

To all interested parties,

Chris Logue  
Head of Markets

chris.logue@nationalgrid.com  
Mobile +44 (0)7880784888

19<sup>th</sup> April 2022

Dear Colleague

## **National Grid Transmission's Consultation on Entry Capacity Release Methodology Statement**

National Grid Gas plc's ("National Grid") Gas Transporter Licence in respect of the NTS ("the Licence") sets out obligations to develop and modify the Entry Capacity Release Methodology Statement ("ECR").

As part of the review process for this statement, we are obliged to consult with interested parties on the proposed changes before formally submitting to the Authority for a decision.

According to Special Condition 9.18.16 National Grid may apply to the Authority for a derogation relieving it of any obligations captured under this condition. On 19<sup>th</sup> April 2022 the Authority agreed to derogate National Grid from:

- Special Condition 9.18.11(b) requiring National Grid to consult on proposed changes to ECR for a period of not less than 28 days. **National Grid requested to shorten this consultation period to 7 days.**
- Special Condition 9.18.11(d) requiring National Grid to provide a statement from an Independent Examiner giving their opinion as to the extent to which National Grid has developed the relevant statement that is consistent with our duties under the Gas Act and the Licence.

This letter identifies the proposed changes to the Entry Capacity Release Methodology Statement, and the reasons for them.

### **Drivers for change**

#### Geopolitical situation in Europe

The current geopolitical situation developing in Europe has the potential to create a significant impact on the energy sector and markets across the continent, including the UK. The unprecedented high gas prices and the desire of European countries to reduce dependency on Russian gas are leading to changes in strategies in relation to future sources of energy. The UK market has a part to play in supporting Europe in transitional arrangements to the extent this is possible. This might mean that larger than anticipated quantities of LNG could be delivered to the UK shores this summer, with an intention of being transported to Europe via the interconnectors to Belgium and the Netherlands. Additionally, EU storage levels are close to historic lows and therefore the summer refill period has the potential to further increase demand on the Interconnectors to help refill EU storage.

#### UNC 0752S Introduction of Weekly Entry Capacity Auction

During the development of UNC Modification 0752S no one foresaw the current geopolitical events and consequential market impacts which may lead to a greater need and focus on GB as a market to transport higher levels of LNG through the NTS to Europe. With this current market dynamic we have concerns around increased risks from releasing weekly capacity and we now believe action is needed to mitigate the potential consequences the release of Weekly firm capacity may cause, this has the potential to also extend to the Monthly auctions. UNC 0752S will be implemented on the 24<sup>th</sup> April 2022 and the first bid window when weekly capacity can be purchased will be on the 20<sup>th</sup> May 2022. This period is also when National Grid has high levels of maintenance activity on the network to meet legislative requirements and to prepare for the following peak demand season.

### Capability and Maintenance Plans

Capability on the NTS is linked to supply and demand, specifically locational supply and demand patterns, asset availability, local linepack and pressures. The NTS in normal operation is not expected to be able to deliver the baseline at Milford Haven during the summer. Lower national demand impact our ability to move gas away from the area. Of particular impact is demand from nearby NTS directly connected assets and LDZ demand in South Wales (see appendix).

Each year National Grid undertakes a variety of maintenance and investment activities on the NTS. The maintenance programme which we publish<sup>1</sup> provides an overview of all work scheduled on NTS compressor stations and pipelines. Where this work affects the capability at an Aggregate Entry System Point (ASEP), an indication of the revised ASEP's minimum daily capability is included for each month within the maintenance plan. Although every effort is made to align work to any customer in order to minimise the impacts for our customers, we realise that there is a potential that this summer's maintenance will impact our capability to transport large quantities of LNG gas away from the terminal. We have reviewed the maintenance plan and have already deferred, cancelled or rephased maintenance activities at the critical compressor stations of Felindre, Wormington and Churchover that we are able to ensure that maximum capability will be available throughout the summer. Those activities required under legislation will continue but have similarly been reassessed to minimise impact.

