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National Grid Grain LNG Ltd application for exemption from Section 19D of the Gas Act 1986

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Target audience: This document will be of interest to LNG facility owners and operators, gas shippers, suppliers and other interested parties.

Overview:

In June 2006, National Grid Grain LNG Ltd (GLNG) submitted an application under section 19C(2) of the Gas Act requesting an exemption from section 19D of the Gas Act (regulated Third Party Access) in relation to phase 3 of its expansion project at the Isle of Grain LNG importation terminal. Additional information regarding this application was submitted in November 2006.

This document sets out, for consultation, Ofgem's initial view that an exemption can be granted for Grain phase 3.

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Context

The Gas and Electricity Markets Authority (the "Authority") can exempt new LNG importation infrastructure from the requirements of regulated third party access (rTPA) when certain criteria are met, subject to approval by the European Commission.

Associated Documents

- National Grid Grain LNG Ltd phase 3 Expansion Application for Exemption from Section 19D of the Gas Act 1986 (as amended), June 2006. http://www.ofgem.gov.uk
- Application by Grain LNG Ltd under section 19C of the Gas Act 1986 for an exemption from section 19D of the Gas Act 1986, Ofgem Initial views, October 2004.
 - http://www.ofgem.gov.uk/temp/ofgem/cache/cmsattach/8812_23104a.pdf
- Application by Grain LNG Ltd under section 19C of the Gas Act 1986 for an exemption from section 19D, Ofgem final views, December 2004.
 http://www.ofgem.gov.uk/temp/ofgem/cache/cmsattach/9491_27304.pdf
- LNG facilities and interconnectors, EU legislation and regulatory regime, DTI/Ofgem initial views', DTI/Ofgem, June 2003.
 http://www.ofgem.gov.uk/temp/ofgem/cache/cmsattach/3804_Initial_Views-on-directives-IC-and-LNG-final.pdf
- LNG facilities and interconnectors, EU legislation and regulatory regime, DTI/Ofgem final views', DTI/Ofgem, November 2003.
 http://www.ofgem.gov.uk/temp/ofgem/cache/cmsattach/5158 LNG facilities intercnters EU legis reg 25nov03.pdf
- Application by South Hook LNG Terminal Company Ltd (SHTCL) under section 19C of the Gas Act 1986 for an exemption from section 19D, Ofgem final views, November 2004.
- http://www.ofgem.gov.uk/temp/ofgem/cache/cmsattach/9414_26704.pdf
 Application by Dragon LNG Limited under section 19C of the Gas Act 1986, for an
 - exemption from section 19D, Ofgem final views, February 2005. http://www.ofgem.gov.uk/temp/ofgem/cache/cmsattach/10028_2005.pdf
- Open letter Use it or Lose it arrangements at the Isle of Grain, August 2006.
 http://www.ofgem.gov.uk/temp/ofgem/cache/cmsattach/16024 134 06.
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Summary

This document invites views from interested parties on National Grid Grain LNG Ltd's (GLNG) application for an exemption from regulated third party access (rTPA) requirements.

Background

The Isle of Grain LNG importation terminal has been developed by GLNG in a number of phases. The first phase (Grain 1), with a total capacity of up to 17mcm/d, became operational in July 2005. The second phase (with a further capacity of up to 25.2mcm/d) is expected to be operational by winter 2008/2009. Both phase one and two have exemptions from the requirements of rTPA.

During winter 2005/06, Ofgem and the market had concerns regarding the operation of the Grain 1 facility. In particular we were concerned that the so called "use it or lose it" (UIOLI) arrangements at Grain 1 were not operating in a manner that allowed third parties to access the terminal in the event that the primary capacity holders were not using the facility. We have worked with GLNG and the primary capacity holders at Grain 1 who have introduced additional UIOLI arrangements for the Grain facility. These arrangements are being closely monitored by Ofgem.

GLNG is planning a third phase of development, to expand the LNG import capacity by up to 19.5mcm/d (Grain 3). GLNG has now applied for an exemption for this expansion. The requested duration of the exemption for Grain 3 is a maximum of 20 years or up to October 2029 at the latest. GLNG has stated that the project will not proceed if an exemption is not granted.

GLNG is currently holding an open season process to sell capacity in Grain 3. It has now received firm bids for the capacity. GLNG has given confidential information to Ofgem on the identity of the bidders and the maximum volume of capacity that existing customers at the Grain terminal might acquire.

Ofgem's initial view

Ofgem's initial view is that an exemption from rTPA requirements at Grain 3 should be granted. This is based on our analysis of GLNG's application (and additional bidder information and undertakings). We are however concerned that uncertainty remains in relation to the identity of the eventual primary capacity holders for Grain 3 and also the arrangements that will be put in place once the terminal is operational.

In order to protect the interests of present and future customers, we are proposing to grant the exemption order on the basis that certain ongoing requirements are met, for example GLNG must ensure that effective anti-hoarding measures are in place. Further, once the outcome of the open season is known the Authority may (particularly in the event that the outcome of the open season differs from that as represented by GLNG in its additional information and undertakings) re-examine

whether the exemption application meets all of the relevant criteria and modify or revoke the exemption if it finds that the relevant criteria are no longer met.

Way forward

In this document, we are inviting views on GLNG's application and on our initial views on the application. We also welcome feedback as to whether interested parties have sufficient information to assess fully the likely impact on competition.

Once we have taken respondents' views into consideration, we will issue a Final Views document setting out our decision. In the event that Ofgem decides to grant an exemption, this decision will be notified to the European Commission, which can request Ofgem to amend or withdraw its decision within two months following notification¹.

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¹ This period may be extended by one additional month where additional information is sought by the Commission. The veto procedure is detailed in the Second Gas Directive, as referred to in Appendix 3 - Legal and Policy Regime for exemptions from rTPA.

1. Introduction

Chapter Summary

This chapter outlines background to Grain 3 and introduces the relevant legal and policy framework. It also outlines the structure of this document and the way forward.

Grain 3 rTPA Exemption Application

- 1.1. In June 2006, GLNG submitted an application to the Authority under section 19C(2) of the Gas Act requesting an exemption from the application of section 19D of the Gas Act to cover the full capacity of Grain 3².
- 1.2. The total capacity for Grain 3 is up to 19.5 mcm/d. The requested duration of the exemption for Grain 3 is a maximum of 20 years or up to October 2029 at the latest. GLNG has stated that the project will not proceed if an exemption is not granted.

Additional information

- 1.3. GLNG has initiated an open season process for the allocation of the Grain 3 capacity to LNG shippers on a long term basis. Firm bids for primary capacity were received by GLNG on 10 November 2006, and GLNG is now analysing the content of these bids, and initiating negotiations.
- 1.4. On the basis of these bids, on 27 November 2006 GLNG submitted additional information and undertakings to Ofgem, relating to both the identity of bidders and the volume of primary capacity at Grain 3 which they could acquire.
- 1.5. The non-confidential parts of this additional information and the undertakings are included in Appendix 5.

Legal framework

1.6. The Second Gas Directive³ provides for a system of rTPA to LNG facilities based on published tariffs and non-discriminatory prices. These provisions have been

² The public version of the application ('National Grid Grain LNG Ltd Grain 3 Expansion Application for Exemption from Section 19D of the Gas Act 1986 (as amended), June 2006') can be consulted on Ofgem's website http://www.ofgem.gov.uk/.

³ Directive 2003/55/EC of the European Parliament and the Council of 26 June 2003, concerning common rules for the internal market in natural gas and repealing Directive

implemented in respect of Great Britain by the Gas (Third Party Access) Regulations 2004.⁴ The rTPA provisions in relation to LNG import facilities are contained in section 19D of the Gas Act. The power to grant an exemption from those provisions, where certain criteria are met, is contained in section 19C of the Gas Act.⁵

Structure and Approach

- 1.7. Chapter 2 of this document provides further details on GLNG's application, including its assessment of how it meets the criteria for an exemption. It also outlines the additional information provided to Ofgem following the receipt of firm bids by GLNG. In addition, this chapter sets out Ofgem's analysis and our initial views on GLNG's application for an exemption. Chapter 3 outlines the process and proposed way forward.
- 1.8. Further information regarding relevant legal and policy requirements can be found in Appendix 3. Appendix 4 outlines in detail the competition analysis we undertook in assessing the exemption application. Additional information submitted by GLNG regarding the identity and requested capacity holding of bidders for primary capacity can be found in Appendix 5. Finally, a draft exemption order can be found in Appendix 6.

Way forward

- 1.9. We would welcome views from interested parties regarding GLNG's application and our initial views via the series of questions outlined in this document. Responses should be sent to wholesale.markets@ofgem.gov.uk and should be received no later than 25 January 2007. Details of how to respond can be found in Appendix 1.
- 1.10. Based on our analysis of the issues and responses to this consultation, we will aim to publish a final decision on the application in February. In the event that we decide to grant an exemption, we will notify the European Commission which may request the Authority to amend or withdraw its decision. From the date of our submission, the Commission has two months to consider its response. This two month period may be extended by one additional month if further information is sought by the Commission.⁶

98/30/EC.

⁴ SI 2004/2043.

 $^{^{5}}$ See Appendix 3 - Legal and Policy Regime for exemptions from rTPA

⁶ The veto procedure is outlined in Article 22 (4) of the Second Gas Directive, as referred to in Appendix 3 - Legal and Policy Regime for exemptions from rTPA.

2. National Grid Grain LNG Ltd's application for exemption and Ofgem's Initial Views

Chapter Summary

This chapter provides a summary of GLNG's application for an exemption from rTPA, and additional information provided to support this application. This chapter then sets out Ofgem's initial views on the issues raised by the application, focusing on whether GLNG has met the relevant criteria for such an exemption to be granted. Overall we conclude that an exemption order should be granted but that this should be subject to a number of conditions.

Question box

Question 1:

Do you agree with our overall assessment that the proposed exemption should be granted, based on the examination of whether each of the exemption criteria have been met?

Question 2:

Do you agree with the proposed duration of the exemption?

Question 3:

Do you agree that the proposed exemption should be subject to re-examination by the Authority, and if necessary to amendment or revocation, once the actual allocation of capacity through the open season process is known (particularly in the event that the outcome of the open season differs from that as represented by GLNG in its additional information and undertakings)?

Question 4:

Do you consider the competition assessment to be complete, and that it provides you with sufficient information on which to comment?

Question 5:

Do you agree with the assumptions underlying our competition assessment, as outlined in Appendix 4?

Question 6:

Do you agree with our views on the definition of the relevant market? In particular, do you consider the flexible gas market remains the appropriate market definition for

considering the effect on competition for the development of a new LNG importation facility?

Question 7:

Do you agree with our views that granting an exemption for Grain 3 would not have a detrimental impact on competition in any European gas market?

Question 8:

Do you consider that there should be any additional conditions attached to the proposed exemption?

Question 9:

Do you think that we should develop a guidance note on anti-hoarding arrangements to apply at LNG importation terminals?

Introduction

- 2.1. Our approach to this chapter is to consider each of the criteria set out in the Gas Act 1986 to assess whether GLNG should be granted an rTPA exemption. The analysis contained in this chapter is based on both our own assessment as well as the information provided by GLNG as part of its application. To protect its commercial process and the wishes of participants in the open season process to remain anonymous, GLNG has restricted the information that we can place in a public consultation.
- 2.2. Given the timescales within which GLNG requires a decision on its application (and given GLNG has stated that the project will not otherwise proceed without an exemption), we believe that the information provided in this chapter (along with the supporting appendices) is sufficient to allow third parties to make meaningful representations. If however you disagree we welcome your feedback.

