storengy

To: Tom Corcut
Ofgem
9 Millbank
London SW1P 3GE

4th December 2013

Reference: STOR 22-12

Dear Tom

**Re: Request for an exemption under section 8S of the Gas Act 1986 (as amended) (Gas Act) from the third party access requirements contained in Sections 8R and 19B of the same Act.**

Storengy UK Limited ("SL"), a wholly owned subsidiary of the GDF Suez Group, is writing to the Gas and Electricity Markets Authority (the "Authority") to request an exemption under section 8S of the Gas Act in respect of the proposed further development of the gas storage facility at Stublach.

The size of the storage facility is such that use of the facility by other persons is not technically or economically necessary for the operation of an efficient gas market.

SL has carried out analysis to support this application and assist the Authority in making its determination. The analysis is provided in a paper as an Annex to this letter. The capacity volumes detailed in the paper are not expected to vary significantly since these characteristics and parameters represent the basis of design of the project. However, final characteristics will be subject to the physical realities of developing the site. In any event, SL will inform the Authority of any changes to these details should they arise.

I trust that you find the information presented in the paper sufficient to allow you to conduct your review of the exemption application. Should you wish to discuss this application or require any further information please do not hesitate to contact Charlotte Roule, managing director of Storengy UK.

Yours sincerely,

Charlotte Roule,
Managing Director

Storengy UK Limited

A company of GDF SUEZ

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**ANNEX**

**Storengy UK Limited**
**Application for Exemption from Sections 8R and 19B of the Gas Act**
**05 March 2014**

## 1 Introduction

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1.1 Storengy UK Limited ("SL") is a wholly owned subsidiary of the GDF Suez Group ("GDFS"). SL is responsible for the design, construction, operation and maintenance of the Stublach Gas Storage facility until 2037 when the ownership will be transferred to the landowner, INEOS Enterprises Limited ("INEOS").

1.2 Phase 1 of the Stublach Gas Storage facility is under construction, and is expected to begin full commercial operation in the Winter of 2015. The Authority granted an exemption from Section 19B of the Gas Act in respect of phase 1 of the Stublach Gas Storage facility on 18 December 2009[1], subsequently amended on 15 March 2013.[2]

1.3 SL is now considering further, development of the Stublach Gas Storage Facility, which will increase the space, deliverability and injectability of the facility. ('Phase 2").

1.4 The Electricity and Gas (Internal Markets) Regulations 2011 came into force on 9 November 2011, amending the provisions of the Gas Act relating to minor facility exemptions. Section 8S of the Gas Act sets out the process via which owners of storage facilities can apply for a minor facility exemption from the requirements relating to the independence of storage facilities and the provision of negotiated third party access as provided for in Sections 8R and 19B.

1.5 SL is making an application under section 8S(1) of the Gas Act requesting an exemption from the requirements of sections 8R and 19B in relation to its ownership of the salt cavity gas storage facility at Stublach, following the proposed Phase 2 development. In making this application SL is of the view that use of the facility by other persons is not technically or economically necessary for the operation of an efficient gas market.

1.6 Development of Phase 2 of the Stublach facility will increase the UK security of supply and provide additional flexibility to the gas market, which is likely to be of particular benefit given uncertainty over future gas demand levels. Further, as a new entrant to the storage market in the UK, the development of Stublach by SL, is likely to be pro-competitive and have a positive impact upon the functioning of the gas market.

1.7 In its June 2009, Gas Storage Minor Facility Exemptions Open Letter[3], Ofgem sets out the criteria that it generally expects to use when considering applications from storage

[1] https://www.ofgem.gov.uk/ofgem-publications/41194/storengydecisiondocfinal-2.pdf
[2] https://www.ofgem.gov.uk/sites/default/files/docs/2013/03/open-letter-amendment-to-the-working-volume-at-stublach-storage-facility-exemption-order_0.pdf
[3] https://www.ofgem.gov.uk/ofgem-publications/41204/storage-exemptions-open-letter-09-publication.pdf


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operators for minor facility exemptions, in determining whether a facility is technically and/or economically necessary.

## 2 Project detail

2.1 SL acquired the Stublach development from INEOS in December 2007. The agreement with INEOS permits SL to construct a Gas Storage Facility on land owned by INEOS. SL will maintain ownership and operational control for 30 years, transferring the facility to INEOS in 2037. Phase 1 of the development will be fully operational by the Winter of 2015.