In the period 2019-2021 we have seen an average summer flow at Milford Haven of ~6mcm a day. However, the maximum flow seen was 55mcm. If this were to be repeated, we believe that the NTS would have sufficient capability to accommodate this. However, considering the geopolitical events and the market impacts there is the potential that more LNG will be delivered to the UK including Milford Haven. National Grid is concerned about its ability to accommodate flow at levels above historic high levels for prolonged time during the summer period.

The current long-term capacity bookings between June to September is 350GWh/day (32mcm), while October booking stand at 855GWh. Releasing Obligated Entry NTS Capacity up to the Baseline of 950GWh in shorter term (monthly/weekly) auctions would mean making available and potentially selling capacity in excess (circa 20 to 25 mcm/d) of the forecast network capability for this period. If Shippers then flowed above the capability levels then this would lead to National Grid having to take constraint management actions to manage and reduce the increase in pressure. Given the current market and the potential for flows to consistently be greater than the capability this could result in costs being incurred by customers and ultimately end consumers.

The appendix to this letter includes the NGG's capability assessment of the Milford Haven ASEP. It summarises the factors considered in the analysis and provides capability figures for the months June to October 2022. It is National Grid's opinion that releasing forward capacity up to these levels would offer the most flexibility and certainty to the market, whilst reducing the significant industry costs potential of an ongoing constraint the Milford Haven Entry Point.

Based on that analysis the current June capability will be 63mcm, while the Milford Haven baseline is 87mcm. This means that National Grid could be potentially releasing 24mcm of capacity for flows which cannot be reasonably expected to be accommodated.

### **ECR changes required**

Currently National Grid has a right to withhold sale of daily capacity only (which includes day ahead release). We feel that a precautionary and temporary provision is needed to allow National Grid to extend the right to stop or restrict the release of Obligated Weekly NTS Capacity and Obligated Monthly NTS Entry Capacity in a situation where a specific longer-term constraint is forecast should the full baseline be made available. We believe that this is only required at the Milford Haven ASEP for the period between 30<sup>th</sup> May and 31<sup>st</sup> October 2022. If the specific system conditions allow, we would make available any withheld capacity (in full or in part) in the weekly or daily auctions (day ahead and within day) to maximise the availability of capacity within capability for our customers.

---

<sup>1</sup> <https://www.nationalgrid.com/gas-transmission/document/139146/download>

Continued release of Entry capacity which resulted in aggregate capacity sales which would allow flows at a sustained level above that which we are able to accommodate and would lead to a constraint. As a result, constraint actions would be required, potentially lasting several days. The cost of managing a constraint with buy backs could quickly lead to significant costs incurred by the National Grid, its customers and ultimately end consumers. In the scenario we have looked at (based on 30 days of constraints, a 20 mcm/d constraint and gas price at £3 therm and buy/sell differential of £1) the costs could equate from £180m (Locational sells and some corresponding buys) to £500m (buybacks).

We are aware that our customers expectation is to purchase the rights to flow which will give them certainty that they can do so when needed. It is our intention to maximise the existing system capability / firm capacity release to be able to facilitate as much flow as possible. However, at the same time we believe that steps need to be taken to both provide greater certainty to the market and to protect the industry from potentially high constraint management costs in this unique and unprecedented situation.

In this specific circumstances we believe that releasing Obligated capacity in line with the levels of capability on the network, where to do otherwise could have a detrimental impact on consumers, is consistent with our Licence duties to maintain an efficient and economical pipe-line system for the conveyance of gas.

