

LNG Storage price control - Final proposals

Document Type: Decision Document

Ref: 298 /07

Date of Publication: 19 December 2007

Target Audience: National Grid Gas, storage operators, gas shippers, gas suppliers, business customers and domestic customer groups

Overview:

This document sets out our Final Proposals for the Liquefied Natural Gas (LNG) Storage price control. The Final Proposals will extend the current arrangements for the provision of regulated services by National Grid Gas (NGG) LNG until the Authority is satisfied that competition for these services has been established or April 2012, whichever is sooner.

Our Final Proposals maintain the minimum price at the current level (in real terms) set out in Special Condition C3 of NGG NTS' licence from the year beginning 1 May 2008. It also contains a first draft of the changes to NGG's licence to implement our proposals.

NGG LNG has until 17 January 2008 to decide whether to accept our proposals. If NGG reject these proposals we would expect to refer the matter to the Competition Commission.

Contact name and details: Robert Hull, Director of Transmission

Tel: 020 7901 7050

Email: gas.transmissionresponse@ofgem.gov.uk

Team: Transmission

Context

National Grid Gas' Liquefied Natural Gas Storage business (NGG LNG) provides a mixture of commercial storage services to gas shippers and regulated services to NGG in its role as Transmission System Operator. Our aim is to introduce competition into the provision of these regulated services - consisting of system reserve and supply to the Scottish Independent Undertakings. Once competition is established we aim to lift any price controls so that the LNG storage facilities can become fully deregulated. This is in keeping with Ofgem's aim of protecting consumers' interests through the promotion of competition where appropriate.

Until competition is established we will continue to regulate the price of these services. This document is the last in a planned series of three which sets out our final proposals on the form, scope and duration of the proposed price control.

Associated Documents

- LNG Storage price control - Initial Proposals Consultation document, Ofgem 262/07 - October 2007
<http://www.ofgem.gov.uk/Networks/Trans/GasTransPolicy/Documents1/Initial%20Proposals%20doc4.pdf>
- LNG Storage price control - Initial Thoughts Consultation document, Ofgem 202/07 - August 2007
<http://www.ofgem.gov.uk/Networks/Trans/GasTransPolicy/Documents1/LNG%20Storage%20Price%20Control%20-%20Initial%20thoughts.pdf>
- Open letter¹, Ofgem - March 2007
http://www.ofgem.gov.uk/Networks/Trans/PriceControls/TPCR4/ConsultationDecisionsResponses/Documents1/070330_in_Open%20Letter%20March%202007%20draft%20V0%206_pdDH2.pdf
- Transmission Price Control Review - Final Proposals, Ofgem 206/06, December 2006
http://www.ofgem.gov.uk/Networks/Trans/PriceControls/TPCR4/ConsultationDecisionsResponses/Documents1/16342-20061201_TPCR%20Final%20Proposals_in_v71%206%20Final.pdf
- Review of the National Grid LNG Storage Business, TPA - October 2006.
<http://www.ofgem.gov.uk/Networks/Trans/GasTransPolicy/Documents1/TPA%20report%2017%2010%2006.pdf>

¹ Treatment of National Grid LNG storage services and section 23 (3) notice to modify Special Condition C3.

Table of Contents

Summary	1
Next steps	2
1. Introduction	3
Background	3
LNG Storage revenues	4
Commercial storage	4
Resolution of locational constraints	4
Provision of operating margins gas	5
Services in respect of Scottish Independent Undertakings (SIUs)	5
Other revenues	5
Regulation of LNG storage facilities	6
Objective of this review	8
Structure of this document	8
2. Form, scope & duration of the price control	9
Introduction	9
Form of the control	9
Most appropriate form of price regulation	9
Ofgem's Initial Proposals	9
Respondents' views	10
Ofgem's Final Proposals	10
Scope of the control	11
Feasibility of introducing competition in medium term	11
Ofgem's Initial Proposals	11
Ofgem's Final Proposals	11
Decommissioning costs	12
Ofgem's Initial Proposals	12
Respondents' views	12
Ofgem's Final Proposals	12
Duration for the control	13
Ofgem's Initial Proposals	13
Respondents' views	13
Ofgem's Final Proposals	13
Determination of NGG LNG's costs	13
Ofgem's Initial Proposals	13
Respondents' views	14
Ofgem's Final Proposals	14
3. Ofgem's assessment of NGG LNG's forecast costs	15
Introduction	15
Operating costs (Opex)	15
Ofgem's Initial Proposals	15
Respondents' views	15
Ofgem's Final Proposals	16
Capital expenditure (Capex)	17
Ofgem's Initial Proposals	17
Ofgem's Final Proposals	17
Revenue forecasts	18
Ofgem's Final Proposals	18

4. Price control calculations.....	20
Price control calculations.....	20
Responses to the Initial Proposals	20
Ofgem's Initial Proposals	20
Respondents' views	20
Ofgem's Final Proposals.....	21
Calculation principles and underlying assumptions	21
Price control Final Proposals	21
5. Next Steps	24
Timetable	24
Appendices	25
Appendix 1 - Restated Initial Proposals.....	26
Changes to data since Initial Proposals document:	26
Appendix 2 – Draft licence condition	29
Special condition C3. Restriction of Prices for LNG Storage Services	29
Appendix 3 – The Authority's Powers and Duties	32
Appendix 4 - Glossary.....	34
Appendix 5 - Feedback Questionnaire	36

Summary

National Grid Gas (NGG) operates four Liquefied Natural Gas (LNG) storage sites. The four sites provide a mix of commercial storage services to gas shippers through periodic auctions and price regulated services to NGG National Transmission System (NTS) in its role as System Operator (SO) and to the Scottish Independent Undertakings. The current regulatory arrangements expire on 30 April 2008. For a number of years our aim has been to introduce competition into the provision of these regulated services. But for a variety of reasons this has not yet happened. In September 2007 we introduced a licence condition² requiring NGG NTS to develop competition in the provision of these regulated services.

We currently set a minimum price for each site. NGG LNG can charge the SO the higher of this minimum price or the market price for the commercial services sold to shippers through the auctions. In the last few years the market price of the commercial services has been above the minimum regulated price. This is because shippers have been willing to pay high prices to store gas due to the tight supply/demand balance and high and volatile winter gas prices. When the arrangements were first put in place in 2000, gas prices were much lower and gas supply more plentiful so the market price was below the regulated price. Historically, total annual revenue across the four sites has typically been in the region of £40-45m. In recent years, revenues have been much higher in the region of £75-80m reflecting higher prices for the commercial services.

NGG LNG's ability to earn commercial returns on the assets and to fund the capital and operating costs of the facilities depends on both the market price of the commercial storage service, the regulated price set by Ofgem and the volume of regulated services purchased by the SO. Given the nature of the assets, overall returns are likely to fluctuate from year to year with high returns when the overall gas demand and supply balance is tight and commercial storage services are highly valued and lower returns when the market value of commercial services is lower. We do not have good information on the likely market price of regulated services will be when competition is introduced. The sites do have specific characteristics that may make them highly valuable - they are able to deliver very large volumes of gas at notice periods of less than four hours. But there may be other facilities – such as power stations with back up distillate fuel, other storage sites being built and new LNG import terminal that can offer similar services at lower prices.

This document sets out our Final Proposals for the LNG Storage price control. The key features of our Final Proposals are:

Setting a minimum price for the regulated services: We propose continuing to set the price for the regulated services at the greater of a regulated minimum price or the market price for the commercial services. We do not think it would be in customers' interests to move to a revenue allowance where prices for the regulated services would rise if revenues from the commercial services fall. NGG LNG has benefited from the current arrangements in recent years and to move to a revenue allowance now would merely underpin NGG's revenues during the projected

² Special Condition C25

downturn and transfer risk from NGG to consumers without bringing any tangible benefit for customers.

