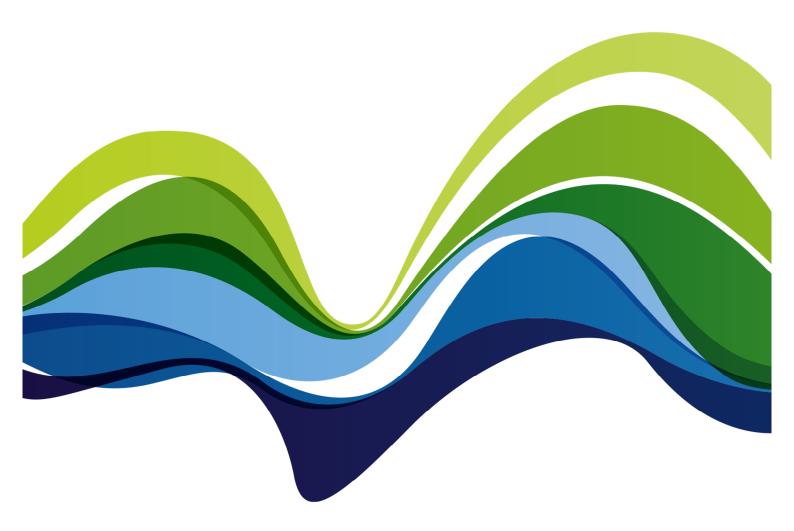


# **SSE Hornsea Limited**

Application for an Exemption under Section 8S of the Gas Act 1986





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## 1 Introduction

- 1.1. SSE Hornsea Limited (SSEHL) is the owner and operator of the Hornsea (also referred to as the Atwick) gas storage facility ("**the Facility**"). The Facility was initially developed by British Gas and first came into operation in 1979. It was later sold to Dynegy Hornsea Limited in November 2001, before being purchased by SSEHL in September 2002.
- 1.2. Despite being a wholly owned subsidiary of SSE plc ("SSE"), the Facility is operated independently of all SSE affiliates that produce, supply, ship or sell gas and employees of SSEHL are subject to a strict Code of Practice. This is in compliance with business separation requirements.
- 1.3. The Facility is currently subject to negotiated Third Party Access (nTPA) rules. These rules are defined in EU legislation<sup>1</sup> and set out in sections 8R and 19B of the Gas Act 1986 (as Amended) ("the Gas Act").
- 1.4. At the time of purchase, both of the existing gas storage sites, Hornsea and Rough (a large offshore facility), were subject to nTPA rules. However, the sites under development at that time, namely Hole House and Hatfield Moor, had applied and were granted exemptions under section 19A of the Gas Act.
- 1.5. The gas storage market has developed considerably since SSEHL's purchase of the Hornsea Facility (see Chart 1 below). There are now six gas storage sites, including the Aldbrough facility, two-thirds of which is owned by SSEHL<sup>2</sup>, and a further three facilities under development. All of these, with the exception of Rough and Hornsea, are exempt from the nTPA provisions.

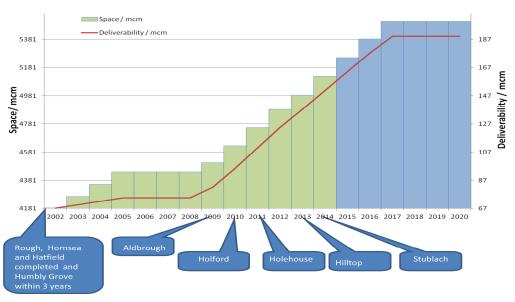


Chart 1: UK gas storage deliverability and storage growth since 2002

<sup>&</sup>lt;sup>1</sup> Directive 2009/73/EC concerning common rules for the internal market in natural gas and repealing Directive 2003/55/EC ("the Gas Act") and Regulation 715/2009 on conditions for access to the natural gas transmission networks and repealing Regulation 1775/2005 ("the Gas Regulation")

<sup>&</sup>lt;sup>2</sup> SSEHL owns a 2/3 share of the Aldbrough gas storage site; the remaining 1/3 share is held by Statoil (UK) Limited (Statoil). SSEHL and Statoil were granted a Minor Facility Exemption for their respective shares of the Aldbrough facility under Section 19A of the Gas Act.



