

# Maintenance & Capacity Expansion Programme

April 2013 - October 2013

# Contents

	<b>Page</b>
Introduction	3
Maintenance work by month	4
ASEP capability table	10
Maintenance affected exit points	11

# Introduction

This draft version of the Maintenance Programme has been produced by National Grid NTS to satisfy its obligations under Section L: 1.5 of the UNC – Transportation Principal Document (TPD) and Section G of the UNC - Offtake Arrangements Document (OAD).

This document provides information on NTS maintenance which has an impact on entry or exit capacity.

In accordance with Section L: 3.2 “Content of Programme” the document covers work scheduled at compressor stations and on National Transmission System (NTS) pipelines impacting NTS exit points and Aggregate System Entry Points (ASEPs), providing an indication of the revised ASEP capability.

National Grid works closely with its customers to ensure minimum impact to supply and endeavours to meet its firm exit obligations and notification of affected NTS System Exit Points will be through Maintenance Day notices sent directly to affected parties.

This document only includes maintenance activities on the NTS, which are to be undertaken by National Grid NTS, as defined in Section L: 1.1.4 of the UNC (TPD) and UNC (OAD) Section G 1.2.

It does not include maintenance carried out upstream of the NTS by Delivery Facility Operators (DFO's) / Producers or downstream of the NTS by the Distribution Networks.

Any comments should be sent to Malcolm McDonald, Physical Operations Manager, National Grid, Gas Operations, National Grid House, Gallows Hill, Warwick, CV34 6DA (Tel: 01926 654154).

# Maintenance Work by Month

April 2013

<b>Compressor Station Outages</b>	<b>Dates</b>	<b>Maintenance Description</b>
Warrington	Apr-Jun	Non-Return Valve Replacement
Huntingdon	Apr – May	Non-Return Valve Modifications

<b>Pipeline Work</b>	<b>Dates</b>	<b>Maintenance Description</b>
Feeder 4 - Warburton to Partington	Apr – May	Pipeline Shutdown
Feeder 11 – Lockerbie to Waterbeck	Apr	Pipeline Shutdown
Feeder 4 - Warburton to Holmes Chapel	Apr – May	Pipeline Shutdown
Feeder 13 – Ovington to Lanchester	Apr – May	Pressure Restriction
Feeder 13 – Chillingham to Guyzance	Apr – May	Pressure Restriction
Feeder 10 – Aberdeen to Muirskie	Apr	Pipeline Shutdown
Feeder – 2 Frankton to Churchover Comp Tee	Apr	Pipeline Shutdown

<b>In Line Inspections</b>	<b>Dates</b>	<b>Maintenance Description</b>
Feeder 16 – Barrow to Lupton	Apr	In Line Inspection
Feeder 18 – Peterborough to Huntingdon	Apr	In Line Inspection
Feeder 13 – St Fergus to Aberdeen	Apr	In Line Inspection
Feeder 4 – Blaby to Alrewas	Apr	In Line Inspection
Feeder 8 – Theddlethorpe to Hatton	Apr – May	In Line Inspection

## May 2013

<b>Compressor Station Outages</b>	<b>Dates</b>	<b>Maintenance Description</b>
Aberdeen	May-Jun	Routine Maintenance
Moffat	May	Routine Maintenance
Warrington	Apr-Jun	Non-Return Valve Replacement
Carnforth	May-Jul	Control system and NRV Replacement
Hatton	May – Jun	Exhaust Stack Replacement
Wisbech	May - Jun	Control System
Cambridge	May – Jun	Non-Return Valve Replacement
Huntingdon	Apr – May	Non-Return Valve Modifications

<b>Pipeline Work</b>	<b>Dates</b>	<b>Maintenance Description</b>
Feeder 4 - Warburton to Partington	Apr – May	Pipeline Shutdown
Feeder 4 - Warburton to Holmes Chapel	Apr – May	Pipeline Shutdown
Feeder 7 – Tydd to Huntingdon	May	Pressure Restriction
Feeder 12 – Tow Law to Crook	May – Jun	Pipeline Shutdown
Feeder 13 – Lonformarcus to Polwarth	May	Pressure Restriction
Feeder 13 – Ovington to Lanchester	Apr – May	Pressure Restriction
Feeder 13 – Chillingham to Guyzance	Apr – May	Pressure Restriction
Feeder 14 – Pucklechurch to Severnside	May - Jun	Pressure Restriction
Feeder 7 – Kirkstead to Gosberton	May - Jun	Pipeline Shutdown

