Unidentified Gas (UIG) Solutions Workgroup – Output

13th November 2017

Solution Option 1 – Questions and Answers

Modify the parameters used in the existing NDM algorithm

Presented by Sallyann Blackett (Eon)

(Option1) Presented by Sallyann Blackett (Eon) – Questions and Answers

Solution: Modify the parameters used in the Existing NDM algorithm

Xoserve Questions	Responses
What possible changes might be made to the Weather Correction Factor - WCF (any change to calculation rather than parameters)?	May need to change but not necessarily. For example massive multiple regression might give a better answer.
What changes might be made to End User Categories (EUCs) – number/thresholds/definitions?	Before a decision can be made, it is necessary to determine if the revamped algorithm is pushing demand into different EUC bands and whether this has made Rec worse or better. Should not rule out changing EUC boundaries, or the numbers or shapes, particularly for EUC Band 1 (under 73200AQ). i.e. split out domestic and I&C, which should be less hard now - however it would require data to do so.
Is a mid-year change to ALPs/DAFs (Annual Load Profiles/Daily Adjustment Factors) proposed?	No strong preference for a mid-year change, if the solution . If it helps to improve position, it should be done sooner rather than later
What additional data, if any, would be required for this option?	Suspect weather data - WCF, rain calculation, solar hours, analysis which can be done by shipper organisations . Daily demand data

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Industry Questions	Responses
How do we get from where we are to final position? Transitionary / iterative with multiple points? Or all in one go?	If it agreed that the changes can be made mid year - then once implemented, the next piece of analysis can take place. It would be more balanced if done iteratively so that the impact of one change can be seen
How would the use of rolling AQs effect the proposal to use the old weather correction? AQ moving away from seasonal normal? Any improvements would be done purely with actual weather in mind? How do we validate?	AQ isn't used in the weather correction formula. If rolling AQs are moving AQ in the right direction - it should work better. It is the assumption that it should be linked with real weather, Comparing a nexus position with new nexus position is a good way (improvement based on back calculation).
Will these changes be backdated?	No it is assumed that changes would not be backdated.
Do we need to improve how we capture non-variability (holidays, weekends)	ALPS have holiday factors and weekend, included. DESC periodically look at parameters. However there are parts that make forecasting difficult i.e. weather temperatures in the morning have more of a impact than those later in day. From their analysis E.ON are hitting a forecast accuracy of 2% (across E.ON portfolio),
Is there a natural priority order? Tackling weather first for example?	Needs further analysis .It should be driven by data. This is currently being looked at by 0631 review group, should be dictated by those discussions.
Is there an affect on algorithm accuracy due to transition period?	Definitely some transition issues that we know about -DM reads, Aqs of 1 and CSEP/LDZ mapping. Naturally going to be an evolution.

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Industry Questions	Responses
Will UIG settle down, will it ever get to 1%?	Never going to be 1%. There would need to be perfect, no more theft, or shipperless sites. UIG is more of a cash flow issue for shippers to manage.
Will this improve D-1 to D+5 volatility?	E.ON have not unpicked what movement looked like pre-nexus but it was always bouncy The weather on the day is not used for NOMs it is comprised of a number of estimated items creating a natural volatility. If you improve the algorithm and improve weather accuracy you will improve NOMs accuracy.
NDM algorithm new vs old? Are we saying there is a weather relationship?	View is that some of the volatility is from weather, or more correctly a temperature relationship based on customer demand. Cold morning more likely to see increased demand.
How do we improve the way we get the truth? Reconciliation is not getting any closer? What is stopping reducing volatility?	The changes to the algorithm made volatility more significant. Reconciliation may push sites into different EUCs. Only way to tell whether it is working is if you are still having a significant volume of reconciliation. Most of the changes can be done from changing parameters. Only way to look at what you're getting and compare to reconciliation.
Timescales? How long this would take - original algorithm timescales?	How much resource are people prepared to commit. If people think this is a significant issue and they commit to providing the resources it will be quicker. Need data sample from shipper organisations
Should smart and AMR have their own profile	Only if they behave differently so it would be dependent on data.
Is seasonality part of the issue? How can you illustrate this? How can it be fixed?	Can see it's been an issue, doesn't work as well over summer to winter. Relationship assumes a -temperature shift - I don't think you see that it changes depending on what point of the year that the shift happens. It can be fixed or modified using ALPS/DAFS.

