UNC 594 Review: Meter Reading Submission for Advanced and Smart Metering (UNC594R)

Consolidated responses

The CMA has published a letter [include as appendix or give footnote reference to web link] confirming that the direction of December 2016 will stand without revision, i.e. giving effect to the Base Case.

Draft conclusions:

- No case presented to move from monthly to daily read requirements;
 - Suggested costs (where provided) vary significantly, but general view that monthly delivers a step change compared to historic periodic read and annual AQ review – additional benefits of daily reads unproven and/or expected to be marginal
- Few parties are ready to adopt P3
- Mixed views on whether daily/P3 offers any competitive/first mover advantage (ability to innovate), but generally agreed that if there is, mandating it would erode that;
 - Some parties may need to address issue of customer consent.
- **Possible mod:** Given that the monthly read requirement from smart meters has been confirmed, benefit in this being incorporated into UNC (UNC570 covers only the annual requirement);
 - It will give PAC vires to extend reporting requirements to cover monthly submissions;
 - CMA has indicated that when provided for in code, monthly read requirement may be removed from licence
- **Possible mod:** Support for reduction in the Code Cut-Off date given increased frequency of reads:
 - Analysis should be undertaken to determine optimum timeframe, based on new assumptions of a read at least annually, and monthly from smart (close to whole population by 2010)?
 - Suggested that gas industry may need a trading dispute process to offset risk from the window being reduced;
- **Possible mod:** Rolling AQ still (relatively) slow to respond to consumption changes
 - Given DECC IA suggests consumption reduction where smart installed, is there a case for AQ of a 'smart supply point to be prospectively reduced rather than wait for >9 months of reads?

Appendix 1: Respondents

- British Gas;
- Corona;
- Dong;
- Ecotricity;
- Edf;
- Eon;
- First Utility;
- Flow Energy;
- Gazprom;
- Good Energy;
- Opus;
- RWE;
- Scottish Power;
- SSE;
- Xoserve.

NB: some respondents submitted high levels comments and preferences only, rather than a complete questionnaire.

Appendix 2: RFI consolidated responses

<u>Costs</u>

1. Has your organisation already budgeted to deliver the Base Case for 1 April 2018?

7 of the 15 respondents specifically confirmed that they had already budgeted to deliver the Base Case, 3 said that they had not yet done so.

2. In terms of IT system development only, approximately how much will it cost your organisation to meet the Base Case requirements by 1 April 2018?

None of the respondents suggested that the cost if meeting the Base Case would be significant, with several suggesting that this had been including as part of the Nexus build.

3. Is your company planning to migrate any of your existing SSP or LSP NDM portfolio from Product Class 4 to:		
Product Class 2	Yes: 2 respondents	No: 8 respondents
Product Class 3	Yes: 4 respondents	No: 6 respondents

4. Has your organisation already built and tested systems to utilise Product Classes 2 or 3?		
Product Class 2 only	Yes: 2 respondents	No: 8 respondents
Product Class 3 only	Yes: 3 respondents	No: 7 respondents

5. Assuming the availability of daily reads from all relevant supply points, what advantages does Product Class 3 offer over Product Class 2

P3 operating costs are expected to be lower than for P2, both in terms of systems and management activity such as exceptions handling. Some respondents referred to benefits in terms of greater flexibility of IT scheduling, and treatment of missing reads. Several respondents referred to the P2 drawbacks of having to set SOQ and exposure to ratchet charges.

For UNC and transportation charges purposes, Product Class 3 Supply Meter Points will be treated as 'Monthly Meter Read Frequency'¹. However, reads for each Gas Day may be collected and submitted periodically in batches, to a pre-notified frequency. These frequencies are weekly, fortnightly or monthly.

6. If your organisation planning to use Product Class 3, how frequently do you intent to submit batches of reads?		
Weekly	2 respondents	
Fortnightly	0 respondents	
Monthly	2 respondents	
To be determined	6 respondents	

7. What are the costs and benefits to your organisation of holding onto daily reads until they could be submitted in a periodic batch?

