

Summary of consultation responses received to UNC 0624R Request for Information consultation exercise

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#### **Document Purpose**

This summary document has been compiled to outline the costs and associated benefits that have been described by industry parties in response to a Request for Information (RFI) consultation exercise. The information contained within this document aims to inform parties of those responses received to the consultation. This is envisaged to support UNC 0642R Workgroup to progress with the objective of producing a recommendations paper to UNC Panel in January 2018.

The document has been framed to detail qualitative and quantitative responses Xoserve have received to the RFI consultation exercise. Qualitative responses have been determined as those described by organisations in response to the consultation questions. Quantitative information has been taken from numeric values which were supplied by organisations in their responses. When quantifying information, monetary values have been added to provide an overall figure for each solution option. Alternatively, a range from the lowest to highest figures received has been presented where this has been deemed more appropriate to do so. To further support quantification of responses, mode and median averages have also been included to certain questions.

## 1) Background on UNC 0624R Request for Information consultation exercise

UNC <u>Request Proposal</u> 0624R '*Review of arrangements for Retrospective Adjustment of Meter Information, Meter Point/Supply Point and Address data*' was raised in July 2017. It has been requested that a cost benefit assessment of the elements of Retrospective Adjustments of Assets and Supply Points, which have not yet been implemented, is undertaken. This functionality is informally identified by the acronym RAASP (Retrospective Adjustment of Assets and Supply Points).

To support the development of the <u>Request Proposal</u>, Xoserve were asked to perform an impact assessment on RAASP requirements. Xoserve identified a number of viable options which deliver RAASP functionality to varying levels of system automation and complexity (with the exception of Option 5 which doesn't deliver a RAASP solution).

These solution options were shared and discussed at 0624R Workgroup on  $24^{th}$  October 2017 and are listed below;

Option 1) Timestamp Asset Data

Option 2) Unravel Data to Agreed Date

Option 3) Original RAASP Design

Option 4) Data Cleansing Activity + Timestamp Asset Data

Option 5) Remain with (post-Nexus) 'Business As Usual' solution

To assist the Workgroup in determining the cost benefit cases for each RAASP solution option, members of the Workgroup created a RFI consultation document. This document was reviewed and approved by the Workgroup on 24<sup>th</sup> October 2017 and agreed that

questions contained within the consultation document should be used by parties to describe their respective cost benefit assessments of each solution option. Subsequently, a consultation exercise was conducted between 3<sup>rd</sup> November 2017 and 1<sup>st</sup> December 2017.

Xoserve were requested to support the Workgroup by co-ordinating the consultation exercise, sending out communications containing the RFI consultation document, receiving responses from industry parties and presenting a summary of the responses in an anonymised and consolidated format.

#### 2) General summary of RFI consultation responses received

In total, 16 organisations provided a response to the RFI consultation exercise. This consisted of 11 Shipper organisations, 4 Gas Transporters and 1 independent Gas Transporter (iGT).

All Shipper responses to the RFI have stated that a fully automated, systematised solution best delivers the industry requirements. Whilst CDSP delivery costs increment as the solution option becomes more automated and centrally delivered, Shipper costs decrease due to the reduction in operational resource overheads. In addition, as the solution option becomes more systematised the constant rate of materiality reduces, owing to Shippers ability to resolve issues in a more timely fashion and mitigating a build-up of errors identified.

Gas Transporters provided greatest support for a solution which could be implemented sooner rather than later, noting an industry wide data cleansing initiative is likely to add near term benefits, minimising concerns Shippers have raised regarding potential impacts on gas Settlement and Unidentified Gas (UIG). Gas Transporters stated an industry data cleansing exercise may negate the need to implement a RAASP solution if this activity was participated and managed in an appropriate way, and noted any solution should be shaped based on the error volumes evidenced by Shippers.

