



# Guidance on the regulatory regime for gas storage facilities in Great Britain

## Final decision

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### Overview:

From 3 March 2011 gas storage facilities have an obligation to comply with the EU Third Internal Energy Package (the Third Package), and in particular the directly applicable provisions of the Gas Regulation and the relevant provisions of the Gas Directive as transposed into domestic legislation.

Ofgem is responsible for ensuring compliance with the requirements of the Third Package pertaining to gas storage. On 3 November 2010 we issued a consultation document, to help address queries from industry stakeholders regarding how Ofgem may be minded to interpret the provisions of the Third Package.

Now that the Gas Directive has been transposed into UK law, this document sets out our views on the issues covered in our consultation, provides guidance on new requirements on unbundling and the management of commercially sensitive information, and summarises Ofgem's new powers to monitor and enforce compliance. This guidance document will apply until such time as it is revised.

## Context

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Gas storage plays an important role in facilitating the efficient functioning of the energy market in Great Britain (GB). Primarily, gas storage is used to provide an important source of flexibility that is needed to address differences in non-storage sources of supply and demand. Gas storage contributes to security of supply and competition in the market.

The EU Third Internal Energy Market Package (the Third Package) came into force on 3 September 2009, and comprises new Directives and Regulations on gas and electricity. Since 3 March 2011, the Regulations have been directly applicable. Since 10 November 2011, the Directives have been transposed into UK law. A number of aspects of this legislation are applicable to gas storage facilities in GB. Ofgem is responsible for monitoring and ensuring compliance with the requirements of the Third Package pertaining to gas storage.

On 3 November 2010 we consulted on Ofgem's preliminary views on compliance with negotiated third party access (nTPA) requirements for gas storage.

More recently, on 8 November 2011, the secretary of state requested Ofgem to review gas security of supply and potential interventions. Implications for regulation of gas storage will be considered as part of that project.

## Associated documents

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- [Guidance on the Third Party Access regulatory regime for gas storage facilities in Great Britain](#), Ofgem, 3 November 2010.
- [Open Letter: Preliminary views on the Third Party Access \(TPA\) regulatory regime for gas storage facilities](#), Ofgem, 18 May 2010.
- [DIRECTIVE 2009/73/EC of the European Parliament and of the Council of 13 July 2009 concerning common rules for the internal market in natural gas and repealing Directive 2003/55/EC.](#)
- [Regulation \(EC\) No 715/2009 of the European Parliament and of the Council of 13 July 2009 on conditions for access to the natural gas transmission networks and repealing Regulation \(EC\) No 1775/2005.](#)
- [Final ERGEG Guidelines for Good TPA Practice for Storage System Operators \(GGPSSO\)](#), ERGEG, 2 March 2005 as updated in July 2011.
- [Amendment of the Guidelines of Good Practice for Third Party Access \(TPA\) for Storage System Operators \(GGPSSO\)](#), CEER, 14 July 2011.
- [ERGEG Guidelines for Good Practice on Open Season Procedures \(GGPOS\)](#), ERGEG, 21 May 2007.
- [Gas Storage Minor Facility Exemptions Open Letter](#), Ofgem, 16 June 2009.
- [Electricity and Gas \(Internal Markets\) Regulations 2011](#)

# Contents

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<b>Executive Summary</b>	<b>4</b>
Key features of the guidance	4
<b>1. Introduction</b>	<b>6</b>
Approach to guidance	6
Consistency with European guidelines	7
Structure of this document	7
<b>2. Third party access (TPA) arrangements</b>	<b>8</b>
Access to gas storage and market power	8
Capacity allocation and congestion management	11
Capacity purchased by related undertakings in the primary market	16
Main commercial conditions and mix of services	17
Transparency and information sharing arrangements	20
<b>3. Unbundling and management of commercially sensitive information</b>	<b>22</b>
Introduction	22
Unbundling requirements	22
Management of Commercially Sensitive Information	28
<b>4. Governance, monitoring and enforcement</b>	<b>30</b>
Relevant Legislation	30
Enforcement and Monitoring	31
<b>Appendices</b>	<b>32</b>
<b>Appendix 1 – Summary of consultation responses</b>	<b>33</b>
<b>Appendix 2 – Pivotality model user guide</b>	<b>41</b>
<b>Appendix 3 - Glossary</b>	<b>47</b>
<b>Appendix 4 - Feedback Questionnaire</b>	<b>55</b>

## Executive Summary

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In this document we set out our views on how we may be minded to interpret the provisions of the Third Package pertaining to gas storage. In developing these views we have taken into account responses to our 3 November 2010 consultation document.

We intend that our guidance provides greater clarity around the operation of the third party access framework and associated measures. This potentially has wide ranging benefits. For potential investors, clarity around the regulatory framework should reduce uncertainty which otherwise may deter investment or increase the cost of capital. For gas storage customers, by supporting more transparent and non-discriminatory access arrangements, guidance can promote more efficient use of existing and planned storage facilities. For end consumers, benefits may accrue from increased security of supply and increased competition as gas storage capacity is brought to the market.

We are also providing guidance in order to reduce the potential risk of non compliance with the new legal framework. The negotiated third party access (nTPA) framework in GB provides owners of gas storage facilities with significant scope for developing the access arrangements that best meet the needs of their customers (and end consumers). This document provides more detail regarding the measures that storage facility owners could consider in relation to providing access and/or meeting other regulatory requirements.

Some of the guidance in this document also applies to storage sites with a minor facilities exemption – this is indicated in the relevant places. Under the Third Package, the default approach for any new storage facility is nTPA so the full guidance would apply to them. We have therefore taken care to ensure the guidance is not unduly onerous and appropriate for new facilities.

This document also sets out some good practice safeguards that any market player (the owner of a gas storage facility and any related undertakings) with 'Significant Market Power' (SMP) may want to consider in order to reduce the potential risk of non compliance. We consider that any market player with SMP is more likely to have the ability and the incentive to discriminate and restrict access to storage, to the potential detriment of consumers. In this guidance we also explain our current approach to assessing SMP.

### **Key features of the guidance**

The key features of our guidance on the regulatory regime for gas storage facilities in GB are the following:

#### **Capacity allocation**

Owners of gas storage facilities in GB should offer at least the maximum technical storage capacity from their facility(s). We consider that market based mechanisms such as auctions and open seasons increase the likelihood of the allocation mechanism meeting the requirements of the Gas Regulation.

Auctions are particularly recommended for allocating standard services and may help market players with SMP to reduce the risk of non compliance with the discrimination requirements.

### **Main commercial conditions and service mix**

We would expect storage facility owners to conduct open and transparent processes for consulting the market when developing (or amending) their main commercial conditions and/or when determining the appropriate mix of services. We consider that storage facility owners are responsible for determining the appropriate level of consultation/market testing.

However, we would expect more extensive consultation/market testing processes in the case of market players with SMP and/or when the changes being proposed to the main commercial conditions or to the services offered are significant. In setting their mix of services, storage owners are required to offer long and short term services, firm and interruptible services, and bundled and unbundled services.

### **Unbundling and the management of commercially sensitive information**

We would expect storage owners that are subject to nTPA to be legally unbundled from relevant affiliates. We would also expect them to ensure their facility is operated independently and in a way that protects commercially sensitive information through separation of managers and senior officers, and by implementing and monitoring appropriate measures (including a code of conduct) on staff. Owners are required to publish a compliance report on an annual basis, and to send a copy to Ofgem.

We would expect all storage owners, even those with a minor facilities exemption, to manage commercially sensitive information appropriately.

### **Monitoring and enforcement**

We will adopt a mix of monitoring and industry engagement to determine whether or not owners of GB gas storage facilities are complying with the relevant regulatory requirements. The relevant monitoring and enforcement provisions of the legislation transposing the Third Package into GB law enable us to engage in a mix of proactive market surveillance and to investigate and take appropriate action against any storage facility owner where there is reason to believe that the owner is not complying with the relevant regulatory requirements.

This guidance states our views on nTPA arrangements for gas storage facilities in GB; however, we reserve the right to amend it in light of future developments. We may also be minded to take a different approach to that indicated in the guidance particularly where the facts of the matter in question are novel or complex.

# 1. Introduction

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## Approach to guidance

1.1. In response to queries from industry stakeholders we committed to providing guidance on how we may be minded to interpret the provisions of the Third Package pertaining to gas storage.<sup>1,2</sup>

1.2. We intend that our guidance provide greater clarity around the operation of the regulatory framework for storage facilities. This potentially has wide ranging benefits. For potential investors, clarity around the regulatory framework should reduce uncertainty which otherwise might deter investment or increase the cost of capital. For gas storage customers, by supporting more transparent and non-discriminatory access arrangements, guidance can promote more efficient use of existing and planned storage facilities. For end consumers, benefits may accrue from increased security of supply and increased competition as gas storage capacity is brought to the market.

1.3. Storage facility owners<sup>3</sup> are responsible for developing access arrangements that are compliant with the Gas Regulation and the relevant provisions of the Gas Directive, as transposed into the Gas Act 1986 (the Gas Act).<sup>4</sup> We recognise that nTPA provides storage facility owners with significant scope to develop the access arrangements that will meet the needs of their customers (and end consumers). Given this, an objective of providing this guidance is to assist storage facility owners in developing access arrangements that are likely to comply with the relevant legislation.

1.4. Some of the guidance in this document also applies to storage sites with a minor facilities exemption – this is indicated in the relevant places. Under the Third Package, the default approach for any new storage facility is nTPA so the full guidance would apply to them. We have therefore taken care to ensure the guidance is not unduly onerous and appropriate for new facilities.

1.5. Further, our guidance suggests some good practice safeguards, particularly where a market player has SMP. Any market player with SMP is more likely to have the ability and incentive to discriminate and restrict access to storage, potentially

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<sup>1</sup> For the purposes of this document, the Third Package means [Directive 2009/73/EC of the European Parliament and of the Council of 13 July 2009 concerning common rules for the internal market in natural gas and repealing Directive 2003/55/EC](#) ('Gas Directive') and [Regulation \(EC\) No 715/2009 of the European Parliament and of the Council of 13 July 2009 on conditions for access to the natural gas transmission networks and repealing Regulation \(EC\) No 1775/2005](#) ('Gas Regulation').

<sup>2</sup> [Corporate Strategy and Plan 2010-2015](#), Ofgem, 31 March 2010.

<sup>3</sup> In relation to a storage facility, UK law defines 'owner' as a person occupying or having control of the facility. Although the Gas Regulation refers instead to the term 'storage system operator' we have used the UK term 'owner' for the sake of consistency.

<sup>4</sup> [Gas Act 1986](#).

with detrimental effects on consumers. The good practice safeguards outlined in the guidance are designed to reduce these risks.

1.6. Whilst this document highlights our views on some of the issues to which the Authority is likely to have particular regard to when considering compliance with the legislation relating to access to storage facilities, it is by no means definitive or exhaustive. The objective of this document is to provide general guidance for storage facility owners and other market participants. We may also be minded to take a different approach to that indicated in the guidance particularly where the facts of the matter in question are novel or complex. We reserve the right to amend it in light of future developments.

## **Consistency with European guidelines**

1.7. In developing our guidance, we have also taken into account relevant European guidelines, such as:

- The European Commission's Interpretative Notes on the Gas Directive in relation to Third-Party Access to Storage Facilities<sup>5</sup> and
- The Council of European Energy Regulators's (CEER) Amendment of the Guidelines of Good Practice for Third Party Access (TPA) for Storage System Operators (GGPSSO).<sup>6</sup>

## **Structure of this document**

1.8. In this document:

- chapter 2 sets out our views on the issues raised in our consultation<sup>7</sup>
- chapter 3 provides guidance on compliance with requirements on unbundling and management of commercially sensitive information and
- chapter 4 summarises our new powers and approach to monitoring and enforcement.

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<sup>5</sup> [Interpretative Note on Directive 2009/73/EC Concerning Common Rules for the Internal Market in Natural Gas, Third-Party Access to Storage Facilities](#), European Commission, 22 January 2010.

<sup>6</sup> [Amendment of the Guidelines of Good Practice for Third Party Access \(TPA\) for Storage System Operators \(GGPSSO\)](#), CEER, 14 July 2011.

<sup>7</sup> For a summary of consultation responses please refer to Appendix 1.

## 2. Third party access (TPA) arrangements

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### Chapter summary

This chapter sets out our views regarding the measures that owners of GB gas storage facilities should consider in relation to meeting the requirements of the Third Package relating to Third Party Access (TPA) arrangements.

2.1. This chapter sets out our views on compliance with the provisions of the Third Package relating to capacity allocation and congestion management procedures, main commercial conditions and service mix, transparency and information sharing arrangements. In developing these views, we have taken into consideration stakeholders' feedback and responses to our consultation.