Cost recovery: Our initial proposals were set to guarantee NGG LNG recovery of their efficient forward looking capital and operating costs with no specific allowance in the regulated prices for any return on their historic investment in the LNG facilities. NGG LNG would have needed the price for the commercial services or the volume of regulated services purchased by the SO to rise to earn a return on its historic investment in the LNG facilities. In our Final Proposals we have set the minimum price to guarantee NGG LNG a return on at least that proportion of the historic asset base that is used to provide the regulated services. NGG LNG can still earn higher returns if the price of the commercial services or the volume of regulated services used by NGG NTS increase.

Duration of control: We propose setting the control until the Authority is satisfied that competition has been established or April 2012, whichever is the sooner.

Decommissioning costs: The Authority remains firmly of the view, consistent with the decision that was taken when the LNG facilities were partially deregulated, that any future decommissioning costs associated with the LNG storage facilities will be borne and managed solely by NGG shareholders. This is also consistent with the treatment of the Isle of Grain LNG facility when NGG converted it from a storage site to an import terminal; at that time, Ofgem rejected calls for a proportion of the gains from the transfer of use to be passed back to customers.

Confidentiality: The current arrangements with NGG staff working for both the LNG business and the SO business may not be appropriate when developing competition for these services. We will require NGG to publish proposals for maintaining confidentiality between its businesses and maintaining impartiality between them during the development of competition.

The net effect of these proposals will see no change in real terms to the current level of minimum prices set out in special condition C3 (SC C3) of NGG NTS' licence for the year beginning 1 May 2008. We believe that these proposals will protect the interests of consumers while providing sufficient revenues to enable NGG to finance its storage activities and comply with its obligations.

Next steps

We have asked NGG LNG to confirm by 17 January 2008 whether it accepts these proposals. If NGG rejects the proposals Ofgem expects to make a reference to the Competition Commission. To implement our proposals we need to modify special condition C3. An initial draft of the proposed licence condition amendment is set out in Appendix 1. Any comments on the drafting of this licence condition are requested by 17 January 2008.

If NGG accepts the proposals Ofgem will publish a statutory consultation under Section 23 of the Gas Act on the amended licence condition in early February 2008. The new licence condition, if accepted by NGG, will take effect from 1 May 2008.

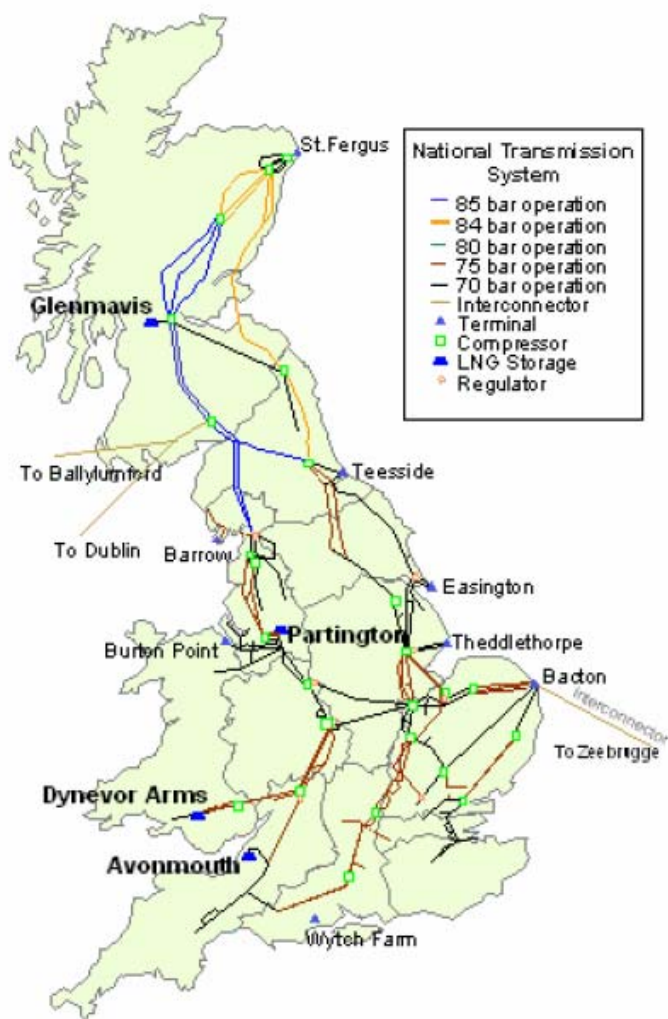
1. Introduction

Chapter Summary

This chapter sets out the background and structure of the document.

Background

1.1. National Grid Gas (NGG) owns four Liquefied Natural Gas (LNG) storage facilities which are connected to the National Transmission System (NTS). These facilities are sited at Glenmavis, Dynevor Arms, Partington and Avonmouth, as shown below.



National Transmission System

1.2. The four sites provide a mix of unregulated commercial services to gas shippers and suppliers and regulated services to NGG NTS as System Operator. In addition, the Glenmavis facility supplies gas for transportation by road tanker for Scottish Gas Networks (SGN) in respect of the Scottish Independent Undertakings (SIUs) and the Avonmouth facility provides network support services in the south west of England.

1.3. LNG storage facilities have particular characteristics that make them both useful and relatively expensive compared with other forms of storage. They are much more expensive to use than other forms of storage due to the liquefaction process. They are also relatively slow to fill and have limited storage capacity. However, they can re-gasify large quantities of gas very quickly. As such, they are a very flexible and fast source of large volumes of gas for short durations.

LNG Storage revenues

1.4. When these facilities were built in the 1970's, they were designed to deliver gas during a few days of high demand, ensuring that NGG could meet firm demand in line with its network planning requirements. Nowadays, there are four main services provided by these facilities:

- commercial storage;
- resolution of local transmission constraints;
- provision of system reserve (operating margins gas); and
- transportation services provided to Scotia Gas Networks (SGN) in respect of Scottish Independent Undertakings (SIUs)

Commercial storage

1.5. The income from commercial storage services is determined by demand in the market, with capacity being allocated through periodic auctions. Over recent years this income stream has been strong, although NGG LNG are predicting that this will suffer a sharp decline over the coming years due to the anticipated arrival of other significant sources of gas onto the network.

Resolution of locational constraints

1.6. The resolution of local transmission constraints is a geographic service to support the transmission system. The Transmission System Operator (TSO) uses this service instead of building additional pipeline capacity. The Avonmouth facility is currently used in this role, and the TSO provides discounts to gas shippers prepared to book LNG at this facility. Revenues received in relation to this service are subject to NGG NTS's Constrained LNG incentive scheme.

Provision of operating margins gas

1.7. System reserve or Operating Margins (OM) gas is the term for gas that is used to maintain system pressures under certain operational circumstances, eg a sudden loss of supply or a sharp increase in demand. There are three groups of OM services, defined as follows:

- Group 1 - includes those events that, although unlikely to occur during a 1-in-50 winter, would have a major impact on the safe operation of the NTS. This group includes a loss of supply or a loss of infrastructure.
- Group 2- includes those events that could reasonably be expected to happen during any winter, but potentially more so in a severe winter as alternative supplies are expected to be less available and occurrences of such events could escalate due to higher demands. This group includes analysis for compressor failure, routine forecasting errors and significant supply losses.
- Group 3 - is orderly rundown, which is to ensure safe rundown of the system in the event of a Network Gas Supply Emergency while firm load shedding takes place. This is the major use for OM gas.

1.8. The income from the provision of operating margins is price regulated - with the regulated prices set out in the NGG NTS licence. NGG NTS is also subject to an incentive scheme in respect of its procurement of OM services.