Option 2 – Questions and Answers

UIG is fixed at the level identified by the AUGE in its latest statement and smeared using scaling factors

Presented by Gareth Evans (Waterwye)

(Option 2) Presented by Gareth Evans(Waterswye) – Questions and Answers

Solution :UIG is fixed at the level identified by the AUGE in its latest statement and smeared using scaling factors

Xoserve Questions	Responses
How is the Weather Correction Factor calculated – still using actual weather or revert to Pre-Nexus approach – top-down based on NDM Seasonal Normal demand?	Revert to Pre-nexus approach. Forecasting nom allocation - use pre-1st June approach.
How is the fixed UIG % shared out? Throughput/AQ/other? Are weighting factors still used?	Using weighting factors . It would follow the same process as we do now but just as fixed quantity.
What is the process for setting/reviewing the fixed UIG % - what is the frequency?	Annual process using current AUGE regime. Something a bit more formalised perhaps. They would develop a fixed percentage which would be reviewed and updated annually
Does meter point reconciliation still apply to all MPRs – or just LSP?	Applies to all, NDMs and DMs.
How are current transition issues accounted for?	These will only feed into NDM.
What treatment for the opposite side of meter point recs prior to the final settlement – applied to whole LDZ/total NDM/just SSP? How does energy remain whole?	3 distinct options on how to tackle this, solution 1 was proposed after a push for a preferred solution. **1 - Weighting factor is set to get standard [1.1%] UIG rec after read is received. For all unread meters rec is smeared across. (Encourages meter reading) (Proposed as the solution to go forward)** 2 - EUC 2-9 have some form of fixed position (fix volume of error) fix weighting factor so they get a small value of settlement error. Never going to get to perfect world of reading every meter etc. NDM to mean Class 3&4s. Feels like RBD. Solution will be rejected by Ofgem (Solution 1 preferred) 3 - We have for all EUC bands- go into a balancer of last resort. Somebody takes on roll of balancer of last resort – refer to Option 4 Solution (Solution 1 preferred)

(Option 2) Presented by Gareth Evans(Waterswye) – Questions and Answers

Solution :UIG is fixed at the level identified by the AUGE in its latest statement and smeared using scaling factors

Xoserve Questions	Responses
How is the threshold point for final reconciliation determined [98%] – how often might it change?	Analysis to be done - at what point is it worth doing the reconciliation. AUGE could determine. Final reconciliation using weighting factor. Or AUGE determines revised factors.
What if the threshold point is not reached before Line in the Sand – what happens?	Leave everything as it is, no further redistribution to be done in that case.

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How is the fixed UIG % shared out? Throughput/AQ/other? Are weighting factors still used?	Using weighting factors . It would follow the same process as we do now but just as fixed quantity.
What is the process for setting/reviewing the fixed UIG % - what is the frequency?	Annual process using current AUGE regime. Something a bit more formalised perhaps. They would develop a fixed percentage which would be reviewed and updated annually
Does meter point reconciliation still apply to all MPRs – or just LSP?	Applies to all, NDMs and DMs.
How are current transition issues accounted for?	These will only feed into NDM.
Are you dealing with two separately. Sliver at the top? weighting factors? Other?	UIG is dealt with more like shrinkage, reconcile in the future. Weighting factors to be set annually.
All the opposite effects fit into NDM market?	Yes.
How would you share that rec out? Why is it not going across everyone like the 1% creamed off.	MOD 432 treats everything as UIG. Final reconciliation for those 2% Shared by the weighting factors. What the weighting factors are is still be determined.
What sort of scale of system change?	Part of the assessment to be done by Xoserve - reported back. Xoserve will breakdown what we can change and how quickly.

