nationalgrid

National Grid Grain LNG Limited

Grain 4 Expansion

Application for Exemption from Section 19D of the Gas Act 1986 (as amended)

March 2012

Version 1.0

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Executive Summary

Legislative Framework

The Gas (Third Party Access) Regulations 2004 (SI 2004/2043)[1] amended the Gas Act 1986 (the "Gas Act") to transpose into UK law the provisions of the Second EU Gas Directive (Directive 2003/55/EC). The relevant provisions relate to the requirement, set out in section 19D of the Gas Act, for the owner of an LNG facility to put in place a mechanism for regulated third party access to the facility and the right, set out in section 19C, of owners of LNG facilities to apply for exemptions from the requirements of section 19D and for an exemption to be granted, subject to the provisions of section 19C(5) being satisfied. Subsequently, the Electricity and Gas (Internal Markets) Regulations 2011 (SI 2011 No. 2704)[2] amended the Gas Act to transpose into UK law the provisions of the Third EU Gas Directive (Directive 2009/73/EC). This placed additional obligations relating to information provision on LNG facility operators but did not materially affect the regime for granting exemptions under sections 19C and 19D of the Gas Act.

In accordance with section 19C(2) of the Gas Act, National Grid Grain LNG Limited ("GLNG"), a subsidiary of National Grid plc, is requesting an exemption from the application of section 19D of the Gas Act ("exemption") to the proposed expansion ("Grain 4 Expansion") at its existing LNG importation facility on the Isle of Grain. The Grain 4 Expansion is anticipated to consist of a 190,000m^3 total containment tank, a second cryogenic unloading line and extra process equipment, providing an additional throughput capacity of up to 6 million tonnes per annum (mtpa) of LNG (equivalent to additional deliverability of around 250 GWh/day). This is in addition to the circa 15 mtpa of total capacity that has been available since December 2010, following completion of the third phase of the development of the Isle of Grain facility ("Grain 3"). The exemption requested in this application is required to ensure that the Grain 4 Expansion project proceeds.

Open Season Process

GLNG launched its open season process for Grain 4 capacity in August 2009, before the Third Gas Directive was transposed into UK law. It is currently anticipated that

[1] Commencement Date 26th August 2004.

[2] Commencement Date 10th November 2011.

capacity will be released to two new customers, with additional capacity also being allocated to an existing customer or customers. However, throughput agreements and construction contracts will only become unconditional and construction of the Grain 4 Expansion capacity will only commence if an exemption is granted by Ofgem and ratified by the European Commission.

Requirement for Exemption

In order for the Grain 4 Expansion to proceed, the exemption requested should apply to the full capacity of up to 6 mtpa for a duration of 27 years from Winter 2016/17 - sufficient to cover customer contracts of up to 25 years with different start dates. An exemption of sufficient duration to cover both the long pay-back period and the primary contracts underpinning the investment is essential to ensure the Isle of Grain expansion project proceeds. Without an exemption, GLNG and National Grid plc will not have confidence that the income required to make the project viable is sufficiently assured, taking into account the significant risks associated with the project and National Grid plc's view of the risk-reward balance. Similarly, prospective customers require long term certainty of access to ensure they can underpin their very significant upstream investments. Conversely an rTPA regime for Grain 4 would generate material risk for the project developer and customers with the result that, in the absence of an exemption, the expansion would not proceed.

Security of Supply Benefits

In 2004, the UK became a net importer of gas and in 2010/11, over 50% of gas consumed in the UK was imported, of which almost half was imported as LNG[3]. In 2011 GLNG delivered 85,000 GWh (over 7 bcm) of gas to the UK market on behalf of six international energy companies, equivalent to around 7% of total UK demand. LNG is expected to supply 40% of demand by 2020[4].

The latest estimates published by National Grid Gas plc ("NGG") indicate that import dependency will increase to around 80% by 2020[5] and will continue to increase beyond

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3 National Grid Ten Year Statement, December 2011

4 Ibid.

5 For 2020, there is very little difference between the forecasts arising from NGG's "Gone Green" or "Slow Progression" scenarios.

that date[6]. Further expansion of the LNG importation terminal on the Isle of Grain site will provide additional capability to satisfy the forecast import requirement while maintaining the supply flexibility of LNG.

More than 90% of the LNG imported into the UK in 2011 originated in Qatar. By adding capacity linked to alternative liquefaction projects, Grain 4 will help to mitigate the risk associated with reliance on one large supply source. This is especially true in light of the sanctions recently imposed by the EU on Iran, including the ban on Iranian oil imports and the resulting threat from Iran to block the Straits of Hormuz. The extra capacity will therefore provide shippers with a greater diversity of options for delivering gas to the UK and, potentially, for export to Europe through the interconnectors in response to market signals. Without this additional capacity, the UK could become more reliant on piped gas including overland supplies from Russia and FSU countries, as well as storage capability from mainland Europe. Exposure to European imports can raise issues for UK gas prices and security of supply, as demonstrated with the gas crisis in January 2009, arising from a commercial dispute between Naftogaz (Ukraine) and Gazprom (Russia)[7] and more recent disruptions to the gas supply from Norway[8,9,10].

The Grain 4 expansion project would therefore bring significant benefits to UK consumers as well as for those in Europe generally in relation to diversity and security of supply at a time when indigenous supplies of gas are in rapid decline.

Competition and Capacity Trading Arrangements

The Grain 4 Expansion project is set against a backdrop of an already advanced and highly competitive gas supply market in the UK. The introduction of additional supply capability and new LNG importers will provide further access to worldwide LNG sources, thereby enhancing competition in the market and benefiting end consumers; particularly given the decline of indigenous supplies.

6 National Grid Gas Ten Year Statement, December 2011

7 The January 2009 gas disruption to the EU: An Assessment, European Commission, July 2009

8 Internationaltrade.co.uk, 'UK Gas Supplies on Red Alert as Norwegian Imports Falter' (07/01/10)

9 Reuters.com 'UK gas supplies tight on low Norwegian flow' (11/03/11)

10 Reuters.com 'Norway's Kollsnes gas plant resumes output' (1/12/11)

An independent assessment by Frontier Economics (commissioned by GLNG) concluded that for all conceivably affected markets, the Grain 4 expansion will not be detrimental to competition.

GLNG has made every effort to ensure that the release of long-term throughput capacity at the terminal is done in a manner consistent with the requirements of an open market and, to the extent relevant, a regulated Third Party Access ("rTPA") regime, i.e., via a transparent and non-discriminatory open season process whereby the price paid for capacity is based on market valuations. This, coupled with appropriate information provision and anti-hoarding measures, serves to further ensure that there will be no detrimental impact on competition such as would give rise to a need for rTPA.

At present, and with regard to the existing importation capacity at Grain, the contractual arrangements relating to the annual capacity charge paid by GLNG's customers ensure that the primary capacity holder is fully incentivised to utilise the capacity for their own supplies, acquire cargoes from third parties or trade capacity via secondary mechanisms. There is clear evidence that existing customers at Grain are actively acquiring cargoes from 3rd party suppliers through normal, highly efficient bilateral trading activity, competing effectively to ensure gas will flow when market prices dictates and shipping logistics allow. Ultimately, if the capacity is not used via one of these mechanisms, effective use-it-or-lose-it (UIOLI) arrangements developed by GLNG provide a final offering of access to capacity not expected to be used. This is consistent with the current situation of exempt LNG terminals and certain interconnector capacity in the UK. By 2016, it is expected that the LNG market will have developed in terms of greater upstream capacity and an increase in LNG ships. This, combined with the six existing customers at Grain and several existing exempt LNG importation facilities operating similar secondary trading and UIOLI mechanisms means there will be a significant number of trading counterparties for secondary users to negotiate with and there should be no concerns over hoarding given there is no conceivable way anyone could benefit from such practices in view of the level of competition.

Across all three operating phases at Grain, there are arrangements in place which go well beyond a traditional UIOLI mechanism in order to ensure secondary capacity is made available in the event that all normal trading mechanisms have failed. Grain 4 customers will similarly have express obligations to introduce a secondary capacity mechanism similar to those already in place. GLNG believes secondary trading and capacity release is better facilitated by LNG shipper(s) who have control over ship and stock movements

and are active in the gas and LNG shipping markets, rather than a terminal owner who has no such control or experience. This way, less value is destroyed through loss of flexibility for the primary capacity holder but a further level of effective anti-hoarding mechanism is introduced.

There have been enhancements in information provision since the first phase of the terminal became operational in July 2005 and Grain meets all the requirements of European Regulation EC 715/2009 while continuing to engage with GLE and CEER on further proposed improvements. Information published includes stock levels and exports on the National Grid Gas website, ship arrival notifications to the market from National Grid Media Relations and customer contact details and UIOLI slots on offer on the GLNG website.

In summary, for the above reasons and given the competitive nature of the UK gas market, the open and non-discriminatory auction of primary capacity and lack of essential infrastructure requirements there should be no regulatory concerns with Grain 4 expansion capacity being exempt from rTPA requirements. Furthermore, given the competition and security of supply benefits, granting of such an exemption would be consistent with those facilities that either already exist or are under construction and which have already been granted exemption.

Following this Executive Summary is GLNG's formal exemption application. In this document, GLNG demonstrates that it satisfies all criteria set out in section 19C of the Gas Act for an exemption from the rTPA provisions of section 19D of the Gas Act to be granted.

Assessment Against Criteria

Provided the rTPA exemption is granted, the Grain 4 Expansion will significantly enhance the security of gas supply of both the UK and mainland Europe from 2016/17 onwards through the introduction of additional LNG importation capacity. Delivery of additional LNG importation capability provides shippers with the option to deliver gas to the UK in response to market signals. Without this additional capacity, the UK will become ever more reliant on piped gas/storage capability from mainland Europe which has in the past not always been seen to respond to market signals. Even if this issue is resolved in the future, the expansion project still brings benefits in relation to supply and competition through the introduction of new shippers and new supply sources;

GLNG demonstrates that the risk of the expansion project from the investors' perspective (in relation to both upstream and downstream infrastructure) is such that it will not proceed without an exemption;

GLNG is both financially and legally separate from both NGG and Southern Gas Networks plc, the operators of the pipeline systems to which the Isle of Grain LNG importation terminal is connected;

As a separate company, GLNG's sole source of revenue is from charges levied on users of its infrastructure; and

An independent study carried out by Frontier Economics of the impact on competition along all levels of the supply chain concludes that the investment is not detrimental to competition and that competition will be further enhanced by the introduction of a new entrant(s);

Access to the GLNG expansion capacity has been offered to all market players via a transparent and non-discriminatory open season process whereby the price paid for capacity is based on market valuations;

GLNG has in place appropriate anti-hoarding measures and publication of relevant information to enable the market to make considered decisions with regard to secondary trading.

In summary, this application demonstrates that the project to further expand the Isle of Grain LNG importation facility satisfies all the criteria set out in section 19C of the Gas Act for the grant of an exemption from the rTPA obligations of section 19D. The granting of an exemption for the capacity and duration requested should not give rise to any concern for the regulatory authorities and will enable the GLNG facility to deliver further significant benefits to the UK and EU in relation to security of supply and competition in gas supply.

1. Introduction

Background

1.1. National Grid Grain LNG Ltd ("GLNG") is a wholly-owned subsidiary of National Grid plc. It is a separate legal entity from, and entirely independent of, National Grid Gas plc (NGG), the regulated operator of the UK's National Transmission System (NTS).

1.2. GLNG was established in June 2002 to convert the then-existing peak shaving LNG storage assets at Grain, Kent into the UK's first modern LNG importation terminal ("Grain 1"). Final commissioning of the terminal and commencement of commercial operations took place in July 2005. The initial throughput capability of the terminal was 3.3 million tonnes of LNG per annum (mtpa) or c.4.4 billion cubic metres per year of gas (bcm/yr). This initial capacity was sold to BP/Sonatrach under a 20-year agreement.

1.3. A second tranche of capacity ("Grain 2"; 6.5 mtpa) was sold in March 2005 to Centrica, Gaz de France (now GDF-Suez) and Sonatrach. A further 5 mtpa ("Grain 3") was sold to Centrica, EON and Iberdrola in May 2007. Grain 2 became operational in December 2008, with Grain 3 coming on line in December 2010.

1.4. Exemptions from Regulated Third Party Access (rTPA) requirements have been granted for these three phases for 20, 25 and 19 years respectively.

Project Outline

1.5. GLNG is considering further development of the LNG importation terminal. Subject to market requirements and the grant of an exemption, this fourth phase of development ("Grain 4") will provide the opportunity to expand the terminal by up to 6 mtpa of additional throughput capacity and will enable further supplies of liquefied natural gas (LNG) to be attracted to the UK from LNG-producing nations around the world. Total capacity would increase to up to 21 mtpa (~28 bcm/yr or around 28% of current UK demand).

1.6. Grain 4 is expected to consist of a 190,000m^3 total containment tank, a second cryogenic unloading line from the jetties to the storage tanks, and additional regasification and associated process equipment (illustrated in the diagram in Appendix 2 – Isle of Grain site). The facilities actually constructed will depend on the market demand for capacity demonstrated during the capacity allocation process

(see Section 5) expressed through binding long-term capacity contracts and could be on-stream for winter 2016/17.

1.7. NTS entry capacity at Grain is expected to require further reinforcement to meet Grain 4 requirements. Preliminary work has been initiated by GLNG through a pre-construction agreement with NGG but reinforcement works will only progress if new customers provide the appropriate investment signals through NGG's incremental entry capacity release process. It is anticipated that new customers will participate in the annual QSEC auction expected to take place in March 2013, to ensure the necessary capacity can be provided for those customers' expected commercial start dates.

1.8. Planning consents have been granted for the new cryogenic unloading line, the additional total containment tank and the other plant and equipment. Numerous other regulatory, safety and environmental consents are required to ensure the project remains on schedule and commercial operations commence by winter 2016/17.

1.9. The three main elements of Grain 4 listed in paragraph 1.6 above are located within the existing terminal footprint and site maintenance works have been undertaken to keep these areas in a condition suitable to commence construction without undue delay[11]. There has been a very small amount of expenditure (<£1m to date) on feasibility and development, including engineering reviews, running the open season process and commissioning competition/market impact studies. The remaining capital investment required to deliver the expansion capacity will not be committed until an rTPA exemption is granted.

Grain 4 Need Case

UK plc gas importation requirements

1.10. In 2004, the UK became a net importer of gas. It was against such a background that GLNG converted the existing peak shave LNG storage facility at the Isle of Grain into a LNG importation terminal and undertook to further develop the site through the various expansions of the facility. In addition to Grain, and against the same background, other UK importation facilities have been built in recent years, including two LNG terminals at Milford Haven and the LNG Gasport facility at

[11] e.g. vegetation management and maintenance of fencing to prevent ingress of protected species.

Teesside, as well as new pipelines between the UK and Holland and the UK and Norway.

1.11. According to NGG's Ten Year Statement[12], annual UK gas demand is expected to remain at the current peak of c.100 bcm/yr (c.72 mtpa) until at least 2018, with gradual reduction possible into the 2020s as greater levels of renewable power generation are deployed. Given the rapid decline in UK gas production, it is clear that significant increases in LNG imports will be required to 2030 and beyond (see Figure 1).

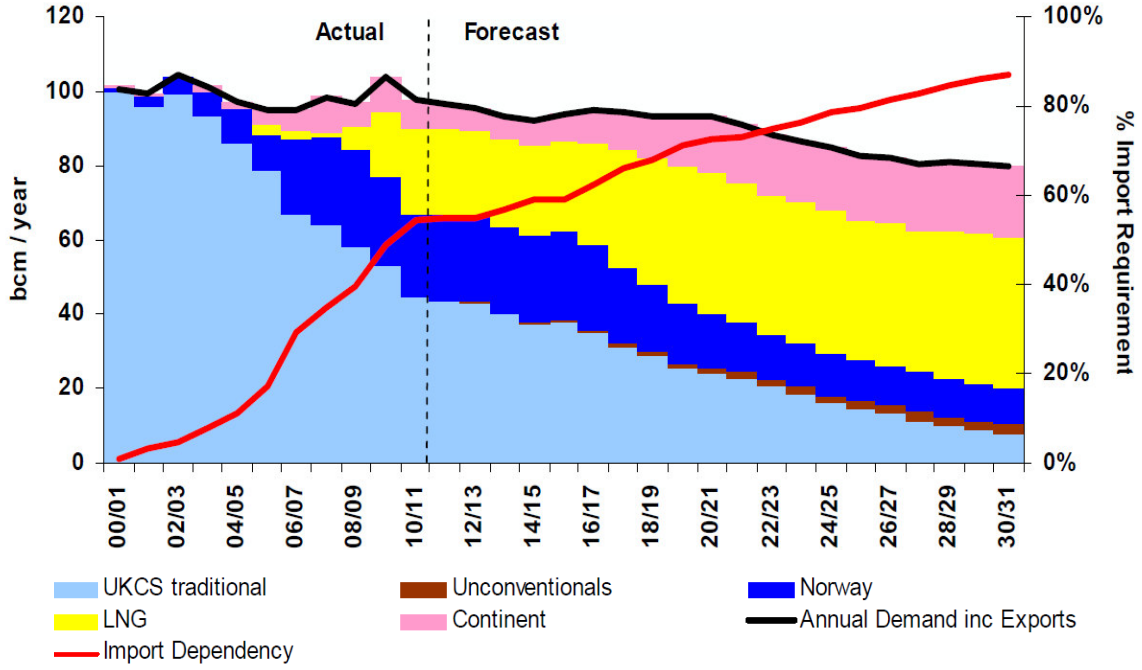

Figure 1 Annual supply forecasts for a slow progression scenario

Source: National Grid Ten Year Statement (Dec 2011).

