

2014 Operating Margins Tender Information Report

Introduction

This Operating Margins (OM) report is for the 2014/15 storage year. It is produced after the tender and is designed to give existing and potential OM participants an overall view of the tendered utilisation and availability prices; together with further detail on the type, size and characteristics of the tendered offers.

The report is structured into three sections:

Section 1: The Operating Margins Requirement

This section gives details of the Operating Margins requirement.

Section 2: Tender Details – Number, Type & Volume

This section gives details of the tender offers received and compares them to the requirement and National Grid's view of Industry capability to provide Operating Margins.

Section 3: Partial Regulated Pricing in place – Tendered Prices & Acceptances

In this section, the assessment assumes that National Grid LNG Storage is under a regulated price structure for Operating Margins services for some requirement types.

Section 4: Tendered Prices & Acceptances

In this section is representative of the current codes, licences and Safety Case and therefore reflects the offers we have accepted to meet the Operating Margins requirement.

For further information regarding this product or for how and when to tender, please consult the following OM section on National Grid's information website or contact Russell Bredin on +44 (0)1926 653716 / russell.bredin@nationalgrid.com:

<http://www.nationalgrid.com/uk/Gas/OperationalInfo/GasOperatingMargins/>

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Section 1: The Operating Margins Requirement

The 2013/14 OM requirement is shown in Table 1 and the competitive tender assessment process was undertaken against this requirement.

NTS Zone	Volume Requirement (GWh)	Deliverability Requirement (GWh/d)
North	0	0
Scotland	0	0
Wales	0	0
West	95	108
South	38	43
Supply Loss	471	514
Orderly Rundown	489	489
Non-locational	70	70
Total Requirement	1,163	N/A

Table 1: Operating Margins Requirement for the 2014/15 Storage Year

The Operating Margins Requirement is comprised of different components and each one must be delivered within short timescales. The components are unlikely to be required simultaneously, but they could be required in close proximity to each other (Orderly Rundown gas could be required following a Supply Loss event, for example).

The competitive tender assessment process is designed to provide the most economic and efficient booking scenario. The assessment process allows bookings for more than a 24 hour period, where the component requirements are not expected to be simultaneous. It also takes into account regional diversity requirements to ensure that required pressures can be met across the National Transmission System when OM gas is required.

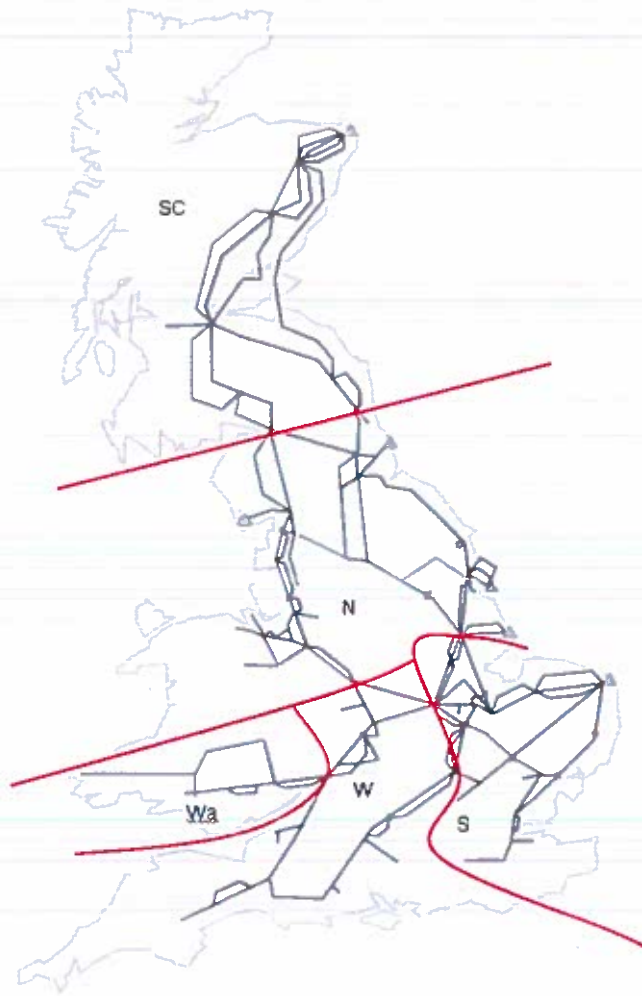


Figure 1: Map of Operating Margins Locational Zones

Section 2: Tender Details – Number, Type & Volume

National Grid received 19 individual Operating Margins (OM) tenders, with a total volume of 5,341 GWh for the 2014/15 storage year. Assessment volumes are calculated in line with the latest industry code and safety case, which enable gas held in storage as well as supply increase and offtake reduction arrangements to provide Operating Margins services.

