentive to minimise the costs of interruption, lead to too much interruption being available, which is effectively paid for by firm customers, and provide poor long term investment signals to the GDNs about the efficient trade-offs between interruption, NTS offtake capacity and investing in their own network. As many customers are rarely, if ever, interrupted, there is uncertainty about how some customers would manage being interrupted.

2.28. From the previous discussions and consultations Ofgem has held on reform of interruption arrangements on the NTS and GDNs, it is clear that a number of shippers and customers have not been convinced of the need for reform. In particular, some shippers and customers considered that the costs of reform would outweigh any benefits. Ofgem's IA will be particularly important in considering proposals for reform. To improve its robustness it will be important for all interested parties to provide information to inform the IA in response to the questions in Appendix 5.

2.29. Ofgem has identified some key principles for reform, which follow on from the weaknesses of the existing regime. Ofgem considers that any reform proposals should give the GDNs more control over the purchasing of interruption, promote more flexibility and choice in the provision of interruption services, significantly improve the long term investment signals for the GDNs, reduce the scope for undue discrimination amongst users and help to promote competition. In implementing any reforms it will be important to ensure that the balance between possible benefits from additional complexity, e.g. better investment signals, is considered alongside any additional costs that arise from additional complexity. It will also be important that the reforms are compatible with enduring offtake reforms on the NTS, although it is likely to be appropriate that aspects of the arrangements will differ to reflect the different nature of the networks.

3. Implementing reform

Chapter summary

This chapter sets out Ofgem's initial thoughts on the key issues required to implement reform of the GDN interruption arrangements, given Ofgem's principles for reform set out in Chapter 2. The chapter also considers the interactions with reform of offtake arrangements on the NTS.

Question box

Question 1: To what extent do respondents consider that the model so far developed by the GDNs meets Ofgem's principles for reform?

Question 2: Has Ofgem identified all the key interactions with the enduring offtake reforms for the NTS?

Model developed by the GDNs

3.1. Consistent with their licence obligation, the GDNs have developed proposals to reform the arrangements for interruption on their networks to apply from October 2010. Ofgem understands that the GDNs have been working together to develop a single model. The GDNs have built on the work done at the time of the sale of GDNs by National Grid, including the RIA produced by Ofgem in June 2004.

3.2. The GDNs have explained their model to Ofgem. Further work is required to develop detailed business rules before a UNC modification proposal could be made. The GDNs model has the following key characteristics:

- all users in 2007 would be "firm" from October 2010, with firm users having the same commitments to pay distribution charges as they currently do, i.e. both capacity and commodity charges;
- GDNs will offer a matrix of interruption products that shippers can offer to purchase 3 years ahead, with the first matrix offered in 2007. The matrix will include different contractual periods and options for the number of annual days of interruption. These aspects of the matrix are expected to be relatively standardised across all GDNs;
- each interruption product in the matrix will have separate prices for the option to be interrupted and for each occasion that the GDN exercised the right to interrupt. The prices will be expressed as a discount from the firm exit capacity charges;
- shippers will be able to offer to purchase interruption and will have to specify which site(s) they were offering to be interrupted. If a shipper's offer of interruption is accepted by the GDN the requirement would be site specific and the contractual requirements would pass to any new shipper at the site during the period of the interruption contract; and

- if a shipper is accepted by the GDN to provide an interruption product then the shipper and all subsequent shippers for the site during the period of the contract would have to commit to pay "firm" transportation charges, minus any payments for interruption, up to the end of their contract to provide an interruption product.

3.3. There are a number of aspects of the GDNs' model that require further development and a number of issues that have not been fully considered. Amongst the most important is the locational definition of interruption products offered by the GDNs. Many of the constraints that the GDNs need to address with interruption products are likely to be capable of being addressed by a range of customers, but not necessarily all customers on their network. GDNs have indicated that they expect to seek to purchase interruption services at up to three different geographical levels - GDN wide, specific geographical areas, e.g. by postcode, and nodally, e.g. any sites beyond a certain point on the network. Each GDN will have different locational requirements that will determine the way in which they seek to purchase interruption services.

3.4. Other issues that will need to be considered are:

- the need for supplementary tenders for additional interruption services after the main matrix of products has been offered if insufficient interruption is offered in response to the matrix or GDNs' demand forecasts change significantly;

- the information that should be published by the GDNs following receipt and acceptance of offers to provide interruption services in response to the matrix offered and any supplementary tenders;

- whether uniform failure to interrupt charges should remain in place or if the lack of a payment for being interrupted (the exercise price) would be sufficient; and

- the treatment of new loads connecting to the network after 2007 and requiring investment on the network to enable it to be firm.

