



NATIONAL GRID GAS

OPERATING MARGINS REPORT

AUGUST 2021

Produced by

**Gas Commercial Operations
National Grid Gas Transmission**

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1.0 EXECUTIVE SUMMARY

This document has been produced in accordance with Special Licence Condition 5.6 of National Grid Gas plc, Gas Transporter Licence in respect of the National Transmission System (NTS).

The purpose of this document is to provide an overview of National Grid Gas (NGG) procurement activities used to secure Gas Operating Margins (OM) requirements, and covers the following areas:-

- OM requirement 2021/22
- Developments in the OM Service and procurement process
- OM Services procured for Gas Storage Year 2021/22 through the 2021/22 annual tender process
- Total 2021/22 OM Booking

2.0 BACKGROUND

This report relates to the tender for Gas Storage Year 2021/22, which was held and concluded during Gas Storage Year 2020/21. Information relating to previous years can be found at <https://www.nationalgrid.com/uk/gas-transmission/balancing/operating-margins-om> under 'Market Information'.

There was no OM utilisation during Storage Year 2020/21.

NGG procures capacity and access to a volume of gas for OM on an annual basis in line with both the requirements of Section K of the Uniform Network Code (UNC) and the obligations detailed in the NGG Safety Case.

NGG monitors the OM position throughout the gas storage year and may make further bookings within year if a further requirement is identified.

The Gas OM Service is the delivery of a change in the rate of gas flow to or off-taken from the NTS to manage sudden changes in supply or demand that cannot be met by normal trading/balancing arrangements. In addition, OM allows time for NGG to reconfigure the NTS or for the market to deliver additional supply and protects against the need to declare emergency conditions to ensure normal commercial market operation can be maintained where possible.

From a regulatory perspective, under the RIIO-T2 regime all costs incurred for the procurement and utilisation of OM are a cost pass through element within the Licence. NGG aims to reduce the costs for customers whilst meeting the OM requirements for each year. The Office of Gas and Electricity Markets (Ofgem) have placed a reputational incentive

scheme upon NGG to promote competition in the procurement of OM services for our customers.

Gas OM is procured via a variety of contracts with several gas industry participants around the NTS including capacity holders at storage facilities; large scale demand side users and capacity holders at LNG importation (with storage) facilities.

Further information on Gas Operating Margins can be found on the Gas OM pages of the NGG website.¹

3.0 OM REQUIREMENT 2021/22

On an annual basis, NGG conducts an OM procurement event with an aim to optimise the OM requirement (tender quantity and products) and maximise tender participation from a diverse range of market participants. NGG are continually exploring sourcing solutions that reduce barriers to entry and furthermore generate market awareness of the OM opportunities to the industry.

3.1 The OM Requirements Calculation Methodology

The approach supporting this year's methodology is consistent with that used in previous years, which is detailed in the published Operating Margins Statement 2021/22.²

The methodology identified an initial OM requirement of 794 GWh when the Invitation to Tender was published. Tender submissions received allowed for an alternative network compliant solution, when calculated led to a revised OM requirement of 839 GWh as published in the Operating Margins Statement. This is comparable to the 2020/21 requirement of 841 GWh.

3.2 Communications Strategy

To maximise participation in the annual OM procurement event, multiple channels are used to engage and educate market participants about the potential opportunities to provide a commercial service to NGG as the System Operator. This continued engagement is vital to both maintain existing OM service providers and to work with new market participants.

Building on previous engagement strategies, a structured approach to highlight our procurement requirements was undertaken which included ad hoc conversations with potential service providers that provided clarity of the n the OM service requirements. These were tailored to the needs of the individual parties, their level of knowledge and understanding of the tender process.

¹ <https://www.nationalgrid.com/uk/gas-transmission/balancing/operating-margins-om>

² <https://www.nationalgrid.com/uk/gas-transmission/document/134736/download>

4.0 OM SERVICE AND PROCUREMENT PROCESS DEVELOPMENTS

4.1 Process Learning and Feedback

As part of the continuing evolution of the OM procurement activities NGG routinely review any feedback received.

Below is a summary of the key learning points from the OM procurement event, the learning obtained will enable future OM product development and process improvement.

In particular, NGG notes:

- For the 2021/22 OM Tender, a two stage tender submission deadline has been adopted. Any contractual deviation proposals from tenderers were required to be submitted by 22 December 2020, whilst the tender pack deadline closed on 18 January 2021. The timescales better enabled the assessment activity and therefore a similar approach is planned for 2022/23.
- Tender packs have evolved to enable greater flexibility with regards to how bidders structure their tender and we will continue to work with bidders regarding this.
- Additional guidance was published, regarding the submission of multiple tender packs by the same participant at the same site, where volumes are treated as mutually exclusive.
- A number of minor changes were made across the three contract types following feedback.

