

Performance Assurance Committee Minutes

Unidentified Gas (UIG) Related Matters

Tuesday 01 November 2017

at The Arden Hotel and Leisure Club, Coventry Road, Solihull, B92 OED

Attendees

Andy Clasper	(AC)	Transporter Member
Andy Gordan	(AG)	Observer, DNV GL
Angela Love	(AL)	Shipper Member
Bob Fletcher (Chair)	(BF)	Joint Office
Carl Whitehouse	(CW)	Observer, First Utility
John Welch	(JW)	Shipper Member
Karen Visgarda (Secretary)	(KV)	Joint Office
Linda Whitcroft	(LW)	Observer, Xoserve
Mark Bellman	(MBe)	Observer, ScottishPower
Mark Jones	(MJ)	Shipper Member
Mike Bagnall	(MBa)	Observer, British Gas
Nirav Vyas	(NV)	PAFA
Rachel Hinsley	(RH)	Observer, Xoserve
Richard Pomroy	(RP)	Transporter Member
Sallyann Blackett	(SB)	Observer, E.ON UK
Shanna Key*	(SK)	Transporter Member
Tim Hammond	(TH)	Observer, Corona Energy
Tony Perchard	(TP)	Observer, DNV GL
Steven Britton*	(SBr)	Observer, Cornwall Energy

Apologies

Hilary Chapman	(HC)	Transporter Member
Lizzie Montgomerie	(LM)	PAFA

* via teleconference

Copies of non-confidential papers are available at: <http://www.gasgovernance.co.uk/PAC/01117>

1. Outline UIG Status

BF opened the meeting and explained that the meeting was quorate, although as this was an open meeting specific to UIG related issues, he did not think any voting would be applicable.

He noted the formal apologies from:-

Hilary Chapman and Lizzie Montgomerie

He then explained that this was the first of two meetings, with the second meeting being held on 14 November 2017 to further discuss the issue of UIG.

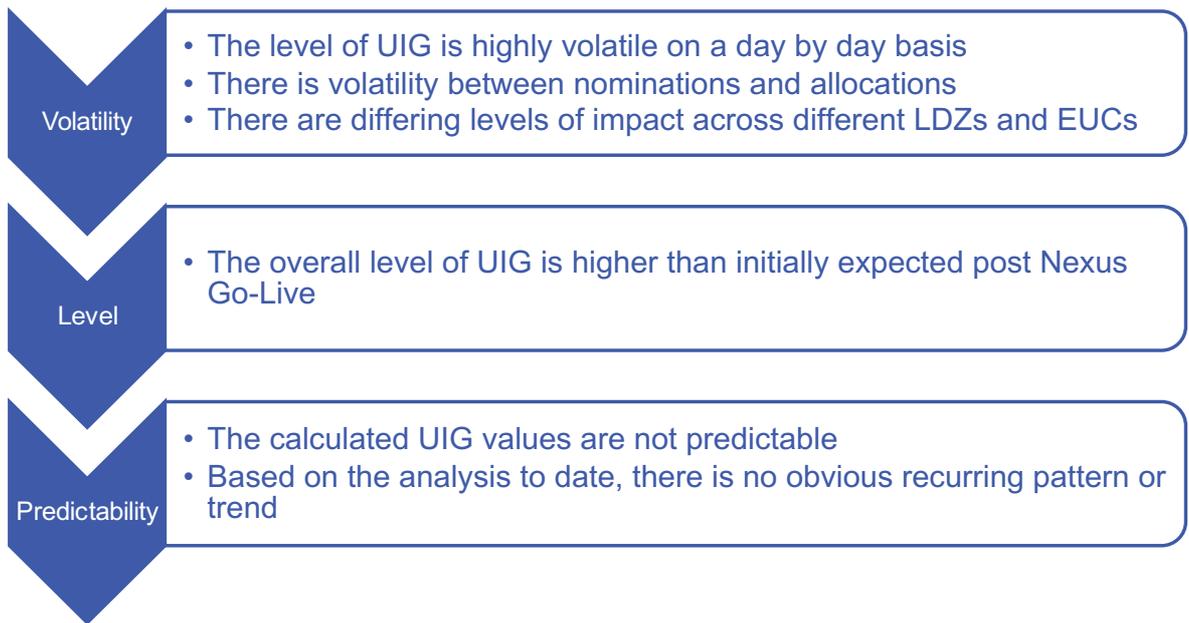
BF then formally welcomed the two representatives from DNV GL (AUGE) to the meeting and he explained that some very late papers had been submitted by both Xoserve, ScottishPower and DNV GL and that these were relevant to the discussions, he noted that he appreciated further time would be needed to study these documents after the meeting and prior to the meeting on 14 November 2017.

