Stage 01: Request	At what stage is this document in the process?
# 0588R: ## Review UNC arrangements relating to the connection to and operation of gas fired generation on DN networks	01 Request 02 Workgroup Report

This Request proposal will consider issues arising from gas fired generation connections to DN networks and how to best facilitate the flexibility they require and whether changes to the UNC are required to facilitate their efficient operation.

The intention is not to align the associated balancing periods for gas and electricity nor is this a request for a cross-code review.

	The Proposer recommends that this request should be assessed by a Workgroup
	High Impact: NTS, Market Operator, Shippers, System Operators (NTS and DN), End Users particularly power station operators connected to Distribution Networks
	Medium Impact: None
	Low Impact: None

© 2016 all rights reserved

Contents

About this document:

This document is a Request, which will be presented by the Proposer to the panel on 16 June 2016.

The Panel will consider the Proposer's recommendation, and agree whether this Request should be referred to a Workgroup for review.

The Proposer recommends the following timetable:

Initial consideration by Workgroup	07 July 2016
Workgroup Assessment phase complete by	03 November 2016
Panel consideration of Workgroup Report at	17 November 2016

Any questions?

Contact:
Code Administrator

enquiries@gasgovernance.co.uk

0121 288 2107

Proposer:
Bethan Winter

Bethan.Winter@wwutilities.co.uk

07854 550 962

Transporter:
Wales & West Utilities

Richard.Pomroy@wwutilities.co.uk

029 2027 8552 or 07812 973337

Systems Provider:
Xoserve

commercial.enquiries@xoserve.com

Additional contacts:

© 2016 all rights reserved

1 Request

Why is the Request being made?

WWU are seeing an increased number of requests for small power generation sites on our Network and are working with developers to ensure gas network capacity is made available on an equitable basis to optimise use of the network. We have recently taken the decision to require all power generation connections to sign a Network Exit Agreement (NExA), this enables both parties to be clear on parameters such as ramp rates for current and future reference.

Such embedded sites typically impose storage requirements which in turn either require additional storage on the Gas Distribution Network (GDN) or require the GDN to request additional NTS Flex and take at upstream NTS / GDN offtakes. They are therefore impacted by the GDN / NTS arrangements at those offtakes which the GDN System Operator will need to take into account. The availability of and arrangements for the provision of NTS flex is therefore very important for these customers.

In developing our processes to manage capacity and meet customer requirements a further issue that has been identified is that our power generation customers need clarity on available capacity by 14:30 the day before the Gas Day for which they are submitting Offtake Profile Notices (OPNs). This is before our Initial OPNs are provided to National Grid Transmission at 18:00 on the day before the Gas Day as stated in Offtake Arrangements Document (OAD) Section I 2.2.1

The capacity market in electricity to support generation when intermittent renewable generation is not available together with the future end of coal fired generation means that there is likely to be an increase in gas generation connected to GDNs. It is therefore timely to see whether changes to the UNC (for example OAD Section I 2.2.1) are required to facilitate the most efficient means of connection of gas generation plant to DN networks and/or to remove any barriers to their operation.

Scope

This request proposal is focussed on reviewing issues we are aware of as well providing an opportunity to explore other related issues from industry parties.

- Understand limitations associated with current non-alignment of gas and electricity balancing strategy processes
- Understand industry views on the best way of resolving issues for example by means of a UNC Modification to OAD section or development / amendment of associated methodologies for example the NTS Short Term Access to System Flexibility Allocation methodology which is produced to meet UNC TPD J7.3.1
- Explore how processes can be developed to formalise the release of additional NTS Flex where this is available

Impacts & Costs

The output of the workgroup will include an impact assessment of the impact of the above issues and any related issues raised and a proposed way forward for each.

Recommendations

The proposer recommends that this Request be referred to workgroup for assessment.

© 2016 all rights reserved

Additional Information

As the demand of power generating sites become increasingly volatile with further connection of intermittent renewable generation we anticipate there will be an increased need to align electricity and gas balancing strategy timescales to meet customer needs.

2 Impacts and Costs

Consideration of Wider Industry Impacts

This review is focused on the UNC, a more wide-ranging review could be implemented but this is not the intention of this review. Parties to electricity codes may wish to implement limited reviews to identify any beneficial changes available.

User Pays	
Classification of the modification as User Pays, or not, and the justification for such classification.	No User Pays service would be created or amended by implementation of this modification and it is not, therefore, classified as a User Pays Modification.
Identification of Users of the service, the proposed split of the recovery between Gas Transporters and Users for User Pays costs and the justification for such view.	N/A
Proposed charge(s) for application of User Pays charges to Shippers.	N/A
Proposed charge for inclusion in the Agency Charging Statement (ACS) – to be completed upon receipt of a cost estimate from Xoserve.	N/A

Impacts

Impact on Transporters' Systems and Process	
Transporters' System/Process	Potential impact
UK Link	• Yes – new or amended timescales for existing processes are likely
Operational Processes	• Possible – this may depend on what use is made of the new process
User Pays implications	• We do not believe that this will result in User Pays services

Impact on Users	
Area of Users' business	Potential impact
Administrative and operational	•
Development, capital and operating costs	• Will facilitate the efficient connection of gas fired power stations to DN networks

© 2016 all rights reserved

Impact on Users	
Contractual risks	•
Legislative, regulatory and contractual obligations and relationships	•