Services in respect of Scottish Independent Undertakings (SIUs)

1.9. NGG uses the tanker loading facility at the Glenmavis site to load road tankers which transport gas to four remote towns in Scotland known as the Scottish Independent Undertakings. They total around 91km of pipes, which are owned by Scotia Gas Networks Ltd (SGN), and supply around 6,500 consumers with re-gasified LNG.

1.10. This service is provided under a bilateral contract between NGG NTS and SGN that formed part of the distribution network sales package. The prices charged under this contract are restricted to those specified in Special Condition C3 of NGG NTS's licence.

Other revenues

1.11. NGG has recently established a service for the provision of LNG fuel for road vehicles, but the revenue stream projected by NGG LNG for this activity is only of the order of £100k pa.

1.12. The overall level of return that NGG earns (and whether they are able to earn a return on historic investments) will be determined by the revenues and prices they command in the market for commercial services. If the commercial price is greater than the regulated price NGG can charge the commercial rate for the regulated

services. The regulated price therefore provides a minimum guaranteed price level for the regulated services and so could be more correctly considered to be a price floor. This helps to mitigate the effect of the volatility of the commercial revenues by limiting the downside to the overall revenue stream while allowing NGG to benefit from the upside during years when the value of the commercial services is relatively high.

1.13. The volatility of the overall revenue streams is illustrated by the table below which gives the historic and forecast revenues for the period 2005-2012. It can be seen that commercial revenues from shippers have been the main source of income in recent years, and this has led to significant returns on these assets. NGG are predicting that this will decline sharply in the coming years, so the regulated elements assume a greater importance to the overall revenues.

£m Nominal	2005/06	2006/07	2007/08	2008/09	2009/10	2010/11	2011/12
Operating Margins	10.5	11.9	14.9	12.1	12.5	12.9	13.3
SIU	1.8	1.9	2.4	2.5	2.6	2.7	2.9
Glenmavis TO RAV	0.0	0.0	1.9	1.9	1.9	1.9	1.9
Shipper	59.7	61.3	21.9	13.9	12.2	11.9	9.9
LNG Road Fuel	0.0	0.2	0.0	0.1	0.1	0.1	0.1
Constrained LNG	0.2	3.2	1.5	1.5	1.5	1.5	1.5
Total Capacity Income (£m)	72.2	78.6	42.5	31.9	30.8	31.0	29.5
Total Commodity Income (£m)	3.3	6.5	1.6	8.4	8.5	8.5	6.8

Regulation of LNG storage facilities

1.14. Historically, the LNG storage facilities formed part of Transco's Regulatory Asset Base (RAB). In 1997, the Monopolies and Mergers Commission proposed that storage services should be opened up to competition. It proposed a revenue cap for Rough, Hornsea and the LNG sites during the transition to competition. The five LNG storage sites (including Isle of Grain – which was subsequently converted to an import terminal) were removed from the RAB and a separate price control was put in place with effect from 1 April 1997.

1.15. The rationale for the original unbundling of these assets from Transco's RAB was to promote competition in what we viewed as contestable services and to remove any cross subsidy between the transportation and storage businesses. This approach was supported by the Monopolies and Mergers Commission (MMC) in 1997 and by a subsequent Fair Trading Act investigation in 1999, where we accepted undertakings to do this in lieu of another MMC referral. The entry into the market of new storage providers (and, for that matter, the conversion of the Isle of Grain facility) supports that original policy position.

1.16. The 1999 Ofgem set price caps for the provision of services by these LNG storage facilities. In 2000, Ofgem granted a derogation for NGG to charge in excess of the regulated price caps in providing commercial services to shippers (but not in providing services to NGG as SO) through auctions of the maximum physical capacity of the facilities. The 2002 Transco price control review renewed the regulated price cap in respect of services supplied by the LNG storage facilities to NGG NTS and left it unchanged.

1.17. In the Transmission Price Control Review (TPCR4) 2007-12, Ofgem sought views on amendments to the price regulation framework for the LNG facilities. We also considered whether it was appropriate to reincorporate the LNG storage facilities into the NGG NTS RAB. Although one element of capital expenditure in relation to the Glenmavis facility was allowed for in calculating the 2007-12 RAB, we concluded that it was not appropriate for consumers to underwrite the long-term cost of facilities which might not be needed. We also confirmed our view that decommissioning costs should not be paid for by consumers.

1.18. During TPCR4 Ofgem commissioned a study of NGG LNG's forecast operating expenditure and capital expenditure by TPA Solutions Ltd³. TPA concluded that:

- the operation of the facilities is generally efficient;
- NGG's capex proposals were appropriate if the facilities were to have a further operating life of 10 years or more; and
- for an operating life of 4 years, the capex requirements would be substantially less than NGG's capex proposal.

1.19. Due to the complexity of the main controls and the difficult nature of the discussions around decommissioning costs for the LNG sites, it was decided to adopt a one-year control and review regulation of the storage business after the transmission TO control had been settled.

1.20. The Authority approved a 25% increase in the price caps for this one year period, broadly keeping them at the same level in real terms as this simply reflected the cumulative increase in inflation since the prices were originally set in 1997. These amended price caps are linked to a reference market price for commercial storage service sold at the LNG storage facilities if these market prices are higher than the default levels of the price caps. We made this change because it would not be reasonable to force NGG to use capacity at the facilities to provide regulated services to NGG as SO at regulated prices below the market price that shippers would pay to use the same capacity.

1.21. Additionally, the TPCR introduced a new licence obligation on NGG NTS (Special Condition C25) to establish a transparent and robust process for the competitive provision of operating margins gas currently being supplied by the LNG storage facilities. The purpose of this condition is to provide a framework for NGG NTS to hold tenders for contracts for the services it needs, thereby allowing competition to develop.

1.22. It is intended that if the terms of this new licence condition are met, then NGG LNG storage facilities should be able to tender on the same basis as other potential storage providers. Once competition is established, Ofgem will remove the current

³ Review of the National Grid LNG Storage Business, TPA - October 2006.
<http://www.ofgem.gov.uk/Networks/Trans/GasTransPolicy/Documents1/TPA%20report%2017%2010%2006.pdf>

price cap for the provision of OM services as specified in Special Condition C3 of NGG's proposed licence.

1.23. In an open letter of 30 March 2007⁴, Ofgem reiterated the views it expressed during the TPCR. It also undertook to review the price caps set as part of the TPCR after one year. This document constitutes the end of that formal review process.

Objective of this review

1.24. The objective of this review, in line with Ofgem's primary duties, is the protection of consumers in respect of the provision of LNG storage services. NGG has a new licence obligation to facilitate the introduction of competition in the provision of operating margins services and Ofgem has an expectation that competition will be established within 2 years of the start of the TPCR4 price control.

Structure of this document

1.25. This document is organised as follows:

- Chapter 2 provides a summary of responses to Ofgem's views as set out in the Initial Proposals document. It also details our Final Proposals on the form, scope and duration of the control;
- Chapter 3 provides a summary of responses to Ofgem's views on the appropriate cost structure to determine the price control. It also sets out our Final Proposals on the assessment of these costs;
- Chapter 4 sets out a summary of responses to Ofgem's Initial Proposals on the calculations underpinning the price control, and also details our Final Proposals calculations and the underlying assumptions; and
- Chapter 5 details the next steps to the process to give effect to the Final Proposals.

⁴ "Treatment of National Grid LNG Storage Services and Section 23(3) Notice to modify Special Condition C3", Ofgem open letter, 30 March 2007

2. Form, scope & duration of the price control

Chapter Summary

This chapter summarises responses and our final proposals on the issues raised by Ofgem's Initial Proposals document published in October 2007.

