Section 23 notice to modify Transco's Gas Transporter licence

Explanatory note to accompany proposals for new entry points to Transco's National Transmission System

August 2005

Summary

In May this year, in response to the emergence of further applicants for access to NTS capacity at new entry points, Ofgem decided to consult on the appropriate process for determining UCAGs and on proposed UCAG figures for new entry points. The modelling underlying the consultation document[1] indicated that, since the last review, there have been significant changes to the anticipated pattern of flows across the gas network which imply significant changes in long-run incremental costs and large variances between new and existing UCAGs. In the light of this, the May 2005 consultation covered not only issues relating to the new UCAGs but also the possibility of resetting all existing UCAGs before the next round of long-term auctions (which are currently scheduled for September 2005).

Ofgem consulted in May 2005 on two main options going forward in relation to UCAGs:

- Option 1 – calculate UCAGs for the new applicants on the basis of the methodology detailed in Chapter 3 of the May 2005 consultation document and recalculate existing UCAGs on the same basis. Given that shippers can purchase entry capacity rights for up to 15 years, it was proposed to review all existing UCAGs before the next long-term entry capacity auction (i.e. September 2005).

- Option 2 – cap the UCAGs for new entry points to the level of the UCAGs at near-by existing entry points and leave existing UCAGs unchanged. Review all these UCAGs as part of the next price control review.

Taking no action is not practicable as there are developers interested in bringing forward new storage and importation projects that would not be able to connect to the NTS without a UCAG. This would be inefficient, distort competition in the wholesale market and possibly have adverse implications for security of supply.

Based on its statutory duties, and after careful consideration of the responses, and having received expert advice, the Authority decided in July 2005 to adopt option 2 for the remainder of this price control, which involves the capping of UCAGs for smaller

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[1] Gas transmission – new NTS entry points, reserve prices in auctions and unit cost allowances (UCAs), Consultation document May 2005 139/05

new entry points for the remainder of this price control. The Authority also decided not to revise existing UCAGs until the next price control review. In addition the Authority decided that further consultation should take place in relation to the treatment of large new entry points.

This document includes capped UCAG figures for new entry points at Burton Agnes (Caythorpe), Blyborough (Welton), Winkfield , Tatsfield, Albury and Palmers Wood. As these UCAGs will determine Transco's maximum allowed system operator revenue, they will have to be incorporated in Gas Transporter (GT) licence currently held by Transco in respect of its National Transmission System (NTS), treated as granted under section 7 of the Act which was amended and restated by a licensing scheme made by the Secretary of State for Trade and Industry pursuant to paragraph 19 of schedule 7 to the Utilities Act 2000 on 28 September 2001 (the "Original Transco Licence") through a section 23 notice. This explanatory note accompanies Ofgem's section 23 notice issued today.

Table of contents

1. Introduction

Purpose of this document

1.1. Since the last price control Ofgem consulted on setting Unit Cost Allowances (Gross) (UCAGs) for Milford Haven and Barton Stacey in June 2003 and for Garton in November 2003. Since this time it has become clear that there are substantial issues relating to the setting of further new UCAGs. In particular, changes in the pattern of flows across the gas network imply very significant changes in long-run incremental costs and large variances between new UCAGs compared to existing UCAGs.

1.2. In the light of these changes, Ofgem consulted in May 2005[2] on two main options going forward in relation to UCAGs:

- Option 1 – calculate UCAGs for the new applicants on the basis of the methodology detailed in Chapter 3 of the May 2005 consultation document and recalculate existing UCAGs on the same basis. Given that shippers can purchase entry capacity rights for up to 15 years, it is proposed to review all existing UCAGs before the next long-term entry capacity auction (i.e. September 2005).

- Option 2 – cap the UCAGs for new entry points to the level of the UCAGs at near-by existing entry points and leave existing UCAGs unchanged. Review all these UCAGs as part of the next price control review.

- Taking no action is not practicable as there are developers interested in bringing forward new storage and importation projects that would not be able to connect to the NTS without a UCAG. This would be inefficient, distort competition in the wholesale market and possibly have adverse implications for security of supply.

[2] Gas Transmission – new NTS entry points, reserve prices in auctions and unit cost allowances (UCAs), Consultation document (139/05), May 2005.

1.3. Ofgem received 21 responses to the May 2005 consultation document, 17 of which are wholly non-confidential and three of which were partially non-confidential. All non-confidential responses or part of responses which are non-confidential have been published on the Ofgem website. Chapter 3 provides a brief summary of the responses to the May 2005 consultation.

1.4. Based on its statutory duties, and after careful consideration of the responses, and having received expert advice, the Authority decided in July 2005 to adopt what was set out as option 2 in setting UCAGs for smaller new entry points for the remainder of this price control. This results in capped UCAG figures for new entry points at Burton Agnes (Caythorpe), Blyborough (Welton), Winkfield , Tatsfield, Albury and Palmers Wood. As these UCAGs will determine Transco's maximum allowed system operator revenue, they will have to be incorporated in Transco's Gas Transporter (GT) licence currently held by Transco in respect of its National Transmission System (NTS), treated as granted under section 7 of the Act which was amended and restated by a licensing scheme made by the Secretary of State for Trade and Industry pursuant to paragraph 19 of schedule 7 to the Utilities Act 2000 on 28 September 2001 (the "Original Transco Licence") through a section 23 notice. This explanatory note accompanies Ofgem's section 23 notice issued today.

1.5. A copy of the proposed licence modification is contained in Appendix 1.

Statutory framework

Gas Act - Section 4AA

1.6. Section 4AA of the Gas Act states that the principal objective of the Authority in carrying out its functions under the Gas Act is to protect the interests of consumers in relation to gas conveyed through pipes, wherever appropriate, by promoting effective competition between those engaged in, or in commercial activities connected with, the shipping, transportation or supply of gas. For these purposes consumers include both existing and future consumers.

1.7. In carrying out its functions under the Gas Act in a manner which is best calculated to further the principal objective, the Authority is required to have regard to the following:

- 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; and
- the need to secure that licence holders are able to finance the carrying out of the activities which they are authorised or required to do.

1.8. The Authority must also carry out its functions in the manner it considers is best calculated to:

- promote efficiency and economy on the part of authorised persons and the efficient use of gas conveyed through pipes;
- protect the public from dangers arising from the conveyance of gas through pipes or the use of such gas;
- to contribute to the achievement of sustainable development; and
- secure a diverse and viable long-term energy supply.

1.9. In carrying out its functions in accordance with the above objectives and duties, the Authority must have regard to:

- 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 appearing to the Authority to represent the best regulatory practice.

1.10. Ofgem will act in accordance with its principal objective and have regard to all of its duties when carrying out its functions.

Gas Act - Section 23

1.11. Section 23 of the Gas Act provides for the modification of licences issued under section 7 of the Act. This provision allows for the modification of licences only where agreement to do so is given by the license holder and subject to the other conditions in section 23 of the Act.

1.12. If the licensee opposes a licence modification proposed under section 23 of the Act, Ofgem can refer the modification decision to the Competition Commission for its consideration.

Rationale

1.13. Warwick Energy has requested a UCAG for a new NTS entry point at Burton Agnes (Caythorpe). Star Energy has requested UCAGs for new NTS entry points at Blyborough (Welton), Winkfield , Tatsfield, Albury and Palmers Wood.

1.14. Under the current entry capacity arrangements, Ofgem determines UCAGs. These are estimates of the unit costs of providing long-run incremental entry capacity at an entry point on the NTS. At present, Transco bases the reserve prices in the medium and long-term auctions on UCAGs. UCAGs are also used as part of the regulatory incentive arrangements designed to encourage Transco to invest in a timely way and are key to determining the commitments a shipper would need to make in order that Transco would be prepared to invest in the NTS to provide capacity to a new entry point.

1.15. Under the current price control arrangements, UCAGs for new entry points have to be included in Transco's GT licence in respect of its National Transmission system, treated as granted under section 7 of the Act which was amended and restated by a licensing scheme made by the Secretary of State for Trade and Industry pursuant to paragraph 19 of schedule 7 to the Utilities Act 2000 on 28 September 2001 through a section 23 notice in order for parties to secure NTS capacity at these new entry points.