4.2 Developing the OM Requirements Calculation Methodology

Our OM requirements methodology remains under review as the environment in which NGG operate continues to evolve; this will ensure that NGG continue to further refine our definition of the requirements on the network going forwards.

NGG undertake a full annual review of the OM requirement based on the very latest supply and demand forecasts and operating experience. From a contestability perspective, this will allow NGG to identify geographical areas where the OM provision could be required / reinforced, and this will help to identify focus areas for potential service providers of OM services.

4.3 Service Providers' Engagement

To complement the broad communications strategy, NGG have targeted and will continue to target certain providers as being a priority to engage with. This will either be because they have commissioned a new site, expressed an interest in providing OM, participated in previous years' procurement events or have been identified as being strategically advantageous to fulfilling the OM requirement.

4.4 Reducing Barriers to Entry

NGG procure OM to adhere to its Safety Case and the associated requirements are based upon minimum response times, volumes and availability criteria. Whilst these requirements provide considerable restrictions on the potential market size, NGG continue to look to simplify processes and reduce barriers to entry, where possible.

Ahead of the 2021/22 tender, improvements were made to the OM contract framework, following internal review and acting on feedback from service providers. This included simplification of the terms for acquiring LNG quantity in the event the LNG-in-storage is unavailable.

NGG continue to use the ARIBA Procurement platform to enhance and support an efficient and compliant tender process. Dedicated ARIBA support was made available to tenderers to provide ARIBA query resolution.

NGG continue to work on a number of areas of focus that are designed to identify where NGG can reduce the complexity of the contracting process.

4.5 OM Communications

Communication to the market is primarily undertaken via the Energy Networks Association (ENA) on behalf of NGG and interested parties are encouraged to subscribe with the ENA to receive future communications. NGG will also endeavour to send direct communications to parties who have expressed an interest in previous OM tenders.

5.0 OM SERVICES FOR GAS STORAGE YEAR 2021/22 PROCURMENT EVENT

The level and geographical distribution of OM services determines the effectiveness of OM gas to balance the NTS during an OM event.

5.1 OM Requirements 2021/22

The initial OM requirements for 2021/22 storage year totalled 794 GWh ahead of the tender. This assumed an NTS network solution including a distribution of OM services as typically offered in recent years.

The profile of the tender submissions allowed an alternative compliant network solution to be calculated, leading to a revised OM requirement totalling 839 GWh. Table 1 summarises this position by OM requirement category.

Table 1 : OM Requirement Categories (figures may not sum exactly due to rounding)

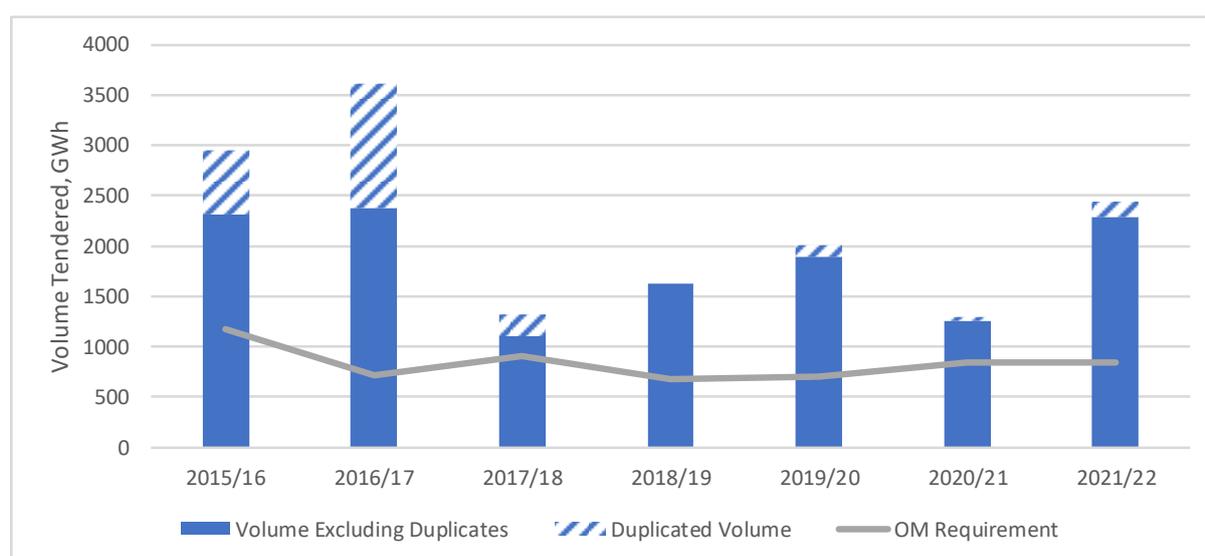
Operating Margins Requirement Category	2021/22 Initial OM Requirements (GWh)	2021/22 Revised OM Requirements (GWh)
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Supply Loss	474	502
Locational – South West	75	78
Locational – South East	57	67
Locational - North	0	0
Locational – Scotland	0	0
Locational - Wales	0	0
Non-Locational	60	63
Orderly Rundown	127	127
Total	794	839