Introduction

2.1. Ofgem received five responses to the Initial Proposals document on the LNG price control. Responses were received from two shippers, two Gas Transporters (GTs) and one customer group. Four of these responses were marked as non-confidential and can be viewed on Ofgem's website⁵.

2.2. Chapter 3 sets out respondents' views to Ofgem's assessment of the cost and revenue information submitted by NGG LNG. Chapter 4 sets out their views on our proposed price control calculations.

2.3. Ofgem also invited comments from respondents to the proposed form, scope and duration of the control. These comments and our final views are set out in this chapter.

Form of the control

Most appropriate form of price regulation

Ofgem's Initial Proposals

2.4. We considered in the Initial Proposals document that continuing with a price cap approach is consistent and appropriate, and places the risks with those best placed to manage them, namely NGG LNG. For this reason, we stated that we would not support introducing a revenue control as customers would take on the risk of making up the shortfall, if actual revenue is less than forecast. In addition, we considered that the administrative resources required for adopting a revenue allowance with a sharing mechanism would be significant and disproportionate, and would set the timeline for introducing a new control back several months.

2.5. We stated we would defer making a decision on allowing SGN to pass through to consumers those costs associated with SIUs until Ofgem's Gas Distribution Price Control team had considered and come to a view on the matter.

⁵ To access these, scroll down to the publications panel on the Networks/Transmission/Gas Transmission policy page and left click on the Initial proposals document name in the left most column.

Respondents' views

2.6. Three respondents supported the continuation of the price cap until competition had been established for the regulated services of the LNG storage business. One respondent specifically stated its support for Ofgem's view that the price cap should not require end consumers to bear the risks associated with costs which they cannot manage, and as such should be NGG's role to manage these costs efficiently.

2.7. Two other respondents took the opposite view on this issue, and considered that the cap should include a mechanism to share any over or under recovery for revenues with customers. One of the respondents said that this would ensure certainty of funding for the LNG storage business, while the other considered that such a mechanism would act as an incentive to move competition forward.

2.8. The latter view was taken amid concerns that the price cap is essentially a price floor, which would enable NGG LNG to earn windfall gains as it can charge the market rate if it is greater than the price cap. Conversely, if the market price was below the price cap then NGG would get the price cap. The respondent therefore offered its qualified support for the price cap only if the rate of return was minimal.

2.9. With respect to the SIUs, one respondent questioned the optional setting of the price cap based on the market price for the regulated services on the basis that the purpose of any cap, to prevent the monopoly service provider from charging an inappropriately high price could be compromised if market related charges were allowed to prevail.

2.10. The same respondent also added that the allowed revenue calculation of Scotia Gas Networks should include a pass-through term for SIU costs, which would make it consistent with the NTS SO which is not exposed to LNG price risk in its incentives.

Ofgem's Final Proposals

2.11. Our final decision of the form of the control remains unchanged from the Initial Proposals document. We agree that the C3 prices act to provide a minimum price for the provision of these services. Given the dual role of the facilities NGG LNG should not be forced through the regulatory arrangements to sell capacity at the facilities to NGG NTS in its SO role at below the market price. NGG NTS as SO essentially has a first call on the capacity in the LNG facilities but it would be inefficient to allow them to procure capacity at below the market price that shippers would be willing to pay to use that capacity.

2.12. But we don't think it would be appropriate to move to a revenue cap. NGG's shareholders have benefited from strong commercial revenues over the last few years and from the conversion of the Isle of Grain site from storage to an LNG import terminal (when we resisted calls from stakeholders to claw back for customers some of the financial benefits of the change of use); to move to a revenue allowance now

would merely underpin NGG's revenues during the projected downturn and transfer risk from NGG to consumers without bringing any tangible benefit for consumers.

2.13. In the Final proposal documents on the GDPCR⁶, we concluded that in principle a pass through arrangement would not provide an incentive on SGN to consider and develop alternative sources of LNG for the supply to the independent systems. On this basis we would not support a pass through of this element of cost.

Scope of the control

Feasibility of introducing competition in medium term

Ofgem's Initial Proposals

2.14. In the Initial Proposals document, we took the view third parties could compete to provide operating margins services by April 2009 in line with NGG NTS' reasonable endeavours obligation under SC C25. We also consider that other competitive suppliers could emerge in a deregulated market in the short to medium term for the provision of gas supplies to the SIUs.

Respondents' views

2.15. Much of the commentary centred on the issue of establishing competition in the medium term for SIU services. One respondent took the opposite view to Ofgem that the development of alternative LNG sources was unlikely to develop in the short to medium term. They considered that the development of new supplies in this area would require significant changes to the commercial shipper arrangements, in addition to capital investment required to develop road tanker facilities, all of which could hinder the pace of competition.

2.16. Should these issues prove to hamper competition in the medium term, the same respondent considered that the price cap should continue for SIU services even if it had been removed from OM services.

2.17. With regard to OM services, another respondent regarded that it would be appropriate to incentivise the efficient procurement by GTs of OM competitive services in the future. Ofgem should therefore consider whether a further incentive scheme is required in this under the SO control.

Ofgem's Final Proposals

2.18. Our position on the timing of competition for both the SIU and OM services remains unchanged from the views we expressed in the Initial Proposals document.

⁶ Gas Distribution Price Control Review Final Proposals, Ofgem - December 2007

We consider that in line with NGG's reasonable endeavours obligation under SC C25, the establishment of competition for the OM services can be achieved by April 2009, while a short to medium term outlook has been given for the provision of gas supplies to the SIUs.

2.19. NGG NTS SO is already incentivised in relation to the efficient procurement of OM gas. Further details on the nature of the incentive can be found in the SO Initial Proposals consultation⁷.

Decommissioning costs

Ofgem's Initial Proposals

2.20. We considered that the costs associated with the decommissioning of LNG storage facilities should be excluded from the price control, and that it should be for NGG to manage and bear.

Respondents' views

2.21. Three respondents provided comments, with two in support of Ofgem's proposal and the third expressing concern that Ofgem had decided against the inclusion of decommissioning costs in the price control.

Ofgem's Final Proposals

2.22. As NGG did not provide any new evidence to support their claim that decommissioning costs should be included in the price control, our final position remains unchanged. Therefore, the price control will exclude the future costs associated with the decommissioning of LNG storage facilities.

2.23. As we have stated previously, we consider that to allow any of these costs would be going back on our principles of the deregulation framework endorsed by the 1997 MMC report⁸ and would constitute a shift in risk and costs to consumers without providing consumers with any of the historic benefits. If we did allow these costs we would have to assess historic events in some detail, including assessing the transfer of the Isle of Grain site, reviewing asset profitability levels since deregulation and an assessment of the ex-ante option value of the facilities at the time of deregulation.

⁷ National Grid Gas and Electricity System Operator Incentives, Initial Proposals Consultation, 7 December 2007

⁸ "BG Plc: A report under the Gas Act 1986 on the restrictions of prices for gas transportation and storage services", Monopolies and Mergers Commission, June 1997.

Duration for the control

Ofgem's Initial Proposals

2.24. We took the view that NGG NTS' compliance with its reasonable endeavours obligation to develop a transparent and robust framework for the introduction of competition should mean that the regulatory price control on OM services should cease by April 2009. We also stated that we would revisit this topic at that time.

Respondents' views

2.25. Two respondents stated that rather than setting a specific date for the duration of the price cap, the decision to remove or continue with the control should be determined by the progress made in the development of competition in the regulated services.

2.26. The view was also expressed that should the control continue beyond April 2009, C3 prices should be indexed by RPI in each subsequent year. The same respondent also considered that rather than solely rely on the discretion of Ofgem to determine whether the cap should be removed or not, NGG should have the right to dis-apply prices with six months notice, so that prices can be reset to reflect any misalignment of costs and revenues.