2. Initial Discussion

2.1 Consideration of UIG related Settlement Risks

LW introduced herself and explained that she had produced a presentation in relation to the UIG issue and that this contained the material and suggestions that had been either proposed or raised at the Xoserve UIG Awareness Day that had taken place on 20 October 2017, where around 80 people had been in attendance. She said the overall discussion had included various topics surrounding DM's Reads and AQ's regarding the previous pre Nexus and post Nexus environment.

LW then presented the Xoserve UIG presentation and said that from the analysis to date, the main Problem Statement contained three main issues from a priority perspective which were Volatility, Level and Predictability due to the following reasons as stated below.



Both SB and JW said they were at the Workshops and these were the main areas of concern that were having the largest impact within the Industry. JW also stated that the other participants were aware that PAC were in the process of trying to address issues that impacted UIG.

LW said the priority listing this had been discussed at Workgroup 0631R from a process compliance and improvement perspective, including Daily Calls, Meter Reads and Data. The topic of Xoserve initiated daily calls initiated a lengthy discussion and AL wanted to know how the rest of the Industry were going to be made aware of the daily calls, as she said this had not been fully communicated to the rest of the Industry and that many organisations were not aware these were taking place. LW agreed to communicate the overview of the daily calls to the Industry via email or similar communication.

New Action 1101: Xoserve (LW) to send out a communication to the Industry in respect of the daily calls regarding UIG.

NV asked if this information could be added the Huddle on the PAFA website and then explained that a separate section could be created for this information along with specific users being invited to join the Huddle on the Website. LW said she would investigate if this was possible regarding Xoserve's restrictions etc. in terms of their website.

BF noted that information might be restricted to UNC parties and if a wider audience is required other methods might need to be considered.

MBe asked if the previous pre Nexus process was reverted to, would this change things in terms of volatility and AG responded that the DM site issue would still be present and it would require the reintroduction of a scaling factor. A lengthy and protracted general discussion then took place regarding the amount of volatility and if the Scaling Factors would then mask volatility. MBa said it didn't really matter what it was called, UIG or Scaling Factors and that reverting the 'old world' was a backward step, especially as the costs were socialised against customers, and said it was noted that in the pre and post Nexus World that some organisations were or will be disadvantaged from a costing perspective. AL said that it was important not to 'lose sight of the fact the PAC were here to represent the best interests of the whole Industry'. MBa also added that care need to be taken in the language and context of 'winners and losers' and what specific baseline was being used, as this kind of language would be seen as extremely emotive. MBe then described the process of dealing with allocation and equal ability within the Electricity sector, by way of a comparison, especially regarding percentage increases and decreases.

A lengthy general discussion then ensued surrounding Shrinkage and the issue that Shrinkage also had impact on UIG and that it was believed that the iGT's had been excluded from the UIG discussions, as they felt they were exempted by Ofgem, although AL noted that no evidence to this effect had been presented.

RP said that he understood that ESP would be presenting a proposal at the next Shrinkage Forum. MBe and MBa both said that the AG and TP had introduced themselves as the AUG experts in relation to UIG and they felt that the percentages and assumptions used in both Shrinkage and UIG could be incorrect and that these percentages were in reality the 'best guess' of the AUG.

