



NATIONAL GRID GAS

OPERATING MARGINS REPORT

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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 8C 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 2020/21
- Developments in the OM Service and procurement process
- OM Services procured for Gas Storage Year 2020/21 through the 2020/21 annual tender process
- Total 2020/21 OM Booking

2.0 BACKGROUND

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-T1 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 2020/21

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 2020/21.²

The methodology identified an initial OM requirement of 801 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 841 GWh as published in the Operating Margins Statement. This represents an increase from the OM requirement for the previous two years (676GWh and 699GWh respectively), driven in part by an increase in the forecast peak 1 in 20 National Demand, increases in locational requirements to provide enhanced pressure cover, and differences in supply and demand patterns.

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. Our engagement led to seven new participants taking part in the OM Tender for 2020/21.

4.0 OM SERVICE AND PROCUREMENT PROCESS DEVELOPMENTS

4.1 Process Learning and Feedback

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

² <https://www.nationalgrid.com/uk/gas-transmission/document/130691/download>

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:

- We continue to further enhance our tender documentation that relates to the OM service requirements.
- National Grid simplified the Index Principles documentation incorporating this into the main tender documents, whilst simultaneously rationalising the Indexation Principles (see paragraph 4.4)
- We will be undertaking a review of the contractual arrangements for those sites with multiple shippers.
- The previous 'Gas Delivery Agreement – Demand Reduction and/or Supply Increase' has been redesigned to focus only on Demand Reduction.

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 our 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.

Ahead of the 2020/21 tender, improvements were made to the OM contract framework, following internal review and acting on feedback from service providers. This included simplification of the Indexation Principles for LNG and CCGT contracts, and revisions to both the Service Availability and Settlement arrangements for all Service Providers.

NGG continue to use the ARIBA Procurement platform (first introduced in 2018/19) 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 2020/21 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 2020/21

The initial OM requirements for 2020/21 storage year totalled 801 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 with enhanced locational cover, leading to a revised OM requirement totalling 841 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	2020/21 Initial OM Requirements (GWh)	2020/21 Revised OM Requirements (GWh)
Supply Loss	540	533
Locational – South West	45	68
Locational – South East	35	57
Locational - North	0	0
Locational – Scotland	0	0
Locational - Wales	0	0
Non-Locational	66	66

Orderly Rundown	116	116
Total	801	841

5.2 Tendered Volumes

Tendered volumes of 1,300 GWh (1,258 GWh excluding duplicated site volumes submitted by individual tenderers) were available for OM services for 2020/21. This compares to 2,011 GWh for 2019/20 (or 1,888 GWh excluding duplicate volumes). The decrease was primarily from Storage facilities, although there was a significant increase in volumes offered in the power generation sector, from 347GWh in 2019/20 to 626GWh in 2020/21.

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 2020/21 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	1.45	1.2	-17%
Minimum Price	0.57	0.57	0%
Maximum Price	5.01	2.58	-48%

5.4 Tender Participation

For 2020/21, 40 tender submissions were received from 18 participants. Chart 1 illustrates the level of participation compared to previous years. Chart 2 illustrates how the 40 tender submissions received were split between Capacity and Delivery arrangements.