1.12. The market's response to GLNG's own Phase 4 open season process has highlighted a requirement for additional LNG importation capacity from certain gas market players and supports these forecasts by NGG and other industry commentators.

1.13. Figure 2 shows reported UKCS gas reserves compared to annual production and demand; future demand is forecast under two scenarios "slow progression" and

[12] http://www.nationalgrid.com/uk/Gas/TYS/

"gone green". This figure demonstrates the rapid decline in UKCS reserves and the increasing gap between UK production and demand. Given the low levels of unconventional gas production forecast, the vast majority of that demand must be met either by increases in LNG imports or pipeline gas, or a combination of both.

1.14. A number of substitutes for imported LNG supplies obviously exist, including imports from Norway piped from offshore fields and the supply of gas via interconnectors from continental Europe[13]. The provision of gas through these pipelines and interconnectors allows the UK to receive gas sourced from one of three main gas producing countries, the Netherlands, Norway and (via the European gas transmission network)[14] Russia.

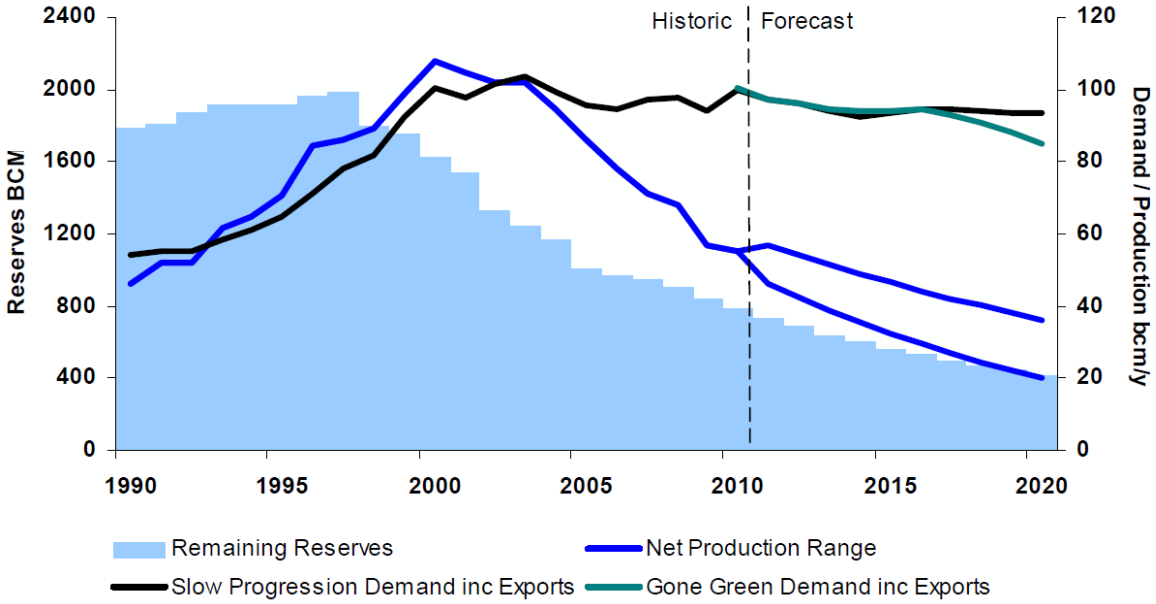

Figure 2 UKCS remaining gas reserves (Proven, Probable, and Possible)

Source: National Grid Ten Year Statement (Dec 2011).

1.15. Clearly, for most piped supply options, the UK is at the end of a very long European transmission network and over-reliance on pipeline gas, ultimately sourced from a small number of producing countries, would lead to increasingly lower levels of supply security as UKCS reserves decline. This would have a knock-on effect on

13 Presently two interconnectors exist - the I(UK) interconnector between Bacton (UK) and Zeebrugge (Belgium) and the BBL interconnector between Bacton and Balgzand (Holland).

14 In the longer term, gas may be supplied via pipeline from Iran via Turkey into the European network and from Algeria via France, Spain & Italy. In early March 2012 it was reported that Gazprom was considering an extension of the Nord Stream pipeline from Germany to the UK.

security of supply levels in continental Europe as the UK would be more reliant on Europe for base load and swing provision, potentially including access to storage.

1.16. Pipeline gas is vulnerable to disruption either at source or in transit countries, a point acutely demonstrated by events in Ukraine and Georgia in the 2008/09 winter in relation to supplies from Russia. The gas fields in Norway have also experienced significant unplanned outages: Kroll A field[8] (January 2010), Langeled pipeline[9] (March 2011) and Kollsnes[10] (December 2011).

1.17. As highlighted in NGG's UK Future Energy Scenarios[15], LNG imports are expected to rise to around 40 bcm/yr in 2020 against a baseload installed capacity of ~50 bcm/yr currently. Unless new LNG importation capacity is built, supply flexibility from LNG could reduce as terminals would need to operate close to peak for much of the time. Therefore, by increasing the UK's LNG importation and temporary storage capacity, the Grain 4 Expansion will provide increased security of supply through provision of both a higher base load and some limited swing capability from a diverse range of non-European sources. Equally, LNG imported into the UK at Grain may flow to other European markets via the interconnectors providing an enhancement to European security and diversity of supply.

Gas price trends

1.18. Despite the new gas importation projects referred to earlier, the decline in UKCS production and the associated large forecast gas demand has meant that the gas price has shown a gradual upward trend over recent years with the futures markets continuing to predict further price rises[16]. Figure 3 shows the historic and forecast UK wholesale gas price ("NBP") which indicates that the steady recovery in prices following the 2009 recession is expected to continue, indicating that additional imported gas supplies could be required.

[15] UK Future Energy Scenarios, National Grid, November 2011

[16] Intercontinental Exchange Inc. (www.theice.com).

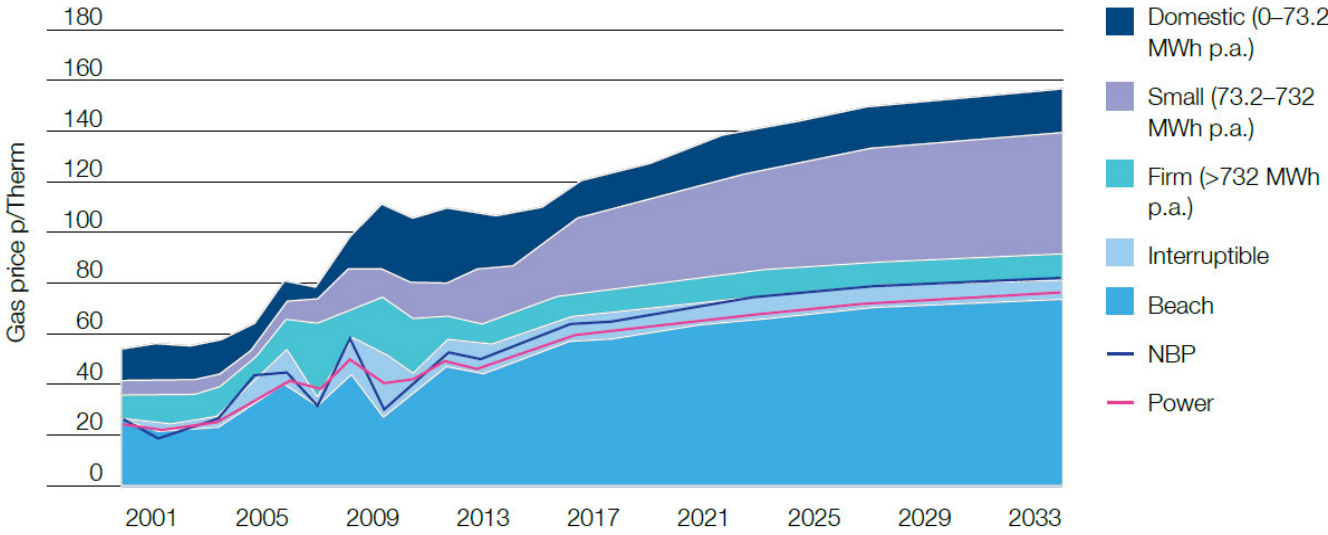

Figure 3 UK Historic and forecast gas prices.

Source: www.nationalgrid.com UK Future Energy Scenarios, November 2011

Operational risk mitigation

1.19. A second cryogenic unloading line will alleviate the single point failure risk associated with the current cryogenic pipeline, which currently supports importation capacity equivalent to 20% of UK gas demand, and will considerably enhance the capability of marine operations.

Economic and Environmental Benefits

1.20. LNG importation facilities benefit the internal UK gas market by providing access to global LNG supplies and production. Furthermore, LNG potentially provides a substitute for other non-UKCS gas supplies, thereby enhancing price competition in the UK. Expansion of the GLNG terminal will further shift the supply curve to the benefit of consumers compared to the situation if the Grain 4 Expansion project were not to go ahead.

1.21. Alternative supplies to the UK could be sourced from LNG imported into terminals in mainland Europe for onward export to the UK via the interconnectors. Alternatively, gas stored in European storage facilities could be transported through pipes to the UK gas market in winter when prices appear attractive; albeit, potentially only once

the risk of European shortages late in the winter have abated[17]. However, with only a small number of interconnectors this would be less secure for the UK than a diverse range of primary supplies and is also predicated on the assumption that there is sufficient capacity available in the transportation systems in continental Europe to deliver the required gas to the interconnectors.

1.22. A further alternative is demand side action (e.g. interruption), although this has implications for the productivity and competitiveness of UK industry as well as the general promotion of the use of gas, which is considered to be less damaging to the environment than other fossil fuel sources.

1.23. In respect of each of these possible substitutes, the market is free to choose whichever combination of supply sources it believes is economic and efficient to use, and on those terms it determines to be acceptable. Accordingly, the market will allow for such factors as regulatory and political uncertainty in developing valuations for each of the substitutes available to it.

1.24. This includes the impact arising out of environmental legislation and initiatives to reduce pollution. For example, the withdrawal of the most polluting coal fired power plant under the Large Combustion Plant Directive, potential delays to new nuclear coupled with full backup capability required by wind generation are expected to place significantly greater dependence on gas as a fuel for power generation going forwards. For example, Appendix 5 highlights the intermittent nature of renewable generation and the anticipated substantial and rapid response of gas fired plant in the event of drop in wind speed. Clearly significant gas supply infrastructure with high levels of flexibility will need to be available in order to meet such peaky requirements.

1.25. All EU member states have committed to 'take the lead' in tackling climate change[18] and the UK Government has committed to a reduction of at least 34% in greenhouse gas emissions by 2020 and at least 80% by 2050[19]. The current Kyoto protocol ends in 2012 and talks are ongoing to agree a binding successor. In the Copenhagen Accord[20] the EU pledged a 20% reduction in emissions by 2020 or 30% provided

[17] European storage operators have in the past appeared unwilling to deliver gas for commercial export early in the winter period despite attractive UK gas market prices.

[18] Kyoto Protocol to the United Nations Framework Convention on Climate Change, United Nations, 2008.

[19] 1990 baseline

[20] Copenhagen Accord, UNFCCC, United Nations, December 2009.

other developed countries make similar commitments.

Benefits of further expansion of Grain LNG

1.26. GLNG believes the Grain facility offers the following significant benefits, particularly over new green-field or brown-field LNG developments in the UK:

- Incremental development of the existing importation facility should entail a lower overall environmental impact compared to the construction of a new facility offering the same importation capacity.
- Expansion would facilitate more efficient utilisation of ancillary plant and equipment, reducing CO_2 emissions per GWh delivered to the NTS and providing less expensive access to LNG importers than a completely new terminal.
- Expanding the available LNG storage capacity to around 1,200,000m^3, coupled with the intra-terminal capacity trading mechanism which has operated successfully since Phase 2 was commissioned, would further enhance the flexibility of terminal operations, allowing terminal users to respond to the increase in the average size of the global LNG carrier fleet and to manage their LNG stocks more efficiently.
- The Grain facility already benefits from having two jetties allowing for a flexible and resilient berthing calendar. A second cryogenic unloading line would increase the number of berthing slots available at the facility whilst also reducing the single point failure risk associated with the existing unloading line, increasing security of supply and enhancing unloading operations for new and existing customers. Furthermore, the Medway and Thames estuaries are already accustomed to this type of shipping and have the capacity for expansion.
- The facility also benefits from existing connections to the UK NTS. While further reinforcement may be required as a result of the Grain 4 expansion, this is likely to be less substantial than development of connections for a new build terminal or expansion of other LNG facilities in the UK. This is because Grain, while benefiting from a relatively remote position in terms of local population, is located just 20 miles east of greater London and the most significant area of UK demand (see Appendix 1 – GLNG Location Map), minimising the need for expensive and potentially intrusive new gas transmission infrastructure within the

UK.

- Finally, further expansion will maximise the opportunities for Grain to develop and offer additional services to support the use of LNG for transport fuels with consequential environmental benefits given LNG's reduced emissions compared to existing fuels such as diesel. Grain's location in the South East means it is well placed to support initiatives for the development of LNG as road fuel, while its location close to the Port of London may mean that, amongst the UK's LNG terminals, it is ideally placed to support the development of LNG as a low-carbon marine fuel. GLNG is engaged in preliminary discussions with existing and potential new customers regarding the development of these services. Marine fuel operations in particular would be facilitated by the development of a second cryogenic line as part of the Phase 4 development.

1.27. Although GLNG will build, own and operate the expanded importation terminal, rights to the primary expansion capacity at this facility will be held on a long-term contractual basis and the scheduling of gas deliveries to and from the facility will be under the control of holders of those capacity rights (as per Grain 1, 2 & 3). These long-term capacity rights have been and will be offered through a non-discriminatory "open season" process and will allow successful shippers the opportunity to import gas into the UK from sources other than the United Kingdom Continental Shelf (UKCS) or transported via existing Interconnectors from or through mainland Europe. This fourth phase would give Shippers the option to acquire throughput capacity equivalent to around 8% of total UK gas demand from 2016.

Conclusion

1.28. The requirement for additional gas importation capacity is well-established from macroeconomic forecasts. LNG generally offers security of supply advantages over piped gas. GLNG's market testing has demonstrated the specific requirement from prospective new LNG importers for additional capacity. Further development at Grain offers significant economic and environmental benefits, as well as mitigating operational risks at the existing terminal.

1.29. In summary, the development of additional importation capacity at Grain will make a major contribution to the UK's future energy needs while enhancing security of supply through additional capacity and diversity of supply.

2. Requirement for Exemption from the provisions of section 19D of the Gas Act

Legislative framework

2.1. The Second European Gas Directive[21] (the Directive) was transposed into UK law with the coming into force of the Gas (Third Party Access) Regulations 2004 on 26 August 2004.

2.2. The Directive allows regulatory authorities to exempt new infrastructure from rTPA provisions. "New infrastructure" includes modifications to existing infrastructure that facilitate the development of new sources of gas supply. The exemption regime introduced into UK law to enact this requirement was set out in section 19C of the Gas Act.

2.3. The Directive requires Member States to ensure that, in the absence of an exemption, access to LNG importation terminals and other gas infrastructure is via an rTPA regime based on tariffs, or tariff methodologies, approved ex ante by the relevant regulatory authorities. These rTPA requirements are set out in section 19D of the Gas Act 1986 (the Gas Act).

2.4. The coming into force of The Electricity and Gas (Internal Markets) Regulations 2011 (SI 2011 No. 2704) on 10 November 2011 transposed the Third Gas Directive[22] into UK Law. The 2011 Regulations amended slightly the requirements of sections 19C and 19D of the Gas Act. This is discussed in Section 3 below.

2.5. The rTPA regime to be established in GB has been consulted on by Ofgem[23] but its exact form has not yet been determined, as all existing UK LNG facilities operate under exemptions from section 19D of the Gas Act.

Justification for exemption for Grain Phase 4

2.6. If taken forward, Grain 4 would represent a very significant investment for GLNG. While the project is forecast to meet the company's investment criteria, this is achieved with the application of a modest rate of return, given the levels of

[21] Directive 2003/55/EC of the European Parliament and of the Council.

[22] Directive 2009/73/EC of the European Parliament and of the Council.