Figure 2 shows the unconstrained availability by OM requirement type and each bar shows the total tendered quantity over a 24 hour period. Each bar assumes a zero booking for other OM requirement types, to provide an indication of tendered volumes vs requirement types.

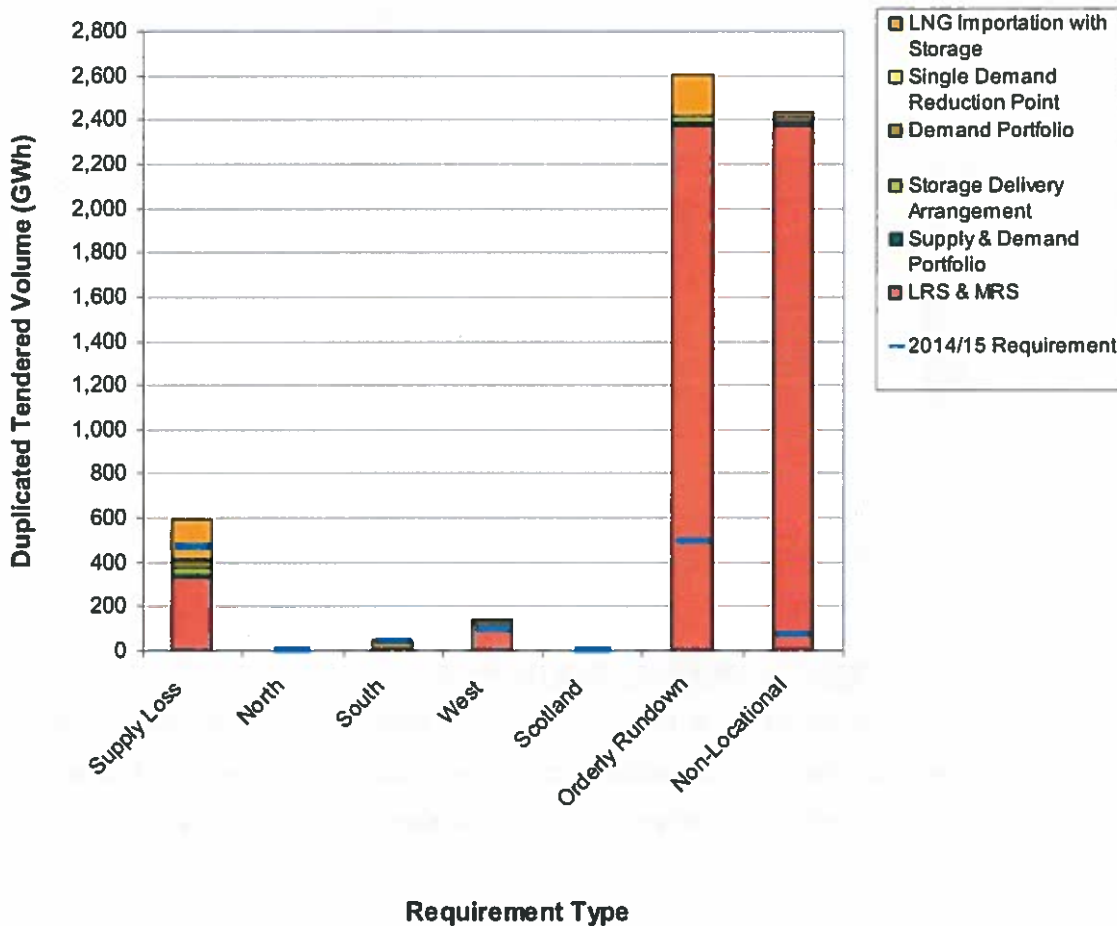


Figure 2: Requirement and tendered volume by requirement type for storage year 2014/15.

