

Gas National Transmission System April Maintenance Programme

April 2015 - March 2017

Final Version 1.0

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1. Introduction

Each year National Grid Gas Transmission undertakes a variety of maintenance and investment activities on the gas National Transmission System (NTS). This work can take many different forms, including keeping our assets in good working order, replacing ageing assets with new equipment, inspecting assets and facilitating new connections and capacity requirements.

This maintenance programme is intended to provide an indication to the gas industry of the impact of these works on the NTS, and any associated impact on entry or exit capacity from April 2015 to March 2017. This programme supersedes all previous plans.

This document provides an overview of work scheduled at NTS compressor stations and NTS pipelines. Where this work affects the capability at an Aggregate System Entry Points (ASEPs), an indication of the revised ASEP's minimum daily capability is included for each month.

Although every effort is made to align work to any customer or associated asset outages which we have been made aware of, this is not always possible and where NTS Exit Points are affected, we will endeavour to issue Maintenance Day notices to our customers at least 42 days in advance of the scheduled Maintenance work.

This document only includes maintenance activities on the NTS which are to be undertaken by National Grid NTS. It does not include maintenance carried out upstream of the NTS by Delivery Facility Operators (DFO's) and Producers or downstream of the NTS by the Distribution Networks and other NTS connected parties.

2. NTS Maintenance Work Monthly Summary

The following tables provide a summary of the NTS in line inspection work, other NTS pipeline work and NTS compressor outages. The month where the work is scheduled to take place has been highlighted in the tables. If it is the case that any work listed below has an effect on the flow of gas, affected sites and associated shippers will be contacted individually.

2.1 Planned In Line Inspections

National Grid Gas Transmission is required to carry out in-line inspections of our pipelines periodically in order to monitor and maintain their integrity, ensuring that they comply with the Pressure Systems Safety Regulations (PSSR). The in-line inspection process requires a number of Pipeline Inspection Gauges (PIGs) to travel through the pipeline in order to complete a full inspection. The number of "runs", and the associated time taken for the work, can vary from pipeline to pipeline.

Area	In Line Inspections	2015							2016				2017	
		Apr	May	Jun	Jul	Aug	Sep	Q4	Q1	Q2	Q3	Q4	Q1	
EA	Fdr 05 - Yelverton to Stowmarket													
SW	Fdr 23 - Tirley to Wormington													
EM	Fdr 09 - Hatton to Peterborough													
SC	Fdr 11 - Bathgate to Longtown													
SC	Fdr 12 - Bathgate to Longtown													
SC	Fdr 12 - Kirriemuir to Bathgate													
NO	Fdr 13 - Cowpen Bewley to Yafforth													
WS	Fdr 23 - Treaddow to Gilwern													
NW	Fdr 25 - Bridge Farm to Mickle trafford													
SE	Fdr 05 - Shorne to Isle of Grain													
SW	Fdr 14 - Sapperton to Cirencester													
SE	Fdr 04 - Tixover to Blaby													
EM	Fdr 05 - Roxwell to Luxborough													
SE	Fdr 05 - Horndon to Tilbury Thames													
SC	Fdr 10 - Bathgate to Penicuik													
WM	Fdr 11 - Samlesbury to Blackrod													
NO	Fdr 12 - Longtown to Bishop Auckland													
SC	Fdr 10 - Aberdeen to Kirriemuir													
NW	Fdr 15 - Plumpton to Lupton													
NO	Fdr 15 - Longtown to Plumpton													
SE	Fdr 18 - Shorne to Farningham													
WM	Fdr 23 - Churchover to Honeybourne													

2.2 Pipeline Work

Pipeline work listed in this table below can include diversions of existing pipelines, facilitation of connections to the NTS, and replacement or maintenance of pipeline and associated assets (pipes, valves, pig traps etc.) which require some form of pressure restriction or isolation. Some work can be performed by restricting the pressure of gas in the pipeline; however some work requires a full shut down (often termed “isolation” or “outage”) of a section of the pipeline which would then be reinstated back to operational pressures once the work is completed.

= Pressure Restriction

= Pipeline Shutdown

= Provisional period

Area	Pipeline	2015								2016				2017
		Apr	May	Jun	Jul	Aug	Sep	Q4	Q1	Q2	Q3	Q4	Q1	
WS	Fdr 02 – Dowlais to Rhigos													
WS	Fdr 02 – Rhigos to Aberdulais													
WS	Fdr 02 – Aberdulais to Dyffryn Clydach													
WM	Fdr 04 - Aspley to Milwich													
NW	Fdr 04 - Holmes Chapel to Warburton													
SC	Fdr 12 - Kirriemuir to Balgray													
NO	Fdr 10 - Humbleton to Saltwick													
NO	Fdr 11 - Longtown to Wetheral													
SW	Fdr 14 - Pucklechurch to Ilchester													
SW	Fdr 14 - Pucklechurch to Seabank													
SC	Fdr 10 - St Fergus to Aberdeen													
SC	Fdr 11 - St Fergus to Kinknockie													
NW	Fdr 04 - Warburton to Partington													
NW	Fdr 11 - Grayrigg to Salmesbury													
SC	Fdr 10 - Bathgate - Glenmavis													
NO	Fdr 06 - Wolviston to Cowpen Bewley													
EA	Fdr 02 - Erpingham to Castle Acre													
EM	Fdr 08 - Theddlethorpe to Hatton													
EA	Fdr 03 - Bacton to Roudham Heath													
EA	Fdr 04 - Saddlebow													
NO	Fdr 06 – Elton to Pickering													
NO	Fdr 06 - Cowpen Bewley to Teeside													
SC	Fdr 10 - Boon to Coldstream													

Please note: where a pipeline is required to be shut down the specific isolation points may differ from those displayed above. Any parties impacted by the works are contacted directly.

