

## Stage 01: Modification

# 0498:

## Amendment to Gas Quality NTS Entry Specification at BP Teesside System Entry Point

At what stage is this document in the process?

- 01 Modification
- 02 Workgroup Report
- 03 Draft Modification Report
- 04 Final Modification Report

This modification will facilitate a change to the current contractual Carbon Dioxide limit at the BP Teesside System Entry Point, through modification of a Network Entry Provision contained within the Network Entry Agreement (NEA) between National Grid plc. and Amoco (UK) Exploration Company LLC in respect of the CATS Terminal (BP Teesside)



The Proposer recommends that this modification should be:

- assessed by a Workgroup



High Impact:  
None



Medium Impact:  
Transporters, shippers and consumers



Low Impact:  
None

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~~04-April~~01 June 2015~~4~~

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## About this document:

This modification ~~will be~~was presented by the proposer to the panel on 17 April 2014.

The panel ~~will consider~~agreed with the proposer's recommendation ~~and agree~~whether that this modification should be

- referred to a workgroup for assessment.



Any questions?

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# 1 Summary

## Is this a Self-Governance Modification?

This modification is not suitable for Self-Governance as it could have an impact on shippers, transporters or consumers of gas conveyed through pipes.

## Is this a Fast Track Self-Governance Modification?

This modification is not suitable for Fast-Track as it is not a house keeping modification.

## Why Change?

The current Carbon Dioxide (CO<sub>2</sub>) limit at BP Teesside System Entry Point of 2.9 mole% is incompatible with the anticipated gas quality specification of some potential new offshore developments. While the inclusion of processing and treatment solutions to remove the excess carbon dioxide are being considered upstream of the NTS, these would require significant investment and/or operating costs, reducing the economic delivery of those developments. Hence, this modification seeks to establish whether a change of one of the existing NEA parameters would be a more efficient and economic approach to facilitate delivery of potential new supplies to the System, subject to ensuring no adverse impact on consumers or on the operation of the pipeline system.

## Solution

This modification, in accordance with UNC (ref. TPD I 2.2.3(a)), proposes an amendment to a Network Entry Provision within the existing NEA in respect of BP Teesside System Entry Point. This amendment would increase the CO<sub>2</sub> limit of gas delivered from the BP Teesside System Entry Point into the National Transmission System to 4.0 mole% from the current limit of 2.9 mole%. [The rationale for making this change now is that with the long lead times required for offshore developments early implementation will give confidence to the field owners that gas can be delivered to the NTS ahead of any key design decisions and encourage continued investment.](#)

## Relevant Objectives

The higher CO<sub>2</sub> limit will permit economic delivery of additional UKCS gas production, increasing GB supply security and reducing reliance on imported gas. This will contribute to the economic and efficient operation of the total system through maintaining a diversified supply base and by continued use of existing capacity.

This Proposal will also help to facilitate competition between shippers and between suppliers by increasing competitive gas availability in the market.

It will also help suppliers to meet domestic supply security standards by improving availability of gas for supply to consumers.

## Implementation

~~No implementation timescales are proposed and no significant implementation costs have been identified with changing the Gas Entry Conditions in respect of BP Teesside System Entry Point. Hence the modification could be implemented immediately on Ofgem approval. The proposer requests that the modification is implemented at the earliest practical opportunity to increase in the CO<sub>2</sub> limit in respect of BP Teesside System Entry Point and of px Teesside System Entry Point from October 2020.~~

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## 2 Why Change?

With the increasing maturity of UKCS as a gas production area, the accessibility of new fields and improved extractability from existing fields increase in importance to UK. Some current production relies on blending with other fields in order to meet Gas Entry Conditions, and other potential new upstream developments are known to have CO<sub>2</sub> levels that exceed current limits. ~~The current CO<sub>2</sub> limit at Teesside already causes curtailments to production on certain days when insufficient blending gas is available and the current limit would be temporarily exceeded. In addition, b~~By analysing the CO<sub>2</sub> content of future gas production potentially entering the System at Teesside, BP has identified an increasing risk that especially in summer months and from ~~2019~~ around 2020 onwards, the availability of sufficient blending gas cannot be guaranteed prior to entry into the NTS.

Under the prospect of reduced blending opportunities there would be an increasing risk of interruption of gas flows, which would affect gas production processes. This problem could be addressed by treating the gas for removal of CO<sub>2</sub> at the wellhead or at the terminal, but the investment to bring the quality in line with current specification would be significant, thus increasing materially the risk of making some upstream projects, currently being evaluated, less economic.

To assess the feasibility of a higher CO<sub>2</sub> content, BP has undertaken an analysis of the potential impacts and has engaged with National Grid NTS to understand whether a higher limit would be compatible with network safety and operational efficiency. The preliminary results of National Grid NTS and BP work have so far identified no material increase in risks associated with 4.0 mole% carbon dioxide content. In addition, as a similar limit is in place at other System Entry Points, it seems plausible that gas with higher CO<sub>2</sub> content could be potentially accommodated without impacting the system or consumers. It should also be noted that CO<sub>2</sub> is not a defined parameter in the Gas Safety (Management) Regulations 1996, and no amendment of GS(M)R is required.

