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Dear Anna,

DEFAULT TARIFF CAP: STATUTORY CONSULTATION

Thank you for the opportunity to respond to this statutory consultation. While we remain of the view that a default tariff cap will not be in the interests of consumers, we are committed to engaging constructively with Ofgem in this process.

We still have a number of significant concerns about Ofgem's proposals as set out below (and explained in more detail in Annex 1). These are important issues which could give rise to a risk of challenge if not adequately addressed.

1. Unidentified gas (UIG)

Ofgem must conduct an urgent review of the evidence on the level of UIG and reset the allowance with effect from April 2019 or failing that October 2019.

Ofgem's allowance of 0.96% for UIG (based on an early AUGE report which pre-dated Nexus) is manifestly too low and has failed to take account of the available data post Nexus. The 14 months of data since the introduction of Nexus provides strong evidence that the average level of UIG is between 5% and 6% and Ofgem should set the allowance for the first period at this level. Although some of the observed UIG may be due to theft and shipper-less sites, the majority appears to relate to issues with metering, correction factors and other estimation errors, which cannot be reduced through supplier efficiency measures.

Xoserve's UIG Task Force is focusing on reducing the month-to-month volatility in UIG and deriving a more stable long term measure. Ofgem must undertake an urgent review ahead of the April 2019 (or failing that, October 2019) price cap in light of this work and a longer post-Nexus time series of data, and consider how best to define the allowance for UIG on a pass-through basis going forward.

2. Smart rollout costs

Ofgem has underestimated the non-pass through (NPT) SMNCC for the first two periods and must increase the allowance accordingly; thereafter, the review and consultation proposed for 2019 must be completed in time for the October 2019 price cap period and must not be subject to any 'significant and unanticipated change' test.

Due to the limitations of Ofgem's disclosure room, we have been unable to properly understand the basis for Ofgem's SMNCC cost estimates or indeed how they break down between the various cost and benefit categories cited. On the basis of the limited information available to us, we believe that Ofgem has significantly:

- over-estimated the benefits from avoided meter reads
- over-estimated installation productivity gains between 2017 and 2018
- under-estimated the costs of early termination of legacy meters
- under-estimated the NPT costs of supporting SMETS1 meters during 2019

In aggregate we believe the proposed allowance for non-pass-through SMNCC in 2019 is substantially too low. We urge Ofgem to review these aspects of its model in the light of feedback from suppliers and adjust the SMNCC for the first two periods accordingly.

We welcome Ofgem's intention to undertake a review of SMNCC costs in 2019, given the current uncertainty around future costs and rollout profiles. However, Ofgem must give a clear commitment to complete the review in time to set SMNCC values for the price cap period beginning in October 2019. Ofgem must also confirm that the review will not be subject to a 'significant and unanticipated change' test (as appears to be contemplated in SLC 28AD.11), which we consider would be entirely inappropriate as a precondition for the review, given that Ofgem has already acknowledged that there is too much uncertainty at present to set SMNCC values beyond October 2019. Additionally, the review must involve an effective disclosure room (see below).

3. Consultation process and transparency

Ofgem must re-open the disclosure room, and in doing so address the significant weaknesses of the recent exercise in order to provide an appropriate level of disclosure and transparency. Ofgem must also repeat the disclosure room exercise as part of its review of smart meter rollout costs in 2019 with these issues effectively addressed.

We previously called on Ofgem to establish a disclosure room ('DR') so that the evidence and assumptions relating to smart meter rollout costs could be exposed to proper scrutiny - in accordance with public law requirements for a fair and adequate consultation. Although Ofgem agreed at the last minute to establish a DR, it placed so many constraints around the data provided to advisors, the way that they were able to access it and the feedback they could provide to their clients that its purpose was largely frustrated. These restrictions went well beyond what could reasonably be justified on grounds of confidentiality and have left suppliers unable to understand and effectively challenge key assumptions on which smart meter rollout costs have been based.

Given the significance of the issues raised in this context we call on Ofgem to re-open the DR and take meaningful actions to: (1) allow a full and proper opportunity for interested parties to make representations on the terms of the undertakings and DR rules; (2) overhaul its spreadsheet model to improve clarity and explain the source of hard-coded numbers; (3) reconsider its approach to confidentiality to remove unnecessary restrictions; (4) relax other procedural rules which degrade the effectiveness of the disclosure room; and (5) ensure that a full disclosure of all relevant data is provided to advisors who have executed undertakings. Ofgem must also repeat the DR exercise as part of its review of smart meter rollout costs in 2019 with these issues effectively addressed.

4. Headroom and maintenance of switching and competition

The proposed headroom allowance is insufficient to maintain incentives for switching and effective competition and must be reviewed.

We believe the proposed level of the cap is incompatible with Ofgem's duties under s1(6) of the Act and creates an unacceptably high risk that switching and competition will be severely constrained. Even setting aside methodological issues which have resulted in costs being under-estimated, the proposed level of headroom is much smaller than in the CMA's prepayment price cap (contrary to Ofgem's claims), and insufficient to allow suppliers to undercut the level of the cap and drive switching. In our view the cap will distort the competitive landscape so that prices converge and only a few small suppliers with unsustainable business models are able to compete effectively for customers. Ofgem's central estimate that switching will reduce by 30% seems highly optimistic.

We urge Ofgem to keep the level of headroom under review and consider increasing it to shift the balance in favour of rekindling competition as the end date of the cap approaches. We suggest it would be appropriate for Ofgem to do this as part of its planned review of the conditions for removing the cap.

5. Transitional hedging allowance

Ofgem must revert to its previous proposal of an April to September observation period instead of the normal winter observation period of February to July.

We are disappointed that Ofgem now intends to reverse its proposal to use a transitional hedging observation window for the first default tariff cap period. Suppliers who responded in good faith and adapted their hedging strategy to the proposals in the May consultation will now be unable to recover the associated wholesale energy costs during the first default tariff cap period. There was a clear rationale for the previous approach and we urge Ofgem to revert to it.

6. Other methodological issues

We have identified a number of areas where we believe Ofgem has erred or struck the wrong balance in calculating the level of the cap, including:

- Socialisation of additional Standard Credit (SC) costs: Ofgem's May proposal to socialise 100% of additional bad debt and administrative costs struck an appropriate balance between consumer protection and efficiency, and Ofgem is wrong to now reduce the socialisation to 60%. This unnecessarily penalises the majority of creditworthy SC customers who pay their bills on time and is justified on the basis of competitive distortions which are less material than Ofgem assumes.

- Level of standing charge: We agree with Ofgem's proposal to base the standing charge component of the cap on existing market tariffs rather than estimated costs at nil consumption, since this will better protect the interests of low consuming customers, many of whom are likely to be vulnerable, and reduce the proportion of customers whose bills may increase as a result of the cap. However, we believe that these objectives would be better served by a lower standing charge, eg based on the lower decile of the market sample.

- Direct Debit-Standard Credit cost differential: It appears Ofgem has selected ScottishPower as the lower quartile benchmark for Direct Debit (DD) costs. In doing so, Ofgem should have ensured that the average additional SC costs were based on a similar cost allocation methodology as used by ScottishPower. To the extent that Ofgem has failed to take a consistent approach, it is likely to have substantially underestimated these additional costs.

- Definition of Standard Credit: the proposed definition inappropriately excludes ScottishPower's Quarterly DD payment method which has the same working capital and cost characteristics as SC.

The changes outlined above will better reflect Ofgem's duties and we urge Ofgem to address these points in its final decision on setting the initial level of the cap.

Should you have any questions on this response, please do not hesitate to contact me.

Yours sincerely,

Neil Clitheroe
CEO, ScottishPower Retail

Annex 1

DEFAULT TARIFF CAP: STATUTORY CONSULTATION - SCOTTISHPOWER RESPONSE

1. Introduction

This Annex sets out ScottishPower's comments on Ofgem's statutory consultation on the default tariff cap. Our comments cover 11 topics as follows:

a) The allowance for the cost of unidentified gas (UIG) (section 2)

b) Non-pass-through smart meter net cost change (SMNCC) (section 3)

c) Pass-through SMNCC (section 4)

d) Arrangements for the review of SMNCC in 2019 (section 5)

e) Headroom allowance (section 6)

f) Transitional hedging observation window (section 7)

g) Allowance for electricity losses (section 8)

h) DD-SC cost differential (section 9)

i) Smearing of DD-SC cost differential (section 10)

j) Level of standing charge (section 11)

k) Treatment of Quarterly DD payment method (section 12)

We have provided additional explanation and evidence relating to UIG in Annex 2, and relating to non-pass-through smart meter rollout costs in Annex 3. We have provided a critique of Ofgem's disclosure room in Annex 4 and suggested drafting changes to the proposed licence condition in Annex 5.