MBa then commented that the Shrinkage topic had not been open to consultation previously as part of the AUG process and if understated as some felt it was, it would be impacting UIG. RP said that there was a consultation presently on Shrinkage and that the results of this would be discussed at the next Shrinkage Forum meeting. BF then reiterated that the subject of Shrinkage was not on the agenda for this meeting and that there was a separate Shrinkage Forum for the specific Shrinkage discussions.

AL proposed that topic of Workgroup 0631R should in actual fact be discussed within the PAC/DESC environments, owing to the content of the Request especially regarding the algorithm content and MBa said that due to the complexity of the scope of Workgroup 0631R that it may also require to be discussed in other Workgroups aswell. LW said she would mention this proposal at the next UIG daily call.

BF advised that the topics for Workgroup 0631R had been approved by Panel and that a report is to be provided. However, it would not prevent Workgroup 0631R meetings being held on the same day as DESC for example.

AL said that she felt that the AUG and the PAFA should be working together on the overall issue of UIG and that they should not be undertaking investigations in their own 'silo' environments. A lengthy general discussion then took place regarding volatility, costs and the reconciliation process, together with consumption factors, which could 'smear' the data. AL said that the PAFA could define which were the 'large and high value ticket items' to enable some swift and quick wins. BF said in relation to Workgroup 0631R this was going to continue to run, and that the present analysis that was being undertaken was to be completed and CW said that he would very much welcome PAC involvement with Request 0631R. A discussion took place regarding the process of raising a new modification within PAC and it was agreed owing the PAC Terms of Reference that an individual would need to raise a new modification. AL said that Kirsty Dudley was in actual fact, heading a new permissions modification regarding accessing iGT data to allow the production of PAC reports.

LW then continued to move through the presentation and overviewed the schematic that showed the Simulation of UIG for the whole gas year, from the volatility and pre Nexus data perspective. She then talked through the areas that had been discussed at the Xoserve UIG Awareness Day and the explained the sections below were discussed and proposed by the Workshop attendees and encompassed the following high-level headings:

Process compliance/Improvement

- Mandate more frequent read provision
 - A Number of Modifications/Requests already raised:
 - Request 0594R
 - UNC 0632 – Smart/AMR
 - UNC 0633 – monthly
 - CMA remedy April 2018 monthly reads are mandatory
- Make Class provision of NDM Sample data mandatory
- Publish data requirements – still voluntary at present
- Cadent to consider raising a mod to make it mandatory
- Review of DM resynchronisation process
- Review of Shrinkage determination process, including CSEP Shrinkage
- Complete current remedial actions, incl DM project and AQ=1
- Shipper education on end-to-end processes to improve compliance
- Investigate anomalies in DM estimates in Gemini

Regime Changes

- Automatic flow of Smart meter data into Allocation/balancing processes
 - Long lead time – 2+ years
- Extend D+5 Close-out to, say, D+30
 - Possibly using Class 3 reads for settlement at D+30
- Remove barriers to use of Class 2 (e.g. ratchets)
 - Mods 619/619A/B

Revert to old allocation processes – either completely or half way e.g. reinstate Scaling Factor

Additional Investigation Analysis

- Analyse NDM Customer behaviour, especially non-weather related BG to share their analysis on the Weather Correction Factor
- Analyse suitability of the NDM Bucket EUC profiles
- Compare to electricity industry – what levels of losses do they see?
- Greater transparency of data – e.g. naming Shippers whose actions/delays are contributing to UIG
- Greater visibility of theft data from other forums
- Greater visibility of CSEP data e.g. supply point counts
- More data on unregistered sites

- Compare old v new allocations – what does this tell us about the post-Nexus performance?
 - Is the total still correct?
- Analyse winners v losers – who is benefitting?
 - All parties are reporting an issue – where is the counterparty?
 - Assess by EUC Band

Conceptual Questions

- What level of UIG at D+5 is acceptable to the Industry?
- What is the eventual level of UIG at Line-in-the-Sand?
- Is there an inherent industry issue if UIG continues at this level?
- If this level of UIG continues, how does the industry adapt?
- Review of Shrinkage determination process, including CSEP Shrinkage