Ofgem's Final Proposals

2.27. We have a clear expectation that in line with NGG NTS's proposed licence condition to establish competition in the provision of operating margins services, a competitive environment should be established by 1 April 2009. However, in the event that competition is not established at this stage, the control would continue until the Authority considers that competition has been established or April 2012, whichever is the sooner.

2.28. Prior to the actual deregulation of prices, we would expect to undertake a consultation on the removal of the price cap for the provision of all LNG storage services. We anticipate that this will involve requesting information from interested parties to assess the degree of competition in the market for these services in order to inform our decision.

Determination of NGG LNG's costs

Ofgem's Initial Proposals

2.29. We considered that the amount of revenue to determine the price control should be set using efficient forward looking costs, comprising ongoing opex and short term capex. We took the view that long term capex should be excluded, and

therefore, we would not include the RAB in our preferred set of calculations, nor would we include expenditure to end April 2008 to determine future funding considerations.

Respondents' views

2.30. A number of comments were received to Ofgem's proposals on the treatment of NGG's LNG costs. There was agreement by one respondent that long term capex should not be funded as part of the price control, for the reason that while consumers would have to bear some of the risks they considered that there was less clarity as to whether they would gain an appropriate share of the rewards.

2.31. In the event that Ofgem decided to use NGG's figures to set the cap, then one respondent stated that as they were higher than that of TPA Solutions, Ofgem should be asked to justify their use and whether it was consistent with previous policy statements. The arrangement by Ofgem for an independent audit to verify the efficiency of incurred costs was called for by another respondent.

Ofgem's Final Proposals

2.32. Our initial proposals were set to guarantee NGG recovery of their efficient forward looking capital and operating costs with no specific allowance in the regulated prices for any return on their historic investment in the LNG facilities. Under these conditions, NGG would be reliant on an upturn in commercial services or operating margins revenues (via higher volumes) to make a satisfactory return.

2.33. We now consider that there are arguments for allowing a return on that proportion of the historic asset base that is related to the provision of regulated activities. NGG has supplied data which indicates that on an historic basis, OM and SIU volumes have comprised between 31 – 40% of the total annual volume of bookings in any given year. We propose allowing for depreciation and return on a £60m⁹ asset base (one third of the total) as one means of reaching a more balanced outcome.

2.34. Higher returns or lower business risk may act as an incentive to NGG to delay the development of competition. We intend to actively pursue NGG's obligation to introduce competition in the procurement of operating margins services.

⁹ In their previous submissions, NGG has claimed an historic asset base of £180m for the LNG storage facilities as of 2007/08

3. Ofgem's assessment of NGG LNG's forecast costs

Chapter Summary

This chapter details the changes to the costs and revenue information since the Initial Proposals document and how Ofgem is treating this for the purposes of developing the Final Proposals.

Introduction

3.1. In the Initial Proposals, we presented our initial view on the appropriate levels of operating costs (opex) and capital expenditure (capex) for running the LNG Storage facilities until competition has been established. We noted that there were still questions about the levels of central costs, the extent to which there may have been double counting of operating costs and the suitability of NGG LNG's forecasts for commercial services revenues.

3.2. Since then, NGG has submitted further analysis to demonstrate how its original submission compared to the previous submission to TPA and to what extent central costs were considered within this previous analysis. NGG has also provided responses on the other issues relating to their opex submission.

3.3. Ofgem has also held separate meetings with NGG LNG to discuss opex, capex and general issues relating to the price control. Our Final Proposals have been informed by these meetings along with the responses we received to the two previous consultation documents and our own internal discussions.

Operating costs (Opex)

Ofgem's Initial Proposals

3.4. In our Initial Proposals, we specifically asked whether we should use TPA analysis or the updated NGG data submission for determining efficient costs. We also asked for evidence that central costs had been included in the TPA analysis and that both pension costs and central costs had not been double counted by inclusion in the 2007-12 Transmission Price Control Review.

Respondents' views

3.5. Support was given to Ofgem's challenge to NGG's inclusion of pension costs in its submission on the basis that it may have already been included in the TPCR.

3.6. With regards to the choice between using TPA solutions or NGG data to inform LNG costs, one respondent considered it more appropriate to use opex data provided by TPA. Although they acknowledged that it would be preferable to use more updated data, they concurred with Ofgem that the rigorous level of scrutiny applied to TPA's data would provide a better basis to set the price control.

3.7. With regard to the period that the revenue and cost analysis covers, one respondent suggested that Ofgem should extend it beyond 2010/2011 (the year that the price cap will be extended to in the event that competition for the provision of OMs fails to develop by 2009) by an additional year to coincide with the start of the new Transmission price control in April 2012.

Ofgem's Final Proposals

3.8. Ofgem agrees with the majority view of respondents that the TPA costs analysis should be used as the basis of determining any opex allowance and that any additions to this should be subjected to scrutiny. NGG LNG has produced a detailed reconciliation of its opex submission to the submission it gave to TPA last year. This highlighted several issues:

- the TPA report data was in 04/05 prices rather than 06/07 as had been assumed in the Initial Proposals;
- the TPA analysis had included central costs (albeit at a different level to the current submission);
- the TPA analysis had omitted both the additional electricity costs from the opex and the associated commodity revenue from the revenue forecast, but had separately identified this commodity revenue in its analysis¹⁰. The commodity revenue in the Initial Proposals had included this element of the commodity revenue but not the associated electricity costs; and
- NGG had inadvertently omitted £365K pa of costs in its TPA submission.

3.9. We have illustrated the impacts of these issues by restating our Initial Proposals in Appendix one, along with the "medium" case (NGG's opex and capex submission but with no return on the historic asset base).

3.10. We have reviewed the pension settlement within the TPCR and whether there might be some double-counting of pension costs between the TPCR and this price control proposal. NGG NTS did receive an allowance for deficit costs which would have been applicable to a proportion of the NGG LNG employees, but did not receive any funding for ongoing contributions going forward. Additionally, the pension costs submitted by NGG LNG do not include pension deficit repair costs, so we now believe that there is no double-counting of pension allowances.

¹⁰ Review of the National Grid LNG Storage Business, TPA Solutions, page 29 (see reference 3 for the specific link to this document)

3.11. In reviewing the variances between the TPA analysis and NGG LNG's updated submissions, we are not convinced that the majority of the items are justified and so we have chosen not to include them in the opex or central costs allowances. The actual amounts allowed are detailed in the Price Control Calculations chapter.

Capital expenditure (Capex)

Ofgem's Initial Proposals

3.12. Our Initial Proposals presented NGG's capex submissions for three scenarios (2009 contestability, 2011 contestability and continue as normal) and TPA's corresponding capex proposals for 2011/12 contestability. We also presented our view of a reasonable level of capex for a 2011 contestability scenario.

Respondents' views

3.13. Concern was expressed at the range of capex figures and corresponding outcomes provided in our Initial Proposals document. The respondent specifically queried the 2010/11 contestability scenario, where NGG LNG posted bids for capex of £42.9m in nominal terms, compared to the £2.2m recommendation by TPA and Ofgem's own assessment of £7m based on desktop analysis. Considering the disparity in numbers, the respondent stated a lack of confidence in the capex figures and asked that we provide further detail on our desktop analysis.

3.14. One respondent expressed concern that Ofgem had under-estimated the amount of forward looking capex required to maintain the safe and efficient operation of the LNG storage facilities in the period up to end April 2011. This corresponds to the assumed date for the introduction of competition under Ofgem's 2011 contestability scenario.

Ofgem's Final Proposals

3.15. Ofgem has met with NGG LNG representatives regarding the capex submissions and discussed the reasons for the disparity in views as to the appropriate level of capex for the 2011 contestability scenario. We still consider that the level of capex proposed in the Initial Proposals is appropriate and sufficient to maintain the facilities until contestability is proven.