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Types of Offers Received

Figure 3 shows that there has been an increase in the total volume of tender offers received through the Operating Margins service tender process when compared to the previous year. There has been an increase in LRS – Storage Capacity volume, Storage Delivery Arrangements and Demand Portfolio, but a decrease in volume of MRS – Storage Capacity, Supply & Demand Portfolio and LNG Importation with Storage offers,. Single Demand Reduction Point offers remained at a constant level when compared to last year.

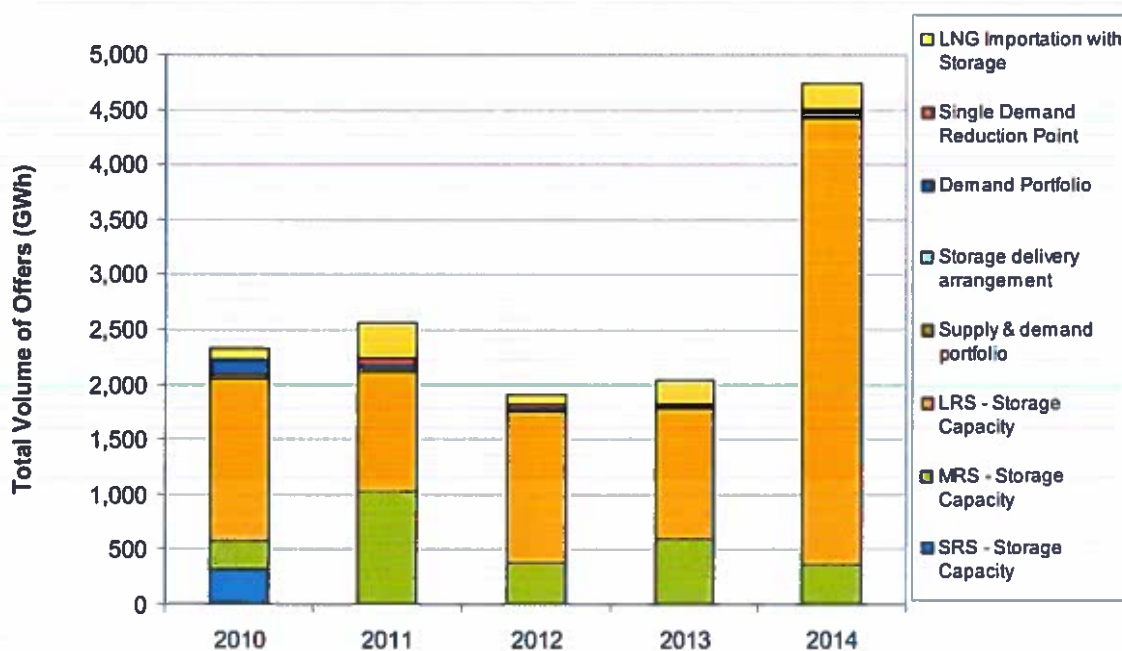


Figure 3: Volume of tender offers from each provider type for storage years 2010-2014

Potential for Service Provision compared to offers received

Neither the market for OM provision or requirement are homogeneous as a result of facility, network, and supply and demand characteristics. As a result, the provision of Operating Margins is subject to a number of constraints and a varied level of competition for each requirement type.

The Operating Margins capability of a facility is dependent on the facility characteristics (such as the response time, volume of gas and deliverability¹ available) and the type of facility.

¹ The rate at which gas can be delivered to the NTS is the potential deliverability of the site.

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The type of facility is a factor in the volume of OM that can be provided. For example, in an emergency, when Orderly Rundown Operating Margins would be required, it is assumed supplies would already be at maximum capacity and demands would be reducing their offtake. Therefore, these service provision types cannot provide the Orderly Rundown part of the requirement.

Similarly, supply sources, including storage, may also be limited in their ability to provide OM to cover the Supply Loss requirement depending on supply assumptions for the site (e.g. if a storage site is forecast to predominately flow at its full rate then no capability would be considered against OM supply loss). Demand reduction sources are limited to being able to provide OM when the facility is offtaking demand from the NTS.

Figures 4.1 to 4.5 show the tendered volume of Operating Margins by facility type for the past two storage years, together with an estimate of the Potential Service Provision² and tendered volume of Operating Margins for 2014/15.

The tendered quantity in each of the following charts is the minimum of the tendered volume (space for storage or number & volume of utilisations for delivery contracts) and capability of the facility. If a facility can fulfil more than one type of requirement (as is often the case), the total quantity that could be accepted may be constrained by the tendered volume.