2. Allowance for unidentified gas (UIG)

Ofgem's allowance of 0.96% for UIG (based on an early AUGE (Allocation of Unidentified Gas Expert) report which pre-dated Nexus) is manifestly too low and fails to take into account more recent data which would have been available to Ofgem.

Over the 14 months since the introduction of Nexus (June 2017 to August 2018), the level of national UIG has averaged 5.6%, ranging from a maximum of 10.7% to a minimum of 0.6%. (These are the current levels of monthly 'actualised' UIG following August reconciliations).

Although the actualised levels for each month tend to fluctuate with each monthly reconciliation, the values for the earlier months are now based on an allocation reconciliation of over 90% and can be considered relatively stable. Indeed, given the magnitude and distribution of typical monthly adjustments (see Annex 2), there is no reason to believe that the final UIG values (after 4 years) will on average be materially greater or less than the

average observed today. Based on today's evidence, the best estimate of UIG is 5.6% and Ofgem should set the allowance for the first period at this level.

Although some of the observed UIG may be due to theft and shipper-less sites (sometimes referred to as 'permanent' UIG), the majority appears to relate to issues with metering, correction factors and other estimation errors ('temporary UIG'), which cannot be reduced through supplier efficiency measures. Indeed, the UIG Task Force is currently focused on reducing the volatility of UIG from month to month (and increasing its predictability), rather than reducing the absolute level of UIG.

Ofgem states (Annex 4, paragraph 3.42) that that there are actions suppliers could take – for example to tackle theft (one of the largest causes of UIG) - which would reduce the level of UIG costs. This overstates the scope for suppliers to take action for two reasons:

a) Whilst theft may account for a significant proportion of permanent UIG (which has been estimated to be around 1%) it is almost certainly a small proportion of the total UIG figure of around 5%.

b) Action taken by individual suppliers to reduce theft will benefit all suppliers equally, resulting in a free-rider problem; although suppliers can in principle coordinate their activities to reduce theft (and are doing so), the incentives for unilateral action are weak.

Furthermore, there is no action that suppliers can take to reduce temporary UIG which accounts for the majority of the 5%, and this is no less real a cost to suppliers than permanent UIG.

Ofgem also says (Annex 4, paragraph 3.31 and 3.42) that suppliers could (through their shipper) utilise the new gas settlement arrangements to control their exposure to UIG costs through the submission of more regular meter reads into the central gas systems. Submitting more regular meter readings may reduce the volatility of the UIG amount (both between months, and between successive reconciliations for the same month) but there is no evidence that it will reduce the average level of UIG which is the main driver of cost. (As explained in Annex 2, the volatility does influence the average unit cost of UIG (£/MWh), but this effect is relatively small compared to the volume-related UIG cost.)

Ofgem should undertake an urgent review ahead of the April 2019 (or failing that October 2019) price cap to establish a new approach to setting the UIG allowance in the price cap on a 'pass-through' basis, taking into account the work of the UIG Task Force and the increasing post-Nexus time series of data. The review should consider whether the UIG percentage could be updated for each price control period on an *ex post* basis (based on a moving average of historic values calculated by Xoserve) or, depending on the success of the Task Force in improving UIG predictability, on an *ex ante* basis using Xoserve forecasts. It should also consider whether it should be set on a national average basis or a regional basis (as is done for electricity losses).

3. Non-pass-through smart meter net cost change (SMNCC)

Ofgem's approach to smart costs is to assume that the lower quartile Operational Expenditure (opex) cost benchmark for 2017 includes all smart meter rollout costs faced by an efficient supplier in 2017. Ofgem then calculates a smart meter net cost change (SMNCC) to reflect the expected increase in smart meter costs faced by an average large supplier relative to 2017. The SMNCC is used as an increment to the opex allowance in future periods and is comprised of two components:

- Pass-through (PT) costs (DCC, SEGB and SMICoP charges)[1] where the increment will be calculated based on latest available cost statements

- Non pass-through (NPT) costs where the increment will be calculated based on a BEIS/Ofgem smart model; Ofgem has calculated values for the first two price control periods, but says it will conduct a further review in 2019 to calculate the SMNCC from October 2019.

We have compared Ofgem's estimates of SMNCC for 2019 with values derived from ScottishPower's own smart rollout cost model. For the purpose of this exercise we assumed that Ofgem's SMNCC value for October-December 2019 will be the same as April-September 2019.

	2017	**2018**	**2019**
SP net costs – NPT (£m) SP net costs – PT (£m)	[✂] [✂]	[✂] [✂]	[✂] [✂]
SP net costs – NPT (£ per Dual Fuel customer; assumes 2.5m customers) SP net costs – PT (£ per Dual Fuel customer; assumes 2.5m customers)	[✂] [✂]	[✂] [✂]	[✂] [✂]
SP SMNCC vs 2017 Baseline – NPT SP SMNCC vs 2017 Baseline – PT	[✂] [✂]	[✂] [✂]	[✂] [✂]
Ofgem SMNCC vs 2017 Baseline – NPT Ofgem SMNCC vs 2017 Baseline – PT			£10.73 £8.75
Difference – NPT (£/Dual Fuel customer) **Difference – PT (£/Dual Fuel customer)**			[✂] [✂]

This analysis shows that there is a [✂] per Dual Fuel (DF) customer shortfall between Ofgem's SMNCC estimates and ScottishPower's for the 2019 period, which splits as [✂] NPT and [✂] PT costs. The full business and IT related costs for SMETS1 enrolment and adoption, Alt HAN and Faster Switching have not been factored into our cost models as the final solutions for these programmes have not been finalised by either BEIS or Ofgem. Therefore the shortfall in NPT and PT costs is likely to be greater when the full costs of these programmes are included.

Furthermore, the above comparison substantially understates the extent to which Ofgem's net cost model diverges from the net costs experienced by ScottishPower. ScottishPower's SMNCC calculations assume [✂] smart rollout by the end of 2019, whereas Ofgem assumes 55% rollout, a [✂] difference. The impact of this difference can be estimated indicatively as follows. ScottishPower's net non-pass-through rollout costs in 2019 are equivalent to [✂] per DF customer, so if these costs scale with percentage rollout, the cost at 55% rollout could be [✂] higher still. In other words, if ScottishPower's rollout percentage matched Ofgem's assumption, the discrepancy in non-pass-through SMNCC in 2019 could be around [✂] rather than the [✂] estimated in the table above. This suggests that the unit costs in Ofgem's model are likely to be substantially too low. Of course, in ScottishPower's case the overall cost difference is mitigated for 2019 by our lower rollout volume; but should our rollout be more closely aligned with Ofgem's assumptions in future, the impact could be much more severe.

[1] Data Communications Company (DCC) (including charges for Alternative Home Area Network Company (Alt HAN Co), Smart Energy Code Administrator and Secretariat (SECAS)), Smart Energy GB (SEGB) and Smart Meter Installation Code of Practice (SMICoP) governance charges

We have been constrained by the deficiencies in Ofgem's disclosure room from properly understanding how these differences have arisen. However, on the basis of the limited information available to us, we believe the shortfall in Ofgem's estimate of NPT SMNCC arises from the following factors:

- over-estimated benefits from avoided meter reads
- over-estimated installation productivity gains between 2017 and 2018
- under-estimated costs of early termination of legacy meters
- under-estimated NPT costs of supporting SMETS1 meters during 2019

These are explained in more detail in Annex 3.

4. Pass-through SMNCC

We agree with Ofgem's proposal to set pass-through (PT) SMNCC costs using the most up-to-date charging statements or budgets available at the time the price cap is updated.

However, we strongly disagree with Ofgem's proposal not to include any 'truing up' adjustments when the cost statement is revised following the setting of the level of the cap. We focus below on the issues raised in the context of DCC charging statements, which are likely to account for the majority of PT SMNCC.

Draft versus final DCC charging statements

The PT SMNCC amount for the April to October period will be based on the DCC's draft cost statement published in December, and for the October to April period it will be based on the final costs statement published in March. As Ofgem acknowledges, this means that if the costs change between the draft and final statements, a supplier will be over-/under-compensated for up to six months before the pass through increment is updated.

Cap period	Level of cap set	Latest available version of DCC cost statement
April to September	Early February	Draft DCC cost statement (December)
October to March	Early August	Final DCC cost statement (March)

Ofgem justifies its stance on the basis that the materiality of changes between draft and final DCC statements has historically been low. However, there are a number of reasons why DCC charges may be expected to increase significantly over the period to 2020. There are significant additional costs from 2017 onwards associated with enrolment and adoption of SMETS1 meters, the Alt HAN solution and the Faster Switching programme which have yet to be fully quantified and will drive this trend of increasing charges.