2.2 On completion of Phase 1, the facility will provide 2200GWh of space, 175GWh/day of injectability and 175GWh/day of deliverability. The deliverability rate is the maximum rate which can be achieved when the facility is full; as the level of inventory declines so does the available rate of deliverability. The facility is classified as mid-range due to the ratio of space to deliverability and its ability to cycle on a seasonal and non-seasonal basis.

2.3 On completion of Phase 2, the facility will provide a total (Phase 1 and Phase 2 development) of 4400 GWh space, 320 GWh/day of injectability and 320 GWh/day of deliverability expected by 2018/19. The deliverability rate is the maximum rate which can be achieved when the facility is full; as the level of inventory declines, so does the available rate of deliverability. The facility is classified as mid-range due to the ratio of space to deliverability and its ability to cycle on a seasonal and non-seasonal basis.

2.4 Table 1 below, sets out the planned development of the Stublach facility.

**Table 1 – Stublach planned development**

| Date | Injectability (GWh/d) | Deliverability (GWh/d) | Number of caverns | Space (GWh) |
|---|---|---|---|---|
| | | | | |
| | | | | |
| | | Confidential | | |
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| | | | | |
| | | | | |

## 3 Technically Necessary

3.1 In relation to the concept of technically necessary, Ofgem states in its 2009 Open Letter:

*'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.'*

3.2 We agree with this assessment and note the wide range of potential sources of supply (both storage and non-storage) that could be used to meet forecast peak demand and the demand for flexibility.

3.3 Table 2 below, sets out an assessment of capacity headroom, based on data set out in the National Grid Gas Ten Year Statement[4]. It shows the difference between forecast peak demand and forecast peak capability for the Gone Green and Slow Progression Demand scenarios, excluding the deliverability of the Stublach facilty.[5]

**Table 2 - 'Technically necessary' analysis (GWh/d)**

| National Grid Scenario | | 13/14 | 14/15 | 15/16 | 16/17 | 17/18 | 18/19 | 19/20 | 20/21 | 21/22 | 22/23 | 23/24 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Stublach Deliverability | [redacted] | [redacted] | [redacted] | [redacted] | [redacted] | [redacted] | [redacted] | [redacted] | [redacted] | [redacted] | [redacted] |
| **Slow Progression** | Peak Capability | 8028 | 8143 | 8094 | 7979 | 7796 | 7785 | 7987 | 8055 | 8043 | 8623 | 8578 |
| | Peak Demand | 6251 | 6294 | 6195 | 6204 | 6262 | 6216 | 6190 | 6221 | 6228 | 6194 | 6119 |
| | **'Headroom' excluding Stublach** | [redacted] | [redacted] | [redacted] | [redacted] | [redacted] | [redacted] | [redacted] | [redacted] | [redacted] | [redacted] | [redacted] |
| | | | | | | | | | | | | |
| **Gone Green** | Peak Capability | 7845 | 7959 | 7910 | 7717 | 7538 | 7476 | 7393 | 7399 | 7514 | 7505 | 7501 |
| | Peak Demand | 5622 | 5572 | 5383 | 5325 | 5242 | 5129 | 5063 | 5083 | 4993 | 4903 | 4844 |
| | **'Headroom' excluding Stublach** | [redacted] | [redacted] | [redacted] | [redacted] | [redacted] | [redacted] | [redacted] | [redacted] | [redacted] | [redacted] | [redacted] |

3.4 As can be seen in all years there is significant capacity headroom, even when excluding the capacity in the Stublach facility. This implies that a significant supply loss would be required before the Stublach facility would be required to meet peak demand. Further, even if Stublach were required to meet peak demand it is unclear that third party access would be technically necessary, due to the commercial incentives on SL to flow gas in such 'tight' conditions and the existence of use-it-or lose-it mechanisms to prevent capacity being withheld from the market.

[4] http://www.nationalgrid.com/NR/rdonlyres/E60C7955-5495-4A8A-8E80-BB4002F602F/58097/GasTenYearStatement2013.pdf

[5] We have not considered the Accelerated Growth Scenario, following National Grid's Decision to 'retire' this scenario in its July 2013 Future Energy Scenarios Document

3.5 We conclude that use of the Stublach facility by other persons is not technically necessary for the operation of an efficient gas market.