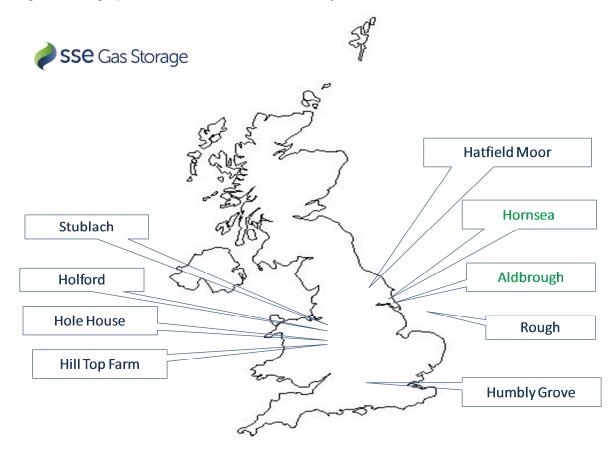
- 1.6. The Electricity and Gas (Internal Markets) Regulation 2011 amended the exemption provisions contained in the Gas Act 1986 by inserting Section 8S. Section 8S provides for a "Minor Facility Exemption" ("MFE"), which allows anyone who "is or is expecting to be" an owner of a storage facility to apply for an exemption from the requirements of sections 8R and 19B of the Gas Act.
- 1.7. As such, SSEHL is now seeking to secure a MFE under Section 8S of the Gas Act. We do not believe the use of the Facility by other persons is technically or economically necessary for the operation of an efficient gas market.



## 2 The Facility

2.1. Hornsea is an onshore gas storage facility located one mile from the East Yorkshire coast near to the town of Hornsea (see Figure 1).

Figure 1: Geographical location of the Hornsea facility



- 2.2. This area features the only deep salt in the UK, part of the Zechstein Salt Basin, which lies beneath much of the North Sea and extends under this area of the East Yorkshire coastline. Nine man-made salt cavities, with the ability to store up to 296 million cubic metres (mcm) of useable gas, have been leached into the salt layer at a depth of approximately 1.8 kilometres.
- 2.3. Four compressors provide the means of injecting up to 2 mcm of gas per day into the salt cavities where it is stored at pressures between 120–270 bar. Gas can be withdrawn at a rate of up to 18 mcm per day, which is equivalent to the gas requirements of around four million homes. Relative to other medium-range storage facilities in the GB market, these injection and withdrawal rates mean that Hornsea's ability to cycle gas is comparably slow.



- 2.4. At present, SSEHL sells the service from the entire Facility on a firm basis meaning that customers' nominations are held whole. The basis of the Hornsea storage service is the Standard Bundled Unit (SBU). Each SBU affords the customer approximately:
  - (i) 1 kWh deliverability
  - (ii) 17.95 kWh space
  - (iii) 0.11 kWh injectability

SBUs are currently sold for a minimum period of one storage year running from the start of May through to the end of April.

- 2.5. Capacity is sold through an annual auction process on the basis of a standard contract, the Storage Services Contract ("**the Storage Contract**"). These terms are available to all parties on a non-discriminatory basis. A "firm" service is offered to all customers and, accordingly, all nominations are allocated whole. Under the Storage Contract, customers may make unlimited re-nominations on either a day-ahead or within-day basis.
- 2.6. As well as selling firm storage services, SSEHL also offers customers access to unutilised capacity, thereby allowing them to inject, store and withdraw gas on an interruptible basis. This service is offered to all customers that have signed a Storage Contract, irrespective of whether they have managed to secure SBUs during the auction process. In other words, all market participants are entitled to gain access to the Facility on an interruptible basis, without purchasing SBUs in the storage year, as long as they have signed the Storage Contract.
- 2.7. The Facility's capabilities versus existing facilities are set out in Table 1 below.

Name	Owner	Owner Type		Project	Project	Max Tech Space		Max Tech Del.		Max Tech Inj.	
Name	Owner		туре	Start	Completion	(mcm)	(GWh)	(mcm)	(GWh)	(mcm)	(GWh)
Rough	Centrica	LRS	Depleted field			3,716	40,256	44.8	485	28.15	305
Stublach <sup>3</sup>	Storengy	MRS	Salt cavern	2014	2018	400	4,333	30	320	30	320
Holford	EoN	MRS	Salt cavern	2005	2013	160	2,383	22	240	22	240
Aldbrough	SSEHL	MRS	Salt cavern			179	1,976	20.6	228.2	13.2	141.6
Hornsea	SSEHL	MRS	Salt cavern	1975		257 <sup>4</sup>	2,855	18.03	195	1.9	21.6
Hilltop <sup>5</sup>	EdF	MRS	Salt cavern	2013	2016	98	1,070	14.7	160	16	175
Aldbrough	Statoil UK	MRS	Salt cavern			89.5	988	10.3	114.1	6.6	70.8
Holehouse	EdF	MRS	Salt cavern	2008	2016	48	520	8	90	11	120
Humbly Grove	Petronas	MRS	Depleted field	1999	2005	259	2,810	7.36	79	8.49	91
Hatfield	SP	MRS	Sandstone		2000	115	1,245	2	21.6	3	32.5

 Table 1: Current storage facilities (operational and under construction)

<sup>4</sup> One cavern currently suspended from operation, hence current space 257 mcm rather than 296 mcm. However, 'technically

<sup>&</sup>lt;sup>3</sup> First 2 caverns online by Summer 14. Full site commissioning of up to 20 caverns scheduled for 2018.

necessary' and 'economically necessary' analysis is based on full potential capacity of 296 mcm.