Exemption criteria applied to the Grain 3 application

Condition (a): the facility or (as the case may be) the significant increase in its capacity will promote security of supply

2.3. In its application, GLNG states that the investment will enhance security of supply by expanding a non-indigenous source of supply to GB at a time when indigenous supplies are declining.

- 2.4. GLNG refers to National Grid's Ten Year Statement of 2005 (which highlights a potential supply shortfall) and gives an indication of the level of imports required by GB to achieve a supply-demand balance in the years through to 2014/2015.
- 2.5. GLNG also refers to geopolitical circumstances such as the events in Ukraine in January 2006 and incidents such as the Rough storage facility outage in February 2006. According to GLNG's submission, all this demonstrates the importance of having both 'supply diversity' and 'sufficient supply margin' in ensuring security of supply.
- 2.6. GLNG's application also provides specific reasons why Grain 3 would enhance security of supply. One of these is the installation of gas blending plant as part of the expansion at Grain, which enhances the ability to accept LNG from a variety of sources. Another is the addition of a second jetty and additional storage capacity at the Grain facility, which would improve the resilience of the facility as a whole.

Ofgem's initial view

- 2.7. We currently consider that it has been sufficiently demonstrated in GLNG's exemption application that Grain 3 will increase capacity for the import of gas into GB from LNG sources. We also consider that, by increasing LNG importation capacity, this may increase the diversity of gas supply sources to the GB market. This impact will be felt directly in the wholesale market through a potential increase in the volume of available supply, and will have consequential benefits for retail markets.
- 2.8. As a consequence, we consider that the requirements of condition a) have been met. However, it is important to state that we consider these benefits to security of supply will only materialise fully if conditions are put in place to prevent the hoarding of capacity by primary capacity holders. We therefore consider the implementation of effective secondary trading and anti-hoarding mechanisms of particular importance.
- 2.9. An additional consideration in the assessment of criteria a) is whether Grain 3 would have a positive impact on competition (compared to the situation where Grain 3 is not constructed)⁷. Our analysis has shown that the construction of Grain 3 would reduce market concentration (i.e. the extent to which a market is dominated by a small number of market participants) under all modelled scenarios. More details of this analysis (including a description of scenarios and modelling assumptions) are provided at the end of Appendix 4.

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⁷ Section 19C(7)(a) of the Gas Act implements Article 22(1)(a) of the Second Gas Directive; Article22(1)(a) requires that the project must both enhance competition in gas supply and enhance security of supply. Therefore, for completeness, we have considered explicitly both elements of this test for the purposes of this consultation.

2.10. We have considered the extent to which the above mentioned beneficial effects could be adversely affected by the existence of an exemption under the analysis in relation to condition (e) below.

Condition (b): the level of risk is such that the investment to construct the facility or (as the case may be) to modify the facility to provide for a significant increase in its capacity would not be or would not have been made without the exemption

- 2.11. GLNG states in its application that Grain 3 is a major, capital intensive project requiring investment significantly in excess of the threshold investment level illustrated in the interpretative note of DG Energy and Transport of January 2004 (the "Interpretive Note")⁸. The applicant suggests that the investment is "sunk" because, if made, it could not be used for any other purpose than for an LNG import facility.
- 2.12. GLNG has provided Ofgem with confidential information about the investment required for Grain 3 and an assessment of the relevant risks relating to the project.
- 2.13. GLNG suggests that without an exemption, the income assurances required to make the project viable would not be sufficient, particularly when taking into account the significant risks associated with the project and GLNG's view of the risk-reward balance. The project has a long pay back period and GLNG suggests that no exemption, or an exemption of shorter duration than that requested, would lead to insufficient certainty over expected returns. GLNG suggests that a lower tariff, or a tariff subject to regulatory uncertainty, would be insufficient to ensure that the extension of the importation terminal remains within the acceptable risk profile for investors.
- 2.14. In its application, GLNG suggests that given the cost and lead-time required for building upstream facilities (production, liquefaction and shipping), the least risk approach (for both shippers and the terminal owner) is to put in place long-term contracts with shippers for new capacity at the Isle of Grain importation terminal.
- 2.15. In summary, because of the risks highlighted in its application for an exemption, GLNG states that Grain 3 will only proceed should such an exemption be granted.

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⁸ 'Note of DG Energy & Transport on Directives 2003/54-55 and Regulation 1228/03 in the Electricity and Gas Internal Market - Exemptions from Certain Provisions of the Third Party Access Regime. 30.1.2004'.

Ofgem's initial view

- 2.16. We note GLNG's view that without an exemption, the income assurances required to make the project viable would not be sufficient when taking into account the significant risks associated with the project and GLNG's views of the risk-reward balance of the project. This is supported by the confidential information GLNG has provided to us.
- 2.17. The Interpretive Note suggests that for condition (b) to be met, the project requesting the exemption will have to be "major" or "high cost". The note defines these as projects including all their component parts which, if underwritten by regulated tariffs, would significantly increase final customers' bills. A rule of thumb of such a significant increase given by the Note is more than €10 per connected customer.
- 2.18. Ofgem regards this definition of a "major" or "high cost" piece of infrastructure as an appropriate indicator in this case. According to the confidential financial information provided by GLNG, the proposed project meets the criterion set out in the Interpretive Note. Specifically, GLNG's submission shows that the cost of investment will exceed the European Commission's indicative threshold beyond which the investment is deemed as being "major"."
- 2.19. We also note GLNG's view that the project has a long payback period (an assertion supported by its confidential submission) and therefore that the absence of an exemption would lead to insufficient certainty over returns to enable the project to proceed. This uncertainty is compounded by potentially significant changes in wholesale gas prices, the potential impact of competing gas supply projects and advances in technology over the payback period.
- 2.20. We therefore consider it reasonable to assume that the project would not be attractive enough from the point of view of a private investor without the granting of an exemption for the requested capacity and duration.
- 2.21. In conclusion, we therefore currently believe that, given our overall assessment of the risks involved in the Grain 3 project, condition (b) is met.

Condition (c): the facility is or is to be owned by a person other than the gas transporter who operates or will operate the pipeline system connected or to be connected to the facility

2.22. As indicated in its application, GLNG is the owner and operator of the existing importation terminal infrastructure and all expansion phases to be undertaken at the

⁹ Using an assumption that there are approximately 21 million domestic gas metering points in GB, hence a "major" project would be one involving capex in excess of €210 million.

terminal. GLNG is a 100% owned subsidiary of National Grid plc, which also owns National Grid Gas plc ("NGG"). NGG, as a transmission system operator, owns and operates the NTS (i.e. the high pressure pipeline to which the Grain facility is connected). The Grain facility is also connected to the local distribution system owned by Southern Gas Networks plc ("SGN").

- 2.23. GLNG and NGG are separate and independent wholly owned subsidiaries of National Grid plc. GLNG also has full financial separation from the other companies within National Grid plc, with a requirement to file separate accounts. As such, GLNG interacts with NGG and SGN in the same way as with any other third party. Further, GLNG is not affiliated with any other gas market participant using any part of the GB gas network.
- 2.24. Further to the above legal separation, NGG is subject to Licence Conditions and Gas Act obligations to ensure that no unfair commercial advantage is conferred on GLNG. The applicant is therefore of the view that it meets all the requirements for condition (c).
- 2.25. A separate part of the application indicates that Grain 3 will be funded by National Grid plc's balance sheet in the form of an inter-company loan to GLNG. GLNG has submitted additional assurances supporting its exemption application to the effect that this inter-company loan (or any other form of inter-company financing arrangement entered into) will be provided by a company outside of the regulated business such as National Grid Commercial Holdings (NGCH) to National Grid Grain LNG Ltd on an arms length basis and on normal commercial terms.

Ofgem's initial view

2.26. Having reviewed the information that GLNG has submitted, we agree with its assessment and therefore currently consider that condition (c) is met.

Condition (d): charges will be levied on users of the facility or (as the case may be) the increase in its capacity

- 2.27. The application states that GLNG's capital investment and ongoing costs are to be recovered through the sale of long term import capacity rights and that importation shippers will be charged an annual fee for the use of Grain 3. GLNG states that no part of the costs for Grain 3 will be underwritten through regulated transmission charges.
- 2.28. As a result, the applicant considers condition (d) to be met.

Ofgem's initial view

2.29. We agree with GLNG's assessment and we are therefore currently of the view that exemption criterion (d) is met.

Condition (e): the exemption will not be detrimental to competition, the operation of an economically efficient gas market or the efficient functioning of the pipeline system connected or to be connected to the facility

- 2.30. In its application, GLNG states that it has included many of the aspects of an rTPA regime into its proposed access arrangements including the organisation of a non-discriminatory open season process. GLNG states that this should provide comfort that the arrangements allow access to infrastructure on the basis of market prices and contract durations proposed by the bidders in the tender process.
- 2.31. GLNG also commissioned Frontier Economics (Frontier) to undertake an independent assessment in order to determine the impact of Grain 3 on competition in the relevant markets. In its assessment, Frontier considered the impact of Grain 3 on the following markets:
- those where the investment would have a direct effect (i.e. GB wholesale market, NW European wholesale market, European wholesale market, GB flexibility market (daily) and GB flexibility (seasonal)), and
- those where the investment would have an indirect effect (i.e. Global LNG supply (liquefaction), LNG shipping and gas shipping).
- 2.32. In relation to the flexibility markets, Frontier stated that there are several different sources of flexibility available to system users in GB including different types of storage facilities (Rough, Hornsea, LNG), Beach swing gas, linepack, IUK and demand interruption. Frontier asserted that the level of substitutability between these sources of flexible gas is complex. In its analysis, Frontier also considered the possible vertical related markets such as supplies to GB power stations, the Industrial and Commercial sector and the domestic market.
- 2.33. Frontier concluded that there are no relevant markets in which Grain 3 (with an exemption) would have a materially adverse impact on competition even if the party with the highest market share in each market were to acquire exclusive rights to Grain 3.
- 2.34. In its application, GLNG stated that, given the assessment undertaken by Frontier, there would be no detrimental impact on competition from granting an exemption.
- 2.35. In relation to the impact of the exemption on the efficient functioning of the connected pipeline system, GLNG states that it is already party to NGG's standard terms and condition in relation to gas quality and flows of gas into the NTS via its Network Entry Agreement. GLNG also states that it has similar agreements with SGN, the owner of the distribution network to which the Isle of Grain facility is connected. GLNG also states that any shipper bringing gas onto the network would have to sign up to the relevant industry codes such as the Uniform Network Code.