Our current view of upcoming costs in charging statements out to 2022 reflects what the DCC is able to forecast at this point. None of these programmes is at a stage with a positive business case to support it. The programmes are all going through tendering processes and will continue to exhibit volatility until their final solutions are known. The table below is based on information from the July 2018 charging statement and illustrates the material increase in costs anticipated between 2017/18 and 2019/20.

	Industry Costs	
	2017/18	**2019/20**
Alt HAN	£6.0m	£64.5m
Faster Switching	£4.0m	£13.1m
SMETS1 Enrolment & Adoption	£5.2m	£98.5m

In view of the steeply increasing costs and the uncertainty over those costs, there is a strong likelihood of larger adjustments between draft and final charging statements, and a consequent risk that suppliers will be consistently and materially under-compensated as price cap updates lag behind increases in charging. Ofgem cannot rely on the small size of historical adjustments to justify the absence of a truing-up mechanism.

In year charging statement updates

A similar issue potentially arises with the DCC's in year charging statement updates. In 2018 the update was notified in early June (to take effect in early September[2]), in time for it to be reflected in Ofgem's calculations of the cap for the period ending March 2019. However, had the notification been delayed to mid-August (to take effect mid-November) this would have been too late to be reflected in Ofgem's price cap setting and suppliers would have been exposed to 4.5 months under-allowance (not a maximum of 3 months as Ofgem claims).

For the same reasons as given above, Ofgem cannot rely on the small size of historical adjustments to justify the absence of a truing up mechanism for in-year updates.

Ofgem must include a truing-up mechanism

If, as Ofgem suggests, the materiality of changes between statements is relatively low then the impact of a correction mechanism on consumers will be correspondingly low. But if changes in DCC charging result in consistent under-compensation for six months (in the case of changes between draft and final) or up to 4.5 months (for in-year changes), before the PT increment is updated, suppliers will be unfairly and systematically exposed to risk. **Ofgem must introduce an appropriate truing up mechanism in time for the October 2019 price cap period.**

So for example, if the draft charging statement sets a particular charge at £100 per annum and the final charging statement sets the charge at £105 per annum, the price cap for the first charge restriction period (April to September) will be based on the £100 figure and will fail to pass through £2.50 of the charge (£5 times half a year). In order to ensure a full pass-through of charges over the course of the year, the level of the cap in the second charge restriction period (October to March) will need to be based on a charge of £110. And vice versa in the case of negative changes between statements.

5. Review of smart rollout costs in 2019

We welcome Ofgem's proposal to carry out a review in 2019 of smart metering costs and the rollout profile in order to set the SMNCC for cap periods from October 2019 onwards. This review could potentially inform the level of the cap for the next six price cap periods and will span a period of material increases in costs.

Nature of Ofgem commitment

Paragraph 28AD.11 of the proposed standard licence condition makes reference to the review of non pass-through SMNCC costs to be held in 2019. We have two concerns about the drafting:

[2] A minimum of 3 months' notice is required.

- The commitment to conduct the review in 2019 appears within the definition of SMNCC which is "subject to paragraphs 28AD.15 and 28AD.16". These paragraphs introduce a 'significant and unanticipated change' test which we consider would be entirely inappropriate as a precondition for the review, given that Ofgem has already acknowledged that there is too much uncertainty at present to set SMNCC values beyond October 2019 and has proposed a review on that account.

- We are also concerned that paragraph 28AD.11 does not clearly commit Ofgem to implementing the results of the review in time for the 28AD Charge Restriction Period commencing on 1 October 2019. Instead it implies that the review must be conducted no earlier than this.

Ofgem must commit to completing the review in time for the October 2019 price cap period and this must not be subject to any 'significant and unanticipated change' test. We have included in Annex 5 proposed amendments to paragraph 28AD.11 to address those concerns.

Disclosure room

The review should include a disclosure room similar to the one which Ofgem has run as part of the Statutory Consultation but we urge Ofgem to learn lessons from the operation of the disclosure room and provide an appropriate level of disclosure and transparency that enables parties to fully understand and meaningfully comment on Ofgem's approach.

We have provided a detailed commentary on the deficiencies of Ofgem's disclosure room in Annex 4. Not only has Ofgem excluded from the disclosure room the data relating to all suppliers which is necessary for our advisers to conduct a meaningful analysis of its tariff cap methodology, it has included provisions in the undertakings (notably, restrictions on preparing reports on non-pass through SMNCC modelling assumptions) which go well beyond any reasonable requirements in the interests of confidentiality and which have undermined our ability to meaningfully participate in the disclosure room, and the wider statutory consultation exercise.

With regard to the model itself, Ofgem should take steps to improve the transparency and comprehensibility, including:

a) a full list of input assumptions and their sources;

b) hard-coded numbers replaced with the model(s) displaying all calculations used to derive them;

c) full disclosure of inputs that are not directly traceable to supplier data;

d) full disclosure of how supplier input values are adjusted or manipulated.

Ofgem should also use the 2019 review as an opportunity to consider whether its approach based on the BEIS model is fit for purpose for the remainder of the price cap. We remain of the view that it would be more transparent and efficient for Ofgem to base its assessment of smart rollout costs on suppliers' actual cost (and benefit) data. Ofgem could, for example, repeat the information request exercise it used to establish the 2017 opex baseline, and reset the opex cost allowance (including smart) based on this new data.

Ofgem must address the issues outlined above for the disclosure room exercise in 2019.

Interaction with the CMA's mid-term review of the PPM Price Cap

We also note likely interactions with the CMA's mid-term review of the Prepayment Meter (PPM) Price Cap which is due to commence in January 2019. **We call on Ofgem to be joined up with the CMA to achieve consistency in the treatment of smart metering implementation costs in both caps**.

6. Headroom allowance

We believe the proposed level of the cap is incompatible with Ofgem's duties under s1(6) of the Act and creates an unacceptably high risk that switching and competition will be severely constrained. Even setting aside methodological issues which have resulted in costs being under-estimated, contrary to what Ofgem states, we believe the proposed level of headroom is much smaller than in the CMA's PPM Price Cap, and insufficient to allow suppliers to undercut the level of the cap and drive switching.

In our view the cap will distort the competitive landscape so that prices converge and only a few small suppliers with unsustainable business models are able to compete effectively for customers. Ofgem's central estimate that switching will reduce by 30% seems highly optimistic.

Comparison with PPM cap headroom

Ofgem says it has allowed a total of £36 of headroom within the level of the cap (based on a 2017 benchmark), broken down as follows:

Uncertainty factor of 1% for wholesale costs	£3
Using lower quartile of operating costs (15% above the efficient frontier)	£23
Headroom allowance	£10

Ofgem argues that this level is above the £30 allowed within the prepayment cap, and in the middle of the range considered in the May policy consultation. We do not agree and believe the true level of headroom (to account for uncertainty and matters relating to switching and competition) is significantly lower than the prepayment cap. In particular:

- Ofgem accepts that the £23 allowance for operating costs relates in part to unavoidable (customer mix-related) variations in supplier costs rather than solely uncertainty in Ofgem's methodology;

- The inclusion of a £5 'efficiency factor' to operational costs, needs to be seen as a negative contribution to headroom;

- The CMA's methodology was based on an average of two suppliers so was already above the 'efficient frontier'.

Implications for competition and switching

In our response to the May policy consultation we also set out our view that we did not see how Ofgem could have regard to the 'matters' relating to switching and competition without including a reasonable allowance for headroom to limit the impact of the cap on switching levels in the market. Ofgem's own analysis of the impact of the cap on switching in this

consultation document estimates a potential reduction of up to 50% of current levels, a significant impact on the market.

In assessing the design of the prepayment price cap, the CMA recognised the need for headroom to cover not only uncertainty, but to support switching levels, stating:

> *"Even with a price cap design that accurately tracks costs we consider it is appropriate to include a headroom allowance so that suppliers are able to compete to offer a range of profitable tariffs at different levels. To the extent that there are also small deviations between the costs facing suppliers and those reflected in the price cap, the headroom allows some margin for error such that these costs to be recovered while still remaining compliant with the price cap."* [3]

Ofgem argues that it does not need to allow any further headroom in relation to switching as its cap level is above the costs of some suppliers and therefore those suppliers will be able to compete for customers below the cap and this will ensure a level of competition in the market therefore meeting its obligations to maintain switching and allow suppliers to compete. Ofgem also states that it does not intend providing additional headroom to "allow suppliers with higher costs" to "continue to offer cheaper fixed tariff by charging SVT customers more".

However as we note above, Ofgem recognises that some suppliers face higher costs due to the nature of their customer base rather than inefficiencies. Indeed in paragraph 4.33 of Appendix 2, Ofgem recognises that those suppliers able to compete in the market under the price cap will be able to do so due to having lower costs in large part due to them targeting lower cost customers and benefiting from policy cost exemptions. Given this, we believe that Ofgem is failing to meet its obligations in relation to competition and switching by not providing any headroom allowance for those suppliers who have higher costs because of their customer base.