A summary of common themes which presented themselves throughout the responses received by organisations have been provided below;

#### Rate of data errors and absence of RAASP functionality

Concerns were raised regarding the current lack of an ability to retrospectively correct misaligned data. As detailed by parties, this issue is expected to increase over the coming years due to an increase of metering activity due to Smart Meter roll out, and likely increase in consumer switching behaviour due to industry initiatives such as the Ofgem Switching Programme. It is recognised further development, design and testing activities will need to be performed in order for an industry agreed RAASP solution to be implemented. Whilst this is taking place, misaligned data issues will continue to be identified and will need to be managed by industry parties. Some Shipper parties noted that the absence of an automated solution to resolve such data issues is likely to lead to a backlog of errors building up over time, which will be unresolved until an enduring solution is implemented.

#### **Utilisation of RAASP functionality**

This theme presented itself on a number of occasions, with Gas Transporters raising concerns that the principle and responsibility of getting data right first time will be diluted with

RAASP being available to fix issues at a later stage, whilst Shipper parties describing a need to monitor and assure RAASP utilisation and industry performance. Shippers explained utilisation of RAASP functionality will be linked to volumes of metering activity and consumer switching, both of which are expected to increase over the coming years as a result of Smart Meter roll out and the Ofgem Switching Programme.

#### Change delivery timescales and conflicts with other change programmes

A prevalent topic stated by respondents was delivery timescales and the potential conflict these have with other significant programmes of change. Parties recognised a need to ensure that robust design, build and testing phases are undertaken as part of any change delivery. Several parties raised concerns on the ability of the industry to manage the delivery of a more complex RAASP solution during a period where UIG changes are expected to take priority, as well as the Ofgem Switching Programme scheduled to be delivered in a similar timeframe.

# 3) Responses to UNC 0624R Request for Information consultation questions

Please see below, headed questions and the associated qualitative responses received from industry participants in reply to the RFI consultation exercise;

**Historic Rate of Corrective Updates**. Please indicate here the rate of corrective updates that you have encountered prior to the implementation of Project Nexus. 7 responses directly received for this question.

Parties noted volumes had not changed as a result of Project Nexus Implementation, with one response pointing to metering activity (i.e. Smart Meter Roll Out) as being the key activity impacting errors they're encountering. One party noted figures had been extrapolated based on Large Supply Point statistics, as figures relating to Small Supply Points were unknown pre Project Nexus. Another party stating due to a number of initiatives and process improvements, assumptions have been made that a lower rate of errors will be encountered post Project Nexus Implementation.

**Post-Nexus Corrective Update Rates**. Can you advise what corrective update rates you have seen post-Nexus and whether or not there is any indication there is a greater or lesser error rate since the new Nexus functionality was implemented. Please also advise if you have been storing error corrections awaiting the introduction of the RAASP solution and if possible also advise the number of error instances and the anticipated value of the error that you will be seeking to correct should the full functionality become available. 9 responses directly received for this question.

Gas Transporters noted the responses provided by Xoserve at UNC 0624R Workgroup, with Request for Adjustment volumes (RFA) being slightly higher than pre-Nexus figures.

Of the 7 Shipper responses received, all parties described that no corrective updates are being withheld, although one organisation stated a 'backlog' of updates had built up over time, equating to approximately 30000 Meter Point Reference Numbers (MPRNs). Similar to responses received to question 1, all parties broadly supported the view that implementation of Project Nexus hadn't in itself created an increase in errors being encountered, with the meter read validation rules now in place creating higher RGMA rejections which are being corrected in a fix-forward' capacity. 1 party provided an alternative view, stating they have experienced uplift in errors from 1% in 1000 to 26% in 1000 (MPRNs) post Project Nexus Implementation. It was again noted that the roll out of Smart Meters over the coming years is likely to create greater level of exceptions, due to issues inherent in the flow of data across industry interfaces. 2 parties described a possible detrimental impact on Settlement due to the current corrective approach being applied by Shippers, potential exposure due to AQ accuracy and the additional work this presents to their organisations to identify and correct discrepancies.

