Joint Office of Gas Transporters

Stage 01: Proposal

0389V[S]:

Simplification of points of telemetry

What stage is this document in the process?

01 Proposal

02 Workgroup Report

03 Draft Modification Report

04 Final Modification Report

Simplification of the points of telemetry described within Annex E-1 of the Offtake Arrangements Document.

The Proposer recommends that this self-governance modification should be considered by the Panel in February 2012

High Impact:
N/A

Medium Impact:
N/A

Low Impact:
National Grid Transmission and the Distribution Transporters

Contents

About this document:

This document is ~~an amended~~varied Modification~~. Proposal. The changes reflect industry feedback received on the original published version 1.0 which was presented by the Proposer to the Modification Panel on 21 July 2011 and subsequently discussed at the Offtake Arrangements Workgroup.~~

Any questions?

Contact:
Dave Corby

David.Corby@uk.ngrid.com

01926 654912

Proposer:
National Grid Transmission

David.Corby@uk.ngrid.com

01926 654912

Transporter:
National Grid Transmission

...@...

0000 000 000

Xoserve:
Insert name

commercial.enquiries@xoserve.com

0000 000 000

1 Summary

Is this a Self Governance Modification

The proposer believes this is a Self Governance Modification as it concerns arrangements for the ongoing efficient and economic provision of point of telemetry items between Transporters. As such, the modification:

(i) is unlikely to have a material effect on:
  (aa) existing or future gas consumers; and
  (bb) competition in the shipping, transportation or supply of gas conveyed through pipes or any commercial activities connected with the shipping, transportation or supply of gas conveyed through pipes; and
  (cc) the operation of one or more pipe-line system(s); and
  (dd) matters relating to sustainable development, safety or security of supply, or the management of market or network emergencies; and
  (ee) the uniform network code governance procedures or the network code modification procedures; and

(ii) is unlikely to discriminate between different classes of parties to the uniform network code/relevant gas transporters, gas shippers or DN operators.

In July 2011 the Modification Panel agreed that this proposal meets the self governance criteria.

What is a point of telemetry

A point of telemetry is a data item relating to connection facilities or gas flowing at an NTS / LDZ Offtake.
See OAD Section E 1.2.1(d)

Why Change?

The Enduring Distribution Networks Arrangements (EDNA) Project Team was established by UNC Transporters to discuss what arrangements were required to manage the interface between the Transmission and the Distribution Network Operator systems post System Operator Managed Service Agreement (SOMSA).

One of the recommendations of the EDNA Project Team was that the points of telemetry as defined within the Offtake Arrangements Document (OAD), Section E Annex E-1, should be revised to reflect the operational requirements, as identified in the development of the Distribution Networks Control System (DNCS). It was identified at that time that the current list of points of telemetry in Annex E-1 are not all operationally required, and therefore the UNC does not reflect the proposed operational practice and the subsequent design of the interface between the DNCS and National Grid Transmission (NGT) systems.

Solution

This modification proposes to replace the tables in Annex E-1 (Parts 1 through to 5) with a simpler structure and split into 4 Parts. It is also proposed to rationalise the list of points of telemetry contained in these tables.

Impacts & Costs

This Modification aims to bring the UNC in line with the new systems and operational processes employed. No systems changes have been identified as required to support the implementation of this Modification Proposal. No costs are anticipated to implement this Modification Proposal.

Implementation

In July 2011 the Modification panel agreed this proposal as a self-governance modification.

Accordingly implementation will be 16 business days after a Modification Panel decision to implement is received.

The Case for Change

The rationalisation of the data items required to be transferred across the interface between DNCS and National Grid Transmission's systems increases the efficiency of the coordination between the DNs' systems and the National Transmission System. Therefore, this modification supports Relevant Objective C: Coordinated, efficient and economic operation of the combined pipe-line system.

Recommendations

The proposer asks that the Modification Panel consider this Modification Proposal as a Self-Governance Modification and consider that it move directly to Consultation.

2 Why Change?

To align UNC with operational requirements

The EDNA Project Team was established by Transporters to discuss what arrangements were required to manage the interface arrangements between the Transmission and the Distribution Network Operator Systems post System Operator Managed Service Agreement (SOMSA). The EDNA Project Team identified a number of improvements that should be made for the enduring regime, one of which is being addressed through this Modification.