<u>The headroom should increase over time</u>

Ofgem's says it will "most likely not consider" any adjustment to the level of headroom over time prior to its recommendation to the Secretary of State in 2020 on whether to remove the cap.

As we set out in our response to the May policy consultation we believe there is a strong argument for headroom to increase over time to transition to removal of the cap. Ofgem recognises the experience of New South Wales in Australia which illustrated how price controls can reduce price dispersion and weaken competition – and conversely, how relaxing the price control can allow competition to flourish to the extent that the control can be lifted.

Allowing headroom to increase towards the end of the price cap would help facilitate a smooth transition to the more competitive market that would need to exist when the cap is removed - and potentially give Ofgem additional evidence on which to conclude that the conditions were in place for the cap to be removed. **We urge Ofgem to keep the level of headroom under review and consider increasing it to shift the balance in favour of rekindling competition as the end date of the cap approaches.** We suggest it would be appropriate for Ofgem to do this as part of its planned review of the conditions for removing the cap.

[3] CMA Final Report, para 14.118

7. Transitional hedging observation window

Ofgem says it now intends to reverse its proposal to use a transitional hedging observation window for the first default tariff cap period. Suppliers who responded in good faith and adapted their hedging strategy to the proposals in the May consultation will now be unable to recover the associated wholesale energy costs during the first default tariff cap period. Reverting to Ofgem's earlier proposal would increase the level of the cap for a dual fuel customer at TDCV by £37 in the period ending March 2019.

For the first default tariff cap period, Ofgem proposed in its May consultation to set the wholesale cost allowance with reference to an April to September observation period, instead of the normal winter observation period of February to July. Had suppliers been able to rely on this proposal (which we consider it is reasonable for them to have done), this would have largely avoided the situation whereby Ofgem sets a cap based on hedging assumptions that suppliers have no opportunity to replicate (since they relate to the past).

In these circumstances, it would have been entirely rational for suppliers to adapt their hedging strategy to Ofgem's May proposals. In doing so, as events have turned out, they would have incurred significantly higher costs than if they had followed the February to July observation period, but they would not have known this in advance.

Ofgem justifies its decision to revert to the February to July observation window on the grounds that it:

> *"gives a sufficient approximation of the cost suppliers actually incur and it is the most reasonable position to adopt. Given increases in wholesale costs since April, and that suppliers will have purchased a proportion of the energy for delivery in the first default tariff cap period, this proposal ensures that the allowance more closely reflects underlying costs. ..... For larger suppliers, we consider our allowance is likely to be an overestimate, although by a lesser amount than the proposed approach in our earlier consultation (using an observation window between April and September would set the allowance over £30 higher for a dual fuel)"*

Ofgem offers no evidence that the February to July period better reflects underlying costs (in our view the opposite is likely to be the case). Indeed, we would question whether Ofgem would have made a similar change had wholesale costs moved in the opposite direction.

We consider that suppliers had a legitimate expectation that Ofgem would stick to the May proposals - particularly given the impossibility of retrospectively changing procurement decisions in the light of Ofgem's change of heart – and **we urge Ofgem to revert to its May proposal**.

8. Allowance for electricity losses

We have identified a minor error in the calculation of the allowance for electricity losses. Ofgem's proposed calculation applies a 9.5% increase to the indexed costs of electricity excluding shaping costs. However losses are applied at delivery to the fully shaped demand, and the costs are a percentage of the total cost of that shaped demand. The allowance for losses in the price cap should therefore take account of reshaping costs. The table below illustrates the impact.

		Ofgem proposal	Corrected	Variance
Index price (Winter 2018 Annual) (/MWh)		£53.15	£53.15	
Cost of 3,100kWh electricity at index		£164.77	£164.77	
Reshaping, etc	6.3%	£10.36	£10.36	
Uncertainty	1.0%	£1.65	£1.65	
Electricity losses	9.5%	£15.65	£16.64	£0.98
Capacity market		£11.08	£11.08	
Total shaped electricity cost		**£203.51**	**£204.50**	**£0.98**

Based on Ofgem's proposed calculation, the cost is 9.5% x £164.77 = £15.65. Using the correct approach, the cost is 9.5% x (£164.8+£10.36) = £16.64, a difference of £0.98 per customer per annum. **The calculation of the price cap should be adjusted to reflect this**.

9. DD-SC cost differential

It appears to us that the supplier used by Ofgem as the lower quartile benchmark for DD operational costs was ScottishPower. Assuming this is correct, having selected ScottishPower as the DD benchmark, Ofgem should have ensured that the average additional SC costs were based on similar cost allocation methodology as used by ScottishPower. The consultation makes no mention of having done this.

We have previously highlighted that ScottishPower is likely to have used a more rigorous approach than some other suppliers (as a result of analysing cost allocation in some detail in the course of an enforcement investigation) and that this may have resulted in a higher DD-SC cost differential than would be obtained using a more simplistic approach. To illustrate this, the table below shows the impact if different cost allocation approaches had been used by ScottishPower.

Sensitivity analysis showing impact of different cost allocation policies on estimate of DD-SC cost difference

DD-SC cost difference at medium TDCV (£/customer/year, exc VAT, 2017 data)				
	Electricity	**Gas**	**Dual Fuel**	**Delta rel. to SP**
ScottishPower cost allocation	[✂]	[✂]	[✂]	
Variant 1: Re-spread prepayment debt based on customers numbers (ie not 27% DD / 73% SC)	[✂]	[✂]	[✂]	[✂]
Variant 2: Split customer service costs evenly based on customer numbers (ie not distinguishing between payment method)	[✂]	[✂]	[✂]	[✂]

The first variant reduces the estimated cost differential by £[✂] and the second by a further £[✂], resulting in a £[✂] difference if both variants apply. If other suppliers had used these variant approaches and Ofgem has failed to take account of it, there is a risk that Ofgem will have underestimated the additional bad debt and administrative costs of serving SC customers by as much as £[✂]. **Ofgem should consider this issue and amend the calculation of the cap as appropriate.**

10. Smearing of DD-SC cost differential

Ofgem is proposing to depart from its May proposal and set the DD-SC payment differential in the 2017 baseline broadly in line with the average differential in the market in 2017 (£76). This would be achieved by allocating all of the additional working capital costs to standard credit (SC) customers, plus 40% of the additional bad debt and administrative costs, with the remaining 60% socialised across DD and SC (compared to 100% previously).

Ofgem justifies this change on the basis of concerns raised by certain suppliers about the distortive effects that 100% allocations might have on competition, their ability to recover costs, and customer incentives to use more cost-effective payment methods.

We are concerned that Ofgem has moved too far from its original position and by reducing the smearing factor from 100% to 60% is placing insufficient weight on its over-arching duty to protect consumers. In particular, we would note that:

- Additional bad debt costs and administrative costs are not uniformly distributed across SC customers. Rather they are concentrated in a relatively small proportion of un-creditworthy customers, who would not be in a position to switch to DD payment. The vast majority of SC customers do not run up bad debt, and it is unfair for these customers alone to shoulder the burden of un-creditworthy customers. It is fairer, as Ofgem has previously recognised, for the costs to be socialised across the full DD and SC customer base.

- Although Ofgem has characterised the difference in working capital costs as being intrinsic to the SC payment method, a significant proportion of this cost (we estimate perhaps 30%) is attributable to unpaid bills, and accordingly a 30% allocation factor (as opposed to 0%) could be justified here.

- Any distortive effects on competition are mitigated by the fact that we would expect suppliers with higher proportions of SC customers to have lower DD-SC cost differentials. ScottishPower has a smaller percentage of SC customers than the other large suppliers but a higher DD-SC cost differential.

- We agree that customers should be incentivised to switch to more efficient payment methods, but the price signal should reflect the cost saving delivered by the customers who actually switch; as noted above, the least creditworthy customers who dominate the bad debt costs are very unlikely to be able to switch.

We consider that a smearing factor of 80% would strike a more appropriate balance **and Ofgem should amend the price cap calculations accordingly.**

11. Level of standing charge

We agree with Ofgem's approach not to use a bottom up cost assessment to set the benchmark at nil consumption ("the standing charge") and instead to use a similar approach that was used for the prepayment cap and to set the standing charge using market prices. This is more reflective of current supplier pricing strategies and will act to mitigate the impact on lower consuming customers who could see a significant increase in their annual costs if Ofgem were to set the standing charge based on a bottom up cost assessment.