3.16. NGG LNG can invest at levels above this allowance if it considers that these facilities have a long-term future in the contestable markets. However, this is an issue for NGG and its shareholders to decide upon, as they will bear the full risks and benefits of making these investments.

3.17. In line with our position to provide depreciation and return on a proportion of the historic asset base, we are depreciating both the historic and new assets over a 45 year lifespan, rather than the two years as used in the Initial Proposals.

Revenue forecasts

3.18. The Initial Proposals document set out a table showing data submitted by NGG LNG on projected revenue streams up until 2011/12. The key data issue highlighted by us was the variability in shipper revenues. NGG LNG forecast that this source of income would decline to about one fifth/one sixth of the levels in the recent past, when these facilities had proved highly profitable with high double digit percentage profit figures. We asked respondents for their views on the appropriateness of these NGG forecasts of reduced revenues from commercial storage services, and supporting evidence.

Respondents' views

3.19. NGG LNG reiterated its view that the most important factor affecting future levels of shipper incomes is the forecast summer/winter gas price differential. Based on expectations of a favourable supply/demand position in the medium term, NGG assumes that shippers will value future storage services at a multiple of one times the forecast summer/winter price differential. NGG considers that this represents an optimistic price given that it was based on the April 2007 storage auctions, which were conducted at a time when there was some uncertainty regarding the delivery of certain key supply projects, such as the Milford Haven import terminal. Therefore as these new entry points do come on line, NGG considers that there should be a corresponding fall in the price shippers are prepared to pay for storage gas.

3.20. Another respondent took a less optimistic view on the supply/demand balance and considered that continuing supply side uncertainty in the short to medium term would still make storage services an attractive option for shippers. They therefore disputed the claim provided by NGG that revenues derived from their LNG commercial services will drop by 40%.

3.21. NGG also reminded Ofgem that their revenue projections for operating margins services should be reviewed in conjunction with the forecasts from NGG NTS SO for demand for the provision of operating margins.

3.22. One respondent queried the level of historic and forecast revenues related to the SIUs, in particular the zero revenue figure reported in 2006/07.

Ofgem's Final Proposals

3.23. It is clear from both historic and forecast revenues that the two main determinants of future revenues for the LNG storage facilities are the commercial storage services and the provision of operating margins. In the Initial Proposals, we asked for evidence as to the reliability of the forecast dip in commercial revenues. Whereas one respondent expressed scepticism as to the magnitude of the dip, there was no evidence that this reduction is not likely. Accordingly, we do not propose to change these data in the calculation of Final Proposals.

3.24. The forecast from NGG NTS SO regarding the revenues from the procurement of operating margins services from NGG LNG¹¹ indicate a greater revenue entitlement than that in NGG LNG's submission. Accordingly, we have increased the forecast revenue from this source when calculating the Final Proposals. The net effect on revenues (in Nominal terms) over the three year period is of the order of an additional £2m as against the Initial Proposals.

3.25. We have queried the SIU revenue figures with NGG LNG, and this has lead to corrections to the historic data. However, it has not resulted in any revisions to the overall revenue figures, as the SIU revenue had been incorporated into the shipper revenue data. The other consideration is that the reported SIU revenue relates to the capacity element only; the commodity element is incorporated in the commodity revenue line, which is why these figures could not be reconciled by one of the respondents.

¹¹ National Grid Gas and Electricity System Operator Incentives, Initial Proposals Consultation, 7 December 2007, page 67 (available on National Grid's website www.nationalgrid.com)

4. Price control calculations

Chapter Summary

This chapter sets out the Authority's Final Proposals for the LNG Storage price control.

Price control calculations

4.1. The previous sections have set out our views on the policy issues arising out of the Initial Proposals and indicated how the data has been adjusted since the Initial Proposals. This chapter comments on the responses to the calculation of the control and then sets out Ofgem's Final Proposals for the LNG Storage sites.

Responses to the Initial Proposals

Ofgem's Initial Proposals

4.2. Ofgem's Initial Proposals were for a 29% reduction in the current C3 prices. We said that these C3 prices would be lifted in 2009 if it was demonstrated that competition was established for the provision of OM services, or at a later date (as the Authority sees fit) if this was not the case.

4.3. This allowance was based on depreciating the allowed capex over a short time period and using the TPCR pre-tax real cost of capital of 6.25%. We said we would use the GDPCR cost of capital to inform our Final Proposals.

Respondents' views

4.4. Two respondents expressed disappointment at our decision to defer the final cost of capital figure until the Final Proposals document, which in terms of timing, would not allow for a consultation to take place. Ofgem's proposal to base the final rate on the one used for the Gas Distribution Price Control Review¹² was considered ill judged by one of these respondents on the basis that there exists significant differences, in terms of financial size, markets and degree of regulation between the LNG storage and gas distribution businesses.

4.5. The same respondent argued that a much higher cost of capital to the pre-tax rate of 6.25% used in the Transmission price control would be justified on the basis that the storage business faced amongst other things, a very high fixed cost base and a volatile revenue stream.

¹² A Vanilla WACC of 4.94% as published in GDPCR Review - Final proposals, Ofgem - December 2007, which compares to the 5.05% Vanilla WACC used in TPCR4

4.6. With regard to the setting of C3 prices for the new price control, the wide range provided in the document from a 29% reduction in the current level of prices, to a 166% increase did not instil confidence in one respondent to the extent that they could not offer its unqualified support to the proposals.

4.7. Another respondent did not support Ofgem's proposal to reduce current C3 prices by 29%. They considered that when taken together with the projected decline in shipper income, the proposed reduction in C3 prices would not provide NGG with sufficient revenues to finance its on-going LNG storage business until competition had been established in OM services.

Ofgem's Final Proposals

4.8. Using the same inputs for the cost of capital as the GDPCR, but with the 60% gearing rate as used in TPCR, would result in a cost of capital slightly lower than the 6.25% of TPCR. However, we are proposing to use the 6.25% pre-tax real rate of TPCR4 as part of the overall package for the Final Proposals.

4.9. We present our Final Proposals below, which lie between the low and medium range of options from the Initial Proposals.

Calculation principles and underlying assumptions

4.10. The basic principle of the price control calculation is that forecast revenue should equal costs for the period under consideration. NGG has provided revenue and cost forecasts for each year until 2011/12, under a variety of investment scenarios. As with the Initial Proposals, we have considered the costs over the time period 2008-2011, as this will allow for a control which could endure beyond 2009 should the need arise.

4.11. The net present value of the revenue and cost streams are compared and any mismatch has to be recouped from/returned to customers by an appropriate scaling of the revenues from the provision of operating margins services. This scaling is in turn applied to the existing C3 prices to arrive at the appropriate prices going forward.

Price control Final Proposals

4.12. As discussed in the previous chapters, we are proposing to continue with a minimum price approach for C3 prices.

4.13. We propose to introduce the following arrangements:

- To maintain the minimum price for the regulated services at the current level (i.e. no increase) but to continue to allow NGG to charge the market price emerging

from the auctions for the provision of regulated services if these are above the price floor level. This is an increase from the 29% reduction we set at the initial proposals stage but well below the 38% increase that NGG have proposed. This will increase the guaranteed revenue to the business by about £3m per annum (relative to the Initial Proposals).

- The minimum regulated price (indexed to inflation) will remain in place until competition is introduced to a maximum of four years

4.14. We consider that if NGG's forecasts of commercial revenues are correct, these proposals will provide the LNG Storage business with sufficient revenues to fund their operating expenditure, the capex necessary to maintain the business and some return on their historic investment. However, this is only a guaranteed minimum level of revenue and if market prices are higher than NGG's forecasts they will earn more revenue and consequently earn a greater return on their assets.

