

Modification 432 Project Nexus Gas Settlement Reform, benefits case consultation report

A report provided to the Modification 432 Workgroup for inclusion in the Modification Report.

Draft version September 2013

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1. Cost benefit case summary

From the information provided by Shippers, and following discussions with Ofgem on the treatment of some of the benefits presented, the Shipper benefits identified in this report equate to £2.9m per annum ongoing benefits which is £14.5m over 5 years.

Other than Xoserve's high level cost estimate of £18m for modification 432, no other cost information is available from the consultation exercise.

Two Shippers have provided their financial response to Ofgem only, so other benefits may be identifiable by Ofgem. In addition, some benefits provided by Shippers have been excluded from this report as it has not been made clear how these would be achieved. It is likely there are further benefits available but it is not possible to quantify them.

Shippers provided many non-quantifiable benefits and these are included in this report.

2. Introduction

This report has been prepared during the development of modification 432 for inclusion in the draft and final modification reports.

The purpose of the report is to document the responses to the cost benefit consultation and present the benefits case for modification 432.

The consultation document is shown in Appendix 1.

3. Overview of the Modification 432

Modification 432 provides for three significant changes to the gas industry settlement activities, these are:

- Individual meter point reconciliation
- Periodic AQ calculation
- 4 classes of supply point

The current settlement regime that uses the Reconciliation by Difference (RbD) mechanism for smaller supply points will cease to exist and the gas usage for each supply meter point will be subject to individual reconciliation (this effectively returns the settlement regime to its original design in 1996).

The current process for recalculating AQs at a single point in the year will change so that AQs are re-calculated as reads are received (subject to the rules in the modification).

There are other changes to the industry settlement regime such as the use of gas nomination, allocation and reconciliation scaling processes for the allocation of gas. The full details of the changes can be found on the Joint Office website in the modification 432 documentation and the Nexus Workstream documentation.

<http://www.gasgovernance.co.uk/0432>

<http://www.gasgovernance.co.uk/nexus/2013>

4. Consultation approach and overview

The consultation document was prepared with the industry, including Ofgem, at the Project Nexus UNC (PNUNC) meetings.

The consultation document was issued to the industry through the Joint Office on 4th January 2013 with responses initially due back by mid-February although this was extended to 31st March to provide industry parties with more time to prepare and submit their response. In addition Shipper specific information on reconciliation variance was provided individually to each relevant Shipper.

The consultation posed 5 key questions:

1. Do you consider that more frequent AQ calculations will lead to better targeted allocation of energy on the Day? If so, can you identify and quantify the benefits this may achieve for your business.
2. Do you consider that the creation of the four settlement products will improve the granularity of transportation and energy charges? If so, can you identify and quantify the benefits this may achieve for your business.
3. Do you consider the four settlement products will enable the supplier business to offer improved services to end consumers? If so, can you identify and quantify the benefits this may achieve for your business.
4. Do you consider the periodic AQ process will enable organisations to operate a more efficient (flatter) resource profile over the year? If so, can you identify and quantify the benefits this may achieve for your business.
5. Do you believe that proposed Allocation Scaling Adjustment and Reconciliation Scaling Adjustment provide a more appropriate and transparent means of accounting for unidentified gas? If so, could you identify and quantify the benefits of this for your business.

The consultation invited respondents to consider two types of benefit:

- benefits that don't depend upon User behaviour e.g. periodic AQ calculation.
- benefits that are an enabler to usage of the settlement products and so do depend upon User behaviour / initiative.

The consultation invited respondents to consider opportunities in the “wholesale” and “retail” markets. Costs and benefits were to be categorised into “one-off” and “ongoing”.

The consultation contained sections for each of the changes associated with the modification. These were:

- General
- Periodic AQ calculation
- Settlement products 1,2,3 and 4
- Allocation

- Settlement
- Reconciliation
- Future services

The consultation invited respondents to provide benefits and costs for each section and to provide any additional information that is relevant to Modification 432.

5. Consultation responses

The following organisations submitted a written response to the consultation:

Shipper organisations:

British Gas
Dong
EDF Energy*
Eon*
Npower
Scottish and Southern Energy
Scottish Power
Utilita

Gas Transporters
National Grid Gas Transmission

*responses provided directly to Ofgem, any financial information provided by these organisations has not been provided to the authors of this report nor included in this report.