<b>In Line Inspections</b>	<b>Dates</b>	<b>Maintenance Description</b>
Feeder 8 – Theddlethorpe to Hatton	Apr – May	In Line Inspection
Feeder 6 – Elton to Pickering	May	In Line Inspection
Feeder 15 – Wheelock to Warmingham	May - Jun	In Line Inspection

## June 2013

<b>Compressor Station Outages</b>	<b>Dates</b>	<b>Maintenance Description</b>
Aberdeen	May-Jun	Routine Maintenance
Kirriemuir	Jun	Routine Maintenance
Avonbridge East	Jun – Jul	Routine Maintenance
Carnforth	May-Jul	Control system and Non-Return Valve Replacement
Warrington	Apr – Jun	Non-Return Valve Replacement
Hatton	May -Jun	Exhaust Stack Replacement
Wisbech	May - Jun	Control System
King's Lynn	Jun-Jul	Control System
Cambridge	May – Jun	Non-Return Valve Replacement

<b>Pipeline Work</b>	<b>Dates</b>	<b>Maintenance Description</b>
Feeder 12 – Tow Law to Crook	May – Jun	Pipeline Shutdown
Feeder 12 – Longtown to Tow Law	Jun – Jul	Pipeline Shutdown
Feeder 14 – Pucklechurch to Severnside	May - Jul	Pressure Restriction / Shutdown
Feeder 14 – Sapperton to Easton Grey	Jun - Jul	Pipeline Shutdown
Feeder 7 – Kirkstead to Gosberton	May - Jun	Pipeline Shutdown

<b>In Line Inspections</b>	<b>Dates</b>	<b>Maintenance Description</b>
Feeder 4 – Shocklach to Weston Point	Jun	In Line Inspection
Feeder 2 – Bacton to Wisbech Nene West	Jun	In Line Inspection
Feeder 4 – Bacton to Wisbech	Jun	In Line Inspection
Feeder 15 – Wheelock - Warmingham	May - Jun	In Line Inspection

## July 2013

<b>Compressor Station Outages</b>	<b>Dates</b>	<b>Maintenance Description</b>
Avonbridge East	Jun – Jul	Routine Maintenance
Avonbridge West	Jul	Routine Maintenance
Carnforth	May-Jul	Control system and Non-Return Valve Replacement
Churchover	Jul	Routine Maintenance
Nether Kellet	Jul-Aug	Non-Return Valve Replacement
Kings Lynn	Jun – Jul	Routine Maintenance
Peterborough	Jul-Aug	Control System
Lockerley	Jul	Routine Maintenance

<b>Pipeline Work</b>	<b>Dates</b>	<b>Maintenance Description</b>
Feeder 12 – Longtown to Tow Law	Jun – Jul	Pipeline Shutdown
Feeder 22 – Hatton to Braceborough	Jul - Aug	Pressure Restriction
Feeder 22 – Silk Willoughby to Aslackby	Jul - Aug	Pipeline Shutdown
Feeder 4 – Drinton to Alrewas	Jul-Aug	Pipeline Shutdown
Feeder 10 – Thrunton to Saltwick Isolation	Jul - Aug	Pipeline Shutdown
Feeder 3 – Bacton to Felthorpe	Jul - Aug	Pipeline Shutdown
Feeder 14 – Sapperton to Easton Grey	Jun - Jul	Pipeline Shutdown
Feeder 14 – Pucklechurch to Severnside	Jun - Jul	Pipeline Shutdown

<b>In Line Inspections</b>	<b>Dates</b>	<b>Maintenance Description</b>
Feeder 5 – Gravesend Thames S to Tatsfield	Jul	In Line Inspection
Feeder 7 – Pannal to Cawood	Jul – Aug	In Line Inspection
Feeder 9 – Steppingley to East Isley	Jul-Aug	In Line Inspection

## August 2013

<b>Compressor Station Outages</b>	<b>Dates</b>	<b>Maintenance Description</b>
Wooler	Aug	Routine Maintenance
Nether Kellet	Jul-Aug	Non-Return Valve Replacement
Alrewas	Aug – Sep	Fire and Gas System Mods
Hatton	Aug – Sep	Non-Return Valve Replacement
Peterborough	Jul-Aug	Control System
Aylesbury	Aug - Sep	Control System
Wormington	Aug	Routine Maintenance