- 2.36. Regarding information disclosure, GLNG states in its application that since the Phase 1 terminal started operation in July 2005, information on the aggregate flows from the facility has been released on its website. GLNG states that it is supportive of the view that there should be equivalence in the information required of interconnector and LNG operators as generally required of similar facilities in relevant gas and electricity markets. GLNG is prepared to make information on historical usage of Grain 3 available to Ofgem and to other parties, subject to confidentiality agreements with shippers at the terminal.
- 2.37. In relation to anti-hoarding arrangements, GLNG states in its application that it expects to adopt similar arrangements to those that are already in place at Grain 1. It also states that it intends to amend the Specific Terms Agreement (STA) for the Grain 3 shipper(s) so that it would include an express provision to develop and implement similar arrangements to those in place at Grain 1 (or at any other facility developed by any other shipper that has rTPA exempt LNG importation capacity secured via long term contracts by the time Grain 3 enters commercial operation in 2010).
- 2.38. In its application, GLNG states that to go beyond the approach outlined above would be inconsistent with other LNG facilities and would devalue the Grain 3 capacity. GLNG outlines that there is a need to balance the primary rights of LNG importers and the desires of a small number of market players. According to GLNG, this is necessary to ensure that the GB gas market benefits from additional capacity becoming available.
- 2.39. Overall, GLNG concludes that the exemption would not be detrimental to competition, the operation of an economically efficient gas market or the efficient functioning of the pipeline system connected or to be connected to the facility.

Additional information

- 2.40. GLNG's open season process for the allocation of Grain 3 primary capacity has continued to progress since the submission of the application for an exemption. On 10 November 2006, GLNG received firm bids for primary capacity, and began analysis of these bids.
- 2.41. To support its exemption application, GLNG has used the firm bids received through the open season process to provide additional information and undertakings to Ofgem regarding both:
- the identity of bidders for Grain 3 primary capacity, and
- the volume of primary capacity which they may acquire.
- 2.42. GLNG has indicated that the identity of bidders is commercially confidential. However, GLNG is willing to state publicly that on the basis of firm bids received:

- no existing customer of the Grain terminal (i.e. Grain 1 and Grain 2) will be allocated more than 100GWh/d of the 210GWh/d of importation capacity on offer under Grain 3¹⁰,
- as far as GLNG is aware and based on publicly available information, no new Grain customers bidding for capacity in Grain 3 are involved in the development of an LNG terminal elsewhere in the UK, and
- more than half of bidders for this capacity are not existing customers of Grain, meaning there may potentially be new entrants to the GB LNG market as a consequence of this project going ahead.
- 2.43. The non-confidential additional information and undertakings submitted by GLNG are presented in full in Appendix 5.

Ofgem's initial view

- 2.44. In considering whether the exemption meets condition (e), we have undertaken a thorough analysis of the impact of a possible exemption on competition and the operation of an economically efficient gas market and whether or not such an exemption would adversely affect the benefits brought about by the project. This section summarises the main findings of that analysis. Note that this analysis and the reasons for our decision in this respect are set out more fully in Appendix 4¹¹.
- 2.45. The main objective of our analysis was to assess whether an exemption could have a detrimental impact on competition in the relevant GB gas markets (and wider European gas markets). Given this objective, we examined the potential impact of the exemption on competition in both upstream and downstream gas markets using different market definitions.
- 2.46. The extent of any impact on competition resulting from the granting of an exemption would critically depend on the outcome of the open season process and the market share allocation to various participants at Grain 3. As such, following receipt of firm bids for Grain 3 capacity, GLNG submitted additional information and undertakings regarding the allocation of Grain 3 capacity to bidders. It is on this information that we have based our competition assessment.
- 2.47. As stated earlier, the identities of bidders for Grain 3 capacity cannot be released at this time for reasons of commercial confidentiality. However, as also noted above, GLNG has confirmed that more than half of bidders for this capacity are not existing customers of Grain. In the event that there are new entrants to the GB LNG market as a consequence of Grain 3, then we consider there would be significant benefits in terms of decreasing concentration and promoting competition.

Existing customers of the Grain terminal are BP, Sonatrach, Centrica and Gaz de France.
 Note that we undertook significantly more analysis than that presented in Appendix 4,

however we are unable to share this externally as a consequence of GLNG wanting to protect the identity of bidders.

Upstream markets

- 2.48. We consider that it is possible to develop a number of different market definitions within the upstream markets. Historically, we have used a broad definition of the market which includes all gas supplies from flexible sources¹². In this section we summarise our views on the effect on competition using a range of market definitions from the narrow definition of a market for LNG supplies to the broader market for flexible gas supplies. As part of this consultation we would welcome respondents' views on whether you consider the flexible gas market remains the appropriate market definition for considering the effect on competition for the development of a new LNG importation facility.
- 2.49. Our overall approach was, for each potential definition of the relevant market, to assess the impact on market concentration of granting an exemption for Grain 3¹³. In doing so, we compared the level of concentration in each market in the event that an exemption is granted to a counterfactual where Grain 3 is constructed but is subject to rTPA. Our analysis assumed the "worst case scenario", in which Grain 3 capacity was allocated to the bidder with the largest share of each market (consistent with the undertakings outlined in Appendix 5). For reasons of confidentiality we are unable to present the details of our analysis of individual market participants and bidders. However, a summary of our key results are presented in Table 2.1, and discussed in more detail below.

Table 2.1: Key results of competition analysis

Market definition	Concentration index ¹⁴ (project without exemption)	Concentration index (project with exemption)
LNG market only	2146	2438
LNG, LRS and MRS	1243	1394
LNG, LRS, MRS and pipeline imports	710	787

LNG market

2.50. Following this methodology, our analysis initially focused on the LNG market. Such a definition could be viewed as being appropriate in the event that a

¹² See for example the Ofgem investigation into the increase into wholesale gas prices in October 2003:

 $⁽http://www.ofgem.gov.uk/temp/ofgem/cache/cmsattach/13462_Gas_Probe_Conclusions_document_Final_doc.pdf\),$

¹³ Concentration measures the extent to which a market is dominated by a small number of market participants.

¹⁴ We used the Herfindahl-Hirschmann Index (HHI) to measure concentration in our analysis. In its "Guidelines on the applicability of Article 81 of the EC Treaty to horizontal cooperation agreements," the Commission has stated that an HHI below 1000 indicates "low" market concentration, between 1000 and 1800 concentration is "moderate" and above 1800 is "high." See OJ 2001/C 3/02 for more details.

hypothetical monopolist operating in the LNG market would be able to profitably sustain a price increase.

- 2.51. Our competition analysis showed this market to have a high level of concentration even where we assumed Grain 3 is constructed, but is subject to rTPA¹⁵. We then assumed the exemption is granted in a manner consistent with the undertakings described in Appendix 5. As outlined above, we assumed the worst case scenario allocation of this capacity, where the maximum volume of capacity is allocated to the bidder with the largest share of the market in the counterfactual (as opposed to, for example, capacity being allocated to a new entrant). Under these conditions, we found that concentration in this market could increase to a level which may be detrimental to competition (i.e. up to a worst case scenario level of an HHI of 2438).
- 2.52. Although our analysis indicates potential competition concerns in this narrowly defined market, our conclusions are very sensitive to assumptions on the timing of a number of potential new LNG importation terminals (as more fully described in Appendix 5). For example, were we to assume that additional LNG terminals were operational by 2010, then our measure of concentration remains within "moderate" levels even after the granting of an exemption for Grain 3.
- 2.53. As stated above, for the purposes of our analysis, the LNG market could only be viewed as being the appropriate definition of the relevant market in the event that we consider a hypothetical monopolist operating in this market would be able to profitably sustain an increase in prices at the time at which the exemption is granted (i.e. in 2010).
- 2.54. On balance, we consider that the potential for a hypothetical monopolist in the LNG market to sustain an increase in prices is likely to be low in the future, given improvements in gas infrastructure that are expected to be operational by that time. These include new pipelines that will import gas into the GB market (e.g. Langeled and the Balgzand Bacton gas pipeline (BBL)), and a number of proposed gas storage facilities¹⁶. We consider all of these developments will provide additional flexible sources of gas supply, and as such provide increased competition for LNG. As such, we do not consider it likely that a hypothetical monopolist in the LNG market would be able to profitably sustain an increase in price in 2010, and therefore currently consider that a definition of the relevant market broader than the LNG market is more appropriate for our competition assessment.

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¹⁵ On the basis of a range of assumptions regarding gas supply sources in 2010, described in detail in Appendix 4.

¹⁶ Including projects at Fleetwood, Aldbrough, Byley, Saltfleetby, Welton, Caythorpe, Albury, Hole House and Holford.

2.55. We would welcome views of respondents on this conclusion, particularly drawing on experiences of the interaction of LNG sources with the gas market since summer 2005.

Broader market for flexible gas supplies

- 2.56. We also analysed a broader definition of the relevant market by expanding the definition of the market to include sources of gas supply for gas that could be viewed as being close substitutes for LNG. We defined this market to include LNG, Long Range Storage (LRS) and Medium Range Storage (MRS) facilities, on the basis that these sources of supply have similar characteristics (and specifically that they are capable of operating on both a baseload and peak supply basis).
- 2.57. Using this definition for the relevant market (and assuming capacity is allocated to bidders in line with the undertakings provided by GLNG in Appendix 5), our analysis suggests that this market would be sufficiently competitive by 2010 for there to be no competition concerns with any of the potential capacity holders acquiring the capacity at Grain 3. Specifically, our analysis showed that, even a worst case scenario allocation of Grain 3 capacity would only increase the HHI to 1394 (i.e. well below the indicative threshold of 1800 that indicates a high level of concentration).
- 2.58. As we consider LNG, MRS and LRS to be close substitutes in terms of their ability to provide gas supplies flexibly, our initial view is that we consider it appropriate for these sources to be included in the same market definition. On balance, our current view is that this broader definition of the relevant market is more appropriate for the purposes of our competition analysis than the LNG market in isolation. However, we would value respondents' views on this issue.
- 2.59. Based on our analysis and under this definition of the relevant market, we do not believe that an exemption for Grain 3 would be detrimental to competition in upstream gas supply markets. This is because, even in the worst case scenario where the maximum volume of capacity (consistent with the undertakings outlined in Appendix 5) goes to the bidder with the largest market share, we would not expect the market to become concentrated to an extent that could be detrimental to competition.
- 2.60. Our analysis has also shown that, if we further broaden the scope of the flexibility market in terms of product (e.g. by including pipeline imports) or geographic scope, then calculated levels of concentration are even lower ¹⁷. This reinforces our view that an rTPA exemption for Grain 3 would not be detrimental to competition in the more broadly defined market for flexible gas supplies, or under any broader definitions of the upstream market. On the basis of this analysis, we do

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¹⁷ Under this definition of the flexibility market, the HHI is below 1000 indicating a "low" level of concentration under a worst case scenario.

not consider that granting an exemption for Grain 3 could be detrimental to competition in European markets.

2.61. We would welcome the views of respondents on whether this broader definition of the relevant market is appropriate for our analysis, and on our conclusion that the granting of an exemption would therefore not be detrimental to competition in upstream markets.