3.5. Ofgem will reach a view on the merits of any UNC modification proposal in due course, having carried out an IA. Using the principles for reform set out in the previous chapter, Table 3.1 below is a high level evaluation of the GDNs' model.

Table 3.1 - Evaluation of GDNs' model for interruption reform

Principles for reform	Strengths	Weaknesses
Efficient investment signals	GDNs purchase interruption services at least 3 years in advance, which is sufficient time to plan and implement new investments in response to interruption price signals.	Customers not providing interruption services do not have to commit to paying firm transportation charges for more than one year thereby providing limited long term commitments about their requirements.
Product flexibility	GDNs offer a matrix of interruption products which should attract a range of customers.	Auctions of interruption services could allow a wider variety of products to be offered by customers.
Reducing the scope for undue discrimination	Existing and new customers have the same access to firm exit capacity. GDNs will decide which customer to interrupt based on the cost of interrupting different customers.	
Promoting competition	Strengthened competition in the provision of interruption services.	
Implementing reform		
Minimise complexity	Customers who are currently firm and wish to remain so will not be directly affected. All GDNs are developing the same model. A matrix approach to product definition provides relatively simple choices for shippers and customers wishing to offer interruptible services.	
Consistency with NTS enduring offtake reforms	Both models roll forward existing firm capacity rights.	Different amounts of user commitment might affect new users' decisions about which network to connect to.

Enduring offtake arrangements for the NTS

3.6. An important link between enduring offtake reform and reform of GDN interruption arrangements is the sequencing of sales of interruption on the GDNs and NTS capacity. The GDNs have stated that they need to know the volumes and prices they will have to pay for interruption on their own networks before making commitments for NTS capacity.

3.7. Discussions are ongoing as part of the EOWG on the lead time required for investment in new capacity on the NTS, and hence the duration of the commitment required from those purchasing the capacity. If the commitment for incremental NTS capacity was required to be made 3 years in advance of delivery then the sale of interruption on the GDNs in mid-2007, as envisaged in Ofgem's February 2006 timetable for GDN interruption reform, would allow the sequencing requested by the GDNs. If, as may be the case, a commitment of more than 3 years is sought, it may not be possible to meet this request in the first year, given the time it is likely to take to reform GDN interruption arrangements.

3.8. GDNs' decisions about requirements for NTS offtake capacity and interruption services on their own network are inter-related. Information about the cost of one would always be helpful to have before decisions about the quantities of the other that need to be purchased are made. It could be argued that it does not matter which takes place first each year, as it will always be the case that whichever happened first was based on less information. However, there might be more flexibility for GDNs when purchasing NTS offtake capacity than interruption on its own network, which would suggest that purchases of interruption should occur first.

3.9. Ofgem welcomes views on the importance of GDNs' purchases of interruption services taking place before purchases of NTS offtake capacity in 2007, and subsequent years. Chapter 5 discusses further the implications of this approach for the timetable for reform of GDN interruption arrangements and NTS enduring offtake reform.

Key points

3.10. Ofgem welcomes the work by the GDNs to develop a model for reform of the interruption arrangements on their networks. While the model requires further development, and without prejudice to Ofgem's consideration of any UNC modification proposal, Ofgem considers that the GDNs model fulfils a number of Ofgem's principles for reform.

3.11. Ofgem recognises the importance of ensuring that the enduring offtake reforms for the NTS are compatible with reforms to the interruption arrangements on the GDNs. This does not require the reforms to be the same, as the different characteristics of the networks might justify different approaches.

4. Incentives for the GDNs in the next price control

Chapter summary

This chapter sets out Ofgem's initial thoughts on the regulatory framework and incentives that should apply to the GDNs to ensure efficient:

➔ purchasing and use of interruptible services on their own networks; and

➔ purchasing of capacity to offtake from the NTS.

Question box

Question 1: What is the appropriate form of an incentive on GDNs for the purchasing of interruption?

Question 2: Do respondents support the continuation of a similar incentive to the transitional incentive for GDNs purchasing of NTS offtake capacity?

Introduction

4.1. From October 2010 (two and a half years after the next GDN price control is expected to take effect) reforms to the arrangements for NTS enduring offtake and GDN interruptions are due to take effect. Under the GDNs' model for reform of interruption arrangements on their network, GDNs will hold tenders to purchase interruption services in 2007 for 2010. The current timetable for reform of NTS enduring offtake arrangements also envisages that signals for incremental NTS capacity in 2010 will need to be given in 2007.

