

Maintenance & Capacity Expansion Programme 2012/13 Review

National Grid Gas Transmission

Version 1: 31 May 2013

Introduction

To ensure a high level of safety and reliability in operation, it is essential that a system of inspection and maintenance exists for assets associated with the transmission of natural gas. Effective maintenance is essential to minimise the safety and environmental risks caused by failure of pipelines and plant.

In order to facilitate work on the NTS, it is sometimes necessary to take an outage of a part of the network or reduce the flexibility available (e.g. where steady gas flows may be required). This may affect one or more parties connected to the network including:

- Gas fired power stations and large industrial consumers connected to the NTS;
- Gas Storage Facilities;
- Gas Entry facilities; and
- Distribution Networks.

This document covers work scheduled maintenance activities on the NTS in 2012/13. It does not include maintenance carried out upstream of the NTS by Delivery Facility Operators (DFOs) and Producers or downstream of the NTS by the Distribution Networks.

We work closely with our customers to ensure minimum impact to supply and endeavour to meet our firm exit obligations. there is a process set out in the UNC that enables us to inform industry parties of intended Maintenance Days where work has an impact on a specific site connected to the NTS. These Maintenance Days are notified in advance of the work to provide industry parties with an opportunity to discuss the timing and impact and for us to respond to any industry requests for further information.

If you have any queries, questions or feedback regarding the information contained within this document, please contact us via e-mail on gasops.ntsmaintenance@nationalgrid.com.

This report is published in line with our obligations in Special Condition 8G (Maintenance and Operational Planning) in our gas transporter's licence in respect of the NTS.

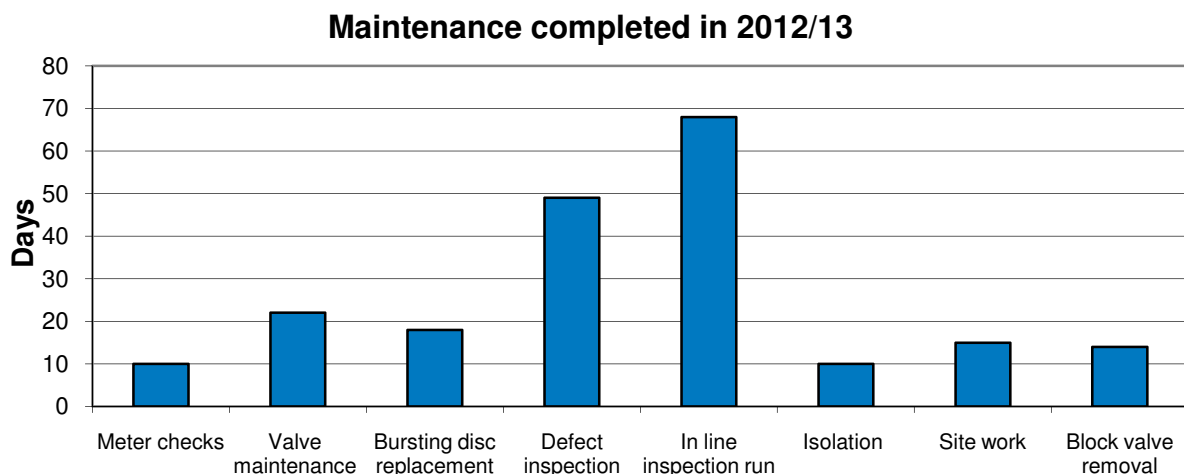
Maintenance Work by Type in 2012/13

Primarily the work that affects our customers is as a result of routine maintenance, asset replacement, pipeline and defect inspections, emergencies and faults and work to facilitate investment in the network which may be as a result of a new connection or capacity requirement.

The NTS investments delivered last summer for capacity expansion for winter 2012/13 have provided additional capacity and network flexibility. These projects included:

- Connection of new storage facilities in Cheshire
- Tie in of a new Pressure Reduction Installation in Gloucestershire
- Uprating of Feeder 28 to 94 bar between Milford and Treadow

In 2012/13, we carried out the following maintenance jobs that affected industry parties using Maintenance Days:



Some of the common types of maintenance that may impact on our customers are explained further below:

Planned in-line inspection of pipelines

National Grid is required to carry out In-line inspections of our pipelines periodically in order to maintain their integrity, by ensuring that they comply with the Pressure Systems Safety Regulations (PSSR) 2000.

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.