### Access to gas storage and market power

2.2. We have taken the view that there may be cause for concern where any market player (the owner of a gas storage facility and any related undertakings) has significant market power (SMP)<sup>8</sup>. Any market player with SMP may have the ability and the incentive to discriminate and restrict access to storage, to the potential detriment of consumers. Restricting access to storage conflicts with the aim of the Third Package that access is provided on an objective, transparent and non discriminatory basis. Any market player with SMP may also face a higher risk of non compliance with the nTPA regime.

2.3. Given the level of competition in the GB gas market, particularly in relation to the diverse range of sources of supply, we do not currently expect there to be many cases of SMP. However, we consider it important that our guidance covers a spectrum of possibilities (both now and in the future) so as to be as comprehensive as possible.

2.4. There are a number of ways in which SMP could potentially be measured. Our view is that SMP in the gas market should be assessed based on:

- structural measures of market power (primarily based on pivotality analysis)
- other relevant structural elements (such as demand elasticity) and
- a direct assessment of market outcomes (such as price outcomes)

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<sup>8</sup> Market power is, by and large, the ability of a market player to raise prices above a competitive level. In relation to gas storage, the market value of gas storage services is driven by the spread between prices at times of injection and at times of withdrawal. The owner of a storage facility will be successful in raising storage prices above some competitive level only if it can raise peak gas prices and/or lower off peak gas prices. Market power in the gas market could manifest itself in a market player withholding some of its storage capacity from the market in order to raise peak gas prices (as less storage is available to withdraw gas from) and/or reduce off peak prices (as less storage is available to inject gas into).



2.5. We propose a 'hybrid approach' to assessing market power, based on the analysis of the factors above. We may also use other measures, such as market shares, as a supporting tool. This approach is consistent with the approach adopted by other authorities.<sup>9</sup>

2.6. Our view is that pivotality analysis should be used as the main structural measure of market power. Pivotality analysis identifies the market players that are 'pivotal' by using demand and supply data. When a market player is pivotal, total demand cannot be met from the total supply from all other sources of supply. Therefore, the market player will not face material competitive constraints for its pivotal volume of supply, and is therefore guaranteed a certain market share as a result of the lack of competing supply. The degree of a market player's market power may be assessed by looking at its pivotal volumes of supply (as a percentage of total demand) over a range of timeframes.<sup>10</sup>

2.7. We consider that a market player with a 'pivotal volume' in excess of ten per cent will be generally deemed to have SMP. A high volume of pivotal gas means there is a greater likelihood that the market player can significantly affect prices. We note that at pivotal volumes of in excess of ten per cent, the market player may be able to profitably affect prices across a broad range of elasticity of demand forecasts.<sup>11</sup> Therefore, in our view it is highly unlikely that a market player with pivotality levels of in excess of ten per cent would not be deemed to have SMP. For pivotality levels below ten per cent, additional analysis may be required.

2.8. In addition, we consider that, for a market player to have SMP, it is likely that it would need to be pivotal for a sustained period of time.<sup>12</sup>

2.9. However, we note that the 'pivotal volume' test is a conservative test for market power, as it assumes competitive behaviour by all other players in the market. Hence, a pivotal volume test may underestimate a player's degree of market power. Therefore, it is possible that a market player may still have SMP even if its pivotal volume of gas is less than ten per cent.

2.10. As listed in paragraph 2.4, our proposed 'hybrid approach' to assessing SMP in the gas market also takes into account other relevant structural factors, alongside pivotality. These other structural factors include:

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<sup>9</sup> See for example Ofcom's approach in its [Review of the wholesale broadband access markets – Consultation on market definition, market power determinations and remedies](#), published 23 March 2010.

<sup>10</sup> A model of pivotality needs to take into consideration a range of timeframes because the substitutability of different sources of gas supply may vary over different timeframes.

<sup>11</sup> For example, our analysis suggests that across the range of elasticity forecasts noted by the Competition Commission (CC) in its review of Centrica's acquisition of Rough in 2003 (ie, from -0.1 to -0.3), pivotality levels of in excess of ten per cent would appear to allow a market player to profitably increase prices.

<sup>12</sup> This recognises that there may be instances where a market player's pivotality is transitory rather than sustained, eg as a result of a one off, short term shock (such as a pipeline outage or extreme weather), which might give less cause for concern, depending on the circumstances.

- elasticity of demand
- the market player's contracted position
- the market player's position across all related markets and
- evidence of supply side substitution.

2.11. Finally, the third element of our approach, ie direct assessment of market outcomes, involves observation of market prices and profits. In this case, the key question to consider will be whether the market player has the ability and the incentive to unduly affect market prices.

2.12. To aid stakeholders' understanding of our proposed framework for assessing pivotality, we have decided to publish an example of how an actual pivotality model might look like in practice.<sup>13</sup> Appendix 2 provides a high-level description of the model, including details of its key data inputs and assumptions. It also explains how to run the model and interpret results.

### **Market Players with SMP**

2.13. In determining whether a storage facility owner should be classed as being part of a market player for the purposes of assessing SMP, we consider that the key test should be whether the market player (that has SMP) is able to control the behaviour or commercial/operational policy of the storage facility owner. Article 2(36) of the Gas Directive defines control<sup>14</sup> as:

- any rights, contracts or any other means which, either separately or in combination and having regard to the considerations of fact or law involved, confer the possibility of exercising decisive influence on an undertaking, in particular by:
  - ownership or the right to use all or part of the assets of an undertaking;
  - rights or contracts which confer decisive influence on the composition, voting or decisions of the organs of an undertaking.

2.14. The definition of 'control' in the Gas Directive is taken from the EC Merger Regulation<sup>15</sup> and should be interpreted accordingly.<sup>16</sup>

2.15. We would expect that, where a market player with SMP is able to exercise decisive influence over the commercial and/or operational policy of a storage facility owner, that the latter should adopt the good practice safeguards proposed for market players with SMP. This way, the storage facility owner may reduce the potential risk of non compliance with the relevant requirements.

2.16. In terms of interpreting the concept of 'control', we also note there are useful definitions in the UK Merger Assessment Guidelines (MAG)<sup>17</sup>, a joint publication by

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<sup>13</sup> <http://www.ofgem.gov.uk/Markets/WhIMkts/CompanEff/Pages/CompanEff.aspx>

<sup>14</sup> 'Control' in the Gas Act has broadly the same meaning given in the Gas Directive.

<sup>15</sup> [Council Regulation \(EC\) No 139/2004 of January 2004 on the control of concentrations between undertakings.](#)

<sup>16</sup> Recital 10 of the Gas Directive.

<sup>17</sup> [Merger Assessment Guidelines](#), joint publication by the CC and the OFT, September 2010.

the Competition Commission (CC) and the Office of Fair Trading (OFT). Market participants may find these helpful. Ofgem has taken the view that, where a transaction enables the market player with SMP to 'materially influence' (as defined in the MAG) the commercial policy of a storage facility owner, then the storage facility owner should consider applying the suggested good practice safeguards. For example, provisions of paragraph 2.33 below apply, in addition to paragraphs 2.18 to 2.22 (which apply whether there is SMP or not).

## **Capacity allocation and congestion management**

2.17. Article 17 of the Gas Regulation requires owners of gas storage facilities to make available the maximum storage facility capacity to market participants, taking into account system integrity and operation. Storage facility owners are also required to implement and publish non discriminatory and transparent capacity allocation mechanisms, which provide appropriate economic signals for the efficient and maximum use of capacity and facilitate investment in new infrastructure. Further, the allocation mechanism should be compatible with the market mechanism including spot markets and trading hubs, be flexible and capable of adapting to evolving market circumstances, and be compatible with the connected network access systems.

2.18. In addition, storage facility contracts are required to include measures to prevent capacity hoarding in cases where there is contractual congestion. Under Article 17(3), storage facility owners must offer unused storage capacity on the primary market without delay<sup>18</sup> and storage facility users wishing to re-sell their contracted capacity on the secondary market must be entitled to do so.

2.19. The requirements of Article 17 are supported by other provisions within the Gas Regulation including the requirement to offer services on a non discriminatory basis in Article 15(a), the information provision requirements in Article 19, and the requirements for the trading of capacity rights specified in Article 22.

### **The maximum storage capacity**

2.20. Defining the maximum storage capacity is a complex issue. In practice, there will be a significant number of factors that storage owners will need to consider when determining the maximum storage capacity of the facility.

2.21. We would therefore expect that any quantification of the maximum storage capacity, and associated variations to it, be justifiable and fully consistent with the storage facility owner's technical parameters, operational processes, procedures and guidelines. Further, storage facility owners should keep records of such operating parameters and maintain associated documentation to enable them to retrospectively justify any determinations and declarations of the storage capacity of a facility(s).

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<sup>18</sup> For storage facilities this must be done at least on a day-ahead and interruptible basis.

2.22. In addition, in line with the requirements of Articles 19(2) and 19(4) of the Gas Regulation, we would expect that owners of gas storage facilities inform market participants of the maximum technical storage capacity at their facility(s). We consider that storage facility owners should provide market participants with information on, and justification for, any material variations in the maximum storage capacity.

2.23. Where practicable, storage facility owners should make available information that assists market participants to understand the methodology used to determine the maximum technical storage capacity, and which parameters may cause this to vary.<sup>19</sup>

2.24. In the case of a dispute, we would expect storage facility owners to be able to demonstrate that they have been making at least the maximum technical storage capacity available to market participants. Under Article 20 of the Gas Regulation, storage facility owners are required to keep the relevant information for five years.

### **Operation of multiple facilities**

2.25. We would not generally expect that the operation of multiple facilities would have a significant bearing on the ability of a storage facility owner to determine the maximum technical storage capacity it can make available to market participants. Our view is that storage facility owners should be capable of defining the maximum technical capacity of each individual storage facility they operate, and then aggregate across them in order to determine the maximum technical capacity available for market participants.

2.26. In cases where a storage facility owner offers services utilising the combined capacity of more than one facility our view is that the maximum capacity may be made available by reference to the group of facilities. In such cases, the storage facility owner must ensure that the access which is offered is equivalent to at least the maximum technical storage capacity. This means that the mix of services offered by the storage facility owner should exhaust the aggregate available capacity technically available across the group of storage facilities.

2.27. Given the requirements of Article 17 of the Gas Regulation requiring storage facility owners to be able to demonstrate that they are making the maximum capacity available to market participants, our view is that if a storage facility owner proposes to offer services that utilise the storage capacity of more than one facility, ie at portfolio level, that we would expect all facilities to be subject to the same regulatory arrangements.<sup>20</sup> We believe this should make it easier for storage facility

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<sup>19</sup> Both Articles 19(2) and 19(4) require storage owners to make public information about the available capacity. The available capacity should be the residual between the maximum capacity and the capacity that has been contracted (19(2)) or that is being utilised (19(4)). Given this, market participants will require information about the maximum technical storage capacity.

<sup>20</sup> For example, a storage owner could operate one facility that has a minor facility exemption and another one that must comply with the nTPA requirements. In such a case, the requirement to offer maximum capacity would apply only to the facility operated under the

owners to demonstrate that they are making the maximum technical capacity available to market participants, and provide greater certainty to the market regarding the capacity that should be available on an ongoing basis. At the same time, we consider that this would reduce the scope for gaming of the regulation.

### **Allocation mechanisms – primary market**

2.28. In general, we consider that market-based approaches to allocating capacity, such as auctions, lead to an efficient allocation of storage services. This is because auctions generally result in capacity being allocated to those customers who place the highest value on the capacity, as reflected in the ultimate auction price. Auctions may also make it easier for storage facility owners to demonstrate that the allocation process is free from discrimination. At the same time, auctions should provide storage facility owners with useful information on, eg demand levels for their services or customers' valuations of these, which should provide better signals for investment.

2.29. In light of the above considerations, we consider that using auctions to allocate capacity (particularly standard services) generally lowers the potential risk of non compliance with the Gas Regulation. However, storage facility owners may choose alternative capacity allocation mechanisms, provided these are equally objective, transparent and non discriminatory.

2.30. For example, in the case of new investment, open season procedures may provide an acceptable alternative to auctions, ensuring comprehensive market consultation and non-discriminatory capacity allocation. Perspective investors can refer to ERGEG's (non-binding) Guidelines for Good Practice on Open Season Procedures (GGPOS)<sup>21</sup> for further information and guidance.

2.31. In cases where alternative allocation mechanisms are used, we would expect that storage owners would be able to demonstrate, to our satisfaction, that the chosen allocation mechanism delivers similar degrees of objectivity, transparency and non discrimination. Some of the factors owners may want to consider are ensuring that:

- all market participants are aware of how the available capacity is to be offered to the market, ie some form of public notification that includes information about the types of services that are available and the timing for the allocation process
- all market participants have the relevant information to determine how they can become a customer
- all market participants have information about the capacity allocation process, ie the process for accepting or rejecting bids/offers, and

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nTPA regime. If the storage owner offers storage services that do not refer specifically to the facility operated under nTPA, it will be difficult for the storage facility owner to demonstrate that the maximum technical capacity has been offered to the market.