4.2. The NTS enduring offtake and GDN interruption reforms are expected to provide GDNs with better information about the cost of NTS capacity and interruption on their own networks, to allow them to make better long term decisions about the need for investment in additional capacity or diurnal storage. In setting the price control, Ofgem and the GDNs will want to understand what the effect of these reforms will be on future capital expenditure forecasts and the incentives created by the price control more generally. In particular, Ofgem would like to understand the cumulative effect of, and interaction with, price control incentives (including RPI-X and capital expenditure rollers) and the incentives on purchases of NTS offtake capacity and interruption. This will be taken forward in the second consultation on the GDPCR due to be published in July.

GDNs' purchasing of interruption services

4.3. It is important that the GDNs have a strong incentive to make efficient purchases of interruption services on their own networks. If interruption services are purchased and used as efficiently as possible, this will minimise the risk of unnecessary investment in new capacity being triggered.

4.4. One approach would be to provide each GDN with an allowance for the purchase of interruption services on its own network in each year of the next price control. The allowance will be different for each GDN reflecting the particular characteristics of their networks, and the expected need for, and cost of, interruption services. Information about the historical use of interruption services would inform the setting of the cash allowance. To undertake this calculation assumptions about the amount and cost of interruption purchased by each GDN are required. This will be difficult to set because of the uncertainty about the prices that will be offered by shippers and customers. However, as under their model for reform, discussed in Chapter 3, GDNs will set the matrix of interruption products to be offered to shippers and customers, the prices offered by customers will be affected by the range of products and pricing structures offered by the GDNs. The price level is not a cost that is wholly outside the GDNs' control.

4.5. Uncertainty about the price level might suggest that it would be appropriate to set a specific incentive for these costs outside the overall RPI-X price control with caps, collars and risk sharing factors. This incentive could include measures to mitigate risk. This could address the pricing uncertainty, while leaving the GDNs with an incentive to offer products and pricing structures that minimises overall costs. However, caps, collars and sharing factors might distort the GDN's trade-offs between purchasing interruption on their own network, purchasing NTS offtake capacity and investing in their own network.

4.6. Ofgem expects that for most of the GDNs the size of the allowance for interruptions relative to the overall RPI-X price control would be relatively small. An alternative approach might be to include it within the overall RPI-X price control. This would provide a stronger incentive for the GDNs to minimise the overall costs of meeting the 1 in 20 planning standard because of the lack of specific capping of risk and reward. However, the lack of caps, collars and risk sharing factors could in principle expose the GDNs to unlimited risk beyond general re-opening provisions in the price control.

4.7. Whether a separate incentive is set or a cash allowance is made within the overall RPI-X price control, Ofgem will need to take account of any locational market power that exists within GDNs, which might reduce GDNs' ability to minimise the costs of interruption. Locational market power occurs where one or a limited number of offtake points are the only available options to relieve a constraint and the offtake point(s) are aware of their importance. In the longer term, efficient investments in new capacity or diurnal storage may reduce the number of constraints, and the scope for locational market power. Ofgem also has powers under the Competition Act 1998 to address anti-competitive behaviour, including by customers offering interruption services.

4.8. Nevertheless, Ofgem is aware that the GDNs currently designate over 100 offtake points as Network Sensitive Loads (NSLs), which requires the offtake points to be interruptible because they are required to relieve constraints. Ofgem has gathered information from each GDN about the number of NSLs on each LDZ. While the number of NSLs and the significance of possible issues of locational market power vary considerably between GDNs and LDZs, in some cases it might be appropriate to consider taking this into account when setting the incentives.

4.9. Ofgem considers that it is important that the GDNs have an incentive, even in cases of locational market power, to explore all possible alternatives to address the constraint. Therefore, Ofgem does not consider that treating costs associated with such constraints as a pure passthrough would be appropriate. However, some form of sharing factor for such costs might be appropriate to recognise the reduced opportunities for GDNs to minimise the costs of relieving the constraints. Ofgem welcomes views on whether and how it should take account of issues of locational market power when setting incentives for the GDNs to efficiently purchase interruption services on their own network.

4.10. Ofgem would welcome views on the form of a specific incentive that should be set for the costs of interruption on the distribution network or whether a cash allowance should be included in the overall RPI-X price control.

GDNs' purchasing of NTS offtake capacity

4.11. Under the transitional arrangements that apply for capacity used until 2010, the GDNs are subject to an incentive on the costs incurred for purchasing NTS capacity. This incentive is a single "sliding scale" incentive mechanism for each GDN for the duration of the transitional NTS offtake arrangements, with the specification of a single cost performance measure and target for each GDN covering all NTS capacity purchases (flat and flexibility), with a defined cap, collar and sharing factor. The cost performance targets are specified for each GDN with the capacity products priced at the prevailing out-turn price of NTS exit capacity. The cap is a minimum of 7.5% of the target and £5m, while the collar is a maximum of 7.5% and £5m, with a 100% sharing factor. Since the incentive schemes were put in place, Ofgem has consulted on and reduced the threshold for an Income Adjusting Event from £2m to £1m. Ofgem does not propose to change the incentives on the GDNs for the transitional period.