[23] http://www.ofgem.gov.uk/Pages/MoreInformation.aspx?file=rTPA consultation document.pdf&refer=Markets/WhlMkts/CompandEff

construction, operational and counterparty risk involved (See Confidential Appendix 3 for details). Under an exempt regime, GLNG has the ability to mitigate and manage these risks by underwriting the investment with long-term contracts with pre-agreed and stable revenue profiles. The anticipated returns are considered to be commensurate with these normal commercial risks. This also allows prospective new customers to negotiate unambiguous capacity rights and manage their risk (e.g., associated with their upstream developments) and commercial exposure ex ante.

2.7. In the absence of an exemption, an rTPA regime makes it much more likely that there will be regulatory intervention during the course of the contracted period which fundamentally alters the balance of risk and reward for one or more of the parties that have committed to sell and purchase capacity at the Grain terminal.

2.8. For example, potential primary capacity holders could be concerned about exposure to the risk of the imposition of increasingly stringent anti-hoarding arrangements (e.g. UIOLI or UIOSI measures that have to be applied at increasingly greater periods ahead of a berthing slot) that would erode the value of their capacity rights in the terminal. It may be the case that the level of risk perceived by potential primary capacity holders is too great for them to consider bidding under an rTPA regime. Even if it were assumed that they would be willing to consider such a proposition, it is to be expected that they would factor in the additional risk of regulatory intervention and consequently reduce the value of their bids or they would look to export their LNG overseas, to more attractive markets.

2.9. From GLNG's perspective, even if long term contracts for capacity are provided for under an rTPA regime, there is a risk that the revenue received by the company under these arrangements could be subject to regulatory action at some future time. GLNG would increase the "hurdle rate" level of return that it would require in order for the project to proceed against a backdrop of increased regulatory risk. The current financial analysis (based on the potential customers' current bids and GLNG's current hurdle rate, both of which are based on the assumption of an exempt regime) shows that the project would simply not be economically viable and could not proceed with lower customer bids or a higher hurdle rate.

2.10. Ofgem specifically stated in its recent consultation[24] that it will reserve the right to amend its guidance on rTPA arrangements for LNG facilities in GB in light of future developments. Even if, contrary to this, Ofgem decided that it wished to provide a written assurance that the concerns outlined above would not arise in practice, we do not consider that this would represent sufficient protection. Indeed we do not believe it would be legitimate for Ofgem to fetter its discretion in this way. In addition, such assurances would not protect GLNG and its prospective customers should the European Commission institute infringement proceedings against the UK for non-compliance with the Third Package, nor would these assurances ensure "grandfathering" in the event of a future "Fourth package" or other European legislation. Similarly, if the European Commission was approached to offer some form of "comfort letter", it would surely be certain to urge GLNG and Ofgem to make use of the exemption process that has been established for this very purpose.

2.11. GLNG is also concerned that, under a rTPA regime, should customers have any claims or grievances, they would expect to raise these with, and have them resolved by, Ofgem, rather than through commercial negotiations or, in extremis, judicial proceedings in the commercial courts. This creates a further risk to GLNG, devaluing the contract which GLNG and the customers had negotiated and potentially leading to inequitable treatment of customers at the Grain terminal who fall under a regulated regime and those who do not. Under such circumstances GLNG may feel obliged to change all other customers' contracts to fall in line, devaluing those contracts as well and this in addition to the increased cost to GLNG of dealing with the Regulator as well as its customers.

2.12. While an exempt regime would give GLNG some degree of freedom to respond to customers needs quickly and flexibly, any recourse to Ofgem to make a decision would slow this process down, leading to poorer customer service and potentially lost opportunity (but only for the Phase 4 customers), adding to the uncertainty and risk for GLNG and customers and the workload of the Regulator.

2.13. Fundamentally, an exemption gives the necessary certainty and lower level of risk for GLNG and its customers with less risk of intervention, less administrative burden and less instability. An exemption provides investor certainty, with the Regulator only having the ability to revoke the exemption with due cause. We therefore consider

[24] http://www.ofgem.gov.uk/Pages/MoreInformation.aspx?file=rTPA consultation document.pdf&refer=Markets/WhlMkts/CompandEff

that an exemption is essential in order to mitigate the risk of future regulatory intervention and to ensure that an appropriate balance of risk and reward for both GLNG and its prospective customers is preserved over the life of the relevant contracts.

Duration of exemption from section 19D of the Gas Act

2.14. In order to ensure a common approach to individual Shipper contracts as well as between Shippers, the exemption requested should be consistent with those granted in respect of the first three phases of the development of the Isle of Grain facility. The required exemption duration in respect of the expansion capacity is 27 years from October 2016 or, in the event of delays to Phase 4 construction and commissioning, such later date as the new capacity becomes available.

2.15. The capacity contracts which will underpin the Grain 4 investment (and potentially the NTS reinforcements required to accommodate them) are staggered in terms of start date and no one customer would have exempt capacity greater than the maximum contract term of 25 years. Indeed it would be ideal if customers' upstream developments slip that the end date of the exemption could also slip (as effectively happened with South Hook 1 and 2) so that the customer can maintain 25 years of commercial operation of both the upstream production facility and at the downstream regasification terminal.

2.16. This duration is required to ensure the Grain facility is sufficiently attractive to upstream LNG suppliers, compared to opportunities in other gas markets around the world, by combining certainty of long-term access with a known, stable regulatory framework and contract terms and conditions. The duration reflects the long pay-back periods associated with the project and the upstream investment projects to which it is linked, and is required to ensure an appropriate risk-related return on the investment (This is discussed in more detail in Confidential Appendix CA2).

2.17. This duration is consistent with numerous precedents of long duration, exclusive access arrangements which the European Commission has previously accepted, for example:

Grain LNG Phase 1	20 years
Grain LNG Phase 2	25 years
Grain LNG Phase 3	19 years
South Hook LNG 1	25 years

South Hook LNG 2	25 years
Dragon LNG 1	20 years
Dragon LNG 2	20 years
Fluxys	20 years
Viking Cable	25 years
I(UK)	25 years
Dunkerque LNG	20 years
Shannon LNG	20 years
Gate LNG	20 years

2.18. This is also consistent with National Grid's experience of other capital-intensive infrastructure projects where long-term contractual arrangements have been required to underpin investment, e.g. the Basslink interconnector linking Tasmania and the Australian mainland and the Isle of Man interconnector, both of which were 25 year agreements.

2.19. The European Parliament is supportive of long-term contracts where appropriate, recognising that they help to underpin security of gas supply as well as the competitive market in general. The Parliament has stated: 'long-term contracts will continue to be an important part of the gas supply of Member Sates and should be maintained as an option for gas supply undertakings'[25]. As such, one of the European Commission's stated objectives is to develop a negotiation framework for long-term contracts for security of supply benefit with Member States "guaranteeing" that a minimum proportion of their gas supplies from non-EU countries are based on long-term import contracts.

2.20. Finally, we note that while most of the projects listed in paragraph 2.17 have been constructed and brought into operation, at least one (Phase 2 of the Dragon LNG terminal) has been granted an exemption but has not yet made the final investment decision in respect of the exempt capacity. In our view, it would be inequitable to allow that facility to hold an exemption allowing it to expand its facilities while denying GLNG the opportunity to develop its facilities on the same basis.

[25] Recital 42 of Directive 2009/73/EC of the European Parliament and of the Council (13th July 2009).

Summary

2.21. GLNG is applying under section 19C(2) of the Gas Act for an exemption from the requirements of section 19D of the Gas Act because an rTPA regime cannot provide sufficient certainty of future rights and revenues for GLNG and its prospective customers. The required duration of the exemption is a minimum 27 years from October 2016 (or such later date as the Grain 4 capacity actually commences commercial operations).

2.22. Obtaining an exemption will confirm the acceptability of the open season capacity sales process (which has already been accepted under the phase 1, 2 & 3 exemptions) and increase the likelihood of GLNG closing the long-term contracts essential to underpin the investment in Grain 4.

2.23. GLNG will not take forward the Grain 4 project in the absence of an exemption granted by the Authority and ratified by the European Commission.

3. Criteria required to be satisfied for the grant of an exemption from the requirements of section 19D of the Gas Act

3.1. Section 19C of the Gas Act provides for an exemption to be granted from the requirements of section 19D of the Gas Act, provided certain criteria are met. These criteria have been amended slightly (compared to those in place at the time of previous exemption requests by GLNG) by the entry into force of The Electricity and Gas (Internal Markets) Regulations 2011 (SI 2011 No. 2704) on 10th November 2011. These Regulations amended the Gas Act to transpose into UK law the provisions of the Third Gas Directive[26].

3.2. The amended criteria are set out below:

a) The facility (or as the case may be) the modification 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 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 to 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; and

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 to or to be connected to the facility.

3.3. As part of the transposition of the Third Gas Directive into the Gas Act, a new section has been inserted as section 19DB "Allocation of capacity in exempt new and modified facilities". This contains a provision whereby applications for an exemption under section 19C(2), in respect of all or part of the capacity of an LNG import or export facility, must also specify the criteria that will be used to determine:

a) who is to be granted rights to use the facility, or the part of the capacity of the facility (the "exempt infrastructure"), to which the application relates; and

[26] Directive 2009/73/EC of the European Parliament and the Council

b) the way in which those rights may be exercised, (the "capacity allocation mechanism").

3.4. The Authority cannot give an exemption under section 19C in response to an application unless it has:

a) approved the capacity allocation mechanism specified in the application; or

b) approved the mechanism on condition that certain modifications are made to it.

3.5. Furthermore, the Authority can only approve the capacity allocation mechanism if it considers that the mechanism meets the following three conditions (or that it considers that the mechanism will meet those three conditions once the modifications on which the approval is conditional have been made):

Condition 1 - Before a right to use the exempt infrastructure is granted to the owner of the facility or to any other person:

a) the intention to grant a right to use the exempt infrastructure must be published in a way that the Authority considers appropriate for the purpose of bringing it to the attention of persons likely to be interested in using the infrastructure; and

b) such persons must be able to register an interest in using the exempt infrastructure.

Condition 2 - The mechanism must require that any unused capacity in the exempt infrastructure be made available to other users or potential users.

Condition 3 - The mechanism must not prevent, and must not be capable of being used to prevent, subsequent trading of rights to use the exempt infrastructure.

3.6. In section 4 below, the Grain 4 Expansion project is assessed against each of these criteria and conditions to demonstrate to Ofgem and the European Commission that an exemption from the requirements of section 19D of the Gas Act is appropriate for the Grain 4 Expansion of the Isle of Grain LNG Importation Facility.

4. Demonstration that criteria for grant of an exemption from the requirements of section 19D of the Gas Act have been met

Criterion a) Security of Supply: "The facility (or as the case may be) the modification will promote security of supply."

i) Supply-demand balance

4.1. Section 1 (notably Figure 1) highlighted the supply shortfall and level of imports required by the UK to achieve a supply-demand balance in the years through to 2030/31. As can be seen, the extent of new imports required is considerable, increasing to more than 80% over this time period.

4.2. Figure 4 below demonstrates how the demand for LNG worldwide is expected to increase with the main drivers for additional liquefaction capacity coming from the markets of Asia (excluding Japan) and Europe.

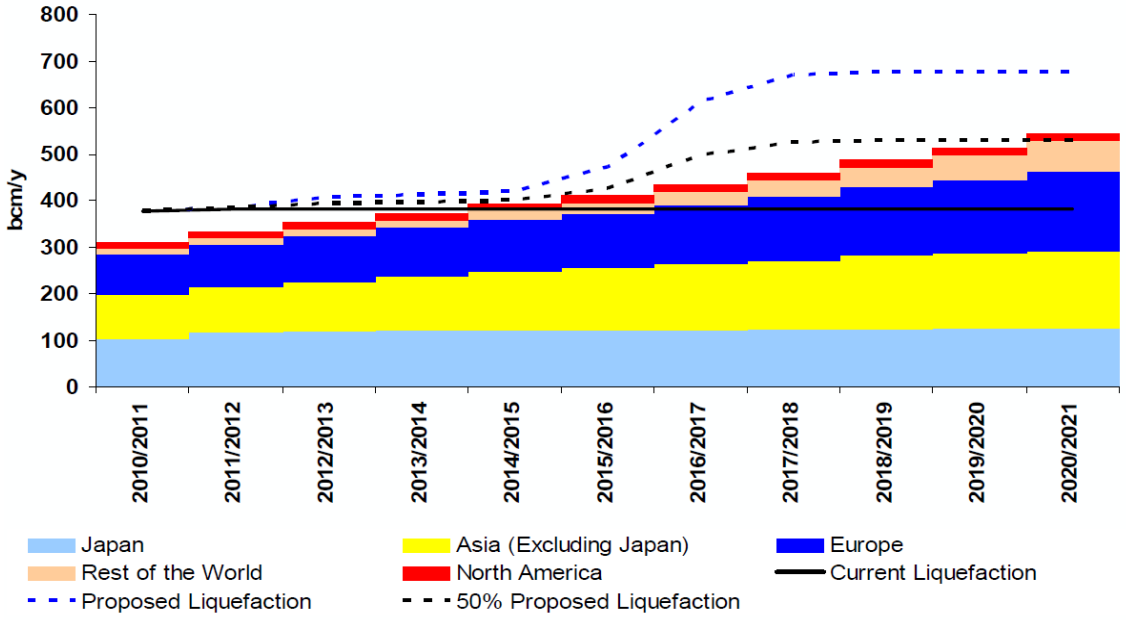

Figure 4 Projected global supply and demand of LNG.

Source: National Grid Ten Year Statement (Dec 2011).

4.3. Figure 5 shows, for the seven European countries with LNG importation terminals, the proportion of LNG actually imported (yellow) in relation to total LNG import capacity (blue) for the 12 months to August 2011. The UK has the largest volume of LNG importation compared to the rest of the EU, having recently moved ahead of

Spain to become third largest LNG importer in the world. This reliance on LNG is forecast to continue to increase as UKCS reserves decrease (see Figure 2 and Section 1).

4.4. In 2011 GLNG delivered 85,511GWh (over 7 bcm) of energy into the UK NTS on behalf of its six customers. From commencement of commercial operations in mid 2005 to the end of December 2011, the terminal unloaded 261 vessels and delivered 257,129 GWh (~22 bcm) on behalf of its customers.

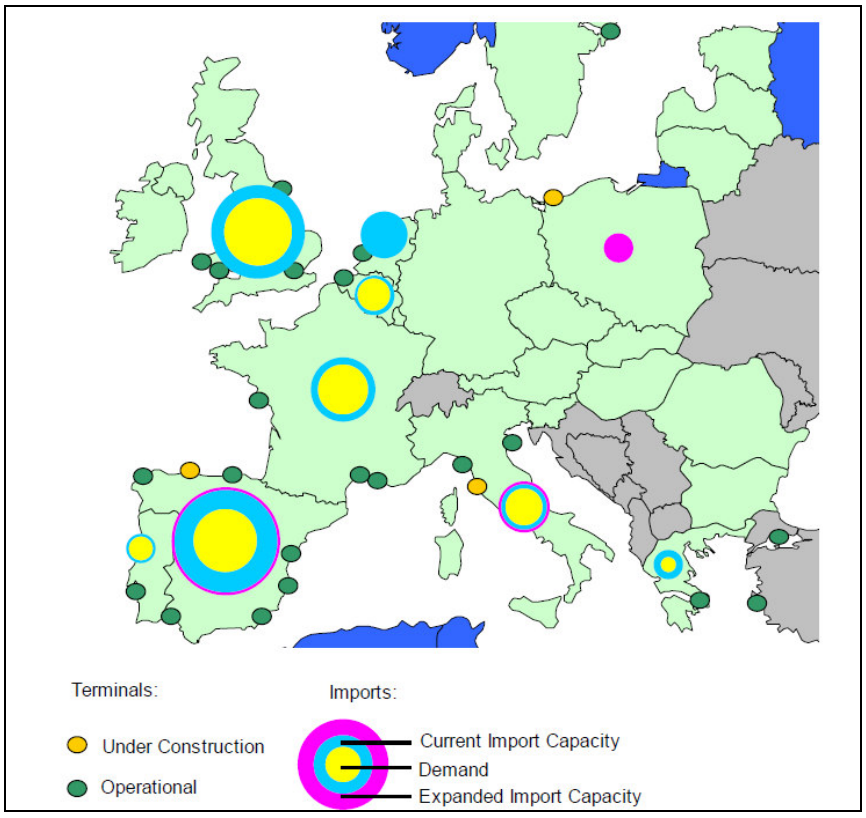

Figure 5 The completed and under construction LNG import terminal in Europe with the imported LNG and import capacity shown by the area of the circle.

Source: National Grid Ten Year Statement, Dec 2011.

4.5. As highlighted in section 1, significant disruption of supply from Norway, from the UK's storage facilities and from pipeline supplies from Russia through Ukraine have all been experienced in recent years. Experience suggests that, given the UK's position at the extremity of the European network, and regardless of price differentials between national gas markets, pipeline imports in particular are prone to disruption.