In addition Waters Wye Ltd provided a report to the April 432 Workgroup meeting on the impact of modification 432 to the market.

http://www.gasgovernance.co.uk/sites/default/files/WWA%20Report%20on%20UNC%20Project%20Nexus_0.pdf

All responses provided by Shippers directly to Xoserve have been forwarded to Ofgem to ensure Ofgem has a full view of the industry responses are able to verify this report.

6. Consultation response summary

All respondents were supportive of the principles of modification 432. More specific response details are summarised below.

6.1 General comments

Shipper respondents considered the move to individual meter point reconciliation and periodic AQ calculation was necessary to take advantage of the read services to be available through smart and AMR meters. The services to be provided by modification 432 was consistent with the general industry requirements for greater granularity of settlement data which would then enable

the development of improved tariff products to customers. In addition it was considered that this greater granularity would enable Shippers to track costs and trading positions more closely.

Shippers considered that as this aspect of the market is yet to be developed they could not provide any benefit details but all respondents strongly considered there to be significant benefits to them and their customers.

A number of Shippers considered a performance assurance framework is required to ensure the industry delivers on its obligations.

6.2 Periodic AQ calculation

Shipper respondents considered that with AQs tracking more closely to actual consumption there were benefits associated with:

- improved short and long term gas purchasing activities
- a reduction in energy balancing risk

Shipper respondents considered that the availability and submission of more frequent reads would lead to improved accuracy of the AQ, leading to improved allocation, leading to reduced reconciliation variance.

Shipper respondents considered that there were operational benefits to smoothing out the AQ process over the year rather than the summer peak of work.

One respondent considered that the periodic AQ service would provide greater assurance / integrity of the AQ regime as a whole as the AQ. The current AQ amendment process will cease to exist and so the AQ process will only use reads held on UK Link systems.

6.3 Settlement Products

6.3.1 Settlement Products

Shipper respondents considered the 4 settlement products (with the associated benefits of smart and AMR meters) would enable them to create and offer new services for consumers / consumer groups.

Shipper respondents considered individual meter point reconciliation will provide greater transparency of costs for each supply point. They also considered that this is a significant benefit over the current settlement mechanism of AQ values.

Shipper respondents considered the removal of the USRV and “Mod 640” processes would reduce operational costs.

6.3.2 Unidentified Gas

A number of Shipper respondents considered that the settlement products would lead to the volume of unidentified gas being more visible to the industry. This may prompt measures to

identify and address the causes of unidentified gas. The current industry costs associated with the AUGÉ would no longer be incurred.

6.4 Allocation

A number of Shipper respondents considered that with the availability of readings the demand estimation models could be improved.

6.5 Future Services delivered through UK Link system

Shipper respondents considered there would be benefits from a future UK Link system that can accommodate change more quickly and efficiently.

6.6 National Grid Gas Transmission response

The full National Grid Gas Transmission response is in Appendix 2

At a high level their response raises the following topics / matters

- commitment to support the industry in its developments
- recognition of the benefit areas to Shippers
- impacts to the Gemini system and the need for more detailed cost assessment for these changes
- recognition of the need to balance Shipper demand and system capacity
- requirement for all costs associated with implementation to be provided to the industry
- the need for a statement from Ofgem on the funding of gas settlement reform costs
- reference to Ofgem's funding, governance and ownership of Xoserve and its timing
- reference to the congested change programme for Q4 2015 with UK and European Code developments

6.7 Cost areas

6.7.1 Xoserve costs

During the development of the industry requirements, in December 2012, Xoserve provided a high level estimate of £18m for the 432 functionality. This was based upon the BRDs prepared at that point in time. See:

<http://www.gasgovernance.co.uk/sites/default/files/pnunc%204%20dec%20cost%20breakdown.pdf>

6.7.2 Shipper costs

Some Shipper respondents provided information on areas where they would incur costs. These are all associated with their systems development changes required to operate the new functionality. There was limited information provided and it has not been possible to assess the industry costs for the implementation of this modification.

7. Cost benefit assessment

The cost benefit assessment was a more difficult exercise for respondents. A number of respondents suggested significant benefits (tens of millions) from the introduction of individual meter point reconciliation although they did not explain how these benefits would actually be achieved. There is also a consideration that whilst one organisation may see some benefit in a reduction in energy allocated to them, the energy must be allocated somewhere, so there is no industry-wide benefit. Following discussions with Ofgem it was decided to exclude these benefits from this report.