Given the responses received, the overall view expressed was that volumes of errors are likely to stay largely similar to current volumes, with the potential to increase as a result of discrepancies encountered during the ramp up of Smart Meter roll out through to 2020.

**Impact of Nexus RAASP development.** As UNC Modification 0434 does mandate the implementation of a RAASP solution, please provide as much detail as possible on the work done by your organisation to prepare for RAASP implementation. If possible please quantify the costs incurred.

13 responses directly received for this question.

4 Gas Transporters replied that no functional changes to their relevant solutions are assumed as a result of RAASP delivery, with RAASP being a CDSP - Shipper transactional activity. However, 2 organisations noted changes to data and the proposed 'Data Cleansing' exercise may impact operational activities such as Site Visits, which would need to be appropriately resourced. It was also noted impacts to Transportation invoicing and reconciliation of charges as a result of insertion of historic reading data has not been clarified.

Of the 9 Shipper responses received, 2 organisations described that their solutions have been developed to incorporate the original RAASP functionality, utilising the RTO and RTR file types. All other parties explained that decisions had been made to pause or cease RAASP development activities (including detailed design and testing) due to the decision to de-scope RAASP delivery from Project Nexus Implementation. Few parties also noted costs had been incurred in regulatory forums when supporting the development of UNC modification 0434, associated Business Requirements Documents and additional working groups looking at RAASP scenarios.

**Implementation timescales**. Could you advise what timescales you would see as optimum for the options outlined in UNC Request 0624R? In addition could you advise of any conflicting industry or system developments that could impact on your/the industry's timeline for delivery?

13 responses directly received for this question.

3 parties described that should a significant benefits case for RAASP be identified, a solution should be implemented as soon as possible in order for those benefits to be realised. Several parties noted the lead time required in order to accommodate changes ranging from 4 to 12 months, with one organisation explaining changes could not be supported before November 2018 due to internal system change activities. This sentiment was echoed by another party who stated an optimal implementation date of 1<sup>st</sup> April 2019 for solution option 3 'Full RAASP'. 2 organisations requested a minimum 9 month window to implement changes, which would commence from sign off of detailed design.

Responses also raised concerns regarding the current scale of changes on industry plans, with one respondent describing that all Solution Options other than Option 1 'Timestamp', have the potential to overlap with the Ofgem Switching Programme, which is likely to take priority over many other industry changes. This view was reaffirmed with another respondent, who challenged whether a RAASP solution may become redundant before it is implemented, given the obligations placed on parties to submit monthly meter readings and the roll out of smart meters concluding in 2020. It was noted that Shippers will have to take action to resolve issues identified with asset data in order to ensure meter readings can be accepted for Settlement purposes. One party also flagged other changes being proposed by the industry to resolve matters relating to Unidentified Gas (UIG), with these having the potential to significantly change processes. In addition, multiple parties also confirmed industry testing would need to be performed ahead of the agreed solution option being implemented, the scale of which will need to be defined.