4.12. Going forward Ofgem will want to consider whether the form of the present incentive remains appropriate, and if so, the basis on which the parameters should be reset. Similar questions to those discussed for the purchasing of interruption services including the merits of a separate incentive scheme from the main RPI-X control also apply. These will need to be considered in the specific context of purchasing NTS offtake capacity.

4.13. Ofgem has identified a particular concern with the scope of the transitional incentive. It does not apply to short term purchases of NTS offtake capacity, e.g. capacity bought from the NTS on a day ahead basis. This distorts the GDNs decisions about whether to purchase longer term or short term, e.g. day ahead capacity from the NTS, as short term purchases do not count towards the incentive. The issue might become more material in the future if NTS enduring offtake reforms provide the NTS with incentives to maximise the release of offtake capacity at each time period. The most appropriate way to address the risk of distorting the GDNs decisions in this way would be to include all NTS offtake capacity purchases in the incentive going forward, thereby ensuring that the GDNs make efficient trade-offs between short and long term purchases. Ofgem would welcome views on whether expanding the incentive to include all NTS offtake purchases would be the most effective way to address this concern.

Key points

4.14. Ofgem is seeking views on the appropriate incentives on the GDNs to invest in capital expenditure by considering the relative costs of purchasing interruption on their own network or NTS offtake capacity.

4.15. Ofgem is seeking initial views on the appropriate form of incentives on the GDNs to minimise the operating expenditure for purchasing interruption services on their own networks and NTS offtake capacity.

4.16. Ofgem recognises the importance of the operating and capital expenditure incentives promoting efficient decisions by the GDNs about the trade-offs between purchasing interruption on their own networks, NTS offtake capacity or new investment on their networks. The cumulative effect and interactions between these incentives will be considered further as part of the GDPCR.

5. Next steps

Chapter summary

This chapter outlines the further work that Ofgem will undertake to assess the development and implementation of reform of the interruption arrangements on the GDNs.

Discussing this consultation

5.1. Ofgem would like to meet with as many interested parties as possible during the consultation period for this document to discuss the issues raised by the consultation. In particular, Ofgem welcomes views on how best to carry out the IA discussed in Appendix 5, and comments on the interactions with the GDPCR. Ofgem encourages those parties interested in discussing the issues raised in this document during the consultation period to contact Paul Smith on 020-7901-7222 or Lewis Hodgart on 020-7901-7021 to arrange a meeting.

5.2. Ofgem anticipates that detailed discussions about the GDNs' model for reform of the interruption arrangements on their networks and any other proposals for reform will take place in a workstream group following the raising of a UNC modification proposal. Discussions about NTS enduring offtake arrangements are taking place in the EOWG. From time to time it may be appropriate to discuss DN interruptions as part of this working group.

Timetable

5.3. The timetable in Table 5.1 below updates the key milestones for reform of the interruption arrangements on the GDNs, and the links to NTS enduring offtake reform and the GDPCR. The original timetable was published in Ofgem's February 2006 conclusions document on the structure of gas distribution charges. Many of the milestones and dates remain unchanged in the updated timetable. However, following discussions at the EOWG and with the GDNs, Ofgem has considered further the implications for the timetable of the interactions between NTS enduring offtake and GDN interruptions reforms (see Chapter 3).

5.4. As the nature and precise timing of NTS enduring offtake and GDN interruption reforms will depend on the contents of UNC modification proposals, Ofgem will have to consider the importance of sales of interruption services on the GDNs taking place before sales of NTS capacity when making decisions about modification proposals. For example, if GDNs are unlikely to require incremental NTS capacity for 2010, it might be less important that sales of interruption happen before sales of NTS capacity in 2007, than in future years.

5.5. Currently Ofgem intends to carry out its work programme for reform of GDN interruptions in accordance with the timetable set out in February 2006, which means that GDNs will make purchases of interruption for 2010 in about June 2007.