Some respondents suggested that they wouldn't hold onto reads as such, but would look to synchronise submission into Xoserve with their read retrieval patterns and/or billing cycles. Some suggested that a delay between retrieval and submission would assist with validation and the resolution of exceptions. One suggested that the use of batching would be more consistent with rolling AQ updates. No specific costs were provided.

¹ Nexus BRD for Settlement Arrangements for All Gas Meter Points

8. If you organisation had not been planning to utilise Product Class 3, approximately how much would it cost to develop your systems to deliver Reform Option 2 or 3

Reform Option 2 (phased Monthly, then	The estimated costs ranged from around	
Daily)	£100k to several £m. There was no	
Reform Option 3 (straight to Daily)	significant difference in cost estimates	
	between Options 2 and 3.	

9. Approximately how much per supply point/per year would it cost you to obtain meter reads on the following basis (please confirm if these are based on actual contracted charges or estimates:

AMR monthly read	[withheld from summary report]
AMR daily read	
SMETS1/2 monthly read	
SMETS1/2 daily read	

10.Aside from the cost of procuring the reads themselves, what other ongoing operational cost would a daily read requirement impose over and above a monthly read requirement (please give explanation and approximate annual cost wherever possible)

Reason:		
Respondents generally referred to additional		
exceptions and reporting requirements		
resulting from more frequent reads.		

11.To what extent would a change to a later implementation date (i.e. Reform Package 1) influence the system development costs (if possible, +/- £/month)?

£ No clear range provided, one respondent	Reason:
suggested a delay could cost circa £1m but	Several respondents suggested that the
it wasn't clearly tied to a period of delay.	Base Case had already been planned for
	and in some cases built, therefore a delay
	would only increase uncertainty and cost.
	Some respondents did suggest that a delay
	would be helpful, referencing wider IT
	demands and benefits of aligning to
	scheduled releases.

12.For the purposes of this RFI cost/benefit, over how many years should the expected system development costs be amortised?

The majority of respondents considered 3-5 years to be appropriate.

13.Setting aside the practicability of when the reform packages *could* be delivered, do you consider that there is different optimum date for them to be delivered, and why?

No clear alternative date emerged. Some considered that Apr 18 was appropriate for the Base Case, but as the case for other Options was unproven, not possible to determine an appropriate date. Some felt a delay to the Base Case would be beneficial but didn't suggest a specific alternative or dependency. Some references to need for Nexus to bed in and wider change demands.

14.Do you consider that having more frequent meter readings than other shippers confers any competitive advantage, and in what way?

Some considered that there would be no competitive advantage, with references made to the fact that AQs would still only change once per month. Others considered that

there would be an advantage through increased AQ accuracy, and through facilitating innovative tariffs, etc.

15.Subject to your answer to Q14, do you consider that mandating daily readings be obtained from relevant supply points would diminish competition, and to what extent?

There were some comments that these matters should be left to the market and that any advantages such as from innovation would disappear if mandated. Some also felt that there would be negative consequences for competition due to the additional costs this would impose, and that it may create a barrier to entry.

16.With particular reference to the <u>Information Commissioner's response</u> to the draft gas settlement order, do you consider that your terms and conditions already enable you to collect monthly and/or daily meter readings for gas settlement purposes?

Monthly	Yes: 8 respondents	No: 3 respondents
Daily	Yes: 4 respondents	No: 7 respondents

17.Subject to above, do you consider that there would be any substantive cost and/or issues obtaining customers consent for collecting additional meter readings (if so, please explain)?

£ circa £0.30 per customer	Reason:
	Whilst few respondents gave quantified
	answers, those that did referred to the need
	to contact consumers directly, with costs
	generally being driven by volume of mailing
	and processing.

Benefits

<u>Hypothesis</u>

The Code Cut-Off date², otherwise known as the 'line in the sand', currently allows for energy costs to be reconciled and subsequently settled up to four years after the Gas Day on which it was consumed. Any gas consumption that is not reconciled against a specific supply point by this date will be crystallised as permanent Unidentified Gas.