4.6. Increasing the ability to deliver additional non-indigenous sources of supply into the UK therefore enhances UK security of supply. This is of particular importance given indigenous supplies through existing UK entry points are on the decline and their reliability may be expected to decline as investment reduces and assets are 'wound down'.

ii) Diversity of supply

4.7. Figure 6 shows the origin of all LNG which entered the UK in 2010. It is immediately apparent that the vast majority of cargoes originated in Qatar. This UK-wide trend is also apparent at Grain, as shown in Figure 7.

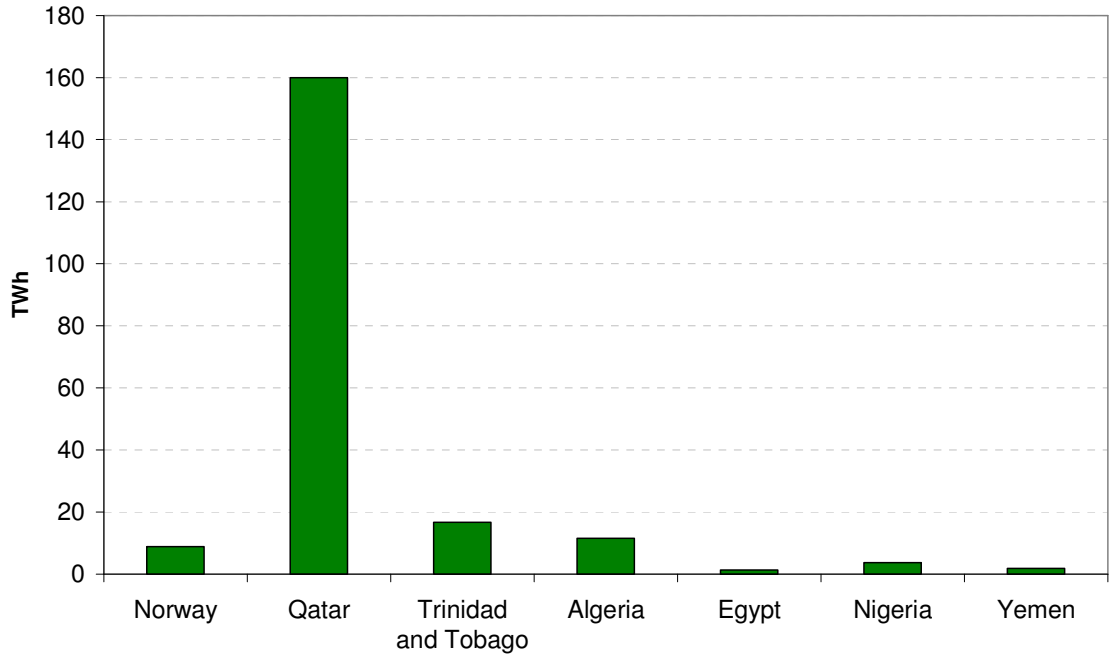

Figure 6 Country of origin of LNG imported into the UK in 2010. (Source: Eurostat)

4.8. In 2011, 78% of LNG imported to Grain was from Qatar, up from 43% the year before, with a corresponding rise in the number of Q-class vessel arrivals compared to conventional sized vessels. From May to December 2011, 32 out of the 35 cargoes unloaded at Grain were loaded at Ras Laffan, Qatar.

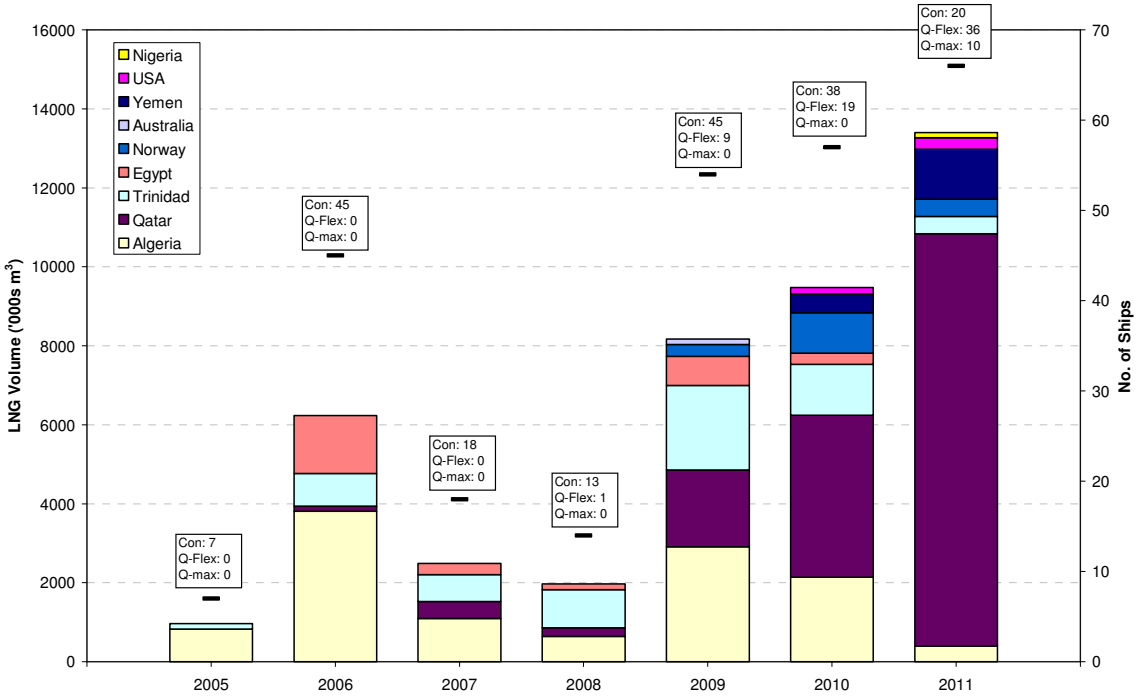

Figure 7 All ship loading ports and ship types that have berthed at Grain LNG up to Dec 2011 (Source: Grain LNG)

4.9. The introduction of new customers at Grain directly linked to, or with the potential to attract supply to the UK from, a range of different supply sources would significantly enhance supply diversity and the security of supply situation.

iii) Technical capability of the terminal

4.10. Further expansion of the Grain LNG importation facility (including taking tank capacity to 1,200,000m^3) that has the ability to operate at high base loads with some limited upward and downward flexibility and has, through the installation of gas blending plant, the ability to accept LNG from a variety of sources, means that this will be a significant contributing factor in enhancing UK security of supply position over the whole year.

4.11. Examples of GLNG's response under certain operational scenarios are shown in Figures 8 and 9. Figure 8 shows the terminal's rapid increase in send out in the winter of 2010 when Norwegian supplies to the UK dramatically reduced. A comparison of Grain's delivered gas flows to other UK terminals is shown in Figure 9 during the recent cold spell in January/February 2012 in each case in response to customers' increased flow nominations. Similarly important deliveries were made during the peak period of winter 2005/6, during the Russia-Ukraine crisis (which

clearly illustrated the political risk associated with transnational pipeline supplies) and when the Centrica Rough storage facility went off-line.

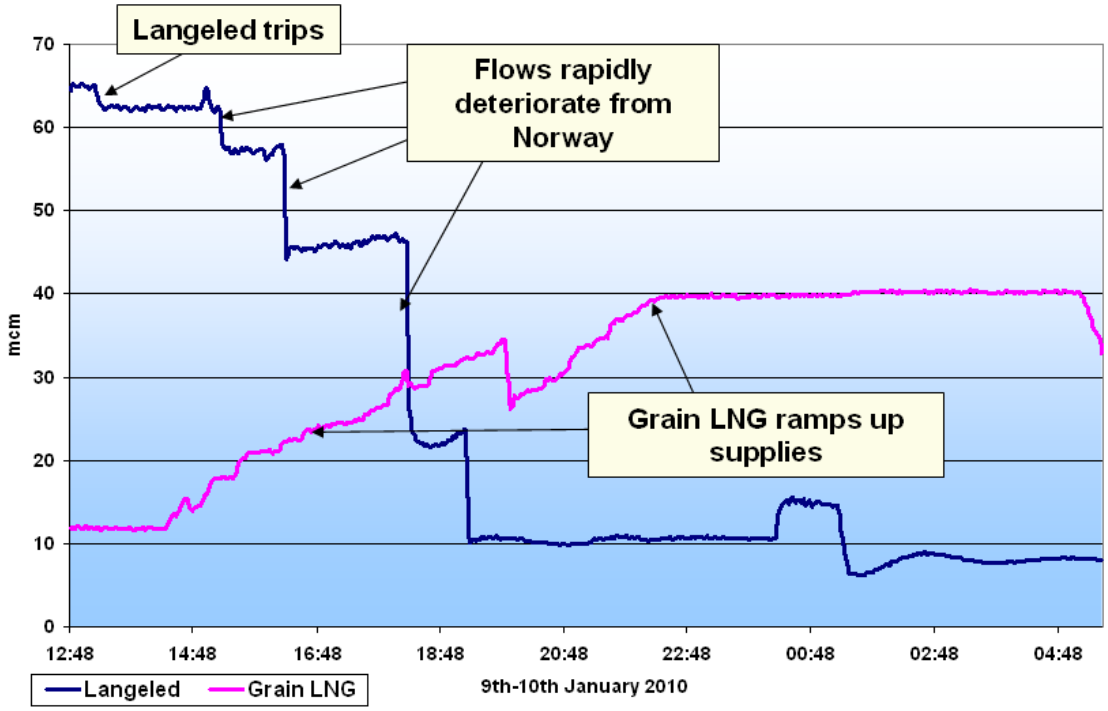

Figure 8 Over a period of 7-8hrs in January 2010 Grain LNG ramped up send-out by over 300% in response to a trip on the Langeled gas pipeline from Norway.

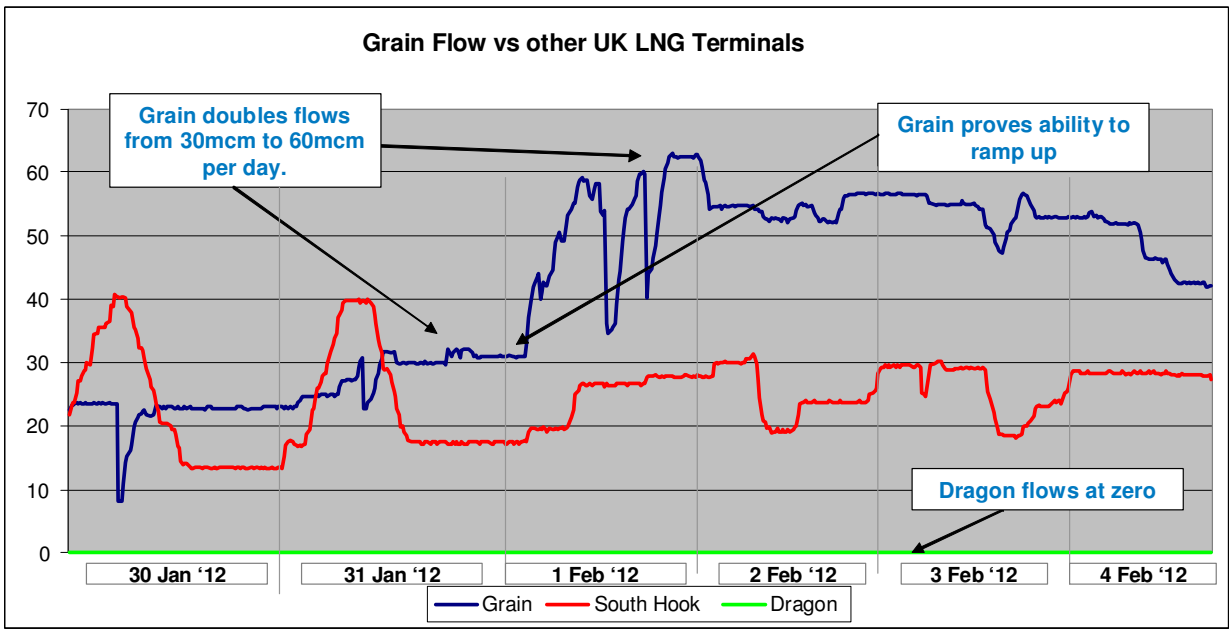

Figure 9 Grain LNG response to reduced capacity elsewhere during winter peak, Jan/Feb 2012.

4.12. Additional tank capacity increases the likelihood that more LNG will be in store at any given time giving greater potential to respond to short term supply-demand imbalances to dampen their effect. This may become increasingly important as energy stored in the form of solid fuel at coal fired power stations diminishes (as these most polluting plant are progressively withdrawn from service) and as energy networks' will need to respond to greater intermittency of wind generation.

iv) Elimination of single point of failure

4.13. A second cryogenic unloading line is an essential component of the Grain 4 development. This is required to allow the terminal to support the increase in berthing slots which is required to provide shipping capacity to Phase 4 customers. The second unloading line would also facilitate the unloading of two vessels simultaneously, allowing more vessels to unload at peak times with less risk of disruption, further enhancing security of supply benefits to the UK as well as giving greater operational flexibility to GLNG and its customers as well as 3rd party suppliers of cargoes.

4.14. In addition, however, a second line would remove the single point of failure risk associated with the current single line. Should that risk materialise, it could lead to a total loss of unloading capability at the terminal for several months while the line was repaired, disabling importation capacity equivalent to 20% of annual gas demand from the GB market.

Discussion

4.15. The Commission staff working document on New Infrastructure Exemptions[27] considers that new infrastructure enhances security of supply if it contributes to the diversification of supply to the relevant market. By virtue of the increased LNG regasification capacity it offers, the potential to diversify the UK's LNG supply options by connecting to new sources of LNG and the elimination of a potential single point of failure for a significant contributor to UK gas importation capacity, the proposed Grain 4 Expansion clearly does this.

4.16. The document also highlights the additional security of supply benefits delivered by LNG terminals (compared to pipelines) as a result of their flexibility. GLNG believes strongly that the arrangements at the Grain terminal (i.e. multi-customer and non-

27 http://ec.europa.eu/energy/infrastructure/infrastructure/gas/doc/sec_2009-642.pdf

vertically integrated ownership and operation combined with effective secondary trading and UIOLI arrangements) allow it to offer a greater degree of commercial flexibility and access than that provided by other terminals.

Conclusion

4.17. The Grain 4 development will promote diversity and security of supply. Criterion (a) is satisfied.

Criterion b) Level of Risk: "The level of risk is such that the investment to construct the facility or (as the case may be) to modify the facility would not be or would not have been made without the exemption."

(i) Risks faced by regasification project developer

4.18. The Commission Staff Working Paper on New Infrastructure Exemptions[28] sets out that, "if an investment in gas infrastructure is a sunk cost, two main risks determine the assessment: the risk of non-use of the investment and the risk of a change in costs and/or revenues in the future". An investment "is a sunk cost [if] the asset concerned cannot be recovered and re-used for another purpose other than its original one"[29].

4.19. Clearly in this sense the terminal and the investment in additional Phase 4 capacity would both be a sunk cost as the terminal cannot be utilised for any other purpose.

4.20. To some extent the "risk of non-use of the investment" can be mitigated by GLNG through appropriate long term contracts with primary capacity holders, provided both GLNG and its prospective customers can be confident that these contracts will be allowed to govern the commercial relationship between the parties. The main risk under this criterion would be that the persistent non-use leads to default by the customer, leaving GLNG without revenue to pay for the investment it has made and in a market where it may be unable to re-sell the capacity.

4.21. The "risk of a change in costs and/or revenues in the future" would be most acute

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28 SEC(2009)642 "Commission staff working document on Article 22 of Directive 2003/55/EC concerning common rules for the internal market in natural gas and Article 7 of Regulation (EC) No 1228/2003 on conditions for access to the network for cross-border exchanges in electricity – New Infrastructure Exemptions (http://ec.europa.eu/energy/infrastructure/infrastructure/gas/doc/sec_2009-642.pdf)

29 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. (http://ec.europa.eu/energy/electricity/legislation/doc/notes_for_implementation_2004/exemptions_tpa_en.pdf)

under an rTPA regime where Article 41(10) of the Third Gas Directive (2009/73/EC) would apply. This states that "Regulatory authorities shall have the authority to require transmission, storage, LNG and distribution system operators, if necessary, to modify the terms and conditions, including tariffs and methodologies referred to in this Article, to ensure that they are proportionate and applied in a non-discriminatory manner." The reference to "tariffs" which must be "proportionate" indicates that, under an rTPA regime, the Authority would have the power to require changes to the tariff with direct and potentially highly detrimental effect on the economics of the business. There are also significant risks associated with future cost increases for example through the imposition of changed taxation or rates charges, changes to environmental incentive schemes, operational or construction cost increases, etc.

4.22. The Grain 4 expansion project is a major, capital intensive project. The investment required is significantly in excess of the threshold investment level[30] for the UK indicated in the European Commission Interpretative note[31,32]. That investment should also be viewed in the context of GLNG as an independent company, financially separate from National Grid plc.