## 4 Economically Necessary

4.1 In relation to the concept of economically necessary, Ofgem states in its 2009 Open Letter:

*'In considering an application for a gas storage exemption we will consider whether it is economically necessary to offer nTPA at a facility to provide efficient access to the system for the supply of customers. In doing this we would expect to examine whether the exemption is likely to distort the market and provide a materially worse outcome than if the exemption is not granted.*

*The principal ways through which such distortion may arise is through market power or weak competition in the relevant market or markets for flexibility. For example, if the exemption appreciably increased the market power of the capacity holders then that may imply that they would be able to exert a distortionary influence on the price of flexibility services.'*

Ofgem then proceeds to state that there is no single indicator of potential market power and that several factors may be considered.

4.2 In accordance with this approach and its application in recent Minor Facility Exemption applications, we have considered a range of indicators of potential market power:

a) Market share analysis (flexibility)

b) Winter period market power (pivotality)

c) Market concentration (storage HHI)

d) Vertically related markets (retail market share)

Market Share Analysis

4.3 In its consideration of Minor Facility Exemption applications Ofgem has consistently determined that the relevant product market is the flexibility market and the relevant geographic market is Great Britain. This is also consistent with the approach used by the Competition Commission in its assessment of the Centrica Rough merger case in 2003 in which the gas flexibility market within GB was used as the relevant market. It is SL's view that this approach continues to be appropriate and it has conducted its market share analysis on the basis of this product and geographic market.

4.4 In its previous consideration of Minor Facility Exemption applications, Ofgem has recognised the inherent difficulties in determining a single market definition for flexible gas and has typically conducted scenario analysis against a number of potential market definitions for flexible gas. SL has also conducted its market share analysis on this basis.

4.5 In conducting its market share analysis, SL has included all contracted sources of potential flexibility within the GB Gas Market available to companies within the GDF Suez Group ("GDFS"). Table 3 below, sets out this data for the period 2013/14-2023/24.

4.6 SL has sold capacity at the Stublach facility to third parties. As SL has no control over the capacity sold to third parties, this capacity has been excluded from the data set out in Table 3. These third party sales are summarised in Table 4 below.

**Table 3 – GDFS Potential Sources of Supply to the GB Market (GWh/d)**

| GWh/d | 2013/14 | 2014/15 | 2015/16 | 2016/17 | 2017/18 | 2018/19 | 2019/20 | 2020/21 | 2021/22 | 2022/23 | 2023/24 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Short Range Storage | [redacted] | | | | | | | | | | |
| MRS /LRS(ex Stublach) | [redacted] | | | | | | | | | | |
| Stublach | [redacted] | | | | | | | | | | |
| IUK reverse | [redacted] | | | | | | | | | | |
| BBL | [redacted] | | | | | | | | | | |
| LNG Regas (Grain) | [redacted] | | | | | | | | | | |
| Norway[6] | [redacted] | | | | | | | | | | |
| UKCS[7] | [redacted] | | | | | | | | | | |

**Table 4 – Third Party Sales**

| Date | Injectability (GWh/d) | Deliverability (GWh/d) | Space (GWh) |
|---|---|---|---|
| | CONFIDENTIAL | | |

4.7 SL has conducted its analysis on the basis of three market definition scenarios. These scenarios have been developed following discussion with Ofgem and assume a range of flexibility in supply sources.

Scenario 1: MRS + LRS + 50% IUK + Flexible Beach + 25% LNG
Scenario 2: MRS + LRS + 70% IUK + 25% BBL + 15% Norwegian gas + Flexible Beach + 50% LNG
Scenario 3: MRS + LRS + 100% IUK + 50% BBL + 30% Norwegian gas + Flexible Beach + 50% LNG

[6] Average technically available daily volumes
[7] While GDFS receives beach gas GDFS it has no control over flows or the volumes of beach gas it receives and hence has zero flexibility

4.8 As in previous Minor Facility Exemptions, our starting point for market definition is medium and long-range storage, UKCS flexibility, some LNG flexibility and some interconnector import flexibility. For the reasons identified in earlier applications, we have excluded demand side response and short-range storage from the market definition.

4.9 In scenario 1, we have assumed that flexible interconnector imports are limited to IUK and that only 50% of IUK capacity should be included in the market definition. While this is an increase relative to earlier market definitions, this is in our view a highly conservative assumption, given the entry into force of the third energy package and the level of flows to the UK in Winter 2012/13. We have also adjusted the range of LNG capacity included in previous market definitions (0-100%) to a range, which is more reflective of historic flows, and National Grid forecasts of LNG winter flow ranges (25-50%). In scenario 1 we have assumed 25% of LNG capacity is included in the market definition.