<sup>21</sup> [Guidelines for Good Practice on Open Season Procedures \(GGPOS\)](#), ERGEG, 21 May 2007

- it can demonstrate that both systems for accepting bids and process for allocating the capacity are non discriminatory.

2.32. For the sake of clarity, a bilateral negotiation which is not part of an objective, transparent and non discriminatory allocation process will not meet the requirements of the Gas Regulation.

2.33. For any market player with SMP, we have taken the view that, given the additional risks associated with demonstrating compliance, we would generally expect such market players to use auctions to allocate standard services.

### **Setting reserve prices**

2.34. We do not intend to define methodologies for how storage owners that do not have SMP should set their reserve prices. It is the storage owner's responsibility to ensure the reserve price it sets is non-discriminatory and objective, ie that it does not predetermine the outcome of the auction.

2.35. By contrast, given that any market player with SMP may have an incentive to use reserve prices to withhold capacity or discriminate against certain customers, we have taken the view that we would expect these players to set the reserve price for their standard storage services based on the relevant marginal cost reference. Our view is that the short run avoidable cost<sup>22</sup> should be used for short term services, and the long run marginal cost<sup>23</sup> for long term services.<sup>24</sup>

2.36. Setting reserve prices on this basis should ensure that storage owners do not have to sell services at a loss. For example, for the short run, prices above the short run avoidable cost ensure that the storage owner's revenues exceed its operating costs; while long run marginal costs ensure that the owner is covering the costs of any additional investment which is needed to deliver long term services (which includes a rate of return which is adjusted for risk).

2.37. Although publication of reserve price(s) is not required for the purposes of the Third Package, we consider that certain price information, eg indicative prices, could be provided to facilitate price discovery and promote new investment. This would be in accordance with the Guidelines of Good Practice for Third Party Access for Storage System Operators (GGPSSO).<sup>25</sup>

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<sup>22</sup> Short run avoidable costs are generally defined as the costs that could be avoided if the service was no longer provided. Avoidable costs can include both variable costs associated with the particular service as well as some fixed costs that could otherwise be avoided.

<sup>23</sup> Long run marginal cost is generally defined as the cost of supplying an additional unit of a good or service when capacity can be varied. It comprises not only operating costs, but also the capital costs (including a risk adjusted rate of return on the investment) associated with increasing productive capacity to deliver the additional unit. Note that the long run marginal cost is equivalent to the long run avoidable cost.

<sup>24</sup> In cases where capacity is scarce, it is likely that the prices paid for storage services will exceed a reserve price based on the reference marginal cost.

<sup>25</sup> [Amendment of the Guidelines of Good Practice for Third Party Access \(TPA\) for Storage System Operators \(GGPSSO\)](#), CEER, 14 July 2011.

## **Congestion management procedures**

2.38. As mentioned in paragraph 2.18 above, it is a legal requirement that storage facility contracts include measures to prevent capacity hoarding in cases where there is contractual congestion. Under Article 17(3) of the Gas Regulation, storage facility owners must offer any unused storage capacity on the primary market without delay<sup>26</sup> and storage facility users wishing to re-sell their contracted capacities on the secondary market must be entitled to do so.

### Anti-hoarding arrangements

2.39. In addition to the requirements of Article 17(3)(a), other provisions of the Gas Regulation also have implications for the arrangements that storage facility owners put in place to prevent capacity hoarding. For example, the mechanism for allocating interruptible capacity must also meet the requirements of Article 17(1) and 17(2) of the Gas Regulation and be transparent and non-discriminatory.

2.40. Other provisions of the Gas Regulation that are also relevant for how the anti-hoarding arrangements are put in place include Article 15(2)(a) which requires owners of storage facilities to 'offer both firm and interruptible access to services; the price of the interruptible capacity shall reflect the probability of interruption'; and Article 15(2)(c) which states that the storage owner shall offer 'storage facility users both bundled and unbundled services of storage space, injectability and deliverability'.

2.41. The objectives of these provisions are to ensure that those parties that value the capacity the most can gain access to it and to limit the potential for capacity holders to withhold capacity in order to limit competitors' access to storage or increase wholesale gas prices (and price of storage services).

2.42. As the legislation requires that unused capacity be returned to the primary market, Ofgem would also expect that storage owners adhere to the principles outlined in the choice of allocation mechanism section above when allocating interruptible services.

2.43. In line with the requirements of the Gas Regulation, we would expect that the methodology used for pricing interruptible services results in lower prices for services with a higher probability of interruption.

2.44. In order to make such arrangements function, it will also be important that owners of storage facilities meet the requirements of Article 19(2) and 19(4) of the Gas Regulation and provide market participants with sufficient information on their available capacities, at least on a daily basis.

### Secondary markets

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<sup>26</sup> For storage facilities this must be done at least on a day-ahead and interruptible basis.

2.45. In addition to the requirements of Article 17(3)(b) of the Gas Regulation, Article 22 of the Gas Regulation requires owners of gas storage facilities to 'take reasonable steps to allow capacity rights to be freely tradable and to facilitate such trade in a transparent and non discriminatory manner. Every such operator shall develop harmonised transport, LNG facility and storage contracts and procedures on the primary market to facilitate secondary trade of capacity and shall recognise the transfer of primary capacity rights where notified by system users'.

2.46. These provisions are intended to ensure that storage facility owners have in place arrangements which facilitate the trading of capacity.

2.47. In line with current practice, we would expect that owners of storage facilities subject to nTPA arrangements in GB provide platforms where customers are able to trade their contracted capacities. We would also expect owners of relevant storage facilities to offer both bundled and unbundled services. Furthermore, we would also expect that, in order to be able to purchase capacity from the secondary market, the storage facility owner does not require potential customers to hold primary capacity at the facility.

2.48. To further facilitate secondary trading, we recommend that storage facility owners consider allowing customers to offer their contracted capacity on the primary market, ie by requesting that the storage facility owner offers the capacity on the customer's behalf. In cases where a customer returns capacity to the storage facility owner for it to sell via the primary market, our view is that the customer should receive the revenue from the sale of such capacity.<sup>27</sup>

2.49. In addition, we would expect primary capacity holders to be able to trade their capacity for different timeframes. Take the example of a market player who has contracted firm capacity rights for five years. In such case, we would expect that the market player is able to either transfer that capacity to another party for the balance of the contracted period, or for a period of time within the five years. Such arrangements will be particularly important where a high proportion of capacity is sold under long term contracts.

2.50. Finally, in developing arrangements to facilitate secondary trading, storage facility owners must ensure that contractual requirements (in particular, credit arrangements) do not act as an undue barrier.

## **Capacity purchased by related undertakings in the primary market**

2.51. Article 13(1)(b) of the Gas Directive requires that related undertakings should not be treated favourably compared to other potential system users. Articles 15 and 17 of the Gas Regulation require storage facility owners to offer services on a non discriminatory basis.

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<sup>27</sup> However, the storage owner may charge a cost reflective fee for providing the service.



2.52. We have taken the view that these provisions prevent owners of storage facilities from being able to reserve capacity for their related undertakings, or to provide those related undertakings with services on more favourable terms than those offered to non related undertakings. In other words, we consider that related undertakings should purchase capacity from the primary (and/or secondary) market.

2.53. In cases where undertakings are purchasing capacity from a related storage facility owner, our view is that the related undertaking should be able to demonstrate that the amount it offers to pay for capacity is fair and justifiable on a commercial valuation of the storage services. This is especially important for any market player with SMP, who should also be able to justify that the amount of storage capacity that is purchased from a related storage owner is consistent with their requirements for flexible gas.

2.54. Ofgem does not propose to place a generic upper limit on the amount of capacity that market players can hold at their own storage facilities so long as the amount of capacity held can be justified. However, market players should note that the potential risk of non compliance may increase as the amount of storage capacity retained by the market player rises, particularly in cases where that market player has SMP in which case an upper limit may be appropriate.

## **Main commercial conditions and mix of services**

### **Consulting the market**

2.55. Article 33(3) of the Gas Directive requires storage facility owners to publish their main commercial conditions on an annual basis. It also requires storage facility owners to consult system users when developing their main commercial conditions. This article has been transposed into the Gas Act by way of Sections 19B(3A) and (3B)<sup>28</sup>.

2.56. The (amended) Gas Act requires owners of relevant storage facilities, ie all facilities other than exempt facilities, to consult system users when developing the main commercial conditions for services offered from their facilities. This requirement applies to both the development of new main commercial conditions and to changes to existing ones. Storage facility owners are required to publish a draft version of the proposed conditions 'at least 2 months' before the final main commercial conditions take effect and inform any person who has the right to have gas stored in the facility that the draft has been published. When finalising conditions or changes, the storage facility owners must take into account any representations it has received about the proposed conditions or changes.

2.57. In order to demonstrate compliance, owners of relevant facilities may consider the following:

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<sup>28</sup> Inserted pursuant to Regulation 10 of the Electricity and Gas (Internal Markets) Regulations 2011.

- all facility users (and other market participants) should be made aware of the proposed new (or amended) main commercial conditions.
- market participants must be provided with both a sufficient amount of time to consider the proposed commercial conditions and to respond to the consultation. We would generally expect that market participants are provided with at least one month to propose any changes to the draft version of the proposed commercial conditions and then with at least another two weeks to consider the final draft before the final conditions take effect.
- storage owners are expected to develop clear criteria for assessing consultation responses and should be able to justify that the final version of the main commercial conditions does not discriminate against facility users, particularly in favour of related undertakings.

2.58. As noted in the legislation, these are the minimum timeframes for publishing new (or amended) main commercial conditions. However, storage owners should still consider whether these provide sufficient scope for interested parties to consider and respond to the proposed changes.

2.59. In our view, storage owners are best suited to determine the appropriate level of consultation when developing or amending their main commercial conditions. However, we would generally expect the level of consultation to be reflective of factors such as the significance of the proposed changes or the storage owner's market position. For example, we would generally expect that changes that are most likely to have a stronger impact on system users are consulted on more extensively. Similarly, we would expect market players with SMP to undergo more extensive consultation processes than market players without SMP.

2.60. We consider that the Third Package does not require us to approve the consultation process or the final version of the main commercial conditions.

### **Offering a mix of services**

2.61. Article 15(2) of the Gas Regulation requires storage owners to:

- provide both firm and interruptible third party access services; the price of interruptible capacity shall reflect the probability of interruption (Article 15(2)(a))
- offer storage facility users both long and short term services (Article 15(2)(b)) and
- offer storage facility users both bundled and unbundled services of storage space, injectability and deliverability (Article 15(2)(c)).

2.62. We have taken the view that, in general, storage facility owners would be expected to test market demand when determining their mix of services, or when considering significant changes in their mix of services.

### Determining the mix of services

2.63. We consider that there are various methods by which storage facility owners could test the market to determine their mix of services. For example, for new facilities (or significant increases in the capacity of an existing facility) storage owners could consider:

- undertaking a formal consultation process to seek stakeholder views about demand for new or different products.
- offering the proposed services directly to the market under a transparent, objective and non discriminatory allocation mechanism. In this case, storage owners could consider offering individual or multiple services to the market via an open allocation process to determine whether or not services are demanded by market participants.

2.64. We would generally expect market demand to be tested whenever a storage facility owner offers new or additional capacity or services, when a storage facility owner is considering a significant change in its mix of services, or when there is a significant change in market conditions.<sup>29</sup> Where a storage facility owner offers a tailored service to a particular customer, the owner should be in position to demonstrate that other market participants are also able to purchase the service under the same terms and conditions.

### Contract length

2.65. Article 15(2) of the Gas Regulation requires storage owners to offer both long and short term services.

2.66. We consider that Article 15(2)(b) requires storage facility owners to offer some firm capacity on a short term basis via the primary allocation mechanism. However, we do not intend to specify a minimum threshold for the amount of capacity that must be offered by storage owners on a short term basis. In general, the greater the mix of contract durations is tied to market demand, the lower will be the risk that a storage owner is found in breach of nTPA requirements.

2.67. Where a storage owner intends to underpin new investment by selling out capacity on long term contracts, we would expect it to consider ways of ensuring that the mechanism for offering capacity is open, transparent and non discriminatory.<sup>30</sup> The owner should also ensure that the maximum contract length is not longer than a reasonable payback period for the investment.

2.68. Where the decision of a storage facility owner is likely to have a significant impact on the level of short-term capacity available in the GB market, storage facility owners would be expected to undertake more extensive market testing of demand before changing their mix of services.

2.69. Furthermore, the higher the proportion of capacity sold by a storage owner on a long term basis, the more the owner should ensure that it can demonstrate that secondary trading is being facilitated at its facility, and that effective congestion management processes are in place.

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<sup>29</sup> In relation to a new storage facility, a storage facility owner could also test market demand for different services as part of an open season process. Storage facility owners may refer to ERGEG's (non-binding) [Guidelines for Good Practice on Open Season Procedures \(GGPOS\)](#) for more information regarding open season procedures.