4.23. The Grain 4 Expansion represents a very significant investment for a company of GLNG's size[33]. GLNG intends to undertake that development as a "merchant" investment. As such, it is taking significant counterparty, development, construction and operational risks which are markedly higher than those relating to National Grid's regulated gas transportation, electricity transmission and gas distribution businesses (Confidential Appendix 3 includes an assessment of the relevant risks relating to the Grain 4 project).

4.24. As stated in paragraph 2.13; the absence of an exemption, or an exemption of shorter duration or capacity level than that requested, would lead to insufficient risk-adjusted return on GLNG's investment and the project would not receive investment approval. Detailed financial information relating to the Grain 4 development is

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30 The threshold level for the UK market based on 10 Euros per connected customer equates to approximately Euros 210 million.

31 http://ec.europa.eu/energy/electricity/legislation/doc/notes_for_implementation_2004/exemptions_tpa_en.pdf

32 This excludes National Transmission System reinforcement which would be in addition to the costs of Grain 4.

33 GLNG's statutory accounts are accessible via the Companies House website: http://wck2.companieshouse.gov.uk/a5e5de09c28fc835d723b745573f7c52/compdetails

provided in the Confidential Appendices.

(ii) Risks faced by liquefaction project developers and LNG shippers

4.25. As highlighted in our previous applications for exemption (in relation to Grain 1, 2 & 3), and set out in paragraph 42 of the Commission Staff Working Paper on New infrastructure Exemptions[34], the assessment of the risk attached to LNG importation projects should consider not just the risks faced by the project developer but also those faced by LNG shippers who may make either significant investments in upstream plant or substantial contractual commitments to third party suppliers of LNG (who have themselves made upstream investments).

4.26. For upstream project developers and shippers seeking to market their equity LNG[35] and LNG from their portfolio of upstream supply and purchase agreements, while the global LNG market provides some flexibility to place excess capacity, the cost and risk of building upstream facilities[36] must normally be underwritten by firm long-term access to the downstream market of sufficient volume and on known terms.

4.27. For "midstream" players, i.e. LNG shippers who seek to purchase LNG at the liquefaction terminal, the substantial and long-term contractual commitments they have to make to the LNG suppliers must similarly be backed by firm market access arrangements in their chosen downstream markets.

4.28. In each case, if these terms are subject to regulatory review and amendment (as would be the case under an rTPA regime) the attractiveness of the market from the upstream perspective is significantly reduced. Upstream developers may decide to allocate supplies to other, more predictable and potentially more lucrative markets and midstream players may struggle to secure long-term contracts. Both will necessarily adjust their view of the value of the downstream market commensurate with the perceived regulatory risk.

(iii) Conclusion

4.29. Without an exemption, long term access on known terms and conditions without risk of regulatory interference cannot be guaranteed. Consequently, while the upstream investment in additional liquefaction may go ahead regardless of the decision on

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34 http://ec.europa.eu/energy/infrastructure/infrastructure/gas/doc/sec_2009-642.pdf

35 i.e., supplies from gas fields / liquefaction plants in which they are shareholders.

36 The investment in gas production, liquefaction and shipping elements is typically at least an order of magnitude greater than the equivalent regasification capacity.

regas exemption, supplies from new sources will only be attracted to the UK or Europe if bidders can secure access at reduced tariffs commensurate with their greater risk and uncertainty. This in turn may be insufficient in relation to the risk-reward appetite of the investing parties for projects such as the Grain 4 Expansion to proceed.

4.30. Consequently, because of the risks highlighted above, GLNG will only invest in the Grain 4 capacity if an exemption from the requirements of section 19D of the Gas Act is granted. Criterion (b) is therefore satisfied.

Criterion c) Ownership: "The facility is to be owned by a person other than the Gas Transporter who operates or will operate the pipeline system connected to or to be connected to the facility."

Legal Separation

4.31. The owner and operator of both the existing importation terminal infrastructure and the proposed Grain 4 expansion phase is National Grid Grain LNG Ltd ("GLNG"), a company registered in England and Wales with company number 4463679. The System Operator of the system to which the terminal is connected is National Grid Gas plc ("NGG"), a company registered in England and Wales with company number 02006000. NGG is also the owner of the National Transmission System. While both NGG and GLNG are wholly owned subsidiaries of National Grid plc, they are independent, legally separate companies. GLNG interacts with NGG in the same way as any other third party.

4.32. GLNG has no affiliation with Southern Gas Networks plc ("SGN") the owner of the local gas distribution system to which the Grain terminal is connected

4.33. Finally, GLNG is not affiliated with any gas marketing entity utilising the gas transmission and distribution systems in GB.

Licence Obligations and National Grid Gas plc Undertaking

4.34. In addition to the legal separation discussed in paragraph 4.310, NGG is subject to the following Licence Conditions and Gas Act obligations to ensure that no unfair commercial advantage is conferred on GLNG:

- Standard Special Condition A6 - Conduct of Transportation Business: this condition requires NGG to conduct its transportation business in the manner best calculated to secure that no related undertaking, such as GLNG, obtains

any unfair commercial advantage.

- Standard Special Condition A35 - Prohibition of Cross-Subsidies: this condition requires NGG to procure that the transportation business shall not give or receive any cross subsidy from any affiliate, such as GLNG.
- Standard Special Condition A39 – Indebtedness: this condition requires that NGG shall not incur any "indebtedness" or enter into any guarantee otherwise than on an arm's length basis, under normal commercial terms and for permitted purposes. ("Indebtedness" means all liabilities now or hereafter due, owing or incurred, whether actual or contingent, whether solely or jointly with any other person and whether as principal or surety, together with any interest accruing thereon and all costs, charges, penalties and expenses incurred in connection therewith.)
- Section 9 (1A) of the Gas Act (Powers and Duties of Gas Transporters) states that a gas transporter is obliged to facilitate competition in the supply of gas.
- Section 9 (2) of the Gas Act (Powers and Duties of Gas Transporters) states that it is the duty of the gas transporter to avoid any undue preference or undue discrimination in connection to its pipeline system or in terms on which it undertakes the conveyance of gas through its system.

4.35. Additionally National Grid plc, as ultimate controller of NGG for the purposes of its gas transporter licences, undertakes the following to ensure NGG compliance with obligations under Standard Special Condition A26 ("Provision of Information to the Authority") and Condition 45 (Undertaking from Ultimate Controller") of each of its licences:

a) *"We will give to you, and will procure that any person (including, without limitation, a corporate body) which is a subsidiary of, or is controlled by us (other than you and your subsidiaries) will give to you all such information as may be necessary to enable you to comply fully with the obligation imposed on you in paragraph 1 of Standard Special Condition A26"*; and

b) *"We will refrain from any action, and will procure that any person (including, without limitation, a corporate body) which is a subsidiary of, or is controlled by us (other than you and your subsidiaries) will refrain from any action which would then be likely to cause you to breach any of your obligations*

under the Gas Act 1986 or the Licence."

4.36. All contracts between NGG, GLNG, the primary capacity holders of the conversion and 1st & 2nd Grain expansion phases and other relevant parties have been negotiated on an arms length basis on normal commercial terms consistent with NGG's Licence and the National Grid plc Group Undertaking.

Financial separation

4.37. GLNG has full financial separation from the other companies within the National Grid plc group including the requirement to file separate accounts at Companies House. The independently audited accounts for the period to March 2011 have been filed at Companies House[37].

Conclusion

4.38. GLNG is legally, financially and operationally independent from the other companies within the National Grid plc group, including NGG. Criterion (c) is fulfilled.

Criterion d) Charges: "Charges will be levied on users of the facility or (as the case may be) the increase in its capacity."

4.39. GLNG's capital investment and ongoing costs are to be recovered through the sale of long term importation capacity rights. Importation shippers will be charged an annual charge for the use of GLNG capacity which is set out in their long-term capacity contract.

4.40. Criterion (d) is satisfied.

Criterion e) Competition: "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."

The investment enhances competition in gas supply

4.41. The grant of an exemption for the further expansion of the LNG importation facility at Grain will enable the facility to be built and will allow market operators in the UK to import additional gas from non-indigenous sources on a long-term basis. In

37 http://wck2.companieshouse.gov.uk/16912b5f04835dbc18b1089fbaec73ae/compdetails

satisfying Criterion (a), promotion of security of supply, Grain 4 will provide enhanced gas-on-gas price competition, thereby creating the potential to shift the supply curve to the benefit of consumers. The level of this benefit may ultimately depend on how much LNG is delivered as a result of additional capacity being available. Given the fixed cost of holding capacity at the terminal, it is likely that any successful Grain 4 Shipper will deliver significant volumes over the term of the contracts. To the degree that capacity is not used by the primary capacity holder, it will be made available to the market through normal bilateral trading or secondary capacity and Use It Or Lose It mechanisms.

4.42. Further benefits to UK competition will also arise through the anticipated introduction of new entrants in the LNG importation market (subject to contract negotiations). It is anticipated that the number of customers at Grain would rise to eight (from 6) and the number of primary capacity holders at all UK LNG terminals will rise to 13 (from 11)[38]. This will further enhance competition to attract cargoes and LNG supply to the UK, and provide additional opportunities for third parties to access the UK market through bilateral deals.

Competition assessment

4.43. In accordance with DTI / Ofgem's previous guidance[39] GLNG commissioned Frontier Economics to undertake an independent assessment to determine the impact of the Grain expansion project on competition in relevant markets (see Appendix 6 – Frontier Economics Report).

4.44. The competition analysis by Frontier Economics considered the following markets which might be directly or indirectly affected by the Grain 4 development:

- wholesale supply of gas to the UK / North West Europe / Europe;
- flexibility/storage in the UK (and possibly Europe);
- global LNG liquefaction;
- global LNG shipping;
- shipping (as in providing commercial access to UK gas transport and balancing

[38] This figure includes Excelerate/RWE, the capacity holder at Teesside Gasport.

[39] LNG facilities and interconnectors; EU legislation and regulatory regime – DTI/Ofgem final views, Nov 2003 paragraph 5.15.

services);

- supply of gas to daily metered I&C customers in the UK;
- supply of gas to non-daily metered I&C customers in the UK; and
- supply of gas to residential customers in the UK.

The analysis demonstrated that no competition concerns arise from the Grain 4 development in any of the relevant markets. While Frontier's analysis was based on a slightly lower additional throughput capacity of 230GWh/d (the volume under consideration at the time the analysis was undertaken) it is not expected that the conclusions for the cumulative 250GWh/d currently of interest to Phase 4 candidates would be materially different.

4.45. Frontier Economics' overall conclusions are:

"The Grain phase 4 expansion project adds capacity through which gas can be delivered to the UK system. From a static perspective, the addition of capacity must be good for consumers since it could not create a strategic opportunity for any player immediately to withdraw more capacity than it has just added.

From a dynamic perspective, our analysis shows that for all conceivably affected markets, the addition of Grain 4 with exemption from rTPA requirements would not be detrimental to competition.

… Grain 4 would not foreclose the UK or wider markets to further investments in LNG terminals or piped imports of gas."

Economically Efficient Gas Market

4.46. The additional importation capacity brought into the UK as a result of an exemption for the Grain 4 Expansion phase has been demonstrated, by independent analysis, to enhance competition in gas supply and not to be to the detriment of competition along any other level of the supply chain in the UK.

4.47. Given the absence of any detrimental impact on competition it is difficult to envisage how the investments at the Isle of Grain could be considered to have any further possible detrimental impact on the effective functioning of the European internal gas market. Therefore, GLNG must conclude that the investment at the Isle of Grain is highly unlikely to be to the detriment of competition or the effective functioning of the internal gas market.

4.48. It is worth noting that the competition assessment considers worst case scenarios by assuming that Grain 4 capacity is acquired by the company which currently has the highest market share in each UK market segment. The competitiveness of the relevant markets will therefore be further improved through the introduction of new customers who do not have the highest market share (and noting that the party with the highest market share is different in each market and therefore the worst case could not occur across all market segments).

Regulatory oversight of exempt operations

4.49. Granting an exemption from the requirement to provide rTPA at the Isle of Grain importation facility does not remove it from regulatory scrutiny in respect of Ofgem's wider duties. Under the Gas Act, Ofgem has a duty, amongst other things, to protect the interests of existing and future consumers in a manner best calculated to do so by promoting effective competition where it is appropriate, and to secure a diverse and viable long-term energy supply. The additional conditions required to be satisfied before an exemption is granted provide the framework through which Ofgem can ensure it is able to comply with its obligations. Furthermore, any exemption will not remove the requirement for the commercial arrangements surrounding the terminal to comply with general competition law.

4.50. As discussed above, the exempt regime provides both the project developer and the terminal user with confidence over rights and revenues, but GLNG has imported many of the aspects of an rTPA regime into its proposed exemption-based access arrangements, including an auction-based capacity allocation process which meets the requirements of the global LNG market.

4.51. Furthermore, the presence of pro-competitive general terms and conditions, ship vetting procedures and gas specification envelope information provided to market participants permits secondary trading and sub-letting of capacity that, when coupled with Ofgem's duty to promote competition, will provide ample protection against the possibility of market abuses.

4.52. The exempt access regime therefore provides the wider LNG and gas markets with many of the benefits which would be available under an an rTPA regime, but without the financial and regulatory risks which rTPA would impose on both GLNG and its prospective new customers.

4.53. As there are no anti-competitive issues present, the key difference between rTPA

and an exemption-based regime at Grain LNG is that, under the latter, GLNG will be assured of secure and stable revenues over the long period necessary to underpin the investment required in the facility, and upstream shippers will have the long term capacity certainty, with known, stable terms and conditions, necessary to underpin their investment.

4.54. In the UK the absence of any issues associated with access to essential facilities should also mean that granting an exemption to GLNG should not be a cause for concern. The UK does not have any supply diversity obligations that would require compulsory access to LNG importation capacity. Gas suppliers are free to choose where to enter the UK with prices for using infrastructure to transport gas to those entry points determined in a competitive marketplace.

4.55. In short, given the highly competitive nature of the UK market, GLNG's market-based approach is likely to be an improvement over an rTPA solution that is designed to address market failures that are not a feature of the UK market.

Efficient functioning of the connected pipeline system

4.56. GLNG is already party to NGG's standard terms and conditions in relation to connection, gas quality and flow of gas into the NTS (i.e. the Network Entry Agreements). Similarly, any new shippers bringing gas into NGG's network through the Isle of Grain facility will do so in accordance with the Uniform Network Code. GLNG also has a Network Entry Agreement ("NEA") with Southern Gas Networks plc (a subsidiary of Scotia Gas Networks plc), the owner of the distribution network to which Grain connects, which covers similar requirements (see Appendix 4 – Contract Structure).

4.57. Any increase in NTS capacity will be triggered by the standard Incremental Entry Capacity Release mechanism, which is subject to regulatory oversight.

Summary

4.58. The Isle of Grain LNG Phase 4 expansion will be a positive benefit to competition in UK and EU gas markets and to the operation of an economically efficient gas market. Criterion (e) is satisfied.

5. Demonstration that the Grain 4 Capacity Allocation Mechanism meets the conditions under section 19DB of the Gas Act

Condition 1 – Notification of Available Capacity: "Before a right to use the exempt infrastructure is granted to the owner of the facility or to any other person –

(a) the intention to grant a right to use the exempt infrastructure must be published in a way that the Authority considers appropriate for the purpose of bringing it to the attention of persons likely to be interested in using the infrastructure; and

(b) such persons must be able to register an interest in using the exempt infrastructure*"*

5.1. Before deciding to invest to first develop (phase 1) and then expand (phases 2 and 3) the Grain terminal, GLNG has run 'Open Season' processes to ensure that there is sufficient market demand for this increased capacity and to provide a transparent, efficient and fair mechanism to allocate this capacity. This process has again been followed for Grain 4.

5.2. As with the previous expansion phases, the Grain 4 Open Season process is a 3-stage process consisting of:

- Stage 1 – Request For Proposals ("RFP");
- Stage 2 – Invitation to Submit Firm Proposals ("ISFP");
- Stage 3 – Award of Contract.

2009 Open Season

5.3. This Open Season process for Grain 4 commenced in August 2009 with the issue of a press release, a notification on the GLNG website[40] and an advert being placed in the LNG journal[41] (a leading trade journal with international scope and readership). In addition, approximately 70 potential customers were contacted directly by letter, asking for 'Expressions of Interest'.