<sup>&</sup>lt;sup>5</sup> Current capacity as per NG's website (417 GWh / 38.5 mcm).



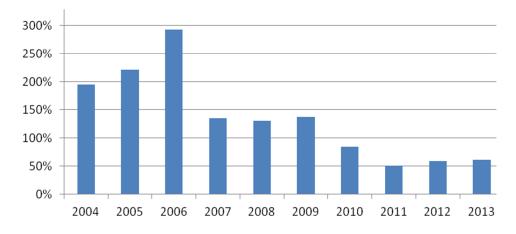
## 3 Rationale

3.1. As Ofgem will be aware, the profitability of gas storage businesses has been in decline in recent years. This has mainly been caused by the depression of the forward summers versus the Quarter 1 (Q1) gas price spread as a result of demand reduction and increased Nordic and Continental supplies (Chart 2). The decline in this spread feeds directly through to the value placed on a SBU, the storage product offered to customers. This is shown in Chart 3 below.

90 35 80 Summer and Q1 Prices, p/th 30 70 Sum-Q1 Spread, p/th 25 60 20 50 40 15 30 10 20 5 10 0 0 2004/5 2005/6 2007/8 2008/9 2009/10 2012/13 2006/7 2010/11 2011/12 2013/14 2014/15 Sum (Apr-Mar) Q1 (Apr-Mar) Sum-Q1 spread

Chart 2: Summer/Q1 spread analysis - priced in the year preceding delivery

Chart 3: Volatility of day-ahead prices in GB



- 3.2. Looking forward, operating profit at gas storage sites will be impacted by the recent decision of the Valuation Office Agency to increase the Rateable Value of facilities. This further impacts the Facility's ability to return a profit.
- 3.3. However, gas storage within the UK benefits UK Security of Supply, price stability and reduces the need for future transmission investment, hence reducing costs for all users



of the NTS. To this end, we are continuing to invest in the Facility to ensure the asset's operational reliability.

However, this continued investment is put under pressure by the nTPA framework. We consider the following three aspects of this framework to be particularly onerous when compared to the unregulated position of competing exempt facilities:

(i) The maximum storage capacity must be made available to the market (Regulation (EC) No 715/2009, Article 17, para. 1). Moreover, in Ofgem's Guidance on the Third Party Access Arrangements, Ofgem goes on to say that it would expect the maximum available storage capacity to be "offered to market participants a sufficient amount of time before the start of each storage year".

Under nTPA, if all of our capacity is made available to the market and secured ahead of the storage year, our ability to offer within-year products falls away. This has an adverse effect on our ability to respond flexibly to the market and our customers' needs, in particular smaller players who tend to be more interested in smaller offerings made throughout the year, depending on their portfolio requirements.

It also means that, as a business, we are unable to offer our services at times when it is most efficient. For example, this year, the auction for 2014/15 products was held in February 2014 to ensure sufficient time to run further auctions ahead of the storage year, should they be required. At this point, the market spread was c. 9 p/therm, but it was internally forecast to widen. Having not sold all available capacity in the first Tranche, a second Tranche (at a much reduced reserve price) was run in March 2014, again allowing time to run a third Tranche should it be required. At this point, the spread was marginally wider. In this instance, it would have made better commercial sense for the Facility to hold the auction process closer to the start of the storage year and after the effects of the soft winter had dampened, but this was not possible given the constraints of the Act and Ofgem's Guidance. These same constraints do not apply to nTPA exempt facilities.

(ii) System users must be consulted with when developing or changing commercial conditions and must be given at least two months notice between draft proposals and the conditions being made final (Gas Act 1986 (as amended), Article 19B). Whilst we do not disagree with this in principle, the practice of going out to consultation and allowing at least a two-month window between issuing a draft and finalising the conditions means that the Facility cannot react as quickly to changing customer and market needs as all other exempt storage facilities.

(iii) Gas storage owners must not enter into arrangements with gas transporters for gas to be introduced into, conveyed by means of or taken out of a pipe-line system operated by that gas transporter, unless it is for the efficient operation of the storage facility (Gas Act 1986 (as amended), Article 8R). As such, the Hornsea Facility has been unable to participate in National Grid Gas' annual tender for operating margins services, which would involve a contract with NGG, the gas transporter, to deliver gas. This is a potential revenue stream for other storage facilities that is currently unavailable to Hornsea.



- 3.4. If the Facility is to operate efficiently within the market, we believe it must be able to operate on a level playing field with its competitors.
- 3.5. This view is reinforced in the Council of European Energy Regulators' (CEER) recent consultation on their vision for the regulatory arrangements for the gas storage market<sup>6</sup>, and indeed in the Gas Storage Operator Group's (GSOG) response on behalf of the gas storage industry. In the consultation itself, the CEER concludes that "the market for storage is changing as participants use multiple sources to meet their flexibility needs. To ensure that storage continues to be able to play an important role in the market, it is necessary that SSOs [storage system operators] can compete with other sources on a level playing field". For this to happen, the CEER goes on to identify potential barriers, which should be removed, including ensuring that "any regulatory levels or policy interventions are targeted to situations where there is clear evidence of market failure to minimise unintended consequences".
- 3.6. Importantly, in seeking an exemption, we are not looking to remove storage capacity from the market. Rather, we are seeking to offer our products, as a minimum, on the same basis as other storage operators in the GB market.