The points of telemetry to be provided by DNOs to NGT are described in the Offtake Arrangements Document (OAD), Section E Annex E-1. During the development of DNCS it was identified that the current list of points of telemetry in Annex E-1 does not match the operational requirements and the subsequent design of the new interface between DNCS and NGT systems. A number of the existing points of telemetry currently listed in UNC are no longer required, and the existing definitions of the individual points of telemetry can be updated to provide increased clarity.

This Modification proposes to bring the UNC, OAD Section E Annex E-1 in line with current operational requirements.

3 Solution

3.1 Background

Currently Annex E-1 shows 5 tables (table 2 has 2 parts):

- 1 "General Analogues"
- 2a "FWACV Analogues – CV-Directed Offtakes"
- 2b "FWACV Analogues NTS/LDZ Offtakes which are not CV-Directed Offtakes"
- 3 "States (All Sites)"
- 4 "Controls"
- 5 "Counters"

These tables contain columns showing the point of telemetry, whether the requirement is relevant to any offtake, or if the requirement is relevant only for a specific site, and an associated comment.

3.2 Proposal

This modification proposes that the tables currently detailed in Annex E-1 are replaced by the following revised tables (see below). The revised tables shall be split into the following 4 parts:

- "Analogues"
- "Digitals"
- "Valve Monitoring / Control"
- "Integrators"

Note that the change in names to the parts of the tables, as well as the change in names to the points of telemetry themselves, more accurately describe the data and therefore enhance clarity.

The existing tables in Annex E1 include points of telemetry that are no longer required. The points of telemetry detailed in the proposed revised tables, below, represent a reduced list of points of telemetry that exclude the items no longer required.

For the avoidance of doubt, the revised list of points of telemetry, below, include only four new points of telemetry (detailed in 3.2.1 below) that are not already provided in the current Code. These four new points of telemetry do not represent any data beyond that currently being provided to IGMS via the SCADA link from DNCS.

This modification also proposes to update the Comments field throughout the tables to provide greater clarity.

The modification does not anticipate any requirement for any DN to install any extra equipment at any existing offtake, or incur any additional costs, as a result of implementation.

3.2.1 Revised points of telemetry

The tables presented below detail the points of telemetry currently shown in OAD Section E Annex E1 (in the "Current OAD Annex Ref" column) versus the proposed revised points of telemetry (in the "Proposed OAD Annex Ref" column). The third column details the proposed revised table that the point of telemetry shall be categorised under.

Where the "Proposed OAD Annex Ref" column is blank this represents a point of telemetry that the modification proposes to eliminate, reducing the obligation on the DNOs.

Current OAD Annex Table 1:

Current OAD Annex Ref	**Proposed OAD Annex Ref**	**Proposed OAD Annex Table**
Pressures(s)	Feeder/Inlet pressure	Analogues
Outlet Pressure(s)	Outlet Pressure	Analogues
Interstage Pressure(s)		
Temperature(s)	Outlet Gas Temperature	Analogues
Orifice DP(s)	Orifice Standby Differential Pressure	Analogues
Orifice DP(s)	Orifice 'In Use' Differential Pressure	Analogues
Filter DP	Filter Differential Pressure	Analogues
FCV position(s)		
Flow Setpoint(s)		
Low Pressure Override Setpoints		
High Pressure Override Setpoints		
Outlet Pressure set point		
Compressibility	Compressibility	Analogues
Flow meter temperature	Flow Meter Temperature	Analogues

Current OAD Annex Table 2 (A and B):

Current OAD Annex Ref	**Proposed OAD Annex Ref**	**Proposed OAD Annex Table**
Calorific Value	Calorific Value	Analogues
Relative Density	Relative Density	Analogues
Nitrogen	Nitrogen	Analogues
Carbon Dioxide	Carbon Dioxide	Analogues
Wobbe	Wobbe	Analogues
24 Hour Average CV	24 Hour Average CV	Analogues
24 Hour Average RD	24 Hour Relative RD	Analogues
Inst. Volume Flow(s)	Instantaneous Volume Flow	Analogues
Inst. Energy Flow(s)	Instantaneous Energy Flow	Analogues
CV Tracker	24 Hour Average CV	Analogues
RD Tracker	24 Hour Relative RD	Analogues

Current OAD Annex Table 3:

In this table there are a number of proposed points of telemetry not corresponding to the Current OAD Annex. With the exception of the bottom three these do not represent new points of telemetry, but instead are redefined expansions of the existing OAD.