Structure of this document

1.16. Within this explanatory note:

- Chapter 2 provides a brief summary of the key options raised in the May 2005 consultation document;
- Chapter 3 contains a summary of the responses to the May 2005 consultation document;
- Chapter 4 contains a brief summary of the expert panel views;
- Chapter 5 sets out Ofgem's decision with respect to the two options consulted on in the May 2005 consultation document;
- Chapter 6 sets out Ofgem's preferred approach to capping UCAGs for smaller new entry points with proposed (revised) UCAG figures for Burton Agnes (Caythorpe), Blyborough (Welton), Winkfield , Tatsfield, Albury and Palmers Wood.

1.17. There are additionally 4 appendices:

- Appendix 1 contains a copy of the proposed licence modification and notice under section 23 of the Gas Act 1986;
- Appendix 2 sets out different methods of capping UCAGs;
- Appendix 3 contains the final impact assessment;
- Appendix 4 contains a list of respondents of non-confidential responses.

Responses

1.18. As set out in this section 23 notice which has been published today, Ofgem seeks views on the proposed modifications to Transco NTS's GT licence in respect of its National Transmission System by 14 September 2005. Responses to the section 23 notice should be addressed to:

Robert Hull

Director, Transmission

Office of Gas and Electricity Markets

9 Millbank

London SW1P 3GE

e-mail: robert.hull@ofgem.gov.uk

1.19. All responses will be published by placing them in Ofgem's library and/or on Ofgem's website and so any confidential material should be included as a separate annex and clearly labelled 'confidential'. It would be helpful if responses could be provided electronically.

2. The May 2005 consultation

2.1. Since the 2002 review of Transco's price control and incentive arrangements, gas transmission entry charges have been determined via auctions for capacity in the short, medium and long-term. At present, Transco bases the reserve prices for the medium and long-term auctions on "Unit Cost Allowances" (UCAs). These are estimates of the unit costs of providing long-run incremental capacity at an NTS entry point and are based on the UCAGs determined by Ofgem. UCAGs are also used as part of the regulatory incentive arrangements designed to encourage Transco to invest in a timely way and are key to determining the commitments a shipper has to make before Transco will invest in the NTS to provide capacity to a new entry point.

2.2. Since the last review, a number of developers interested in establishing new gas storage sites and/or entry terminals have requested that Ofgem set UCAGs for their proposed new entry points to the NTS. In responding to these requests Ofgem has, to date, decided not to reopen the current Transco price control to reset all UCAGs but has addressed UCAGs for new entrants on a case by case basis.

2.3. In May this year, in response to the emergence of further new entrants, Ofgem decided to consult on the appropriate process for determining UCAGs and on proposed UCAG figures for new entry points. The modelling underlying the consultation document[3] indicated that, since the last review, there have been significant changes to the anticipated pattern of flows across the gas network which imply significant changes in long-run incremental costs and large variances between new and existing UCAGs. In the light of this, the May 2005 consultation covered not only issues relating to the new UCAGs but also the possibility of resetting all existing UCAGs before the next round of long-term auctions (which have been scheduled for September 2005).

2.4. The May 2005 consultation document included two options which are set out below. As well as examining whether Ofgem should reset all existing UCAGs this year or review all UCAGs at the time of the next price control, the

[3] Gas transmission – new NTS entry points, reserve prices in auctions and unit cost allowances (UCAs),

consultation also examined whether Ofgem had developed an appropriate methodology and modelling tools to reset all UCAGs. Ofgem also appointed two independent experts, George Yarrow and Roy Feltham, to advise the Authority with respect to the two options and the modelling approach and underlying assumptions. Their views are summarised in chapter 4 of this document and their full reports are published on Ofgem's website.

Option 1 - calculate UCAGs for the new applicants on the basis of the methodology detailed in the consultation document and recalculate all existing UCAGs on the same basis. Given that shippers can purchase entry capacity rights for up to 15 years, it was proposed to review all existing UCAGs before the next long-term entry capacity auction (i.e. September 2005).

Option 2 – cap the UCAGs for new entry points at a level related to the UCAGs at near-by existing entry points. Leave existing UCAGs unchanged at this stage and review all UCAGs as part of the next price control review.

2.5. A further option considered by Ofgem prior to the May 2005 consultation process, involved setting UCAGs for new entry points on the new basis whilst not revising existing UCAGs until the next price control. This option was not consulted on given that it would be discriminatory and might result in an inefficient by-passing of the NTS, i.e. new entrants might want to connect to pipelines owned by third parties rather than connecting directly to the NTS.

Summary of options

	Advantages	*Disadvantages*
Option 1 *Review of existing UCAGs and implement proposed UCAGs for new entry points*	1. More cost reflective UCAs would: o provide better locational signals (resulting in better short-term and long-term outcomes); o reduce the risk of one group of shippers cross-subsidising another group of shippers with its implications for competition; o facilitate better use of existing capacity and hence should minimise the cost to consumers.	1. Some shippers argue that they have legitimate expectations that UCAs were set until the next price control review; 2. A change before the next price control might reduce regulatory certainty, with potential adverse implications for investment and financing costs; 3. There is no consensus that either Transcost or the underlying assumptions have resulted in the indicative UCAGs published in the May 2005 consultation being more robust than existing UCAGs; 4. Need to delay the September auctions to implement changes to all UCAGs.
Option 2 *Do not review existing UCAs until the next price control and cap UCAs for new entrants*	1. Preserves regulatory certainty (although not fully); 2. More time to develop a consistent approach between entry and exit; 3. Some new projects may obtain more certainty; 4. Preferred option of Ofgem's expert advisers.	1. Extends uncertainty over the future level of UCAs until the next price control 2. Could result in higher costs to consumers due to underrecovery being smeared over all shippers and passed on to consumers. These costs could be substantial. 3. Increased risk of adverse outcomes (e.g stranded assets) due to weak locational signals; 4. Implications for competitiveness of the market, cross-subsidy issues.

2.6. In essence, option 1 would have the advantage of setting cost reflective charges and minimising costs to customers but has the disadvantage of increasing regulatory uncertainty by re-opening part of an existing price con

2.7. trol package. However, there is no consensus that the revised UCAGs as presented in the May 2005 document are more robust than the existing UCAGs. Hence, Ofgem is not confident that it has a robust basis for adopting option 1. Also, this would set a precedent (involving re-opening the price control) and hence could potentially increase the cost of financing of new projects going forward, which would not only affect shippers but might also affect consumers.

2.8. Option 2 avoids re-opening the existing price control but puts consumers at risk of potentially significant costs if new entry capacity is purchased at prices below the actual long-run incremental cost of providing it. This might especially be an issue in relation to very large new projects. However, as pointed out before, Ofgem acknowledges that it has no robust basis for assuming that the UCAGs underlying option 1 are more robust.

3. Summary of Responses

3.1. Ofgem received 21 responses to the May 2005 consultation document (from Transco, shippers, potential storage operators and NGT distribution). Ofgem did not receive any responses from consumer bodies, such as energywatch, nor did Ofgem receive a formal response from DTI.

3.2. Not all respondents specifically commented on the proposed options. Also, some respondents proposed alternative options.

Option 1

3.3. Six respondents supported option 1, although for very different reasons. Three respondents, including Transco NTS, supported option 1 given that this would result in more cost-reflective charges and either did not comment or were broadly satisfied with the modelling approach. However, Transco NTS points out that option 1 is likely to have an adverse effect on price stability and regulatory certainty and the impact this might have on new entrants. It also questions whether there might be an expectation that UCAGs would be fixed until the next price control.

3.4. Three other respondents argued that the May 2005 consultation has taken the industry by surprise and increased the regulatory risk. It has also been argued that as a result of revising existing UCAGs some shippers might face significant losses if they bought long-term entry capacity rights as a downward revision of a UCAG would undermine the value of these rights in secondary markets.

3.5. It was also pointed out that Ofgem has given earlier assurances (in an open letter and at an RGTA workstream meeting) that UCAGs had been set for the duration of the current price control period. Given that the information is now in the public domain these respondents argue that it would be best to resolve the issue as soon as possible, i.e. by revising all UCAGs before the next auction, in order to minimise any further regulatory risk. Although one of these three respondents expresses concern that changing UCAGs before the next price control would create a precedent for future changes which would create additional regulatory uncertainty.