<sup>&</sup>lt;sup>6</sup> CEER Public Consultation Paper on the Regulatory Arrangements for the Gas Storage Market, Ref: C14-GWG-112-03, 22 October 2014



## 4 Section 8S Test

4.1. Section 8S of the Gas Act 1986 (as amended) states that:

"The Authority must give a minor facility exemption in respect of a facility where it is satisfied that use of the facility by other persons is not technically or economically necessary for the operation of an efficient gas market."

- 4.2. Accordingly, the two tests that the Authority must consider are: (i) whether the Facility is "technically necessary" for the operation of an efficient gas market; and (ii) whether the Facility is "economically necessary" for the operation of an efficient gas market.
- 4.3. Ofgem sets out the criteria against which it will judge the exemption tests in its Open Letter, dated 16 June 2009. Ofgem has followed this approach in previous nTPA exemption applications, the most recent being the application by Storengy UK Limited ("Storengy") for Stublach phase 2.



## 5 "Technically Necessary"

5.1. In its Open Letter, Ofgem notes the following as regards whether a facility will be technically necessary for the operation of an efficient gas market:

"Whilst the market may have a technical requirement for flexible gas sources to meet fluctuations in demand, it clearly does not follow that nTPA for either storage generally or at a specific gas storage facility will be "technically necessary". On the contrary, at all but a very few large or strategically important gas storage facilities we consider it unlikely that nTPA could potentially be considered to be technically necessary in the GB market."

5.2. In its recent consultation on Storengy's application for a nTPA exemption<sup>7</sup>, Ofgem goes on to say:

"GB is supplied by a diverse range of sources. Price signals in the GB market are designed to encourage gas to be made available in the short term and investment to meet peak and winter demand and demand for flexibility. The GB market is supplied by a diverse range of sources, and has supply capability well in excess of peak demand. As a result, we conclude that nTPA at Stublach is not technically necessary for the operation of an efficient gas market."

5.3. It is worth highlighting that the completed Stublach facility will offer substantially more space (156%), deliverability (165%) and injection capability (1,500%) than the Hornsea facility. Given Ofgem's recent decision on Stublach, this in itself would support the proposition that the use of the Hornsea facility by other persons is not technically or economically necessary for the operation of an efficient gas market. The following analysis supports this.

#### 5.4. (i) The Facility is not required to meet peak day demand

Consistent with Storengy's and Ofgem's analysis, we have assessed technical necessity using forecast peak supply capability and peak day demand. In keeping with Ofgem's conservative approach, we have based forecast peak capability on National Grid's Future Energy Scenarios, amended to assume no further new supply capacity is constructed beyond what is already under construction. Similarly, we have used demand data from National Grid's 2013 Ten Year Statement for two scenarios of diversified peak demand ('Slow Progress' and 'Gone Green')<sup>8</sup>.

<sup>&</sup>lt;sup>7</sup> <u>https://www.ofgem.gov.uk/ofgem-publications/86471/stublachphase2mfe-consultation.pdf</u>

<sup>&</sup>lt;sup>8</sup> http://www2.nationalgrid.com/UK/Industry-information/Future-of-Energy/Gas-Ten-Year-Statement/



5.5. Using this data, Table 2 below sets out an assessment of capacity headroom.

Table 2 – Peak day demand (diversified) and Supply Capability (GWh/day)

GWh/day	13/14	14/15	15/16	16/17	17/18	18/19	19/20	20/21	21/22	22/23	23/24
'Slow Progress' (SP) scenario peak	5,593	5,552	5,429	5,356	5,253	5,163	5,113	5,289	5,267	5,333	5,322
'Gone Green' (GG) scenario peak	5,623	5,609	5,486	5,367	5,224	5,089	4,956	5,027	4,916	4,952	4,893
Greater of 'SP' and 'GG'	5,623	5,609	5,486	5,367	5,253	5,163	5,113	5,289	5,267	5,333	5,322
Supply Capability	7,574	7,751	7,904	8,006	8,080	8,141	8,104	8,062	8,039	7,999	7,949
Headroom	1,951	2,142	2,418	2,639	2,827	2,978	2,991	2,773	2,772	2,666	2,627
Headroom excluding Hornsea	1,756	1,947	2,223	2,444	2,632	2,783	2,796	2,578	2,577	2,471	2,432

Source: Supply: Ofgem analysis of National Grid Gas (NGG) data (Future Energy Scenarios 2012 & 2013) and Demand: NGG Ten Year Statement (2013).