The length of the settlement window means that shippers cannot, at any given time, be certain of their exposure to costs. Some, if not all, are likely to hedge against this uncertainty, for instance by factoring a *risk premium* into their energy charges. This premium will in turn increase the tariff paid by the end consumer. Whilst the settlement window provided by the Code Cut-Off date has narrowed in recent years, the potential benefits of a further reduction have been offset by concerns about the availability and quality of meter readings³. It is expected that either a Monthly or a Daily Read requirement would facilitate the settlement window being further narrowed. This should reduce uncertainty and associated costs.

18.Do you agree with the above hypothesis?		
Yes: 7 respondents	No: 2 respondents	
felt that the hypothesis was overly simplistic	ome referred to the code cut-off date in their	

² See UNC General Terms C1

³ For instance, see UNC395/398: <u>Limitation on Retrospective Invoicing and Invoice Correction' and 398:</u>

^{&#}x27;Limitation on Retrospective Invoicing and Invoice Correction (3 to 4 year solution)'

continuing 6 year exposure to consumer led adjustments. One suggested that the real issue is whether profiles are sufficiently accuracy.

19.Do you agree that reducing the length of the gas settlement window would increase certainty of costs, particularly for gas shippers? Yes: 9 No: 1

20.Do you agree that the increased frequency of meter readings envisaged by any of the Reform Packages would facilitate the settlement window (Code Cut-Off date) being reduced? Yes: 9 No: 1

21.Does your organisation currently factor in a risk premium to hedge against the uncertainty of future reconciliations, in a manner similar to that described above?

Yes: 4

No: 4

22.If you answer to Q21 is yes, approximately what % does this add to your energy charges

Generally considered confidential and/or not possible to separately identify impact of this alone.

23. If your organisation does apply a risk premium (and assuming the Code Cut-Off date could be reduced without adversely impacting permanent Unidentified Gas) to approximately what extent could that premium be reduced if the Code Cut-Off date could be reduced to:		
2 – 3 Years	N/A	
1 – 2 Years	N/A	
< 1 Year	N/A	

24. Would a reduced settlement window reduce the amount of security you are currently required to place with the Gas Transporters (or other credit costs)

Yes: 2 No: 6 Impact in £: not quantified

25. Would there be any other cash flow implications arising from a move to a Daily rather than Monthly Read requirement (please explain)? Yes: 4 No: 7

Reason:

Of the substantiated answers, some respondents noted that the gas invoice and their own billing cycle would still be monthly. Some felt that more frequent reads/quicker reconciliation would improve cash flow, and possible allow for improvements in customer payment patterns.

26. Do you consider that an increased level of Daily Metering will reduce the levels and/or volatility of daily UIG allocation?		
Level of UIG	Yes: 2	No: 5
Volatility of UIG	Yes: 4	No: 3

27.Do you consider that an increased level of Daily Metering may increase the accuracy of the UIG scaling factors determined by the Allocation of Unidentified Gas Expert (AUGE)?

Yes: 4 No: 5 Reason: Of those who answers yes, one noted that the AUGE considers much of UIG to be theft related, and that an increase in DM would reduce theft. Another suggested that increased DM would of itself improve accuracy, but considered that this would be at a cost, and that Class 4 sites may be penalised [as a result of UIG being re-distributed to them]. Another noted that UIG components are wider than metered consumption.

28. Do you consider that any of the proposed Reform Packages would make the gas market more attractive to new entrants?

Yes: 4 No: 5 Reason: Some felt that monthly reads would increase accuracy and assist [new entrants] cash flow, and help with the pricing of new customers. Others considered that the additional investment required would be unattractive. Some noted that there are wider and bigger issues faced by new entrants.

29. Do you consider that a Daily rather than Monthly Read requirement would have any benefit for LDZ shrinkage calculation?

Yes: 4 No: 5 Reason: Whilst respondents were generally agreed that the shrinkage wouldn't be affected unless there is a change to the methodology/DNO billing, some felt that the additional read data should be taken into account in those calculations and would improve accuracy.

30. Do you consider that more frequent meter readings would be beneficial for any other UNC or wider industry processes, in addition to those mentioned above?