Option 2

3.6. Four respondents supported option 2 as presented in the May 2005 consultation document. Their main reasons for supporting option 2 were to (i) enable more work to be done and (ii) ensure regulatory certainty. One respondent pointed out that bringing forward the review of existing UCAGs would not be consistent with Ofgem's decision to delay the Enduring Off-take arrangements in view of the interactions which have been identified between entry and exit, including in relation to the setting of UCAGs.

3.7. Transco NTS argued that if Ofgem decides to implement option 2 it would require comfort in relation to its licence obligations, such as Standard Special Condition A5 5 (aa) (ii) which relate to the objectives associated with setting reserve prices, most notably that charges reflect the costs incurred by the licensee and that reserve prices are set best calculated to promote efficiency, promote competition, etc. Transco also raised the issue that option 2 might expose Transco to a revenue shortfall through non-cost reflective UCAGs in advance of the next price control.

Alternative options

3.8. Four respondents argued that existing UCAGs should not be revised for regulatory certainty reasons. However, they argued that UCAGs for new entry points should be cost-reflective and based on the best available information (i.e. not capped).

3.9. Another option would be to not revise existing UCAGs now but to limit the number of years for which shippers could buy entry capacity rights in the next long-term auctions as this would reduce the opportunity for some parties to grab 'cheap' capacity at the expense of other system users. However, this would have implications for the NPV test both for new entry points and existing entry points if there is a requirement to release incremental capacity (i.e. capacity above baseline).

Treatment of DN embedded storage facilities

3.10. Five respondents commented on the appropriate treatment of DN embedded storage facilities. In general, the respondents supported the proposed contractual approach.

3.11. However, it was pointed out that given the considerable information asymmetry between the DN and the project developer, it would be important to have transparency obligations. Also, it was argued that although a contractual approach may be simpler, it would be important to impose obligations on DNs to operate in a non-discriminatory manner.

3.12. Another respondent argued that such an obligation should only apply to no undue discrimination and not prevent gas transporters from reflecting accurately the costs and benefits associated with each proposal in the terms offered, or indeed meeting their Gas Act obligation to develop an efficient and economical system.

3.13. Two respondents, both strongly supported a contractual approach, set out how a such an approach might work in practice. One of them argued that the approved generic storage connection agreement could provide a starting point for a bilateral agreement.

4. Expert panel views

4.1. In May 2005, Ofgem decided that a panel of experts should be appointed to carry out a review of Transcost and to advise the Authority on the two options proposed in the May 2005 consultation paper.

4.2. In June 2005 Ofgem appointed George Yarrow (Regulatory Policy Institute - Oxford) as expert economic adviser and Roy Feltham (Tonen Associates) as expert technical adviser. Due to the tight timeline the experts have not been able to provide the Authority with a consolidated report. The two reports from the expert advisers have been published on the Ofgem website. It should be noted that the views presented in these reports are the views of the expert advisers and are not necessarily Ofgem's views.

George Yarrow

Preferred option

4.3. George Yarrow advised the Authority to adopt option 2 in order to better preserve regulatory certainty. Option 2 should also be preferred above option 1 for proportionality and consistency reasons.

4.4. In addition, option 2 would give Ofgem and stakeholders more time to consider (i) interactions between entry and exit charges which jointly determine transportation costs; (ii) deep versus shallow charging; (iii) whether Transcost is robust and the underlying Ofgem assumptions appropriate, and more specifically whether the magnitude of changes presented in the May 2005 document stems from an overly-deep cost attribution procedure.

4.5. George Yarrow argues that there are a number of problems with the existing modelling that give grounds for believing that the results are biased and, more generally, are non-robust. In his view, some of the numbers are non-credible, and a few changes of assumptions used in the modelling could change the numbers substantially.

4.6. In George Yarrow's view, while it is possible that the revised UCAGs under option 1 are more cost-reflective than the existing UCAGs, it is also quite

possible that they are not. Given the above, George Yarrow advises the Authority to adopt option 2.

Implementation of option 2

4.7. George Yarrow advises that UCAs for smaller new entry points should be capped through using interpolation using existing UCAs at near-by entry points and that further consultation should take place with respect to the setting of UCAs for larger new entry points, as capping these UCAs might not be appropriate.

4.8. George Yarrow points out that existing UCAGs show a very definite geographic pattern, higher in the north and in the east, and a regression of existing UCAG values on grid co-ordinates would produce a relationship that could be used to interpolate between established entry terminals, even when the new site is relatively distant from established terminals. This is equivalent to determining new UCAGs as weighted averages of existing UCAGs,with the relevant weights being determined by the locations of new entry points relative to existing entry points.

4.9. Also, for large new entry points the precedent has been set by Milford Haven, which approach did not rely on Transcost and left the final determination of the UCAG to be made after the auction had occurred.

Transcost and underlying modelling assumptions

4.10. George Yarrow questioned Ofgem's approach to the determination of the base network. Ofgem determined the base network by starting with the first year's 1 in 20 flows rather than 1 in 20 flows for each of the modelling years and by including auction signals and the lower of the 1 in 20 assumption and the baseline in situations of sterilised capacity.

4.11. George Yarrow's preferred approach is to base the base network on estimated 1 in 20 flows – which are, by definition, balanced – over a number of years (using Transco's 'planned' network for each of the modelling years). George Yarrow suggests that Transco will have to form a view, or, better, a set of probabilistic

views, on how network flows might evolve. These views should be informed by, among other things, auction signals, but not in any set, formulaic way.

4.12. George Yarrow's preferred method is therefore to use the best-forecast flows in an optimised network, which would give a total throughput at around the estimated 1 in 20 level of demand. One disadvantage of the Ofgem approach which includes LTSEC auction signals in a formulaic way and, in situations of sterilised capacity, the lower of the 1 in 20 assumption and the baseline, is that it could result in an assumed base network that is somewhat different from anything actually planned by Transco. George Yarrow points out that if UCAGs are intended to reflect actual investment costs this approach could potentially be a source of significant error.

4.13. Transcost and solver based modelling constrain costs to be non-negative. In George Yarrow's view this is one of the weaknesses of the current implementation of Transcost, which might result in an upward bias in cost estimates. The non-negativity constraints necessarily imply some systematic deviations from cost-reflectivity.

4.14. Ofgem's modelling was based on the incremental gas flows as anticipated by the new entrants, which in the case of the May 2005 document, were all in the order of 9 mcm/d. George Yarrow does not agree with this as a general approach and argues that the size of the increment and the UCA should ideally be determined simultaneously, ex post, a point that is likely to be particularly important for assessment of larger increments.

4.15. Overall, given that the re-assessment of UCAs for existing entry points raises a series of difficult and complex issues, George Yarrow argues that these are better addressed during the price control review, when a range of inter-related issues can be assessed in the round.

Roy Feltham report

4.16. Roy Feltham queries some of the Ofgem assumptions used in the modelling, especially the inclusion of auction signals and the use of load absorption to balance the model.

4.17. Roy Feltham points out that the UCA determination process is different to the process used by Transco to plan physical capacity required to satisfy system security obligations and uses different assumptions. Some of these assumptions may have an influence on the robustness of UCAs.

4.18. Roy Feltham questions Ofgem's approach to balancing the network, i.e. the use of load absorption. One of the main problems with this approach is that it does not distinguish between capacity required solely to 'reconfigure' the network to accommodate changes in supply patterns and capacity required solely to 'reinforce' the network to accommodate changes in demands at exit points. It is not evident whether or not the outputs from this approach are reflective of the actual cost of new investment in physical capacity.

4.19. Based on limited information and limited timeframe, it is not possible to determine whether or not the Transcost program is 'fit for purpose' or that the results from the UCA process are consistent with the real costs of providing additional capacity in the NTS.

5. Ofgem decision

5.1. Ofgem's principal objective is to protect the interests of consumers by promoting competition where practicable, and through regulation where necessary.