LW then explained with regards to the area of making the provision of NDM sample date mandatory, that the overview at the current time was as detailed below:

- Publish data requirements – still voluntary at present
- Cadent to consider raising a mod to make it mandatory

Progress to date (30/10/17):

Request sent to Shippers 26th October for daily read data relating to their NDM portfolio (by 3rd November if possible)

- No data received to date
- Five Shippers have stated that they do intend to send in data
- Continue to contact remaining Shippers to establish their intent

A general discussion took place regarding the Shipper Data and the using of a larger sample of NDM data and how this data would be used by DESC and whether there was a degree of 'flexibility' in relation to the ALPS and DAFS. SB said it would depend on the DESC data analysis and if the EUC's would need to be re-clarified. SB said this would be needed by December in order to be confirmed and included in the data for the Spring analysis next year. LW added that the data needed from March to March in order to be included in the Spring Data analysis.

A general discussion took place surrounding the capability of Xoserve being able to manage and process Smart Meter Read and AMR data from Shippers should significant volumes be provided, and LW agreed to investigate this matter further and to also provide an update on the review of DM resynchronisation process. It was also noted that Shippers were requesting information on how many DM sites had reconciled in the past year, as unreconciled DM sites could be impacting UIG reconciliation.

New Action 1102: Xoserve (LW) to investigate the capability of Xoserve to manage and process a high volume of Smart Meter Reads and AMR data from Shippers.

New Action 1103: Xoserve (LW) to provide an update on the review of the DM resynchronisation process.

NV asked in relation to the training and education of these processes, whether it was possible to include these on the PAFA portal from a consistency view point and LW said she would investigate if this was possible. NR added that the access was able to be restricted to certain areas from a confidential perspective, so the confidential PAC

information would be kept separate and that he would send the ‘Guidance Document’ to LW for reference.

New Action 1104: Xoserve (LW) to confirm if Xoserve Training and Education processes can be included on the PAFA portal.

LW said that within the current status of the data analysis being undertaken, that she and her team were not aware of organisations holding on to data and she explained that the overall cycle was 32 days in duration and that this meant that it took a specific duration of time to complete the cycle. She said that she would provide information on the DM issues at the next PAC meeting.

New Action 1105: Xoserve (LW) to supply all DM current issues at the next PAC meeting, including up to date status.

LW then continued to step through the Appendix section and talked through the Summary of Erroneous AQ section and RP said that most of these had now been addressed and resolved and LW was in agreement with this statement.

DM Read Start – Finish Cycle

LW then provided an overview of the DM Read Start and Finish Cycle table and explained that the timescales had been used when producing a forecast number of days to complete the DM Read Rejections. She said that it was to be noted that these were dependant on the type of defect that is found, not all steps would be applicable, as defined in the table below:

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	Days
Initial Investigation			Check Setup		Send to Industry		MAM Site Visit							Asset Amendment					DMSP Site Visit					Insert RGMA Flow					Monitor		32 days	
3 days			2 days		2 days		7 days							5 days					5 days					5 days					3 days			

LW explained that the Top 10 Sites listing with the biggest AQ issues has been sent to Jon Dixon at Ofgem at his request and so Ofgem were aware. AL said that she understood Ofgem might be aware of this, but that no plans has been put in place or requested for these Shippers to address these issues formally. BF said that the Shippers all had UNC obligations to abide by and should breaches be investigated. LW said that Xoserve were hopeful that these issues would resolve naturally, but she added that the RGMA Flows were more complex and in some instances, needed more training and education.

LW then talked through the Burndown Schematics that showed the AQ and Query levels together with the Total AQ Actual Burndown to date and the Total by Phase. A lengthy general discussion took place in relation the actual percentage of UIG and LW agreed to look at this data in more depth regarding the areas where Xoserve had fixed the LDZ’s data and it was showing negative against the LDZ’s and SB said this was the first time that negatives would have been seen against the LDZ’s.