Chart 1: Number of Offers and Participants

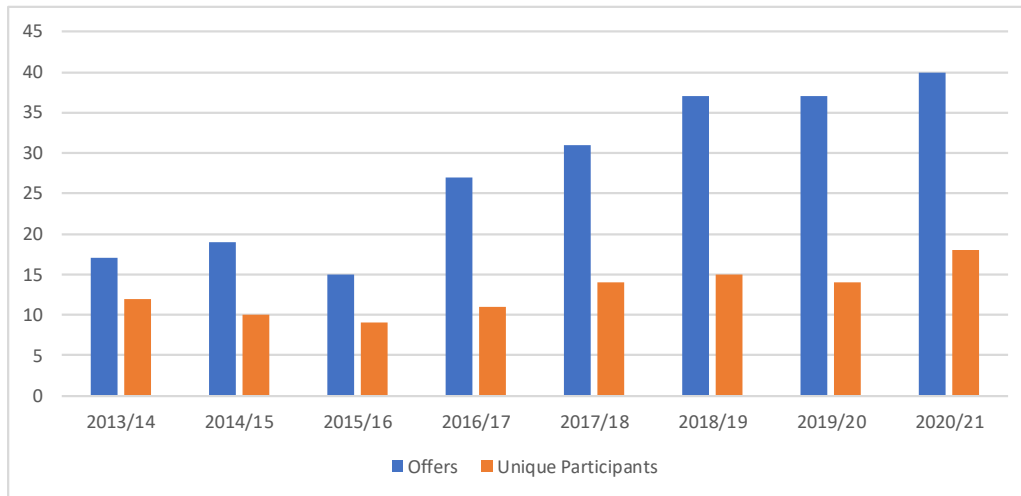
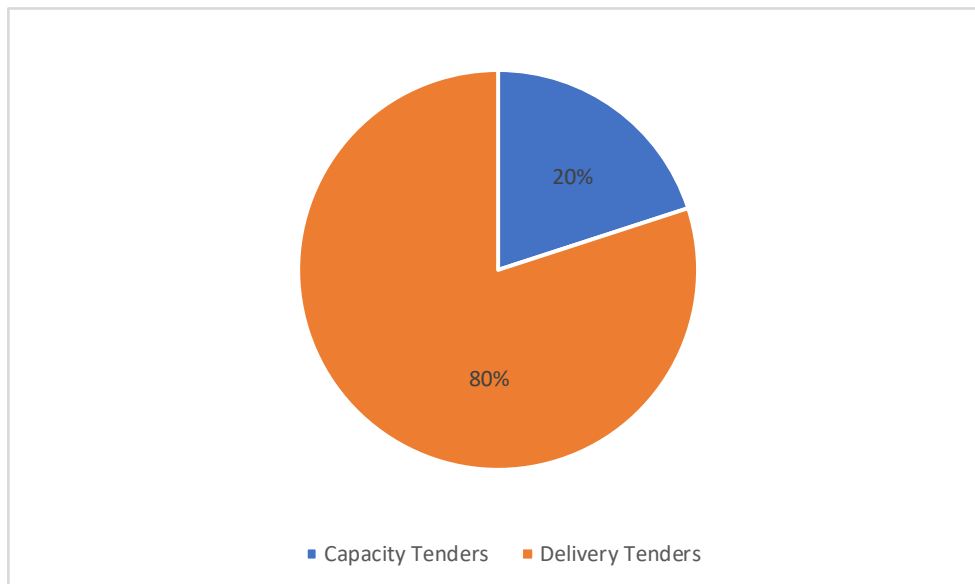


Chart 2: Tender Submission split by type, 2020/21



Out of the 18 participants illustrated in Chart 1, 1 participant 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

Service Provider Category	Number of Participants	Number of Tender Submissions
Storage	6	8
LNG	5	11
Demand Reduction	8	21
Interconnector	0	0
All Tender Total	19	40

Charts 3 and 4 provide a historical perspective of the level of market participation. Both charts highlight an increased number of participation most noticeably from demand reduction service providers (gas fired power stations).