Downstream markets

- 2.62. We consider the most significant impact of the granting of an exemption for Grain 3 to be on the wholesale market, given this is the primary market in which the additional source of LNG capacity would be offered for sale. However, for completeness we have also considered the potential effect that Grain 3 may have on downstream gas markets (particularly as some existing primary capacity holders at Grain have a large presence in these markets).
- 2.63. In March 2006, Ofgem undertook a detailed study of the GB retail market. This concluded that "competition remains effective and vigorous in all segments of the domestic energy market" 18. More specifically, high levels of switching were observed and the market shares of the main incumbents have been steadily eroding.
- 2.64. Ofgem has also undertaken similar analysis for the non-domestic retail market, for which we also concluded competition was effective. In August 2006, there were eight participants in the GB non-domestic retail market with a market share above 5%, none of which had a market share in excess of 20%. The market also had an HHI of 1053 (implying a low to moderate level of concentration). Overall, we therefore concluded that there is an effective level of competition in this market.
- 2.65. As a consequence, we see no basis on which to consider that granting an exemption for Grain 3 could have a detrimental effect on competition in downstream markets, especially in light of our conclusion that such an exemption would not have a detrimental effect on competition in wholesale markets.
- 2.66. We invite views of respondents on this conclusion, and especially on our view that an exemption directly affecting the wholesale market would not have a detrimental effect on a competitive downstream market.

Anti-hoarding arrangement.	S

¹⁸ Domestic Retail Market Report – March 2006, July 2006 (Ref. No 110/06) http://www.ofgem.gov.uk/temp/ofgem/cache/cmsattach/15610_DRMR_March_2006.pdf?wtfrom=/ofgem/work/index.jsp§ion=/areasofwork/retailcompetition

- 2.67. We acknowledge GLNG's commitment to implement similar arrangements to those presently in place for Grain 1. However we note that these arrangements remain untested at the time of consultation. We would also note that it remains the responsibility of the exemption holder (i.e. GLNG) to ensure that anti-hoarding arrangements are appropriate and effective¹⁹.
- 2.68. As discussed more fully below, we propose publishing a guidance note on the design of effective anti-hoarding arrangements for LNG importation terminals in the new year.

Information provision

- 2.69. We note GLNG's comments in relation to information provision and its support of the principle of equivalence in the information provided by similar facilities in relevant energy markets. We welcome the publication of the aggregated flows of gas from the Isle of Grain facility. Ofgem maintains that information publication is important to the effective and efficient functioning of a competitive market and would encourage all LNG facility operators to publish as much information to the market as possible.
- 2.70. In this regard, we also note that there is a link between information provision and effective anti-hoarding arrangements. Specifically we consider that, in order for third parties to be able to use the terminal, they need to be able to understand clearly (and sufficiently far in advance) whether or not primary capacity is going to be used by the primary capacity holders.

Efficient and economic operation

2.71. Given that GLNG's application states that it is already party to the terms and conditions in relation to gas quality and flows of gas onto the NTS in its Network Entry Agreement and a similar agreement with SGN, we believe that the exemption will not be detrimental to the effective and efficient functioning of the pipeline to which the facility will be connected. Furthermore, any new shipper bringing gas onto the NTS from the facility will do so in accordance with the Uniform Network Code.

Summary

2.72. In conclusion, we currently consider that this exemption condition will be met if the outcome of GLNG's open season process is consistent with the information contained in GLNG's application and the additional information and undertakings (as set out in Appendix 5).

¹⁹ In particular, see our Open letter - Use it or Lose it arrangements at the Isle of Grain, August 2006. http://www.ofgem.gov.uk/temp/ofgem/cache/cmsattach/16024_134_06.pdf

2.73. We therefore propose granting the exemption. However for the avoidance of doubt, the Authority may review this decision once the outcome of the open season process is known (particularly where the outcome of the open season differs from that as represented by GLNG in its undertakings). As the draft exemption order makes clear, the Authority may revoke, or, with the consent of the facility owner, amend the exemption for Grain 3 if in the Authority's reasonable opinion there is a material change in the degree to which the requirements of this exemption condition are met ²⁰.

Condition (f): the Commission of the European Communities is or will be content with the exemption

2.74. For the reasons stipulated in the application, GLNG believes it satisfies the criteria for exemption in relation to the Gas Act.

Ofgem's initial view

2.75. We currently consider that all of the criteria described above have been met (within the context of the undertakings provided by GLNG (set out in Appendix 5)). As such, we believe the European Commission should be content with the granting of the exemption.

Scope and duration of the exemption

- 2.76. The duration of the exemption requested in GLNG's application for Grain 3 is for a maximum of 20 years or until October 2029 at the latest. The duration sought reflects the long payback periods associated with the project. In the view of the applicant, it is required to ensure an appropriate return on investment.
- 2.77. GLNG requests the application to cover all the new capacity for the proposed expansion.

Ofgem's initial view

- 2.78. We note GLNG's view that Grain 3 has a long pay back period, and that in the absence of an exemption (or an exemption of shorter duration than that requested), the project might offer insufficient returns. GLNG's confidential submission (outlining details of the project's financial information) confirms this view.
- 2.79. We note that a number of comparable projects have been granted exemptions from rTPA with a duration that is comparable to the duration requested for Grain 3²¹.

²⁰ As described in section 19C(7)(e) of the Gas Act.

²¹ Including the previous expansion phases at the Grain facility (20 years for Grain 1 and 25

However, we consider that an assessment of an appropriate duration for exemption applications must be undertaken on a case-by-case basis.

2.80. We consider the assessment of condition e) to be of particular relevance to the determination of an appropriate duration for the exemption (i.e. the impact of the exemption on competition in the relevant markets). In light of our conclusions with respect to this condition e), and in light of the confidential financial information submitted by GLNG, we therefore consider that the requested duration of up to 20 years or until October 2029 at the latest would be appropriate for this exemption.

The exemption order and conditions for its application

- 2.81. The proposed exemption remains conditional on:
- the outcome of GLNG's open season process, and
- the implementation of effective anti-hoarding arrangements.
- 2.82. These conditions are described in more detail below.

Conditions in relation to the outcome of the open season process

2.83. We have carried out an analysis of whether the tests for the granting of the exemption have been met within the constraints set out in the undertakings provided by GLNG (as outlined in Appendix 5). Once the final capacity allocation is known, and in particular in the event that the outcome is different from that represented by the undertakings provided by GLNG, the Authority may re-examine whether the exemption meets all relevant criteria and may modify or revoke the exemption within four months if it were to find that the relevant criteria are no longer met. In this way, the proposed exemption therefore remains conditional on the outcome of the open season process.

2.84. This has been set out as an explicit condition in the draft exemption order.

Implementation of effective anti-hoarding arrangements

2.85. As mentioned above, the implementation of effective secondary trading and anti-hoarding mechanisms is a requirement for LNG facilities that are granted an exemption from rTPA requirements. This section provides views on both the design of such arrangements, and their enforcement.

years for Grain 2), the two phases of the Dragon project at Milford Haven (20 years), and the expansion at South Hook (25 years).

Design of anti-hoarding arrangements

2.86. DTI and Ofgem jointly published a Final Views document in November 2003, outlining views on effective anti-hoarding arrangements²². In particular, this document stated that a regulated and exempt regime should have:

- a requirement to offer initially capacity to the market
- effective secondary trading and anti-hoarding mechanisms, and
- appropriate information provision.

2.87. We intend to publish a guidance note on the design of effective anti-hoarding arrangements for LNG importation terminals in the new year. In this note we intend to outline a number of key high level principles for such arrangements. It is important to note however that, given the dynamic nature of the LNG market, such guidance will only be indicative and parties will need to satisfy themselves that the arrangements they have in place are effective in preventing hoarding by capacity holders. We would also expect that the holder of the exemption (and the primary capacity holder(s) as appropriate) would openly consult on key aspects of these arrangements, including details of their design and the nature of the market to which they relate.

Enforcement of anti-hoarding arrangements

- 2.88. Consistent with the views outlined above, we expect that effective anti-hoarding arrangements will be developed by GLNG if and when an exemption is granted for Grain 3. In line with our previous views, we do not propose approving such arrangements prior to their implementation. Instead we consider it more appropriate to monitor their effectiveness once they have been adopted.
- 2.89. Failure of the holder of the exemption to meet the requirement of having effective anti-hoarding arrangements in place could give Ofgem grounds for amendment or possible revocation of the exemption. In the event that any of the circumstances occur that allow Ofgem to amend or revoke the exemption, Ofgem would issue a consultation document on this issue.
- 2.90. If we were to find any evidence of capacity hoarding activities or any other anticompetitive refusal to supply, we may also consider using our powers under the Competition Act 1998.
- 2.91. For the avoidance of doubt, Ofgem's analysis has been carried out against the relevant criteria for granting an exemption from rTPA requirements and is specific to the application that Ofgem is considering. Any decision that Ofgem may make in relation to this application does not preclude or impact in any way on the operation

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²² See Appendix 3 for further details.

of the Competition Act 1998 or the Enterprise Act 2002. Further, as the analysis contained in this document has been carried out in relation to a specific situation, the analysis may or may not necessarily be relevant to a consideration of any related issue that may arise, for example, under the Gas Act 1986, the Competition Act 1998 or the Enterprise Act 2002.

3. Process and way forward

Chapter Summary

This Chapter provides an overview of the process and way forward.

Process

3.1. Ofgem invites respondents' views to the questions outlined in Chapter 2 in relation to whether GLNG has met the relevant criteria for obtaining an exemption from rTPA for Grain 3. We will take such views into consideration when forming our final views.

Way forward

- 3.2. Having considered respondents' views, we will set out our final views on the exemption in a "Final Views" document.
- 3.3. If the Authority decides to grant the exemption, we will then notify the European Commission of our decision. The Commission may request the Authority to amend or withdraw its decision. From the date of our submission, the Commission has two months to consider its response. This two month period may be extended by one additional month if further information is sought by the Commission²³.

²³ The veto procedure is outlined in Article 22 (4) of the Second Gas Directive, as referred to in Appendix 3 - Legal and Policy Regime for exemptions from rTPA.

December 2006

Appendices

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Appendix 1 - Consultation Response and Questions

- 1.1. Ofgem would like to hear the views of interested parties in relation to any of the issues set out in this document. We would especially welcome responses to the specific questions which we have set out at the beginning of Chapter 2 (replicated below).
- 1.2. Responses should be received by 25 January 2007 and should be sent to:

Sonia Brown Director, Wholesale Markets 9 Millbank, London SW1P 3GE

wholesale.markets@ofgem.gov.uk

- 1.3. Unless marked confidential, all responses will be published by placing them in Ofgem's library and on its website www.ofgem.gov.uk. Respondents may request that their response is kept confidential. Ofgem shall respect this request, subject to any obligations to disclose information, for example, under the Freedom of Information Act 2000 or the Environmental Information Regulations 2004.
- 1.4. Respondents who wish to have their responses remain confidential should clearly mark the document/s to that effect and include the reasons for confidentiality. It would be helpful if responses could be submitted both electronically and in writing. Respondents are asked to put any confidential material in the appendices to their responses.
- 1.5. Any questions on this document should, in the first instance, be directed to:

Carlos Martinez-Rico Wholesale Markets 9 Millbank London SW1P 3GE 0207 901 7070 carlos.martinez@ofgem.gov.uk

Chapter 2

Question 1:

Do you agree with our overall assessment that the proposed exemption should be granted, based on the examination of whether each of the exemption criteria have been met?

Question 2:

Do you agree with the proposed duration of the exemption?

Question 3:

Do you agree that the proposed exemption should be subject to re-examination by the Authority, and if necessary to amendment or revocation, once the actual allocation of capacity through the open season process is known (particularly in the event that the outcome of the open season differs from that as represented by GLNG in its additional information and undertakings)?