<b>Pipeline Work</b>	<b>Dates</b>	<b>Maintenance Description</b>
Feeder 4 – Drointon to Alrewas	Jul-Aug	Pipeline Shutdown
Feeder 7 – Nuffield to East Isley	Aug	Pipeline Shutdown
Feeder 9 – Peterborough to Luton	Aug - Sep	Pipeline Shutdown
Feeder 10 – Thrunton to Saltwick Isolation	Jul - Sep	Pipeline Shutdown
Feeder 11 – Brechin to Kirriemuir	Aug - Sep	Pipeline Shutdown
Feeder 13 – Lochside to Barnhead	Aug	Pressure Restriction
Feeder 22 – Hatton to Braceborough	Jul - Aug	Pipeline Shutdown
Feeder 22 – Silk Willoughby to Aslackby	Jul - Aug	Pipeline Shutdown
Feeder 11 – Longtown to Wetheral	Aug - Sep	Pipeline shutdown
Feeder 3 – Bacton to Felthorpe	Jul - Aug	Pipeline shutdown

<b>In Line Inspections</b>	<b>Dates</b>	<b>Maintenance Description</b>
Feeder 7 – Pannal to Cawood	Jul – Aug	In Line Inspection
Feeder 2 – Wormington to Treadow	Aug	In Line Inspection
Feeder 7 – Blyborough to Brigg	Aug - Sep	In Line Inspection
Feeder 17 – Theddlethorpe to Hatton	Aug	In Line Inspection
Feeder 9 – Steppingley to East Isley	Jul-Aug	In Line Inspection



## September 2013

<b>Compressor Station Outages</b>	<b>Dates</b>	<b>Maintenance Description</b>
Bishop Auckland	Sep	Routine Maintenance
Alrewas	Aug – Sep	Fire and Gas System Mods
Aylesbury	Aug - Sep	Control System
Hatton	Aug – Sep	Non-Return Valve Replacement

<b>Pipeline Work</b>	<b>Dates</b>	<b>Maintenance Description</b>
Feeder 11 – Longtown to Wetheral	Aug - Sep	Pipeline shutdown for River Eden Diversion
Feeder 2 & 23 – Treaddow to Llanvetherine	Sep - Oct	Pipeline Shutdown for Treaddow Pig Trap Installation
Feeder 9 – Brocklesby to Swallow	Sep	Pressure Restriction
Feeder 9 – Peterborough to Luton	Aug - Sep	Pipeline Shutdown
Feeder 9 – Steppingley to Whitwell	Sep	Pipeline Shutdown
Feeder 10 - Falahill to Penicuik	Sep	Pipeline Shutdown
Feeder 10 Lennel N to Lennel S	Sep - Oct	Pipeline Shutdown
Feeder 11 – Brechin to Kirriemuir	Aug - Sep	Pipeline Shutdown

<b>In Line Inspections</b>	<b>Dates</b>	<b>Maintenance Description</b>
Feeder 2 – Dowlais to Dyffryn Clydach	Sep	In Line Inspection
Feeder 7 – Tydd St Giles to Wisbech Nene West	Sep	In Line Inspection
Feeder 11 – Grayrigg to Samlesbury	Sep - Oct	In Line Inspection
Feeder 14 – Sapperton to Ilchester	Sep	In Line Inspection
Feeder 14 – Austrey to Shustoke	Sep	In Line Inspection

# ASEP Capability Table

The included table shows indicative capability for each ASEP, including the effect of the summer 2013 Maintenance Programme. The volumes are displayed in monthly tranches 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 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 figure has been generated by National Grid and assumes the particular ASEP is favoured at the expense of other terminals.

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

The capability volumes shown for the individual ASEP's 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 appropriate ASEP's.

	April	May	June	July	August	September
<b>St Fergus</b>	No impact	81 (891)	85 (935)	92 (1012)	81 (891)	No impact
<b>Teesside</b>	No impact	No impact	No impact	No impact	No impact	No impact
<b>Barrow</b>	No impact	No impact	No impact	No impact	No impact	No impact
<b>Easington</b>	No impact	No impact	No impact	No impact	No impact	No impact
<b>Theddlethorpe</b>	No impact	No impact	No impact	No impact	No impact	No impact
<b>Bacton</b>	No impact	No impact	No impact	No impact	90 (990)	No impact
<b>Isle of Grain</b>	No impact	37 (407)	No impact	No impact	No impact	No impact
<b>Milford Haven</b>	No impact	No impact	63 (693)	67 (737)	58 (638)	69 (759)

Values in MCM & (GWH)

(Conversion from MCM to GWH using CV of 39.6 MJ/m<sup>3</sup>)

# Maintenance Affected Exit Points

Some Exit Points may have supply disruptions whilst NTS maintenance is being completed. Where possible, this is co-ordinated with the end user to avoid supply disruption.

Shippers, End-Users and Distribution Networks will be advised in accordance with the Uniform Network Code timescales.

Maintenance day(s) notifications will be issued to all relevant parties for the work detailed in this Draft April 2013 Maintenance plan.

Should any changes or additions to the requested Maintenance days be required, all relevant parties will be notified as per the timescales detailed in the UNC.