New Action 1106: Xoserve (LW) to establish where negative UIG was recorded in the last week and if this correlates to where Xoserve have fixed the LDZ data.

2.2 Consideration of current UIG related issues

AL also proposed that it would be a worthwhile exercise to go over the draft Terms of Reference that had been originally produced for a PAC subcommittee to investigate UIG, to conduct a cross check/match against the UIG issues that had been noted by Xoserve, and to see if there were any gaps or areas that needed adding. She said in terms of the overall actions list that the materiality needed to be determined against

these and she agreed to talk to Fiona Cottam at Xoserve to discuss this in more depth about what the PAFA could do to resolve some of these, in regards to the scope and the materiality.

New Action 1107: ScottishPower (AL) to speak with Xoserve (FC) in relation to what the PAFA can do to resolve the actions in terms of scope of the PAFA Contract/PAC Risk Register and relating to materiality.

PAC Subcommittee Draft Terms of Reference Document

AL introduced the original Terms of Reference Document and explained this had been produced originally in regards to the scope of the sub-committee. She overviewed the following scope areas as detailed below:

- Consider the issues impacting on UIG, looking firstly at the issues that Xoserve have already identified, and then comparing to the PAC Risk Register
- Determine whether there is reporting already available or that can be readily developed to estimate the financial implications to gas settlement
- Consider what rules, if any, are in the UNC and supporting documents and governance that should control the issues impacting UIG
- Consider what other rules or changes to UNC obligations or reporting that could be introduced to both highlight the financial implication of the issues and incentivise resolution of them

AL said that it would be a useful exercise to compare these to the PAC Risk Register, and she said she would discuss these also with Fiona Cottam at Xoserve.

A further general discussion then took place regarding the overall volatility, weighting factors, both pre and post Nexus and the impacts in relation to D+5, and including the impact of the Rolling AQ's. LW agreed to supply more information regarding the Rolling AQ's.

New Action 1108: Xoserve (LW) to provide information on how many sites have not been subjected to Rolling AQ's and those who have and have AQ reconciliation.

UIG Calculation Issue – Analysis – DNV GL

AG introduced himself and TP and explained that he apologised for the very short notice of the paper, and that the DNVGL requested if they could attend the meeting and this was confirmed by the Joint Office, to present the document from the AUGE in response to an industry request for support in understanding the high levels in UIG and the day to day volatility. It was noted that the request was not specific to the AUGE but a general request sent out to industry participants as part of the PAC October Key Messages and meeting minutes.

AG then proceeded to move through the document and explained that Modification 0432 had introduced several changes to the balancing regime, in particular the introduction of reconciliation for all meter points and the calculation of daily UIG – a balancing figure which was then allocated to Shippers based on a table of weighting factors provided by the AUG Expert. He further explained the current approach to the calculation of daily UIG contained a key weakness that resulted in very high levels of variation in the day to day estimate, in addition to UIG with an unrealistically high order of magnitude.

AG said the main issue was the fact that up until all meter reads have been received and reconciled, the UIG calculation mixes actual load data (LDZ intake and daily metered load) with estimated load data (using the NDM allocation algorithm). UIG is then calculated as the difference between the actual LDZ intake and the DM (metered) and NDM (estimated) loads. He then talked through a pre and post Nexus

schematic, and explained the pre-Nexus situation where the Scaling Factor (SF) accounted for both the Unidentified Gas (UG) and the error in the allocation algorithm. Post-Nexus, UIG was made up of both UG and the NDM algorithm error as SF has now been removed. He added that over time, as meter reads were received, the reconciliation process would remove the algorithm error as estimated consumption values were replaced with actuals. He added that given the current meter read frequencies, an accurate estimate of UG would not be obtained until at least a year after initial UIG calculation.

A lengthy and protracted general discussion then ensued regarding if the percentage of every single meter read over the years and if UIG would come out as 1% or 1.1% of 'Throughput', and also how that would affect the percentage of the volume that had not been reconciled.