For example, the current "Instrument Fault" point of telemetry has a comment in the OAD Annex which reads "If fitted (may include RTU communications faults, barrier faults etc)". The proposed revision splits this point of telemetry into "Barrier", "Local Comms Link Status", "RTU Fault" and "Watchdog". This removes the ambiguity in the current OAD and provides clarity as to the exact Instrument Fault points of telemetry to be provided.

The same principle follows for the current "Site Charger Alarm", "Generator Running / Locked Out" and "Metering Alarm" points of telemetry.

The last three proposed points of telemetry (Valve Position, Comms Routing and Outstation) are not detailed in the current OAD column as they represent data items currently being provided via the SCADA link, but not detailed in the current OAD.

Current OAD Annex Ref	**Proposed OAD Annex Ref**	**Proposed OAD Annex Table**
Filter	Filter	Digitals
Slam Shut		
Maintenance Key	Maintenance Key	Digitals
Inlet pressure alarm		
Outlet pressure alarm		
Heater/boiler status alarms		
Instrument fault	Barrier	Digitals
	Local Comms Link Status	Digitals
	RTU Fault	Digitals
	Watchdog	Digitals
Intruder	Intruder	Digitals
System Alarm(s)	Gas Quality System Alarm	Digitals
Instrument Gas Fail		
Override	Pressure Override Alarm	Digitals
Site Mains Supply	Power	Digitals
Site Charger Alarm	Charger	Digitals
	Site UPS	Digitals
Generator running/locked out	Generator Alarm	Digitals
	Generator Available	Digitals
	Generator Bypass	Digitals
	Generator Trip	Digitals
	Generator Running	Digitals
	Generator Status	Digitals

Metering alarm	Metering Alarm	Digitals
	Meter Stream Change	Digitals
Remotely Operable Meter Valves	Meter Valve Position	Digitals
CV or tracker UPS alarm	Gas Quality System UPS	Digitals
CV Not Valid	CV Not Valid	Digitals
CV Not Attributable	CV Not Attributable	Digitals
FWACV Remote Access alarm		
Status Local/Remote	Status Local/Remote	Digitals
FCV Selected		
FCV Parallel		
Mode SPC/DVC		
Override in DVC		
Local Valve Indications		
Pump A common alarm		
Pump B common alarm		
Tank low level		
Power Supply		
	Valve Position of Feeder / Inlet isolation Valves	Digitals
	Comms Routing Status	Digitals
	Outstation Comms Status	Digitals

Current OAD Annex Table 4:

Current OAD Annex Ref	**Proposed OAD Annex Ref**	**Proposed OAD Annex Table**
Remote Flow Control Valves		
Remotely Operable Meter Valves		
FCV Select		
SPC/DVC Select		
Override in DVC		
FCV Parallel		
Flow Setpoint		
DVC Control		
Low Pressure Override		
High Pressure Override		
	Control function for Remotely Operable Valves operated by National Grid NTS	Controls

The last proposed point of telemetry (Control Function for Remotely Operable Valves…) represents a data item currently being provided via the SCADA link, but not detailed in the current OAD.

This modification also proposes to change the text from the starts of Annex E-1~~, paragraph (c)~~, such as to note ~~that it notes that the details of site-specific options at a site are found in that site's Supplementary Agreement, and~~ that Comments are given solely to provide clarity to either Minimum Requirements or Site Specific points of telemetry.

