

Stage 03: Draft Modification Report

0389VS: Simplification of points of telemetry

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



Responses invited by 05 April 2012.



High Impact:
N/A

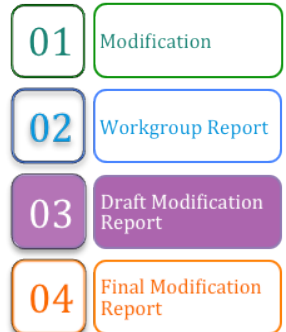


Medium Impact:
N/A



Low Impact:
National Grid Transmission and the Distribution Transporters

At what stage is this document in the process?



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About this document:

This document is a Draft Modification Report, which was issued for consultation responses, at the request of the Panel on 15 March 2012.

The close-out date for responses is 05 April 2012.

The Panel will consider the responses and agree whether or not this self-governance modification should be made.



3 Any questions?

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1 Summary

Is this a Self-Governance Modification?

The Modification Panel determined that this is a self-governance modification.

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 arrangements 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, 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 and Costs

This Modification aims to bring the UNC in line with the new systems and operational processes employed, therefore no costs are anticipated to implement this modification.

Implementation

As this is a self-governance modification, implementation could be 16 business days after a Modification Panel decision to implement.

The Case for Change

The rationalisation of the data items requiring 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.



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)

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, such as to note 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

Impact of the modification on the **Relevant Objectives**:

| 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

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 |



Where can I find details of the UNC Standards of Service?

In the Revised FMR for Transco's Network Code Modification

0565 Transco Proposal for Revision of Network Code Standards of Service at the

following location:

<http://www.gasgovernance.co.uk/sites/default/files/0565.zip>

| 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 |
| 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 |

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| Impact on UNC Related Documents and Other Referenced Documents | |
|--|------|
| 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 | |
|---|------------------|
| 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

As this is a self-governance modification, implementation could be 16 business days after a Modification Panel decision to implement.

7 The Case for Change

Nothing in addition to that identified above.

8 Legal Text

Legal text was provided in response to a request from the Panel.

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 all the tables in Annex E-1 and replace as follows:

Part 1 – 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 | OPDn (Orifice differential pressure x, where x is a numerical identity) only |

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| | | | |
|---|--|-----|---|
| | | | 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 |

Part 2 – 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 |

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| | | | |
|--|-----|-----|---|
| | | | 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 |

Part 3 - 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 |

Part 4 – 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

All parties are invited to consider whether they wish to submit views regarding this self-governance modification.

The close-out date for responses is 05 April 2012, which should be sent to enquiries@gasgovernance.co.uk.

A response template which you may wish to use is at www.gasgovernance.co.uk/0389



Consultation Ends

On 05 April 2012