Therefore, in light of the preliminary views achieved so far, industry engagement is sought to assess more thoroughly the impact of the requested change, in order to confirm that a higher CO<sub>2</sub> limit at Teesside would be beneficial for the GB gas market.

## 3 Solution

UNC (TPD Ref I 2.2.3(a)) states the following:

“2.2.3 Where

- (a) the Transporter and the relevant Delivery Facility Operator have agreed (subject to a Code Modification) upon an amendment to any such Network Entry Provisions, such Network Entry Provisions may be amended for the purposes of the Code by way of Code Modification pursuant to the Modification Rules”

In accordance with UNC, this modification seeks to amend a Network Entry Provision within the existing BP Teesside NEA. This amendment would increase the CO<sub>2</sub> upper limit for gas delivered from the BP Teesside System Entry Point into the National Transmission System to 4.0 mole% from the current limit of 2.9 mole% from 1<sup>st</sup> October 2020.

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<b>User Pays</b>
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.
None
Proposed charge(s) for application of User Pays charges to Shippers.
None
Proposed charge for inclusion in the Agency Charging Statement (ACS) – to be completed upon receipt of a cost estimate from Xoserve.
None

## 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.	Positive
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.	Positive
c) Efficient discharge of the licensee's obligations.	None
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.	Positive
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.	Positive
f) Promotion of efficiency in the implementation and administration of the Code.	None
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.	None

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This modification to change the CO<sub>2</sub> limit at BP Teesside has been preceded by extensive discussion between National Grid NTS and BP, aimed at assessing the feasibility of such change. Some of the following considerations therefore reflect both the results of National Grid NTS analysis and BP's own assessment of changes.

Specifically, further to a request for support, National Grid NTS has completed a network analysis, and is currently consulting consumers potentially impacted by the proposed change. The network analysis work has assessed a series of possible risks arising from higher CO<sub>2</sub> levels. Such activities have contributed to the development of the current understanding on the potential impact of the change, here explained with the objectives underpinning Network Code arrangements.

National Grid has assessed the risk of potential corrosion of NTS pipelines, and considers the increased risk to be immaterial. In addition National Grid's network analysis has identified a number of NTS off takes which may receive gas with a CO<sub>2</sub> content of greater than 2.5 mole%. National Grid NTS has written to these consumers to seek their views. The results of this consultation will be processed in April and is intended to be completed in time to inform the first Transmission Workgroup meeting addressing this modification proposal.

Positive impacts have been identified on the objectives of efficient and economic operation of the pipeline system (a), on the coordinated efficient operation of the offshore and onshore systems (b), on competition among shippers (d) and on incentives to provide gas for domestic customers in line with supply security standards (e). Conversely, no impact has been identified on the discharge of shipper obligations (c), on the administration of the code (f) and on the compliance with other binding decisions at EU/ACER level (g).

In particular, a more efficient and economic operation of the pipeline system can be expected, thanks to an increased utilization of the existing infrastructure capacity and extending the useful life of existing assets. This impact applies to the combined pipe-line system upstream and downstream. In addition, allowing a wider range of gas into the network would likely reduce the instances of interruption in production flows, due to seasonal maintenance programs which affect the overall blending of gas entering the NTS at Teesside. This is supported by the fact that National Grid's network analysis has not identified any material impacts that would cause additional costs or reduced operational efficiency.

Competition between shippers should be improved through maximization of available production, maintaining diversity and reducing reliance on imported gas. In addition, the presence of domestic supplies could contribute to efficient price formation and help sustain NBP as a liquid hub.

Finally, an additional competitive supply source of locally produced gas will make it easier for suppliers to meet current supply security standards with a higher level of certainty.



## 5 Implementation

~~Subject to confirmation that consumers are unaffected, a change of the CO<sub>2</sub> limit requires no implementation plan, and no implementation date has been proposed. No direct costs have been identified and implementation could be completed immediately following Ofgem consent, through bilateral agreement to amend the NEA. The proposer requests that the modification is implemented at the earliest practical opportunity to increase in the CO<sub>2</sub> limit in respect of BP Teesside System Entry Point and of px Teesside System Entry Point from 1<sup>st</sup> October 2020.~~

## 6 Legal Text

Given the relative simplicity of the legal change, the following legal text is suggested to modify Network Entry Provisions contained within the NEA.

*2.3 Gas tendered for delivery by System Users to the System at the System Entry Point shall not contain any solid, liquid or gaseous material which would interfere with the integrity or operation of the System or any pipeline connected to such System or any appliance which a consumer might reasonably be expected to have connected to the System. In addition, all gas delivered to the System at the System Entry Point shall be in accordance with the following values:*

[...]

(k) Carbon Dioxide

~~Not More than 2.9% before 1 October 2020 and not more than 2.9% 4.0 mol% from 1 October 2020~~

~~Not More than 2.9% 4.0 mole%~~

## 7 Recommendation

The Proposer invites the [Panel Workgroup](#) to:

- ~~• Determine that this modification should not be subject to self-governance; and~~
- ~~Progress to Workgroup assessment/~~Agree this modification should be issued to ~~G~~consultation.

BP has extensively discussed with National Grid NTS the preferred development route for this modification. Given the potential impacts mentioned in previous sections, the prevailing preference is to set up a workgroup that addresses all concerns and guarantees maximum transparency.