<sup>30</sup> It is particularly important to ensure that mechanism for allocation capacity is objective, transparent and non discriminatory when capacity is being allocated to a related undertaking on a long term basis.

2.70. In relation to interruptible capacity, we have taken the view that, much like firm capacity, interruptible services should be available on a mix of durations and on both a bundled and an unbundled basis. In general, the mix of these services should be reflective of market demand for them.

2.71. In general, we would expect that an owner's standard service offering includes some firm bundled capacity.

## **Transparency and information sharing arrangements**

2.72. Article 19 of the Gas Regulation places a number of transparency obligations on owners of gas storage facilities. While most rules in the Gas Regulation apply only to facilities providing TPA, Article 19(4) of the Gas Regulation places obligations on all storage facilities, regardless of whether TPA is in place.

### **Publishing information on access**

2.73. Article 19(1) of the Gas Regulation requires storage facility owners to make public detailed information regarding the services they offer and the relevant conditions applied, together with the technical information necessary for storage facility users to gain effective access to storage facilities.

2.74. To meet the requirements of this provision, storage owners are expected to provide the following information:

- services that are available: the types of services that are available and their respective features are expected to be published.
- technical specifications of these services: for each of these services key technical specifications of the products are expected to be provided to allow comparison of products. For example, storage owners are expected to publish deliverability, space and injectability of offered products.
- conditions applied to the services: the terms and conditions attached to storage should be published. For example, storage owners are expected to provide information on storage usage terms and applicable injection periods.
- processes for negotiating access to these services: the steps required to become a storage customer are expected to be published.

2.75. This information should be published on the relevant owner's website and provided directly to customers upon request.

2.76. The information provided by storage facility owners should be sufficiently detailed as to enable storage facility users to gain effective access.

### **Publishing information on capacity allocation**

2.77. Article 19(2) of the Gas Regulation requires owners of gas storage facilities to make public information on contracted and available storage capacity on a numerical basis on a regular and rolling basis and in a user friendly standardised manner

2.78. In our view, the requirement for such information to be provided on 'a regular and rolling basis' suggests that the daily updating of information would be appropriate. This would also appear consistent with publication of information requirements elsewhere in Article 19 of the Gas Regulation.<sup>31</sup>

2.79. We recognise that there may be, however, other areas where information on capacity allocation should be provided on a different basis. For example, in the case of Use-It-or-Lose-It (UIOLI), information may need to be provided on a closer to real time basis.

### **Publishing information on capacity allocation – all facilities**

2.80. All storage facility owners, including those that hold a minor facility exemption, are required to make public the amount of gas in each storage facility, as well as inflows and outflows, and the available storage capacities. Storage facility owners are required to communicate this information to the transmission system operator (TSO), who shall make this public on an aggregated level per system or subsystem defined by the relevant points. The information shall be updated at least daily.

2.81. We understand that owners of GB storage facilities already provide much of this information to National Grid Gas (NGG), who publishes it in an aggregated form. However, Article 19(4) of the Gas Regulation also requires each storage owner separately to provide this information.

2.82. We consider that this requirement would best be met if NGG were to publish the required information on its website, on behalf of all storage facility owners. Essentially, this could work as an extension of the Gas Storage Monitor information currently published by NGG. We consider there may potentially be more transparency where NGG reports this information on behalf of all storage facility owners, than if the owners do so individually, as it should enable potential users to access the information on storage capacity more readily.

2.83. In cases where a storage facility owner operates multiple facilities jointly in order to maximise total capacity, we consider that the owner can request that the TSO publishes the information in an aggregated form.

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<sup>31</sup> In particular, the requirements of Article 19(4) of the Gas Regulation.

## 3. Unbundling and management of commercially sensitive information

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### Chapter Summary

In this chapter we provide our views regarding compliance with the new requirements on unbundling and the management of commercially sensitive information.

### Introduction

3.1. In this chapter we provide guidance on compliance with the new requirements on unbundling and the management of commercially sensitive information for owners of GB gas storage facilities. These arise from Articles 15 and 16 of the Gas Directive, as transposed into sections 8R<sup>32</sup> and 11C<sup>33</sup> of the Gas Act.

3.2. The unbundling provisions set out the requirements for independence from related undertakings and parent undertaking (the 'affiliates'<sup>34</sup>) if these undertakings carry out certain activities.

3.3. This chapter aims to provide guidance on compliance with:

- the **unbundling requirements** for owners that operate facilities without a minor facility exemption. Article 15 of the Gas Directive has been transposed into section '8R Independence of storage facilities' of the Gas Act
- the requirements for the **management of commercially sensitive information** for all owners. Article 16 of the Gas Directive has been transposed into section '11C Restrictions on disclosure of information by facility owners' of the Gas Act.

### Unbundling requirements

3.4. Section '8R Independence of storage facilities' of the Gas Act covers the unbundling requirements for owners that do not hold a minor facility exemption.

3.5. It should be noted that in the case of storage owners that have no affiliates which undertake the prohibited activities (in other words, ownership unbundled storage owners) then many of the requirements:

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<sup>32</sup> Inserted pursuant to Regulation 6 of [The Electricity and Gas \(Internal Market\) Regulations 2011](#). For easy reference, the relevant section in the amended Gas Act will be referred to in the main text.

<sup>33</sup> Inserted pursuant to Regulation 7 of The Electricity and Gas (Internal Market) Regulations 2011.

<sup>34</sup> 'Affiliate' is in effect defined as the person who has 'control' of the owner, or another person who is controlled by the same person who controls the owner.

- are met automatically, eg legal separation
- not applicable, eg the independence of managers and senior officers) or
- will be deemed to have been met and require no action, eg the requirements in the unbundling program regarding discriminating against non-affiliates.

3.6. Some requirements in this section would still apply to storage facilities that are ownership unbundled, such as the requirements in the unbundling program (including the monitoring and reporting of this) regarding the management of commercially sensitive information.

### **Degree of unbundling**

3.7. Section 8R(2) and 8R(3) of the Gas Act set out the activities that the owner must refrain from carrying out. In summary these paragraphs state that:

- notwithstanding any licence held by the owner, the owner must refrain from the production of gas (in the case of natural gas from its natural condition in strata which would require a licence under section 3 of the Petroleum Act 1998), unless it is produced as an unintended consequence of the storage of gas and
- the owner must refrain from the supply, shipping and sale of gas, except to the extent that the activity is necessary for the efficient operation of the facility (or of another storage facility).

3.8. The Gas Act does not place any limitation on the facility owner's ability to buy gas.

3.9. In limiting the activities that storage owners can participate in, the Gas Act achieves the legal separation that Article 15 of the Gas Directive explicitly requires.

3.10. Article 31 of the Gas Directive requires that natural gas undertakings keep separate accounts for their storage activities. This requirement did not need to be transposed as it was already set out in Section 19E of the Gas Act, which requires relevant facilities to keep (in their internal accounting) separate statutory accounts.

### Innovative products

3.11. Where a storage owner is responding to customer demands, offering innovative products may be beneficial to the market.

3.12. Some innovative products are 'virtual', for example CSL's V-Store. We recognise that in order for a storage owner to provide such services they may be required to undertake other activities such as to buying (and selling) gas from other sources. For example the owner might purchase gas at the NBP or have contractual arrangements with other providers of flexible gas.

3.13. Our view is that the ability of storage owners to provide innovative services, including virtual storage services, is beneficial for the GB market. Our view is that, so long as they are compliant with the relevant provisions of the legislation, owners should be allowed to offer innovative products. Our view is that owners should be

able to demonstrate a sufficient nexus between the activities of shipping and trading of gas and the provision of storage services.

3.14. We will work with storage owners regarding the additional information that we may require in order to monitor these activities.

### **Independent operation**

3.15. Section 8R(4) states that owners subject to the unbundling provisions must operate the facility independently of any affiliates that produce, supply, ship or sell gas and must, in particular, ensure that:

- no senior officer or manager of the owner is a senior officer or manager of the affiliate
- if a senior officer or manager of the owner of the facility has an interest in the affiliate that conflicts<sup>35</sup>, or is likely to conflict, with the interests of the facility, that the owner maintains procedures to ensure that the facility is operated independently of that interest in the affiliate
- the owner can take decisions without the consent of that affiliate in respect of any assets necessary to operate, maintain or develop the facility and
- the owner does not take instructions from the affiliate regarding day to day operations or individual decisions concerning the construction or upgrading of the facility.

### Separation of senior officers and managers

3.16. A 'manager' is defined in paragraph 9 of section 8R as a person responsible, directly or indirectly, for the day to day management of the business. Senior Officer is defined in the Gas Act as a director (in relation to a company), partner (in relation to a partnership) or a person holding a position equivalent to a director or partner (in any other case).

3.17. Section 8R (4)(c) states that the owner is entitled to take decisions without requiring consent of the affiliate in respect of any assets necessary to operate, maintain or develop the facility.

### Conflicts of senior officers' and managers' interests

3.18. It is a legal requirement that if a senior officer or manager of the owner has an interest in the affiliate that conflicts, or is likely to conflict, with the interests of the facility, that the owner maintains procedures to ensure that the facility is operated independently of that interest in the affiliate.

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<sup>35</sup> Conflict of interests includes a conflict of interests and duties and a conflict of duty.



3.19. We also note that section 172 of the Companies Act requires that Directors must act in a way that would be most likely to promote the success of the company (rather than the success of the parent company).

3.20. Our expectation is that the owner should take steps to ensure that it is aware of any conflicts of interest and that these are reported in its Compliance Report. In particular, Ofgem would expect that:

- under the required code of conduct (discussed further below), owner's employees are required to declare any (actual or potential) conflicts of interest, to the owner and
- in the required annual Compliance Report that is sent to Ofgem, the owner should declare whether there are any (actual or potential) conflicts of interest as regards managers and/or senior officers, and what mitigating actions the owner has put in place.

3.21. For example, potential conflicts of interest that we would expect to be notified in the Compliance Report include:

- the ownership of an affiliate's shares
- payment of any bonuses or any remuneration based on the performance of an affiliate or the group
- where the terms of employment (or re-employment) or performance assessment are determined or affected by an affiliate's performance, or by serving the interests of an affiliate
- having been an employee or a director of the affiliate within the preceding 12 months and
- any senior officer or manager going to work for an affiliate.

### **Approval of financial planning and indebtedness**

3.22. Section 8R (5)(a) and (5)(b) of the Gas Act set out two instances where the parent undertaking<sup>36</sup> can require the owner to:

- obtain the parent undertaking's approval of the owner's annual financial planning and
- comply with restrictions on the owner's overall levels of indebtedness.

3.23. In order for the parent undertaking to be in position to approve the owner's annual financial planning, it may be the case that information needs to be passed on from the owner to the parent undertaking. However, it is important to note that this provision does not allow owners of storage facilities to breach the requirements of section 11C of the Gas Act regarding the treatment of commercially sensitive information.

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<sup>36</sup> 'Parent undertaking' has the meaning given by section 1162 of the [Companies Act 2006](#).

3.24. We consider that where any financial information is shared under subsections 5(a) and 5(b) that, in order to minimise the risk of being found non-compliant:

- the Compliance Officer<sup>37</sup> should, as a matter of course, be aware of such sharing and be able to access and scrutinise that information
- the nature of any information sharing should be declared in the annual Compliance Report and
- the information should be retained in order to allow the owner in order to demonstrate compliance, if required.

### **Independence Program**

3.25. Section 8R 6(a) and 6(b) of the Gas Act state that an owner must establish an Independence Programme identifying the measures that are in place to prevent officers or employees (including managers or senior officers) from:

- discriminating against non-affiliates or
- breaching the requirements in section 11C of the Gas Act regarding the use and disclosure of commercially sensitive information.

#### Code of conduct for staff

3.26. Article 15(2)(d) of the Gas Directive makes clear that the Independence Program needs to set out the “specific obligations of employees” to ensure that discriminatory conduct is excluded and that observance is adequately monitored. Ofgem considers that a code of conduct for employees is an integral requirement of the Independence Program.

3.27. Our view is that the code of conduct must be implemented in such a way as to influence employee behaviour. Therefore, we expect that the owner will ensure compliance of its employees with the code of conduct, for example by ensuring that the code is properly disseminated, that staff training is provided where necessary and that incentives to abide by the code of conduct are in place.

3.28. Our view is that it will help to ensure compliance if staff of affiliates cooperate to meet the objectives of the Independence Program. Therefore, we recommend that the code of conduct is extended to cover the staff of affiliates (and third parties providing services to the owner, where appropriate) in order to ensure that they:

- do not attempt to solicit or in any other way attempt to obtain (and make use of) commercially sensitive information
- do not attempt to influence the commercial policy of the owner or in any other way encourage it to favour an affiliate and
- make the owner’s compliance manager aware of any breaches.

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<sup>37</sup> As discussed below.