5.2. In order to protect the interests of consumers, it is important that transmission charges are set in an objective, transparent and non-discriminatory manner. Cost reflective charges ensure that market participants take into account the costs of transmission in their decisions and so lead to efficient investment and as a consequence minimise overall costs to consumers. Cost-reflective charging minimises costs to consumers, not only in the short-term but also in the long-term.

5.3. It is also important that market participants have confidence in the operation of the regulatory regime and that perceptions of regulatory risk are not unduly increased. Otherwise investment by market participants in new importation and storage facilities may be discouraged. This would not be in the interests of consumers or the development of competition in wholesale markets.

Regulatory uncertainty

5.4. Several respondents as well as one of the Ofgem expert advisers point out that bringing forward the review of existing UCAs might create regulatory uncertainty.

5.5. On the other hand, one of the respondents has made the point that, since the May 2005 document has placed the information (on the proposed revision of UCAGs) in the public domain, there is already a degree of uncertainty and, on that basis, it might be best 'to get it over with' rather than have a prolonged period of uncertainty until the next price control.

5.6. One respondent argues that it might face potential losses due to it having bought long-term entry capacity rights which might lose value in secondary markets if UCAs were downwardly revised. Arguably, this issue would also arise if the UCAs are reviewed in April 2007 as part of the next price control. Hence this does not seem an overwhelming reason not to review UCAs now (i.e. option 1).

5.7. It is also plausible that developers might argue that they have legitimate expectations that UCAs were set for five years and that any upward adjustment of an existing UCA and/or a restriction to the duration for which capacity rights might be purchased, might affect the fundamentals of their project.

5.8. On 5 December 2002, Ofgem sent a letter to major industry players about long-term entry capacity allocations, following a joint workshop held by Ofgem and Transco in November 2002. The letter includes the statements that:

"While Ofgem is unable to fetter its discretion, it does attempt to minimise uncertainty caused by its actions in making regulatory decisions (...) In this way, we attempt to generate confidence that the Authority would not undermine the value of a long-term capacity product by fundamentally altering the rules affecting its value (...)"

"However, the impact of any changes in incremental costs on the price schedules will be minimised as the price schedule costs are linked to the UCAs, which have been set for the duration of the price control period."

5.9. However, the letter also points out that Ofgem is "unable to fetter its discretion" and, in the preceding sentence, that "A long-term product by its very nature, has an element of uncertainty".

Robustness of Transcost and underlying assumptions

5.10. In view of the importance of maintaining confidence in the regulatory regime it is important that, in making any decision to re-set UCAGs during the course of a price control period, the Authority should be confident that the revised UCAGs should be more cost reflective than the existing UCAGs and that the differences between existing and revised UCAGs is sufficiently material to justify making changes before the next price control review.

5.11. In principle UCAGs set on the basis of up to date network information should be more cost-reflective. Both the existing UCAGs (included in Transco's licence) and the revised and new UCAGs (consulted on in the May 2005 consultation document) were set using the Transcost model.

5.12. However, it is worth noting that the Ofgem assumptions which underlie the UCAGs presented in the May consultation document are different compared with the Transco assumptions at the time of the last price control. The key difference is the data source. Transco based its modelling on long-term demand forecasts. This especially had an impact on St Fergus as the previous expectation was that demand at St Fergus would keep increasing over the next 10 years. The current UCA modelling has been based on a combination of next year's 1 in 20 demand forecast and auction signals; however, in situations where there is sterilised capacity, the lower of the 1 in 20 demand forecast and the baseline has been used.

5.13. Another significant difference is that, in balancing the base network, Transco used load substitution whereas for the May 2005 document a load absorption approach has been applied, which reflects the expectation that demand for gas is likely to increase over the next years. This has implications for the size of the base network. In modelling the incremental network, both Transco and Ofgem use load absorption to absorb the incremental flows. The main differences therefore relate to the determination of the base network.

5.14. This therefore raises the question whether the proposed UCAs based on Ofgem's assumptions are more robust than the existing UCAs based on Transco's assumptions at the time of the last price control. Both expert advisers as well as a number of respondents have queried Ofgem's underlying assumptions as well as, more generally, the use of the Transcost model. Ofgem therefore recognises that there is no consensus that the revised UCAGs presented in the May 2005 consultation document are more cost-reflective.

5.15. Transparency is also a factor in ensuring the stability and credibility of the regulatory regime. Several respondents have indicated that they would like to have a much greater understanding of how the modelling has been carried out. Transparency is clearly very important and arguably the current process, especially the fact that the up-to-date fully populated Transcost model is not publicly available, is not sufficiently transparent.

Authority July 2005 decision

5.16. In its July 2005 meeting the Authority decided, on the basis of its principal objective and other statutory duties and after careful consideration of the responses to the May consultation document and internal and external advice, that the interests of consumers would be best protected if UCAGs for smaller new entry points were to be set by reference to UCAGs at nearby entry points, and that existing UCAGs should be left unchanged and reviewed as part of the next price control review. The Authority acknowledges the importance of confidence in the regulatory regime and that it has no robust basis for demonstrating that the UCAGs underlying option 1 are more robust than the existing UCAGs.

5.17. The Authority also decided that further options should be developed to set the UCAGs for larger new entry points.

5.18. In its response to the May 2005 consultation document Transco NTS argues that if Ofgem decides to implement option 2 it would require comfort in relation to its licence obligations, such as Standard Special Condition A5 5 (aa) which relate to the objectives associated with setting reserve prices, most notably that charges should reflect the costs incurred by the licensee and that reserve prices are set best calculated to promote efficiency, promote competition, etc. It has also stated that it would require comfort that it would be allowed to recover the resulting shortfall in revenue as part of the price control.

5.19. The Gas and Electricity Markets Authority has considered this request, on the assumption that the comfort sought relates, in fact, to Standard Special Condition A5 (5)(aa)(ii)(I) of Transco's Gas Transporter Licence - that is, the definition of "the relevant methodology objectives" in the context of setting reserve prices at auction as including setting that such prices "at a level best calculated to promote efficiency and avoid undue preference in the supply of transportation services" - and the related obligations in Standard Special Condition A5 (1) and (3).

5.20. Without fettering its discretion, given that the Authority determines UCAGs, it considers that to the extent that any reserve price at auction in respect of transportation arrangements is attributable to the Authority's decision (applying

option 2) to cap the UCAGs for a new entry point to the level of the UCAGs at nearby existing entry points, to that extent the Authority would not regard the setting of that price as inconsistent with the objective in Standard Special Condition A5 (5)(aa)(ii)(I).

5.21. The Authority has also provided comfort to Transco that in situations where the capping of UCAGs for new entry points gives rise to a revenue shortfall, although the Authority obviously cannot anticipate the decision of the Authority at the time of the next price control review or fetter its discretion, Ofgem's current policy is that it would be reasonable for Transco to recover the cost of efficiently incurred investment in relation to the provision of incremental capacity as part of the next price control.

6. Capping UCAs for new entry points

6.1. In its July 21st meeting the Authority has decided to adopt option 2, i.e. to cap UCAGs for new entry points and to review all UCAGs as part of the next price control. Given that option 2 could potentially increase the risk of stranded assets the Authority has decided that the capping of UCAGs for new entry points should only apply to smaller new entry points and that further consultation should take place with respect to the treatment of larger new entry points.

6.2. Ofgem has carefully considered different methods to cap UCAGs for smaller new entry points and has decided that the most appropriate method is to calculate UCAGs at smaller new entry points by taking the lower of:

- the arithmetic average of the UCAGs at the three existing entry points geographically nearest to the location where the new entry flow joins the existing NTS plus the unit cost of any connecting pipeline to be built by Transco from the new entry point to the location where the gas joins the existing NTS, or:

- the UCAG of any of the three nearest existing entry points plus the unit cost of any connecting pipeline deemed to be built by Transco from the new entry point to the relevant existing entry point.

6.3. Transco decides which network reinforcement, where and when, will actually be carried out, in accordance with its statutory duties and licence obligations. Ofgem therefore recognises that the deemed pipelines might not be built in practice.