Some Shippers commented and / or provided an assessment of the benefit of the reduced risk of future gas purchases. It is not reasonable to attempt to extrapolate these benefits as it cannot be demonstrated these apply equally to all Shippers. Using the information provided, for the purpose of this report an industry-wide value of £2m per annum has been derived for this activity.

Enough Shipper respondents provided information on operational savings to enable a “simple” extrapolation to determine an industry-wide benefit. Using the information provided, for the purpose of this report, an industry-wide value of £900,000 per annum has been derived for operational savings. This has been determined by assigning a benefit of £100,000 per annum to each of the “top six” organisations and £20,000 per annum for to 15 of the medium sized Shippers.

This equates to benefits of £2.9m pa or £14.5m over 5 years.

Appendix 1 Original consultation request

Settlement Reform cost benefit assessment

This is an information gathering exercise for Modification 432 Project Nexus Gas Settlement Reform.

Industry participants are requested to provide responses to any of:

Xoserve at commercial.enquiries@xoserve.com

Ofgem at smartermarkets@ofgem.gov.uk

Responses are required by 15th February 2013

In order to support the Project Nexus Settlement Reform Modification <http://www.gasgovernance.co.uk/0432> this document has been prepared to enable industry participants to provide information in a common format to enable this to be aggregated for inclusion in the modification report.

Industry participants may have further areas of cost and benefits not covered in this document and these can be provided during the development of the modification report.

The table below outlines the potential benefit areas for the industry requirements of Settlement Reform, developed at the Project Nexus UNC workgroup. Respondents are welcome to provide information on any other benefit areas they can identify.

Some of the benefits may only be achievable from the use of reads from Smart and AMR meters. It should also be noted that the increased read frequency provided by Smart and AMR meters may have less benefit for the “wholesale” market without the associated Settlement Reform products.

Questions to consider:

6. Do you consider that more frequent AQ calculations will lead to better targeted allocation of energy on the Day? If so, can you identify and quantify the benefits this may achieve for your business.

7. Do you consider that the creation of the four settlement products will improve the granularity of transportation and energy charges? If so, can you identify and quantify the benefits this may achieve for your business.
8. Do you consider the four settlement products will enable the supplier business to offer improved services to end consumers? If so, can you identify and quantify the benefits this may achieve for your business.
9. Do you consider the periodic AQ process will enable organisations to operate a more efficient (flatter) resource profile over the year? If so, can you identify and quantify the benefits this may achieve for your business.
10. Do you believe that proposed Allocation Scaling Adjustment and Reconciliation Scaling Adjustment provide a more appropriate and transparent means of accounting for unidentified gas? If so, could you identify and quantify the benefits of this for your business.

Respondents may consider two types of benefit:

8. benefits that don't depend upon user behaviour e.g. periodic AQ calculation.
9. benefits that are an enabler to usage of the settlement products and so do depend upon User behaviour / initiative.

The business requirements documents prepared at the Project Nexus UNC workgroup can be found at:

<http://www.gasgovernance.co.uk/nexus/2012>

The following table attempts to consolidate the views expressed through PN UNC workgroup discussions. The table should be seen as a guide and not an exhaustive list of benefit areas, respondents are welcome to provide addition cost and benefit information.

Settlement Reform functionality	Impact	“Wholesale” market opportunity	“Retail” market opportunity	One-off benefit	Annual benefit
General	<p>Provides a framework whereby Shippers would be able to better understand ‘site specific’ costs through increased data granularity</p> <p>Provides an opportunity to maximise the benefits of SMART/AMR technology through the ability to submit more frequent and accurate data to Transporters</p> <p>Facilitates full availability of choice as to which type of product Shippers wish to use. Any Supply Point can be DM or NDM (subject to UNC rules for ‘mandatory’ DM)</p> <p>Systematises activities which are currently manually administered e.g Unique sites leading to less ‘off line’ interaction with Shippers Supply Point Register – availability of consumption data for period prior to ownership</p>	<p>More efficient administration for all parties</p>	<p>Ability for Suppliers to accurately calculate and understand Supply Point specific costs particularly in the Smaller Supply Point market</p> <p>Enables new marketing opportunities to be identified together with ability to differentiate these</p> <p>Enables Suppliers to meet their customers precise requirements across all market sectors</p>		
Periodic AQ	Improved allocation leading to	Improved data to			