Table 5.1 - Updated indicative timetable for GDN interruption reform

Date	Ofgem's deliverables	Industry's deliverables	GDPCR and NTS offtake arrangements
June 2006	Meet with shippers, customers and other interested parties to discuss initial thoughts consultation	Industry to raise UNC modification proposal	Ofgem requests information about capital expenditure and associated capacity outputs in the BPQ
July / August 2006		Further development of UNC modification if necessary	
September / October 2006	Issue follow-up paper and initial IA, including proposals on DN incentives	UNC modification to be voted to consultation	BPQ responses from GDNs due
November / December 2006	Consultation on licence drafting for DN incentives	Consultation and final report on UNC modification expected	GDPCR publish third consultation. NTS offtake team publish final proposals in December
January / February 2007	Ofgem's decision on UNC modification and final IA		NTS offtake team draft and consult on licence modifications
March 2007	Licence modification for DN incentives to take effect from April	GDNs raise proposals to change charging methodologies, consult and issue final proposals	GDPCR publish fourth consultation
June 2007		Purchase of interruption for 2010 by GDNs	

Appendices

Index

Appendix 1 - Consultation Response and Questions

1.1. Ofgem would like to hear the views of interested parties in relation to any of the issues set out in this document. In particular, we would like to hear from gas transporters, gas distribution networks, gas shippers, gas suppliers and gas users.

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

1.3. Responses should be received by 28 June 2006 and should be sent to:

Lewis Hodgart
Policy Analyst, Gas Distribution
Ofgem
9 Millbank
London
SW1P 3GE
lewis.hodgart@ofgem.gov.uk

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

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

1.6. Having considered the responses to this consultation, Ofgem intends to publish a follow-up document, including a draft IA in September/ October 2006. Any questions on this document should, in the first instance, be directed to Paul Smith (020-7901-7222 or paul.smith@ofgem.gov.uk) or Lewis Hodgart (020-7901-7021 or lewis.hodgart@ofgem.gov.uk).

CHAPTER: Two

Question 1: Has Ofgem identified the key weaknesses of the current interruption arrangements for GDNs?

Question 2: To what extent do interested parties consider the current arrangements have significant strengths, and if so, what are these strengths?

Question 3: Do you agree with Ofgem's key principles for reform?

CHAPTER: Three

Question 1: To what extent do respondents consider that the model so far developed by the GDNs meets Ofgem's principles for reform?

Question 2: Has Ofgem identified all the key interactions with the enduring offtake reforms for the NTS?

CHAPTER: Four

Question 1: What is the appropriate form of an incentive on GDNs for the purchasing of interruption?

Question 2: Do respondents support the continuation of a similar incentive to the transitional incentive for GDNs purchasing of NTS offtake capacity?

APPENDIX: Two

Impact Assessment information request.

Appendix 2 – Impact Assessment information request

Introduction

1.1. Ofgem has committed to carry out an IA on reforms to the GDN interruptions arrangements before making a decision about any UNC modifications raised proposing reforms. Ofgem will produce an IA that evaluates proposed reforms qualitatively using the principles in Chapter 2 and quantitatively compared to a base case. Ofgem considers that the June 2004 RIA on interruption reform provides a good framework from which the IA can be developed, while taking account of the comments received in response to this IA. Ofgem will also co-ordinate the development of this IA with the IA for NTS enduring offtake reform being taken forward as part of the TPCR.

Approach to carrying out the IA

1.2. Ofgem will use the existing arrangements for interruption on the GDNs as the base case for the IA. Ofgem would expect to use any UNC modification proposals as alternative scenarios for the IA. Ofgem will also consider whether additional scenarios should be considered in the IA after considering responses to this consultation and discussions in any work group formed to consider a UNC modification proposal.

1.3. Ofgem will seek to estimate the potential costs and benefits of reform relative to the base case. Ofgem will particularly be seeking to identify:

- the potential benefits of more efficient decisions by GDNs about investment in new capacity, diurnal storage or other forms of flexibility;
- the potential to reduce the costs of purchasing interruption on the GDNs and to reduce total economic costs if customers are better able to signal the cost and value of interruption through more flexible interruption services;
- the potential to reduce the costs of interruption or the need for additional investment by GDNs if more customers are prepared to offer to be interrupted in response to a range of interruption products rather than one interruption product;
- possible cost savings if customers who become firm from 2010 decide that it is no longer economic to maintain back-up fuel supplies; and
- any one off or ongoing administration costs that will arise for GDNs, shippers, suppliers or customers as a result of reform.

1.4. Ofgem considers that there might be other benefits arising from reform of DN interruptions, including incentives for GDNs to schedule maintenance more efficiently to avoid incurring the costs of interruption, and potential indirect benefits for NTS

and electricity system balancing through more efficient decision making by embedded generators. For some of these benefits it might be particularly difficult to quantify potential impacts in a robust manner for an IA. In these cases, Ofgem will identify potential qualitative benefits and their possible materiality.

1.5. Consistent with Ofgem's approach to carrying out IAs, in addition to assessing the costs and benefits, Ofgem will assess any environmental effects, the impact on security of supply, health and safety issues, distributional effects, impacts on small businesses, and risks and unintended consequences.