6.4. Table 6.1 shows indicative UCAGs for the new entry points based on the average value of the three nearest existing UCAGs and a comparison with a UCAG including the cost of a deemed pipeline. The proposed UCAG is the lower of the two.

6.5. Ofgem's approach to capping UCAGs is informed by expert advice. Ofgem's expert adviser, George Yarrow, has recommended setting the UCAGs for the smaller new entry points using a regression analysis of three triangulated entry points. Ofgem's approach is based on a triangulation approach but not on

regression analysis. A number of possible modelling options to implement Option 2 are discussed in Appendix 2.

Table 6.1 Capped UCAGs using different methods

	(1) Arithmetic Average UCAGs	(2) Deemed Connection UCAGs	**Indicative UCAGs (lowest of (1) and (2))**
Ganstead (Caythorpe)	-	-	-
Burton Agnes (Caythorpe)	0.0830	0.2752	**0.0830**
Blyborough (Welton)	0.0382	0.2764	**0.0382**
Winkfield (Albury)	0.0918	0.4357	**0.0918**
Tatsfield (Palmers Wood)	0.0918	0.5376	**0.0918**
Albury	0.4509	0.3962	**0.3962**
Palmers Wood	0.1445	0.5999	**0.1445**

6.6. Using the arithmetic average of the three nearest entry points could lead to a situation where it is less costly (for the developer, not overall) to connect a pipeline directly from its facilities to a nearby entry point with a low UCAG. In order to avoid such inefficient behaviour it is proposed that the indicative UCAGs calculated from the average of the three nearest entry points be reduced if it was shown that the unit cost of a connecting pipeline to a nearby entry point plus the UCAG at that entry point was lower than the arithmetic average.

6.7. Table 6.2 below shows the UCAGs which Ofgem proposes to include in Transco's NTS licence through a section 23 notice.

Table 6.2 Capped UCAGs

	Proposed capped UCAGs
Ganstead (Caythorpe)	-
Burton Agnes (Caythorpe)[4]	**0.0830**
Blyborough (Welton)	**0.0382**
Winkfield (Albury)	**0.0918**
Tatsfield (Palmers Wood)	**0.0918**
Albury	**0.3962**
Palmers Wood	**0.1445**

Larger entry points

6.8. Ofgem has in the past used a different model to estimate UCAGs for larger entry points given that Transcost is not suitable in these situations. Two developers, Canatxx and Calor Gas, have requested UCAGs for large new entry points. The Authority has decided that further work needs to be undertaken to develop an approach to calculate the UCAGs for larger new entry points.

6.9. It has been pointed out by Ofgem's expert adviser that capping UCAGs for large new entry points might not be appropriate. The UCAGs set at the last price control were based on relatively small increments of gas (6 mcm/d) entering the NTS. Larger increments are expected to cause significantly different costs. Therefore, the underlying analysis for the UCAGs calculated at the last price control is unlikely to be robust for very large incremental flows. A precedent was set in setting the UCA for Milford Haven. In this case modelling was not based on Transcost given the larger flow increments.

6.10. Further consultation on the treatment of large entry points will allow Ofgem and stakeholders time to further consider the merits of various options and to improve the transparency with respect to the process used to set these UCAGs.

[4] Transco has recently advised that Caythorpe will connect to Burton Agnes, not Ganstead as previously advised.

Appendix 1 Proposed modifications to Transco's gas transporter licence

NOTICE UNDER S 23 (3) OF THE GAS ACT 1986

The Gas and Electricity Markets Authority (**the Authority**) hereby gives notice pursuant to section 23 (3) of the Gas Act 1986 (**the Act**) as follows:

1. The Authority proposes to modify the conditions of the gas transporter licence granted to Transco plc (**Transco**) in respect of its National Transmission System treated as granted under section 7 of the Act which was amended and restated by a licensing scheme made by the Secretary of State for Trade and Industry pursuant to paragraph 19 of schedule 7 to the Utilities Act 2000 on 28 September 2001 (the "Original Transco Licence") by amending Special Condition C8B: *Restriction of revenue in respect of the NTS transportation owner activity and NTS system operation activity Part 2,* by amending:

   (a) The current definition of UCAG including the accompanying table set out in Part 2 paragraph 14 (5) (a) of Special Condition C8B in the manner set out in Appendix 1 of this notice; and

   (b) Schedule A: *NTS output measures for the price control* Table A1: *NTS TO baseline entry capacity (GWh/day)* and Table A2: *Initial NTS SO baseline entry capacity (GWh/day)* in the manner set out in Appendix 2 of this notice.

2. Wherever possible the amendments are shown in bold and italicised below. The amendments would be deemed to take effect from 0.00 hours on 15 September 2005.

3. The reasons why the Authority proposes to make these licence modifications and their effects are set out in the main document published by the Authority in conjunction with this Notice and entitled: *"Section 23 notice to modify Transco's gas transporter licence. Explanatory note to accompany proposals for a new entry terminal to Transco's National Transmission System"*, Ofgem, August 2005.

4. In summary the effects of the proposed licence modifications are as follows:

   (a) The addition of new National Transmission System (NTS) entry points at: Burton Agnes (Caythorpe), Blyborough (Welton), Winkfield, Tatsfield, Albury and Palmers Wood under Transco's NTS system operation activity revenue restrictions and more specifically, in relation to Transco's NTS system operator entry capacity investment incentive revenue;

   (b) The addition of new unit cost allowances gross ("UCAGs") for each of the planned new NTS entry points at: Burton Agnes (Caythorpe), Blyborough (Welton), Winkfield, Tatsfield, Albury and Palmers Wood; and

   (c) The addition of new NTS entry points at Burton Agnes (Caythorpe), Blyborough (Welton), Winkfield, Tatsfield, Albury and Palmers Wood under Transco's NTS transportation owner (TO) output measures for the price control and under Transco's system operation (SO) output measures.

5. More specifically, the effects of the proposed licence modifications are as follows:

   The inclusion of a new UCAG for each of the planned new entry points to accommodate storage facilities at Burton Agnes (Caythorpe), Blyborough (Welton), Winkfield , Tatsfield, Albury and Palmers Wood will supplement the existing UCAGs contained in Transco's GT licence in respect of its National Transmission System for existing entry terminals. The UCAGs, which underpin Transco's entry capacity investment incentive, are ex-ante agreed estimates of the unit costs of providing incremental entry capacity at each NTS entry point. The UCAGs determine the range of Transco's revenue allowance for the provision of incremental entry capacity. Transco is allowed to earn a rate of return of between 5.25 per cent and 12.25 per cent on the UCAG on each unit of obligated incremental entry capacity offered for sale in response to signals revealed in long-term entry capacity auctions.

The proposed modifications will provide UCAGs to accommodate new entry points to the NTS at Burton Agnes (Caythorpe), Blyborough (Welton), Winkfield , Tatsfield, Albury and Palmers Wood.

The Authority has proposed 12 further modifications in order to update Schedule A of Transco's GT licence in respect of its National Transmission System. Tables A1: *NTS TO baseline entry capacity (GWh / day)* and Table A2: *Initial NTS SO baseline entry capacity (GWh / day)* have been updated to accommodate the zero baseline output measures and zero TO and SO baseline entry capacity volumes for the new entry points at Burton Agnes (Caythorpe), Blyborough (Welton), Winkfield, Tatsfield, Albury and Palmers Wood. The current output measures set out in Schedule A provide for the SO baseline entry capacity levels that Transco will be required to offer for sale for each NTS entry point in each year of its current price control.

6. A copy of the proposed licence modifications is attached to this Notice. Copies of the explanatory document that accompanies the proposed modifications are available (free of charge) from the Ofgem Research and Information Centre (telephone 020 7901 7003) or on the Ofgem website at www.ofgem.gov.uk.