### Other measures

3.29. We consider that there is a range of ways in which employees might cause the owner to breach these requirements. For example:

- if employees from an affiliate have access to the owner's premises (or parts of premises) they may be able to access commercially sensitive information
- if employees from an affiliate have access to the systems for recording, processing or storage of data they may be able to access commercially sensitive information
- if employees have access to any other equipment, facilities or property employed by the owner (for example, communication or electronic networks) they may be able to access commercially sensitive information
- if employees or groups of employees<sup>38</sup> are shared or if there is unrestricted movement of staff between the owner and an affiliate, then this may allow commercially sensitive information to pass to the affiliate and for the owner to become influenced by the affiliate.

3.30. We would expect that storage owners to put in place measures to address these risks and to explicitly set out these measures in the annual compliance report.

### **Monitoring and publishing the Independence Program**

3.31. Section 8R (7)(a) and 7(b) of Gas Act state that an owner must:

- ensure that compliance with the Independence Programme is monitored and
- annually publish a Compliance Report on the measures taken in accordance with the Independence Programme, and send a copy to Ofgem.

### Monitoring compliance with the Independence Programme

3.32. It is a requirement of the legislation for the Independence Program to be monitored. We would generally expect that the owner puts in place a governance structure to facilitate effective monitoring. We would generally expect an owner to have a dedicated person, or group of people that are responsible for monitoring compliance (for simplicity, referred to as the "Compliance Officer"). To minimise the risk of non-compliance, we would recommend that the owner ensures that the Compliance Officer is independent.

3.33. Furthermore, our view is that the monitoring arrangements must be genuinely effective. Therefore, we expect that the Compliance Officer should be sufficiently resourced<sup>39</sup> and have sufficient powers<sup>40</sup> in the organisation to undertake and monitor the arrangements effectively.

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<sup>38</sup> That is, particular functions in the business.

<sup>39</sup> This includes such staff, premises, equipment and facilities as is required.

<sup>40</sup> This includes access to the owner's premises, systems, information and documentation and

3.34. We expect the owner to retain evidence (including any internal reports and records of any breaches, complaints or suspected breaches) in relation to its monitoring activities in order that it can demonstrate that compliance is being monitored effectively, if required.

#### Publishing the Compliance Report

3.35. The Compliance Report must be published<sup>41</sup> and sent to Ofgem each year<sup>42</sup> Ofgem expects the Compliance Report to cover, amongst other things:

- the scope and content of the code of conduct and the other measures that the owner has put in place in its Independence Program
- the owner's board structure
- the nature of any actual or likely conflicts of interest as regards managers or senior officers along with the mitigating actions that the owner has or intends to put in place
- the monitoring arrangements that the owner has put in place including how the independence of the Compliance Officer has been ensured, and the resources, duties and powers available to the Compliance Officer
- the nature of any information that may be shared under section 8R (5) and
- any other information that the owner considers important to demonstrate compliance.

#### **Management of Commercially Sensitive Information**

3.36. In summary, provisions in section 11C of the Gas Act (which apply to all storage owners) state that:

- the owner of a storage facility must take all reasonable steps to ensure that commercially sensitive information relating to the operation of the facility is not disclosed in a discriminatory way or to an associated undertaking unless disclosure is necessary in order to enable a transaction with that associated undertaking to take place<sup>43</sup>.
- information which is obtained by the owner when transacting with an associated undertaking must not be used by the owner for any other purpose<sup>44</sup>.

3.37. For owners that do not hold minor facilities exemptions, the measures set out in the owner's Independence Program should ensure that commercially sensitive information is protected. In any case though, we expect all owners, including those that hold a minor facility exemption, to:

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the cooperation of employees as is required.

<sup>41</sup> Ofgem expects that the report is published on the owner's website.

<sup>42</sup> Ofgem expects owners to publish the report each calendar year starting in 2012.

<sup>43</sup> Section 11C (1)(a) and (1)(b) of the Gas Act.

<sup>44</sup> Section 11C (2) of the Gas Act.

- have appropriate information management systems in place to ensure that no commercially sensitive information is inadvertently shared with other customers or affiliates
- share legitimate information via a non-discriminatory, transparent manner, such as through a public bulletin board and
- set out their confidentiality provisions as part of their main commercial conditions.<sup>45</sup>

3.38. We reserve the option to request specific reports on these arrangements from owners with minor facility exemptions.

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<sup>45</sup> Storage facilities subject to nTPA requirements in GB currently have confidentiality provisions as part of their standard storage contracts. For CSL, the requirements regarding the use of commercially sensitive information are also set out in the Rough Undertakings.

## 4. Governance, monitoring and enforcement

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### Chapter Summary

This chapter sets out details of the relevant legislation implementing the Third Package in respect of governance, monitoring and enforcement. It then outlines our views and approach regarding governance, monitoring and enforcement for storage facilities at GB.

4.1. Governance, monitoring and enforcement obligations play an important role in the development of an efficient and effective energy market. Under the legal provisions discussed in the next sections, the Authority will have the ability to investigate and take action against a storage owner where there is reason to believe that it is not complying with the relevant requirements.

4.2. This chapter sets out our view on governance, monitoring and enforcement. In the following sections, we outline the relevant legislation and then our views regarding our approach to monitoring and enforcement.

### Relevant Legislation

4.3. In transposing the Gas Directive, the Gas Act has been amended such that the governance of storage facilities will change, including with respect to the expansion and strengthening of the Authority's role in monitoring and enforcing the relevant requirements. Specifically:

- **enforcement:** Sections 28 to 30F of the Gas Act now also apply to the owner of a storage facility<sup>46</sup> for the purposes of ensuring compliance with the 'relevant requirements'<sup>47</sup>
- **monitoring:** Section 34 and Section 34A of the Gas Act now also allow the Authority to serve a notice on the owner of a storage facility to produce required documents and specified information<sup>48</sup>. Section 38 of the Gas Act also allows the authority to require the production information in the event that it appears that a 'relevant requirement' may be being, or may be, contravened.

4.4. The 'relevant requirements' referred to above include compliance with the relevant provisions of the Gas Regulation (including third party access) and Gas Directive as transposed in the Gas Act (including unbundling from related undertakings and commercially sensitive information).

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<sup>46</sup> The owner of a storage facility will be deemed a 'regulated person'. 'Regulated person' is defined in section 28 (8) of the Gas Act.

<sup>47</sup> Regulation 37 of [The Electricity and Gas \(Internal Markets\) Regulations 2011](#).

<sup>48</sup> Regulation 30 of the Electricity and Gas (Internal Markets) Regulations 2011

4.5. The monitoring and enforcement provisions allow us to engage in a mix of proactive market surveillance, and to investigate and take action against market players where there is reason to believe that they are not complying with the relevant regulatory requirements.

4.6. The introduction of these provisions does not preclude us from tackling anticompetitive behaviour through UK and EU competition law, where appropriate.

## **Enforcement and Monitoring**

4.7. In practical terms, the proposed amendments to the Gas Act will bring owners of storage facilities within the enforcement regime that previously only applied to licence holders. This will allow us to:

- investigate contraventions of the relevant requirements
- issue provisional and final orders to ensure compliance and
- impose penalties of up to ten per cent of the regulated person's turnover.

4.8. Investigations can be undertaken on our own initiative or following the receipt of a complaint or a referral from other regulatory and consumer representative bodies. Please refer to our 'Enforcement Guidelines on Complaints and Investigations'<sup>49</sup> for more details on our approach to enforcement.<sup>50</sup>

4.9. Our view is that that for many of the provisions, particularly those on information provision and transparency, and consulting the market, any non compliance is likely to be highly visible to the market. Given this, we may expect to receive complaints or hear concerns from market participants which, alongside our own proactive monitoring would enable us to identify any potential areas of storage owner's non-compliance with the regulatory requirements.

4.10. On the unbundling requirements for owners that form part of a vertically integrated undertaking, Chapter 3 discusses the sorts of information that we would require in order to monitor compliance. Where we deem it appropriate, we may request additional information from storage owners. We will engage with the relevant storage owners where appropriate to determine what additional information would be required.

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<sup>49</sup> [Enforcement Guidelines on Complaints and Investigations](#), Ofgem, 28 September 2007.

<sup>50</sup> In our 2011-16 Proposed Corporate Plan we stated our intention to consult on the revised Enforcement Guidelines.

# Appendices

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## Index

<b>Appendix</b>	<b>Name of Appendix</b>	<b>Page Number</b>
1	Summary of consultation responses	33
2	Pivotality model user guide	41
3	Glossary	47
4	Feedback Questionnaire	55



## Appendix 1 – Summary of consultation responses

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1.1. In our consultation of 3 November 2010, Ofgem sought stakeholder's views on the following questions:

### **CHAPTER: Three**

**Question 1:** Should pivotal gas volume be used when assessing SMP? If no, please explain why.

**Question 2:** Is the proposed figure of ten per cent of pivotal gas volume an appropriate threshold for defining SMP? If no, what is an appropriate threshold?

**Question 3:** Is it appropriate to also consider market outcomes to assess whether a market player may have SMP at lower levels of pivotality?

**Question 4:** Are there any additional factors that should be used when considering if a market participant has SMP?

### **CHAPTER: Four**

**Question 1:** What factors should be taken into consideration when defining the maximum capacity of a group of facilities?

**Question 2:** What concerns, if any, do market participants have with Ofgem's preliminary views on capacity allocation? What concerns, if any, do storage users have with the use of allocation mechanisms other than auctions to allocate capacity, particularly standard services?

**Question 3:** Does the use of auctions provide market participants with sufficient safeguards that any market player with SMP will provide standard services to the market on a non discriminatory basis? What other measures/safeguards in relation to how any market player with SMP allocates capacity could be considered?

**Question 4:** Do market participants consider that the prevailing anti hoarding arrangements currently in place at GB storage facilities that are subject to the TPA regime are appropriate and compatible with the requirements of the Gas Regulation? If no, please explain why.

**Question 5:** Do market participants consider that the mix of interruptible and firm storage services is appropriate and compatible with the requirements of the Gas Regulation? If no, please explain why.

**Question 6:** Do market participants consider that the existing arrangements for the secondary trading of storage capacity are appropriate and compatible with the requirements of the Gas Regulation? If no, please explain why.

## **CHAPTER: Five**

**Question 1:** What levels of consultation should SSOs undertake when developing main commercial conditions for the first time and when proposing amendments to the standard terms and conditions?

**Question 2:** Are there aspects of an SSO's main commercial conditions where small changes are likely to have a significant impact on system users?

**Question 3:** Should SSOs be expected to formally consult or test the market before changing existing services or offering any new services to the market? If no, please explain why.

**Question 4:** Should SSOs be expected to offer a minimum threshold of capacity on a short term basis? How should SSOs determine the minimum proportion of capacity that should be sold on a short term basis?

**Question 5:** Should SSOs be expected to offer bundled capacity as part of their 'standard services'? Should SSOs be expected to also offer unbundled capacity as part of their 'standard services'? Please explain your views.

## **CHAPTER: Six**

**Question 1:** What factors should Ofgem take into consideration when assessing a market player's flexible gas requirements and, in particular, need for storage services?

## **CHAPTER: Seven**

**Question 1:** Do SSOs provide sufficient information on the services they offer and the terms and conditions of access? Is any further information required? Are there any improvements that could be made to how information is provided by SSOs?

**Question 2:** Do SSOs provide sufficient information on the maximum capacity and the level of utilisation? What further information is required? Are the current timeframes for providing this information appropriate?

**Question 3:** Should SSOs publish the information required under section 19(4) on their websites or should NGG undertake this role for all SSOs?

## List of Respondees

List	Name
1	BP Gas Marketing Ltd (BP)
2	Centrica Energy (CE)
3	Centrica Storage Ltd (CSL)
4	EDF Energy (EDF)
5	Eni Spa (Eni)
6	E.ON
7	Gas Storage Operators Group (GSOG)
8	National Grid plc (NG)
9	RWE npower (RWE)
10	Scottish and Southern Energy plc (SSE)
11	Statoil (U.K.) Limited (Statoil)
12	Storengy UK Limited (Storengy)
13	Stag Energy
14	Confidential response

## Summary of responses

1.1. Non confidential responses to our consultation were uploaded to the Ofgem website on 10 January 2011.<sup>51</sup> Copies also available from the Ofgem library. In this Appendix we provide a summary of all non confidential responses.

1.2. We have considered the consultation responses when coming to our views which are set out earlier in the document.

## Assessing market power

1.3. Respondents to our consultation document were generally supportive of our proposed approach to assessing SMP. CE and CSL agreed that pivotality was a reasonable measure to use in assessing whether a market player is likely to have SMP, as one of a suite of measures. SSE welcomed Ofgem's preliminary view to assess SMP using a 'hybrid approach', agreeing that, due to the complexities of the gas market, no one measure in isolation is sufficient to accurately assess SMP. EDF stated that pivotality analysis can be used to determine whether a market player has SMP by having ten per cent or more of the volume of gas demand. RWE noted that pivotal gas volume is a valid analytical tool for assessing SMP, and expressed full support for our proposed hybrid assessment that considers pivotality with other structural measures and market outcomes.