1.6. To carry out the IA Ofgem will use a forward looking approach to identify potential costs and benefits, but will use historical information to verify the reasonableness of forward looking estimates.

Information required for the IA

1.7. To produce an IA Ofgem requires information, particularly from customers, shippers and GDNs. Ofgem has set out below the initial information it requires to develop the IA. Ofgem will respect the confidentiality of any information provided by customers, subject to consideration of any requests for information under the Freedom of Information Act 2000.

Customers and shippers

When responding Ofgem would be grateful if customers could:

- ➔ confirm the nature of their business (e.g. power generator, chemicals manufacturer, etc);
- ➔ the number of daily metered offtakes they have from each GDN; and
- ➔ the annual quantity of gas off taken at each daily metered site and whether each site is currently nominated as firm or interruptible.

Ofgem would like shippers to provide the same information as customers, other than explaining the nature of their businesses.

Question 1: Ofgem would like to understand customers' costs of turning down their supply of gas or being completely interrupted. Ofgem would be particularly interested in evidence from customers and shippers of occasions in the last year when they have reduced their offtake of gas in response to prevailing wholesale prices rather than a network operator nominated interruption. For each such occasion, Ofgem would like to know the:

- ➔ date;
- ➔ amount by which the gas supply was reduced;
- ➔ customers and shippers understanding of the prevailing wholesale market price; and

➔ customers' alternative arrangements, e.g. back-up fuel supply.

Question 2: Ofgem would also welcome information about customers and shippers forward looking cost of being interrupted. In particular, Ofgem would like to understand the wholesale gas price at which a customer or shipper would be prepared to be interrupted over the next year. Please indicate if this price varies for different times of the year or as the number of days of interruption increases.

Question 3: Under the current arrangements for interruption on the GDNs there is a standard 45 day interruption contract. Ofgem would welcome views from customers and shippers not currently nominating to be interruptible about what characteristics they would need in an interruption contract to make it attractive for them to offer interruption services, in addition to the appropriate price, requested in question 2. The characteristics might include the number of days of interruption each year, the notice period for interruption and the length in years of the interruption contract.

Question 4: Ofgem would like customers and shippers to identify any implementation and ongoing costs that they would expect to incur as a result of reform of the interruption arrangements on the GDNs. When making the estimate of additional costs, customers and shippers should use the GDNs' model for reform explained in Chapter 3 as the basis for estimating any additional costs compared to the current arrangements. These costs should only include additional costs that would be incurred as a result of reform of the interruption arrangements on the GDNs, but which would not otherwise be incurred. In particular, costs arising from NTS enduring offtake reforms should not be included. Ofgem would like customers and shippers to separately identify implementation costs and ongoing costs and for each to state the:

➔ IT systems costs;

➔ staff costs, including assumed additional Full Time Employees (FTEs) and cost per FTE; and

➔ other costs.

Costs should be in 2006 prices with implementation costs stated as a total and ongoing costs stated as an annual cost.

Ofgem would encourage customers and shippers to provide additional commentary to explain their cost estimates, and any particular sensitivity in the estimates to aspects of the GDNs' model. Ofgem would particularly welcome additional commentary from any customers who are currently firm and do not expect to want to offer interruption services under new arrangements, but consider that they will incur additional costs as a result of reform.

GDNs

Question 5: Ofgem would like each GDN for each of the last three years to provide a list of all occasions on which they have nominated interruption by providing the:

- ➔ date of interruption;
- ➔ reason for interruption, e.g. supply demand balancing or constraint relief. If both factors then the GDN should provide the subsequent information requested under this question split between interruption for supply demand balancing and interruption to relieve a constraint;
- ➔ number of sites interrupted on each date; and
- ➔ the total volume of interruption on each date.

Question 6: For all occasions of interruption listed in response to question 5 where the GDN had the choice of more than one site that could have been interrupted to address the supply demand balance or relieve a constraint, Ofgem would like each GDN to explain how it chose which site to interrupt.

Question 7: Ofgem would like each GDN to confirm the total number of sites and volume of interruption it has available for this gas year.

Question 8: Ofgem would like each GDN to identify any implementation and ongoing costs that they would expect to incur as a result of reform of the interruption arrangements on their networks. When making the estimate of additional costs, GDNs should use their own model for reform explained in Chapter 3 as the basis for estimating any additional costs compared to the current arrangements. These costs should only include additional costs that would be incurred as a result of reform of the interruption arrangements on their networks, but which would not otherwise be incurred. In particular, costs arising from NTS enduring offtake reforms should not be included. Ofgem would like customers and shippers to separately identify implementation costs and ongoing costs and for each to state the:

- ➔ IT systems costs;
- ➔ staff costs, including assumed additional FTEs and cost per FTE; and
- ➔ other costs.