Of the facilities that provide OM, only National Grid LNG Storage facilities are subject to pre-emption rights such that Operating Margins bookings have priority over other commercial bookings of capacity.

² Potential Service Provision is a National Grid assumed theoretical maximum capability. The data used to produce these charts includes assumptions of the demands and supplies forecast to flow on the NTS. The OM capability of a facility is calculated to be the volume of OM that National Grid assumes a facility could provide. For new service providers, deliverability is only considered to be available, once a sustained period of actual deliverability is demonstrated.

Group 1: Supply Loss

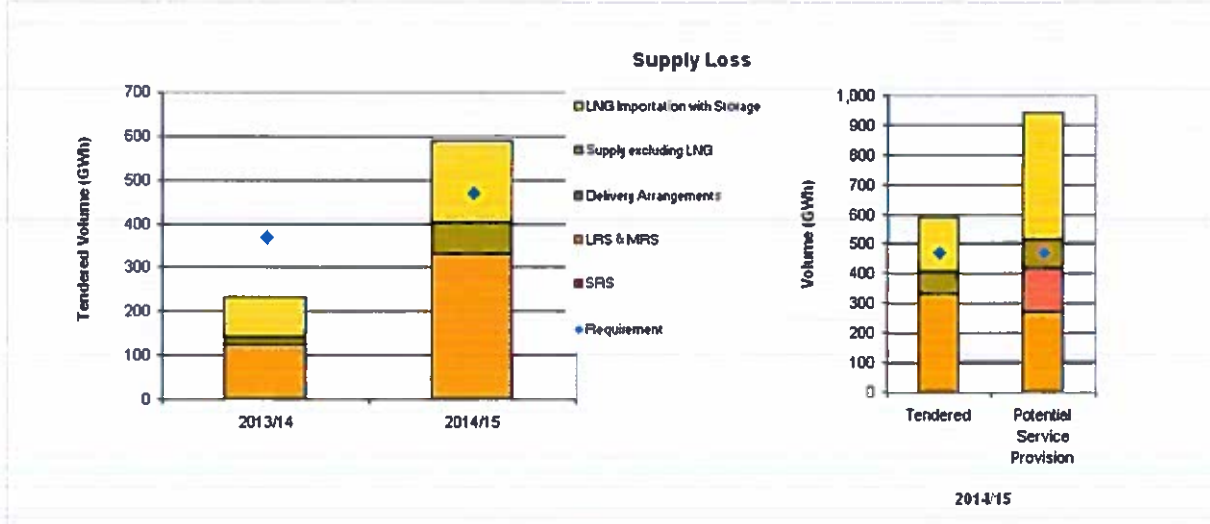


Figure 4.1: Group 1 capability of potential OM facilities by type including a comparison to tendered volumes in 2014/15

The graph shows that the current market of providers have enough capability to provide the Group 1 Supply Loss and Demand Forecasting requirement.