The following changes to the wording of the methodology would be applicable to capture the above:

- Introduction of Weekly NTS Capacity auction in Chapter 3: Auction Process for the Release of Obligated Entry Capacity would include
  - Insertion of paragraphs describing the new auction and quantity of capacity available under the auction
  - Paragraph 74 referring to National Grid's right to withhold capacity in a scenario where it foresees a constraint would be amended to:

*'Where, in respect of any given Gas Flow Day, circumstances arise in which National Grid foresees a capacity constraint occurring at an ASEP, National Grid may withhold capacity from sale for that ASEP in DSEC auction. **Furthermore, National Grid may also withhold capacity from an ASEP in WSEC or RMTNTSEC auctions in the period between 30<sup>th</sup> May 2022 to 31<sup>st</sup> October 2022 at the Milford Haven ASEP – such quantities may subsequently be released in part or in full in the WSEC or DSEC auctions. In all cases the quantity withheld will be limited to that which National Grid considers necessary to avoid the constraint or to avoid increasing the extent of the constraint, and hence to avoid, or limit, the cost of any actions needed to manage the constraint.***

To assist in reviewing the proposed changes to the Entry Capacity Release Methodology Statement a comparison of the current document version 6.0 to version 6.1 is available on our website (please go to 'Current Review and Consultation' folder):

<https://www.nationalgrid.com/uk/gas-transmission/capacity/capacity-methodology-statements>.

National Grid would appreciate the comments of all interested parties on the draft changes to the capacity statements. Responses should arrive at National Grid by 17:00 on Tuesday 26<sup>th</sup> April 2022 and be sent by e-mail to: [box.gsoconsultations@nationalgrid.com](mailto:box.gsoconsultations@nationalgrid.com).

Responses will be placed on our website and incorporated within the consultation conclusions report. If you wish your response to be treated as confidential then please mark it clearly to that effect.

Your sincerely

Chris Logue  
Head of Markets



# **Appendix Milford Haven Capability Assessment**

Version 1.0

# Milford Assessment

## Background

The Milford Haven Entry Point consists of Dragon and South Hook Terminals, with an obligated baseline entry capacity of 950 GWh or c87 mcm/d. The capability of the National Transmission System (NTS) to accept this volume of gas varies across the year and is strongly linked to localised demand in the area, particularly the Wales and the West Utilities operated Wales South Local Distribution Zone (LDZ) and the Cadent operated West Midlands LDZ.

The key limiting factor on the network to accepting gas in at Milford Haven is the design and operation of a series of compressor stations across the West of the UK. Each station has been designed to a maximum flow threshold, linked to the anticipated required flows rates during higher demand periods where it can be reasonably expected that entry throughput at Milford Haven will be maximised.

The current geopolitical environment coupled with low European bulk strategic storage stocks has created a driver for large export volumes to Europe via the interconnectors at Bacton. This behaviour will likely continue throughout the summer, increasing the potential for consistently higher than normal entry flows at Milford Haven.

## Technical Design

The key components of the network related to Milford Haven entry capability are compression assets at Felindre, Wormington and Churchover, as well as pipelines leading to demand centres in Wales, the West Midlands, and the supply to Pembroke Power Station (Figure 1)

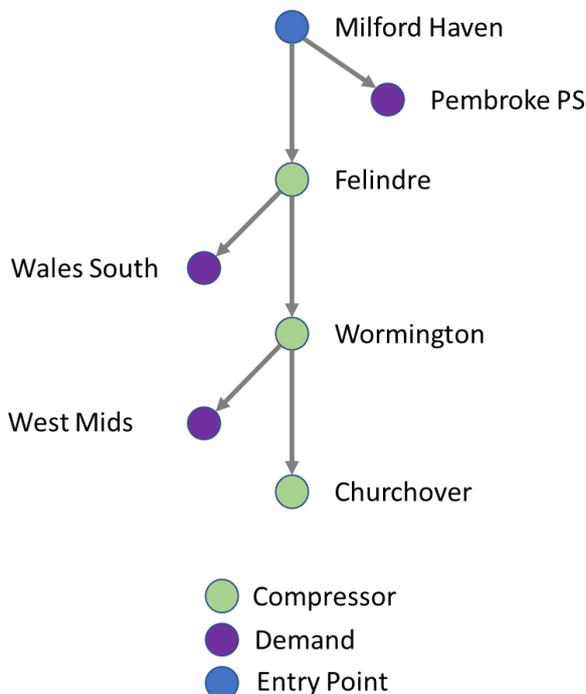


Figure 1: Schematic representation of the key NTS assets that have an influence on Milford Haven Entry capability

When considering the capability of the entry point at Milford Haven, all entry flows must either be directed into one of the areas of demand or pass through the various compression assets in the West of the UK. Of all compression assets listed, Churchover represents the station with the lowest available power and hence, the lowest maximum attainable flow rates. Milford Haven entry capability can be accurately calculated by aggregating demand (from Pembroke Power Station, and the Wales South and West Mids LDZs) and adding this to the maximum flow capability of Churchover Compressor Station.