AG also added that the theft would also follow the 'Throughput' and would have a negative impact. MBa said that these were estimates only of UIG and that other identified causes would impact on the percentages, and that AG from an AUG Expert perspective could not present these percentages and causes as fact, at they were assumptions and estimates. AG said the information presented was evidence to the Industry as a whole and flagged the issue of UIG and that in some industry participants opinion that UIG was behaving exactly as they would have expected it to.

BF suggested that as the papers were submitted the morning of the meeting that it would be advisable if the document and its contents were re-visited again during the meeting on 14 November 2017, allowing time for the contents to be fully studied.

A general discussion then took place in relation to the LDZ's, Throughput and the percentages from a plus or minus perspective, and the issue of volatility regarding UIG. AG said that the Algorithm was never designed to forecast supply point individually and he noted that Pre-Nexus, the NDM profiling algorithm (see equation below) was used on an LDZ by LDZ basis to calculate an allocation for each EUC band. The algorithm included a Scaling Factor (SF) which scaled all allocations to ensure that the total LDZ allocation matched the total LDZ demand.

He added, used in this manner, the profiling algorithm was splitting the total LDZ demand between EUCs and this was the purpose for which the algorithm was intended. Used in this way, there is no real requirement for the algorithm to give an accurate forecast by EUC, merely to get the relative proportions of demand from each EUC correct.

$$\text{AllocEUC} = \text{AQEUC} * \text{ALPEUC} / 365 * (1 + \text{DAFEUC} * \text{WCFLDZ}) * \text{SFLDZ}$$

AG said that that the Shipperless Sites also had an impact on the UIG from volatility perspective and would continue to be an issue for the Industry and that they would have to be treated in a different manner from an overall percentage aspect. AL asked what the impact would be from old and new entrants into the market place and AG said they could have an impact too and that maybe tighter reconciliation might make the UIG more accurate. MBe said that the daily profiling was causing the volatility issue while waiting to get the set number of reads in and that this could surely be helped by eliminating the AQB regarding the allocation. MBa asked what would happen if the UIG estimate did not 'hold true' and then it would be wrong. SB said if that was the case, then they would have to revert back to Scaling Factors with even wider volatility.

AG said that the purpose of the document he had presented from the AUGE was not hiding anything and was merely offering options for consideration to correct the Model Error. SB said she disagreed with this comment as the same answer was being proposed, but it was being 'smeared' differently and still billed for what was in the Scaling Factor previously (which the industry had agreed to remove), and then presented in two sections, instead at the balancing stage in the process, and so the factors could still be incorrect. LW proposed from a 'mutual party' viewpoint was it not more about the Scaling Factors and the Weighting Factors and the appropriate

sharing or apportionment of these and how these were then reconciled to the NDM market and shared.

MBa said regarding Modifications 0432 and 0472 that the AUGÉ was asked to estimate what they thought the issue was and then to derive factors on what the final position would be and apply the Weighting Factors, to then get the final position and allocation. A general discussion then took place regarding the LDZ's, Shrinkage and UIG from an estimates perspective and the impact of these, especially regarding reconciliation and volatility. AG said that the AUG were trying to come up with a method to address the issue of UIG in the Industry and agree an appropriate mechanism to address this problem.

BF said that it made more sense for this specific discussion and the paper presented by DNV GL to be addressed within Workgroup 0631R and for AG and TP to attend that meeting on 13 November to discuss this matter in further depth with the respective Workgroup participants and for an amended document to be re-submitted for that meeting.

BF also stated that it would be useful to have the suite of reports regarding the read data and RH said other than the 4 reports, as pre Nexus, that had already been confirmed, no other reports would be available until June 2018 due to the timing of system releases.