5.6. From the above, it is clear that in all years assessed, headroom is significantly in excess of the Facility's fully operational deliverability of 195 GWh/day (and indeed the combined deliverability of the Hornsea facility and SSEHL's share of the Aldbrough facility (195 GWh/day and 228 GWh/day respectively)). As concluded by Ofgem in its recent analysis of the Stublach facility, this implies it would take a significant loss of supply before the Facility is needed to meet peak day demand.

#### 5.7. (ii) The Facility is not required to meet winter demand

Again using Ofgem's analysis from its recent consultation on Storengy's exemption application, we have looked at how technically necessary the Facility is in meeting winter demand.

5.8. The following table, Table 3, is taken directly from Ofgem's consultation and sets out the 'headroom' between demand and supply where:

(i) Demand is based on NGG's forecast cold demand profile for 2013/14 projected forward using forecast annual demand growth under NGG's Slow Progression scenario and then aggregated over a winter period; and

(ii) Supply is based on aggregated non-storage supply capability over the winter period plus one-cycle of storage capacity.



5.9. Similar to the peak day analysis above, if the headroom is greater than the maximum deliverability of the Facility then we can say that that Facility is not expected to be needed to meet demand over a cold winter period.

GWh/day	13/14	14/15	15/16	16/17	17/18	18/19	19/20	20/21	21/22	22/23	23/24
Average daily supply headroom	1,894	2,010	2,098	2,143	2,129	2,140	2,103	2,075	2,103	2,137	2,070

Table 3: Winter period average excess supply capacity (GWh/day)

Source: Ofgem analysis of NGG data (Future Energy Scenarios 2012 and 2013)

- 5.10. In all years assessed, the daily headroom is significantly in excess of the Facility's peak deliverability (195 GWh/day) when fully operational (and, again, in excess of the combined deliverability of the Hornsea facility and SSEHL's share of the Aldbrough facility (195 GWh/day and 228 GWh/day respectively)). This implies that it would take a significant loss of supply (far in excess of N-1) before the Facility (or SSEHL's share of gas storage facilities) is needed to meet demand over a cold winter period.
- 5.11. As per Ofgem's recent consultation, we can therefore conclude that the use of the Facility by other persons is not technically necessary for the operation of an efficient and secure gas market.



## 6 "Economically Necessary"

- 6.1. We understand that in determining whether nTPA is economically necessary at a facility, Ofgem is seeking to understand whether an exemption is likely to distort the market and provide a materially worse outcome versus the situation had an exemption not been granted.
- 6.2. Given that the Facility is already operating subject to the nTPA framework, the test in this case is whether the introduction of an exemption is likely to have an adverse effect on the current market, both now and in the future.
- 6.3. We also understand that in carrying out this analysis, Ofgem's approach is to assign all of the storage space and deliverability to the storage operator. We recognise the rationale for doing this and in this section our analysis looks at SSEHL's total share of the flexibility market, i.e. the Hornsea facility plus two-thirds of the Aldbrough facility. However, in practice, SSEHL will continue to provide access to other market participants at both facilities and, as such, the analysis presented here is a conservative representation of economic necessity.
- 6.4. We agree with Ofgem that there is no single indicator of potential market power and that many factors should be considered. We have considered the three most relevant potential indicators of market power set out by Ofgem:
  - (i) Market share;
  - (ii) Pivotality; and
  - (iii) Market concentration

#### 6.5. (i) Market share

In Ofgem's assessment of Storengy's nTPA exemption application, Ofgem recognised that all three of its relevant market definitions represented a "generally conservative approach" and that "a wider view of the flexibility market could also be valid".

- 6.6. We do not believe nTPA is necessary for the efficient operation of the gas market in relation to any onshore gas storage facility in the current GB market. As such, we had no reason to question the relevant market definitions used in Ofgem's assessment of Storengy's application. However, in making our own application, we believe it is right that we conduct a proper review of these definitions.
- 6.7. Having done so, our view is that these definitions, whilst recent, can and should be updated to reflect latest market intelligence and widely accepted fundamental trends.
- 6.8. Our main area of difference with Ofgem's assessment is in relation of Norwegian gas flows. In any definition of the relevant market, we believe there should be at least some assumed flexibility from Norwegian flows, not least given Ofgem's view that Norway's contribution to flexible gas flows is greater than that of the UK's Continental Shelf (UKCS), which is incorporated in all three of Ofgem's definitions at 19%.
- 6.9. Whilst we appreciate that historic flows provide the starting point for any analysis of flexibility, historic analysis will cover a period when Norwegian flows behaved fundamentally differently to how they behave now and will do in the future. Ofgem itself recognises that "past behaviour may not necessarily be a good predictor of future behaviour". It also states that "in general, we would expect developments in European



markets to result in greater flexibility. The implementation of European network codes should improve access to cross-border capacity and make it easier for shippers to access the capacity they need to respond to price differentials".