Yes: 6 No: 4 Reason: Of those who answered yes, references were made to increased accuracy of billing, gas allocation and theft detection profiles, and of SOQ calculation. It was also suggested that rolling AQ could be optimised. One suggested that the removal of profiling error and a shorter reconciliation window would be beneficial, but only if performance targets are significantly increased.

31.Subject to appropriate anonymization and other data protection measures, do you consider that the increased availability of aggregated consumption data from a Monthly and/or Daily Read requirement would increase understanding of market operation and better inform potential initiatives such as Demand Side Response, gas and power integration, etc?

Yes: 8 No: 2 Reason: Those who answered no suggested that Class 3 sites are likely to be too small for processes such as DSR and that ToU tariffs don't read across into gas. Others felt that the availability of more granular data would facilitate the analyses and understanding of market trends, which would better inform decisions.

<u>General</u>

32.If the CMA direction is issued as drafted on 1 September 2017 consistent with the base case, do you expect your organisation to be ready to implement it by 1 April 2018?

Yes: 7

No: 3

33.If you have answered no to Question 32, approximately what notice period/lead time would you expect between a direction being issued and being able to implement a monthly read requirement?

9-12 months, with one respondent linking it to readiness of smart/SMETS

34.Would your organisation require a different notice period/lead time in order to deliver a daily read requirement, and if so what would that be?

Yes: 9

No: 1

Reason: The majority considered that a longer notice period would be required if there was a mandate of a daily requirement, though estimates of how long this should be ranged from an additional 6-9 months, to being no earlier than 2022.

35.Which option (between the base case and reform options 1, 2 or 3) do you prefer and why?

Base Case: 3Option 1: 5Option 2: 1Option 3: 0Reason: Respondents generally supported the mandate being limited to a monthly read
requirement. Several respondents suggested that there may be benefit in a delay,
allowing the requirement to align with scheduled releases and/or DCC enrolment and
adoption. The respondent who supported RO2 suggested that the industry needed to
evolve and have a clearly defined path to do so.

36.Do you consider that the proposed reform packages should distinguish between different customer types and/or consumption bands (please explain)?

Yes: 2 No: 7 Reason: It was suggested by some that any additional benefits that could arise from the further differentiation would be outweighed by the additional costs of this change. Those in favour considered that it would facilitate larger consumers moving to more frequent reads at a quicker pace, and allow for a higher performance target for those customers.

37.Would a reduced settlement window reduce the amount of security you are currently required to place with the Gas Transporters (or other credit costs)?

Yes: 1

No: 5

Impact in £: no figures given

38.Would a Daily rather than Monthly Read requirement lead to any technical issues than should be considered: for instance, would there be an impact on expected battery life and maintenance schedules?

Yes: 3 No: 4 Reason: There were mixed views on whether battery life and replacement schedules would be impacted, but there was also a concern that any faults would necessitate a greater number of site visits [presumably due to need to get comms working within a shorter time]

39.Would any of the Reform Packages better support faster and more reliable switching?

 Yes: 1
 No: 8

 Reason: One respondent considered that the availability of more frequent reads should support faster switching, but others noted that a CoS read should in any case be available as and when required.

40.Does the eventual choice of Reform Package have an implications for the expected role of the Performance Assurance Committee? Yes: 7 No: 1

Reason: The majority of respondents considered that the PAC would have additional reporting and monitoring requirements and would need to set targets and take actions accordingly.

UNC573 allowed for certain elements of the previously directed UNC434 modification to be deferred. It was determined that those elements, relating to the retrospective adjustment of assets and supply point data (RAASP) should be implemented 12 months

after the Project Nexus Implementation Date (PNID), which at that time was scheduled to be 1 October 2016. The implementation of RAASP remains a live topic of discussion at the Uniform Network Code Committee and there is not as yet a firm implementation date (noting that the 1 October 2017 date currently contained in the UNC is no longer achievable).

41.Do you consider that the implementation of RAASP has any bearing on the chosen Reform Package and/or implementation date (please explain your answer)?

Yes: 6 **No:** 2 **Reason:** Several respondents considered that the implementation of RAASP should take priority over any move to a daily read requirement.

42.Aside from RAASP, are there any other industry initiatives that the review group and/or CMA should have regard to when determining an implementation date for the chosen reform package (please explain their relevance and timing implications)?