3. Any Other Business

NDM WAR Bands

JW said she wanted to discuss the NDM WAR Bands from a performance angle. LW said that Xoserve had already done work on this and that the details were going to be presented at the Workgroup 0631R on 13 November 2017 and that this same information would be presented at the PAC UIG meeting on 14 November. She said the data had been broken down and anonymised by Shipper. NV asked if the reports would be in Release 2 and that he was not referring to the Schedule 2 reports, he meant extra reports. RH said some reports might be able to be produced and this would be determined by if they needed to go to the Systems Warehouse for not, and that it would also depend on the complexity and the potential cost involved, especially as there was no specific budget to cover these until April 2018. A general discussion took place about the WAR Bands from a reconciled and aggregate level together from the Customer Level and it was agreed that this topic should be added to the next agenda for further discussion and that LW produce the anonymised report for the meeting on 14 November.

New Action 1109: Xoserve (LW) to provide an anonymised report on sites in the specific WAR Bands for the 14 November 2017 PAC UIG meeting.

PAC Risk Register Consultation

NV said he would provide a high-level overview of the consultation responses in relation to UIG at the PAC UIG meeting on 14 November 2017.

New Action 1110: PAFA (NR) to provide a high-level overview of the consultation responses regarding UIG for the PAC UIG meeting on 14 November 2017.

4. Next Steps

BF said that any papers for consideration for the next PAC UIG meeting needed to be submitted at least 5 days prior to the meeting to allow all attendees time to study these prior to the meeting itself to allow focused and constructive discussion.

5. Diary Planning

Further details of planned meetings are available at: www.gasgovernance.co.uk/Diary

Time/Date	Venue	Programme
10:30, Tuesday 14 November 2017	Elexon, 350 Euston Road, London, NW1 3AW	<i>PAC - UIG Related Matters</i>
10.30, Wednesday 29 November 2017	The Arden Hotel & Leisure Club, Coventry Road, Solihull, B92 0ED	<i>To be confirmed</i>
10:30, Tuesday 12 December 2017	<i>TBC</i>	<i>To be confirmed</i>

Action Table (as at 01 November 2017)

Action Ref	Meeting Date	Minute Ref	Action	Owner	Status Update
PAC UIG 1101	01/11/17	2.1	Xoserve (LW) to send out a communication to the Industry in respect of the daily calls regarding UIG.	Xoserve (LW)	Pending
PAC UIG 1102	01/11/17	2.1	Xoserve (LW) to investigate the capability of Xoserve to manage and process a high volume of Smart Meter Reads and AMR data from Shippers.	Xoserve (LW)	Pending
PAC UIG 1103	01/11/17	2.1	Xoserve (LW) to provide an update on the review of the DM resynchronisation process.	Xoserve (LW)	Pending
PAC UIG 1104	01/11/17	2.1	Xoserve (LW) to confirm if Xoserve Training and Education processes can be included on the PAFA portal.	Xoserve (LW)	Pending
PAC UIG 1105	01/11/17	2.1	Xoserve (LW) to supply all DM current issues at the next PAC meeting, including up to date status.	Xoserve (LW)	Pending
PAC UIG 1106	01/11/17	2.1	Xoserve (LW) to establish where negative UIG was recorded in the last week and if this correlates to where Xoserve have fixed the LDZ data.	Xoserve (LW)	Pending
PAC UIG 1107	01/11/17	2.2	ScottishPower (AL) to speak with Xoserve (FC) in relation to what the PAFA can do to resolve the actions in terms of scope of the	ScottishPower (AL)	Pending

Action Table (as at 01 November 2017)

Action Ref	Meeting Date	Minute Ref	Action	Owner	Status Update
			PAFA Contract/PAC Risk Register and relating to materiality.		
PAC UIG 1108	01/11/17	2.2	Xoserve (LW) to provide information on how many sites have not been subjected to Rolling AQ's and those who have and have AQ reconciliation.	Xoserve (LW)	Pending
PAC UIG 1109	01/11/17	3.0	Xoserve (LW) to provide an anonymised report on sites in the specific WAR Bands for the 14 November 2017 PAC UIG meeting.	Xoserve (LW)	Pending
PAC UIG 1110	01/11/17	3.0	PAFA (NR) to provide a high-level overview of the consultation responses regarding UIG for the PAC UIG meeting on 14 November 2017.	PAFA (NR)	Pending