



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 will cover the following areas:-

- OM requirement 2019/20
- Developments in the OM product and procurement process
- OM Services procured for Gas Storage Year 2019/20 through the 2019/20 annual tender process
- Total 2019/20 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 rate of change of gas flow to or off-take from the NTS to manage in operational timescales 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 UK 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 via the link below: <https://www.nationalgrid.com/uk/gas/balancing/operating-margins-om>

3.0 OM REQUIREMENT 2019/20

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 market 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 2019/20.

<https://www.nationalgridgas.com/document/126226/download>

The methodology identified an initial OM requirement of 713 GWh when the Invitation to Tender was published. Tender submissions received provided an alternative network compliant solution, when calculated led to a revised OM requirement of 699 GWh as published in the Operating Margins Statement. Based on the tender process, we have booked 646 GWh and as such we are currently reviewing the position for this gas storage year.

3.2 Communications Strategy

To maximise participation in the annual OM procurement event, multiple channels are utilised 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 further supported, where necessary, with ad hoc conversations to give enhanced clarity on the OM service to potential service providers. These were tailored to the requirements of individual parties and their level of knowledge and understanding of the tender process.

This year, an expressions of interest was undertaken and new and existing providers were targeted as part of an extensive customer engagement strategy. As a result, there has been a 23% increase in volume tendered for 2019/20.

4.0 OM PRODUCT 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:

- OM provision is complex and further work is required to continue development of tender documentation that relates to service characteristics.
- Development of contract terms and a simplified contracting process could reduce barriers to entry for OM providers.
- Further alignment of contract terms across the agreements to ensure consistency where possible and to minimise operational risks.

4.2 Developing the OM Requirements Calculation Methodology

Our OM requirements methodology remains under ongoing 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 2019/20 tender, improvements were made to the OM contract framework, reflecting on feedback from service providers and following internal review. This included an alignment of contract terms, as far as possible, between the different contract types and updating operational processes.

NGG used the ARIBA Procurement platform (introduced in 2018/19) to enhance and support an efficient and compliant tender process. Dedicated ARIBA support was made available to tenderers to support 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 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 2019/20 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 2019/20

The initial OM requirements for 2019/20 storage year totalled 713 GWh ahead of the tender. This assumed a NTS network solution including a distribution of OM services as typically offered in recent years.

The profile of the tender submissions required an alternative compliant network solution to be calculated, leading to a revised OM requirement totalling 699 GWh. Table 1 below summarises this position by OM requirement category.

Table 1 : OM Requirement Categories

Operating Margins Requirement Category	2019/20 Initial OM Requirements (GWh)	2019/20 Revised OM Requirements (GWh)
Supply Loss	488	488
Locational – South West	66	42
Locational – South East	35	35
Locational - North	0	0
Locational – Scotland	0	0
Locational - Wales	0	0
Non-Locational	71	81
Orderly Rundown	53	53
Total	713	699

As described in section 3.1 and based on the tender process, we have booked 646 GWh. As such we are currently reviewing the position for this gas storage year.

5.2 Tendered Volumes

Tendered volumes of 2,011 GWh (1,888 GWh excluding duplicated site volumes submitted by individual tenderers) were available for OM services for 2019/20. This compares to 1,631 GWh for 2018/19 (there were no duplicated tender volumes).

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.

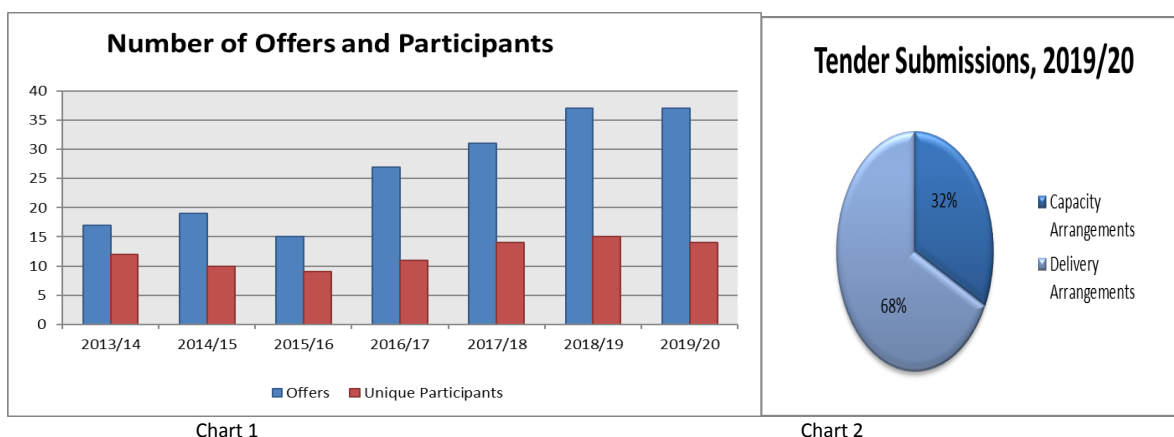
Table 2 below summarises key price metrics on market tenders received and accepted for the 2019/20 gas storage year through the 2019/20 annual tender process.

Table 2 : Pricing Metrics

	Tender Offered Price (p/kWh)	Tender Accepted Price (p/kWh)	Variance %
Weighted Average Price	1.14	1.18	3%
Minimum Price	0.59	0.59	0%
Maximum Price	3.75	3.75	0%

5.4 Tender Participation

For 2019/20, 37 tender submissions were received from 14 participants. Chart 1 below illustrates the level of participation compared to previous years. Chart 2 illustrates how the 37 tender submissions received were split between Capacity and Delivery arrangements.