| <ul> <li>fferentiating between the five options, if possible.</li> <li>responses were received to this question. These have been summarised against each Solution option presented by Xoserve to UNC 0624R Workgroup;</li> <li>otion 1 - Timestamp Asset Data</li> <li>Increases accuracy of data held in central systems</li> <li>Least complex solution enabling the quickest implementation timescales</li> <li>Avoids conflict with other industry changes such as Faster Switching</li> <li>Where volumes of errors are quantified, enables an opportunity to resolve issues earlier than other options</li> <li>Benefits of RAASP may diminish over time therefore this option is viable solution whilst RAASP errors are being resolved.</li> <li>otion 2 - Unravel Data to Agreed Date</li> <li>Similar benefits to Option 1, though recognised as more robust solution</li> </ul> |
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| <ul> <li>Benefits of RAASP may diminish over time therefore this option is viable solution whilst<br/>RAASP errors are being resolved.</li> <li><u>otion 2 – Unravel Data to Agreed Date</u></li> <li>Similar benefits to Option 1, though recognised as more robust solution</li> </ul>   |
| <ul> <li>RAASP errors are being resolved.</li> <li><u>otion 2 – Unravel Data to Agreed Date</u></li> <li>Similar benefits to Option 1, though recognised as more robust solution</li> </ul>  |
| Similar benefits to Option 1, though recognised as more robust solution  |
|  |
|  |
| <ul> <li>2<sup>nd</sup> largest volume of systematised features</li> </ul>   |
| <ul> <li>Partially reduce the Billing to Settlement gap for Suppliers</li> </ul>   |
| <ul> <li>Less complex to deliver and implement than Option 3</li> </ul>  |
| <ul> <li>Utilises existing processes as well as new – existing Shippers should have capability to</li> </ul>   |
| implement  |
| otion 3 – Original RAASP Design  |
| <ul> <li>Lower overall cost to the industry as changes delivered centrally</li> </ul>  |
| <ul> <li>Reduced operational resource costs as little need for manual processing</li> </ul>  |
| Most accurate solution   |
| Automated mechanism to correct financial position  |
| Shippers not unfairly impacted by performance of other Shippers  |
| • Future proof, capable of managing demands of consumer switching behaviour, which is  |
| expected to increase following Ofgem Switching Programme implementation  |
| otion 4 – Data Cleansing Activity + Timestamp Asset Data   |
| Least costly to implement central solution   |
| Joint quickest implementation timescales   |
| <ul> <li>Proactive, data cleansing could be undertaken in the near term</li> </ul>   |
| Avoids conflict with other industry changes     Such as a closer of any avisting data issues about of an and wing colution, decreasing the   |
| Enables a cleanse of any existing data issues ahead of an enduring solution, decreasing the     instification for a fully automated colution   |
| justification for a fully automated solution   |
| Likely to reduce the starting point for future corrective activities     Constitution lasses beamed from Design News Data Cleansing initiatives  |
| <ul> <li>Can utilise lessons learned from Project Nexus Data Cleansing initiatives<br/>ption 5 – Remain with (post-Nexus) 'Business As Usual' solution</li> </ul>  |
| Certain degree of RAASP functionality has already been delivered as part of Nexus  |
| <ul> <li>No additional costs will be incurred by users</li> </ul>  |
| <ul> <li>No additional costs will be incurred by users</li> <li>No delivery timescales or impacts to other industry changes</li> </ul>   |
| <ul> <li>Original decision to agree to de-scope RAASP from Nexus should also be considered</li> </ul>  |

resolve majority of existing issues.

## **Concerns**. Please provide any information of any concerns that you have with any or all of the options.

The following concerns were raised in response to this question;

- Lack of clarity of costs, with Market Trials not being included within estimates provided.
- Conflict of priorities, with pending UIG modifications, existing backlog of CDSP changes, significant industry changes such as Ofgem Switching and internal change programmes being delivered by organisations.
- Timescales with any RAASP solution needing to be appropriately designed, approved and tested. Concerns were raised that problems will grow as Smart Meter roll out will be at an unprecedented level, with errors expected to increase. There were also concerns stated that timescales of a RAASP solution have potential to clash with those areas identified within the previous bullet point.
- Impact that any RAASP solution may have on UIG, given the volumes of adjustments
  potentially being made via the retrospective route.
- Conflicting principles regarding back billing, with Ofgem's recent consultation to prevent Suppliers charging customers historically (greater than 12 months previous). Parties noted it needs to be understood how charges re-allocated to Shippers would be recovered.
- Supplier to Supplier interactions and how these are to be managed where an update has been made relating to a previous Suppliers ownership.
- Concerns that RAASP solution will detract from industry principles and obligations to get data right first time, and in a timely manner. Some parties mentioned a need to have performance monitored to assure RAASP was being used appropriately.
- Issues were raised that Options 1,2,4,5 have an element of manual processing from a Shipper perspective which for some parties has been described as an unmanageable outlay of costs.
- Concern of RAASP being rolled back or withdrawn. One party stated current BAU solution is not acceptable, with other parties supporting this view, confirming that the rationale for RAASP remains valid, and it is appropriate for the industry to have mechanism to manage these errors where they are identified.
- 1 iGT also raised a request for clarification as to expectations of Shippers regarding iGT charges, which have a direct relationship with effective dates associated to the Meter Asset. There was also a request for RAASP updates to be flagged in some way to iGTs, in order for these updates to be reconciled against iGT records.