Costs should be in 2006 prices with implementation costs stated as a total and ongoing costs stated as an annual cost.

Ofgem would encourage GDNs to provide additional commentary to explain their cost estimates.

All interested parties

Question 9: **Environmental impact** - Ofgem welcomes views on the environmental impact of reform of interruption arrangements on the GDNs, and whether any impact is likely to be significant.

Question 10: **Security of supply** - Ofgem expects that reform of the interruption arrangements on the GDNs will lead to an improvement in the security of supply of the gas network through improved signals about the need for investment in new capacity, diurnal storage or other forms of flexibility. It is difficult to measure quantitatively impacts on security of supply, so Ofgem will focus on a qualitative assessment. Ofgem welcomes views on the likely impact of reform of the interruption arrangements on the GDNs on security of supply.

Question 11: **Health and safety** - Ofgem welcomes views on the impact on health and safety of reform of interruption arrangements on the GDNs, and whether any impact is likely to be significant.

Question 12: **Distributional effects** - Ofgem expects that reform of the interruption arrangements on the GDNs will lead over time to a lower overall cost for customers, including lower charges to be paid to the GDNs. If an approach similar to the GDNs' model is adopted, whereby all customers are firm and GDNs determine the quantity of interruption to buy, all customers will be liable for firm exit capacity charges, with payments for being interrupted depending on which customers the GDNs choose to contract with. The distributional impact of this change is difficult to forecast precisely in advance and will depend on annual quantities and prices of interruption. It will also depend on the changes made to the capacity: commodity split of distribution charges. Ofgem will use the best available information at the time of the IA to assess the distributional effects. Ofgem welcomes comments on the likely distributional effects of reform of interruption arrangements on the GDNs.

Question 13: **Impact on small businesses** - Ofgem's initial view is that proposed reform of the interruption arrangements on the GDNs will have no direct effect on small businesses as they will not currently nominate to be interruptible and are very unlikely to want or be able to be interruptible in the future, as only daily metered sites can be interruptible. Under the GDNs model they would not need to do anything as they would currently be firm customers and would remain firm customers. Ofgem welcomes views on the impact on small businesses, if any, of reform of interruption arrangements on the GDNs.

Question 14: **Risks and unintended consequences** - Ofgem has set out in Chapter 2 its concerns about the current arrangements for interruption on the GDNs. Chapter 1 also identifies previous consultations Ofgem has issued which identified significant weaknesses in the current arrangements. Ofgem's IA will build on this analysis to identify the risks of not changing the current arrangements. Ofgem would welcome respondents views on any risks or unintended consequences they believe would arise from reform of interruption arrangements on the GDNs, which are not identified in this consultation or the other questions for the IA.

Appendix 3 – Current GDN interruption arrangements

1.1. The model for the current GDN interruption arrangements predates the sale by National Grid Gas (NGG) of four of its eight distribution networks, and was introduced as part of the Network Code in March 1996 when Transco had sole responsibility for managing constraints across the network.

1.2. The interruptions arrangements flow from GDNs' statutory and licence obligations, including the obligation to develop and maintain an efficient and economic pipeline system, to avoid any undue discrimination, and to develop a cost-reflective charging methodology.

1.3. Under the current arrangements security of supply is managed by granting interruptible rights on request to any customer who flows a daily metered load greater than 200,000 therms/ annum. Specific supply points likely to face particular constraints can be deemed Network Sensitive Loads (NSL) and determined interruptible at a GDN's discretion, but at all other points customers have the freedom to select whether to be interruptible or not.

1.4. Firm customers can declare themselves interruptible by giving one year's notice and GDNs are obliged to grant this status whether they require the supply point to be interruptible or not. Interruptible customers can also indicate that they wish to become firm at one year's notice, but this is dependent on sufficient capacity being available to accommodate the request and GDNs can defer granting firm status if further capacity reinforcement would be necessary.

1.5. Interruptible customers are currently compensated for making themselves available to be interrupted by having the capacity component of their use of system charges excluded from their bill. In return for this discount, the standard interruptible contract provides that customers cannot be interrupted for more than 45 days in any one year, but any customer interrupted for more than 15 is also compensated by receiving additional fixed payments per additional day of interruption.

1.6. GDNs currently use what is referred to as the 'equitability algorithm' to determine which sites have their gas supply interrupted when an interruption is deemed necessary. The equitability algorithm applies in circumstances where GDNs can choose between two or more interruptible sites in order to resolve a particular constraint on the network. It seeks to treat all gas consumers on an equal basis when selecting who to interrupt.