5.2 Tendered Volumes

Tendered volumes of 2,445 GWh (2,291 GWh excluding duplicated site volumes submitted by individual tenderers) were available for OM services for 2021/22. This is an increase compared to 2020/21, (1,300GWh or 1,258GWh excluding duplicate volumes) and was the highest since 2016/17. The increase was primarily due to more volume being offered at Storage facilities - where volumes from third parties rose. The power sector also remained highly competitive, with a slight increase in tendered volume compared with last year. Chart 1 shows tender volumes in recent years compared to the OM requirement.

Chart 1: Tendered Volumes vs OM Requirement



5.3 Prices and Acceptances

The criteria for acceptance are broader than cost minimisation and factor in physical capability and effectiveness in providing the OM service required and achieving a geographical diversity of the OM service.

Table 2 summarises key price metrics for market tenders received and accepted for the 2021/22 gas storage year through the annual tender process.

Table 2 : Pricing Metrics

	Tender Offered Price (p/kWh)	Tender Accepted Price (p/kWh)	Variance %
Weighted Average Price	1.59	1.17	-27%
Minimum Price	0.46	0.51	10%
Maximum Price	9.00	2.97	-67%

5.4 Tender Participation

For 2021/22, 40 tender submissions were received from 16 unique participants. Chart 2 illustrates the level of participation compared to previous years. Chart 3 illustrates how the 40 tender submissions received were split between Capacity and Delivery arrangements.

Chart 2: Number of Offers and Participants

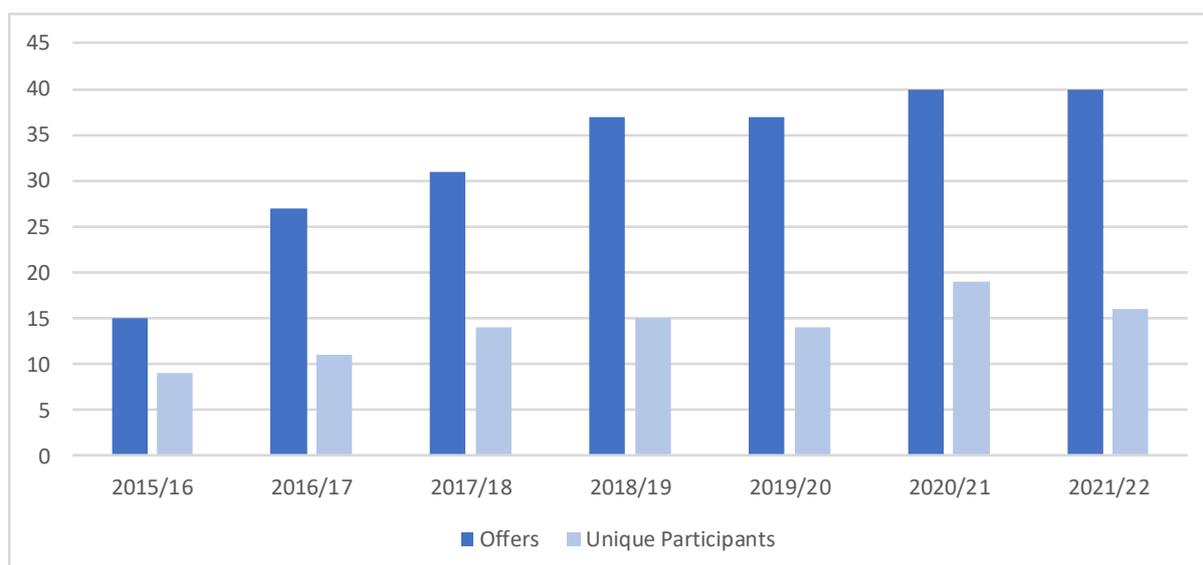
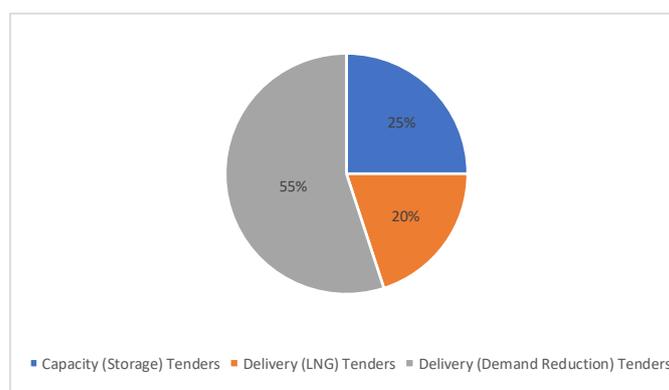