Group 2: Locational – South

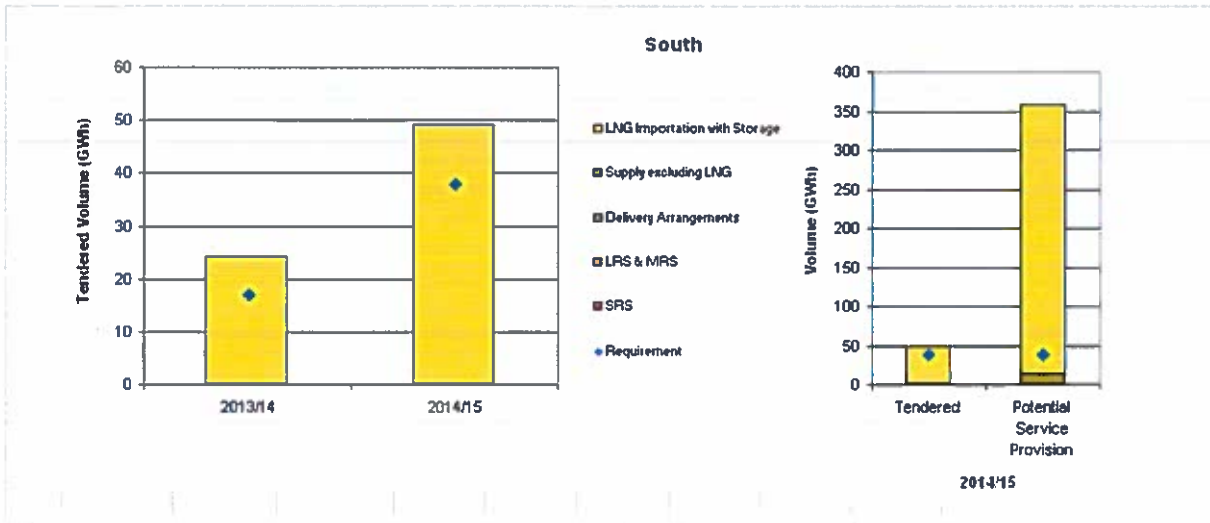


Figure 4.2: Group 2: Locational - South zone capability of potential OM facilities by type including a comparison to tendered volumes

Currently, only providers from an LNG Importation with Storage site have tendered to provide Operating Margins in the South zone, other provider types (in green) could also provide Operating Margins services in the future.

Group 2: Locational – West

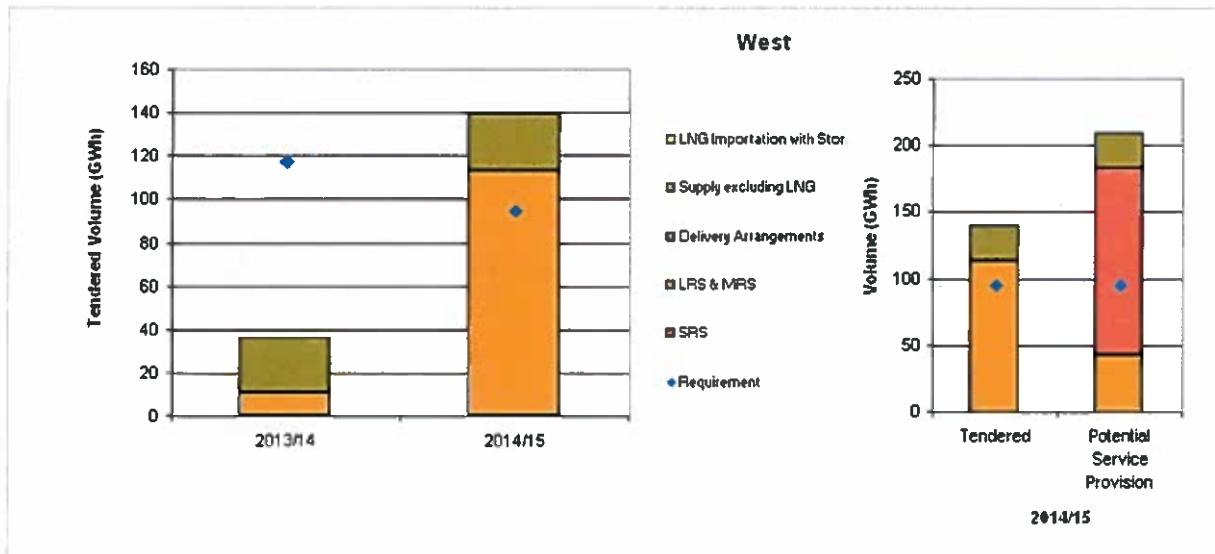


Figure 4.3: Group 2: Locational - West zone capability of potential OM facilities by type including a comparison to tendered volumes

The West locational Operating Margins requirement could potentially be provided by Short Range Storage, Medium Range Storage facilities and Delivery Arrangements. Multiple duplicate tenders cause the tendered volumes to be above the OM requirement for 2014/15.