#### Additional Information provided

9 Shippers provided information in this section, clarifying their preferred Solution - Option 3.

The following points were explained as justification;

- Least labour intensive, saving time and cost outlay
- Brings gas in line with functionality in place within electricity systems
- Supports the objective of accurate settlement for individual supply points
- Part of the original requirements for Project Nexus, which remain valid to industry

It was noted Smart Meter roll out will lead to challenges in managing data, with a RAASP solution assisting the industry to swiftly resolve issues that are likely to be encountered. 1 Shipper further added improving data quality is likely to alleviate some of the issues the industry will need to resolve in the future for the Ofgem Switching Programme.

The above responses have been quantified by respondents using the tables included within the UNC 0624R RFI consultation document. Parties were requested to provide annual costs that will be saved (as a positive) or incurred (negative), by the implementation of the various options, using the current processes operated as of 1<sup>st</sup> June 2017 (post-Nexus) as the baseline. These were requested as annualised costs for implementation (**Table 1**) and enduring costs (**Table 2**) of each solution option. CDSP estimated costs for design and build activities for each solution option have been included in the penultimate row of Table 1.

In total 9 Shipper and 1 Gas Transporter provided responses to questions within this section. All costs contained in these tables reflect cost incurred by organisations to implement and operate the relevant solution option, and have been rounded to the nearest thousand ( $\pounds$ ).

#### Table 1

| Implementation Costs (in £'s)                          |                       |                       |                       |                       |          |  |
|--|-----------------------|-----------------------|-----------------------|-----------------------|----------|--|
| Costing Area   | Option 1              | Option 2              | Option 3              | Option 4              | Option 5 |  |
| Operational Resource                                   | 207,000               | 207,000               | 129,000               | 535,000               | 152,000  |  |
| Other Costs  | 5,000                 | 5,000                 | 23,000                | 10,000                |          |  |
| System Costs - Operational                             | 1,000                 | 1,000                 | 1,000                 | 1,000                 | 5,000    |  |
| System Costs - Development                             | 1,753,000 - 2,003,000 | 2,093,000 - 2,343,000 | 2,277,000             | 2,325,000             |          |  |
| CDSP estimate - Design & Build<br>costs (Excluding MT) | 510,000 - 560,000     | 1,000,000 - 1,100,000 | 1,500,000 - 1,600,000 | 460,000 - 515,000     | N/A      |  |
| Total Implementation Costs -<br>Excluding MT (£)       | 2,476,000 - 2,776,000 | 3,306,000 - 3,656,000 | 3,930,000 - 4,030,000 | 3,331,000 - 3,386,000 | 157,000  |  |

#### Table 2

| Enduring Costs (in £'s)         |                       |                       |                       |                       |           |  |
|---------------------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------|--|
| Costing Area                    | Option 1              | Option 2              | Option 3              | Option 4              | Option 5  |  |
| Operational Resource (FTE Cost) | 2,328,000             | 2,273,000             | 1,389,000             | 2,393,000             | 2,266,000 |  |
| Other Costs                     |                       |                       |                       |                       |           |  |
| System Costs - Operational (£)  | 220,000 - 270,000     | 29,000                | 272,000 - 322,000     | 220,000 - 270,000     |           |  |
| System Costs - Development (£)  | 50,000                | 250,000 - 300,000     | 50,000                | 50,000                |           |  |
| Total Enduring Costs (£)        | 2,598,000 - 2,648,000 | 2,552,000 - 2,602,000 | 1,711,000 - 1,761,000 | 2,663,000 - 2,713,000 | 2,266,000 |  |