Question 4:

Do you consider the competition assessment to be complete, and that it provides you with sufficient information on which to comment?

Question 5:

Do you agree with the assumptions underlying our competition assessment, as outlined in Appendix 4?

Question 6:

Do you agree with our views on the definition of the relevant market? In particular, do you consider the flexible gas market remains the appropriate market definition for considering the effect on competition for the development of a new LNG importation facility?

Question 7:

Do you agree with our views that granting an exemption for Grain 3 would not have a detrimental impact on competition in any European gas market?

Question 8:

Do you consider that there should be any additional conditions attached to the proposed exemption?

Question 9:

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Do you think that we should develop a guidance note on anti-hoarding arrangements to apply at LNG importation terminals?

Appendix 2 – 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.²⁴
- 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 accordingly²⁵.
- 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 them²⁶; and
- The interests of individuals who are disabled or chronically sick, of pensionable age, with low incomes, or residing in rural areas.²⁷
- 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:

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²⁴ Entitled "Gas Supply" and "Electricity Supply" respectively.

²⁵ 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.

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

- Promote efficiency and economy on the part of those licensed²⁸ 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 Regulation²⁹ 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.

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²⁸ Or persons authorised by exemptions to carry on any activity.

²⁹ Council Regulation (EC) 1/2003

Appendix 3 – Legal and policy framework for access to LNG terminals

Third party access in EU gas legislation

- 1.1. A system of regulated third party access (rTPA) to LNG facilities (based on published tariffs and non-discriminatory access) is required by EU legislation. This is contained in Article 18 of the Second Gas Directive³⁰.
- 1.2. Article 22 of the Second Gas Directive allows national regulatory authorities to exempt major new infrastructures from the requirements of rTPA where certain criteria are met, subject to approval by the European Commission. The rationale for the exemption is to provide the correct incentives for necessary investment to take place in highly risky activities, as might be the case for LNG import facilities.
- 1.3. Once a decision to grant an exemption is made by a national regulatory authority (NRA), it needs to be notified without delay to the European Commission, which may (within the next two months after notification) make use of its veto power and request that the NRA amend or withdraw its decision. This period may be extended by one additional month where additional information is sought by the Commission³¹.
- 1.4. These provisions have been implemented in respect of Great Britain by the Gas (Third Party Access) Regulations 2004. 32

GB Gas Act

- 1.5. The rTPA provisions in relation to LNG import facilities which flow from Article 18 of the Second Gas Directive are contained in section 19D of the Gas Act 1986.³³
- 1.6. The exemption provisions of Article 22 of the Second Gas Directive are contained in section 19C of the Gas Act 1986. Section 19C allows for an exemption from the rTPA obligations. For such an exemption to be granted, the following requirements must be met:

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³⁰ Directive 2003/55/EC of the European Parliament and the Council of 26 June 2003, concerning common rules for the internal market in natural gas and repealing Directive 98/30/EC.

 $^{^{\}rm 31}$ The veto procedure is outlined in Article 22 (4) of the Second Gas Directive.

³² SI 2004/2043.

³³ SI 2004/2043

- (a) the facility or (as the case may be), the significant increase in its capacity will promote security of supply;
- (b) the level of risk is such that the investment to construct the facility or (as the case may be) to modify the facility to provide for a significant increase in its capacity would not be or would not have been made without the exemption;
- (c) the facility is or is to be owned by a person other than the gas transporter who operates or will operate the pipeline system connected or to be connected to the facility;
- (d) charges will be levied on users of the facility or (as the case may be) the increase in its capacity;
- (e) the exemption will not be detrimental to competition, the operation of an economically efficient gas market or the efficient functioning of the pipeline system connected or to be connected to the facility; and
- (f) the Commission of the European Communities is or will be content with the exemption.
- 1.7. Ofgem applies these conditions on a case-by-case basis in considering any application for exemption.

DTI/Ofgem exemption policy

- 1.8. In June 2003, the DTI and Ofgem issued a joint consultation document concerning the new EU legislation relating to LNG facilities and interconnectors.³⁴ In November 2003, the DTI and Ofgem issued their final views in this area. 35 The Final Views document, by and large, confirmed and clarified the position set out in the Initial Views document.
- 1.9. In their Final Views document, DTI and Ofgem identified three important features for an exempt regime to be in place, which would apply in addition to the criteria specified in Section 19C of the Gas Act:
- to initially offer capacity to market

³⁴ LNG facilities and interconnectors, EU legislation and regulatory regime, DTI/Ofgem initial

views, DTI/Ofgem, June 2003. 35 LNG facilities and interconnectors, EU legislation and regulatory regime, DTI/Ofgem final views, DTI/Ofgem, November 2003.

http://www.ofgem.gov.uk/temp/ofgem/cache/cmsattach/5158_LNG_facilities_intercnters_EU_ legis_reg_25nov03.pdf

- to have effective secondary trading and anti-hoarding mechanisms to ensure that capacity at a facility is offered to the market and not hoarded, and
- to provide information that should be available to the regulator and/or published.

1.10. The implementation of effective secondary trading and anti-hoarding mechanisms is a particularly important issue in relation to LNG import facilities. It is a requirement for developers and shippers to adopt mechanisms that ensure that the maximum capacity at a facility is offered to the market. The ultimate objective is to ensure that capacity is not hoarded and that unused capacity can be obtained in a transparent market-based and non discriminatory manner by third parties so as to maximise the use of the infrastructure concerned.

EU Guidance on exemptions from certain provisions of the third party access regime

1.11. In January 2004, DG Energy & Transport of the European Commission issued a non-binding guidance note: the 'Note of DG Energy & Transport on Directives 2003/54-55 and Regulation 1228/03 in the Electricity and Gas Internal Market - Exemptions from Certain Provisions of the Third Party Access Regime. 30.1.2004³⁶. This note provides additional information as to how the criteria for granting the exemption can be evaluated and the type of information that would be required for such exemption to be granted.

 $\label{lem:http://ec.europa.eu/energy/electricity/legislation/doc/notes_for_implementation_2004/exemptions_tpa_en.pdf$

³⁶ Available at

Appendix 4 - Ofgem's approach to economic analysis for conditions (a) and (e)

Purpose of the analysis

- 1.1. The majority of this appendix describes the analysis that we have undertaken to assess whether an exemption for Grain 3 would meet the condition under section 19C(7)(e) of the Gas Act 1986 "the exemption will not be detrimental to competition, the operation of an economically efficient gas market or the efficient functioning of the pipeline system connected or to be connected to the facility"³⁷. This appendix therefore provides:
- a summary of project information available regarding Grain 3
- a definition of the scenario we have used for gas supply from 2010
- our assessment of the impact of an exemption on competition in upstream markets
- our assessment of the impact of an exemption on competition in downstream markets, and
- our overall conclusions.
- 1.2. We have also undertaken an analysis of the impact of the Grain 3 investment itself on competition, in the context of assessing whether an exemption for Grain 3 would meet the condition under section 19C(7)(a) of the Gas Act 1986. This additional analysis is presented at the end of this appendix.

Project information available

- 1.3. The impact of an exemption on competition will critically depend on the outcome of GLNG's open season process and the subsequent allocation of primary capacity at Grain 3 to successful bidders.
- 1.4. Due to the timing of the open season process the allocation of primary capacity in Grain 3 to individual companies will not be known until after Ofgem's initial views on the granting of an exemption have been published. This is a consequence of GLNG's commercial timetable and its preferred way of undertaking the open season process.
- 1.5. Firm bids for primary capacity were received by GLNG on 10 November 2006, and GLNG is now analysing the content of those bids and initiating negotiations with

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 $^{^{37}}$ Further information regarding relevant the legal test for exemptions from rTPA can be found in Appendix 3.

the companies concerned. GLNG has submitted additional information to Ofgem relating to both the identity of bidders and the volume of primary capacity at Grain 3 which they could acquire, we have used this additional data to inform our competition assessment³⁸.

- 1.6. While we have been informed about the identity of all bidders in Grain 3, this information cannot be disclosed because of commercial confidentiality. However, GLNG is willing to state publicly that on the basis of firm bids received:
- no existing customer of the Grain terminal (i.e. Grain 1 and Grain 2) will be allocated more than 100GWh/d of the 210GWh/d of importation capacity on offer under the Grain 3 expansion³⁹,
- as far as GLNG is aware and based on publicly available information, no new Grain customers bidding for capacity in Grain 3 are involved in the development of an LNG terminal elsewhere in the UK, and
- more than half of bidders for this capacity are not existing customers of Grain (meaning there may potentially be new entrants to the GB LNG market as a consequence of this project going ahead).
- 1.7. We examined all potential allocations of primary capacity on the basis of the information provided by GLNG. As a consequence, once the final primary capacity allocation is known, and in particular if that allocation differs from that represented in GLNG's undertakings outlined above, the Authority may re-examine whether the exemption meets all relevant criteria and modify or revoke the exemption within four months if it were to find that the relevant criteria are no longer met. In this way, the proposed exemption remains conditional on the outcome of the open season process.

Definition of supply-side scenario

- 1.8. In the exemption application, GLNG indicated that commercial operations for Grain 3 will commence by winter 2010/11. As such, we have based our competition assessment on the effect of granting an exemption for Grain 3 on a (most likely) scenario for the GB and European gas supply market in 2010. We have also assumed that this supply scenario remains relevant for the duration of the exemption⁴⁰.
- 1.9. We made a number of assumptions in order to develop this scenario for GB and European gas supply markets in 2010. On the basis of these assumptions we quantified the impact of an exemption for Grain 3 on competition in the gas markets (particularly in terms of changes in the Herfindahl-Hirschman Index (HHI) that measures the level of market concentration).

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The non-confidential elements of this additional referral are included in full in Appendix 5.Existing customers of the Grain terminal are BP, Sonatrach, Centrica and Gaz de France.

⁴⁰ On the assumption that our view of the gas market supply-side in 2010 is also our best assessment of supply conditions beyond 2010.

- 1.10. We developed our assumptions on the basis of:
- an analysis of the supply conditions during winter 2005/06 (the first year an LNG importation facility was in operation in the GB gas market)
- information available on actual infrastructure and expected new infrastructure that is due to come on line by 2010 (and the capacity/equity holders at these facilities), and
- the supply/demand balance parameters provided by National Grid Gas in its 2005 10-year statement⁴¹ as well as supply/demand information from the JESS report⁴².
- 1.11. The remainder of this section explains in more detail a number of key assumptions used in the construction of our supply-side scenario, particularly regarding:
- European supplies
- storage withdrawals, and
- weather scenarios.
- 1.12. Note that we did not include any demand side response in our analysis (on the basis that, for our competition assessment, this represented the most conservative approach).

European supplies

- 1.13. We have assumed that the pattern of gas flows from the continent through the Interconnector UK (IUK) experienced in winter 2005/06 will continue to apply in 2010. In particular, we have assumed comparatively low flows of gas from continental Europe to the GB market through the IUK at the start of the winter, with flows increasing as the end of winter approaches.
- 1.14. We have also assumed that this pattern of flows will apply for the majority of capacity through the Balgzand Bacton gas pipeline (BBL), given flows on this pipeline are likely to be driven by factors similar to those that determine flows through the IUK^{43} . In addition, we have assumed that the Langeled pipeline will be flowing at near full capacity.