7. Any representations or objections to the proposed licence modifications must be made by 14 September 2005 and should be addressed to:

Robert Hull

Office of Gas and Electricity Markets

9 Millbank

London

SW1P 3GE

Or by email to Robert.Hull@ofgem.gov.uk

Appendix 1

Special Condition C8B: Restriction of revenue in respect of the NTS transportation owner activity and NTS system operation activity

Part 2: The NTS system operation activity revenue restrictions

Paragraph 14 (5): Entry capacity investment incentive revenue ($ECIIR_t$)

$UCAG^j$ means the unit cost allowance in pounds per kilowatt hour in respect of terminal j and has the value set out in the following tables:

Terminal j	$UCAG^j$ (£/kWh)
Bacton	0.182
Barrow	0.014
Easington	0.034
St. Fergus	0.639
Teesside	0.059
Theddlethorpe	0.031
Glenmavis	0.532
Partington	0.009
Avonmouth	0.064
Isle of Grain	0.186
Dynevor Arms	0.000
Hornsea	0.153
Hatfield Moor (storage)	0.042
Hatfield Moor (onshore)	0.042
Cheshire	0.003
Hole House Farm	0.002
Wytch Farm	0.000
Burton Point	0.002
Barton Stacey	0.000
Garton	0.039

Burton Agnes (Caythorpe)	0.083
Winkfield	0.092
Blyborough (Welton)	0.038
Tatsfield	0.092
Albury	0.396
Palmers Wood	0.145

Terminal j	**$UCAG^j$** **(£/kWh)**	**$UCAG^j$** **(£/kWh)**
Milford Haven	0.343 where $PRIORCIOEC^j_m \leq$ 500 GWh/d	0.257 where $PRIORCIOEC^j_m >$ 500 GWh/d

$PRIORCIOEC^j_m$ shall mean the cumulative obligated incremental entry capacity in respect of each day in month m at terminal j at a date to be determined by the Authority.

Appendix 2

Schedule A: NTS output measures for the price control

Table A1: NTS TO baseline entry capacity (GWh/day)

Terminal	2002/3	2003/4	2004/5	2005/6	2006 /7
Bacton	1527	1646	1839	1939	1939
Barrow	812	790	790	791	791
Easington	1105	985	1141	1180	1180
St. Fergus	1689	1721	1809	1831	1863
Teesside	910	823	834	845	845
Theddlethorpe	758	628	879	942	942
Glenmavis	110	110	110	110	110
Partington	239	239	239	239	239
Avonmouth	165	165	165	165	165
Isle of Grain	243	243	243	243	243
Dynevor Arms	55	55	55	55	55
Hornsea	195	195	195	195	195
Hatfield Moor (storage)	60	60	60	60	60
Hatfield Moor (onshore)	1.1	1.1	1.1	1.1	1.1
Cheshire	0	0	119	179	238
Hole House Farm	29	29	29	29	29
Wytch Farm	3.6	3.6	3.6	3.6	3.6
Burton Point	61.3	61.3	61.3	61.3	61.3
Milford Haven	0	0	0	0	0
Barton Stacey	0	0	0	0	0
Garton	0	0	0	0	0

Burton Agnes (Caythorpe)	0	0	0	0	0
Winkfield	0	0	0	0	0
Blyborough (Welton)	0	0	0	0	0
Tatsfield	0	0	0	0	0
Albury	0	0	0	0	0
Palmers Wood	0	0	0	0	0

Table A2: Initial NTS SO baseline entry capacity (GWh/day)

	MONTH				
	$1 \leq m \geq 12$	**$13 \leq m \geq 24$**	**$25 \leq m \geq 36$**	**$37 \leq m \geq 48$**	**$m \geq 49$**
Terminal	**2002/3**	**2003/4**	**2004/5**	**2005/6**	**2006/7**
Bacton	1374	1481	1655	1745	1745
Barrow	731	711	711	712	712
Easington	995	887	1027	1062	1062
St. Fergus	1520	1549	1628	1648	1677
Teesside	819	741	751	761	761
Theddlethorpe	682	565	791	848	848
Glenmavis	99	99	99	99	99
Partington	215	215	215	215	215
Avonmouth	149	149	149	149	149
Isle of Grain	218	218	218	218	218
Dynevor Arms	50	50	50	50	50
Hornsea	175	175	175	175	175
Hatfield Moor (storage)	54	54	54	54	54
Hatfield Moor (onshore)	1	1	1	1	1
Cheshire	0	0	107	161	214

Hole House Farm	26	26	26	26	26
Wytch Farm	3.2	3.2	3.2	3.2	3.2
Burton Point	55	55	55	55	55
Milford Haven	0	0	0	0	0
Barton Stacey	0	0	0	0	0
Garton	0	0	0	0	0
Burton Agnes (Caythorpe)	0	0	0	0	0
Winkfield	0	0	0	0	0
Blyborough (Welton)	0	0	0	0	0
Tatsfield	0	0	0	0	0
Albury	0	0	0	0	0
Palmers Wood	0	0	0	0	0

Appendix 2 Methods of capping UCAGs

There are a number of ways to implement cap UCAGs, each with its own merits.

A. Three geographically nearest existing entry points using regression analysis

Set new UCAGs based on UCAGs at the three geographically nearest existing entry points using regression analysis. The new UCAG is calculated at the location where the new entry flow joins the existing NTS. The cost of a connecting pipeline (if provided by Transco) is then added to the calculated UCAG. The benefits of this method are that it is consistent, thus avoiding discrimination, it is relatively easy to implement and it is transparent.

The estimated equation used in the regression analysis is:

$$UCAG_N = a + b\,X_N + c\,Y_N + e$$

Where:

$UCAG_N$ is the UCAG at location N,

X_N is the eastern geographic coordinate of entry point N,

Y_N is the northern geographic coordinate of entry point N and

e is an error term.

The equations are regressed such that the sum of the squares of the error terms is minimised. Three entry points are regressed to find the constant a and coefficients b and c. The equation and the constants are then used to calculate UCAGs at other nearby locations.

It would also be possible to regress **all** existing entry points (rather than the three geographically nearest existing entry points) to determine UCAGs for the new smaller entry points.

B. George Yarrow method

Use the UCAGs provided by George Yarrow (subject to error checking and amending to incorporate connecting pipelines where appropriate). This method is quite similar to (A) above, except that in some cases expert judgement has been used to choose the

appropriate entry points. For example, in calculating the UCAG for Ganstead, the UCAG at Hornsea has been disregarded in favour of the UCAG at Barrow. Hornsea is some 15km from Ganstead while Barrow is some 200km distant. The reason given for rejecting the Hornsea UCAG was that it is substantially higher than other entry points in the north, suggesting that it incorporated site specific assets. It may, given time, be possible to establish what "site specific assets" were included in the Hornsea cost. However, it is expected that the higher cost are in fact the pipeline from Hornsea to the Beeford, which is part of the NTS. It would be difficult to argue that this asset is site specific and at the same time suggest that a pipeline from Barrow to Lupton is not.

C. Simple arithmetic average of the nearest three existing UCAGs

Set UCAGs based on the simple arithmetic average of the nearest three existing UCAGs. This is transparent, consistent and non-discriminatory.

D. Regression analysis or arithmetic average

Set UCAGs for smaller entry points based on regression analysis or the simple arithmetic average as discussed above.

Table 1 shows the results from the modelling and comparisons of the different values. The first section considers the existing entry points; the second section shows the entry points under consideration. The first column shows the UCAG set in Transco's licence for existing entry points. The second column shows what the regression analysis of all existing UCAGs would have predicted. The third column shows the output from the Transcost model that was published in the May consultation document. The fourth contains UCAGs that George Yarrow suggested; these were based on regression of three nearby UCAGs. The fifth column shows a regression of the three nearest UCAGs and the sixth column shows the simple arithmetic average of the three nearest UCAGs.