- 6.10. Langeled was technically commissioned in 2007 and it has taken a number of years to tie in all the European links and move towards outright commerciality. Moreover, we recognise that, historically, Norwegian gas has been tied into long-term contracts to continental Europe.
- 6.11. However, in its most recent annual report (2013)<sup>9</sup>, Statoil, who transports and markets 70% of all Norwegian continental shelf gas, publicly states that "gas is sold through long-term contracts with major European utilities, and a growing proportion through short term end-user sales and on liquid marketplaces". Separately, Eldar Saetre, Statoil's executive vice president, has commented on the active role that Statoil is playing in the development towards hub-pricing<sup>10</sup>.
- 6.12. We believe this "growing proportion" is evidenced by the following two charts (Charts 4 and 5). Chart 4 shows how Langeled flows (the only sub-terminal that exclusively imports Norwegian gas) have responded to price over the past two years. For the 2012 gas year (GY-12), prices remained high into April and, as a result, so did flows. In GY-13, the price fell sooner and flows followed.

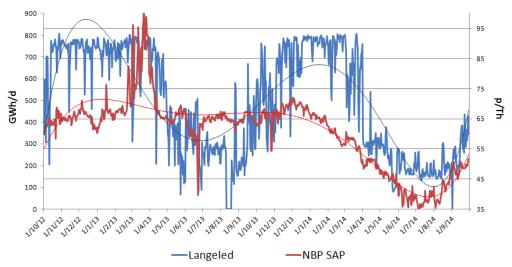


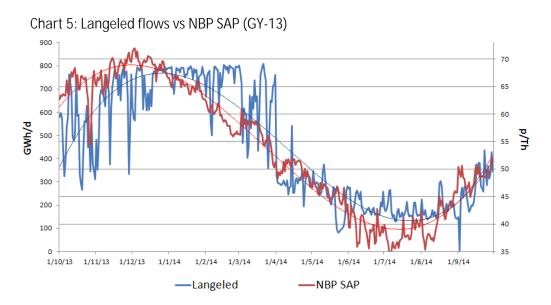
Chart 4: Langeled flows vs NBP SAP (GY-12 and GY-13)

6.13. Chart 5 demonstrates this high level of price responsive flexibility.

<sup>&</sup>lt;sup>9</sup> <u>http://www.statoil.com/no/InvestorCentre/AnnualReport/AnnualReport2013/Pages/default.aspx</u>

<sup>&</sup>lt;sup>10</sup> http://www.bloomberg.com/news/2014-02-18/statoil-merges-gas-trading-with-oil-to-suit-freer-eu-market-1-.html





- 6.14. Moreover, we find a correlation coefficient of 0.84 between UK price and Langeled flows over the most recent gas year (GY-13). This correlation has risen year on year since 2009, implying a steady trend towards a higher degree of price responsiveness. We consider this to be evidence that Norwegian flows have fundamentally changed as Statoil has taken a more active approach to optimising its portfolio. Furthermore, we do not believe there is anything to suggest that flows will revert to being less price responsive given the economic benefits Norway (Statoil) and its customers gain from this flexibility.
- 6.15. We are mindful that Ofgem is also interested in flow/price correlations over the winter and peak periods. To this end, we have also found a positive correlation in each winter since 2009 and in both Q3 of 2013 and Q1 of 2014. Notwithstanding these findings, we are not convinced that this is any more relevant in assessing flexibility than looking at longer time periods and overall trends.
- 6.16. Finally, in reaching our view of Norwegian gas flows' contribution to flexibility for the purposes of defining the relevant market, we have looked at this relative to other sources. We note that Ofgem, in all its assessments of the relevant market, considers Norwegian flows to be more flexible than UKCS (which is captured under 'Beach Flex' in all three of Ofgem's definitions). We concur with this view.
- 6.17. Beach flex is accommodated as a flat 19% of the total UKCS in all three definitions. As such, we believe Norwegian flows should also feature in all three definitions and at a minimum of 19%. For this reason, we have assumed 20%, 35% and 50% of Norwegian flows to be flexible in Definitions 1, 2 and 3 respectively. This is increased from the corresponding 0%, 15% and 30% used in Ofgem's analysis of Storengy's application.
- 6.18. Separately, whilst we are sure that Ofgem's analysis in terms of beach flex is accurate, we do not believe "beach flex" will necessarily "fall over time". Given the scarcity of UKCS supplies, it could be argued that the remaining reserves will be managed more actively and become more flexible over time.
- 6.19. We would also suggest that it is not realistic to suggest that an interconnector with virtual reverse flow products, connecting the two most liquid gas markets in Europe, does not exhibit any degree of flexibility. Whilst the Bacton-Balgzand Line (BBL) has also



historically run under long-term contracts, these long-term oil-indexed contracts are expected to decline from 2018-2020, which will result in BBL becoming more flexible. Also, the Dutch Title Transfer Facility (TTF) hub has become just as liquid as the National Balancing Point (NBP) in the UK with over-the-counter (OTC) volumes for the period up to October 2014 exceeding those of NBP trades. Our definitions do not reflect either of these points (nor the view set out above in relation to sustained beach flex) and, as such, retains a conservative view of the flexibility market.

