

Representation - Draft Modification Report 0498 and 0502

0498 - Amendment to Gas Quality NTS Entry Specification at BP Teesside System Entry Point

0502 - Amendment to Gas Quality NTS Entry Specification at the px Teesside System Entry Point

Responses invited by: **24 July 2015**

Representative:	Dennis Rachwal
Organisation:	National Grid NTS
Date of Representation:	24 July 2015
Support or oppose implementation?	0498 - Qualified Support 0502 - Qualified Support
Relevant Objective:	a) Positive d) Positive

Reason for support/opposition: Please summarise (in one paragraph) the key reason(s)

Based on the Proposers' submissions to the Development Workgroup National Grid NTS believes implementation of the Proposals together with the subsequent amendment of the associated Network Entry Agreements (NEAs) would increase the future likelihood of additional UKCS gas supply into the NTS from one or more specific gas fields such as Jackdaw that feed into the NTS at Teesside. We understand from these submissions that the gas quantity from Jackdaw would be material as indicated in the Draft Modification Report (e.g. 4% GB demand and 10% of UKCS production).

This additional supply to the GB market would in our opinion predominantly facilitate the Relevant Objectives (a) (d) and as such we support the Proposals. However, this support is based on the successful development and delivery of the Jackdaw field which we understand is not due until 2020 and as such our support is qualified on the Jackdaw field being delivered with a material volume of additional gas being made available to the market.

National Grid NTS has been an active party in the industry's extensive open debate and development of the Draft Modification Report. We consider this report accurately captures the industry's views and analysis of impacts of the requested change to the NEAs at the Teesside NTS System Entry Points.

Relevant Objectives

Based on the Proposers' submissions we have the following comments on furtherance of the Relevant Objectives, firstly on those recorded in the Draft Modification Report:-

A11.1.a) Economic and efficient operation of the NTS

We believe implementation would further the economic and efficient operation of the NTS through helping to maintain a diversified gas supply base and continued use of existing NTS capacity for Teesside entry points.

We note that the carbon cost assessment in the Draft Modification Report indicates that the lowest carbon cost option would be to allow the proposed revised NTS entry limit of 4 mol % CO₂ at Teesside rather than have upstream removal of CO₂ and this would appear to offer the least cost option for the majority of consumers.

We have also assessed that gas with up to 4 mol% carbon dioxide from Teesside entry points can be safely transported through the NTS without incurring additional material operational costs. Carbon dioxide is not a parameter in the gas quality specification of the Gas Safety (Management) Regulations (GS(M)R) which means efficient compliance with this regulation is not an issue.

The additional gas supplies to the market may facilitate marginally more efficient residual energy balancing.

A11.1 d) Securing effective competition between shippers and between suppliers

We believe implementation would facilitate access to the market for gas from new higher carbon dioxide fields such as Jackdaw and as such would lead to additional availability of gas supplies to the market. This may further facilitate competition between shippers and between suppliers by allowing such supplies to compete with established sources.

We have assessed and believe there would be no detrimental effect on competition arising from implementing these proposals for Teesside entry points, providing the changed carbon dioxide limits are necessary and are linked to a clear consumer benefit of additional gas supplies from field developments such as Jackdaw.

In order to encourage a full and transparent assessment of the proposals we have written to potentially impacted industry parties to inform them of the proposals and provided others opportunity to come forward with any further requests for changes to the carbon dioxide limits within their NEAs. The only party to do so was px in respect of TGPP Teesside entry point. We have therefore based our analysis of the impact of granting this change to carbon dioxide entry limit to these two requests.

We confirmed to the workgroup that current analysis would indicate that current offtake arrangements and obligations will continue to be met should the proposals be implemented and the projected flows delivered. In particular, as part of the workgroup's impact assessment, we were asked to confirm the extent of any impact on interconnector flows and specifically IUK given its 2.5% carbon dioxide offtake requirements¹. On the

¹ <http://www.interconnector.com/>

basis of network analysis results we do not believe that the proposed change to the Teesside NEAs will have a detrimental impact on our ability to meet the relevant current contractual arrangements at IUK.

We do however believe there are potential detrimental effects on competition if the proposals were implemented and the additional flows did not materialise. In this situation the revised carbon dioxide limit within the NEAs could have the effect of preventing other parties from having the opportunity to utilise such an accommodation and as such may place unnecessary barriers to future supplies entering the NTS. To prevent such a situation from arising it would be National Grid NTS intention to link the change in the NEAs to clear demonstration of the intention to utilise the new arrangements.

We comment on the other Relevant Objectives as follows:-

A11.1 b) Coordinated, efficient and economic operation of combined pipeline systems

The results of flow modelling completed during development showed we expect gas originating from Teesside entry points with periods of higher carbon dioxide concentration would not materially impact cross border flows through licenced interconnectors to Belgium or Ireland.

A11.1 c) Efficient discharge of NTS licensee obligations

No effects identified other than those covered by other Relevant Objectives.