Table 1: Results of various modelling options

	Existing UCA	Regression of all existing UCAs	Transcost model results.	Regression of 3 UCAs selected by GY	Regression of 3 nearest UCAs	Arithmetic Averageof nearest 3 UCAs
	UCAG £/KwH 2004/5 prices	UCAG £/KwH 2004/5 prices	UCAG £/KwH 2004/5 prices	UCAG £/KwH 2004/5 prices	UCAG £/KwH 2004/5 prices	UCAG £/KwH 2004/5 prices
Bacton	0.2005	0.0372	0.1210			
Barrow	0.0154	0.2227	0.0000			
Easington	0.0375	0.1240	0.1498			
St Fergus	0.7040	0.4617	0.0000			
Teesside	0.0650	0.2226	0.0000			
Theddlethorpe	0.0342	0.0989	0.0767			
Glenmavis	0.5861	0.3757	0.0000			
Partington	0.0099	0.1559	0.0000			
Avonmouth	0.0705	0.0172	0.2825			
Isle of Grain	0.2049	-0.0575	0.2412			
Dynevor Arms	0.0000	0.0518	0.5066			
Hornsea	0.1686	0.1527	0.1937			
Cheshire (Byley)	0.0033	0.1421	0.0000			
Hole House Farm	0.0022	0.1355	0.0000			
Burton Point	0.0022	0.1555	0.0000			
Barton Stacey	0.0000	-0.0367				
Garton	0.0430	0.1392	0.1210			
Milford Haven	0.2831	0.0845	0.6621			
Ganstead (Caythorpe)		0.1430	0.1275	0.0402	0.1231	0.0830
Burton Agnes (Caythorpe)		0.1626			0.1864	0.0830
Winkfield		-0.0303	0.0535	0.5810	0.0439	0.0918
Blyborough (Welton)		0.1212	0.0616	0.0282 or 0.0422	0.1124	0.0382
Tatsfield		-0.0568	0.1512	0.1424	0.0770	0.0918

Distance in km from new entry point to existing entry points

Preesall	
Barrow	31
Partington	61
Burton Point	76
Cheshire (Byley)	80
Hole House Farm	89
Teesside	132
Hornsea	172
Garton	181
Easington	196
Theddlethorpe	212
Glenmavis	233
Dynevor Arms	243
Avonmouth	265
Milford Haven	287
Bacton	309
Barton Stacey	319
Isle of Grain	362
St Fergus	413

Canvey	
Isle of Grain	19
Barton Stacey	129
Bacton	167
Theddlethorpe	207
Avonmouth	213
Easington	240
Garton	258
Hole House Farm	267
Dynevor Arms	269
Cheshire (Byley)	273
Hornsea	275
Partington	287
Burton Point	305
Teesside	362
Barrow	376
Milford Haven	380
Glenmavis	569
St Fergus	691

Ganstead	
Garton	10
Hornsea	15
Easington	29
Theddlethorpe	60
Teesside	108
Partington	150
Bacton	155
Cheshire (Byley)	160
Hole House Farm	165
Barrow	196
Burton Point	198
Isle of Grain	270
Avonmouth	302
Barton Stacey	303
Dynevor Arms	315
Glenmavis	335
Milford Haven	401
St Fergus	431

Winkfield	
Barton Stacey	56
Isle of Grain	95
Avonmouth	137
Dynevor Arms	194
Bacton	215
Theddlethorpe	221
Hole House Farm	224
Cheshire (Byley)	231
Partington	249
Easington	252
Burton Point	256
Garton	265
Hornsea	280
Milford Haven	305
Barrow	339
Teesside	353
Glenmavis	541
St Fergus	686

Welton	
Garton	52
Easington	52
Theddlethorpe	55
Hornsea	61
Partington	121
Cheshire (Byley)	126
Hole House Farm	129
Teesside	136
Bacton	152
Burton Point	166
Barrow	186
Isle of Grain	238
Avonmouth	255
Barton Stacey	257
Dynevor Arms	270
Glenmavis	351
Milford Haven	360
St Fergus	467

Tatsfield	
Isle of Grain	50
Barton Stacey	96
Avonmouth	187
Bacton	201
Theddlethorpe	231
Dynevor Arms	245
Easington	264
Hole House Farm	266
Cheshire (Byley)	273
Garton	280
Partington	289
Hornsea	296
Burton Point	301
Milford Haven	355
Teesside	378
Barrow	379
Glenmavis	577
St Fergus	710

Albury	
Barton Stacey	62
Isle of Grain	85
Avonmouth	155
Dynevor Arms	215
Bacton	226
Theddlethorpe	243
Hole House Farm	253
Cheshire (Byley)	261
Easington	275
Partington	279
Burton Point	286
Garton	289
Hornsea	305
Milford Haven	323
Barrow	369
Teesside	381
Glenmavis	570
St Fergus	713

Palmers Wood	
Isle of Grain	55
Barton Stacey	92
Avonmouth	184
Bacton	206
Theddlethorpe	235
Dynevor Arms	243
Hole House Farm	267
Easington	267
Cheshire (Byley)	273
Garton	283
Partington	290
Hornsea	300
Burton Point	301
Milford Haven	352
Barrow	380
Teesside	381
Glenmavis	579
St Fergus	713

Burton Agnes	
Hornsea	13
Garton	31
Easington	52
Teesside	85
Theddlethorpe	85
Partington	155
Cheshire (Byley)	166
Hole House Farm	174
Bacton	177
Barrow	188
Burton Point	203
Isle of Grain	297
Glenmavis	313
Avonmouth	322
Barton Stacey	327
Dynevor Arms	331
St Fergus	404
Milford Haven	413

Appendix 3 Final Impact Assessment

Introduction

3.1 Ofgem is required to carry out Impact Assessments (IAs) under section 5A of the Utilities Act 2000, as amended by the Sustainable Energy Act 2003. Section 5A requires that the Ofgem carries out IAs:

- whenever it proposes to do anything for the purposes of, or in connection with, the carrying out of any function exercisable by it under or by virtue of Part 1 of either the Electricity Act or the Gas Act, and
- it appears to Ofgem that the proposal is important.

3.2 Section 5A defines a proposal as important where its implementation would be likely to lead to one or more of the following:

- involve a major change in the activities carried out by the Authority;
- have a significant impact on persons engaging in the generation, transmission, distribution or supply of electricity or gas;
- have a significant impact on persons engaged in commercial activities connected with the generation, transmission, distribution or supply of electricity;
- have a significant impact on the general public of Great Britain or part of Great Britain; or
- have significant effects on the environment.

3.3 In the May 2005 consultation document Ofgem indicated its intention to publish a final IA in this decision document.

Policy objectives

3.4 Ofgem's principal objective is to protect and advance the interests of consumers by promoting competition where possible, and through regulation only where

necessary. Ofgem has a range of other duties under various Acts, some of which have been outlined in the main document.

3.5 One of Transco's main obligations is to operate an economic and efficient network.

3.6 In order to protect the interests of consumers, it is important that charges are set in an objective, transparent and non-discriminatory manner. It is Ofgem's general policy to ensure cost-reflective charging in order to minimise costs to consumers, not only in the short-term but also in the long-term. Cost reflective charges ensure that market participants take into account the costs of transmission in their decisions and so lead to efficient investment and as a consequence minimise overall costs to consumers.

Overview of key issues

3.7 At present, Transco bases the reserve prices in the long-term entry capacity auctions on UCAGs, with the latter being determined by Ofgem.

3.8 UCAGs are meant to be proxies for long-run incremental costs (LRICs) and might change as new information emerges. In the case of existing and proposed new entry terminals the UCAGs influence the minimum value of LTSEC bids that would justify Transco releasing permanent obligated incremental entry capacity. Therefore the UCAGs play a very important role in the long-term auctions that determine whether Transco will provide incremental capacity within the NTS and/or constructing new entry points.

3.9 As stated in the May 2005 consultation document, it has become clear that there are substantial issues in relation to the setting of new UCAGs. In particular changes in the pattern of flows across the gas network imply very significant changes in LRICs and large variances between new UCAGs compared to existing UCAGs. This suggested that the UCAGs for existing points may no longer be cost-reflective.

3.10 This is particularly important given that shippers can bid for capacity for up to 15 years in the long-term entry capacity auctions with the UCAGs being used to set reserve prices in these auctions.

May 2005 Options

3.11 The May 2005 consultation document put forward two potential options going forward in relation to UCAGs:

- Option 1 – calculate UCAGs for the new applicants on the basis of the methodology detailed in Chapter 3 of the consultation document and recalculate existing UCAGs on the same basis. Given that shippers can purchase entry capacity rights for up to 15 years, it was proposed to review all existing UCAGs before the next long-term entry capacity auction (i.e. September 2005) rather than carrying out his review as part of the next price control, which would be implemented in April 2007.

- Option 2 – cap the UCAGs for new entry points to the level of the UCAGs a near-by existing entry points.