Chart 3: Tender Submission split by type, 2021/22



Out of the 16 unique participants in Chart 2, two participants submitted more than one tender submission across the various service provider category areas and is detailed in Table 3.

Table 3: Tender Submissions by Service Provider Categories (please note 2 participants submitted in multiple categories)

Service Provider Category	Number of Participants	Number of Tender Submissions
Storage	7	10
LNG	5	8
Demand Reduction	6	22
All Tender Total	18	40

Chart 4 – Number of Participants by Service Provider Category (note 2 participants submitted in multiple categories)

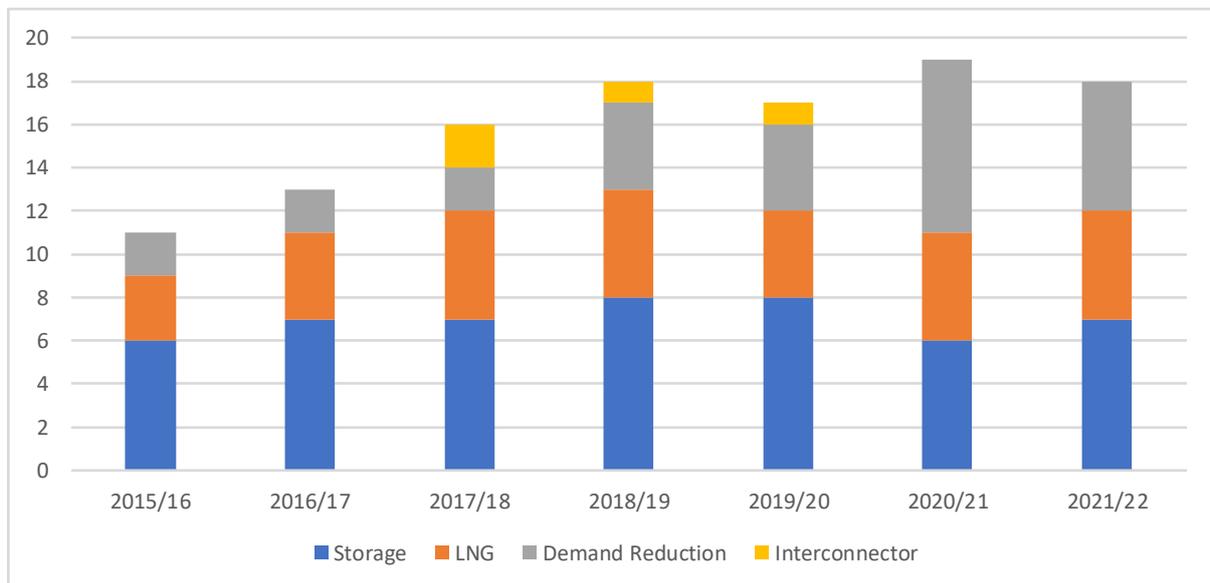
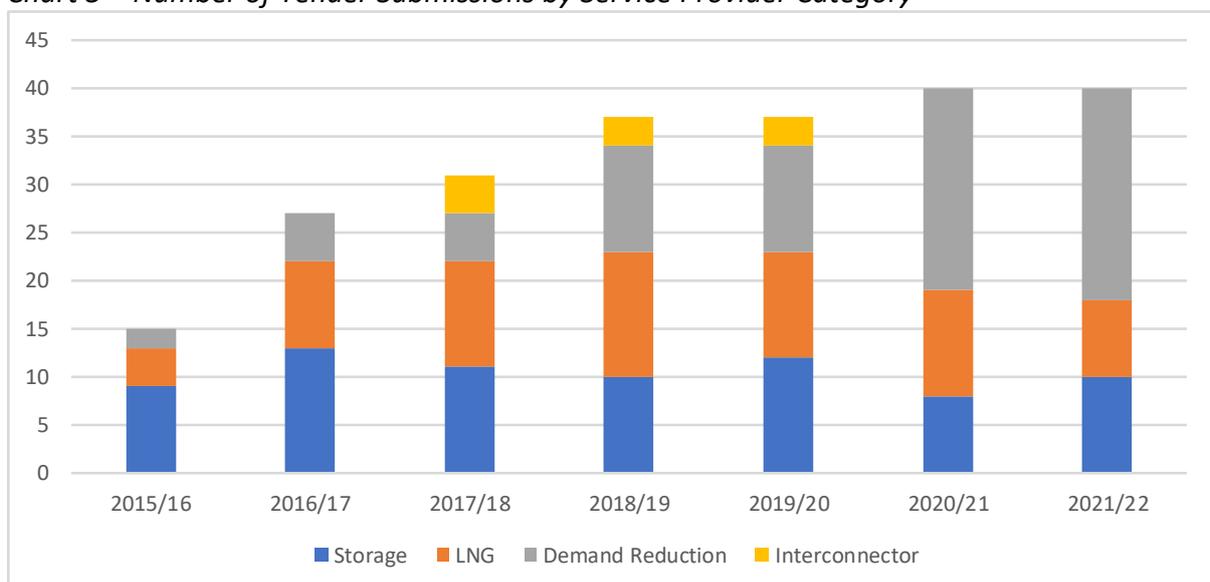