Out of the 14 participants illustrated in Chart 1, 3 participants submitted more than one tender submission across the various service provider category areas and is detailed in table 3 below.

Table 3: Tender Submissions by Service Provider Categories

Service Provider Category	Number of Participants	Number of Tender Submissions
Storage	8	12
LNG	4	11
Demand Reduction	4	11
Interconnector	1	3
All Tender Total	17	37

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).

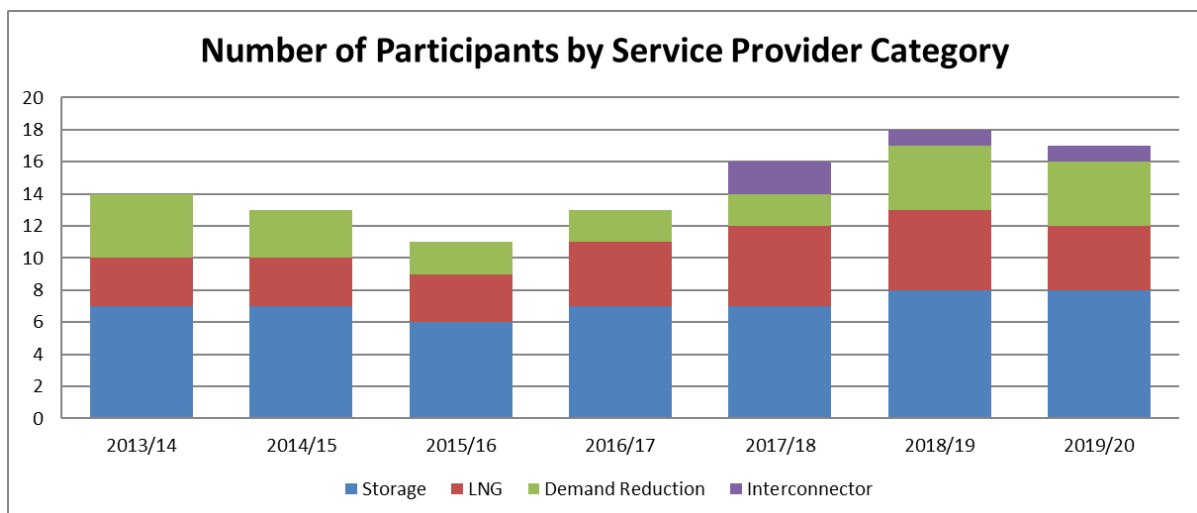


Chart 3

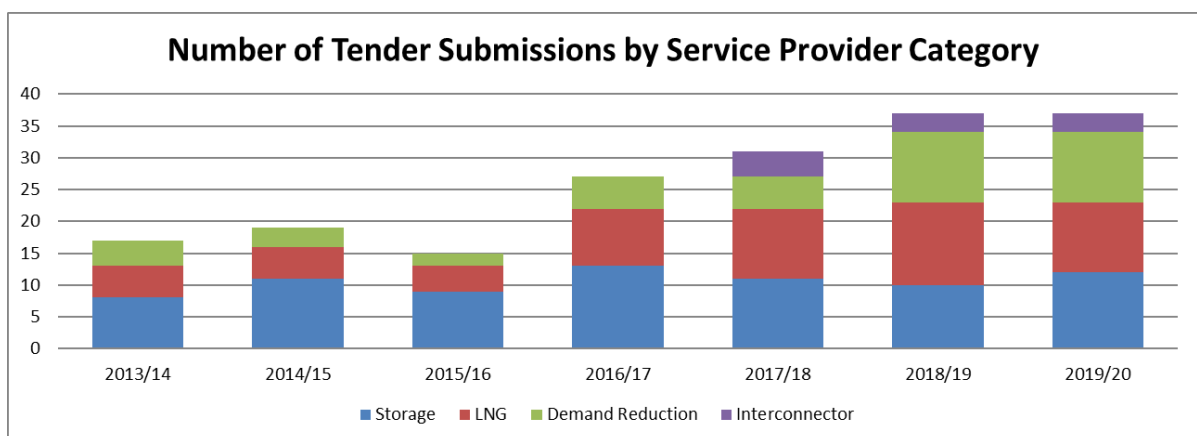


Chart 4

6.0 TOTAL OM BOOKING FOR 2019/20

For the 2019/20 OM year, current bookings (made through the 2019/20 annual procurement event) are forecast to reduce the cost base to £7.6m for our customers. This excludes any costs which may arise if a further requirement is identified through NGG's within year monitoring of the OM position. Should this occur, these costs will be reported as part of NGG's annual Procurement Guidelines Report (published in April each year).

7.0 CONCLUSION

The current OM booking for 2019/20 has been procured at a cost of £7.6m. This represents a £0.2m (~3%) year on year cost saving for our customers.

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 last year) to enhance and support an efficient and compliant tender process.

Tender submissions were received from 14 participants including one new entrant for 2019/20.

Tendered volumes have increased to 2,011 GWh for 2019/20. This represents a 380 GWh (~23%) year on year increase primarily from Storage. Chart 4 highlights that the number of tender submissions (by service provider category) for 2018/19 and 2019/20 are at their highest levels since 2013/14 and reflect a continued focus on diversifying the OM supply base and encouraging market participation.

8.0 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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