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⁴¹ http://www.nationalgrid.com/uk/Gas/TYS/current/tys2005.htm

⁴² Joint Energy Security of Supply working group report (JESS). Copies of the JESS report can be obtained from the DTI website at: http://www.dti.gov.uk.

⁴³ Note we have assumed that capacity on the BBL pipeline that we know to be fully contracted to supply the UK market will flow at 100% deliverability. Details on gas contracted to flow through the BBL pipeline to be found at NG's Winter 2006/07 Consultation Document, May 2006. http://www.nationalgrid.com/NR/rdonlyres/A5705449-36D9-465B-ACEO-

Storage withdrawals

1.15. We have based our assumptions regarding storage withdrawals on observed flows in recent years. Specifically, we have assumed that there would be lower storage withdrawals in GB in the early part of winter, then increasing towards late winter (when the onset of colder weather is most likely, and the option value of retaining gas in storage drops). We assumed there would be no withdrawals from short range storage at any stage of the winter, since this gas is primarily kept to deal with supply emergencies.

Weather scenarios

1.16. We also modelled a range of different weather scenarios ("severe" winter 1 in 20, average winter and mild winter). Results quoted in this document are based on the "average" scenario (chosen on the basis that these are the conditions most likely to occur in any given year).

Competition assessment - wholesale gas market

- 1.17. We focused our initial analysis on the wholesale gas market, given that Grain 3 is likely to have the most direct impact on this market. Our methodology in assessing the potential impact of granting an exemption for Grain was then to:
- estimate the market shares of each potential capacity holder at Grain 3, and market concentration indices (HHIs), if capacity was allocated to each of those within the limits of their actual bids, and then
- estimate market shares and concentration indices that may arise under a hypothetical counterfactual situation, where Grain 3 is constructed and operated under an rTPA regime.⁴⁴
- 1.18. For the purposes of considering the situation where Grain 3 is constructed and operated under an rTPA regime, we assumed the available capacity at Grain 3 was equally allocated to four hypothetical new entrants. We made this assumption on the basis that four new entrants provided a reasonable balance between the practicalities of organising cargoes for Grain 3 and the number of companies that, on the basis of the open season process might be interested in obtaining capacity at Grain 3.

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44 As recognised in the Interpretive Note, condition (e) has similarities with condition (a); both aim to ensure a competitive market. For the purposes of condition (a) we have considered whether or not the project (be it regulated or unregulated) would enhance security of supply and competition in gas supply. We have concluded that it would. Having accepted for the purposes of the test in condition (b) that an exemption is required, we now consider further the effect of the exemption on the market. We assess whether or not the benefits of the project would be adversely affected by the exemption by considering the impact on the market of an unregulated (exempt) facility as compared with a facility subject to rTPA.

- 1.19. We did this for each individual supply source and combinations of different sources in each of the upstream and downstream markets we deemed relevant to our analysis (see below for further details).
- 1.20. The reminder of this section explains:
- the relevant market definitions we considered in our analysis of wholesale gas markets, and
- our view of the impact of an exemption on competition in those markets.

Market definition

- 1.21. We began our competition assessment by assessing the most appropriate definition for the relevant market. To do this we took into account the "SSNIP" test⁴⁵, i.e. for each market we considered whether a hypothetical monopolist in that market could profitably impose a significant increase in prices for a sustained period. In accordance with this approach, we worked outwards from the narrowest market definition to find the first market definition that might enable the SSNIP test to be met.
- 1.22. In establishing an appropriate definition for the upstream gas market, we considered the views on market definition contained in decisions such as the Competition Commission's enquiry into the acquisition by Centrica of the Rough storage facility and the Ofgem Gas Probe⁴⁶. However, while we consider these past decisions relevant to our competition assessment, it is important to reiterate that assessments of appropriate market definition should be undertaken on a case-by-case basis.

⁴⁵ Where SSNIP stands for a "Small but Significant and Non-transitory Increase in Price."

⁴⁶ In the Competition Commission's decision on the acquisition of the Rough storage facility by Centrica (http://www.competition-

commission.org.uk/rep_pub/reports/2003/480centrica.htm#full), the Competition Commission concluded that the relevant market was a broad definition of the flexibility market, including all storage facilities, beach swing gas, interconnector flexibility and demand-side interruptions. The Competition Commission acknowledged, however, that not all types of flexibility are equally good substitutes.

The Ofgem Gas Probe was an investigation led by Ofgem into the increase in wholesale gas prices in October 2003. In our conclusions document

⁽http://www.ofgem.gov.uk/temp/ofgem/cache/cmsattach/13462_Gas_Probe_Conclusions_doc ument_Final_doc.pdf), we also adopted a broad definition of flexible gas supplies. Specifically, we stated that there were a number of alternative sources of flexible gas to the Sean field, such as capacity at Rough, interconnector capacity, Medium Range Storage (MRS) and customer interruption.

- 1.23. Moreover, it is particularly important that we review the approach to market definition in wholesale gas markets in the light of the experience gained after the first LNG importation terminal in GB came into operation in July 2005. As such, in the following sections we present our views of the competition implications of the following market definitions for wholesale gas supplies:
- the "narrowly defined" LNG market
- the broader market for flexible gas supplies (including storage), and
- an even broader definition (including key gas pipelines).

LNG market

- 1.24. Although both the Competition Commission's enquiry and the Ofgem Gas Probe defined the relevant market as being broader than the LNG market in isolation, we considered it important to begin our assessment by considering a narrow market definition. LNG was therefore selected on the basis of this being the narrowest definition of market in which competition could be affected by Grain 3.
- 1.25. On balance however, we consider that the potential for a hypothetical monopolist in the LNG market to sustain an increase in prices is likely to be low in the future, given the improvements in gas infrastructure that we expect to be operational by that time. These include new pipelines importing gas into the GB market (e.g. Langeled and the Balgzand Bacton gas pipeline (BBL)), and a number of proposed gas storage facilities⁴⁷.
- 1.26. We consider all of these developments will provide additional flexible sources of gas supply, and as such provide increased competition for LNG. As such, we consider it unlikely that a hypothetical monopolist in the LNG market would be able to profitably sustain an increase in price in 2010, and therefore currently consider that a definition of the relevant market broader than the LNG market is more appropriate for our competition assessment.
- 1.27. We invite respondents' views on this conclusion, and ask respondents to draw particularly on their experience of the interaction of LNG with the wholesale gas market since July 2005 in commenting on this issue.

Broader flexibility market

1.28. We also assessed a broader definition of the relevant market, specifically one that includes sources of gas supply that could be considered to be close substitutes to LNG. We consider that LNG is capable of operating as both a baseload and flexible source of gas (based on monitoring the operation of the Grain 1 terminal over winter

⁴⁷ Including projects at Fleetwood, Aldbrough, Byley, Saltfleetby, Welton, Caythorpe, Albury, Hole House and Holford.

2005/06), and therefore that Grain 3 is likely to have similar capability. We would also note that Grain 3 will increase the volume of gas storage at the Grain facility, which is likely to further increase the potential for this facility to be used flexibly.

1.29. We also consider Long Range Storage (LRS) and Medium Range Storage (MRS) to be capable of operating flexibly, and to be close substitutes⁴⁸. For this reason, our initial view is that we consider it appropriate for these sources to be included in the same market definition. On balance, our current view is that this broader definition of the relevant market is more appropriate for the purposes of our competition analysis than the LNG market in isolation. However, we would value respondents' views on this issue.

Broad definition including gas imports from Langeled, IUK and BBL

- 1.30. Finally, we also analysed the potential impact on competition of granting an exemption for Grain 3 for even broader definitions of the relevant market (for example including gas pipelines). In particular, we considered a market definition in which Langeled, IUK and BBL are flowing gas into the GB (at levels consistent with the assumptions outlined above).
- 1.31. We consider that, although these imports could be viewed as being substitutable with flexible sources of supply such as LNG, MRS and LRS, they have a number of fundamentally different characteristics. As an example, experience of winter 2005/06 has shown that flows through the IUK may sometimes be affected by drivers other than the GB-continental price differential.
- 1.32. However, we consider it valuable to retain this broader definition of the relevant market to provide a comparison to the competition analysis prepared for the "broader flexibility" definition of the relevant market. Once again, we would value respondents' views on whether this is an appropriate approach to adopt.

Analysis of the market

- 1.33. We evaluated the impact on competition of an exemption being granted for Grain 3 by assessing market shares and concentration indices of market participants in the event that an exemption is granted, and comparing these to a situation in which Grain 3 is constructed, but is subject to rTPA.
- 1.34. We undertook this analysis for both the narrowly defined LNG market, and broader definitions of the market. A summary of our key results from this analysis are presented in Table A.1, and discussed in more detail below.

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⁴⁸ Although we note that storage usage is affected by a number of different factors to those that determine LNG usage, such as how frequently storage cycling is undertaken. However, the extent of storage cycling is a commercial decision taken mainly on the basis of gas prices.

Table A.1: Key results of competition analysi

Market definition	Concentration index ⁴⁹	Concentration index	
	(Grain 3 without exemption)	(Grain 3 with exemption)	
LNG market only	2146	2438	
LNG, LRS and MRS	1243	1394	
LNG, LRS, MRS and	710	787	
pipeline imports			

LNG market

- 1.35. Our analysis showed that in a situation where the Grain 3 project is subject to rTPA, the LNG market in 2010 may have an HHI of 2146. This suggests that, even without the granting of an exemption for Grain 3, this market may be relatively concentrated.
- 1.36. We then assumed the exemption is granted in a manner consistent with the undertakings described Appendix 5. Under these conditions, we found that the HHI index in the LNG market would increase to a maximum value of 2438. This result was obtained in the "worst case scenario" in which the participant with the largest market share is allocated the maximum volume of Grain 3 capacity (consistent with the undertakings).
- 1.37. These HHIs are high, however it is important to note that, given the relatively small size of the LNG market, concentration indices are very sensitive to assumptions on the timing of a number of potential new LNG importation terminals. In our analysis, we have not included a number of proposed LNG developments (including those planned at Canvey, Amlwch, Teesside or Gateway). The inclusion of any of the first three of these terminals in our analysis would decrease the HHI's both where there is a regulated project and in relation to the worst outcome exemption case by around 400. In the case of Gateway, the HHI reductions would be around 200.
- 1.38. Consequently, for an exemption to be detrimental in the narrowly defined LNG market, it would be necessary for no other new LNG importation terminal project from the ones mentioned above to come onstream by 2010. In addition (and as discussed above), we currently consider that a broader definition of the relevant market is more appropriate for the purposes of our competition assessment in light of the increase in flexible gas supply infrastructure expected by 2010.

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⁴⁹ We used the Herfindahl-Hirschmann Index (HHI) measure of concentration in our analysis. In its "Guidelines on the applicability of Article 81 of the EC Treaty to horizontal cooperation agreements," the Commission has stated that an HHI below 1000 indicates "low" market concentration, between 1000 and 1800 concentration is "moderate" and above 1800 is "high." See OJ 2001/C 3/02 for more details.

1.39. As such, we do not consider these results sufficiently compelling reasons to consider that granting an exemption would have a detrimental impact on competition. We welcome respondents' views on this conclusion.