1.4. However, CSL noted that, while a higher pivotal share may raise the prospect of SMP, it should not be seen as definitive evidence of such (as with any simple concentration measure). CSL noted that, as pointed out by Ofgem, pivotality is closer

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<sup>51</sup> [Link to non-confidential responses.](#)

to a measure of 'ability' rather than 'incentive', and therefore, should be used as a starting point for analysis rather than a simple 'cut-off'. Similarly, CE commented that pivotality does not indicate that a market player has any incentive to make use of SMP to withhold capacity from the flexibility market. EDF also stated that, where a market player exhibits SMP, this does not necessarily mean it will exercise its SMP.

1.5. Nearly all respondents requested further information on the model Ofgem is likely to use to assess pivotality in the gas market, and on the capacity coefficients. E.On stated it was difficult to assess Ofgem's proposed methodology on the basis of the information provided in the consultation document. E.On said it would like to see Ofgem provide further details on eg, the time periods used, the key factors considered and any assumptions underpinning the model's calculations. Statoil recommended that further workshops be held by Ofgem on the topic of SMP assessment and the use of pivotality models, with the possibility of the models being made available to the industry. Eni stated that the information included in our consultation document was insufficient to allow Eni to provide detailed comment on whether the use of pivotal gas volume as one of the SMP assessment criteria is appropriate. CSL stated that, in accord with the Cabinet Office's principles of good regulation, Ofgem should release its pivotality model so that firms can judge their position against Ofgem's methodology.

### **Defining the maximum capacity**

1.6. Respondents to our consultation expressed general acceptance of our views on defining the maximum capacity of a facility (or group of facilities). BP agreed that each facility's maximum capacity should be calculated on an individual basis and the results aggregated for the group of facilities. CSL was also of the view that the maximum storage capacity of a group of facilities should be equal to the sum of the maximum storage capacity (taking account system integrity and operation) for each of the individual facilities in that group. Similarly, GSOG noted that, in a group of facilities, this maximum should be the sum of the maximum for each individual facility.

1.7. Some respondents, however, raised concerns regarding Ofgem's preliminary view that if a storage owner proposes to offer services that utilise the storage capacity of more than one facility, that all facilities would be expected to be subject to the same regulatory arrangements. Storengy stated there was no need for Ofgem to impose the same regulatory arrangements on all facilities operated by a storage owner at portfolio level. SSE did not support Ofgem's expectation that all facilities would be subject to the same regulatory arrangements if the storage owner offers services that utilise the storage capacity of multiple facilities. Similarly, E.On disagreed with the suggestion that all facilities in a group should be subject to the same regulatory arrangements, claiming (as did SSE) that this would stifle innovation.

### **Capacity allocation**

1.8. Our views on a storage owner's choice of capacity allocation mechanism, as set out in Chapter 4 of our consultation document, raised some concerns amongst market participants that we were being overly prescriptive in terms of setting out an *ex ante* preference for a particular mechanism, ie auctions. BP stated that auctions

and open seasons should both be seen as efficient ways of allocating storage capacity. CSL stated that bilateral negotiations are as effective as auctions in delivering non-discriminatory capacity allocation and more importantly, provide flexibility to the market (assisting liquidity) and better hedging opportunities. E.ON emphasized that auctions should not be perceived as the only mechanism for efficiently allocating storage capacity to the market. SSE's view was that the capacity allocation mechanisms currently being used in GB (ie, auctions and bilateral agreements) are sufficiently objective, transparent and non discriminatory. Storengy noted that "compulsory" auctioning of capacity is not suitable for the mature UK gas market.

1.9. One respondent (RWE) agreed that auctions best meet the requirements of the Gas Regulation and stated that alternative allocation mechanisms would need to be demonstrably no worse than auctions.

### **Reserve prices**

1.10. Most respondents considered that Ofgem should not dictate a methodology for setting reserve prices, albeit some agreed this may be necessary for market players with SMP. Respondents argued that such level of prescription went beyond the requirements of the Third Package, and could deter investment in new facilities. Nonetheless, they also stated that if Ofgem felt the need to dictate such methodology, it should make sure to allow storage owners to recover the costs of any investment. Therefore storage facility owners should be allowed to set the reserve price for any auction (be it for short or long term products) at the level of the long run marginal cost, or intrinsic value of the capacity. One respondent (GSOG) warned that requiring storage owners to set reserve prices for short run services at the short run avoidable cost may result in moving investment in existing and new built storage facilities from marginal to uneconomic.

### **Congestion management**

1.11. Respondents were generally supportive of our preliminary view that the anti-hoarding arrangements currently in place at GB storage facilities that are subject to nTPA are generally consistent with the requirements of the Gas Regulation. Similarly, they considered that the mix of firm and interruptible storage services is in line with the requirements of the Gas Regulation. GSOG confirmed that the current arrangements satisfy the Third Package and are fit for purpose. Storengy said it was not aware of any complaints, so it assumed current arrangements are appropriate. CSL saw the anti hoarding arrangements at Rough, as well as the existing mix of firm and interruptible services, as compliant with the Gas Regulation and in line with market requirements. RWE considered that current anti-hoarding arrangements are appropriate and compatible with the requirements of the Gas Regulation. In addition, it agreed that offering interruptible storage services may prevent capacity hoarding, and that their price should reflect the probability of interruption. In relation to anti hoarding arrangements, EDF stated that nTPA facilities in the UK are largely "compliant", but also that it would support alignment of the rules to aid market participants.

1.12. Respondents also agreed that secondary trading arrangements currently in place at GB storage facilities subject to nTPA are appropriate and compatible with the

requirements of the Gas Regulation. For example, GSOG said that the current trading arrangements satisfy the Third Package and efficiently serve market demand. CE said that there are already arrangements in place to promote the secondary trading of capacity, as well as an obligation on storage owners to facilitate and promote such trading. RWE stated it had no reason to believe that the comparatively modest levels of secondary trading seen at GB storage facilities were due to contractual, structural or any other impediments. BP also said that arrangements currently in place at nTPA facilities in GB are generally consistent with the requirements of the Gas Regulation.

### **Main commercial conditions**

1.13. There was general support for our views on consulting on main commercial conditions. SSE agreed with Ofgem that the extent to which storage owners are expected to consult the market should depend on the extent of the changes introduced. RWE noted that Ofgem had identified a set of guiding principles in its consultation, which RWE agreed would meet the requirements in the Third Package on consulting on main commercial conditions. BP agreed with Ofgem that the level of consultation should be proportionate to the scale of the change proposed. E.On considered that a traditional consultation process over a minimum of 28 days would be appropriate where substantial changes were proposed, but that minor changes should be possible by customer notification. Storengy said it would anticipate that only significant amendments to main commercial conditions are subject to full and detailed consultation. In Storengy's view, it is important that the consultation process does not deter storage owners from proposing such amendments in order to be able to offer products that better match customers' requirements.

1.14. Credit arrangements were one aspect of the main commercial conditions where respondents thought small changes could significantly impact on system users. However, most respondents cautioned against singling out particular contractual conditions as being particularly important, arguing that even seemingly minor changes can have a material impact upon a particular user's operation. Stakeholders were mainly of the view that every change should be analyzed individually to assess whether this is significant.

### **Service specification**

1.15. Respondents' views were mixed regarding the obligation to consult the market when offering new services or amending existing services. On the one hand, CSL said that it expected to consult with customers as required, as it envisaged this requirement to be transposed into UK law. CE said there should always be a presumption towards a requirement to consult existing and/or potential customers for new products or changes to existing ones, but that this requirement should not be overtly disproportionate. RWE said that anything that affects existing services should be subject to consultation, and that it would expect storage owners to undertake some form of market testing to assess demand before introducing new services. On the other hand, several respondents (eg, GSOG, SSE, BP and E.On) did not feel it was necessary to impose on storage owners a formal requirement mandating a formal consultation. For example, GSOG's view was that requiring storage owners to do so would be an unnecessary burden and would effectively "gold plate" the Third Package requirements. Similarly, Storengy felt it was worth noting that, as new services proposed to the market will have very likely originated from customers' requests, a formal consultation may bring little additional value compared

to informal discussions with customers. BP said that a storage owner would normally want to at least test the market before changing its existing services, but that whether it also chose to consult the market would depend on whether it expects the change to have a significant commercial impact on the market. E.On considers there is no need to mandate a formal consultation; this is also not required by the Third Package.

1.16. Two respondents (namely, CE and CSL) put forward the view that storage owners should be able to market test the demand for new products by means of "trial and error", particularly where modest volumes are concerned or when the product is tailored to a limited number of customers. In such cases, CE's view was that simply advising other customers of the terms of the market test may be more appropriate. CSL stressed that any regulatory oversight should be sufficiently fast and flexible so as to avoid diminishing the ability of storage owners to respond to changes in market demand.

### **Mix of short and long term services**

1.17. Most respondents considered that it was for the storage owner to determine the amount of capacity to be released to the market on a short-term basis, rather than it being mandated. Their common view was that market players should be free to respond to market demand. This should determine the time span over which capacity contracts are offered. GSOG noted that mandatory requirements on the amount of capacity that has to be sold on a short term basis can potentially undermine investors' ability to underpin new investments through the use of long term capacity contracts. Storengy stated that a reasonable level of long term stable revenues may facilitate decisions about projects that require large upfront investments, and provide more certainty to storage users. Therefore, Storengy told us it would be in favour of any initiative likely to encourage medium to long term contracts. Three respondents (ie, BP, CE and E.On) considered that storage owners should be expected to offer a minimum threshold of capacity on a short term basis (ie, 10%, 20% and 20%, respectively).

1.18. By contrast, respondents' views were mixed with regards to whether a storage owner should be expected to offer both bundled and unbundled capacity as part of its 'standard services'. CSL said there was no inherent reason why owners should be forced to sell capacity in either a bundled or unbundled fashion, and that competition between flexibility providers (together with product consultation) will have already identified the correct balance that reflects customer demand. CE told us it believes the most customer focused approach would be a requirement to offer both bundled and unbundled products. RWE's view was that this was largely for the storage owner and the market to determine, but at the same time, it agreed that some firm bundled capacity could be offered as part of a storage facility owner's 'standard services'. BP's expectation was that bundled and unbundled products would be offered as part of a standard service. E.On, on the other hand, did not support the mandating of standardised products, considering that primary capacity holders should be allowed to split bundled products into their component parts to facilitate secondary marketing. Similarly, GSOG said there should be no requirement on owners to sell both bundled and unbundled products as part of their standard capacity offering, as this could result in stranded capacity (not all unbundled components will see equal demand).

### **Assessing the requirement for flexible gas**

1.19. Most respondents shared Ofgem's view that there should not be an upper limit on the amount of capacity that market players can hold at their own storage facilities as long as the amount held can be justified. They said that Ofgem should consider all elements of a market player's supply chain when considering the market player's requirements for flexible gas. For example, on the supply side, Statoil said one should consider whether a player's sources of supply are truly flexible and how much volume is subject to long term contracts. On the demand side, it said that consideration should be given to the types of demand within the market player's portfolio. CSL stressed that Ofgem should take into account the flexibility requirements of the storage owner's related undertakings. However, Storengy noted that, given unbundling provisions in the Third Package, storage owners will not have detailed information on their related undertakings' requirements for flexible gas, how they are fulfilled and how their flexibility tools/contracts are optimised subject to limits set within their internal risk management framework. Hence, Storengy's view was that this section of our consultation applied not to storage owners themselves, but to their related undertakings active in gas supply and/or gas production.

### **Transparency and information sharing arrangements**

1.20. Respondents were generally of the view that the information currently provided by storage owners on the services that they offer, and on the maximum capacity and utilisation levels at their facility is sufficient, both in terms of quality and amount of data. CE informed us that information provided by storage owners is sufficient but this is not consistent across operators. It also said that information on total capacity and utilisation is key for users of an interruptible service to assess the possibility of interruption and that this can only be meaningful if information is available at close to real time. CSL said that transparency requirements in the Gas Regulation are appropriate, and recommended that Ofgem does not require storage owners to publish more information around utilisation levels than that set out in the Third Energy Package. RWE recognised that prompt information is already readily available, as is information about outage plans within-year; however, it said information about outages and other factors that might affect the service in periods beyond the current year would be helpful.

1.21. All respondents supported GSOG's proposal that NGG publish on its website on behalf of storage owners the information required under section 19(4) of the Gas Regulation. For example, CE said there would be merit in requiring NGG to provide a platform for publication of this information. RWE said consolidating information on a single website would appear to have some benefits. BP said it would seem sensible if the information was all in one place (ie, on NGG's website). Similarly, Storengy said that, for the sake of transparency and easy access, NGG should publish this information on behalf of storage owners. NG itself informed us that it was willing to publish all the required information on its website providing all costs associated with system changes were appropriately met.