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Industry Questions	Responses
UIG smear across on weighting factors - how do you take into account transitional issues?	Process using seasonal normals - volatility would be a Correction type process. Transitional issues are problems now and this would improve it.
Don't understand Smear?	DM and NDM Meterpoints that have been read will get allocated by weighting factors. 1. UIG Rec is shared across all meters, 2. A fixed share of UIG for read meters, 3. Resharing of UIG after meters have been read
How would you try to merge pre-nexus work with rolling AQ? How would change seasonal normal demand bearing in mind rolling AQ is changing?	Issue with Dataset - have that updated in an appropriate way.
Would the proposal introduce more volatility?	Need to consider timing
How is allocation more accurate?	Removing settlement error from the process. Accurate picture given using an estimation process for unknown losses - in terms of allocation think it's a far better process.
Does this address volatility in actual shrinkage? Do either models look at volatility within shrinkage - i.e. seasonal volatility.	Not designed t o tackle shrinkage. Not seeing it as a requirement - not totally weather sensitive. Would follow seasonal because it is x percent of allocation so up in winter lower in summer.
EUC split being considered? What if EUC is split.	Should be taken into account. Probably need to move more EUC bands. It can be accommodated within models.

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Industry Questions	Responses
Is there an assumption that unread meters causing the issue?	The rest of the known factors are being attributed in the UIG fixed position, that is determined annually.
If everything was reconciled – Is this solution just a postponement of where it is seen?	Reconciliation is being shared out in line with the factors - when the meters have been read - read and unread is the true breakdown. Read counts as read each day.
Where does the offset go when everything is read?	There will be no last man standing as the 98% rec threshold will prevent this.
Could you end up with a small number of meterpoints being left?	Yes. A threshold point is required at final reconciliation. Should be countered by the fact that the AUGE number should be a reasonable number and should be reflective of actual UIG, should go back to them to reallocate.
Will a small number of unread meters pick up a lot of UIG.	Yes, but final reconciliation will correct.
Is a rec file expected for every site? Site specific/ by shipper? Rec - expect to have by site if its allocation	If there is demand from the industry then that's fine. Not meant to be a per meter point charge at present - don't want to make it a monster in order to do it. If there is demand then yes (to be confirmed).
AUGE sets factor on fixed basis. Later determined to be 2 or 3%. Retrospectively do we then apply new weighting factors?	No it will be the position going forward and not applied retrospectively. It will be fixed to what the AUGE comes up with.
What would the frequency be of calculating the weighting factor?	AUGE factors - fixed annually. Scaling working the same just with different data sets. Reconciliation effectively looking to fix some site's positions. What those are fixed at is set by third party and passed into core systems.

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Industry Questions	Responses
UIG is in proportion between the units?	Yes. All sites getting share of UIG. Going to all meters in LDZ.
Will this impact on ability to forecast? Changes Rec process? Position you need to forecast to is more uncertain?	Look at end to end process for pre-nexus for modelling purposes.
All the opposite effects fit into NDM market?	Yes.
How would you share that rec out? Why is it not going across everyone like the 1% creamed off.	MOD 432 treats everything as UIG. Final reconciliation for those 2% Shared by the weighting factors. What the weighting factors are is still be determined.
What sort of scale of system change?	Part of the assessment to be done by Xoserve - reported back. Xoserve will breakdown what we can change and how quickly.

Option 3 – Questions and Answers

Roll back the allocation model to the old method. “Real UIG” transferred from SSP to LSP market

Presented by Gareth Evans (Waterswye)

(Option 3) Presented by Gareth Evans(Waterswye) – Questions and Answers

Solution :Roll back the allocation model to the old method. “Real UIG” transferred from SSP to LSP market

Xoserve Questions	Responses
How is the Weather Correction Factor calculated – still using actual weather or revert to Pre-Nexus approach – top-down based on NDM Seasonal Normal demand?	Revert to Pre-Nexus approach
How is the fixed UIG charge shared out to LSPs? Throughput/AQ/other? What energy price?	Subsidy from LSP to SSP - UIG disappeared out of daily stack. Fixed charge process- UIG sharing old process.
How is the opposite entry shared out to SSPs? Throughput/AQ/other? What energy price?	Back to old world.
How does the annual reconciliation of UIG get applied – retrospectively to the previous year or prospectively to a future year?	Prospective not retrospective. No retro change to UIG shares.
Does meter point reconciliation still apply to all MPRs – or just LSP?	No meter point reconciliation
What treatment for the opposite side of meter point recs – applied to whole LDZ/total NDM/just SSP? How does energy remain whole?	Old school SSP. Class 2&3