6.20. Given the above, we have defined the relevant market for flexibility as follows:

Definition 1: MRS + LRS + 50% IUK + 20% Norway + Beach Flex + 25% LNG Definition 2: MRS + LRS + 70% IUK + 25% BBL + 35% Norway + Beach Flex + 50% LNG Definition 3: MRS + LRS + 100% IUK + 50% BBL + 50% Norway + Beach Flex + 50% LNG

Aside from the changes highlighted above, we have used the underlying numbers employed by Ofgem in its assessment of Storengy's application, with the exception of two minor amendments. We have utilised National Grid's Winter Outlook 13/14 for Norwegian deliverability rather than Future Energy Scenarios 2014 because this is subject to less extrapolation/interpretation, and we have calculated a slightly higher figure for LNG deliverability based on summating current capacity and expected developments.

6.21. We are conscious that work to define the definitions for the purposes of any forwardlooking market share analysis is highly subjective. However, we believe we have put forward a robust set of reasons for why we believe the revised definitions are an equally valid view of the flexibility market for the purposes of assessing our application for nTPA exemption.

Definition	14/15-15/16	16/17-24/25
1	15-20%	10-15%
2	10-15%	10-15%
3	10-15%	5-10%

Table 4: SSEHL market shares, % of relevant market

- 6.22. Moreover, in practice, market share only becomes a concern if the player in question is intending to withhold its storage capacity from the market. This is not our intent in seeking an exemption. Indeed, we intend to continue to offer all of the Facility's capacity to the market, not least through the continuation of our use-it-or-lose-it provisions, to ensure that the capacity can be used by those that value it the most. It therefore follows that SSEHL's share of the GB flexibility market is, in practice, likely to be somewhat less.
- 6.23. Finally, it is worth noting that the EU Commission's procedures under its EU Merger Regulation set a market share threshold of 20%. Below this, a proposed merger between two competing companies is subject to a simplified merger review process because the Commission considers that a market share of less than 20% is unlikely to raise competition concerns. In all of the definitions above, SSEHL's share of the relevant market is below this threshold.



#### 6.24. (ii) Pivotality

Again, using the approach and model assumed by Ofgem in its consideration of Storengy's application as a starting point, we have looked at SSEHL's pivotality over a number of scenarios.

- 6.25. To this end, whilst we have referred to Ofgem's scenarios, we believe that there is justification for running alternative scenarios. Ofgem itself recognises that the key conclusion from its analysis of Storengy's market share is that "under normal circumstances it is difficult to consider GDF Suez 'pivotal' to meeting GB demand". Whilst we agree that it is prudent to assess a player's pivotality in adverse circumstances, we believe it is more helpful to focus any analysis on more plausible scenarios.
- 6.26. As such, we have assessed SSEHL's pivotality in meeting GB demand under the following scenarios. Note that these are still testing scenarios, not least because base demand is high in all three.

**Scenario 1:** Demand is based on 2010/11 demand (the year with the most cold days in 25 years) with growth assumptions as per those published in the pivotality model that was issued alongside Ofgem's 2011 nTPA Guidance. Supply is based on the capacity at both Hornsea and SSEHL's share of the Aldbrough facility being retained by SSEHL, plus no new supply infrastructure beyond that which is already under construction and Stublach phase 2.

**Scenario 2:** Demand is based on 2010/2011 demand, but growth assumptions (both average and peak) are updated to reflect the Slow Progression scenario in NGG's Future Energy Scenarios 2014<sup>11</sup>. (The 2012 Slow Progression scenarios for growth assumptions used by Ofgem in its analysis are no longer published.) Supply is as per 'Scenario 1'.

**Scenario 3:** Demand and base supply are as per 'Scenario 2', but subject to a significant supply disruption. We have applied the N-1 scenario recently used in DECC's Security of Supply Analysis whereby GB loses its largest piece of supply infrastructure. This is currently Milford Haven or, more specifically, the Felindre Pipeline, which reflects the combined capacity of both Milford Haven LNG terminals.

6.27. A market player is pivotal if total demand cannot be met by the remaining total supply. As stated earlier, for the purposes of our 'economically necessary' analysis, we have assumed that all capacity owned and operated by SSEHL is retained by SSEHL. However, in practice, SSEHL anticipates aiming to sell as much of its capacity as possible at an appropriate value point.