[40] https://www.nationalgrid.com/uk/GrainLNG/MediaInfo/PressReleases/03.08.09.htm

[41] http://lngjournal.com/lng/index.php?option=com_content&view=article&id=1302:uks-grain-lng-launches-expansion-open-season&catid=1:latest

5.4. The RFP documentation was sent in September 2009 to all parties who either responded to the 'Expression of Interest' letters or contacted Grain independently and signed a standard form Confidentiality Agreement. The RFP documentation comprised:

- **Cover letter** including instructions for RFP stage (see Appendix 3)
- **Annex 1: Information Memorandum** A document setting out further details about GLNG, the initial phase and Grain 2 and 3 Expansions and the associated releases of capacity, and the proposed Grain 4 Expansion of the Terminal;
- **Annex 2: General Terms and Conditions ("GTCs")** The current general terms and conditions on which GLNG provides the services at the Terminal.
- **Annex 3: Draft Specific Terms Agreement ("STA")** The contract specific and any special provisions applicable to a particular Shipper(s). Together with the GTCs, the STA forms the basis of the agreement between GLNG and the Shipper.
- **Notices:** Formal communications previously issued to Shippers by GLNG setting out details of certain decisions and determinations made by GLNG pursuant to the GTCs. Notices are binding on all Shippers.
- **Annex 4: Summary of Network Entry Provisions ("NEPs")** The NTS Network Entry Provisions set out the operating interfaces between the Terminal and NGG's NTS. They contain a number of parameters and rules relevant to the Shipper. The LDZ Network Entry Provisions set out the operating interfaces between the Terminal and Southern Gas Networks Limited's gas pipeline system (South East LDZ). They contain a number of parameters and rules relevant to the Shipper.

5.5. Based on this information, parties were requested to send to GLNG details of both their commercial proposals (including an indicative non-binding bid as to the annual capacity charges in £/GWh/day they would be willing to pay, their preferred level of capacity and their preferred contract term) and information as to their background in the LNG industry.

5.6. Indicative bids were received in December 2009 with the level of response being similar to Phases 1, 2 and 3 at the same stage. These bids encouraged GLNG to develop a "fast track" option on the Grain 4 project to see if any candidates

wished to take advantage of cost benefits which would flow while the Grain 3 contractor remained on site pending completion of Phase 3. This could have allowed additional capacity to be delivered from Winter 2014/15.

5.7. Following an evaluation of the indicative bids, ISFPs were issued in January 2010 requesting firm and binding bids from shortlisted parties so as to determine what level of expansion capacity, if any, was supported by the market. The ISFP package was similar to the RFP information package, with some changes to the cover letter and instructions reflecting the binding nature of ISFP submissions.

5.8. Before the ISFP deadline of March 2010, all potential new customers confirmed that they would not submit firm bids, citing market conditions coupled with political and regulatory uncertainty. This demonstrated that the fast track option was not attractive to the market and consequently the Grain 3 contractor was demobilised following completion of Phase 3 works. Some minor works were undertaken at the time on the proposed Phase 4 site in order to clear the main construction areas and ensure that they were in a suitable condition to allow rapid re-mobilisation at a later date, if required.

2011 Open Season

5.9. In January 2011 the Grain 4 Open Season was re-launched with similar market notifications taking place to that carried out in August 2009 (paragraph 5.3 above). In addition, an advert was placed in the “Gastech 2011” version of the LNG Journal. From February 2011, ship arrival notices also highlighted that the Grain 4 Open Season was ongoing and RFPs were launched later in the month.

5.10. Indicative bid submissions were requested and received in March 2011. ISFPs were subsequently sent to all parties in September 2011 with firm bids being received in November 2011. At the date of submission of this application, negotiations are ongoing with a number of parties on the basis of bids submitted. Confidential Appendix CA1 summarises the current status of the Grain 4 Open Season process.

5.11. The main agreements that underpin the Isle of Grain importation facility are shown schematically in Appendix 4.

5.12. At every stage of the open season process, GLNG advised potential customers to assume that exemption from the rTPA requirements of section 19D of the amended Gas Act 1986 is granted by the relevant authorities (Ofgem and the European

Commission). Furthermore, GLNG has also advised potential customers that, should such exemption not be forthcoming, bids would effectively be void and the bidding process in respect of Grain 4 would be terminated.

5.13. As with both the initial conversion and previous expansion phases, GLNG has assumed that the significant development, construction, operational and regulatory costs and risks would be rewarded through appropriate returns and that bidding parties would require secure long-term access to capacity in order to underwrite their very significant upstream investment, both of which can only be achieved through exemption.

Assessment against condition 1

5.14. The Capacity Allocation Mechanism for Grain 4 meets both of the requirements of Condition 1 as (a) the Open Season was publicised to all market players in such a way that no interested party could realistically avoid hearing about it and (b) the RFP/ISFP process ensured that every interested party had the opportunity to indicate to GLNG the amount of capacity they require and how they would value this level of capacity.

Condition 2: "The mechanism must require that any unused capacity in the exempt infrastructure be made available to other users or potential users"

5.15. The European regulatory framework for LNG importation terminals and other major energy infrastructure projects, set out in the Second Gas Directive, requires both regulated and rTPA-exempt facilities to implement an appropriate 'anti hoarding' mechanism so as to maximise the utilisation of such facilities. GLNG believes strongly that the three levels of anti-hoarding measures in place at Grain (Secondary Trading, Secondary Capacity Mechanisms and a Use-It-Or-Lose-It Mechanism) are significantly more robust than those at other terminals and this is coupled with Grain's open season approach which has led to more 3rd party access through its 6 customers.

i) Secondary Trading

5.16. GLNG's capacity auctions have so far led to the introduction of 6 customers who import LNG into the GB market, with all the primary capacity built in each phase released to them as part of the open season process.

5.17. All six of GLNG's existing primary capacity holders are actively involved in the global

LNG market. GLNG is not privy to the details of its customers' activities, but trade press reports indicate that they have done deals with investment banks, LNG suppliers and other mid-stream players to allow 3rd party cargoes to be delivered into the GB market via the Grain terminal. Examples of this include the large increase in the supply of Qatari gas to the Grain LNG terminal from both Qatargas and Rasgas and re-loaded cargoes from the US. This is in addition to LNG originating from their own supply portfolios (under supply agreements or their own equity LNG). Since July 2011 we believe that at least 30% of cargo deliveries have come from 3rd parties in this way. These normal bi-lateral trading arrangements are efficient and optimise the utilisation of capacity which could otherwise be unused, when conditions in the GB market are attractive relative to other World LNG markets.

5.18. Secondary trading of cargoes on an ex-ship basis is supported by the Capacity Allocation Mechanism in place at the Grain terminal. As a result of the multi-customer nature of the terminal, this mechanism is without doubt the most highly utilised of the three anti-hoarding measures and can take place at any time from many months ahead of delivery to the day before. This is a highly effective mechanism allowing primary capacity holders to efficiently manage LNG stocks, storage and regasification capacity.

ii) Secondary Capacity Mechanisms ("SCM")

5.19. In Phase 1 of Grain (from July 2005), BP/Sonatrach implemented an enhanced secondary trading mechanism that allowed shippers who did not own primary capacity rights at Grain to access the LNG importation facilities by entering a 'tolling arrangement' with BP/Sonatrach when capacity was not being used by the primary Shipper. Under this mechanism the primary capacity holder utilises its send-out capacity and manages stock levels to allow the 3rd party to deliver a full cargo. Details of this mechanism are provided at http://www.lngga.com/main.html.

5.20. As other LNG importation capacity has entered the European market, other similar secondary capacity products have been made available (e.g., at the own-use terminals at South Hook and Dragon LNG).

5.21. Likewise, as Grain LNG has expanded, new customers have started operating at the terminal who have also developed similar arrangements and consequently secondary capacity products are now in place across all 3 phases of Grain.

5.22. To ensure Phase 3 customers implemented suitable secondary capacity mechanisms, GLNG amended their Specific Terms Agreements (STA) to include express provisions to develop and implement similar arrangements to those put in place by other customers/other terminals[42]. These provisions will also be explicit obligations on customers taking capacity in the Grain 4 Expansion. GLNG believes this to be a balanced approach which is consistent with those facilities that are either existing or under construction and which have already been granted exemption.

5.23. Through direct interaction with the primary capacity holder, SCMs allow 3rd party shippers to discuss access to capacity at timescales further ahead than the UIOLI window. Any firm secondary capacity product linking capacity rights at the terminal with a 3rd party's anticipated (but by its very nature, not guaranteed) LNG shipping activity will require direct communication and for these reasons we would always expect that prospective customers will need to contact the primary capacity holders in order to access secondary capacity (which will be straightforward for companies of the level of sophistication required to be in the LNG shipping business). Consequently, the essential information required by any 3rd party interested in accessing the GB market through the Grain terminal are the contact details provided on the GLNG website.

iii) GLNG Use-It-Or-Lose-It ("UIOLI") mechanism

5.24. As well as clear competition taking place for third party cargoes and customers' own secondary capacity offerings, there is a third layer of anti-hoarding protection at Grain, namely a UIOLI mechanism. The UIOLI arrangements provide an effective fallback method for selling unused capacity should normal bi-lateral negotiations fail for any reason.

5.25. GLNG currently operates a UIOLI mechanism that comes into effect 7 days before each berthing slot, unless the capacity holder allocated that berthing slot has confirmed that it will be used. All three capacity elements of the importation service (berthing slots, space and deliverability) are offered to the market in this mechanism.

5.26. This mechanism applies to capacity held under Phases 1, 2 and 3 and as the terminal has progressively expanded, the capacity bundle offered by GLNG under

[42] This contractual adjustment made explicit a requirement which was implicit in Phase 1 and 2 Shippers' STAs, where it arose from the contractual obligation not to do or fail to do anything which might undermine the status of the exemptions granted in respect of those phases.

UIOLI has been enhanced such that spare capacity is currently usually offered for 150,000m^3 with a 10 day send out window. With UIOLI there is no interaction between any of the primary capacity holders and the 3rd party, only between the 3rd party and GLNG (as terminal operator).

5.27. GLNG has developed an on-line 'bulletin board'[43] on which UIOLI capacity is offered and upon which third parties may express interest in buying or selling capacity at the terminal. Given current levels of utilisation of the terminal and the relatively large number of slots in the annual unloading programme (currently 236), UIOLI slots are frequently being offered.

5.28. Further information regarding the current UIOLI provisions at Grain can be found on the GLNG website[44].

Comparison with other European markets and terminals

5.29. The anti-hoarding arrangements employed at Grain (which will also be applied to Phase 4) are consistent with those in place at other exempt facilities both in GB and in Europe. Arguments suggesting that UIOLI arrangements similar to those that exist at some other European LNG importation terminals (whereby unutilised capacity is offered to the market much earlier than 7 days) are inappropriate given that Grain's customers are actively trading in advance of the UIOLI window and access can be sought from them through one of the other anti-hoarding measures. Given the opportunity 3rd party shippers have to discuss arrangements for delivery of cargoes with the primary capacity holder (and GLNG) well in advance of the berthing slot, and given the nature of competition within the terminal and across terminals in North West Europe generally, this should not be a cause for concern.

5.30. In our view, it is generally accepted within the LNG industry that the reason UIOLI has not been widely utilised, either at Grain or other UK terminals, is because when UK gas prices make delivery to the UK attractive, primary capacity holders bring in cargoes either from their own portfolios or acquired from 3rd parties. When UK prices are not attractive enough for them, it is difficult to make a case as to why 3rd parties would seek to purchase capacity.

5.31. GLNG believes that the implemented UIOLI mechanism provides an effective final

[43] http://www.nationalgrid.com/uk/GrainLNG/bb/

[44] http://www.nationalgrid.com/uk/GrainLNG/CommercialOperations/.

clearing mechanism, should normal bi-lateral trading fail for some reason, while maximising the opportunity for the more efficient and more frequently used competitive trading activity to work. It is vital that UIOLI holds this position in the hierarchy of anti-hoarding measures otherwise there is a risk that normal bi-lateral trading will be undermined leading to less efficient and potentially less effective clearing of the market.

Assessment against Condition 2

5.32. The number of LNG shippers active across a range of terminals in Europe has increased significantly in recent years leading to increased competition and multiple routes to access the market through normal bi-lateral trading. This is clearly in evidence at Grain and as such it is difficult to see how any one party could benefit from hoarding capacity. The development of Grain 4, with the consequent introduction of two new LNG shippers to the UK market, will improve competition and further dilute the ability of any one customer to profitably hoard capacity. To the extent that normal trading activity does not optimise the delivery of LNG to GB, the UIOLI and SCM mechanisms ensure that unused capacity will be released to the wider market.

5.33. We believe that the measures in place at the Grain terminal are fully compliant with the requirements of our exemptions. In this regard would point to the fact that we have not received any complaints from prospective customers, either directly or via Ofgem, that they have been unable to secure secondary capacity as a consequence of ineffective anti-hoarding arrangements. Neither are we aware of any concerns being raised in relation to Grain's anti-hoarding arrangements by any respondents to Ofgem's recent consultation on the regulated Third Party Access regime for Liquefied Natural Gas facilities in Great Britain (published 30th September 2011)[45]. Nor was Grain made aware of any responses from potential third-parties expressing concern with the arrangements when Ofgem consulted specifically on the effectiveness of the anti-hoarding arrangements at the Grain terminal in November 2007[46].

5.34. From the above GLNG concludes that the anti-hoarding measures employed at the Grain terminal, which will also apply to Phase 4 capacity, clearly meet the condition

[45] http://www.ofgem.gov.uk/Pages/MoreInformation.aspx?file=rTPA consultation document.pdf&refer=Markets/WhlMkts/CompandEff

[46] http://www.ofgem.gov.uk/Pages/MoreInformation.aspx?docid=128&refer=Markets/WhlMkts/CompandEff/TPAccess

that any unused capacity is offered to other potential users and the extent to which they do this is consistent with other facilities in the GB market.

Condition 3: "The mechanism must not prevent, and must not be capable of being used to prevent, subsequent trading of rights to use the exempt infrastructure"

5.35. The "take or pay" nature of the annual capacity charge paid by GLNG's customers ensures that the primary capacity holders are fully incentivised to utilise the capacity for their own portfolio LNG supplies, to acquire cargoes from third parties in order to utilise the capacity or to sell the capacity via secondary capacity trading. As highlighted above secondary trading of cargoes by primary customers with 3rd parties is clearly in evidence indicating that the mechanism does not prevent subsequent trading taking place.

5.36. GLNG's contractual arrangements and systems are designed to facilitate transfer of primary customers' tank space, stock, slots and send out capacity. We are aware of at least nine such transfers of tank space between customers that have allowed them to bring in larger (Qflex or Qmax) vessels in winter 2011/12. The procedures to support trading of secondary or UIOLI capacity are also in place.

Assessment against Condition 3

5.37. For the reasons discussed above, GLNG believes that the capacity allocation mechanism at the Grain terminal does not prevent, and neither is it capable of being used to prevent, secondary trading in any form. In fact, GLNG believes that Grain's unique nature as a multi-customer, non-vertically integrated terminal, with competition between six customers and three capacity release mechanisms positively promotes secondary trading and use of the infrastructure.

6. Conclusion

6.1. In accordance with section 19C(2) of the Gas Act 1986, GLNG has requested an exemption from section 19D of the Act for the Grain 4 Expansion capacity which (if constructed) will increase the throughput capacity of the facility by around 6 mtpa, to provide total capacity of some 21 mtpa.

6.2. GLNG has shown that declining UKCS supplies and growing demand creates the conditions for LNG importation to continue to play a vital and increasing role in enhancing the security of the nation's gas supplies by providing capacity to import additional non-UKCS gas. This will enable gas to continue to contribute to achieving UK emissions targets whilst enhancing competition in gas supply to final consumers. As such GLNG believes that, provided an exemption is granted and the development proceeds, the project will significantly enhance both UK and European supply security from 2016/17 onwards.

6.3. The required duration of the exemption is 27 years to cover the full expansion capacity (subject to finalising market requirements) and the staggered start dates of new customer contracts which underpin the investment. No customer would have exempt capacity rights of greater than 25 years duration but exemption of this duration is also required by them to underpin their significant upstream investments.

6.4. The existence of effective competition between UK LNG importers, coupled with the long payback period associated with the project and the requirements of customers to have assured long term access, meet the conditions which must be satisfied to justify the granting of exemptions of long duration.

6.5. In the Confidential Appendices, GLNG has demonstrated that an exemption from rTPA obligations for its preferred duration creates the conditions necessary for appropriate project returns and project viability given its assessment of the risk-reward balance for a project with this risk profile. As a result GLNG will not invest in this project unless an exemption for the stated duration and capacity is granted.

6.6. GLNG has demonstrated that it is both financially and legally separate from both NGG and SGN, to whose networks the Isle of Grain terminal is connected. Furthermore, a variety of Licence conditions, group undertakings and primary legislation all enforce the separate nature of the GLNG business from the rest of National Grid and its other subsidiary businesses.

6.7. GLNG has demonstrated that, as a separate company, its only source of revenue

will be from charges levied on users of its infrastructure. Furthermore, no mechanism exists that would enable the costs of GLNG to be underwritten by consumers or transportation charges levied by NGG.

6.8. An independent study[47] of the impact on competition at all levels of the gas supply chain as a result of the Phase 4 investment at the Isle of Grain concluded that no detriment to competition is expected, even if worst case assumptions about the results of the open season are made. GLNG therefore concludes that there is no conceivable scenario in which the investment at the Isle of Grain would be detrimental to the efficient functioning of the internal gas market.