It should be noted that the technical flow capacity of any compressor station is variable, with flow being a consequence of lift (the differential between pressure on the suction and discharge sides of the machine). Maximum flow is achieved when the lift across the machine is minimised, although this is not a parameter that can be controlled and is a consequence of the prevailing network conditions. Figure 2 shows historic flow data through Churchover compressor. This identifies 45 mcm/d as the maximum achievable unit flow.

**Churchover Compressor Unit D Flow (mcm/d)**

Based on hourly flow readings when unit is running  
Data from 01/10/18 to 10/04/22

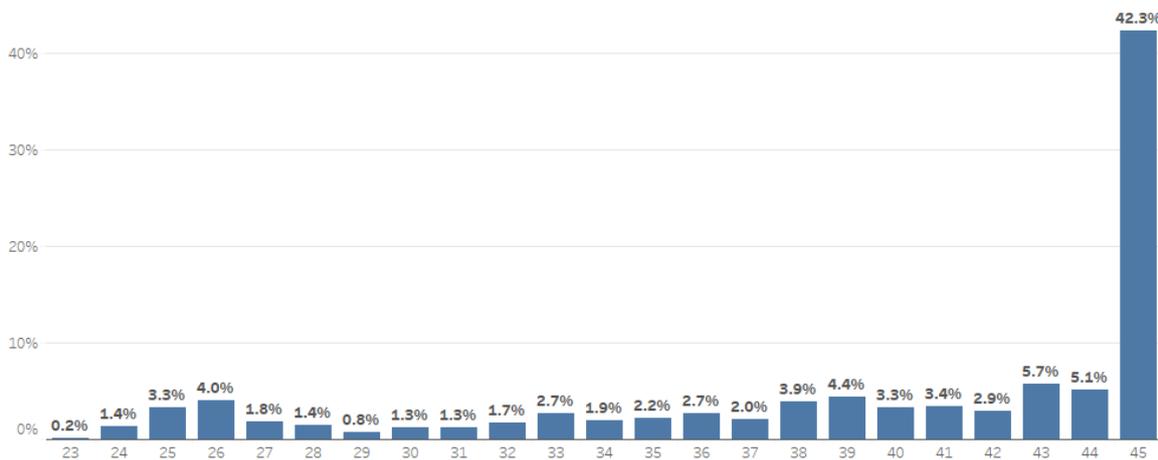


Figure 2: Overview of recent flow rates through Churchover Compressor. The figure identifies 45 mcm/d as the maximum achievable flow. N.b. Churchover Unit D used as the alternative unit will be on outage over the summer period

## Methodology for Entry Capability Assessment

In order to give as realistic a view as possible on likely entry capability for the coming summer at Milford Haven, we have used historic data over the last three summers to give an indication of likely demands May-October.

For each network offtake we have reviewed the end of day demand figures on a daily basis and then aggregated all the medians of all the individual demand components for a given month.

We note that the current geopolitical and industry environment is unlikely to directly impact demand in the West Midlands and Wales South due to the major component of demand being that required for domestic usage and power-generation.

## Results

Table 1 summarises the aggregated median demands that impact on the capability of the Milford Haven Entry Point, combined with the maximum potential flow through Churchover compressor to give an indication of the historic capability through Milford Haven.

*Table 1: Table showing the median capability from the Milford Haven Entry Point over the last 3 years data*

Month	Capability
May	65.49
June	62.645
July	60.68
August	58.97
September	62.4
October	65.79

The data shows that median capabilities over the analysed periods have been between circa 60-66 mcm/d