A consolidated view of the implementation and enduring costs provided in response to the consultation exercise and contained below in **Table 3**;

#### Table 3

| Overall Costs (in £'s)                       |                       |                       |                       |                       |           |  |
|--|-----------------------|-----------------------|-----------------------|-----------------------|-----------|--|
|  | Option 1              | Option 2              | Option 3              | Option 4              | Option 5  |  |
| Total Implementation Costs<br>(Excluding MT) | 2,476,000 - 2,776,000 | 3,306,000 - 3,656,000 | 3,930,000 - 4,030,000 | 3,331,000 - 3,386,000 | 157,000   |  |
| Enduring Costs                               | 2,598,000 - 2,648,000 | 2,552,000 - 3,052,000 | 1,711,000 - 1,761,000 | 2,663,000 - 2,713,000 | 2,266,000 |  |
| Overall Costs                                | 5,074,000 - 5,424,000 | 5,858,000 - 6,658,000 | 5,641,000 - 5,791,000 | 5,994,000 - 6,099,000 | 2,423,000 |  |

To clarify, the detail above is not an indication of the entire industry's costs associated to each solution option, only costs to those organisations that provided a response to the RFI consultation exercise.

In addition to the costs described in the tables above, respondents were asked to provide information on the projected volume of errors, timeliness to resolve data issues and constant rate of materiality  $(\underline{\mathfrak{L}})$  for each solution option.

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In total 8 Shipper responses were received to these questions. Of the responses received, 7 of the 8 respondents had interpreted 'Expected Constant Materiality of Errors' as the cost incurred by their respective organisations to manage identified errors under each solution option, with the remaining respondent alternatively detailing the expected financial benefit in terms of costs saved to their organisation.

This information is illustrated for both a 'Year 1' and 'enduring perspective' within **Table 4** below;