Settlement Reform functionality	Impact	“Wholesale” market opportunity	“Retail” market opportunity	One-off benefit	Annual benefit
calculation	reduced reconciliation variance*	inform short and long term gas purchasing			
	Improved read validation process leading to the ability to use services with no exception processes required. E.g. the current AQ process has an AQ amendment process, the proposed AQ process (because of the greater frequency of AQ calculation and expected better read quality) does not require thus	Streamlined processes with minimal exception management processes.			
	Facilitates greater level of Shipper confidence in the integrity and accuracy of the AQ arrangements through minimising opportunities for manual intervention				
Product 1	Daily nomination, daily balancing		New products for consumers		
	Facilitates ability for reading arrangements for ‘mandatory’ daily read sites to be ‘unbundled’ at a future point	Opportunities for Shippers to identify new products for large end users			
Product 2	Daily nomination, daily balancing		New products for consumers		
	Enables any Supply Point to be subjected to Daily Read arrangements				

Settlement Reform functionality	Impact	“Wholesale” market opportunity	“Retail” market opportunity	One-off benefit	Annual benefit
Product 3	Daily reconciliation		New products for consumers		
Product 4	Meter point reconciliation		Greater granularity of costs.		
	All Supply Meter Points would be individually reconciled enabling full transparency of energy allocation				
All products	<p>The volume of unidentified gas will be more visible, likely to result in greater initiatives to resolve this.</p> <p>Removes the need for intervention in the allocation of unidentified gas through an AUGÉ</p>	<p>Over time will reduce the costs of unidentified gas. In the 2011/12 AUGS the total volume of unidentified gas was provided as 6033 GWh**</p> <p>Reduction in costs</p>	Reduced unidentified gas costs to be passed through.		
Allocation	Opportunity for improved demand estimation methodologies leading to more accurate allocation of energy				
Settlement	<p>Greater capacity for significantly more Meter Readings to be passed to the Transporter leading to optimisation of Annual Quantity calculation</p> <p>Up front validation of Meter Readings eliminates USRVs and SRVs thereby facilitating certainty of outcome at an</p>				

Settlement Reform functionality	Impact	“Wholesale” market opportunity	“Retail” market opportunity	One-off benefit	Annual benefit
	early stage in the process				
Reconciliation	Removes uncertainties arising from aggregate reconciliation in the Smaller Supply Point market. Enables ‘genuine’ reconciliation values to be identified				
	Eliminates need for RbD audit and verification processes				
Future services	The replacement of UK Link will result in a new system with a greater flexibility and capacity for future change	Potential for new products and services.	Potential for new products and services.		

* Xoserve is working on the provision of information for each Shipper detailing their reconciliation variance for LSP sites. This will enable each Shipper to assess what benefit may be available.

** <http://www.gasgovernance.co.uk/sites/default/files/AUGS%202011%20Version%204.pdf> page 65

Cost areas

Industry participants are requested to provide an assessment of the costs of implementing the Project Nexus Gas Settlement Reform functionality.

Appendix 2 National Grid Gas Transmission response in full

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15th February 2013

Modification 0432 Project Nexus – Gas Settlement Reform **- Cost Benefit Assessment**

Dear Andy,

Thank you for your invitation to participate in the Cost Benefit Assessment for the above Modification Proposal. National Grid NTS is committed to supporting the industry with its aims of improving the efficiency and competitiveness of the Non-Daily Metered market via Gas Settlement Reform and of progressing the replacement of the UK-Link suite of IS systems.

As requested in your covering letter for the Cost Benefit Assessment of 4th January 2013, this response will summarise National Grid NTS' views on benefits, costs and concerns related to Modification Proposal 0432.

1.0 Benefits

- 1.1 National Grid NTS expects that it will not receive any material benefit from this Modification as we consider that benefits associated with this Modification Proposal will be realised in the Shipper and Gas Distribution Network communities.
- 1.2 From listening to industry debate National Grid NTS understands that the proposed changes have the potential to deliver a range of benefits to Shippers in respect of;
- Providing the opportunity to maximise the benefits of the Smart/AMR technology through the submission of more frequent and accurate reads.
 - Delivering increased data granularity and thus enhanced clarity of "site specific" costs.
 - Improved accuracy in the allocation of energy and reduced reconciliation variance through the periodic calculation of Annual Quantity, thus reducing costs for Users by enabling energy to be purchased that more closely matches their true requirements.