6.9. GLNG has highlighted that it has entered into a variety of standard contracts with NGG and SGN that ensure efficient day to day communication between the facility and the appropriate operations teams; these contracts include the protocols necessary for the safe and effective cooperation of NGG and the Isle of Grain facility in the event of an emergency. Access to NGG's system will be through standard regulated arrangements, unchanged as a result of any new Grain 4 Expansion investment at GLNG. GLNG has thereby demonstrated that there will be no detrimental effect on operations of the pipeline systems to which the facility is connected.

6.10. In this application, GLNG has provided detailed information demonstrating how it meets the requirements set out in section 19DB of the Gas Act, summarised below:

- The Capacity Allocation Mechanism for Grain 4 meets both of the requirements of Condition 1 as (a) the Open Season was publicised to all market players in such a way that no interested party could realistically avoid hearing about it and (b) the RFP process ensured that every interested party had the opportunity to inform GLNG of the amount of capacity they might require, and how they would value this capacity.
- The multi-layered anti-hoarding arrangements employed at the Grain terminal, comprising of normal competitive bi-lateral trading, secondary capacity offered by customers and UIOLI offered by GLNG, which will also apply to Phase 4 capacity, clearly meet the condition that any unused capacity is offered to other potential users. GLNG believes strongly that the interaction between customers

[47] Appendix 6

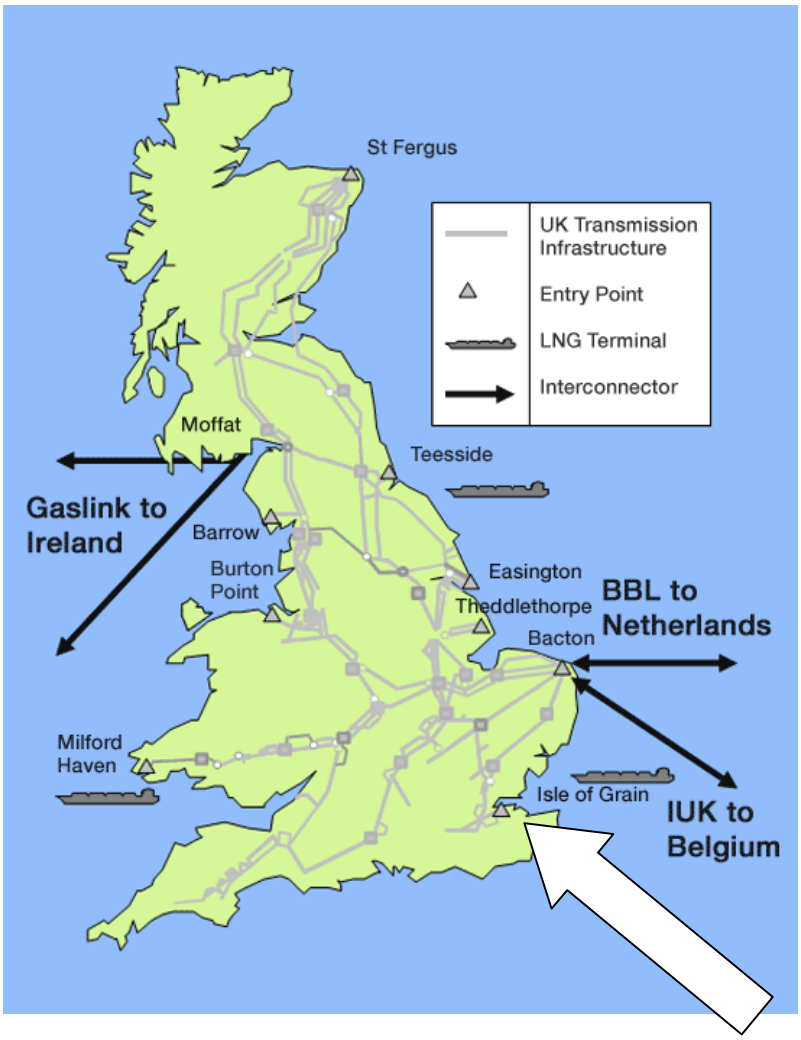
and other market players is such that no one customer could conceivably benefit from hoarding and more stringent anti-hoarding could significantly undermine the efficient trading mechanisms which are clearly in evidence.

- The capacity allocation mechanisms and arrangements at Grain facilitate trading between counter-parties and do not prevent secondary trading in any form either within the terminal itself or externally. In fact, GLNG believes that Grain's unique nature as a multi-customer, non-vertically integrated terminal, with competition between six customers and three levels of anti-hoarding mechanism gives it the most robust trading arrangements of all terminals in the EU.

6.11. GLNG supports the publication of information to the Authority under section 11B of the Gas Act and its publication of information to the market is in accordance with Article 19(4) of the Third Gas Regulation.

6.12. GLNG believes it has demonstrated that it fully satisfies the criteria for exemption in relation to the Gas Act, and both the Third EU Gas Directive and Regulation, and that the exemption of requested capacity and duration should be granted to support this highly beneficial expansion phase.

Appendix 1 – GLNG Location Map



Grain LNG

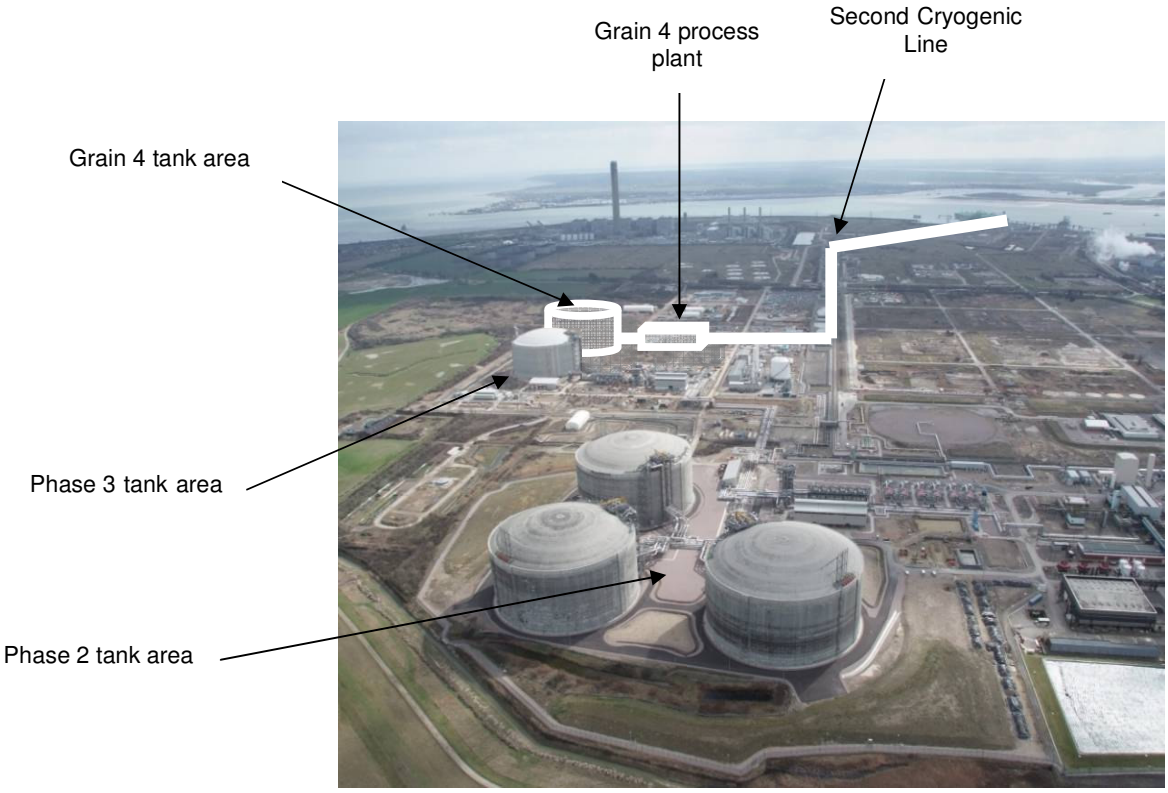
Phase 1 (2005) 3.3 mtpa

Phase 2 (2008) 9.8 mtpa

Phase 3 (2010) 15 mtpa

Phase 4 (2016-18) 21 mtpa

Appendix 2 – Isle of Grain site showing proposed location of Grain 4



Appendix 3 – Request for Proposals Documentation (RFP)

nationalgrid

National Grid Grain LNG Limited

Grain 4 Expansion Project

Request for Proposals for use of

Expansion Capacity at the Isle of Grain LNG

Importation Terminal

NATIONAL GRID GRAIN LNG LIMITED

14 February 2011

CONTENTS

1 Introduction

1.1 National Grid Grain LNG Limited ("GLNG") is a wholly owned subsidiary of National Grid plc. GLNG has developed the Grain LNG Terminal (the "Project"), a liquefied natural gas ("LNG") importation terminal (the "Terminal") at the Isle of Grain in the south east of England. .

The initial phase of the Project involved converting the existing peak shaving storage facility to accept 3.3 million tonnes per annum (mtpa) of imported LNG. This involved the construction of a jetty and a cryogenic pipeline as well as installation of other ancillary equipment. This phase of the Project was commissioned in July 2005 and is now fully operational.

The second phase ("Grain 2 Expansion") of the Project was commissioned in December 2008. It involved the construction of three additional total containment tanks of 190,000m3 each and ancillary equipment, increasing throughput by a further 6.5mtpa of LNG. The Grain 2 Expansion capacity was fully sold with the exception of 45,000m3 LNG storage capacity.

The third phase ("Grain 3 Expansion") of the Project was commissioned December 2010. It involved an expansion of the Terminal by the construction of a second LNG unloading jetty (capable of taking Q-Max vessels), one additional total containment tank of 190,000m3 and ancillary equipment, increasing throughput by a further 5mtpa of LNG.. The Grain 3 Expansion capacity has been fully sold, along with the unsold 45,000m3 LNG storage capacity from the Grain 2 Expansion.

GLNG is now assessing market demand for a further phase ("Grain 4 Expansion") comprising a further development of the Terminal, potentially involving a second cryogenic unloading line, additional storage capacity, vaporisers and ancillary equipment, with the capability to increase throughput by around 5mtpa of LNG. GLNG has outline planning permission from Medway Council for the construction of these further expansion facilities. Subject to receiving detailed planning and other consents and an exemption under section 19C of the Gas Act 1986, GLNG currently anticipates being able to provide the additional capacity in time for winter 2015/16,

GLNG is seeking proposals from an LNG shipper or shippers (“Shipper(s)”or "Candidate(s)")) for the use of capacity services at the further expanded Terminal. This will include the berthing and unloading of LNG tankers, storage of LNG in purpose-built tanks, regasification of LNG and delivery of gas to the system entry point on the National Transmission System ("NTS") operated by National Grid Gas plc ("NGG").

1.2 The proposed terms of service are for the selected LNG Shipper(s) to hold rights to:

(a) LNG delivery capacity (for delivery of regasified LNG at the NTS entry point), of up to 210GWh per day. (It will be the Shipper(s)’ responsibility to arrange onward transportation by NGG and obtain system entry capacity. Depending upon the Shipper(s)' requirements the Shipper(s) may need to discuss with NGG the need for reinforcement of NGG's system);

(b) a corresponding entitlement to berth and unload LNG tankers;

(c) LNG storage capacity of up to 190,000m3.

1.3 GLNG considers that Annual Berthing Entitlement and Delivery Capacity in the ratio of approximately 0.4 Berthing Slots / GWh/d Delivery Capacity or less will

provide reasonable and efficient use of the jetty. However, GLNG does not intend to restrict bids to this ratio within this Request for Proposals.

With regard to Storage Capacity, existing Shippers (holding Storage Capacity under the initial phase or Grain 2 or Grain 3 Expansions) may be able to enhance their existing service by acquiring additional Berthing Slots and Delivery Capacity, and Candidates may wish to make proposals which would require the construction (as part of the Grain 4 Expansion) of additional storage capacity.

1.4 GLNG intends that the Shipper(s) will be selected according to the following three-stage process:

Stage 1 – Request for Proposals (the "RFP"):

In response to this RFP package, Candidates are requested to provide details as set out in 2.2 below, of their indicative non-binding proposals, based on the service documentation provided in this RFP, for:

- the Delivery Capacity they would require at the Terminal;
- the Storage Capacity they would require ;
- Annual Berthing Entitlement (number of berthing slots);
- the preferred start date (Commercial Operations Date) and Term of any contract for the provision of such services; and
- the proposed amount payable as an Annual Capacity Charge in pounds sterling per GWh per Day (£/GWh/Day) of Delivery Capacity.

For Delivery Capacity, Storage Capacity and Annual Berthing Entitlement, Candidates are requested to provide both minimum and maximum proposed amounts.

GLNG requires proposals to be of sufficient detail to enable the assessment of the options available and to short-list Candidates to participate in Stage 2.

Stage 2 – Invitation to Submit Firm Proposals ("ISFP"):

Having considered the proposals and accompanying information submitted during Stage 1, GLNG intends to issue a revised package to selected Candidates ("ISFP package"). This will include additional documents such as the Terminal Operating Procedures (“TOPs”) and Network Entry Provisions.

In response to the ISFP package, shortlisted Candidates will be invited to submit firm and binding priced offers with technical and commercial proposals, strictly against documentation and within parameters which will be specified in the ISFP.

Stage 3 – Award of Contract:

Depending on Candidates' responses to the ISFP package, GLNG may simply accept the proposal that it evaluates to be the most advantageous overall or, alternatively, request one or more Candidates to enter into further negotiations. GLNG however may conclude that none of the proposals forms a satisfactory basis on which to proceed further and may either invite further submissions or

terminate the process.

1.5 An indication of the anticipated timetable for this process is set out at the end of this document.

1.6 GLNG anticipates, and Candidate(s) should bid on the basis, that requirements such as detailed planning consent, an exemption in respect of the Grain 4 Expansion capacity under section 19C of the Gas Act 1986, and GLNG having entered into contract(s) for the engineering, procurement and construction of the Grain 4 Expansion will be satisfied ahead, or at the time, of entering into Specific Terms Agreement(s) (STA(s)) with the successful Candidate(s).

1.7 Candidates may raise questions in relation to the RFP in written form. GLNG will issue to all Candidates a collated set of questions and answers. Written questions should be sent to:

GLNG Phase 4 Project,
Attention: Antony Brook, Commercial Development Manager,
National Grid Grain LNG Limited,
Grain LNG Importation Terminal,
Rochester, Kent,
ME3 0AB
United Kingdom
e-mail: antony.brook@uk.ngrid.com.

1.8 Candidates may request a meeting with the GLNG team on specific dates, but GLNG may decline such a meeting if it considers that the matters to be discussed may be dealt with by written question and answer. These dates are available through direct contact with Antony Brook, or Cristina Morán Peña (cristina.moran-pena@uk.ngrid.com). Following any such meeting, GLNG will circulate to all Candidates a note of any information provided by GLNG during the meeting, where GLNG considers such information to be relevant to Candidates in making their indicative non-binding proposals.

1.9 GLNG will exclude (from collated questions and answers, and notes circulated following meetings with Candidates) any information which GLNG considers to relate to a particular Candidate and to be commercially sensitive. The identity of Candidates raising questions or attending meetings with GLNG will be kept confidential.

2 Stage 1 - Request for Proposals

2.1 This RFP package includes a number of Annexes, which provide information on the Terminal and its principal contracts and will allow interested parties to develop proposals. The Annexes are described below:

Annex 1: Information Memorandum

This sets out further details about GLNG, the initial phase and Grain 2 and 3 Expansions and the associated releases of capacity, and the proposed Grain 4 Expansion of the Terminal;

Annex 2: General Terms and Conditions ("GTCs")

These are the current general terms and conditions on which GLNG provides the services at the Terminal. The ISFP (in Stage 2) will include the then-current version of the GTCs, on which final proposals are to be made;

Annex 3: Draft Specific Terms Agreement ("STA")

This sets out the specific and any special provisions applicable to a particular Shipper(s). Together with the GTCs, the STA will form the basis of the agreement between GLNG and the Shipper(s).

Attached to the draft STA are a number of notices previously issued to Shippers by GLNG which set out details of certain decisions and determinations already made by GLNG pursuant to the GTCs. These notices are binding on all Shippers. The final STA will attach the prevailing notices at the time of its signature;

Annex 4: Summary of Network Entry Provisions for the relevant entry points ("NEPs")

The NTS Network Entry Provisions set out the operating interfaces between the Terminal and NGG's National Transmission System (NTS). They contain a number of parameters and rules relevant to the Shipper(s) (and the corresponding user of the NTS).

The LDZ Network Entry Provisions set out the operating interfaces between the Terminal and Southern Gas Networks Limited's gas pipeline system (South East LDZ). They contain a number of parameters and rules relevant to the Shipper(s) (and the corresponding user of the South East LDZ).

The ISFP will contain the NEPs in full.