2.3 NTS Compressor Stations

Compressors are used to help move gas around the NTS to where it is needed, maintaining pressures required at exit points whilst avoiding over-pressurising pipelines. In order to maintain our capability at Compressor Stations, routine maintenance is performed as well as a variety of other projects to maintain and improve the fleet.

= Confirmed period

= Provisional period

Compressor Station Outages	2015							2016				2017
	Apr	May	Jun	Jul	Aug	Sep	Q4	Q1	Q2	Q3	Q4	Q1
Aberdeen												
Alrewas												
Avonbridge East												
Avonbridge West												
Aylesbury												
Bishop Auckland												
Carnforth												
Cambridge												
Chelmsford												
Churchover												
Diss												
Felindre												
Hatton												
Huntingdon												
Kings Lynn												
Kirriemuir												
Lockerley												
Moffat												
Nether Kellet												
Peterborough												
Warrington												
Wisbech												
Wooler												
Wormington												

3. ASEP Capability

The table below shows an indicative flow capability for each Aggregate System Entry Point (ASEP), taking into account the effect of the draft maintenance programme. The volumes are displayed month by month and are based on appropriate seasonal normal conditions.

In generating the ASEP capabilities, no account has been taken of any supply side (DFO) maintenance outages.

The value represents the ASEP's daily capability for each month, based on Seasonal Normal Demand conditions and for the period in the month where scheduled maintenance has most impact on capability. The analysis performed to produce the figures uses the assumption that a supply at a particular ASEP is favoured over other ASEPs. For example, in producing capability figures for St Fergus, it would be assumed that St Fergus ASEP would be flowing at its maximum for the season and the rest of the NTS supply was spread over other ASEPs.

Where "no impact" has been stated, this indicates that the maintenance scheduled is expected to have no adverse effect on the ASEP capability.

The capability volumes shown for the individual ASEPs are indicative only, but do represent a consistent operational view.

On any given day, the amount of capability that may be available at any ASEP will depend upon the level and distribution of the demand and the level of supplies at other terminals. In cases where scheduled maintenance has an adverse effect on an ASEP's capability, National Grid may be able to make additional capability available at other ASEPs.

	Apr	May	Jun	Jul	Aug	Sep	Oct
St Fergus	No Impact	No Impact	No Impact	No Impact	No Impact	No Impact	No impact
Teesside	No Impact	36 (400)	No Impact	No Impact	No Impact	No Impact	No impact
Barrow	No Impact	No Impact	No Impact	No Impact	No Impact	No Impact	No impact
Easington	No Impact	No Impact	No Impact	No Impact	No Impact	No Impact	No impact
Theddlethorpe	No Impact	No Impact	No Impact	No Impact	No Impact	No Impact	No impact
Bacton	No Impact	No Impact	No Impact	No Impact	No Impact	No Impact	No impact
Isle of Grain	No Impact	No Impact	52 (572)	43 (476)	No Impact	No Impact	No impact
Milford Haven	No Impact	No Impact	No Impact	No Impact	No Impact	59 (649)	No impact

Values in millions of cubic metres & (GWh)

(Conversion from millions of cubic metres to GWh using Calorific Value of 39.6 MJ/m³)

4. Maintenance Affected Exit Points

We aim to minimise the impact of our maintenance on customers through transparency, aligning our work with their outages as appropriate and facilitating customer needs for flexibility.

Outages

Each year we ask when our customers' outages are to enable alignment of works. If your outages move, please get in touch as early as possible so that we can consider whether we can also realign our works to reduce any impact of these works. Please contact us to advise of any change to outage periods via email at NTSaccessplanning@nationalgrid.com.

Where possible, work is co-ordinated with the end user to avoid supply disruption, however in certain circumstances it may be necessary to schedule work at a time which may require disrupting the supply to an Exit Point whilst the NTS maintenance is undertaken.

Shippers, End-Users and Distribution Networks will be advised, in accordance with the Uniform Network Code (UNC) requirements and timescales, of any required disruptions to supply at an Exit Point by the issuing of a Maintenance Day(s) to the relevant party.

Maintenance Day notifications have been issued directly to all relevant parties for the work detailed in this maintenance programme for the period April to October 2015. Where work has been aligned to outages, or there is no anticipated impact for other operational reasons, we have issued Advice Notices for your convenience to confirm these arrangements. Should any changes or additions to the requested Maintenance Days be required, all relevant parties will be notified in line with the timescales detailed in the UNC.

Minor Works Agreement

We recognise that sometimes standard maintenance approaches may not be optimal for our customers. Where this is the case the Minor Works Agreement can enable parties to agree different maintenance approaches through a bilateral contract with directly connected customers. Customers can pay the incremental costs of working flexibly outside normal working practices where we are able to accommodate these requests. For any questions relating to Minor Works Agreements, please contact the Business and Operations Planning Team on 01926 655625.

General Queries

Further information on the maintenance activities undertaken by us is available on our website¹.

If you have any queries or questions regarding the information contained within this document, please contact:

Mark Amos (NTS Access Planning Manager)
National Grid
Gas System Operation
National Grid House
Gallows Hill
Warwick
CV34 6DA
NTSaccessplanning@nationalgrid.com
(Tel: 01926 654878).

We would welcome any feedback from you in relation to the maintenance programme or the way in which this information is provided. If you would like to provide feedback please contact us via email at: NTSaccessplanning@nationalgrid.com

¹ <http://www2.nationalgrid.com/uk/industry-information/gas-transmission-system-operations/maintenance/>