Group 2: Non-locational

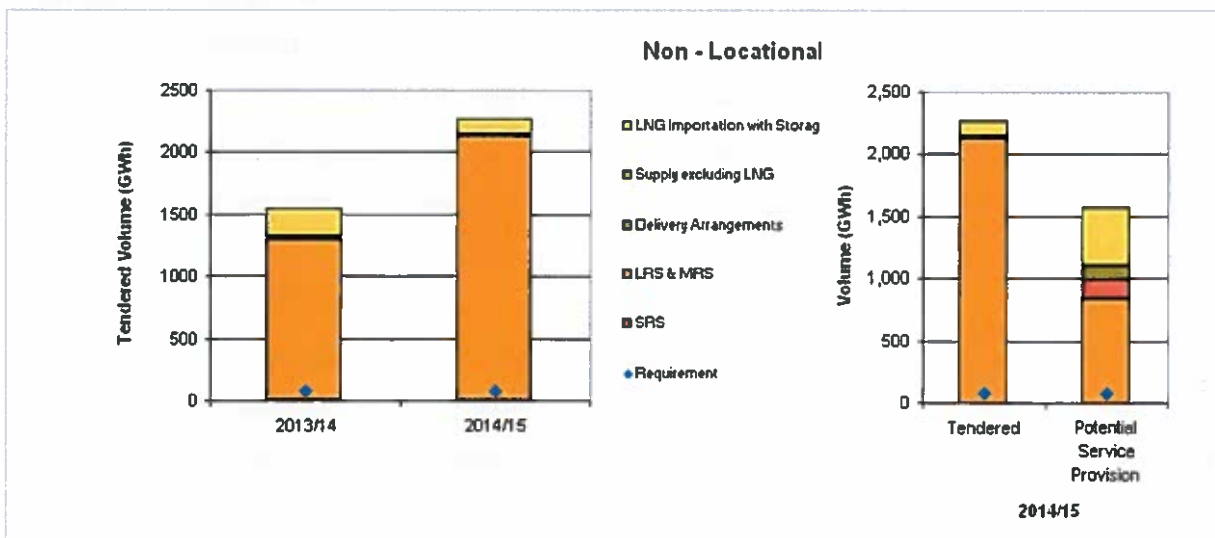


Figure 4.4: Group 2: Non-locational capability of potential OM facilities by type including a comparison to tendered volumes

There is a wide range of tendering providers of non-locational OM to fulfil the requirement.

Group 3: Orderly Rundown

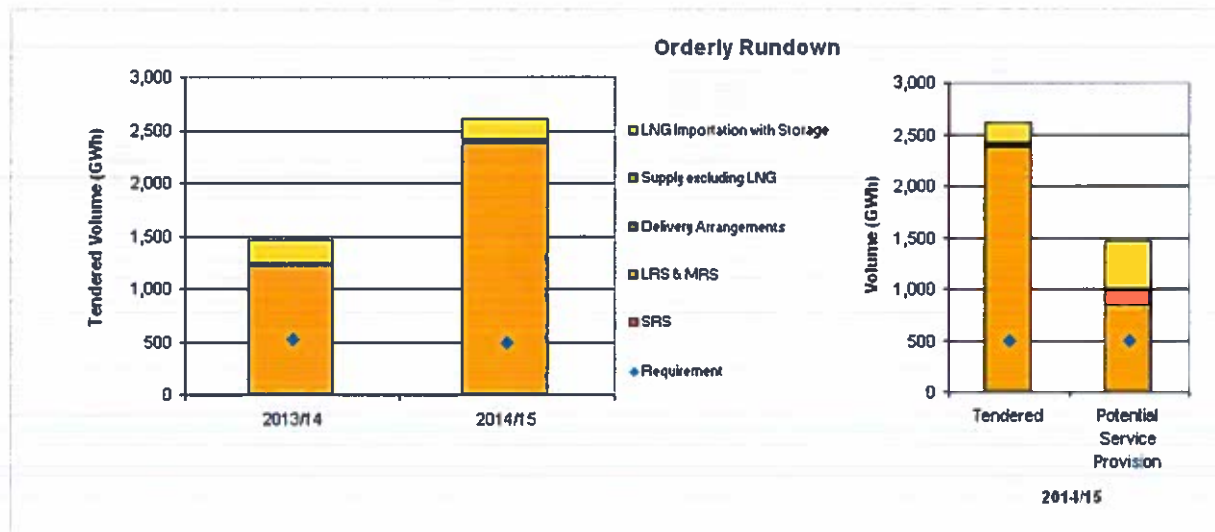


Figure 4.5: Group 3 capability of potential OM facilities by type including a comparison to tendered volumes

For the Orderly Rundown requirement, there is a range of tendering providers that are able to provide an Operating Margins service. The volume tendered was sufficient to fulfil the requirement. NTS Demand reduction and Supply increase providers are not able to fulfil this requirement, as outlined earlier in this section.