Broader flexibility market

- 1.40. Our analysis of the broader flexibility market (defined as including LNG, LRS and MRS) showed that there would be a "moderate" level of concentration in 2010, were Grain 3 constructed and be subjected to rTPA (with a HHI of 1243).
- 1.41. When we analysed the scenario in which Grain 3 capacity is allocated to bidders in line with the undertakings provided to us by GLNG (as outlined in Appendix 5), we found that in the worst case scenario, the HHI index in the flexible gas market would increase to a value of 1394 (i.e. it would still display a "moderate" level of concentration).
- 1.42. We therefore considered an rTPA exemption for Grain 3 not to be detrimental to competition in the market for flexible gas supplies.

Broad definition including gas imports from Langeled, IUK and BBL

- 1.43. We also analysed the impact of granting an exemption for Grain 3 under the broad market definitions. Under this definition, we were satisfied that granting an exemption would not be detrimental to competition. Specifically, under this market definition, the HHI even under the worst outcome exemption case is below 1000 (indicating a "low" level of concentration).
- 1.44. On the basis of the results of our competition analysis for this broad definition of the relevant market and the size of Grain 3 relative to European markets, our initial view is that granting this exemption would also not have a detrimental impact on competition in any European gas market. Once again, we would invite views of respondents on this conclusion.

Competition assessment - retail gas markets

1.45. We consider the most significant impact of the granting of an exemption for Grain 3 to be on the wholesale market, given this is the primary market in which the additional source of LNG capacity will be offered for sale. However, for completeness we have also considered the potential effect that Grain 3 may have on downstream markets.

Domestic market

- 1.46. In March 2006, Ofgem undertook a detailed study of the GB retail market. This concluded that "competition remains effective and vigorous in all segments of the domestic energy market"⁵⁰. More specifically, high levels of switching were observed, with around 2% of the customer base switching energy suppliers in March 2006 alone.
- 1.47. This analysis also concluded that the market shares of the main incumbents have been steadily eroding. This is illustrated in Table A.2 below:

Table A.2: National market shares in domestic gas retail

Group	Dec-02	Jun-03	Dec-03	Jun-04	Dec-04	Jun-05	Mar-06
BGT	63%	62%	61%	59%	57%	53%	52%
Powergen	12%	12%	12%	12%	13%	14%	13%
SSE	6%	6%	7%	8%	8%	9%	10%
npower	9%	9%	9%	9%	9%	9%	10%
ScottishPow	5%	5 %	6%	7%	8%	9%	9%
EDF Energy	5%	5%	5%	5%	5%	5%	6%
Others	0%	0%	1 %	0%	0%	0%	0%

Source: Domestic Retail Market Report - March 2006, p.18

Non-domestic retail market

1.48. Ofgem has also undertaken similar analysis for the non-domestic retail market, for which we also concluded competition was effective. In particular, analysis in August 2006 showed that there are eight participants in the GB non-domestic retail market with a market share above 5%, while none of these has a market share exceeding 20%. This analysis suggests this market has an HHI of 1053, implying a low to moderate level of concentration.

Conclusion

1.49. As a consequence of this analysis, we see no basis on which to consider that granting an exemption for Grain 3 could have a detrimental effect on competition in downstream markets, especially in light of our conclusion that such an exemption would not have a detrimental effect on competition in wholesale markets.

Domestic Retail Market Report – March 2006, July 2006 (Ref. No 110/06) http://www.ofgem.gov.uk/temp/ofgem/cache/cmsattach/15610_DRMR_March_2006.pdf?wtfrom=/ofgem/work/index.jsp§ion=/areasofwork/retailcompetition

Conclusions on economic analysis for condition (e)

- 1.50. Our analysis has shown that, so long as Grain 3 primary capacity is allocated in a manner consistent with the undertakings outlined in Appendix 5, we have no competition concerns in the upstream gas market under a broader definition of the relevant market. Under the narrowest definition of the relevant market, our analysis has suggested there may be some competition concerns. However these results are sensitive to assumptions on the timing of the commissioning of a number of LNG facilities and, in any event, we currently consider that a broader definition of the relevant market is more appropriate for our competition assessment. We also have no competition concerns with regard to the downstream markets.
- 1.51. Once again, we note that once the final capacity allocation is known, the Authority may re-examine whether the exemption meets all relevant criteria and modify or revoke the exemption within four months if it were to find that the relevant criteria are no longer met (particularly in the event that the outcome of the open season differs from the undertakings provided by GLNG). In this way, the proposed exemption remains conditional on the outcome of the open season process.

Additional economic analysis for condition (a)

- 1.52. In addition to analysing the impact on competition of the granting of an exemption for Grain 3, we have also applied similar modelling assumptions to understand the impact of the Grain 3 project itself on competition.
- 1.53. We undertook this analysis for the same definitions of the relevant market as outlined above. A summary of our key results from this analysis is presented in Table A.3, and discussed in more detail below. The results of our analysis for the assessment of the impact of granting an exemption for Grain 3 are also repeated in this table for completeness.

Table A.3: Key results of competition analysis

Table A.S. Rey results of competition unarysis					
Market definition	Concentration index	Concentration index	Concentration index		
	(without Grain 3)	(Grain 3 without	(Grain 3 with exemption)		
		exemption)			
LNG market only	2837	2146	2438		
LNG, LRS and	1563	1243	1394		
MRS					
LNG, LRS, MRS	802	710	787		
and pipeline					
imports					

1.54. This table shows that, under each definition of the relevant market, the construction of Grain 3 can be seen as reducing levels of concentration in the upstream gas market (whether compared to the scenario in which Grain is constructed and granted an exemption, or where it is constructed and is subject to rTPA). Note that in producing these results, all underlying assumptions were

identical to those outlined earlier in this appendix (aside from removing Grain 3 capacity from the gas supply scenario).

1.55. Views of respondents are also invited on this analysis.

Appendix 5 - Additional information submitted by GLNG

1.1. On 27 November 2006, GLNG provided the following additional information to Ofgem, in support of the exemption application:

Grain 3 RTPA Exemption Application – Additional Information and Undertakings

Background

- 1.2. Under Section 19C(2) of the Gas Act 1986 ("Gas Act"), National Grid Grain LNG Limited ("Grain LNG"), a subsidiary of National Grid plc has applied to the Gas and Electricity Markets ("the Authority") for an exemption from the application of Section 19D of the Gas Act ("exemption") for the proposed expansion ("Grain 3 Expansion") of its LNG importation facility on the Isle of Grain (the "Grain Terminal") to become operational by 1 October 2010. The Grain 3 Expansion will provide an additional throughput of up to around 5mtpa of LNG, which is in addition to the 9.8mtpa of total capacity that will be available from October 2008 following completion of the second phase of the development of the Grain Terminal.
- 1.3. A process to offer the Grain 3 Expansion capacity to the market through an open season process commenced in December 2005 (the "Open Season Process"). Following Grain LNG's Invitation to Submit Firm Proposals ("ISFP") bids were submitted by candidates bidding for the Grain 3 capacity on 10 November 2006.
- 1.4. Grain LNG understands that the Authority is proposing to consult with interested parties on the grant of the exemption for the Grain 3 Expansion capacity.
- 1.5. Prior to issuing its consultation, the Authority, in accordance with the requirements set out in law for granting an exemption, is assessing among other things the impact on competition which the Grain 3 Expansion is likely to have.
- 1.6. In order to inform such competition assessment and enable the Authority to issue the consultation as quickly as possible, Grain LNG is providing certain additional information and undertakings relating to the Open Season Process and the prospective holders of the Grain 3 Expansion capacity in the light of bids received at the ISFP stage. In particular Grain LNG will provide to the Authority:
- the names of the bidders in the Open Season Process who may gain capacity;
- the maximum Grain 3 Expansion capacity that an existing customer (i.e., a phase 1 or phase 2 shipper) at the Grain Terminal may acquire; and
- details regarding the involvement in the Open Season Process of other large players in the GB LNG market.

Additional Information and Undertakings

- 1.7. Under the terms of its confidentiality agreements, Grain LNG has gained the consent of bidders in the Open Season Process to provide their names to the Authority but not for this information to be released publicly. On the condition that such names are kept confidential by the Authority (and subsequently the EC), Grain LNG hereby confirms that the potential holders of Grain 3 Expansion capacity will be one or more of the following [names removed on grounds of commercial confidentiality].
- 1.8. Grain LNG undertakes to the Authority that no parties other than those listed in paragraph 1.7 of this letter will be allocated Grain 3 Expansion capacity in the Grain 3 Expansion capacity Open Season Process.
- 1.9. Grain LNG undertakes to the Authority that, in the Grain 3 Expansion capacity Open Season Process, no existing customer (i.e., phase 1 or phase 2 shipper) of the Grain Terminal will be allocated more than 100GWh/d of the 210GWh/d of importation capacity on offer under the Grain 3 Expansion. Grain LNG consents to the Authority releasing publicly the undertaking set out in this paragraph to the extent necessary to enable it to complete its consultation process.
- 1.10. Grain LNG undertakes to the Authority that no new customers bidding for capacity in the Grain 3 Expansion capacity Open Season Process, are, so far as it is aware and based on publicly available information, involved in the development of an LNG terminal elsewhere in the UK. Grain LNG consents to the Authority releasing publicly the undertaking set out in this paragraph to the extent necessary to enable it to complete its consultation process.
- 1.11. The above information is provided to Ofgem for the purposes of the Grain 3 Expansion exemption application and should not be construed as setting a precedent for any other open season process. Grain LNG would also like to clarify that the undertaking regarding capacity allocation to existing customers under paragraph 1.9 is based on bids freely submitted by such customers. Grain LNG did not place any such restrictions on the bids candidates could have submitted during the Open Season Process.

Further information

1.12. On 5 December, GLNG also confirmed that, on the basis of information submitted by GLNG, more than half of bidders for Grain 3 capacity are not existing customers of Grain, meaning there may potentially be new entrants to the GB LNG market as a consequence of this project going ahead.

Appendix 6 - Draft exemption order

GAS ACT 1986 SECTION 19C

DRAFT EXEMPTION ORDER

Pursuant to sub-section 19C(5) of the Gas Act 1986 (the "Act"), the Gas and Electricity Markets Authority hereby issues to National Grid Grain LNG Limited, ¹ as the owner of an LNG import facility, an exemption from the application of section 19D of the Act in relation to the increase in capacity at the LNG import facility located at the Isle of Grain, Nr Rochester, Kent ME3 0AB following completion of the third phase of the development of that facility, subject to the terms and conditions in the attached Schedule.