Yes: 6 **No:** 3 **Reason:** Respondents referred to a number of other initiatives that are currently in, or scheduled for development, such as the SMIP, faster switching, HHS and back-log of Nexus changes and defects carried over. Several referred to the need for prioritisation, with some references to the strategic direction and consultative board proposals.

43.Do you agree that wherever practicable and cost efficient to do so, gas should be allocated on the basis of actual meter reads rather than based on a profiles? **No:** 0

Yes: 9

Reason: All respondents who gave a specific answer agreed with this, though some qualified their answer in terms of proportionality and/or cost-efficiency.

44.Do you agree that wherever practicable and cost efficient to do so, gas should be settled at the prevailing price on the day of consumption rather than based on a rolling average?

Yes: 5

No: 2

Reason: As above, whilst respondents were generally supportive of the statement, some considered it to be overly simplistic. One considered that the benefits of improved settlement accuracy would be marginal and outweighed by cost, which they considered would be prohibitive.

45.Do you consider that in the longer term (>5 years) wholesale gas prices will be more or less volatile?

More: 6

Less: 1

46.Do you agree that the costs of installing Smart meters/AMR and the capacity of central IT systems have traditionally been two of the biggest impediments to the take up of more frequent meter reading and submission?

Yes: 5

No: 4

Reason: Additional reasons put forward by those who didn't agree with this statement included the reluctance of customers to have AMR installed, and the restrictions of suppliers own systems, which revolve around the billing cycle. The lack of or delay in standardisation of equipment was also cited.

For Xoserve specifically:

The Xoserve response⁴ to the draft Gas Settlement Order noted that on the basis of market intelligence from some shippers and its own judgement on the likely take up on the various settlement products, the UK Link replacement (Project Nexus) system has been sized to receive an exceptional peak 49 million meter reads on any one day. In this context:

47.Would any change to the functional or non-functional requirements of the central systems be required in order to facilitate the Base Case? No

Reason:

"the new UK Link system has previously demonstrated a daily read processing capability of up to 32 million reads per day. We conclude therefore that:

- We are ready to meet the requirements of the Base Case to have the ability to receive monthly reads from all Advanced and Smart installations from 1 April 2018;
- No changes are required to either the functional or non-functional requirements of central systems; and
- No additional system development costs are required to be incurred."

48.Is there any technical reason why the systems could not be scaled up in line with or ahead of the roll out of smart meters, potentially allowing all supply points utilising Product Class 3 with a monthly batch submission? No

Reason: Proven capacity of current systems is 32m reads per day. Need for further investment can be avoided if batch submissions can be appropriately scheduled. Further capacity can be procured if instructed – Xoserve would ideally look for 6 months' notice of the need to invest and a further 12 months for development.

49.Approximately how much would it cost to scale the systems in the manner envisaged in Q48?

Not available

50.Is there any technical reason why Product Class 3 reads could not be submitted more frequently than weekly?

No

Reason:

"We are not aware of any reason why Class 3 reads could not be submitted more frequently than weekly. Indeed, we would actively encourage more frequent submission of smaller read volumes as a means to facilitate the even distribution of daily reads."

51.Is there a limitation on the number of supply points that could be registered against Product Class 2?

Reason:

"We are not aware of any limitation on the number of Supply Points that could be registered against Product Class 2. We note that registration against Class 2 would lead to daily reads being submitted to central systems daily rather than in batches."

No

⁴ See:

https://assets.publishing.service.gov.uk/media/584540a7e5274a1307000063/gas_settlement_draft_order_res_ponse_Xoserve.pdf

Appendix 3: Background (as provided on RFI)

The rollout of Advanced and Smart Metering delivers the opportunity to utilise more frequent consumption data throughout industry processes at marginal cost. The UNC594R was raised in order to review the arrangements and requirements for Shippers to provide reads for Class 3 Supply Points and above where such equipment is utilised. This Request for Information (RFI) has been produced in order to inform the review group.