However, Ofgem's approach of using the average standing charge across all suppliers could still have a significant impact on low consuming customers. In particular, by taking this

approach, a significant proportion of customers are likely to see an increase in their standing charge at the point of the price cap being introduced (assuming the majority of suppliers price to the level of the cap, as Ofgem's Impact Assessment suggests is likely[4]) and for those low consuming customers, this is likely to lead to an overall increase in annual costs. This is likely to be confusing to consumers when they are being told by the media that the price cap is protecting consumers by reducing annual costs.

In order to mitigate this, Ofgem should set the standing charge based on the lower decile of market data rather than on the average. This would reduce the number of low consuming potentially vulnerable customers who would experience an increase in annual costs and potentially confusing communications at the point the cap is implemented.

12. Treatment of QDD payment method

Draft licence condition 28AD defines 'Standard Credit' as '*a Payment Method whereby a Domestic Customer pays the licensee directly for Charges for Supply Activities after receiving a Bill, such payment not drawn automatically from a Domestic Customer's bank account by reason of a direct debit authorisation or otherwise'*.

ScottishPower offers a 'Quarterly Direct Debit' payment method in which the customer receives a quarterly bill and then the amount due is drawn from their bank account by Direct Debit (DD). This has similar working capital (and other) costs to our standard credit payment method, since both involve payment quarterly in arrears, unlike monthly DD. Another difference compared to monthly DD is that the amount of the DD is variable rather than fixed.

Although the number of customers on this payment method is relatively small, we believe it is beneficial for customers to have this choice open to them. If such payment methods are categorised as 'Other Payment Method' and subject to the same cap as monthly DD, ScottishPower will need to give serious consideration to withdrawing this payment method.

We believe it would be entirely consistent with Ofgem's policy intent for payment methods with the same working capital costs as standard credit to be included in the definition of standard credit. **Ofgem should amend the definition of Standard Credit accordingly**. We have suggested in Annex 5 how this could be achieved.

[4] paragraph 3.28 of the consultation overview document

Annex 2

TREATMENT OF UNIDENTIFIED GAS

1. Introduction

As explained in Annex 1, Ofgem's allowance of 0.96% for UIG (based on an early AUGE report which pre-dated Nexus) is manifestly too low and fails to take into account more recent data which would have been available to Ofgem. This Annex provides more detail on the more recent post-Nexus evidence for the magnitude of UIG and the factors that need to be taken into account in deriving an appropriate allowance for UIG.

Section 2 considers the evidence for the **average volume of UIG**, which is the main driver of UIG costs. Reconciled meter data available from the Nexus system from June 2017 shows a much higher level of UIG than had been previously identified – currently 5.6%, around six times the AUGE's forecast. This data was not available to the AUGE when it was formulating its forecasts from late 2017. The higher levels of UIG suggest 'permanent' UIG may be higher than forecast, or more likely there are additional 'temporary' UIG factors which have not previously been identified by the industry and the AUGE. These factors are beyond the control of suppliers to correct but may be better understood through industry initiatives such as Xoserve's UIG taskforce but this will take at least 12 to 18 months.

Section 3 considers the evidence for the **volatility of UIG**, which is a secondary driver of UIG costs. Volatility affects the average price (£/MWh) associated with UIG rather than the amount of UIG (MWh). The price effect arises because there is a natural bias in the variations of market prices around the system average price (SAP) that is the reference price for "cash-out" gas imbalance. This bias in prices imposes an additional cost on suppliers which we estimate will uplift UIG costs by at least 5%.

2. UIG volume

AUGE Final Allocation Report

The Allocation of Unidentified Gas Expert (AUGE) was established initially to allocate UIG between large and small supply points. Ofgem's estimate of 0.96% for the UIG allowance is derived from the AUGE's 2018/19 Final Allocation of UIG statement published June 2018[5], specifically the estimate for total 'permanent' UIG at 3,826 GWh. Ofgem then outlines (Annex 4, paragraphs 3.42 and 3.43) the calculation which converts the 2018/19 UIG figure into the 0.96% uplift to be included in the cap.

Post Project Nexus, the AUGE is tasked with determining weighting factors to allocate UIG between the new meter point classes in Nexus. The AUGE quantifies 'temporary UIG' and deducts it from total UIG to leave 'permanent UIG' with each defined as follows:

- Temporary UIG – these are factors relating to known or identified errors or defects in measuring or estimating gas throughput, eg shrinkage and meter errors.

[5] 'Final Allocation of Unidentified Gas Statement for 2018/19', DNV GL, 8 June 2018 https://www.gasgovernance.co.uk/sites/default/files/ggf/book/2018-06/Final%20AUGS%20for%202018_19_V3.0.pdf

- Permanent UIG – known but unquantified factors such as unregistered and shipper-less sites and theft of gas which are issues suppliers can arguably, tackle. Permanent UIG is used by the AUGE to determine the weighting factors for allocating UIG between Nexus meter point classes.

In the 2018/19 report the AUGE explains that it used a dataset running from the 2010/11 gas year to the 2015/16 gas year to extrapolate to the 2018/19 UIG forecasts[6] and acknowledges it has not had access to Nexus data. The AUGE then proceeds to estimate the main components of UIG. The main component of permanent UIG is a balancing item which is undetected theft. Estimates of theft range from 0.06% to 10% of throughput and therefore any estimate of theft should be treated with caution.

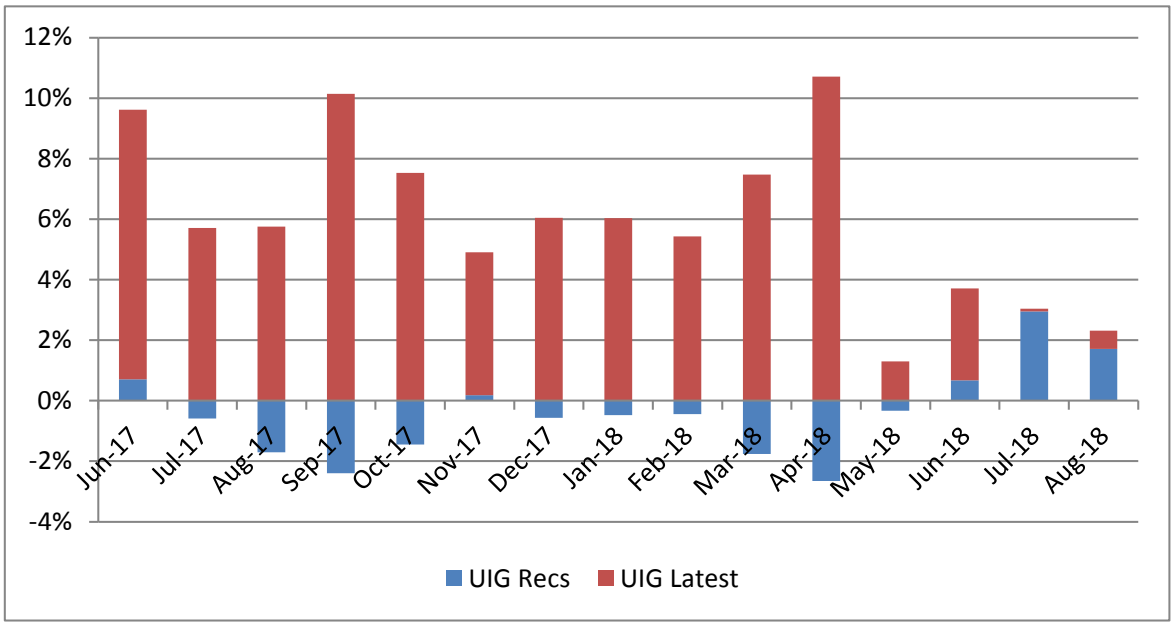
Data from Nexus

Nexus is the industry system for managing gas settlement and meter point administration. It was introduced to provide, amongst other things, reconciliation of individual meter points in anticipation of smart meters. Since the introduction of Nexus. the gas settlement process has been reformed such that all submitted meter reads are reconciled against total metered gas throughput for each gas settlement day.

In broad terms, for each gas settlement day total throughput is obtained from the NTS entry point meters. After subtracting daily meter (DM) site and LDZ offtakes and shrinkage, the remaining balance is attributable to a combination of Non-Daily Metered (NDM) demand and UIG. For each settlement day an initial allocation is determined, splitting the residual balance between NDM demand and UIG using the NDM algorithm. Over the following four years this balance is progressively 'actualised' against submitted NDM reads for the given gas settlement day. Most settlement days typically reach over 80% actualisation within 9-10 months.

In Figure 1 below the height of the red columns shows the current levels of actualised UIG for each calendar month since June 2017.