Annex 5: Summary of Terminal Operating Procedures (“TOPS”)

The TOPs set out more detailed operating procedures applicable to the Terminal. The ISFP will contain the prevailing version of the TOPs in full.

2.2 Candidates are therefore invited to submit their indicative, non-binding proposals, including the following documents and information:

2.2.1 Indicative non-binding proposal

Candidates should provide the following details of their indicative non-binding proposal:

- the proposed Annual Capacity Charge rate in pounds sterling per GWh per day (£/GWh/d), and total annual amount in pounds sterling (£);
- preferred total Storage Capacity, if any, in cubic metres (m3);
- preferred Delivery Capacity in GWh/d;
- preferred Annual Berthing Entitlement (number of berthing slots) per annum;
- preferred Commercial Operations Date (start date for expansion capacity to be made available);
- the proposed contract Term; and
- any other relevant requirements or information.

In relation to Storage Capacity, Delivery Capacity and Annual Berthing Entitlement, Candidates should provide maximum and minimum acceptable amounts. Candidates may propose different rates for the Annual Capacity Charge by reference to their maximum and minimum proposed Delivery Capacities.

The indicative Annual Capacity Charge rate should assume that the Terminal operating costs, excluding amounts which the GTCs provide to be separately recoverable from Shipper(s), are paid by GLNG.

2.2.2 Sources and composition of LNG

Candidates should provide information on LNG to be unloaded at the Terminal, including:

- a description of the likely source of LNG and its composition;
- details of the type, size and dimensions of LNG tankers that the Shipper(s) would bring to the Terminal; and
- the expected round trip voyage duration to the Isle of Grain.

2.2.3 Relevant background information

Candidates are invited to include such information regarding their relevant experience, expertise and financial standing, as they consider appropriate to establish their suitability as Shipper(s) under the proposed contract. Such information should include:

- a description of the Candidate's organisational/corporate structure, with explicit reference to their LNG interests;
- the identity of the proposed contracting entity and proposed guarantor. GLNG will require a contracting entity, or guarantor within the Shipper(s)' group, with at least an investment grade credit rating;
- annual reports (or equivalent documents) and supporting financial statements, including descriptions of operations, operating revenue, total assets, balance sheet audited by a certified public accounting firm for the preceding two fiscal or reporting years; group credit rating and

proposed contracting entity credit rating;

- a description of the Candidate's experience in all elements of the LNG chain: production, liquefaction, transportation, selling, trading, importing, and downstream gas marketing and their strategy going forward;
- a description of the Candidate's operational flexibility in relation to the variables which may be encountered in start-up and operation of the Grain 4 Expansion capacity; and
- brief biographical details of individuals in the Candidate's bid team.

2.2.4 Technical/commercial assumptions

Where different from or additional to those contained in the GTCs and draft STA, any technical or commercial assumptions on which the Candidate's proposed Annual Capacity Charge would be based.

2.3 GLNG would welcome proposals that may include strategic options.

2.4 It should be noted that in finalising the basis on which GLNG invites firm proposals under the ISFP, GLNG makes no commitment to take account of any proposal, comment or modification suggested by any Candidate, and may make such other modifications as it sees fit to the arrangements described in this RFP.

3 Submission and Evaluation of Stage 1 Proposals

3.1 Proposals in response to this RFP shall be enclosed in a sealed envelope marked with the name and address of the Candidate and the date of submission of the proposal. The front of the envelope shall be marked with "Stage 1 Proposal for Grain 4 Expansion".

3.2 Candidates shall deliver their Stage 1 proposals by hand or by registered mail to:

GLNG Phase 4 Project,
Attention: Antony Brook, Commercial Development Manager,
National Grid Grain LNG Limited,
Grain LNG Importation Terminal,
Rochester
ME3 0AB
United Kingdom

To be eligible, they must be received before noon GMT on 31 March 2011. GLNG reserves the right to reject any Stage 1 proposal that it receives after this time.

3.3 GLNG may request clarification or explanation from Candidates in respect of the contents of any part of their Stage 1 proposals. Any such clarification or explanation shall thereupon form part of the Candidate's Stage 1 proposal.

3.4 GLNG will evaluate the Candidates' Stage 1 proposals against predetermined evaluation criteria and will select a shortlist of Candidates whose proposals are considered to be the most advantageous to GLNG. Short-listed Candidates will be invited to participate in Stage 2. Candidates who have submitted a Stage 1 proposal will be notified as to whether or not they have been short-listed to participate in Stage 2 by the start of the Stage 2 process (see 3.5 below).

3.5 GLNG expects that the proposals made in Candidates' Stage 1 submissions will provide GLNG with the information to enable it to finalise the bid package and to issue a revised package to Candidates short-listed to participate in Stage 2, capturing one or more of the commercial and technical options which are of most interest to GLNG. The indicative timetable shows GLNG's intention to complete the evaluation of Stage 1 proposals, the short-listing of Candidates for Stage 2, the necessary internal governance processes, the revision of the documents and issue of the revised package within four weeks from the receipt of the Stage 1 bids. This timetable will, however, remain flexible until the nature and extent of Candidates' proposals in their Stage 1 submissions are known.

3.6 The procedure for submission of Stage 2 proposals, the required validity period and all other terms and conditions on which shortlisted Candidates may participate in Stage 2 will be set out in the ISFP itself.

4 Conditions for Participation in Stage 1

By applying for this RFP package and submitting their proposals in response, Candidates are deemed to have accepted the following conditions.

4.1 Candidates shall comply strictly with the terms of a Confidentiality Agreement that each Candidate shall have signed prior to receiving this RFP package.

4.2 In submitting proposals in response to this RFP package Candidates shall comply strictly with all the requirements of this RFP package.

4.3 Any Candidate who is found by GLNG at any time to have discussed its response to this RFP, or to have exchanged information, with any other Candidate or to have committed any unlawful act(s) including but not limited to any act of collusion or bribery in relation to this RFP may, at the sole discretion of GLNG be disqualified from further participation, without prejudice to any rights and remedies to which GLNG may be entitled in respect of such act(s). However parties may submit joint proposals where such arrangements are expressly communicated to and permitted by GLNG in writing.

4.4 All documents, whether as drawings, calculations, data or as any other form of information issued with or in connection with this RFP (including in response to written questions), are issued to Candidates solely for the purpose of this RFP and are not to be copied, or communicated to third parties or used for any other purpose whatsoever.

4.5 The documents and information in this RFP package have been prepared in good faith. They, however, do not purport to be comprehensive and in some cases they remain provisional. Accordingly, GLNG accepts no liability or responsibility for their accuracy or completeness and makes no representation, express or implied, with respect to the information contained in this RFP package, or with respect to any further written or oral information subsequently given in connection with this RFP package, including in response to any written question. Any such liability is therefore expressly disclaimed.

4.6 GLNG may notify to all Candidates any question, clarification or comment put to GLNG (and GLNG's response) by any Candidate during the course of this RFP process. The identity of the Candidate raising the question, clarification or comment will not be disclosed. Similarly, in Stage 2, the ISFP documentation issued to all shortlisted Candidates may reflect any comment, modification or idea proposed by any Candidate during the Stage 1 process.

4.7 While the contents of this RFP package sets out the present intentions and expectations of GLNG as to the steps it proposes to take in order to select a suitable Shipper(s), GLNG reserves the right, at any time and at its sole discretion to change the procedure outlined in this RFP package for selection of a Shipper(s), or to terminate the process entirely, or to disqualify or discontinue discussions with any Candidate or not to short-list or to remove from any short-list, any Candidate for any reason and without being obliged to give reasons.

4.8 Accordingly, by submitting a proposal in response to this RFP package, each Candidate agrees that neither GLNG nor any officer or employee of GLNG shall bear any liability to the Candidate in respect of any refusal or failure to accept the Candidate's proposal, the failure of the Candidate to gain selection to any shortlist or to be invited to any negotiations or to be awarded any contract, or any costs or expenses related to the proposal, or any loss or damages arising out of the RFP process or in respect of any other matter arising from this RFP process. The Candidate accepts the RFP package and submits a proposal entirely at its own risk.

4.9 English Law governs this RFP.

NATIONAL GRID GRAIN LNG LIMITED

Expansion Capacity Request for Proposals

Indicative Timetable

Date	**Event**
17 February 2011	Issue of RFP package
15 March 2011	Stage I deadline for written questions
31 March 2011	Submission of Indicative Proposals
28 April 2011	Selection of Stage II bidders and issue of package for Firm Proposals
30 June 2011	Submission of Firm Proposals (date to be confirmed at Stage 2)

NATIONAL GRID GRAIN LNG LIMITED

Expansion Capacity Request for Proposals

Checklist of Information to be Provided for this RFP

1. Indicative non-binding commercial proposals as to services required:

   (a) Annual Capacity Charge (£/GWh/d) and total annual amount (£);

   (b) Preferred total Storage Capacity (m3);

   (c) Preferred Delivery Capacity (GWh/day) and total LNG throughput in million tonnes per annum (mtpa);

   (d) Preferred Annual Berthing Entitlement (number of berthing slots);

   (e) Preferred Commercial Operations Date from which capacity will be available;

   (f) Preferred Contract Term;

   (g) Maximum and minimum levels of Storage Capacity, Delivery Capacity and Annual Berthing Entitlement and associated Annual Capacity Charge.

2. LNG and shipping information, including:

   (a) Likely LNG source;

   (b) Likely LNG composition;

   (c) Details of proposed LNG tankers;

   (d) Estimated round trip voyage duration.

3. General information including:

   (a) Candidate's organisational structure;

   (b) Identity and credit rating of contracting entity and guarantor where required;

   (c) Annual reports (or equivalent) and supporting financial statements;

   (d) Candidate's LNG experience;

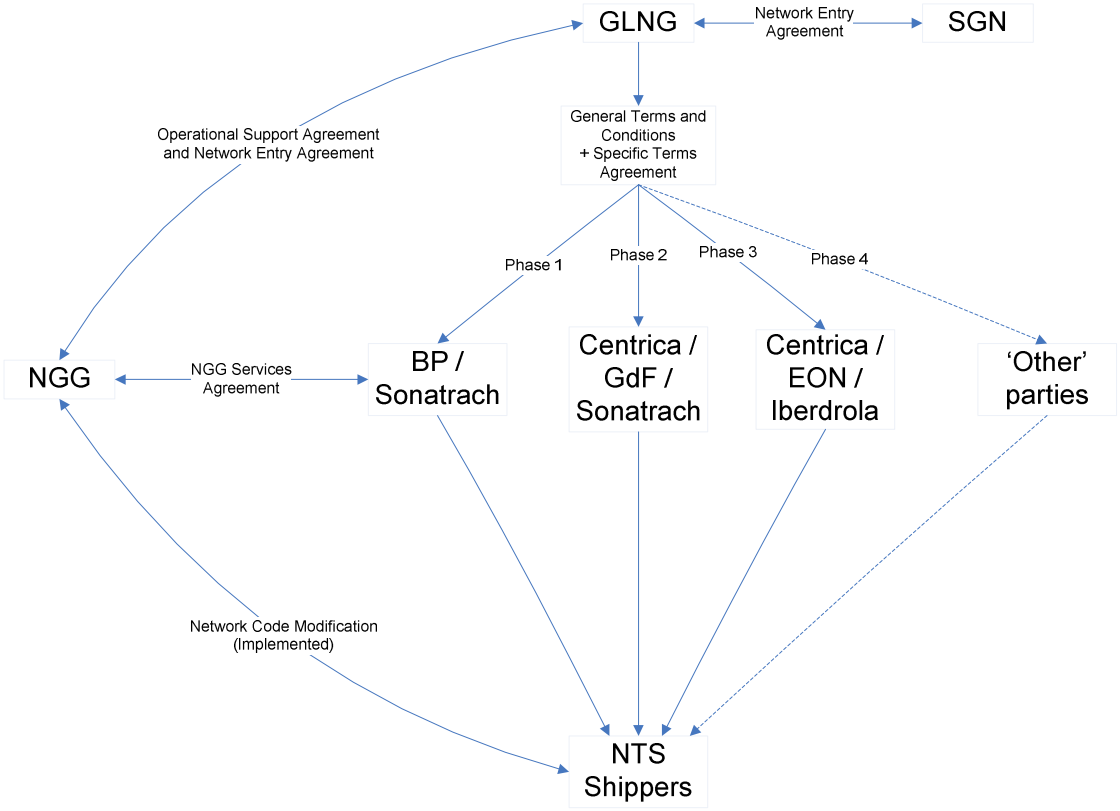
   (e) Candidate's start up and operational flexibility;

   (f) Individuals' biography.

4. Any other technical or commercial assumptions.

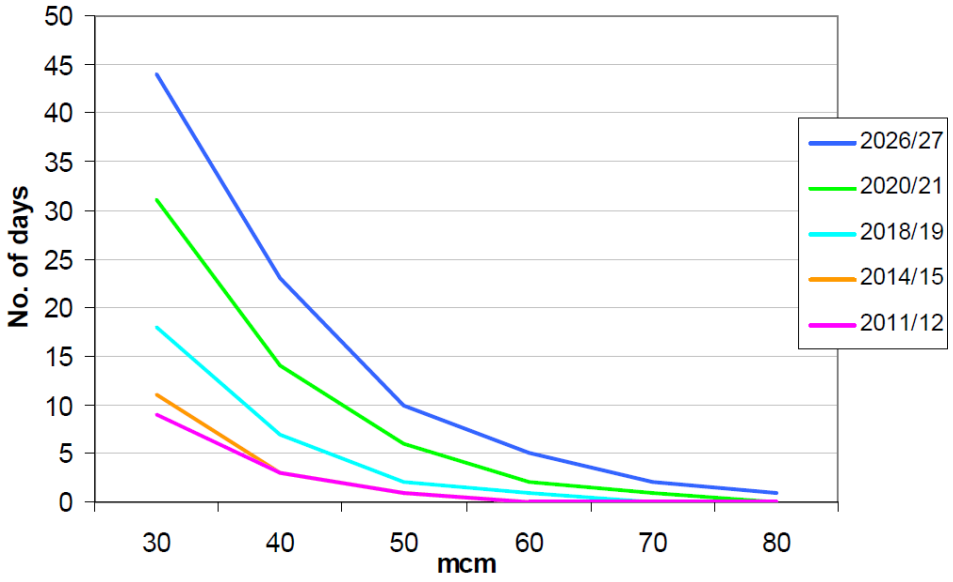
5 Any other information.

Appendix 4 – Contract Structure

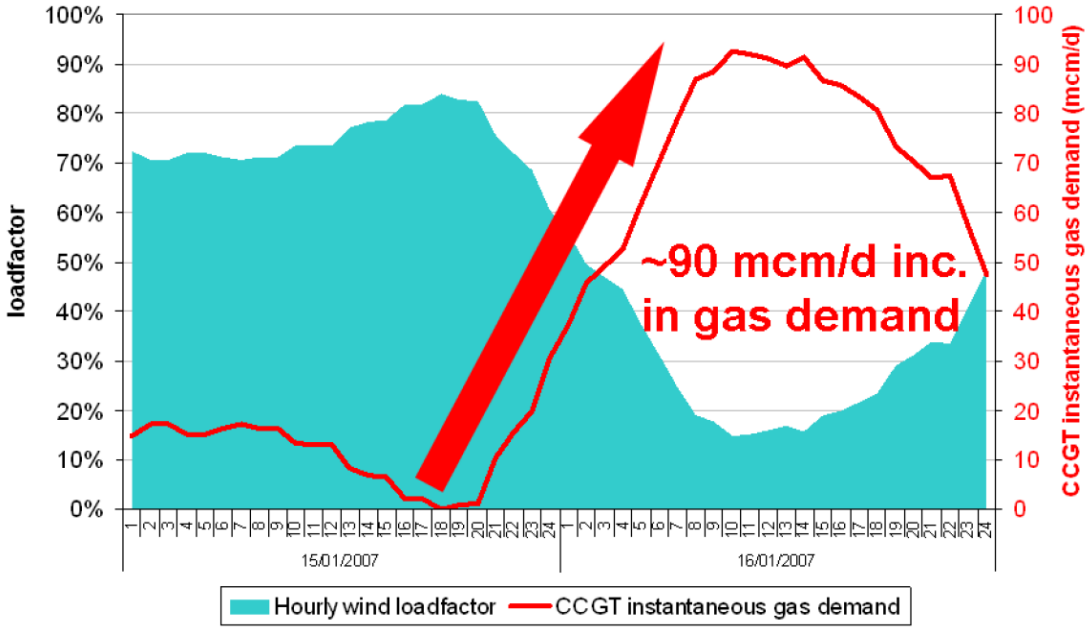


Appendix 5 – Effect of Intermittent Renewable Generation[48]

Frequency and magnitude of gas required for CCGT generation due to fluctuations in wind generation. This shows the increasing frequency expected for these types of events.



Potential required gas demand in response to a drop in wind speed (scaled up to 30GW of installed wind generation).



[48] National Grid Gas Ten Year Statement, Dec 2011

Appendix 6 – Frontier Economics Report

See separate document