In order for the PIG to record accurate information we need to ensure that a steady gas flow through the pipeline section is maintained. This is done by manipulating the flow of gas into the pipeline, the demands within the section of pipeline and the demands downstream of the section of pipeline being inspected.

Planned Defect Inspection

The results from an In-line inspection may require a “Defect Inspection” to investigate features found during the In-Line Inspection. This involves a visual inspection and repair of any identified defect.

The severity of the defect will determine the pressure reduction required and this may result in the pipeline being isolated (shutdown).

Any sites within the isolated section of the pipeline will normally need to be on full cessation for the duration of the works. It may be possible to maintain a small supply to an offtake point by continuously topping up the isolated section whilst maintaining the reduced pressure, however, this is dependent on the individual job requirements.

Remote Valve Operation (RVO) Maintenance

Valves form an integral part of the National Gas Transmission System (NTS). They are used to control the flow of gas on the system and to isolate pipelines in an emergency. Valves can be either controlled remotely from the Gas National Control Centre or need to be operated locally on site.

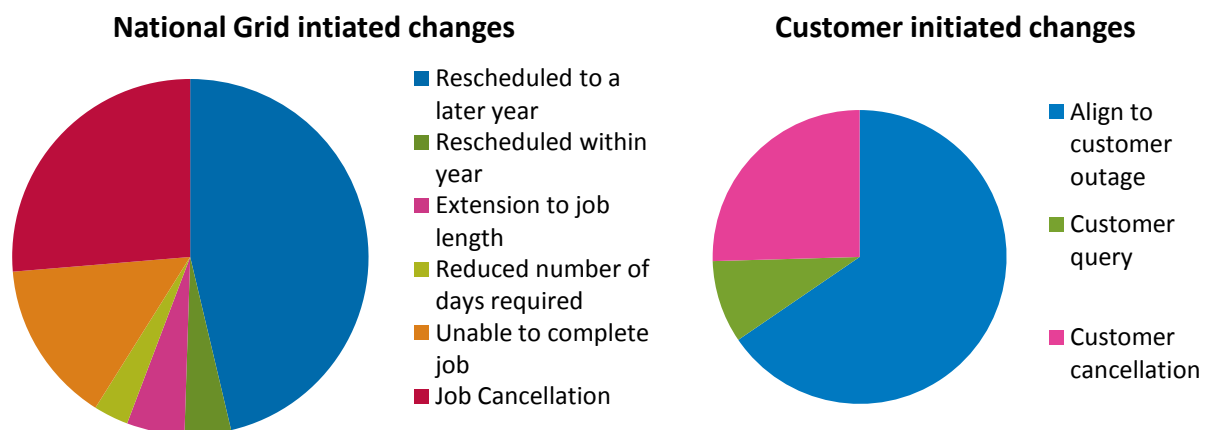
To ensure the safe continual operation of these valves, National Grid has a policy to maintain key valves on an annual basis. In addition to this annual maintenance there may be a requirement to prove remote operation of the remote valves following faults, upgrades to software, etc.

Changes to the Maintenance Programme in 2012/13

We aim to minimise the impact of our planned maintenance on customers through a transparent and flexible approach of endeavouring to align our work with their outages where feasible and practical.

Each year we ask when our customers' outages are to enable alignment of works. If their outages or other operational plans change at any time we request to be notified as soon as possible so that we can consider whether we also can realign our planned works.

There may be occasions when either National Grid or our customers ask whether work may be rearranged or altered in some way. In 2012/13, 150 Maintenance Days¹ were subject to change including 95 days impacted by changes initiated by National Grid and 55 days impacted by changes initiated by our customers. The charts below show the reasons for changes seen in 2012/13.



¹ These figures are for changes to Maintenance Days as defined in the UNC. A change that affects multiple parties is noted here as one change per day.

Enabling Flexibility

Sometimes standard maintenance approaches may not be optimal for our customers. Where this is the case, a bilateral contract (known as the Minor Works Agreement) can be utilised to enable parties to agree a different, one-off way of completing specific maintenance. This enables customers to pay the incremental costs of working flexibly outside normal working practices pending our ability to accommodate such a request. For example:

- (a) Customer-initiated requests for us to change our planned maintenance to a non-standard arrangement; such as requesting planned maintenance during non-standard hours (e.g. weekend or bank holiday).
- (b) Customer-initiated requests for National Grid work e.g. the isolation of the customer's supply using NGG plant to facilitate the customer's own works

If you would like to talk to us about potential options, please contact us on **01926 655625** or gasops.ntsmaintenance@nationalgrid.com.