Figure 1: National UIG as % of NDM and net reconciliation adjustment



[6] Ibid, Section 4

It may be seen that UIG varies over a range from 0.6% to 10.7%, with an average of 5.6%, around six times Ofgem's 0.96% uplift. The blue columns show the cumulative movement in UIG for each month from Initial Allocation to the present level of actualisation. The reduction in UIG from May 2018 onwards is not expected to be a sustained effect. The levels of UIG are lower than in previous months for a number of reasons including:

- A known deficiency in the current NDM algorithm results in over-stated Gas Allocation when national demand drops below a certain threshold, resulting in temporarily low UIG; these months were characterised by exceptionally high temperatures in the UK and therefore unusually low demand.

- There is a known issue with the weather/pressure correction factor that has the effect of understating UIG in summer months.

- There remain a number of functional issues with UKLink following the Nexus migration that overstate AQs and Gas Allocation and thereby temporarily suppress UIG; these factors are more visible in the months in question given the lower underlying summer gas demand.

- The proportion of meter reads submitted and reconciled for these months is less than for previous months; UIG in these months should increase as the meter reads continue to be processed.

Figure 2 shows how the movements of each calendar month's UIG (the blue bars in Figure 1) are broken down into monthly adjustments (positive or negative). In the early months there is considerable volatility but the values stabilise as time goes on.

Figure 2: Aged UIG Recs (National)

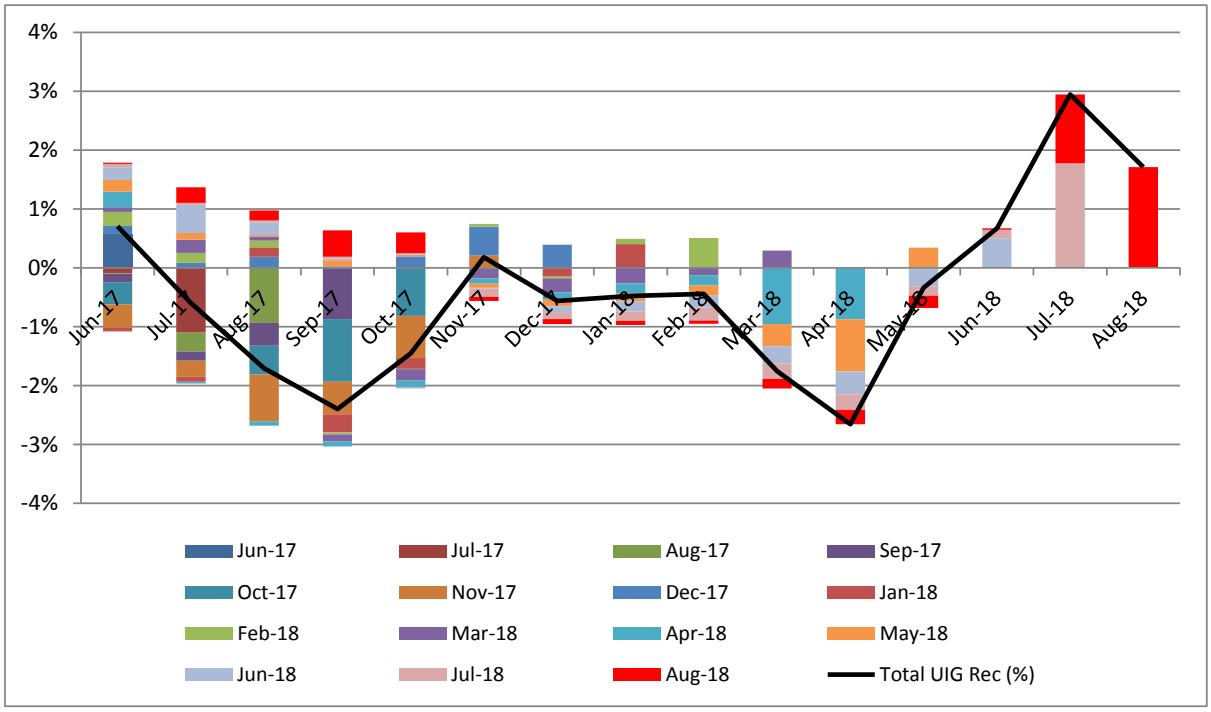
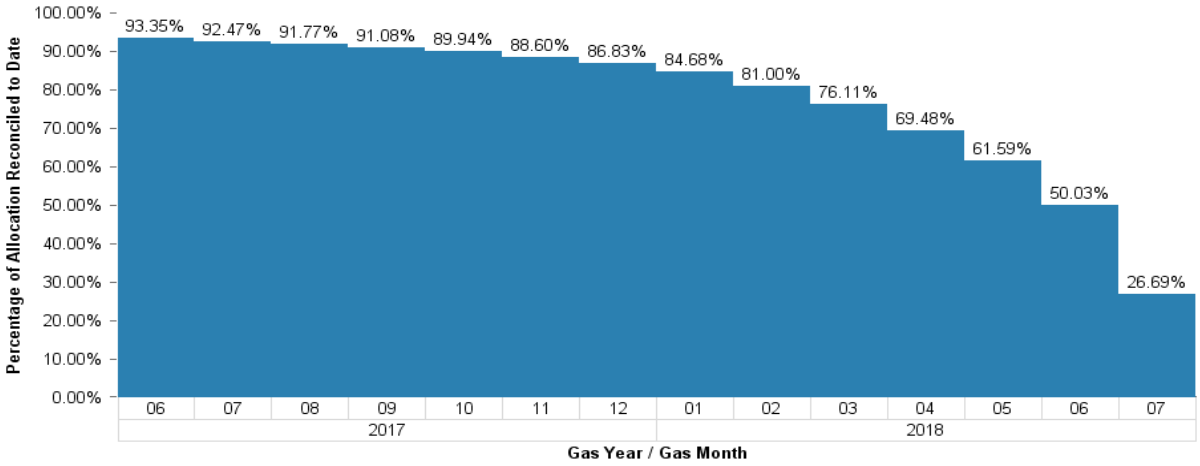


Figure 3 shows the proportion of meter reads that have been reconciled and actualised for each month. The chart shows that in the months of 2017 there is already over 90% meter read actualisation, suggesting that the UIG percentages are unlikely to change materially up to the end of reconciliation D+4 years; indeed the same can be said of the first few months of 2018.

Figure 3: % Allocation reconciled June 2017 to July 2018 (Classes 3 & 4)



The table below shows a comparison of the AUGE's forecast of permanent UIG for 2017/18 (4,113 GWh) against the actualised UIG data from Nexus for a similar period in. The actualised UIG is nearly 6.5 times the AUGE's forecast of permanent UIG.

Measure of UIG	Period covered	UIG (GWh)
AUGE forecast for 17/18 gas year	Oct 17 to Sep 18	4,113
Nexus actualised UIG (as at Sep 2018)	Sep 17 to Aug 18	26,654
Ratio		6.5

We believe a similar scale of divergence will occur between Nexus actualised UIG data and the forecast for 2018/19. In other words, Ofgem's 0.96% uplift is likely to be substantially below actual UIG volumes suggesting a more accurate value would be at least 5%.

Drivers of UIG and the Xoserve UIG Taskforce

In response to the unexpectedly high levels of UIG and associated volatility emerging post Nexus go-live (as shown in Figure 1 above), a "UIG Taskforce" was established to investigate and identify reasons for the scale and volatility of UIG.

With regards to volatility, the taskforce is reviewing the efficacy of the NDM algorithm and the impact of weather effects. The taskforce will also identify possible drivers of UIG over and above theft and other permanent UIG drivers.

Acknowledging the significance of UIG, in particular for the cash flows of suppliers, the taskforce has committed to completing its initial reviews by the end of 2018. We would expect any "easy wins", such as modifications to the NDM algorithm, to be implemented as soon as possible, while further workstreams will be initiated to resolve other issues such as the static error correction factors, during 2019.

What is clear is that Ofgem's assertions that exposure to UIG can be reduced by simply submitting more reads is not borne by the post Nexus actualised data. The data suggests that there are additional hitherto unrecognised factors driving the scale and volatility of UIG.

It is only post-Nexus that the impacts of these "errors" are now manifesting in larger than expected UIG volumes. We suspect one of the most significant of these issues is the static error correction factor. The Xoserve taskforce should provide some insight into what these factors are and how they can be addressed. The actualised data also suggest that, given the scale of UIG, there are likely to be more significant drivers of UIG other than theft; indeed theft is not included in the shortlist of priority areas for investigation by the taskforce.

3. UIG Price

Ofgem's UIG cost allowance effectively assumes a hedging strategy in which total gas volumes including UIG are purchased at quarter ahead prices. As we have noted above, the volumes of UIG post Nexus have been extremely volatile across time, making it difficult for suppliers to purchase the correct UIG volume in advance. In practice, much of UIG is either purchased at spot prices on the settlement day or subject to imbalance cash-out at System Average Price (SAP). (As one would expect, spot prices are correlated closely with SAP so the associated costs will be similar.)