A number of factors constrain the volume of gas that can be assessed for each requirement type and the non-duplicated view takes the following types of factors into account:

- Bookings for other Operating Margins categories
- Aggregated tender volumes can be larger than 24 hour facility delivery capabilities
- Forecast NTS supply, demand and pressures (for some OM categories)
- Multiple duplicate / conditional offers from specific providers.

Table 2 shows a view of unconstrained and non-duplicated volumes against the 1,163GWh Operating Margins total requirement for storage year 2014/15. Positive values show a surplus of offers compared to the requirement and negative values show a deficit of offers compared to the Operating Margins Requirement.

Requirement Type	Unconstrained Surplus / deficit to requirement of tender offers (GWh)	Number of offers submitted	Number of facilities where offers submitted	Surplus / deficit to requirement of non-duplicated tender offers (GWh)
	(a)	(b)	(c)	(d)
North	0	0	0	0
Scotland	0	0	0	0
South	11	2	2	11
West	45	5	3	- 26
Supply Loss	118	19	12	- 59
Orderly Rundown	2,118	16	9	454
Non-locational	2,579	19	12	915

Table 2: Surplus & deficit of tender offers submitted relative to the 2014/15 OM Requirement by type

Column (a) shows the unconstrained surplus (or deficit) of the total volume of tender offers compared to the total requirement for each operating margins requirement type. The requirement types that show a deficit of offers on this basis are the Supply Loss requirement and the West Locational requirement.

Column (b) shows the number of offers submitted that could potentially be used for each Operating Margins requirement type.

Column (c) shows the number of facilities where Operating Margins offers were submitted. Where the number of offers exceeds the number of facilities, more than one offer was received at a given facility.

The maximum volume of offers that can be accepted for OM at a facility is governed by the characteristics of the facility concerned, independent of the number of tendering parties at the facility. Column (d) shows the surplus (or deficit) of the volume of tender offers restricted to the facility maxima for each Operating Margins requirement type. The West Locational and Supply Loss requirements show a deficit of offers on this basis.

Section 3: Partial Regulated Pricing in place

The assessment of the tender assumed that National Grid LNG Storage is under a regulated price structure for the provision of Operating Margins services at the prices set out in 11e (C3) of the Gas Transporter Licence in respect of the NTS for some requirement types. 822GWh of offers have been accepted through the tender for the Storage Year 2014/15. This section is representative of the current codes, licences and Safety Case and therefore reflects the offers we have accepted to meet the Operating Margins requirement.

The assessment of the tender offers was designed to find the lowest cost solution, whilst ensuring diversity in the Operating Margins bookings. The costs assessed include the holdings contract costs (e.g. space or deliverability contracts as tendered) as well as the estimated re-profiling, standby and utilisation costs. The pricing of a tender offer affects its place in the stack of offers and therefore the volumes and prices accepted at other facilities are influenced by the pricing of services at NGLNG Storage's facilities. Table 3 shows the offers tendered and accepted under the tender, not including OM services from NGLNG Storage booked through the UNC process at regulated prices.

If Ofgem judge competition to be effective, they can suspend 11e prices for the 2014/15 storage year. The key criterion for assessing the effectiveness of the competition was whether National Grid could fulfil each OM requirement from providers other than NGLNG Storage.³

For 2014/15, no offers were received through the tender from NGLNG Storage, but the Non-Local OM requirements could still be fulfilled. Therefore, competition was deemed effective and 11e prices were suspended for this requirement type. Competition was not deemed effective in the provision of the Supply Loss, Orderly Rundown or any Locational Service, therefore 11e prices for these requirements will continue.

The volume of OM services that has been accepted through the tender for 2014/15 is less than the requirement, such that services were also booked under regulated prices.