Chart 3 – Number of Participants by Service Provider Category

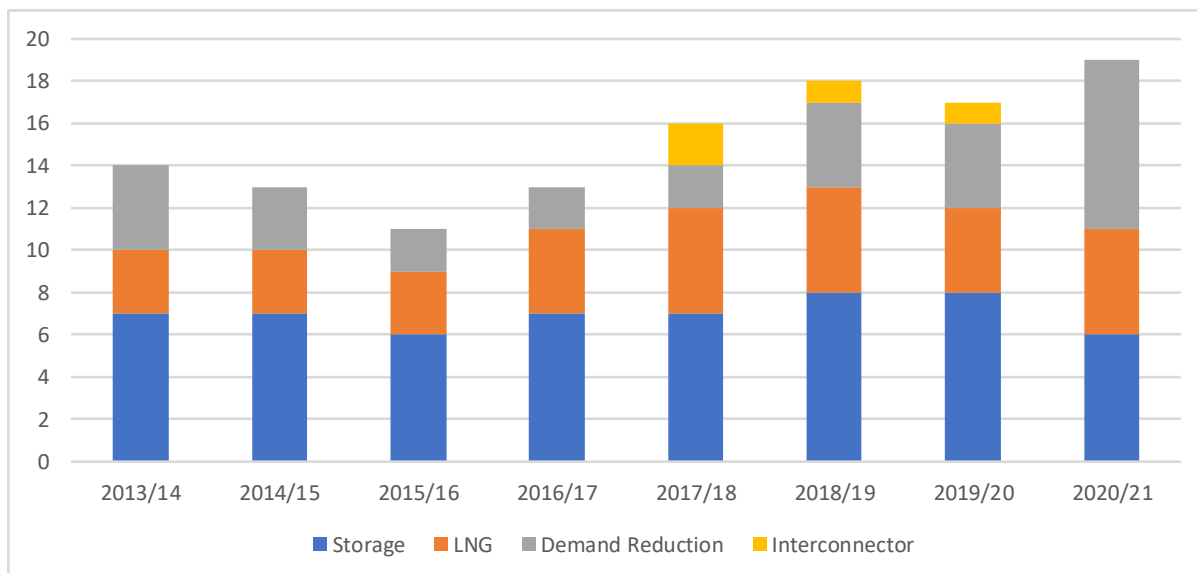
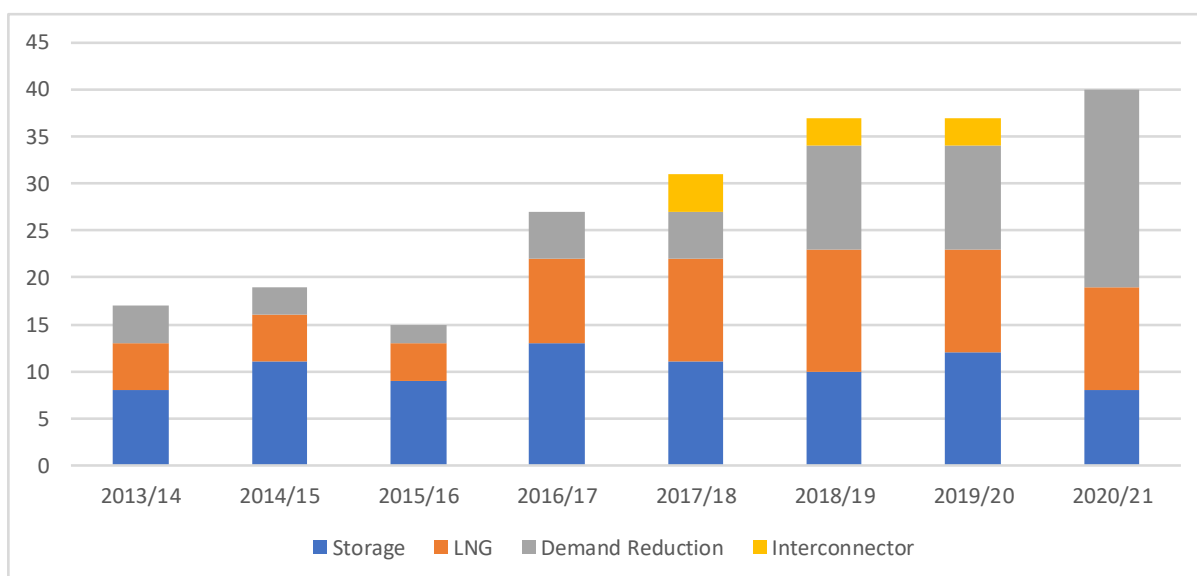


Chart 4 – Number of Tender Submissions by Service Provider Category



6.0 CONCLUSION

For 2020/21, the increased OM requirement has been procured at a cost of £10.1m, with a unit price of 1.2p/kWh (compared to 1.14p/kWh in 2019/20). The ~5% unit price increase was primarily driven by a rise in locational requirements, which increased from 77GWh in 2019/20 to 125GWh for 2020/21.

To encourage tender participation, NGG has proactively engaged with potential service providers, consulted with industry on the development of OM contracts and also made available a dedicated resource to tenderers using the ARIBA procurement platform (introduced in 2018/19) to enhance and support an efficient and compliant tender process.

Tender submissions were received from 18 unique participants including seven new entrants for 2020/21.

Despite a rise in new participants and an increase in volume offered in the power generation sector, overall tendered volumes have fallen to 1,300GWh for 2020/21. This has been primarily driven by a reduction in volumes offered at storage sites. Chart 4 highlights that the overall number of tender submissions (by service provider category) for 2020/21 is at its highest level in recent years and reflects a continued focus on diversifying the OM supply base and encouraging market participation.

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. 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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