The additional UIG price effect arises because of the difference between quarter ahead prices (which Ofgem implicitly assumes UIG volumes are purchased at) and the spot/SAP price. This price difference is correlated with the volume of UIG, so that the price difference is high when UIG volumes are high and the price difference is low when UIG volumes are low. The impact of this price-volume correlation is illustrated in the chart and table below, which shows what the difference in cost for ScottishPower would be between hedging actual UIG volumes at quarter ahead prices and purchasing the UIG at daily SAP prices, for the 14 month period June 2017 to August 2018.

The total cost of UIG over this period is £[✂]m at quarter ahead prices and £[✂]m at daily SAP prices, a difference of [✂]%. (In the absence of correlation the costs would be expected to be very similar.) If UIG volumes were stable and predictable, without the volatility seen at present, suppliers would be better able to hedge UIG in advance and avoid this issue, and this is the reason why the UIG Task Force has been focusing on this issue.

However, until such time as the volatility in UIG is reduced or removed, suppliers will face this additional [✂]% price-related uplift to UIG costs. So if the UIG volume percentage is determined to be 5%, say, the cost allowance for the purpose of the price cap should be 5%*(1+[✂]%) = [✂]%.

Figure 4: Variance between UIG costs at quarter ahead prices and spot prices

[✂]

	Cost at quarter ahead (£m)	Cost at spot (£m)
Jun-17	[✂]	[✂]
Jul-17	[✂]	[✂]
Aug-17	[✂]	[✂]
Sep-17	[✂]	[✂]
Oct-17	[✂]	[✂]
Nov-17	[✂]	[✂]
Dec-17	[✂]	[✂]
Jan-18	[✂]	[✂]
Feb-18	[✂]	[✂]
Mar-18	[✂]	[✂]
Apr-18	[✂]	[✂]
May-18	[✂]	[✂]
Jun-18	[✂]	[✂]
Jul-18	[✂]	[✂]
Aug-18	[✂]	[✂]
Total	[✂]	[✂]
Uplift (%)		[✂]

4. Conclusions and way forward

Ofgem's 0.96% uplift for UIG is substantially below the actual levels of UIG that suppliers are liable for. The data now available from Nexus shows that while UIG is volatile across the year it is nevertheless around six times higher than the AUGE's forecast of "permanent" UIG and of Ofgem's proposed uplift. It seems likely that there are a variety of additional "temporary" UIG drivers whose causes may be better understood following the work of the UIG Taskforce. We would expect the AUGE to be able to take account of the Nexus data in its 2019/20 forecast and we would expect this to be closer to the actualised UIG volumes post Nexus.

What is also clear from the Nexus data is that the higher levels of actualised UIG persist even when proportions of meter reads submitted exceed 80%-90% and therefore Ofgem's assertion that suppliers can reduce exposure to UIG by simply submitting more reads is groundless. It is also likely that theft is not a material driver of present levels of UIG and therefore Ofgem's proposed uplift disallows the majority of UIG cost while suppliers have little ability in themselves to reduce UIG volumes.

Ofgem should undertake an urgent review ahead of the April 2019 (or failing that October 2019) price cap to establish a new approach to setting the UIG allowance in the price cap on a 'pass-through' basis, taking into account:

- the findings and actions of the UIG taskforce which will be completed within 12 months;
- analysis of the additional data on actualised UIG available from Nexus;
- the AUGE's forecast of UIG for 2019/20 as it is developed up to the final report in June 2019.

The review should consider whether the UIG percentage could be updated for each price control period on an ex post basis (based on a moving average of historic values calculated by Xoserve) or, depending on the success of the Task Force in improving UIG predictability, on an ex ante basis using Xoserve forecasts. It should also consider whether it should be set on a national average basis or a regional basis (as is done for electricity losses).

Annex 3

NON-PASS THROUGH (NPT) SMART METER ROLLOUT COSTS

1. Introduction

As mentioned above (Annex 1, section 3) we have identified a significant shortfall between Ofgem's estimates of non-pass-through SMNCC and our own, which we do not believe can be accounted for by efficiency differences.

The severe limitations of Ofgem's disclosure room have prevented us from properly understanding the basis for Ofgem's SMNCC cost estimates or indeed how they break down between the various cost and benefit categories cited. However, on the basis of the limited information available to us, we believe the shortfall in Ofgem's estimate of NPT SMNCC arises from the following factors:

- over-estimated benefits from avoided meter reads
- over-estimated installation productivity gains between 2017 and 2018
- under-estimated costs of early termination of legacy meters
- under-estimated NPT costs of supporting SMETS1 meters during 2019

These are explained below.

2. Benefits from avoided meter reads are significantly over-estimated

The redacted report from our advisers (provided alongside this response) reveals that the largest difference in estimates of benefits between Ofgem and ScottishPower is in 'avoided meter reads'.

The table below is an excerpt from BEIS' Smart Meter Rollout Cost Benefit Analysis showing their assessment of benefits from avoided site visits (average per meter per year). We assume that this may form the basis of Ofgem's estimate but we are unable to verify this because benefits are hard-coded figures in the disclosure room. When comparing the savings assumed by BEIS against our actual reported 'current world' costs (ie the amount that would be saved by smart meters) the table below demonstrates that the BEIS model is over optimistic regarding the quantification of benefits from avoided meter reads.

Visit type	Average cost per meter[7] (BEIS)	Average cost per meter (SP)
Regular meter read	£6 per credit meter pa, £0 per PPM meter pa	£[✂] for all meter types* pa (2016 Annual Supplier Return)
Special meter read requested by customer	£0.5 per credit meter pa, £0 per PPM meter pa	£[✂] for all meter types* pa (2016 Annual Supplier Return)
Special safety inspection	£0.88 per meter pa (assume no longer required for smart as captured under the risk based approach)	£[✂] per meter pa (2017 Annual Supplier Return) *None in 2016*

* Assuming ~15% of meters are prepayment, the cost for all meter types (the metric used by SP) can be converted to the cost per credit meter (metric used by BEIS) by dividing by 0.85.

[7] The cost per meter is the unit cost of the read times the average number of reads per annum. The special reads are more expensive but carried out less frequently, hence the lower average cost.

We have also found BEIS' modelling (and we assume Ofgem's) to be over optimistic on the speed of realising benefits by assuming full benefits are realised in the first year a smart meter is installed. Our estimate assumes that in the first year of installation we reduce meter read costs by 50% because a customer with a new smart meter may already have had on-site meter reads earlier in the year. We only assume full benefits for avoided meter reads from the second year after a meter is installed.

3. Installation productivity gains between 2017 and 2018 are significantly over-estimated

Over 2017 ScottishPower's installer productivity performance reached [✂] installs per FTE per day. However our expectation is that this productivity will decline in 2018 and subsequent years for a number of reasons:

- decreasing customer demand for smart meters;
- lower customer density (ie installers have to travel further between installation sites);
- more complex installations (lack of appropriate technology having prevented earlier rollout).

We are also aware of global shortages in the supply of smart meter components and lengthening procurement timescales which are hampering productivity. We anticipate the issue of component availability becoming more acute as suppliers conduct rollout activity in compressed timescales to meet the 2020 deadline. This issue may become more apparent with confirmation of the SMETS1 end date and the commencement of SMETS2 deployment at scale.

Based on the above, our rollout submission to Ofgem in February 2018 assumes an average of [✂] installs per FTE per day from 2018 onwards.

	2018	**2019**	**2020**
Installer productivity: average Relevant Meter installs per FTE per day	[✂]	[✂]	[✂]
Internal blended Scottish Power Metering	[✂]	[✂]	[✂]
[✂]	[✂]	[✂]	[✂]
[✂]	[✂]	[✂]	[✂]
[✂]	[✂]	[✂]	[✂]
[✂]	[✂]	[✂]	[✂]
Total number of FTE installers working on smart	[✂]	[✂]	[✂]
Internal FTE	[✂]	[✂]	[✂]
Third Party	[✂]	[✂]	[✂]

Our advisers have informed us that Ofgem has used a simple mean of the "Big 6" suppliers who submitted a non-zero figure and calculated the average installer productivity in 2017 and 2018. The percentage difference between the two years equates to around 40% and is assumed to be the efficiency adjustment Ofgem makes to the variable cost element of installations. However, other suppliers' data is not disclosed and we have no visibility of adjustments or assumptions Ofgem has made.

The information we have reported to Ofgem shows our productivity falling by [✂]% from [✂] to [✂] average installations per FTE per day and is at odds with Ofgem's assumption of a 40% improvement in productivity. Therefore, we find this adjustment to be an extreme and

highly questionable step change in assumed productivity improvement. As far as we can tell, these costs are not included in Ofgem's estimates.