## Appendix 2 – Pivotality model user guide

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### Introduction

1.22. To aid stakeholders' understanding of Ofgem's proposed framework for assessing pivotality, we have decided to publish on our website an example of what an actual pivotality model might look like in practice.<sup>52</sup> This Appendix provides a high-level description of the model, focusing on its key data inputs and assumptions. It also provides instructions on how to run the model and interpret its results.

1.23. In publishing such an example, however, we do not consider we have fettered our discretion to use alternative models to assess pivotality going forward, or to update any of the model's key data inputs or assumptions in line with market developments. Also, whilst providing such an example, Ofgem is not committing itself to providing regular updates of the model or ensuring any of its key data inputs are current or applicable. We shall exercise our judgement when using the model, including the appropriate data to use.

1.24. The onus is on market participants to ensure compliance with the provisions of the Third Package. In our guidance, we suggest some good practice safeguards that market players with SMP may want to consider in order to reduce their risk of non compliance. However, it is for market players themselves to determine whether they have SMP. To that effect, market players are free to develop their own models, or use different assumptions to our, when self-assessing their own position in the market. We would be willing to discuss the position of specific market players following receipt of analysis explaining why an assessment of SMP for that market player is ambiguous.

1.25. As noted in our consultation, pivotality is a well established tool for the assessment of market power in the energy sector.<sup>53</sup>

1.26. Our model explicitly addresses the issue of substitutability of different sources of supply over differing timeframes. This is done by taking a series of snapshots of progressively longer exposure (one day, one week, one month, one quarter, one season) and assessing, within each period, the likely supply and demand for gas.

1.27. For each gas year<sup>54</sup> (from the current up to 2016/17) our model estimates whether a given market player's gas supplies are needed to meet total GB gas demand over the analysed period (ie, either a day, a week, a month, a quarter or a season out of a year). That is, for every gas year considered, our model analyses whether a given market player's supplies are 'pivotal' in meeting total GB gas demand in each of 365 days, 52 weeks, 12 months, 4 quarters or 2 seasons.

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<sup>52</sup> <http://www.ofgem.gov.uk/Markets/WhlMkts/ComandEff/Pages/ComandEff.aspx>

<sup>53</sup> See for example Twoney, Green, Neuhoff and Newbery, [A Review of the Monitoring of Market Power](#).

<sup>54</sup> In our model, the gas year runs between 1st October and 30th September.

1.28. This 'snapshot' approach to modelling pivotality abstracts from the complexities of dynamic storage management. In that respect, our model is essentially static, ie it examines each period in isolation, irrespective of previous periods' inflows and outflows. This approach makes our model simple and transparent as it avoids the need for questionable assumptions on, eg the injection and withdrawal merit order for storage supplies or the level of demand which would trigger injection into storage. This means that any behavioural considerations need to be considered outside of the model.

## **Structure of the model and key assumptions**

1.29. The model has been developed in Microsoft Excel and is composed of twenty five tabs. The content of each tab is explained in the sheet named **Model Explanation**.

1.30. The following two sections discuss key data and assumptions used to estimate gas demand and supply over the time periods considered. A final section then explains how to run the model and interpret the results obtained.

### **Demand**

1.31. Our model estimates demand on a daily basis, and aggregates it over the appropriate time frame in order to reach weekly, monthly, quarterly and seasonal demand estimates. Our model uses historic data<sup>55</sup> for gas year 2009/10 and projects this forward to future years by applying the peak and average annual growth rates forecasted by National Grid in its latest Ten Year Statement (TYS)<sup>56</sup>. In its 2010 TYS<sup>57</sup>, National Grid projects annual demand falling at 0.5% per annum over the ten-year forecast period (2010-2020), and peak demand rising by 1.1% per annum between 2010/11 and 2020/21.

1.32. The daily demand profile feeding into the final pivotality calculations is located in column **N** of tab **c\_Demand Calculations**. By modifying the percentage value in cell **E4** of tab **Interface** (which by default is set at 100%), the model allows testing for the effect of increasing or decreasing daily GB gas demand by x% relative to the default (base-case) scenario.

1.33. The model considers all sources of gas supply in GB, distinguishing between storage and non storage-sources of supply. The latter are broken down further into supplies from the UK Continental Shelf (UKCS), Norwegian gas supplies, LNG imports and Continental supplies (via the two gas interconnectors, IUK and BBL).

### **Supply**

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<sup>55</sup> Historic data sourced from National Grid:

<http://marketinformation.natgrid.co.uk/gas/DataItemExplorer.aspx>

<sup>56</sup> Ten Year Statements (TYS) are an annual publication by National Grid:

<http://www.nationalgrid.com/uk/Gas/TYS/>

<sup>57</sup> The most recent TYS is currently the [2010 TYS](#), published in December 2010.

### Storage sources

1.34. For each period under consideration, storage sites are assumed to flow at maximum rate until they run out of gas (as shown in tab **c\_Storage calculations**). The seasonal nature of storage is replicated by assuming different opening stock levels in every quarter. These have been calculated based on historic National Grid data<sup>58</sup> on 2009/10 daily storage stock levels. Details can be found in tab **c\_Storage stock levels(quarter)**.

1.35. Our model considers all existing GB storage sites (as listed in the 2010 TYS and Platts's European Daily, UK and Ireland Gas Project Tracker November 15 2010) and also, depending on the year under consideration, those facilities under construction.<sup>59</sup> By modifying the storage new-build schedule on tab **r\_Online storage**, the model allows to test for the effect of bringing forward the construction of new storage sites to incorporate them (in full, or partially) within the modelling horizon. Our assumptions regarding the technical characteristics of existing and new storage facilities can be modified (relevant cells are located on tabs **r\_Storage parameters** and **Interface**).

### Non-storage sources

1.36. As can be seen in tab **c\_Sources calculations**, our model estimates supplies from non-storage sources on a daily basis, and then aggregates them for the period under consideration where necessary.

1.37. In our view it would be unrealistic to expect that all non-storage sources of supply will be able to flow at one hundred per cent of their total capacity at all times, particularly over the longer time periods. Hence, in order to derive an estimate of the likely amount of supply that may be realistically provided from each non-storage source of supply, we apply a set of capacity coefficients<sup>60</sup>. These capacity coefficients vary according to the source of supply and the time period under consideration.

- Capacities

1.38. Our capacity figures (tab **r\_Capacities and coefficients**) for non-storage sources of supply are sourced from National Grid (TYS 2010) and are shown below. The only adjustment we have made to National Grid's figures is to the latter years of LNG, where we assume no new facilities will come online.<sup>61</sup> This is in line with our assumptions on storage new-build, where we include only existing facilities, and also, depending on the year under consideration, facilities under construction. As there are

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<sup>58</sup> "Historic Storage Monitors 1 October 2009 - 30 September 2010", National Grid, 7 October 2009, accessible by clicking [here](#).

<sup>59</sup> According to Table 4.7D in National Grid's TYS 2010, the following gas storage facilities are currently under construction in GB: Aldbrough (portion under construction), Hill Top Farm, Holford and Stublach.

<sup>60</sup> A capacity coefficient of 90 per cent would mean that flows would be expected to be 90 per cent of the physical capacity for the period that the coefficient applies to.

<sup>61</sup> National Grid's TYS 2010 assumes higher LNG capacity from 2014/15 onwards, as it includes facilities not yet under construction. We have excluded these from our model, in line with our assumptions on storage new-build.

currently no LNG terminals under construction in GB, we include no expansions in LNG capacity.

<i>GWh/day</i>	<b>09/10</b>	<b>10/11</b>	<b>11/12</b>	<b>12/13</b>	<b>13/14</b>	<b>14/15</b>	<b>15/16</b>	<b>16/17</b>
UKCS	2,255	1,998	1,801	1,654	1,637	1,562	1,562	1,466
Norway	1,278	1,419	1,419	1,419	1,419	1,419	1,419	1,419
LNG	1,324	1,528	1,528	1,528	1,528	1,528	1,528	1,528
Continent	1,235	1,336	1,336	1,336	1,336	1,336	1,336	1,336
-IUK	757	757	757	757	757	757	757	757
-BBL	478	579	579	579	579	579	579	579

Source: National Grid TYS 2010.

1.39. Our model allows to “stress test” the non-storage capacities above, eg to account for a potential outage lasting for a number of days. Stress test capacities may be introduced by model users in cells **E5** and **G5** of tab **Interface**. By default, these values are set at 0 GWh/day, so that the model’s base-case scenario assumes no stress tests.<sup>62</sup>

- Capacity coefficients

1.40. As noted above, our model uses a set of capacity coefficients (tab **c\_Capacities and coefficients**) to derive meaningful estimates of the volume of supply that can be realistically be expected to be provided by each non-storage source of supply across the different time frames.

1.41. The table below sets out an example of capacity coefficients that could be used in order to derive such estimates. We stress the fact that these are for illustration purposes only. They are not definitive and may evolve in response to changes in market conditions. We would expect to consider alternative scenarios and use different source and analytical tools to derive our estimates. The sections below explain the sources of the illustrative figures.

<b>%</b>	<b>Daily</b>	<b>Weekly</b>	<b>Monthly</b>	<b>Quarterly</b>	<b>Seasonal</b>
UKCS	90%	90%	90%	90%	90%
Norway	98%	98%	98%	81%	81%
LNG	99%	75%	75%	60%	33%
Continent	80%	80%	56%	32%	18%

Source: Ofgem calculations based on National Grid’s Ten Year Statement 2010 and National Grid’s Winter Outlook Report 2009/10. For illustration purposes only.

- UKCS

<sup>62</sup> Stress test N-1 (cell **E5** in tab **Interface**) is the amount of capacity that is assumed to be unavailable, eg due to an outage over the whole period. Stress test N-2 (cell **G5** in tab **Interface**) is the amount of capacity assumed to be unavailable due to a second stress test. Unlike stress test N-1, the duration of stress test N-2 may be modified by adjusting the values in cells **V3:Z3** of tab **c\_Sources calculations**.

1.42. Our UKCS coefficients are based on National Grid's TYS 2010 and Winter Outlook Report 2009/10 (WOR 09/10).<sup>63</sup> In the latter, National Grid states that it is appropriate to assume a level of UKCS supply below the maximum forecast when assessing the overall supply outlook, and that the chosen level should reflect the level of delivered UKCS gas that might be expected on average during a prolonged cold spell. Whilst acknowledging that UKCS availability could be lower under more severe conditions, National Grid retains an assumed availability rate of 90% for high demand conditions (typically when demand exceeds 400 mcm/d).

- *Norway*

1.43. Given the contractual arrangements for much of the gas coming from Norway, there is less certainty that flows will be as consistently high throughout longer periods as they can be in the short term.

1.44. Our daily capacity coefficient is based on National Grid's TYS 2010, which forecasts that Norwegian peak day supplies will be just below capacity in years to come. Our seasonal coefficient for Norwegian supplies is based on National Grid's WOR 09/10.

- *LNG*

1.45. The global nature of the LNG market makes it difficult to forecast LNG supplies to GB, as evidenced by the difference in peak LNG supply estimates in National Grid's TYS 2009 and 2010.

1.46. In line with National Grid's forecasts in its TYS 2010, our pivotality model assumes there will be close to 100% LNG availability on a peak day basis. To derive a reasonable forecast of LNG supplies across a whole season we assume an utilisation rate of 33%, as implied by National Grid's forecasts in the WOR 09/10.

- *Continent*

1.47. It is also difficult to forecast Continental gas supplies to GB via the IUK and BBL. As for LNG, our capacity coefficients for Continental gas supplies are based on National Grid forecasts. Our daily capacity coefficient is based on its TYS 2010, whilst our seasonal coefficient is based on the WOR 09/10.<sup>64</sup>

### **Running the model and interpreting its results**

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<sup>63</sup> [Winter Outlook Report 2019/10](#), National Grid, 1 October 2009.

<sup>64</sup> The 2010 TYS does not forecast peak supplies from IUK and BBL independently. Instead, these are aggregated into a single figure (see Figure 4.8J). By contrast, in the WOR 09/10, winter flows from IUK and BBL are forecast individually. We have aggregated these, and divided them by the sum of IUK and BBL capacity, to derive the seasonal coefficient presented in the table.

1.48. Users of the model should open the spreadsheet and turn to tab **Market player X** in the first instance. Next, they should fill in all cells highlighted yellow, as explained below.

1.49. Cells **B5:I7** and **B9:I10** should be filled in with annual forecasts of the market player's maximum daily deliverability (GWh/day) from each of the GB non-storage sources of supply (ie, UKCS, Norway, LNG, IUK and BBL). In so doing, market players should include any long-term capacity bookings at GB import infrastructure and/or any market-priced (NBP-indexed) gas procurement contracts with, say, more than 2 years to expiry.

1.50. Cells **C20:C45** should be filled in with an estimate of the market player's share of space at each storage facility, as a proxy for its share of total deliverability.

1.51. Finally, users of the model should turn to tab **Table** and click on the red button **Click here for summary table**. This will run a macro producing a tabulated summary of results (macros need to be enabled in the spreadsheet), in the format specified below. This is the key output table of the model.