#### Table 4

| Materiality & Prevalence of RAASP Use (Year 1)       |  |   |  |   |  |  |  |
|--|--|---|--|---|--|--|--|
| Question   | Option 1   | Option 2  | Option 3   | Option 4  | Option 5   |  |  |
| Expected Rate of<br>Errors per Year<br>(/1000 sites) | Range from 4.5 / 1000 to 400 /<br>1000.<br>25 / 1000 appeared most<br>often in responses, with<br>Median average calculated at<br>18.75 / 1000 (1.88%)   | 1000.<br>10 / 1000 appeared most<br>often in responses, with  | Range from 3 / 1000 to 400 /<br>1000.<br>Median average calculated at<br>13 / 1000 (1.30%)   | Range from 4.5 / 1000 to 400 /<br>1000.<br>25 / 1000 appeared most<br>often in responses, with<br>Median average calculated at<br>18 / 1000 (1.80%)   | Range from 4.5 / 1000 to 400 /<br>1000.<br>25 / 1000 appeared most<br>often in responses, with<br>Median average calculated at<br>18.75 / 1000 (1.88%)   |  |  |
| Expected Constant<br>Materiality of Errors<br>(£)    | Materiality ranged from<br>1,165,000 - 2,000,000 cost to<br>Shippers of errors identified.<br>Implementation of this<br>solution was described as<br>having a cost saving of<br>3,000,000 within year 1. | Materiality ranged from<br>1,165,000 - 2,000,000 cost to<br>Shippers of errors identified.<br>Implementation of this<br>solution was described as<br>having a cost saving of<br>3,000,000 in year 1       | Materiality ranged from<br>1,155,000 - 2,000,000 cost to<br>Shippers of errors identified.<br>Implementation of this<br>solution was described as<br>having a cost saving of<br>6,000,000 in year 1      | Materiality ranged from<br>1,000,000 - 2,000,000 cost to<br>Shippers of errors identified.<br>Implementation of this<br>solution was described as<br>having a cost saving of<br>3,000,000 in year 1             | Materiality ranged from<br>1,165,000 - 3,125,000 cost to<br>Shippers of errors identified.<br>Remaining with the current<br>industry solution was<br>descirbed as having a cost<br>saving of 3,000,000 in year 1 |  |  |
| Expected Typical<br>Resolution rate (in<br>Days)     | Resolution rate ranged<br>between 1 to 120 days, with a<br>median average of 7 days.<br>Some parties provided a<br>response on total resolved<br>within day, with this ranging<br>from 12 - 250 per day  | Resolution rate ranged<br>between 1 to 120 days, with a<br>median average of 8 days.<br>Some parties provided a<br>response on total resolved<br>within a day, with this ranging<br>from 12 - 250 per day | Resolution rate ranged<br>between 1 to 60 days, with a<br>median average of 8 days.<br>Some parties provided a<br>response on total resolved<br>within day, with this ranging<br>from 88.8 - 500 per day | Resolution rate ranged<br>between 7 to 120 days, with a<br>median average of 20 days.<br>Some parties provided a<br>response on total errors<br>resolved within day, with this<br>ranging from 12 - 250 per day | Resolution rate ranged<br>between 7 to 120 days, with a<br>median average of 20 days.<br>Some parties provided a<br>response on total errors<br>resolved within day, with this<br>ranging from 12 - 500 per day  |  |  |
|  |  | Materiality & Prevale   | nce of RAASP Use (Year 2   | +)  | •  |  |  |
| Expected Rate of<br>Errors per Year<br>(/1000 sites) | Range slightly increases to 5.5<br>/ 1000 - 400 / 1000.<br>Median average remains<br>equal to Year 1 Rate of Errors  | Range slightly increases to 5.5<br>/ 1000 - 400 / 1000.<br>Median average increased to<br>18 per 1000 (1.80%)   | Range remains equal to Year 1<br>Rate of Errors.<br>Median average increased to<br>15.5 per 1000 (1.55%)   | Range slightly increases to 5 /<br>1000 - 400 / 1000.<br>Median average remains<br>equal to Year 1 Rate of Errors   | Range slightly increases to 5.5<br>/ 1000 - 400 / 1000.<br>Median average remains<br>equal to Year 1 Rate of Errors  |  |  |
| Expected Constant                                    | Materiality ranged from<br>1,250,000 - 2,000,000 cost to<br>Shippres of errors identified.   | Materiality ranged from<br>1,250,000 - 2,000,000 cost to<br>Shippers of errors identified.  | Materiality ranged from<br>1,598,000 - 2,000,000 cost to<br>Shippers of errors identified.   | Materiality ranged from<br>1,000,000 - 2,000,000 cost to<br>Shippers of errors identified.  | Materiality ranged from<br>2,000,000 - 3,125,000 cost to<br>Shippers of errors identified.   |  |  |
| Materiality of Errors<br>(£)                         | Implementation of this<br>solution was described as<br>having a cost saving of<br>4,000,000 on an enduring<br>basis.   | Implementation of this<br>solution was described as<br>having a cost saving of<br>4,000,000 on an enduring basis  | Implementation of this<br>solution was described as<br>having a cost saving of<br>7,000,000 on an enduring basis   | Implementation of this<br>solution was described as<br>having a cost saving of<br>4,000,000 on an enduring basis  | Remaining with the current<br>industry solution was<br>described as having a cost<br>saving of 4,000,000 on an<br>enduring basis   |  |  |
| Expected Typical<br>Resolution rate (in<br>Days)     | Remains equal to Year 1<br>Resolution rate   | Remains equal to Year 1<br>Resolution rate  | Remains equal to Year 1<br>Resolution rate   | Remains equal to Year 1<br>Resolution rate  | Remains equal to Year 1<br>Resolution rate   |  |  |

## 4) Appendices

### a) UNC Modification 0624R

UNC0624R and associated documents.

### b) RFI Consultation Document Template