A11.1 e) Incentives to secure domestic customer supply security standards

No effects identified.

A11.1 f) Efficient implementation and administration of the UNC

No effects identified.

A11.1 g) Compliance with Regulation 2009/715/EC and legally binding EU decisions.

We believe there are no compliance issues with current regulations or legally binding decisions. Firstly the flow modelling results indicate cross border flows would not be materially impacted by the revised flows of gas originating from Teesside entry points. Secondly whilst we note the European Commission has stated an aspiration to make a CEN standard on gas quality binding, the standard is still in draft form and it is not clear whether any enacted regulation would be binding on Teesside entry points. If and when any future relevant EU wide regulation is introduced we expect to address this with relevant industry parties.

Qualification

There are a number of assumptions and assertions in the Draft Modification Report that we are not in a position to fully validate, hence our support is qualified. These items include the size of and the flow rate from the Jackdaw gas field, the frequency of excursions to 4 mol % CO₂, the consequent variation in calorific value arising from higher CO₂, and the likelihood that the decision to invest in development of Jackdaw will be materially impacted if the current CO₂ entry limits are not changed.

Gas Turbine and Corrosion concerns

We have considered whether the concerns about combustion stability and emissions compliance expressed about gas fired power generation could arise in our own gas turbine compressor fleet. We believe our plant is sufficiently different and so would not be as susceptible to these. We have also considered whether concerns expressed about the need for increased corrosion inspections in storage facilities could arise in relation to the NTS pipeline system. We have concluded that as the NTS operates to the dry gas GS(M)R gas quality specification there is no material increase in corrosion risk within the NTS.

NTS carbon dioxide data

The Draft Modification Report and workgroup materials contain data that illustrates recent carbon dioxide concentrations within the NTS. The carbon dioxide data shows that its concentration was only infrequently at or near the present contractual entry limits although there were excursions towards these limits.

Modelled patterns of flow in the NTS from Teesside entry points

The Draft Modification Report contains a high level summary of analysis that indicates where gas originating from Teesside entry points would be expected to flow to within the NTS. The flow modelling considered the results of network analysis for all relevant gas years and all the scenarios described in the 2014 Gas Ten Year Statement which in turn is derived from UK Future Energy Scenarios.² A summary of the modelled flow patterns show that gas originating from Teesside entry points, in high demand conditions, would be consumed in the north of England and south-east Scotland. In low demand conditions modelling shows the gas would be consumed on the east side of England as well as south-east Scotland. It is expected that gas exported via interconnectors to Belgium or Ireland would be likely to comprise of less than 25% of gas originating from Teesside entry points. These flow “envelops” (Appendix 2 of the Draft Modification Report) did not materially vary for the full range of Gas Years and scenarios covered in the modelling.

Implementation: *What lead-time do you wish to see prior to implementation and why?*

There is no specific lead-time requirement from National Grid NTS for implementation other than agreeing amendments to NEAs aligned to the matters referred to in the proposals.

Impacts and Costs: *What analysis, development and ongoing costs would you face?*

No material additional costs for National Grid NTS have been identified at present.

² <http://fes.nationalgrid.com/fes-document/> and <http://www2.nationalgrid.com/UK/Industry-information/Future-of-Energy/Gas-Ten-Year-Statement/> 2014

Legal Text: *Are you satisfied that the legal text will deliver the intent of the Solution?*

We agree that there will be no changes to the UNC.

We believe the proposers' suggested amendments to the existing NEAs text address the core intent of the modification proposals. It would be our intention to link the changes in the NEAs to the proposers providing reasonable demonstration of the delivery of the events described in the proposals e.g. development of the Jackdaw field.

Modification Panel Members have requested that the following questions are addressed:

Q1: Respondents are requested to quantify any additional costs they would incur as a result of a CO₂ excursion to 4.0 mol% at the Teesside terminal (flow maps are included to help respondents; see figures A2.1 to A2.4 in Appendix 2).

National Grid NTS does not expect to incur any material additional operational costs as a result of CO₂ excursion to 4.0mol% at the level of flows stated by the proposers.

Q2: Respondents are requested to quantify any wider benefits/dis-benefits for the UK economy that might be derived from these proposals.

We are not in a position to quantify any wider benefits/dis-benefits in this area. We note however that, to the extent wider carbon dioxide limits at Teesside NTS entry points lead to the development and delivery of additional indigenous gas supplies, this may improve GB security of supply.

Q3: Respondents are requested to quantify the security of electricity supply risk to CCGTs. It would be useful to know how many CCGTs could be affected, when they might be impacted and what flexibility there is elsewhere in the system to accommodate.

National Grid NTS is not in a position to quantify the security of electricity supply risk.

Are there any errors or omissions in this Modification Report that you think should be taken into account? *Include details of any impacts/costs to your organisation that are directly related to this.*

We have not identified any errors or omissions.

Please provide below any additional analysis or information to support your representation

We provided analysis and information to the UNC workgroup meetings and this is appropriately included in the Draft Modification Report.