In addition to the ongoing roll-out of smart metering, UNC594R was raised against a backdrop of the energy market investigation carried out by the Competition and Markets Authority (CMA). In its final report on this investigation, the CMA found, amongst other things, that the current system of gas settlement is a feature of the markets for domestic and SME retail gas supply in Great Britain that gives rise to an Adverse Effect on Competition (AEC) through the inefficient allocation of costs to parties and the scope it creates for gaming. The CMA considered that this reduces the efficiency and, therefore, the competitiveness of domestic and microbusiness retail gas supply. Together, these issues were referred to as the Gas Settlement AEC.

The CMA subsequently decided on a package of remedies to be implemented in order to remedy, mitigate or prevent the Gas Settlement AEC, set out in paragraph 20.27 of the final report. In addition to recommendations to Ofgem to ensure the timely implementation of Project Nexus and the establishment of a gas performance assurance regime, the CMA set out its intention to require that more frequent meter reads be obtained and submitted to Xoserve for gas settlement purposes. In the case of supply points with dumb meters, the meter reads should be submitted as soon as they become available, and at least once a year. For all supply points with a smart of advanced meter, the expectation was that meter reads would be submitted at least once per month.

These meter reading requirements were given effect through an Order⁵. The Order came into force on 15 December 2016, except Article 3.3 which shall come into force on 1 April 2018 (or any other later date pursuant to a direction issued by the CMA no later than 1 September 2017). Article 3.3 applies to supply meters that are able to remotely transmit Valid Meter Readings.

The CMA noted⁶ that it had adopted this approach in order that the stability of the post-Nexus systems and therefore parties' ability to deliver the new meter reading requirements by the proposed date could be assesses. The CMA also noted an impact assessment of a daily read requirement would be carried out in the context of UNC594R and that subject to a positive case being produced both for the daily read requirement and an alternative implementation date, it would consider revising its requirements accordingly. However, the CMA was clear that in the event that an impact assessment was not completed, or it did not set out a positive case for proceeding with a daily read requirement, it did not propose to issue a direction that postponed the implementation of the monthly read requirement.

Please note that whilst this is believed to be an accurate summary of the background leading up to this RFI, respondents are encouraged to refer to original documents wherever appropriate.

Relevant documents

UNC documents:

⁵ The Energy Market Investigation (Gas Settlement) Order 2016

⁶ Summary of parties' responses to formal consultation

- <u>UNC594 Request</u> (02.09.16);
- <u>UNC594 Terms of Reference</u> (14.09.16);
- Draft RFI questions (19.04.17).

CMA documents:

- Energy Market Investigation Final Report (24.6.16);
- Notice of making an order (14.12.16);
- The Energy Market Investigation (Gas Settlement) Order 2016 (14.12.16);
- Explanatory note (14.12.16);
- <u>Summary of parties' responses to formal consultation</u> (14.12.16).

Reform options

Given the stated intention of the CMA, that in the absence of an impact assessment setting out a positive case for an alternative meter read frequency and/or implementation date, it will issue a direction no later than 1 September 2017 giving effect to Article 3.3 of the Order, the review group considers that the options for assessment are as follows:

Base Case: Mandatory Monthly Read requirement for all Advanced & Smart installations form 1st April 2018

Reform Option 1: Mandatory Monthly read requirement for all Advanced & Smart Metering installations, but from a later date [*to be informed by RFI responses*]

Note: Whilst this is analogous with the Base Case we are seeking views on the relative impacts of an alternative implementation date, to inform future discussions with the CMA.

Reform Option 2: Phased implementation from Mandatory Monthly (Phase 1) to Daily Read requirement (Phase 2) for all Advanced and Smart Installations

- Phase 1 would be Mandatory Monthly read requirement for all Advanced & Smart Metering installations from [as above, *date to be informed by RFI responses*];
- Phase 2 would be Mandatory Daily read requirement for all Advanced & Smart Metering installations from [as above, *date to be informed by RFI responses*].

Reform Option 3: Mandating Daily Read requirement for all Advanced & Smart Metering installations from [*Date to be confirmed*]. Straight to Daily with no interim Monthly step.

Note: This approach would need CMA approval to address the Base Case. It is understood the Product Class 3 would satisfy the Daily Read requirement.