[Name]

Authorised in that behalf by the

Gas and Electricity Markets Authority

Dated []

The Office of Gas and Electricity Markets 9 Millbank London SW1P 3GETel 020 7901 7000 Fax 020 7901 7066 www.ofgem.gov.uk

¹ Registered in England No. 4463679. Registered Office: 1-3 Strand, London WC2N 5EH

SCHEDULE

PERIOD, CONDITIONS, AND REVOCATION OF EXEMPTION ORDER

A. Interpretation and Definitions

In this exemption order:

the "Authority"	means the Gas and Electricity Markets Authority established by section 1(1) of the Utilities Act 2000, as amended from time to time;
the "Act"	means the Gas Act 1986, as amended from time to time;
the "capacity holder"	means the person or persons to whom the primary capacity at the facility has been awarded;
the "facility"	means the increase in capacity at the LNG import facility following completion of the third phase of the development of that facility, namely: (a) the increase in capacity at the LNG import facility as at the date that the third phase of the development commences commercial operation; or (b) an increase in capacity at the LNG import facility of 7.1 billion cubic meters per year, whichever shall be the less;
the "facility owner"	means National Grid Grain LNG Limited (a company registered in England and Wales under company number 4463679 and whose registered office is situated at 1-3 Strand, London WC2N 5EH), in its capacity as owner of the facility;
The "LNG import facility"	means the LNG import facility located at the Isle of Grain, Nr Rochester, Kent ME3 0AB;
"open season	means the process to offer the capacity at the facility to the

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process"	market;
"primary capacity"	means the capacity at the facility acquired from the facility owner pursuant to the first open season process;
"relevant gas transporter"	means any holder of a gas transporter licence under section 7 of the Act owning a transportation system within Great Britain to which the facility is connected or with whom the operator of the facility interfaces as a system operator;
"throughputter"	means any user of the facility.

B. Full description of the facility to which this exemption order relates

This exemption order relates to the third phase of the development of the LNG import facility, namely: (a) the increase in capacity at the LNG import facility as at the date that the third phase of the development commences commercial operation; or (b) an increase in capacity at the LNG import facility of 7.1 billion cubic meters per year, whichever shall be the less;

C. Period

Subject to section E below, and pursuant to section 19C(3)(a) of the Act, this exemption order shall come into effect on the date that it is issued and will continue:

- (a) for a period of 20 years from the date that the facility commences commercial operation; or
- (b) until 1 October 2029,

whichever is the earlier.

D. Conditions

Pursuant to sub-section 19C(3)(b) of the Act, this exemption order is made subject to the following conditions:

 The material provided by the facility owner to the Authority in respect of this exemption order is and remains accurate in all material respects.

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- The facility owner must notify the Authority within ten days of the facility commencing commercial operation.
- The facility owner must, within ten days of the primary capacity being awarded, notify the Authority of:
 - (a) the identity of each capacity holder; and
 - (b) the amount of primary capacity awarded to each capacity holder.
- 4. The facility owner must furnish the Authority, in such manner and at such times as the Authority may reasonably require, with such information as the Authority may reasonably require, or as may be necessary, for the purpose of:
 - (a) performing the functions assigned to it by or under the Act, the Utilities Act2000 or the Energy Act 2004; or
 - (b) monitoring the operation of this exemption order.
- 5. The facility owner must comply with any direction given by the Authority (after the Authority has consulted the relevant gas transporter and, where relevant, the Health and Safety Executive) to supply to the relevant gas transporter such information as may be specified or described in the direction:
 - (a) at such times, and in such form and such manner; and
 - (b) in respect of such periods,

as may be so specified or described in the direction.

To the extent that the facility owner is prevented from complying with such a direction by a matter beyond its control, it shall not be treated as having contravened the condition specified in this paragraph.

In this paragraph, "information" means information relating to the operation of the pipe-line system which is operated by a relevant gas transporter.

- Should any of the grounds for revocation arise under section E of this exemption order, the Authority may, with the consent of the facility owner, amend rather than revoke this exemption order.
- The Authority may, with the consent of the facility owner, amend this exemption order where the Authority has been requested to amend the decision to grant this exemption order

- by the European Commission (such request being made in accordance with Article 22(4) of Directive 2003/55/EC of the European Parliament and of the Council of 26 June 2003).
- 8. This exemption order is transferable to another person where the Authority has given its written consent to such a transfer. For the avoidance of doubt, all of the conditions contained in this exemption order (as amended from time to time) continue unaffected in respect of any person to whom this exemption order may be transferred (and as if the transferee was substituted in the definition of the "facility owner").

E. Revocation

Pursuant to sub-section 19C(4) of the Act, this exemption order may be revoked in the following circumstances:

- The Authority may revoke this exemption order where the European Commission has
 requested (in accordance with Article 22(4) of Directive 2003/55/EC of the European
 Parliament and of the Council of 26 June 2003) that the Authority withdraw the decision to
 grant this exemption order.
- 2. The Authority may revoke this exemption order where the European Commission has requested (in accordance with Article 22(4) of Directive 2003/55/EC of the European Parliament and of the Council of 26 June 2003) that the Authority amend the decision to grant this exemption order and the facility owner does not agree (under paragraph D7 above) that this exemption order be amended in the manner so requested by the European Commission.
- 3. The Authority may, within four months after the notification by the facility owner of the identity of the capacity holder (in accordance with paragraph D3 above), revoke this exemption order if the award of the primary capacity, in the Authority's reasonable opinion, results in a material change in the degree to which the requirements of sub-section 19C(7)(a) or (e) are met with respect to the facility.
- 4. In addition to the provision of paragraph E3, the Authority may revoke this exemption order by giving a notice of revocation to the facility owner not less than four months before the coming into force of the revocation where:
 - (a) in the Authority's reasonable opinion there is a material change in the degree to which the requirements of sub-sections 19C(7)(a), (c), (d) or (e) of the Act are met with respect

- to the facility as the result of any action or omission of the facility owner, operator of the facility or throughputter;
- (b) the facility owner has a receiver (which expression shall include an administrative receiver within the meaning of section 251 of the Insolvency Act 1986) of the whole or any material part of its assets or undertaking appointed;
- (c) the facility owner has entered administration under section 8 of and Schedule B1 to the Insolvency Act 1986;
- (d) the facility owner is incorporated or has assets in a jurisdiction outside England and Wales and anything analogous to any of the events specified in sub-paragraphs (b) and(c) above occurs in relation to the facility owner under the law of any such jurisdiction;
- (e) the facility owner is found to be in breach of any national or European competition laws, such breach relating to the facility;
- there is merger or acquisition in relation to or by the facility owner that is, or is likely to be, detrimental to competition;
- (g) the facility owner has failed to comply with a request for information issued by the Authority under paragraph D4 above and the Authority has written to the facility owner stating that the request has not been complied with and giving the facility owner notice that if the request for information remains outstanding past the time specified in the notice given under paragraph D4, the exemption may be revoked; or
- (h) the facility owner has failed to comply with a direction issued by the Authority under paragraph D5 above and the Authority has written to the facility owner stating that the direction has not been complied with and giving the facility owner notice that if the direction remains outstanding past the time specified in the notice given under paragraph D5, the exemption may be revoked.

Appendix 7 - Glossary

Α

Amlwch

Planned LNG importation terminal which Canataxx LNG ltd. is progressing in Amlwch (Isle of Anglesey, Wales).

Anti-hoarding arrangements

Market dispositions aimed at preventing the hoarding of capacity by a long-term holder of capacity rights.

В

BBL

Balgzand Bacton gas pipeline. This is a pipeline linking Bacton in the UK and Balgzand in the Netherlands for transport of gas from the Netherlands to the UK. It is operated by the BBL company.

bcm

billion cubic meters

Beach gas

Offshore natural gas supplies extracted from the UK Continental Shelf.

Berthing slot

Period of time that allows the unloading of a standard LNG cargo.

Blending facilities

Installations built in order to transform the composition of natural gas, by adding other element(s), to bring it into UK specification.

C

Canvey

Planned LNG importation terminal which Canvey LNG (a partnership of Centrica, Calor Gas, LNG Japan Corporation and Osaka Gas) is progressing at Canvey Island in the Thames estuary.

December 2006

G

Gateway

A proposed LNG importation terminal and underground gas storage facility, located offshore in the Irish Sea, southwest of the Barrow NTS entry point. This project is being developed by Stag Energy ltd. The Project encompasses the construction of an offshore LNG terminal regasification facility and underground gas storage (salt cavern).

GLNG

National Grid Grain LNG Ltd

Grain 1 and Grain 2

First and second phases of the development of the LNG terminal at the Isle of Grain, in South-East England.

Grain 3

Third phase expansion of the LNG terminal at the Isle of Grain, in South-East England.

GWh

Gigawatt hour

н

Hornsea

Salt cavity gas storage site, situated in East Yorkshire.

ı

IUK

Interconnector UK. This is a pipeline linking Bacton in the UK and Zeebrugge in Belgium for transport of gas in either direction between the two countries. It is operated by Interconnector (UK) Itd.

J

Jetty

Pier.

Joint shipper

The undertaking managing the primary shipper's rights and duties at Grain 1, made up of BP and Sonatrach.

L

Linepack

The volume of gas within the transmission network.

Liquefaction

The process by which natural gas is converted into LNG.

LNG

Liquefied Natural Gas. Natural gas that has been cooled to a temperature (-161° C) at which it is condensed into a non-corrosive and non-toxic liquid (characterized as a cryogenic liquid).

LNG import terminal

Facilities that permit an LNG cargo to unload and temporarily store its shipment before regasifying and sending it in the form of gas to the transmission or distribution system.

LNG storage facility

Installation that stores natural gas in LNG form.

М

mcm

million cubic meters

mTPA

million tonnes per annum

Ν

NGG

National Grid Gas plc is the system operator (SO) for the main gas transmission system in GB, by virtue of holding the gas transporter licence in respect of the NTS (National Transmission System).

NGCH

National Grid Commercial Holdings. A company of the National Grid group.

NTS

The NTS (National Transmission System) is the high pressure gas network for GB.

0

Open season process

A transparent and multilateral process in which the supplier offers publicly its product for sale. The seller then bases its selling decision on bids received from potential buyers (on a transparent and non-discriminatory basis).

R

Regasification

The process by which LNG is heated, converting it into its gaseous state.

S

Second Gas Directive

Directive 2003/55/EC of the European Parliament and the Council of 26 June 2003, concerning common rules for the internal market in natural gas and repealing Directive 98/30/EC. See also Appendix 3.

Storage facilities

Facilities used for storing natural gas. These facilities are generally found as gaseous storage facilities and liquefied natural gas (LNG) storage facilities.

System reserve

Extra resources maintained to ensure the stability of the transmission system in case of unexpected variations in demand or supply.

R

Rough

Rough gas storage facility. Situated in the Southern North Sea and connected to the Easington onshore entry terminal to the NTS in East Yorkshire. This facility is operated by Centrica Storage Ltd (CSL), a wholly owned subsidiary of Centrica plc.

rTPA

Regulated Third Party Access

SGN

Southern Gas Networks. The local distribution system to which the Isle of Grain import terminal is connected.

SO

NGG is the operator of the gas NTS for GB.

SSNIP

Small but Significant Non-transitory Increase in Price. This is a test used in competition economics as a tool to define markets.

Storage cycling

Injection of gas into a storage facility at a time where the general trend is to release stored gas into the system.

U

UNC

Uniform Network Code. The contractual document that defines the relationship between NGG and users of the gas transportation system.

Appendix 8 - Feedback Questionnaire

- 1.1. Ofgem considers that consultation is at the heart of good policy development. We are keen to consider any comments or complaints about the manner in which this consultation has been conducted. In any case we would be keen to get your answers to the following questions:
- **1.** Do you have any comments about the overall process, which was adopted for this consultation?
- 2. Do you have any comments about the overall tone and content of the report?
- 3. Was the report easy to read and understand, could it have been better written?
- 4. To what extent did the report's conclusions provide a balanced view?
- **5.** To what extent did the report make reasoned recommendations for improvement?
- 6. Please add any further comments?
- 1.2. Please send your comments to:

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