³<http://www.ofgem.gov.uk/Networks/Trans/GasTransPolicy/LNGPriceControl/Documents1/OM%20decision.pdf>

Section 4: Tendered Prices & Acceptances

Arrangement Type	Offer Details	Offered Prices (p/kWh)	Accepted Prices (p/kWh)
Capacity Arrangements	Weighted Average Offer Price per unit of space (p/kWh)	0.44	0.56
	Minimum Offer Price per unit of space (p/kWh)	0.19	0.19
	Maximum Offer Price per unit of space (p/kWh)	2.73	2.46
Gas Delivery Arrangements	Weighted Average Offer Price per unit of deliverability (p/kWh/day)	4.6	2.07
	Minimum Offer Price per Unit of deliverability (p/kWh/day)	1.76	1.76
	Maximum Offer Price per Unit of deliverability (p/kWh/day)	22.14	6.14

Table 3: Tender Prices offered and accepted, excluding NGLNGS at regulated prices

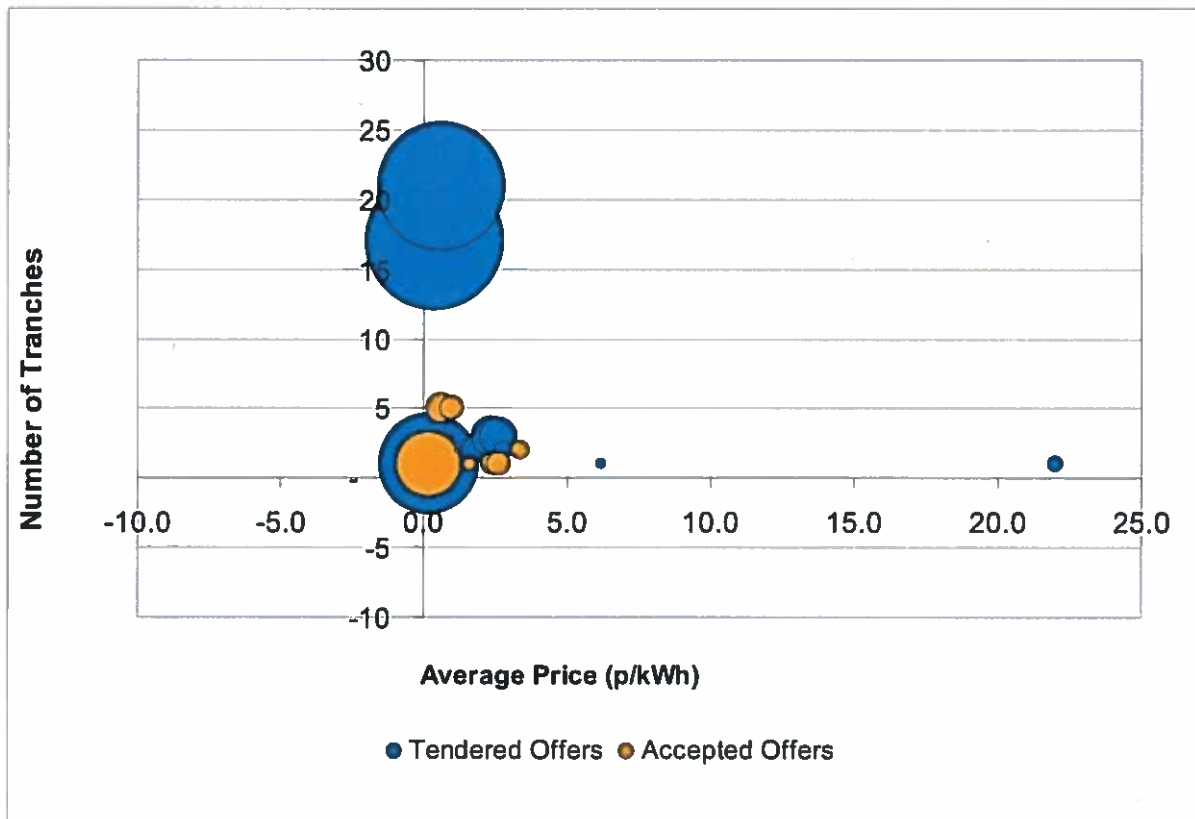


Figure 9: Prices offered and accepted through the OM tender

Appendix Terminology

Term	Definition
11e (C3)	Special Condition 11e (C3) "Restriction of Prices for LNG Storage Services" is a licence condition in National Grid Gas' Gas Transporter Licence in respect of the NTS
GWh	Gigawatt hour – equivalent to one million kilowatt hours (kWh)
HSE	Health and Safety Executive
kWh	kilowatt hour
OM	Operating Margins. Operating Margins gas is used to maintain National Transmission System (NTS) pressures in the immediate period following operational stresses and before market balancing measures become effective.
NTS	National Transmission System
Storage Year	1 May to 30 April
UNC	Uniform Network Code