Current OAD Annex Table 5:

Current OAD Annex Ref	Proposed OAD Annex Ref	Proposed OAD Annex Table
Volume integrators	Offtake Volume Integrator	Integrators
Boiler Volume Integrators	Fuel Gas for Pre-Heater Volume Integrator	Integrators
Boiler Energy Integrators	Fuel Gas for Pre-Heater Energy Integrator	Integrators
Energy integrators	Offtake Energy Integrator	Integrators
Pump A flow integrator		
Pump B flow integrator		

4 Relevant Objectives

Implementation is expected to better facilitate the achievement of **Relevant Objective F: Promotion of efficiency in the implementation and administration of the Code.**

Proposer's view of the benefits against the Code Relevant Objectives

Description of Relevant Objective	Identified impact
a) Efficient and economic operation of the pipe-line system.	
b) Coordinated, efficient and economic operation of (i) the combined pipe-line system, and/ or (ii) the pipe-line system of one or more other relevant gas transporters.	Rationalisation of code to reflect the operational requirement for point of telemetry data between DNCS and NGT systems.
c) Efficient discharge of the licensee's obligations.	
d) Securing of effective competition: (i) between relevant shippers; (ii) between relevant suppliers; and/or (iii) between DN operators (who have entered into transportation arrangements with other relevant gas transporters) and relevant shippers.	
e) Provision of reasonable economic incentives for relevant suppliers to secure that the domestic customer supply security standards… are satisfied as respects the availability of gas to their domestic customers.	
f) Promotion of efficiency in the implementation and administration of the Code	
g) Compliance with the Regulation and any relevant legally binding decisions of the European Commission and/or the Agency for the Co-operation of Energy Regulators	

Coordinated, efficient and economic operation of the combined pipe-line system

The proposer considers that this change rationalises the UNC to reflect the operational requirement for point of telemetry data transfer between DNCS and NGT systems thereby enhancing the coordinated, efficient and economic operation of the combined pipe-line system.

5 Impacts and Costs

This Modification proposes to change the OAD such that it is in-line with the revised point of telemetry data items specified as part of the requirements for DNCS development.

Consideration of Wider Industry Impacts

No wider industry impacts identified.

Costs

Indicative industry costs – User Pays
No costs identified.

Impacts

Impact on Transporters' Systems and Process	
Transporters' System/Process	Potential impact
UK Link	None
Operational Processes	Improvement in the efficiency of passage of data between transporters.
User Pays implications	None

Impact on Users	
Area of Users' business	Potential impact
Administrative and operational	None
Development, capital and operating costs	None
Contractual risks	None
Legislative, regulatory and contractual obligations and relationships	None

Impact on Transporters	
Area of Transporters' business	Potential impact
System operation	None
Development, capital and operating costs	None
Recovery of costs	None
Price regulation	None
Contractual risks	None

Impact on Transporters	
Legislative, regulatory and contractual obligations and relationships	None
Standards of service	None

Impact on Code Administration	
Area of Code Administration	Potential impact
Modification Rules	None
UNC Committees	None
General administration	None

Impact on Code	
Code section	Potential impact
Offtakes Arrangements Document, Section E, Annex E-1	As described in Section 3 of this document.

Impact on UNC Related Documents and Other Referenced Documents	
Related Document	Potential impact
Network Entry Agreement (TPD I1.3)	None
Network Exit Agreement (Including Connected System Exit Points) (TPD J1.5.4)	None
Storage Connection Agreement (TPD R1.3.1)	None
UK Link Manual (TPD U1.4)	None
Network Code Operations Reporting Manual (TPD V12)	None
Network Code Validation Rules (TPD V12)	None
ECQ Methodology (TPD V12)	None
Measurement Error Notification Guidelines (TPD V12)	None
Energy Balancing Credit Rules (TPD X2.1)	None
Uniform Network Code Standards of Service (Various)	None

Impact on Core Industry Documents and other documents

Impact on Core Industry Documents and other documents	
Document	Potential impact
Safety Case or other document under Gas Safety (Management) Regulations	None
Gas Transporter Licence	None

Other Impacts	
Item impacted	Potential impact
Security of Supply	None
Operation of the Total System	Enables continued efficient operation of Transmission and Distribution systems
Industry fragmentation	None
Terminal operators, consumers, connected system operators, suppliers, producers and other non code parties	None

6 Implementation

Proposed Implementation Timetable	
Activity	Date
Development Workstream	~~August 2011~~
Modification proposed to Panel for Consultation	~~September 2011~~
Consultation	~~September 2011 – October 2011~~
Panel consideration	~~October 2011~~
Ofgem Decision	N/A
Implementation	~~In July 2011 the Modification panel agreed t~~This modification is proposed~~al~~ as a self-governance modification. Accordingly implementation ~~will~~may be 16 business days after a Modification Panel decision to implement is received.