<sup>&</sup>lt;sup>11</sup> http://www2.nationalgrid.com/uk/industry-information/future-of-energy/future-energy-scenarios/



6.28. The following table provides a summary of the results.

Table 5: Summary of pivotality analysis

2013/14	2014/15	2015/16	2016/17 – 2019/20*
None, 0, 0%	None, 0, 0%	None, 0, 0%	None, 0, 0%
None, 0, 0%	None, 0, 0%	None, 0, 0%	None, 0, 0%
Seasonal, 1, 5-10%	Seasonal, 1, 10-15%	Seasonal, 1, 15-20%	Seasonal, 4*, 15-20%
	None, 0, 0%	None, 0, 0% None, 0, 0% None, 0, 0% None, 0, 0%	None, 0, 0%         None, 0, 0%         None, 0, 0%           None, 0, 0%         None, 0, 0%         None, 0, 0%

\*Note this column covers a 4 year period. As such, reference to '4' seasons under Scenario 3 equates to 1 season per year.

- 6.29. The above scenarios represent a high demand scenario (cold and peaky) (Scenario 1), a scenario based on this same high demand scenario, but with updated growth assumptions to reflect latest projections (Scenario 2), and a low supply (significant disruption) scenario (Scenario 3). As Ofgem concludes in its analysis of Stublach, under normal circumstances, it is difficult to consider SSEHL's market share as being pivotal to meeting GB demand. Whilst Hornsea and SSEHL's share of Aldbrough become pivotal in Scenario 3, it is likely that other nTPA exempt storage operators would also start to become pivotal under Scenario 3. Indeed, even Centrica plc, who is subject to statutory undertakings for its (Centrica Storage Limited's) operation of the Rough facility, becomes pivotal under this Scenario given its ability under these undertakings to secure up to 25% of Rough's capacity. In reality, we would expect the removal of such a critical piece of infrastructure to be brought back on line quickly and therefore not impact an entire season, as is illustrated here.
- 6.30. Moreover, we note in Ofgem's Guidance on TPA arrangements that Ofgem considers transitory pivotality, i.e. as a result of a one-off, short term shock such as a pipeline outage, to be of less concern in terms of a player's ability to influence the market.
- 6.31. It is also worth noting that the relevance of any storage operator's pivotality over longer exposures, i.e. quarterly or seasonal timeframes, diminishes. This is because storage facilities are only capable of providing a limited number of days of supply. In the case of Hornsea this is, at best, 20 days, depending on the rate at which the gas is withdrawn. Therefore, in the event of a longer term supply shortage, the ability to rely upon storage has limited benefit in any case.
- 6.32. Finally, although this application is purposefully focused on space and deliverability in line with Ofgem's approach in previous applications, injection capability is arguably just as key in determining a facility's ability to influence the market. The rate at which Hornsea can inject gas and therefore refill is slower than all competing facilities and, as such, the Facility is highly unlikely to be in a position to influence the market in this regard.

#### 6.33. (iii) Market Concentration

As Ofgem itself recognises, there are difficulties in obtaining information on the positions of each player within the whole flexibility market. To avoid assumption-led analysis, we have, as per Ofgem's approach in its assessment of Storengy's application, also restricted our analysis of market concentration to the storage market.



- 6.34. As we do not have access to information regarding capacity ownership at storage facilities we are unable to provide definitive analysis on the impact of the granting of an exemption to Hornsea.
- 6.35. However, we note from Ofgem's analysis of the Storengy application that the calculated HHI values are not indicative of a highly concentrated market. As such, we would expect similar findings as a result of this application and we would be grateful if Ofgem could repeat its analysis to confirm this point.



## 7 Conclusion

- 7.1. SSEHL is applying for an exemption from nTPA for the Hornsea gas storage facility on the basis that nTPA by other parties is not technically or economically necessary for the operation of an efficient gas market.
- 7.2. We believe Ofgem's recent decision on Storengy's application for an exemption for its operation of the Stublach facility, sets a precedent that nTPA is no longer required at large medium-range storage facilities. The market for flexibility has developed significantly in the last decade, which has meant that the reliance on gas storage for flexible supplies has decreased.
- 7.3. Moreover, under all of the above tests, SSEHL's share of the relevant market under normal circumstances does not reach levels that would allow it to influence the market.
- 7.4. Importantly, despite seeking a Minor Facilities Exemption, we are keen to make clear that we do not intend to withhold the Facility's capacity, nor is it our intention to offer capacity to SSE's affiliates on a preferential basis. Indeed, we intend to continue to offer Hornsea's capacity on a non-discriminatory basis to third parties, should they wish to purchase it at fair value. Furthermore, we would intend to deliver this through market-based allocation mechanisms such as auctions, which Ofgem notes in its Guidance as the most efficient and non-discriminatory approach to the allocation of storage services.
- 7.5. We also value the retention of our use-it-or-lose-it mechanism to ensure that the capacity at the Facility is fully utilised and we will continue to support and promote the secondary market.
- 7.6. Accordingly, by seeking an exemption, we are hoping to be better able to offer products that suit our customers' needs and have the flexibility to offer bespoke services where this is in both our customers' and our own interests.