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Solution :Roll back the allocation model to the old method. “Real UIG” transferred from SSP to LSP market

Industry Questions	Responses
Is this putting RBD back?	Yes, no meter point reconciliation.
Is this taking away meter point rec for small supply points? 22/23 million supply point not being reconciled	Yes
Rolling AQ?	Would rollback to annual AQ review. If we retained it rolling AQ would have to be done on seasonal normal basis.
John Dixon, OFGEM - Option will be rejected by OFGEM,. Further discussion abandoned.	

Option 4 – Questions and Answers

An existing industry body (or new 3rd party) becomes the balancer for the industry (they take all UIG volumes and then balance the market through wholesale transactions)

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Solution: An existing industry body (or new 3rd party) becomes the balancer for the industry (they take all UIG volumes and then balance the market through wholesale transactions)

Xoserve Questions	Responses
How is NDM Allocation calculated – is the post-Nexus calculation retained or amended?	Suggest use system in place now but open to options.
How will the central balancer be selected/appointed? What is the relationship to the System Operator and Market Operator?	Could be license obligation on NG, could be CDSP discharges how it sees fit or a tender operated and undertaken.. Could also be collectively appointed shipper in the industry unless NG.
Will the central balancer be subject to the current Energy Balancing Credit regime, e.g. provision of security, exposure monitoring?	Could have security - but underwritten by shipping community. Could be long or short and allowed revenue/targets.
What is the contingency plan in case of business failure of the central balancer?	Recover costs from the industry or provide guarantees.
Will the central balancer be part of the energy balancing regime, e.g. could they be short or long for a day?	Yes that would be permitted.
How are the central balancer's costs shared out to the industry – what is the sharing mechanism; what is the billing mechanism and timeframe?	Lots of different ways of doing it - monthly in line with current industry. Two lines on invoice - energy as industry and delivery of service. Line of credit - or fund as monthly arrears. Flat pence per KWh for the month.
Does meter point reconciliation still apply to all MPRs – or just LSP?	Still applies to all sites. Opposite entry to central body.
How does the central balancer share out ongoing reconciliations – based on current or historic market shares? Who determines the sharing mechanism – are DMs included?	Net impact would land on 3rd party balance sheet - as the central balancer. How are these shared back out? Reconcile and get a net position for each exit zone. None zero position till code close out - Don't ever go into a 0 position. Try to balance themselves in the market. May require cash flow correction for over/under recovery.
What data will Xoserve need to provide to the central balancer?	Should have everything they want but competition questions - at least the data shippers currently have.

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Industry Questions	Responses
What if there are no bidders?	2 shippers have already expressed interest so believe interest is there. Could also make it a direct obligation
How do we cover additional cost for consumers? Another party on top needs a margin - adding additional cost. Wholesale price driven by cost of the market.	Theory it's a zero sum gain for energy not for people in market however. Position in market changes 2-3 times a day, unwind them through the day - costs money. 50 small players very hard to do it. Idea is that you are dripping cost through to the industry that there may be a need for a correctional cash flow, could use a cap and tolerance mechanism (as per what is done for transmission)
Would it be mandatory? What if people didn't join?	No. Like to think that this wouldn't be the case. 1 or 2 not joining wouldn't be insurmountable. However there would be a problem if substantially more than that did not use the service.
How would banking/billing be handled	Flat pence per kwh - use to run and buy in the market if too much/too little - adjust next year's allowed revenue. OR could do reconciliation - but more difficult and more likely to end up needing to come to industry for additional funds.
Opting out? How would it work for those not using central body?	Have to subdivide the UIG in order to split it out. Everyone gets reconciled as they are now - but 48/50 shippers aggregated through the central body i.e. by a reverse trade.
How often could you opt in and out?	6 months. Would need to give notice to opt out. Not set in stone could be quarterly/annually.