7 The Case for Change

In addition to that identified the above, the Proposer has identified the following:

Advantages

None identified further to Section 2, above.

Disadvantages

None identified.

8 Legal Text

Suggested legal text follows:

OAD Annex E-1

Insert a new paragraph (d) as follows:

(d) Information may be provided under 'Comments' in relation to Minimum Requirements and/or Site-Specific Options

Delete the table in Annex E-1 and replace as follows:

Analogues

Point Name	Minimum Requirement	Site Specific Option	Comments
Feeder/Inlet pressure	Yes		
Outlet Pressure	Yes		
Instantaneous Volume Flow	Yes		
Instantaneous Energy Flow	Yes		
Outlet Gas Temperature		Yes	Where fitted
Calorific Value	Yes		
Relative Density	Yes		
Nitrogen	Yes		Except Tracker-only sites
Carbon Dioxide	Yes		Except Tracker-only sites
Wobbe	Yes		Except Tracker-only sites
24 Hour Average CV	Yes		
24 Hour Average RD	Yes		
Orifice Standby Differential Pressure		Yes	ODPn (Orifice differential pressure x, where x is a numerical identity) Only ~~if~~ where fitted
Orifice Meter `In Use' Differential Pressure		Yes	METER_DPn, (meter differential pressure x, where x is a numerical identity) only where fitted.
Flow Meter Temperature		Yes	Where fitted

Compressibility		Yes	Where fitted
Filter Differential Pressure		Yes	Where fitted

Digitals

Point Name	Minimum Requirement	Site Specific Option	Comments
Power	Yes		Mains/Phase Fail
Charger	Yes		
Site UPS		Yes	Where fitted.
Gas Quality System UPS	Yes		
Gas Quality System Alarm	Yes		SYSTEMn (system x, where x is a numerical identity)
Generator Alarm		Yes	Where fitted
Generator Available		Yes	Where fitted
Generator Bypass		Yes	Where fitted
Generator Trip		Yes	Where fitted
Generator Running		Yes	Where fitted
Generator Status		Yes	Where fitted
Barrier		Yes	Where fitted
Local Comms Link Status		Yes	Where fitted
RTU Fault		Yes	Where fitted
Watchdog		Yes	Where fitted; Includes Computer alarm,
Filter		Yes	Where fitted
Maintenance Key		Yes	Where fitted
Intruder		Yes	Where fitted
Metering Alarm	Yes		MTR_SUSP (meter suspect)
Meter Stream Change		Yes	Where fitted
Meter Valve Position		Yes	Where fitted
Status Local/Remote		Yes	Where fitted
Pressure Override Alarm		Yes	Where fitted
CV Not Valid		Yes	Where fitted
CV Not Attributable		Yes	Where fitted
Outstation Comms Status		Yes	Scada Link Telemetry only

Comms Routing Status		Yes	Scada Link Telemetry only
Valve position of all remotely operable valves		Yes	Valves operated by National Grid NTS and Distribution Networks for inlet isolation to be provided where control facilities are necessary but no NTS Physical Telemetry Facilities exist

Valve Monitoring/Control

Point Name	Minimum Requirement	Site Specific Option	Comments
Control function for remotely operable valves operated by National Grid NTS		Yes	To be provided where control facilities are necessary but no NTS Physical Telemetry Facilities exist

Integrators

Point Name	Minimum Requirement	Site Specific Option	Comments
Offtake Volume Integrator	Yes		
Offtake Energy Integrator		Yes	Where fitted
Fuel Gas for Pre-heater Volume Integrator		Yes	Where fitted
Fuel Gas for Pre-heater Energy Integrator		Yes	Where fitted

9 Recommendation

The Proposer invites the Panel to:

~~•Receive the Workgroup report on or before February 2012.~~

- DETERMINE that Modification Proposal ~~subsequently~~ progress to Workgroup or Consultation ~~or return to Workgroup~~ as necessary.