4.15. The resulting C3 prices would be lifted in 2009 if it was demonstrated that competition had been established for the provision of OM services. However, if this were not to be the case, the prices would endure either until competition is established or until the Authority sees fit to revise them some time after 2009.

4.16. We are not making any provision for decommissioning costs. If NGG decide to close down one of more of the sites in the future, any decommissioning costs are for NGG's shareholders and not customers to bear.

4.17. The calculations to illustrate the costs and revenue forecasts are shown on the next page.

4.18. We are concerned that the confidentiality arrangements NGG considers appropriate, with common staff working for both the LNG business and the SO business, may not be satisfactory when developing competition. As part of these Final Proposals we will require NGG to publish its proposals for maintaining confidentiality between its businesses and maintaining impartiality between them during the development of competition.

Scenario	2011 contestability
Data source	Final Proposals
Capital costs allowed	From 2008/09
Opening RAV	60
Cost of capital	6.25%
Asset Depreciation (years)	45

Year ending 30 April £m 06/07 real	2009	2010	2011
Capex forecast	4.50	2.40	0.00
Cost breakdown			
Opex	21.0	24.0	24.1
Central costs	6.8	6.6	6.5
Rates	1.7	1.7	1.7
Depreciation	1.3	1.4	1.5
Return on RAV	3.7	3.8	3.8
Total	<u>34.6</u>	<u>37.5</u>	<u>37.6</u>
Net Present Value of total	29.71	30.30	28.60
Scenario NPV			88.62
Revenue Forecast			
NGG LNG forecast	38.56	35.89	34.76
NPV of NGG LNG forecast	33.1	29.0	26.5
Scenario NPV			88.62
Revenue less Cost			
PV of Revenue less costs			0.00
NGG LNG income from regulated services			
NGG LNG regulated services income	14.64	14.15	13.85
NPV of NGG LNG regulated services income	12.58	11.45	10.54
Scenario NPV			34.57
Percentage change to C3 prices req'd			<u><u>0%</u></u>

5. Next Steps

Chapter Summary

This chapter outlines the next steps and the timeframe for implementing the Final Proposals.

Timetable

5.1. The proposed timetable for the implementation of the final proposals for the LNG storage price control is set out below:

- 17 January 2008 - deadline by which NGG will need to state whether they accept these proposals in principle. If NGG rejects the proposals Ofgem would expect to make a reference to the Competition Commission;
- 17 January 2008 - deadline for NGG comments to the initial draft of the proposed amendment to special condition C3, which is contained in Appendix two;
- early February 2008 - Ofgem will publish a statutory consultation on the amended licence condition pending NGG's acceptance to the final proposals in principle;
- late March 2008 - Ofgem will modify special condition C3; and
- 1 May 2008 - New price control for the provision of NGG's LNG storage services will take effect.

Appendices

Index

Appendix	Name of Appendix	Page Number
1	Restated Initial Proposals	26
2	Draft licence condition	29
3	The Authority's Powers and Duties	32
4	Glossary	34
5	Feedback Questionnaire	36

Appendix 1 - Restated Initial Proposals

Scenario	2011 contestability
Data source	Ofgem view
Capital costs allowed	From 2008/09
Opening RAV	0
Cost of capital	6.25%
Asset Depreciation (years)	1

Year ending 30 April £m 06/07 real	2009	2010	2011	
Capex forecast	4.50	2.40	0.00	
Cost breakdown				
Opex	20.8	23.7	23.8	
Central costs	6.5	6.2	6.1	
Rates	1.7	1.7	1.7	
Depreciation	0.0	4.5	2.4	
Return on RAV	0.1	0.2	0.1	
Total	<u>29.1</u>	<u>36.3</u>	<u>34.1</u>	
Net Present Value of total	25.04	29.38	25.96	
Scenario NPV				80.38
Revenue Forecast				
NGG LNG forecast	37.52	35.34	34.49	
NPV of NGG LNG forecast	32.2	28.6	26.3	
Scenario NPV				87.08
Revenue less Cost				
PV of Revenue less costs				6.71
NGG LNG income from regulated services				
NGG LNG regulated services income	13.60	13.60	13.58	
NPV of NGG LNG regulated services income	11.69	11.00	10.34	
Scenario NPV				33.02
Percentage change to C3 prices req'd				<u>-20%</u>

Changes to data since Initial Proposals document:

1. NGG produced a detailed reconciliation of their submission to TPA which demonstrated that -

- TPA had considered central costs and these had been incorporated into their published figures
- TPA had omitted the electricity costs associated with commodity charges, but the revenue line had included the associated revenues

Accordingly, the opex line and central costs lines have been changed

2. The rates value for 2008-09 in the Initial Proposals was incorrectly input as £1.5m instead of £1.7m

3. The capex figure for 2010-11 has been brought back in to 2009-10 and the asset life shortened to ensure that all depreciation is remunerated within the three year analysis period

4. The net effect of the above three changes is to increase the total cost line by £1.3m in NPV terms

3. The income from SIUs has been included in the regulated services income so that all affected regulated income is considered. Since this increases the regulated revenue, it has the effect of flattening the percentage change in C3 prices.

In discussions with NGG LNG following scrutiny of their revised analysis, they provided the following restatement of the "medium" case put forward in the Initial Proposals document, but with reduced costs for LNG tankering and the removal of depreciation from central costs. This results in the narrowing of the band in Initial proposals from -29% to 38% down to -20% to +23%.

Scenario	2011 contestability
Data source	NGG LNG
Capital costs allowed	From 2008/09
Opening RAV	0
Cost of capital	6.25%
Asset Depreciation (years)	45

Year ending 30 April £m 06/07 real	2009	2010	2011
Capex forecast	9.29	7.70	5.02
Cost breakdown			
Opex	26.3	26.0	25.1
Central costs	7.5	7.3	7.3
Rates	1.7	1.7	1.7
Depreciation	0.9	1.1	1.3
Return on RAV	2.7	3.2	3.5
Total	<u>39.1</u>	<u>39.2</u>	<u>38.8</u>
Net Present Value of total	33.57	31.70	29.57
Scenario NPV			94.84
Revenue Forecast			
NGG LNG forecast	37.52	35.34	34.49
NPV of NGG LNG forecast	32.2	28.6	26.3
Scenario NPV			87.08
Revenue less Cost			
PV of Revenue less costs			-7.75
NGG LNG income from regulated services			
NGG LNG regulated services income	13.60	13.60	13.58
NPV of NGG LNG regulated services income	11.69	11.00	10.34
Scenario NPV			33.02
Percentage change to C3 prices req'd			<u>23%</u>

Appendix 2 – Draft licence condition

1.1. This appendix includes a draft of the proposed amendment to special condition C3 that would be required to implement the final proposals. We are informally consulting on this and we would welcome comments by 17 January 2008.

Special condition C3. Restriction of Prices for LNG Storage Services

1. The licensee shall ensure that the charges made by the licensee for the:

- a. provision of Operating Margins; and
- b. supply of LNG storage services to any DN Operator whose transportation system includes independent systems which are operated using LNG

in the 12 month period commencing on 1 May of the relevant year are the charges set out in Tables 1 and 2 below.

TABLE 1

LNG storage facility	Reserved space (pence per kWh per annum)	Reserved deliverability (pence per peak day kWh per annum)	Storage injection (pence per kWh)	Storage withdrawal (pence per kWh)
Glenmavis	$A * PIT_t$	$E * PIT_t$	$0.349 * PIT_t$	$0.015 * PIT_t$
Dynevor Arms	$B * PIT_t$	$F * PIT_t$	$0.248 * PIT_t$	$0.021 * PIT_t$
Avonmouth	$C * PIT_t$	$G * PIT_t$	$0.238 * PIT_t$	$0.024 * PIT_t$
Partington	$D * PIT_t$	$H * PIT_t$	$0.323 * PIT_t$	$0.021 * PIT_t$

Where:

A Equals a price in pence per kWh per annum which is the higher of 1.706 or $0.85 * WAHGPSSt$.