4.10 In scenario 2 we have increased IUK capacity to 70% and LNG capacity to 50% and we have also included a small proportion of BBL capacity following recent increases in BBL flows and some evidence that BBL flows are responding to market conditions. Finally, we have included a small proportion of Norwegian flows, in the market definition, given some evidence that Norwegian flows to the GB market are at least partially price responsive.

4.11 In scenario 3 we have further increased the level of IUK and BBL capacity in the market definition and increased the level of Norwegian flows assumed to be flexible.

4.12 In our calculations of market share, we have where possible used public data as the basis of our calculations. Capacity levels are derived from the National Grid Gas Ten Year Statement and Future Energy Scenario forecasts for peak capability and only include capacity in operation or under construction. The only exception to this is that we have included Isle of Grain Phase 4 in our LNG capacity calculations, given its successful TPA exemption application and recent market announcements regarding LNG supply contracts. Our estimate of UKCS flexibility is derived from National Grid Winter Outlook Report data on historic and projected average and maximum flows from the UKCS and assumes the same broad pattern of flows continues in the future.

4.13 In Table 5 below we set our analysis for 2018/19 the first year in which the full capacity of Stublach is planned to be in operation.

**Table 5 – GDFS Flexibility Market Share 2018/19**

| Flexibility Source | Scenario 1 | | Scenario 2 | | Scenario 3 | |
|---|---|---|---|---|---|---|
| | Total Market | GDFS | Total Market | GDFS | Total Market | GDFS |
| **Storage**[8] | 2038 | | 2038 | | 2038 | |
| **LNG import** | 463 | | 925 | | 925 | |
| **IUK** | 406 | | 568 | | 811 | |
| **Beach Flexibility** | 244 | | 244 | | 244 | |
| **Norway** | 0 | | 216 | | 432 | |
| **BBL** | 0 | | 147 | | 294 | |
| **Total** | 3150 | | 4138 | | 4744 | |
| **GDFS market share** | **5-10%** | | **5-10%** | | **5-10%** | |

4.14 As can be seen in all scenarios market share is below 10%. We also note that this is the case even if Isle of Grain Phase 4 is excluded from calculations[9].

4.15 We have also examined the flexibility market in further out periods. In Table 6 we have set out our analysis for 2023/24.

**Table 6 – GDFS Flexibility Market Share 2023/24**

| Flexibility Source | Scenario 1 | | Scenario 2 | | Scenario 3 | |
|---|---|---|---|---|---|---|
| | Total Market | GDFS | Total Market | GDFS | Total Market | GDFS |
| **Storage** | 2038 | | 2038 | | 2038 | |
| **LNG import** | 463 | | 925 | | 925 | |
| **IUK** | 406 | | 568 | | 811 | |
| **Beach Flexibility** | 142 | | 142 | | 142 | |
| **Norway** | 0 | | 216 | | 432 | |
| **BBL** | 0 | | 147 | | 294 | |
| **Total** | 3048 | | 4036 | | 4642 | |
| **GDFS market share** | **5-10%** | | **5-10%** | | **5-10%** | |

[8] Total market storage is calculated as Rough, plus MRS peak capability for the relevant year as set out in Tables A2.2D and A2.2E of the National Grid Gas Ten Year Statement, plus phase 2 development of Stublach

[9] In this scenario market share in Scenario 1 is 5-10%, in Scenario 2 it is 5-10% and in Scenario 3 it is 5-10%.

4.16 As can be seen again in all scenarios market share is below 10%. We also note that the assumption of no new build (excluding Isle of Grain Phase 4 and Stublach Phase 2) is an extremely conservative approach when applied to this further out period. We would expect new LNG and storage capacity build to occur as other sources of production decline. National Grid's Gas Ten Year Statement assumes an additional 807GWh/d 'generic' LNG and 440GWh/d 'generic' long range storage in 2023/24 in its 'Slow Progression ' demand scenario. While, in its 'Gone Green' demand scenario it assumes an additional 330GWh/d of 'generic' medium range storage in 2023/24.

4.17 GDFS has a relatively modest market share of the flexibility market that is comparable to the market shares of storage operators that have been awarded Minor Facility Exemptions. We, therefore, do not see any evidence of market power in relation to the flexibility market.

Winter Period Market Power

4.18 An assessment of winter period market power measures the ability of market participants to potentially take advantage of temporary market power by determining if demand could be met with and without the supplies controlled by the market participant.