Impacts, costs and benefits

3.12 In the May consultation document, Ofgem highlighted that there were a number of areas of potential costs and benefits associated with both options. These costs and benefits were, however, difficult to quantify and the document specifically requested respondents' views on the level of costs and benefits associated with the various options.

3.13 No such views were put forward. Ofgem remains of the opinion that the costs and benefits associated with Option 2 (as with Option 1) remain difficult to quantify.

Option1: Review all existing UCAGs before the next long-term entry capacity auction

Costs

3.14 A potential cost associated with this option is the extent to which shippers' bidding strategies in the NTS entry capacity auctions held thus far have been based on an expectation that existing UCAs would not be revised during the current price control. In the event that they were, it could be argued that any

review of the existing UCAGs during the current price control period might reduce or undermine the current degree of regulatory certainty.

3.15 Recalculating all existing UCAGs would have implied that it would not be possible to hold the September 2005 long-term entry capacity auctions. This is because the process for recalculating existing UCAGs, which would involve issuing a section 23 notice, giving Transco sufficient time to publish auction invitations and revised price schedules, etc would give Transco insufficient time to hold the auctions as planned.

3.16 Moreover, a network code modification would be required to allow Transco to delay these auctions to possibly December 2005. Arguably, this delay might introduce uncertainty for shippers.

Benefits

3.17 As noted in the consultation document, cost-reflective UCAGs are very important for the appropriate locational signals they provide to investors. This is important given that entry rights can be purchased for periods of up to fifteen years in duration. Thus, cost-reflective UCAGs could be said to play an important role protecting the interest of consumers, both in the short-term and long-term.

3.18 Another benefit of cost-reflective UCAGs is that they would also reduce the possibility of Transco facing a material revenue under-recovery. In situations where Transco faces an under-recovery of NTS TO revenue, this under-recovery would be dealt with through the TO commodity charge. The TO commodity charge is smeared over all shippers (the anticipated under-recovery for this year is in the order of £40 million) and it remains a possibility that such costs could ultimately result in being passed on to consumers. Cost-reflective UCAGs could be argued to reduce the extent to which this would happen. However, by applying the capping methodology only for smaller new entry points, the risk of significant under-recovery, as well as the risk of stranded assets, will be reduced.

3.19 This option would also have had two other important benefits. The first is that it would be less likely that shippers at one terminal would subsidise shippers at another terminal by virtue of the level of the respective UCAGs at different

terminals. The other expected benefit is that new entrants and incumbents would be treated in the same manner.

3.20 Other things being equal, the above could be expected to have to have positive benefits for competition and ultimately benefit consumers.

3.21 However, to put this into context, Ofgem's expert advisers as well as several respondents have questioned whether the revised UCAGs presented in the May 2005 consultation document are indeed more cost-reflective than existing UCAGs. It is clear, that there is no consensus view that this is the case. As pointed out by George Yarrow whilst it is possible that the revised UCAGs are more cost reflective than the existing UCAGs, it is also quite possible that they are not.

Option 2: Cap UCAGs at smaller new entry points and revise all UCAGs as part of the next price control and further consult on the appropriate approach to larger new entry points

6.11. This option 2 is a slightly amended version of the option 2 consulted on in the May 2005 consultation document as the capping will only apply to smaller new entry points. It is proposed to further consult on the appropriate approach for larger new entry points.

Costs

3.22 Clearly, the non-cost reflective nature of capped UCAGs runs the risk of providing inappropriate locational signals, and this would be the case regardless whatever the capping method. Under Option 2 there is a possibility that shippers will purchase entry capacity, for up to 15 years, at prices which might not reflect the true underlying costs. Any subsequent significant under-recovery against Transco's NTS TO revenue would be recovered via the TO commodity charge, as Ofgem will give Transco comfort that it will be able to recover all efficiently incurred costs with respect to the new entry points. This charge

would be recovered through an unfocussed charge on all shippers, with the likelihood that this additional cost would be passed on to consumers.

3.23 This particular option also has the potential for generating cross-subsidies between shippers through the TO commodity charge. This would be as a result of several existing UCAGs being too low, whereas others might be too high. However, this risk should be reduced by limiting the capping approach to small new entry points only.

Benefits

3.24 A clear benefit of this approach is that it would preserve an important element of regulatory certainty. At the time of the last price control, Ofgem indicated that it intended to review UCAGs at the *next* price control. To do so during the current price control period could be said to undermine the bidding strategies of shippers in subsequent entry capacity auctions and, potentially, the value of the capacity they have purchased.

3.25 There is also another potential benefit in relation to the new projects themselves. To the extent that Option 2 resulted in lower UCAG figures for the new entry points than would otherwise have been expected, this might influence the financial viability of some of the new storage projects. It could therefore be argued that this option provides some positive effects in relation to competition.

3.26 Another important possible advantage of option 2 is that it would allow more time for further consultation on the best future approach to setting UCAGs for larger new entry points. Not only would this allow shippers and other interested parties to offer further views on suitable modelling tools and assumptions when calculating UCAGs, but it would also mean that this could be done without delaying the next long-term entry capacity auctions.

Competition

3.27 As set out in the section on costs and benefits of the various options, option 2 might potentially result in shippers at one terminal facing part of the costs which under option 1 would have been solely borne by the shippers who triggered these costs.

Distributional effects

3.28 Ofgem does not expect that either of the options would have any new distributional effects between different 'types' of consumers. However, option 2 could potentially result in some degree of cross-subsidy between shippers at different terminals and could potentially result in a distributional effect from consumers to infrastructure developers.

Environment

3.29 Ofgem did not expect any of the options to have specific environmental impacts. Respondents' views were invited on this issue but none were received.

Security of supply

3.30 Under option 1 some of the proposed new storage sites would face higher costs compared with option 2. Ofgem however has no robust basis for assuming that the UCAGs underlying option 1 are more robust than existing UCAGs. Hence, if the UCAGs underlying option 1 are incorrect they might prevent projects going ahead which should have gone ahead. Depending on general demand and supply conditions, this could in some circumstances have implications for security of supply.

Health and safety issues

3.31 Ofgem has no information which would suggest that any of the options presented in this impact assessment would give rise to health and safety issues.

3.32 No respondents commented on this issue.

Small businesses

3.33 Ofgem does not expect that any of the options would have a specific impact on small businesses. The two options have however different implications for businesses in relation to their geographic location.

3.34 There were no comments from respondents on this issue.

Risks and unintended consequences

3.35 In Ofgem's view, the potential risk with option 1 is that it might increase regulatory uncertainty, due to the fact that it would revise all UCAGs during the current price control and would involve delaying the September 2005 auction.

3.36 In Ofgem's view, the potential risk with option 2 is that shippers which anticipate that prices might increase at the next price control, will bid for large volumes of capacity up to 15 years in the long-term entry capacity auction during the current price control period (which ends on 31 March 2007). This capacity would be obtained at a cost below Ofgem's estimate of the 'true' long-run incremental cost. The resulting short-fall would have to be recovered over all shippers (through Transco's TO revenue) and it is not unlikely that these costs will ultimately be passed on to consumers. Also, enabling projects to connect at artificially low prices with the knowledge that they might not be economically viable if faced with a cost-reflective charge, might increase for example the risk of stranded assets on the NTS, which might be costly to consumers in the long-term.

3.37 Ofgem was not aware of any unintended consequences. This remains the case.

Conclusion

3.38 On balance, it is Ofgem's view that option 2 is most appropriate, given that it preserves regulatory certainty and given the lack of consensus on whether option 1 indeed provides more cost-reflective UCAGs.

Appendix 4 List of Respondents (non confidential)

BRITISH GAS

CALOR

CENTRICA STORAGE LTD

CONOCO PHILLIPS

E.ON

EXXON MOBIL

GAZ DE FRANCE

MARATHON OIL

MERRILL LYNCH

MULBERRY CAPITAL

NGT (Transmission)

NGT (Distribution)

RWE

SCOTTISH POWER

SCOTTISH & SOUTHERN ELECTRICITY

STAR ENERGY LTD

STATOIL

TOTAL E&P

WARWICK ENERGY LTD