Chart 5 – Number of Tender Submissions by Service Provider Category



5.5 Purchasing Activities and Exchange Trades

During May 2020, for Storage Year 2020/21, National Grid procured 4,396,065kWh of OM gas via NBP trades at a weighted average price of 0.3506p/kWh. Further information can be found in the Procurement Guidelines Report³

To date, National Grid has not undertaken any purchasing activities or exchange trades for Storage Year 2021/22.

6.0 CONCLUSION

For 2021/22, the OM requirement has been procured at a cost of £9.4m, this represents approximately a £0.7m (~7%) year on year cost saving for end consumers.

To encourage tender participation, NGG has proactively engaged with potential service providers and consulted with the industry on the development of OM contracts to ensure a compliant tender process and provide value for end consumers.

Tender submissions were received from 16 unique participants including one new entrant for 2021/22. With increased engagement, the tender volumes increased to their highest levels since 2016/17.

7.0 GLOSSARY OF TERMS

Acronym	Term	Definition
ENA	Energy Networks Association	Energy Networks Association (ENA) represents the 'wires and pipes' transmission and distribution network operators for gas and electricity in the UK and Ireland.
NTS	National Transmission System	A high-pressure gas transportation system consisting of compressor stations, pipelines, multijunction sites and offtakes. NTS pipelines transport gas from terminals to NTS offtakes and are designed to operate up to pressures of 94 bar(g).
Ofgem	Office of Gas and Electricity Markets	The UK's independent National Regulatory Authority, a non-ministerial government department. Its principal objective is to protect the interests of existing and future electricity and gas consumers.
OM	Operating Margins	Gas used by National Grid Transmission to maintain system pressures under certain circumstances, including periods immediately after a supply loss or demand forecast change, before other measures become effective and in the event of plant failure, such as pipe breaks and compressor trips.
RIIO	Revenue=Incentives+Innovation+Outputs	Ofgem's regulatory framework is known as RIIO (Revenue = Incentives + Innovation + Outputs). The RIIO model offers network companies incentives for securing investment and driving innovation. This ensures the delivery of sustainable energy networks at the lowest cost for current and future customers.

³ <https://www.nationalgrid.com/uk/gas-transmission/document/135466/download>

		RIIO-T1 covers the 8 year period from April 2013 to April 2021 RIIO-T2 covers the 5 year period thereafter.
	Special Licence Condition 8C, National Grid Gas plc, Gas Transporter Licence	The Gas Transporter Licence condition which sets out the obligations of the Licensee in respect of the procurement of its Operating Margins requirements and the provision of an Operating Margins Report.
UNC	Uniform Network Code	The Uniform Network Code is the legal and commercial framework that governs the arrangements between the Gas Transporters and Shippers operating in the UK gas market. The UNC comprises different documents including the Transportation Principal Document (TPD) and Offtake Arrangements Document (OAD).

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