4.19 On November 3rd 2010, Ofgem published its consultation document, "Guidance on the Third Party Access regulatory regime for gas storage facilities in Great Britain". In this document Ofgem set out its preliminary views on how to assess Significant Market Power (SMP) in the gas storage market, which was primarily based on a 'pivotality' analysis. It provided details of its approach to analysing pivotality and released a version of the pivotality model used to conduct the analysis. Following discussion with Ofgem we have used this model as the basis of our assessment of winter period market power.

4.20 Our initial analysis shows no evidence of pivotality[10] in relation to the GDFS portfolio.

4.21 We note that pivotality analysis is highly sensitive to input assumptions, in particular in relation to demand growth and potential supplies to the market. While it is relatively straightforward to estimate market demand, the estimate of available or potential supplies to the gas market is less straightforward. Historical data provides information on outturn supplies, but it does not provide insight into available supplies in a given time. (This is in contrast to other markets such as the power sector where measures such as 'declared available capacity' provide a far more robust estimate of available supplies).

[10] Our initial analysis is broadly based on the existing Ofgem model and capacity co-efficients, with supply and demand growth consistent with the market being able to meet peak demand. (i.e. peak supply is greater than peak demand)

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Market Concentration

4.22 In recent Minor Facility Exemption applications Ofgem has considered the impact of granting an exemption on the level of concentration in the storage market through consideration of the 'delta' or change in the Herfindahl–Hirschman Index (HHI) of the MRS and LRS market.

4.23 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 Stublach Phase 2. However, we have considered a range of potential storage ownership scenarios and note that in our analysis, depending upon the specific ownership assumptions made, HHIs are either at a 'low[11]' level and/or the development of Stublach results in a decrease in HHIs. We, therefore, do not see any evidence of market power in relation to the market concentration analysis.

4.24 It is our understanding that Ofgem has assessed capacity ownership at storage facilities and will publish its analysis of the impact of the development of phase 2 of the Stublach facility on storage HHIs. Upon its release GDFS will review and comment on the analysis as appropriate.

Vertically Related Markets

4.25 In its consideration of previous Minor Facility Exemption applications, Ofgem has examined whether applicants have market power in vertically related markets that may potentially be used to influence the market outcome in the flexibility market.

4.26 GDFS is active in the Industrial & Commercial retail market. It is not active in other retail market segments. Table 7 below sets out GDF's projected market share of the I&C market and the total retail market.

**Table 7– Projected GDF Retail Market Share**

| **Market** | 2013/14 | 2014/15 | 2015/16 | 2016/17 | 2017/18 | 2018/19 | 2019/20 | 2020/21 | 2021/22 | 2022/23 | 2023/24 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| I&C | 8-13% | 8-13% | 8-13% | 8-13% | 8-13% | 8-13% | 8-13% | 8-13% | 8-13% | 8-13% | 8-13% |
| Total Retail Market | 0-5% | 0-5% | 0-5% | 0-5% | 0-5% | 0-5% | 0-5% | 0-5% | 0-5% | 0-5% | 0-5% |

4.27 These figures indicate that SL has a relatively modest market share and that therefore GDFS is unlikely to hold market power in the retail gas market or in the I&C segment of the retail gas market. We, therefore, do not see any evidence of market power in vertically related markets.

[11] Below 1000 – a typical indicator of an unconcentrated, competitive market

## 5 Market Signals

5.1 In relation to 'market signals' in its 2009 Open Letter, Ofgem states that it would generally expect to consider the likely impact of an exemption on effective market signals and economic use of storage capacity.

5.2 It is SL's intent to commercially optimize the operation of the Stublach facility. As such it may sell capacity to both GDF-SUEZ's subsidiaries and third parties, depending on customer requirements and the market value of gas storage capacity. In addition, SL has committed to introduce use it or lose it arrangements in respect of Phase 1 of the development of Stublach. This commitment is also made in respect of Phase 2 of the development of Stublach.

5.3 In respect of market transparency, flows at Stublach will be displayed on NGG's website. In addition SL is required to meet the requirements of Article 19(4) of Regulation (EC) 715/2009 which requires the publication, at least daily, of the amount of gas in its storage facility, inflows and outflows and the available storage.

5.4 Given the above commitments in relation to transparency and anti-hoarding we do not believe that an exemption from the requirements of nTPA will have an impact on effective market signals and economic use of storage capacity.

## 6 Conclusions

6.1 The analysis performed by SL supports the application for an exemption from Sections 8R and 19B of the Gas Act. The size of the storage facility is such that use of the facility by other persons is not technically or economically necessary for the operation of an efficient gas market.