Impact on Transporters	
Area of Transporters' business	Potential impact
System operation	• Changes to nomination process timelines and associated systems possible impacting NTS and DNs
Development, capital and operating costs	• None identified
Recovery of costs	•
Price regulation	•
Contractual risks	• By increasing flexibility it decreases the likelihood of connected customers breaching the terms of their DN NExAs
Legislative, regulatory and contractual obligations and relationships	• Will facilitate providing connections of gas fired power stations to DN networks and compliance with Gas Act section 9
Standards of service	•

Impact on Code Administration	
Area of Code Administration	Potential impact
Modification Rules	•
UNC Committees	•
General administration	•

Impact on Code	
Code section	Potential impact
OAD section I	• Possible solution is amendment of OAD I 2.2.2

Impact on UNC Related Documents and Other Referenced Documents	
Related Document	Potential impact
Network Entry Agreement (TPD I1.3)	• Unlikely but potential impact
Network Exit Agreement (Including Connected System Exit Points) (TPD J1.5.4)	• Potential impact – DNs may be able to provide additional flexibility to gas fired power stations or other connections with intermittent and unpredictable demands and NExAs may need amending

© 2016 all rights reserved

Impact on UNC Related Documents and Other Referenced Documents	
Storage Connection Agreement (TPD R1.3.1)	•
UK Link Manual (TPD U1.4)	•
Network Code Operations Reporting Manual (TPD V12)	•
Network Code Validation Rules (TPD V12)	•
ECQ Methodology (TPD V12)	•
Measurement Error Notification Guidelines (TPD V12)	•
Energy Balancing Credit Rules (TPD X2.1)	•
Uniform Network Code Standards of Service (Various)	•

Impact on Core Industry Documents and other documents	
Document	Potential impact
Safety Case or other document under Gas Safety (Management) Regulations	•
Gas Transporter Licence	•

Other Impacts	
Item impacted	Potential impact
Security of Supply	• May indirectly enhance electricity security of supply by facilitating embedded GDN generation
Operation of the Total System	• Yes – increased efficiency
Industry fragmentation	•
Terminal operators, consumers, connected system operators, suppliers, producers and other non code parties	• Should directly benefit operators of gas fired generation connected to DN networks and may facilitate future connections of such plant

3 Terms of Reference

Background

Changes to the UK generation mix in the last few year have impacted power station gas usage requirements for power stations connected to the NTS as well as those which are connected to the Distribution Networks, which we term embedded.

Since Aug 2013, WWU has received 295 requests for connections for embedded generation, typically in the range 10 to 40 MW output. To date 5 have been connected.

© 2016 all rights reserved

The requirement to react to these changing needs and to improve the way we manage embedded Power Station loads has led to the review and implementation of a number of Uniform Network Code reviews / modifications since 2010 including:

UNC Review 0316 – raised July 2010

UNC Modification 0397S – raised December 2011 implemented May 2012

UNC Modification 0407 – raised July 2013 implemented December 2013

Recent experience is highlighting that further work is needed to support a number of new power station loads to ensure we deliver robust yet efficient solutions to connect them to our network. These new power stations tend to be significantly smaller than the power stations we have previous experience of working with and their requirements are to operate for shorter hours, typically 3 hours in the morning and 3 hours in the evening.

In order to optimise use of the total network a number of methods are available for accessing storage including NTS Flex. The availability of NTS flex both in the short and long term is therefore vital for these plants. For electricity trading purposes sites would like to confirm available capacity by 14:30 day ahead however there currently isn't a process for GDN OPNs to be reviewed by NTS (including requests for additional NTS Flex) by this time and this imposes additional risk for embedded generators and potentially removes generation capacity that would otherwise be available.

Topics for Discussion

- Understanding the objective – Reviewing arrangements to better enable embedded generation to maximise flexibility
- Assessment of alternative means to achieve objective
- Development of Solution (including business rules if appropriate) – reviewing options and determining way forward for each
- Assessment of potential impacts of the Request –identifying consequences of closer interaction between gas and electricity networks
- Assessment of implementation costs of any solution identified during the Request – high level view of costs of various options

Outputs

Produce a Workgroup Report for submission to the Modification Panel, containing the assessment and recommendations of the Workgroup including a draft modification where appropriate.

Composition of Workgroup

The Workgroup is open to any party that wishes to attend or participate.

A Workgroup meeting will be quorate provided at least two Transporter and two User representatives are present.

Meeting Arrangements

Meetings will be administered by the Joint Office and conducted in accordance with the Code Administration Code of Practice.

© 2016 all rights reserved

Workplan

Meeting 1:

- Reviewing arrangements to better enable embedded generation to maximise flexibility
- Identification of options to address problem including:
  - Changes to OAD section I 2.2.1
  - Changes NTS Short Term Access to System Flexibility Allocation methodology
  - Others

Meeting 2:

- Determining way forward for options identified in Meeting 1 including operational impact, commercial impact, speed of implementation, other consequences
- Consideration of any further options
- Identifying consequences of closer interaction between gas and electricity networks

Meeting 3:

- Assessment of implementation costs of any solution identified during the Request – high level view of costs of options
- Workgroup report

Meeting 4:

- Finalise workgroup report

4 Recommendation

The Proposer invites the Panel to:

- DETERMINE that Request 0588R progress to Workgroup for review.

© 2016 all rights reserved