B. Equals a price in pence per kWh per annum which is the higher of 2.840 or $0.85 * WAHDAPSS_t$.

C Equals a price in pence per kWh per annum which is the higher of 1.463 or $0.85 * WAHAPSS_t$.

D Equals a price in pence per kWh per annum which is the higher of 1.086 or $0.85 * WAHPPSS_t$

E Equals a price in pence per kWh per annum which is the higher of 1.233 or $0.15 * WAHGPSSt$

F Equals a price in pence per kWh per annum which is the higher of 1.815 or $0.15 \times \text{WAHDAPSS}_t$

G Equals a price in pence per kWh per annum which is the higher of 1.345 or $0.15 \times \text{WAHAPSS}_t$

H Equals a price in pence per kWh per annum which is the higher of 0.994 or $0.15 \times \text{WAHPPSS}_t$

WAHGPPSS_t Equals, in respect of the amounts payable by shippers to the licensee in respect of Storage Capacity as part of the supply of LNG storage services provided to shippers by the licensee's LNG storage facility at Glenmavis, the average price (weighted by volume) payable by shippers in respect of that ten percent of all such Storage Capacity purchased for which the highest prices were payable by any shipper purchasing such Storage Capacity for the 12 month period commencing on 1 May of the relevant year

WAHDAPSS_t Equals, in respect of the amounts payable by shippers to the licensee in respect of Storage Capacity as part of the supply of LNG storage provided to shippers by the licensee at the licensee's LNG storage facility at Dynevor Arms, the average price (weighted by volume) payable by shippers in respect of that ten percent of all such Storage Capacity purchased for which the highest prices were payable by any shipper purchasing such Storage Capacity for the 12 month period commencing on 1 May of the relevant year

WAHAPSS_t Equals, in respect of the amounts payable by shippers to the licensee in respect of Storage Capacity as part of the supply of LNG storage provided to shippers by the licensee at the licensee's LNG storage facility at Avonmouth, the average price (weighted by volume) payable by shippers in respect of that ten percent of all such Storage Capacity purchased for which the highest prices were payable by any shipper purchasing such Storage Capacity for the 12 month period commencing on 1 May of the relevant year

WAHDPPSS_t Equals, in respect of the amounts payable by shippers to the licensee in respect of Storage Capacity as part of the supply of LNG storage provided to shippers by the licensee at the licensee's LNG storage facility at Partington, the average price (weighted by volume) payable by shippers in respect of that ten percent of all such Storage Capacity purchased for which the highest prices were payable by any shipper purchasing such Storage Capacity for the 12 month period commencing on 1 May of the relevant year

PIT_t is the price indexation adjustment term, which shall be calculated using the following formula:

$$PIT_t = \left(1 + \frac{RPI_t}{100} \right) \times PIT_{t-1}$$

where PIT shall take the value 1 in respect of the formula year commencing 1 May 2007 and RPI_t shall be as follows.

RPI_t means the percentage change (whether of a positive or a negative value) in the arithmetic average of the retail prices index published or determined with respect to each of the six months from July to December (both inclusive) in formula year t-1 and the arithmetic average of the retail prices index numbers published or determined with respect to the same months in formula year t-2

TABLE 2

TANKER CHARGES	
Glenmavis tanker filling slots	$£3437.50 * PIT_t$ per annum
Glenmavis tanker filling charge	$£250 * PIT_t$ per tanker filled or partially filled

2. For each formula year for which, and to extent to which, the licensee charges for the supply of LNG storage services in accordance with paragraph 1 of this condition the license, so far as concerns LNG storage arrangements, shall be deemed to have complied for that formula year with the provisions of Standard Special Conditions A4 (Charging – General) and A5 (Obligations as Regard Charging Methodology).

3. The licensee shall provide a report in writing to the Authority stating the volume and price of all Storage Capacity sold in respect of the 12 month period commencing on 1 May of the relevant year and finishing on 30 April in the following year. This report shall be provided to the Authority as soon as reasonably practicable and in all circumstances by no later than 31 August of the year in which the 12 month period terminates.

4. In this condition Operating Margins and Storage Capacity shall bear the meaning given to those terms in the licensee's network code as at 16 March 2008.

5. In this condition only-

"formula year" means a period of twelve months commencing on 1 May at 06:00 hours, the first such formula year ($t=1$) commencing 1 May 2007 at 06:00 hours.

Appendix 3 – 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.¹³

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 accordingly¹⁴.

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 them¹⁵; and
- The interests of individuals who are disabled or chronically sick, of pensionable age, with low incomes, or residing in rural areas.¹⁶

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:

¹³ entitled "Gas Supply" and "Electricity Supply" respectively.

¹⁴ 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.

¹⁵ 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.

¹⁶ The Authority may have regard to other descriptions of consumers.

- Promote efficiency and economy on the part of those licensed¹⁷ 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 Regulation¹⁸ 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.

¹⁷ or persons authorised by exemptions to carry on any activity.

¹⁸ Council Regulation (EC) 1/2003

Appendix 4 - Glossary

C

Capital Expenditure (Capex)

Expenditure on investment in long-lived transmission assets, such as gas pipelines

L

Liquefied Natural Gas (LNG)

LNG consists mainly of methane gas liquefied at around -260 degrees Fahrenheit. Cooling and liquefying the gas reduces its volume by 600 times such that a tonne of LNG corresponds to about 1,400 cubic metres of methane in its gaseous state. LNG may be stored or transported by special tanker.

N

National Grid Gas (NGG)

The licensed gas transporter responsible for the gas transmission system, and four of the regional gas distribution companies.

National Transmission System (NTS)

The high pressure gas transmission system in Great Britain.

O

Operating Expenditure (Opex)

The costs of the day to day operation of the network such as staff costs, repairs and maintenance expenditures, and overheads.

Operating Margins (OM)

In relation to gas the OM is gas in storage which is reserved by the NTS to ensure the supply of gas is maintained in the event of a network emergency.

R

Regulated Asset Base (RAB)

The value ascribed by Ofgem to the capital employed in the licensee's regulated transmission business.

S

[Scotia Gas Networks \(SGN\)](#)

The GT licence holder for the Southern and Scotland GDNs.

[Scottish Independent Undertakings \(SIUs\)](#)

Four remote towns in Scotland that receive degasified gas via road tankers loaded at the Glenmavis LNG facility.

T

[Transmission Price Control review 4 \(2007-12\) \(TPCR4\)](#)

The TPCR established the price controls for the transmission licensees which took effect in April 2007 for a 5 year period. The review applies to the three electricity transmission licensees, NGET, SPTL, SHETL and to the licensed gas transporter responsible for the gas transmission system, NGG.

[Transmission System Operator \(TSO\)](#)

The system operator has responsibility to construct, maintain and operate the NTS and associated equipment in an economic, efficient and co-ordinated manner. In its role as SO, NGG NTS is responsible for ensuring the day-to-day operation of the transmission system.

Appendix 5 - 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:

- Does the report adequately reflect your views? If not, why not?
- Does the report offer a clear explanation as to why not all the views offered had been taken forward?
- Did the report offer a clear explanation and justification for the decision? If not, how could this information have been better presented?
- Do you have any comments about the overall tone and content of the report?
- Was the report easy to read and understand, could it have been better written?
- Please add any further comments?

1.2. Please send your comments to:

Andrew MacFaul
Consultation Co-ordinator
Ofgem
9 Millbank
London
SW1P 3GE
andrew.macfaul@ofgem.gov.uk