Appendix 4 - The Authority's Powers and Duties

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

1.2. The Authority's powers and duties are largely provided for in statute, principally the Gas Act 1986, the Electricity Act 1989, the Utilities Act 2000, the Competition Act 1998, the Enterprise Act 2002 and the Energy Act 2004, as well as arising from directly effective European Community legislation. References to the Gas Act and the Electricity Act in this Appendix are to Part 1 of each of those Acts.[10]

1.3. Duties and functions relating to gas are set out in the Gas Act and those relating to electricity are set out in the Electricity Act. This Appendix must be read accordingly[11].

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

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

- The need to secure that, so far as it is economical to meet them, all reasonable demands in Great Britain for gas conveyed through pipes are met;
- The need to secure that all reasonable demands for electricity are met;
- The need to secure that licence holders are able to finance the activities which are the subject of obligations on them[12]; and
- The interests of individuals who are disabled or chronically sick, of pensionable age, with low incomes, or residing in rural areas.[13]

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

[10] Entitled "Gas Supply" and "Electricity Supply" respectively.
[11] However, in exercising a function under the Electricity Act the Authority may have regard to the interests of consumers in relation to gas conveyed through pipes and vice versa in the case of it exercising a function under the Gas Act.
[12] Under the Gas Act and the Utilities Act, in the case of Gas Act functions, or the Electricity Act, the Utilities Act and certain parts of the Energy Act in the case of Electricity Act functions.
[13] The Authority may have regard to other descriptions of consumers.

- Promote efficiency and economy on the part of those licensed[14] under the relevant Act and the efficient use of gas conveyed through pipes and electricity conveyed by distribution systems or transmission systems;
- Protect the public from dangers arising from the conveyance of gas through pipes or the use of gas conveyed through pipes and from the generation, transmission, distribution or supply of electricity;
- Contribute to the achievement of sustainable development; and
- Secure a diverse and viable long-term energy supply.

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

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

1.8. The Authority has powers under the Competition Act to investigate suspected anti-competitive activity and take action for breaches of the prohibitions in the legislation in respect of the gas and electricity sectors in Great Britain and is a designated National Competition Authority under the EC Modernisation Regulation[15] and therefore part of the European Competition Network. The Authority also has concurrent powers with the Office of Fair Trading in respect of market investigation references to the Competition Commission.

[14] or persons authorised by exemptions to carry on any activity.
[15] Council Regulation (EC) 1/2003

Appendix 5 - Glossary

B

Business Planning Questionnaire

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

C

Capacity charges

These charges account for 50 percent of the revenue recovered by GDNs from distribution use of system charges. Capacity charges are applied to the peak-day demand (in pence per peak day KWh per day).

Capital expenditure

Expenditure on investment in long lived distribution assets, such as gas pipelines.

Commodity charges

These charges account for 50 percent of the revenue recovered by GDNs from distribution use of system charges. Commodity charges are applied to the annual demand (in pence per kWh).

D

Daily Metered (DM)

Supply points with meters which read volumes of gas consumed either on a continuous or on a daily basis.

Distribution Use of System Charges

Distribution use of system charges are levied by GDNs to gas shippers for the use of the distribution system to transport gas to the end user. They comprise capacity and commodity charges. Approximately 50 percent of the revenue recovered from use of system charges comes from capacity charges and 50 percent from commodity charges.

G

Gas Distribution Network (GDN)

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

Gas Distribution Price Control Review (GDPCR)

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

L

Local Distribution Zones (LDZs)

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

N

National Transmission System (NTS)

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

Network Sensitive Load (NSL)

GDNs can designate an offtake point as an NSL if certain pressure levels would be triggered in the network if the offtake at the site was not interrupted. GDNs can interrupt NSLs more than the 45 days of interruption allowed under the UNC for other interruptible sites.

R

RPI-X

The form of control currently applied to network monopolies. Each company is given a revenue allowance in the first year of each control period. The price control then specifies that in each subsequent year the allowance will move by 'X' per cent in real terms.

Re-openers

A process undertaken by Ofgem to re-set the revenue allowances (or the parameters that give rise to revenue allowances) under a price control, before the scheduled next formal review date for the relevant price control.

T

Transmission Price Control Review (TPCR)

The TPCR will establish the price controls for the transmission licensees which will take effect in April 2007 for a 5 year period. The review applies to the three electricity transmission licensees, National Grid Electricity Transmission, Scottish

Power Transmission Limited, Scottish Hydro-Electric Transmission Limited and to the licensed gas transporter responsible for the gas transmission system, National Grid Gas.

U

Uniform Network Code (UNC)

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

Appendix 6 - Feedback Questionnaire

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

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

1.2. Please send your comments to:

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