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Industry Questions	Responses
Parties exiting the market?	Need to reassess voluntary exit rules and include this in the provision.
Uncontrolled exit?	Some form of credit would need to be established to cover costs. Liabilities can be moved elsewhere, if not others get charges.
Acquisition of someone whose opted out by someone who has opted in or vice versa	Have to live with it then follow the opting in/out timeframes at the appropriate stage.
Assuming some obligations to minimise cost of market, some mechanism to manage that exposure, how do we manage the obligations to minimise the commercial risk?	Shipper board and FGO transparency of cost. If done through license could have an allowed revenue mechanism. If traders could use market index - buying day ahead. Most importantly do not want another shipper committee.
Why could you not already have a third party shipper relationship with an assurer?	Commercial collusion type risk, time a consideration, market power an issue if not careful. Becomes very unwieldy how they join and leave. Becomes very difficult to manage. Equitable and arms length multi contract.
What do we do if it doesn't work?	No system change so easiest to reverse out. Short contract - cost plus. Should be able to reverse it out quite quickly.
How long would they be long or short?	4 years potentially but not fixed term Day+0 would be negative or positive, they trade on the basis of that position, need to long or short they would need to be cashed out by grid and pay the energy balancing price.

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Industry Questions	Responses
Do shippers only get a one time shot to determine their position?	Yes as they do now.
What if no-one wants to do this?	Already have interested parties. Believe that there is someone who would want to do.
If you were to back out and leave with NG? Fed into energy balancing	Would muddy the waters on what NG are trying to do with energy balancing. Would work better if we're privatising the market - it doesn't have to go to NG. Transportation charge or energy balancing charge - do not want to see a highly variable charges - this is the issue with the current system.

Option 4 – Questions and Answers

“Unwinding” of previous charges

Discussion

Option 2 – 4 ‘unwinding’ of previous charges Questions and Answers

Options 2 to 4 all include an “Unwinding” of previous charges.

Xoserve Questions	Responses
What is the basis of calculation of these charges?	Re-run allocation in new basis.
Are the DM estimates also corrected through this process?	Yes.
Are there any changes to energy balancing charges?	No
How do these corrections interact with meter point reconciliations that have/will happen?	Will need a freeze because we're cutting over to a new regime. Need to have a point on old world vs new world.
Is a freeze required to all subsequent meter point reconciliations?	Maybe.
What payment terms apply to these unwinding invoices and what impact on indebtedness/security?	Same as all others.
Does this have to be agreed/delivered at the same time as the chosen prospective option	Realistically we need to consider it, view on this is influencing people's ideas on whether it's a good idea or not.

Option 2 – 4 'unwinding' of previous charges Questions and Answers

Options 2 to 4 all include an "Unwinding" of previous charges.

Industry Questions	Responses
Clarification for central balancer is buying off them - and bills it back to everyone with admin and funding charge?	Pull out UIG and give it to central balancing body. All the balancing positions - all those long will sell to central pot and others who are short buy from this. Cash is being balanced flown though industry as it is.
We took a position based on what it was at the time. Fundamental issue with changing it retrospectively because otherwise we would have taken a different action?	This is an existential threat to certain parties businesses. Working capital potential potentially held up for 2/3 years out of the business. Central body would be a way of speeding it up. Dozen or so ICOSS shippers supporting this the retrospective aspect is a very big part of what they want.
Is it daily volatility that is the problem or is it that UIG is higher pre-nexus?	Volatility, position moving rapidly through the day.
Why would the unwinding not go back 5-6 years	The current process that we feel is fundamentally flawed. Saying currently is an unfair position.
Do Icoss members feel it was not communicated properly?	Yes
OFGEM view - people buying with the rules on the day - very hard if not impossible for Ofgem to accept retrospectively - if there had been an error - then that is a manifest error that would need to be unwound. Body of caselaw and precedent around this (electricity). Recommendation is to remove the 'retrospective unwinding' from the proposals as it may risk the modifications being rejected if tying them together.	