<b>Click here for summary table</b>								
<b>Pivotality results</b>	<b>09/10</b>	<b>10/11</b>	<b>11/12</b>	<b>12/13</b>	<b>13/14</b>	<b>14/15</b>	<b>15/16</b>	<b>16/17</b>
Daily	0%, [0]	0%, [0]	0%, [0]	0%, [0]	0%, [0]	0%, [0]	0%, [0]	0%, [0]
Weekly	0%, [0]	0%, [0]	0%, [0]	0%, [0]	0%, [0]	0%, [0]	0%, [0]	0%, [0]
Monthly	0%, [0]	0%, [0]	0%, [0]	0%, [0]	0%, [0]	0%, [0]	0%, [0]	0%, [0]
Quarterly	0%, [0]	0%, [0]	0%, [0]	0%, [0]	0%, [0]	0%, [0]	0%, [0]	0%, [0]
Seasonal	0%, [0]	0%, [0]	0%, [0]	0%, [0]	0%, [0]	0%, [0]	0%, [0]	0%, [0]

\*Market player's 'pivotal gas volume of supply' as % of GB gas demand, [number of periods in which market player is pivotal]

1.52. As can be seen from the table above, the results for each gas year and time frame considered are presented as a combination of two numbers:

- The first figure represents the market player's 'pivotal volume of supply' for the analysed period, ie the amount of gas that the market player must supply in order to ensure that total GB gas demand is met, assuming the maximum available amounts of supply are being supplied by the remaining market players. This number is expressed as a % of total GB gas demand.
- The second figure, [in brackets] represents the number of periods in which the market player has been found to be pivotal, eg if in the weekly model this figure is [5] this means that the market player is 'pivotal' in meeting weekly demand in 5 out of 52 weeks considered.

1.53. Clearly, the larger these two figures are, the higher will be the market player's market power.

## Appendix 3 - Glossary

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### A

#### Anti hoarding arrangements

Transparent mechanism(s) that allow unused capacity to be made available to the market so as to maximise the use of a facility.

#### Authority

The Gas and Electricity Markets Authority. Ofgem is the office of the Authority. The terms 'Ofgem' and the 'Authority' are used interchangeably in this document.

#### Available capacity

As defined in Article 2 of the Gas Regulation, 'available capacity' means the part of the technical capacity that is not allocated and is still available to the system at that moment.

### B

#### Balgzand Bacton Line (BBL)

The Balgzand Bacton Line (BBL) is an interconnector that flows gas from Balgzand in the Netherlands to Bacton in the UK.

### C

#### CAM

Capacity allocation mechanisms

#### CC

Competition Commission

#### CE

Centrica Energy

#### CEER

Council of European Energy Regulators

#### CMP

Congestion management procedures

#### CSL

Centrica Storage Limited

## **D**

### [Deliverability](#)

As defined in Article 2 of the Gas Regulation, 'deliverability' means the rate at which the storage facility user is entitled to withdraw gas from the storage facility.

### [DECC](#)

Department of Energy and Climate Change.

## **E**

### [Elasticity of demand](#)

Elasticity of demand is a measure used in economics to show the responsiveness (or elasticity) of the quantity demanded of a good or service to a change in its price. More precisely, it gives the percentage change in quantity demanded in response to a one percent change in price (holding constant all the other determinants of demand).

### [The Electricity and Gas \(Internal Markets\) Regulations 2011](#)

The Electricity and Gas (Internal Markets) Regulations 2011 ("the Regulations") make amendments to electricity and gas legislation and licences in order to implement, and address matters arising out of or related to, Directive 2009/72/EC ("the Electricity Directive") and Directive 2009/73/EC ("the Gas Directive") of the European Parliament and of the Council, concerning common rules for the internal market in electricity and gas, respectively; Regulation (EC) No 714/2009 on conditions for access to the network for cross-border exchanges in electricity ("the Electricity Regulation"), Regulation (EC) No 715/2009 on conditions for access to the natural gas transmission networks (as amended) ("the Gas Regulation") and Regulation (EC) establishing the Agency for the Co-operation of European Regulators ("the Agency Regulation"). These instruments are collectively known as the European Union (EU) Third Energy Package ("the Third package"). The Third Package repeals Directives 2003/54/EC and 2003/55/EC and Regulations (EC) No 1228/2003 and (EC) No 1775/2005.

The Regulations also provide for the enforcement, by the Gas and Electricity Markets Authority ("the Authority"), of certain provisions of Commission Regulation (EU) No. 838/2010 of 23 September 2010 ("the ITC Regulation") on laying down guidelines relating to the inter-transmission system operator compensation mechanism and a common regulatory approach to transmission charging.

### [ERGEG](#)

European Regulators' Group for Electricity and Gas. This group was formally dissolved by the European Commission (EC), with effect from 1 July 2011.

## **G**

### [Gas Act](#)

The Gas Act 1986.



### Gas Directive

For the purposes of this document, this term refers to Directive 2009/73/EC of the of the European Parliament and of the Council of 13 July 2009 concerning common rules for the internal market in natural gas and repealing Directive 2003/55/EC.

### Gas Regulation

For the purposes of this document, this term refers to Regulation (EC) No 715/2009 of the European Parliament and of the Council of 13 July 2009 on conditions for access to the natural gas transmission networks and repealing Regulation (EC) No 1775/2005.

### Gas storage facility

See 'storage facility'.

### Gas year

Year for the 12 months ending 30th September.

### GGP SSO

Guidelines for Good Third Party Access (TPA) Practice for Storage System Operators

### GSOG

Gas Storage Operators Group

## I

### Independence Program

The meaning of this term is that given by Section 8R of the Gas Act. The owner must establish a programme (the 'independence programme') in relation to the owner's senior officers, other officers, managers and employees for the purpose of ensuring that they do not cause the owner to - (a) discriminate against persons who are not affiliates of the owner; or (b) breach any of the owner's obligations under section 11C of the Gas Act, regarding the disclosure or use of information.

### Injectability

As defined in Article 2 of the Gas Regulation, 'injectability' means the rate at which the storage facility user is entitled to inject gas into the storage facility.

### Interconnector UK (IUK)

Commercial name of the interconnector linking Belgium and Great Britain

## L

### Liquefied Natural Gas (LNG)

The fluid state of natural gas, it can be obtained industrially by cooling down natural gas. LNG is used essentially in dedicated tanker ships to transport gas overseas in a much reduced volume.

#### Long run marginal cost (LRMC)

The cost of supplying an additional unit of a good or service when capacity can be varied. It comprises not only operating costs, but also the capital costs (including a risk adjusted rate of return on the investment) associated with increasing productive capacity to deliver the additional unit. Note that the long run marginal cost is equivalent to the long run avoidable cost.

### **M**

#### Main commercial conditions

As defined in Section 48 of the Gas Act, 'main commercial conditions' means, in the case of a storage facility, such information as would enable a potential applicant for a right to have gas or liquid gas stored in the facility to make a reasonable assessment of the cost of, or the method of calculating the cost of, acquiring that right; the other significant terms on which such a right would be granted; and such additional information as the Authority may from time to time specify by notice.

#### Manager

As defined in Section 8R(9) of the Gas Act, 'manager', in relation to the owner of a storage facility or an affiliate of the owner, means a natural person who is responsible, directly or indirectly, for the day to day management of the owner or the affiliate.

#### Market player

For the purposes of this document a 'market player' should be understood to mean the owner of a gas storage facility (owner) and any related undertaking(s).

#### Minor facilities exemption (MFE)

Exemptions granted on the basis that use of the storage facility by other persons is not technically or economically necessary for the operation of an efficient gas market, pursuant to Section 8S of the Gas Act.

### **N**

#### National Balancing Point (NBP)

The NBP is the virtual unified trading point of the GB gas transmission network.

#### National Grid Gas (NGG)

National Grid owns and operates the National Transmission System throughout Great Britain and owns and operates a significant Gas Distribution Network throughout part of England.

#### Negotiated Third Party Access (nTPA)

Negotiated Third Party Access (nTPA) refers to arranging supply contracts on the basis of voluntary commercial agreements negotiated in good faith.

### Nomination process

Customers that hold capacity rights at a storage facility must inform the owner of the storage facility before they intend to utilise their contracted capacity (ie, to inject or withdraw gas). This is referred to as the nomination process. The deadline for when customers can nominate to use their capacity will vary across storage facility owners and across different types of services.

## O

### OFT

Office of Fair Trading

### Owner

As defined in the Gas Act, in relation to a storage facility, 'owner' includes a person occupying or having control of the facility. It should be noted that the Gas Regulation and the Gas Directive use different terminology and refer to 'storage system operators' instead. For consistency in this document, we have used the UK term 'owner' throughout.

## P

### Petroleum Act

The Petroleum Act 1998.

### Pivotality analysis

Pivotality analysis is one of the possible ways in which one could measure market power and is commonly used in electricity markets. Pivotality analysis identifies the market players that are 'pivotal' by using demand and supply data. When a market player is pivotal, total demand cannot be met from the total supply from all other sources of supply. Therefore, the market player will not face material competitive constraints for its pivotal volume of supply ie, it is guaranteed a certain market share as a result of the lack of competing supply.

### Primary market

The market of the capacity traded directly by the storage facility owner.

## R

### Related undertaking

A related undertaking for the purposes of the Third Package and this guidance means an undertaking where the same person or same persons are entitled, directly or indirectly, to exercise control, and where the undertaking or group of undertakings

perform at least one of the functions of transmission, distribution, LNG or storage and at least one of the functions of production or supply.

#### Reserve price

The minimum amount that the owner of an item up for auction will accept as the winning bid in the auction.

### **S**

#### Secondary market

As defined by Article 2(6) of the Gas Regulation as the market of the capacity traded otherwise than on the primary market.

#### Senior officer

As defined in the Gas Act, senior office means -(a) in relation to a company, a director; (b) in relation to a partnership, a partner; (c) in any other case, a person holding a position equivalent to that of a director or partner.

#### Significant market power (SMP)

Refers to the ability of a market player to affect the wholesale price of gas in a way that is profitable for the market player for a sustained period of time.

#### SSC

Standard Storage Contract

#### SSEHL

SSE Hornsea Limited

#### Storage facility

As defined in Article 2(9) of the Gas Directive, 'storage facility' means a facility used for the stocking of natural gas and owned and/or operated by a natural gas undertaking, including the part of LNG facilities used for storage but excluding the portion used for production operations, and excluding facilities reserved exclusively for transmission system operators in carrying out their functions.

#### Storage System operator (SSO)

As defined in Article 2(10) of the Gas Directive, 'storage system operator' means a natural or legal person who carries out the function of storage and is responsible for operating a storage facility. For consistency with the terminology used in UK law, we have referred to storage 'owners' throughout this document, rather than 'operators'. The Gas Act defines 'owner' as a person occupying or having control of the facility.

#### System integrity

As defined in Article 2(9) of the Gas Regulation, 'system integrity' means any situation in respect of a transmission network including necessary transmission

facilities in which the pressure and the quality of the natural gas remain within the minimum and maximum limits laid down by the transmission system operator, so that the transmission of natural gas is guaranteed from a technical standpoint.

## **T**

### Ten Year Statement (TYS)

The TYS is published in line with Special Condition C2 of National Grid's Gas Transporters' Licence and Section O of the Uniform Network Code. It is published annually and provides a ten year forecast of transportation system usage and likely system developments.

### Third Package

The Third Package, for the purposes of this document refers to Directive 2009/73/EC of the of the European Parliament and of the Council of 13 July 2009 concerning common rules for the internal market in natural gas and repealing Directive 2003/55/EC ('Gas Directive') and Regulation (EC) No 715/2009 of the European Parliament and of the Council of 13 July 2009 on conditions for access to the natural gas transmission networks and repealing Regulation (EC) No 1775/2005 ('Gas Regulation').

### Third Party Access (TPA)

TPA means access by third parties to transmission and distribution networks, and gas and LNG storage facilities. The requirements of TPA are met either through a negotiated (nTPA) or regulated TPA (rTPA) regime.

### TSO

Transmission system operator.

### TTF

The Title Transfer Facility (TTF) is a virtual trading point for natural gas in the Netherlands.

## **U**

### UKCS

The UK Continental Shelf (UKCS) is the region of waters surrounding the United Kingdom, in which the UK claims the rights to minerals.

### Use it or lose it (UIOLI) arrangements

Arrangements that ensure there are incentives to "use capacity" at a facility or otherwise "lose capacity" at a facility whereby any unused capacity is made available to the market.

## **W**

### Winter Outlook Report (WOR)

Annual publication by National Grid, providing information to gas and electricity market participants on the outlook of supply and demand for the coming winter.

**Z**

[Zeebrugge](#)

The Zeebrugge Hub is the natural gas virtual trading point in Zeebrugge, Belgium. It is connected to the National Balancing Point (UK) via the Interconnector.

## Appendix 4 - Feedback Questionnaire

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

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

1.2. Please send your comments to:

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