- Following the full roll-out of Smart Meters, the removal of uncertainties arising from aggregate reconciliation in the Smaller Supply Point market; with individual meter point reconciliation enabling full transparency of energy allocation.
- Increasing the predictability of costs, thus reducing the risk and uncertainty faced by users; consequently reducing risk premiums and reducing barriers to entry.
- Providing a more appropriate and transparent method for the allocation of unidentified gas.

1.3 National Grid NTS understands that the value of benefits realised is dependent on the Shippers' behaviour and initiative, with regard to the take up and implementation of the four available products. We note that no indication has been provided by the Shipper community as to their planned level of take up of the different products.

2.0 Costs

National Grid NTS has concerns regarding the estimated costs provided to the industry which are under consideration in this Cost Benefit Assessment.

2.1 National Grid NTS has a concern that the estimated cost provided by Xoserve, for development of the UK-Link systems to deliver the requirements of this Modification, specifically excluded the cost of required changes to the Gemini suite of systems, which would be necessary in order for the two systems to continue to operate together and deliver the services requested by Shippers and DNOs.

Due to an increase in the original scope of the UK-Link Replacement Programme, some material elements of the proposed changes do now relate to functionality within the Gemini suite of systems.

National Grid NTS considers that the additional changes required to the Gemini systems require funding if they are to be completed.

We also believe that an estimate for the cost for the required changes to the Gemini system should be provided to the industry, to facilitate due consideration of all costs associated with this Modification Proposal. Without such costs being communicated the consultation process would be incomplete and any responses therefore invalid.

2.2 The aspiration of Shippers is for no limits or system constraints on the daily volume of reads that could be submitted. Xoserve estimated costs have assumed a level of potential volumes for each product. National Grid NTS is concerned that a more accurate view of volumes, incorporating the full range of Shipper aspirations is required to provide accurate system design costs.

Without such information there is an acute risk that any system functionality built would either under estimate the customers' requirement leading to customer frustration and dissatisfaction or to claims over "gold-plating". Neither situation is desirable and both would lead to the creation of avoidable costs.

3.0 Concerns

National Grid NTS remains committed to supporting the industry in the economic and efficient delivery of Gas Settlement Reform. We therefore believe that the following additional areas of concern should be fully considered during this Cost Benefit Assessment.

- 3.1 In order to ensure this Cost Benefit Assessment is completed with the appropriate level of rigor, full and detailed accounts of all costs associated with the implementation of Gas Settlement Reform should be provided to the industry.
- 3.2 The timely provision of an explicit statement from Ofgem on the funding of Gas Settlement Reform is required to provide clarity and transparency to the industry during its consideration of this Modification Proposal.
- 3.3. National Grid NTS is concerned that full account must be taken of the potential impact of Ofgem's Funding, Governance and Ownership (FGO) review of Xoserve. The FGO review may well result in a root and branch restructuring of arrangements for Xoserve. A decision on the revised FGO arrangements is not expected until Q3 2013. This review has significant potential to cause delay and confusion in the delivery and funding of the changes required to implement Gas Settlement Reform.
- 3.4 National Grid NTS wishes to highlight a risk to the planned delivery of Gas Settlement Reform functionality by mid 2015, caused by other regulatory and statutory change drivers.

With a range of UK and European Code developments, the industry is already progressing changes which will require a substantial UK-Link and Gemini change programme between now and 2015.

Full account of potential resource and system constraints must be taken by the industry, to produce a credible road map for implementation of the Gas Settlement Reform. This road map must appropriately prioritise the implementation of Gas Settlement Reform system changes, alongside all other regulatory change Requirements. It must also safeguard the enduring stability and availability of systems, to ensure that all users' ongoing needs are met.

Furthermore these concurrent regulatory change drivers have the potential to necessitate amendments to this Modification Proposal. The specification of the system and process changes required to implement Gas Settlement Reform, must take full account of these regulatory change drivers, to remove the potential for costly reworks.

For example; the EU Gas Day change will move the start of Gas Day from 06:00 to 05:00. Does this mean that the meter read submission deadline for Product 1 should be moved from 10:00 am on GFD+1 to 09:00 am on GFD+1?

National Grid NTS is happy for all parts of this response to be put in the public domain.

We look forward to receiving Xoserve's Consultation Report summarising the points raised in this and the other industry participants' responses.

Please let me know if you require any further information to enable preparation of the Gas Settlement Reform Cost Benefit Consultation Report.

Yours sincerely
Julie Varney