4. Costs of early termination of legacy meters are significantly under-estimated

Our advisers have informed us that the divergence in cost estimates between Ofgem and ScottishPower in 2018 and 2020 is largely driven by installation, meter and IHD costs. We believe a significant proportion of this can be attributed to early replacement charges (ERC) of legacy meters. Our forecast ERC for 2018 to 2020 is shown in the table below.

	2018	2019	2020
Early replacement charges	£[✂]m	£[✂]m	£[✂]m

We note that ERCs are not captured in Annual Supplier Reports (ASR) which may limit the updating of these costs in BEIS' smart model which Ofgem has adopted. As previously mentioned, we are unable to verify this because of limitations in the disclosure room process.

Government has recently decided, subject to legislation, that SMETS1 meters not enrolled in the DCC should be replaced with a SMETS2 meter before the 2020 deadline. As well as significantly increasing installation costs (having to return to an installation to replace it or investigate a failed migration to the DCC), this proposal would generate significant meter asset costs associated with ERCs for relatively new SMETS1 meters.

5. NPT costs of supporting SMETS1 meters during 2019 are significantly under-estimated by assuming that all SMETS1 meters will have been migrated to the DCC at the start of 2019.

Ofgem's treatment of meter volumes uses a simplified split of SMETS1 to SMETS2 smart meters, assuming that up to the end of 2018 100% of smart meters will be SMETS1 and from the start of 2019 onwards all newly installed smart meters will be SMETS2.

The Government's response to the consultation on maximising interoperability for first generation (SMETS1) smart meters will, subject to legislation, place a number of obligations on suppliers which will result in the continued installation of SMETS1 meters in 2019 and exposure to costs of supporting them. These obligations are as follows:

a) Energy suppliers would be required to take all reasonable steps to enrol their 'eligible SMETS1 meters' in the DCC within 12 months of the point at which they can be enrolled.

b) Where an energy supplier acquires an eligible SMETS1 meter following change of energy supplier and the meter is not enrolled, the new energy supplier would be required to take all reasonable steps to enrol the meter within 12 months of acquiring the meter.

c) Energy suppliers would be required to take all reasonable steps to replace any SMETS1 meter which is not enrolled in the DCC with a SMETS2 meter by the end of 2020.

We have been installing SMETS1 meters for our customers using data and communications systems provided by [✂]. In light of the 12 month timeframe in the obligations above we will continue to incur [✂] costs throughout 2019. For SMETS1 meters which have either not yet

been confirmed for enrolment in the DCC (ie Secure and EDMI meters), or are not included in Initial Operating Capability (IOC) (ie L&G), we would be exposed to the additional costs of procuring the necessary system interfaces if we were to choose to support their operation with smart functionality outside of the DCC.

Our assessment of the system impacts of enrolling SMETS1 meters into the DCC in accordance with BEIS' preferred solution concluded that it would necessitate significant changes to all of our core smart system components. Coupled with internal procurement processes, these changes would require a minimum twelve-month timeframe to implement ie we would need twelve months from the point at which the detailed solution design is finalised by the DCC to us designing, building, testing and implementing systems changes to interface with the DCC. As we still await publication of the DCC's detailed solution design, we have been largely unable to progress with our own systems modifications but are anticipating considerable IT-related NPT costs throughout 2019 once the process begins.

For these reasons, the ongoing NPT costs of supporting SMETS1 meters (eg communications systems) during 2019 are likely to have been significantly under-estimated, but due to deficiencies in the disclosure room our advisors have been unable to confirm.

Annex 4

OPERATION OF OFGEM DISCLOSURE ROOM

1. Context

1.1 In ScottishPower's letters of 14 June and 17 July 2018 to Ofgem, detailed representations were made on the inadequacy of the information made available as part of Ofgem's 25 May 2018 policy consultation. In this correspondence ScottishPower suggested that a resolution to Ofgem's concerns over confidentiality would be addressed if Ofgem established a data room to make confidential material available to stakeholders' professional advisors. Ofgem's position was that there was no need for additional information/data to be provided as *"there is sufficient available information to ensure our consultation is duly transparent and the information…is sufficient to enable stakeholders to respond effectively to the consultation."*[8]

1.2 On 19 August 2018, Ofgem issued an open letter to stakeholders advising that it intended to open a 'Disclosure Room' (**DR**). On Tuesday 11 September 2018, Ofgem provided interested parties with drafts of the DR rules, advisor and interested parties' undertakings. Signed undertakings were required by 5pm on Friday 14 September 2018 to gain access to the DR when it opened on Monday 17 September 2018. The DR remained open until Wednesday 3 October 2018.

1.3 ScottishPower requested access to the Disclosure Room by letter dated 4 September 2018. That letter also raised concerns over the adequacy of the content of the Disclosure Room, and the proposed arrangements for access. On 13 September 2018, ScottishPower again wrote to Ofgem expressing concerns over the adequacy of the DR arrangements and the data Ofgem proposed to make available in the DR. ScottishPower also identified drafting inconsistencies and errors in the undertakings issued by Ofgem, and, highlighted divergence from CMA practice. In particular, Ofgem required ScottishPower to sign an undertaking despite having no access to the DR. Given the critical importance of gaining access to the information contained in the DR (rather than having no access at all), and given the time constraints imposed by Ofgem, ScottishPower had no option but to sign undertakings 'under protest' and under reservation of all rights. This remains the basis on which ScottishPower participated in the DR. Ofgem emailed ScottishPower on 14 September 2018 attaching amended versions of the undertakings, and saying it would respond to parties separately on comments and suggestions that had not been taken forward in the amended undertakings. Ofgem finally responded to ScottishPower's letters dated 4 September and 13 September 2018 on 5 October 2018, by which time the DR had closed. Ofgem's letter of 5 October 2018 failed to address the specific points raised concerning the DR process.

1.4 ScottishPower expressed the view in that letter of 13 September 2018, that the approach being adopted to the DR would be unlikely to withstand judicial scrutiny. This remains our view. The approach Ofgem has taken during the DR exercise to, for example, reporting has done nothing to ameliorate that view; on the contrary, this fortifies our view that Ofgem has failed to meet its duties of transparency and fairness.

[8] Ofgem letter to ScottishPower dated 22 June 2018

1.5 Given the significance of the issues ScottishPower raises in this context, we call on Ofgem to re-open the DR, allow a meaningful opportunity for interested parties to make representations on the terms of the undertakings and DR rules, and crucially, ensure that a full disclosure of all relevant data is provided to advisors who have executed undertakings.

2. Limitations

2.1 There are a number of fundamental limitations to the data provided by Ofgem in the DR, which have prevented ScottishPower's economic and legal advisors from carrying out a comprehensive and full analysis of Ofgem's consultation proposals. As such, ScottishPower has been hampered in making full representations, in breach of Ofgem's obligations to ensure fairness and transparency in the consultation.

2.2 In particular, the DR was inadequate and breached the principles of transparency and fairness for the following reasons:

2.2.1 Ofgem has constrained ScottishPower's external advisors' ability to analyse and consider the confidential data in an unacceptably restrictive way. In particular, Ofgem has refused to allow external advisors (all of whom have executed undertakings) to draft and share a confidential report between themselves. There is no justification for such a restrictive approach in the undertakings, and Ofgem has failed to explain why the reporting restriction is justified, save for simply stating that the information is confidential/sensitive[9].

2.2.2 Ofgem has failed to explain adequately why full disclosure of the model and accompanying data cannot be made to external advisors who have executed undertakings. The governing rationale for a data/disclosure room is to provide confidential information and data in a controlled way to external advisors (but not to parties). However, it is a fundamental principle that the facilities available in a data/disclosure room must enable parties to provide a "proper and informed (or 'worthwhile') response" (per the Competition Appeal Tribunal (CAT) in BMI Healthcare.[10] Ofgem's rules for the operation of the DR in this case and its failure to make a full disclosure has rendered the entire exercise not fit for this purpose by hampering external advisors' ability to analyse and consider the contents of the DR and thus to provide a 'worthwhile' response. This is in breach of the rules of natural justice.

2.2.3 Ofgem failed to provide a full list of input assumptions, and a full list of the sources for those assumptions. Where Ofgem decided not to use input data from the ASR it failed to explain why, or state assumptions relating to adjustments made to the Ofgem modelling, in the absence of direct input from Annual Supplier Report (**ASR**) data.

2.2.4 Ofgem failed to provide (i) an explanation and (ii) sourcing for many of the hard coded numbers presented in the data. Whilst unit cost data on smart meters, installations, in-home displays (IHDs) and communication hubs was extracted from the ASR data, and, as such, clearly sourced, this is not the case for many other inputs. Numbers in the models provided on DR computers mostly lead to a hard-coded input with no explanation or source. For example, all inputs on the "Inputs-benefits (default)" sheet, which are

[9] Shepherd +Wedderburn's email exchanges with Ofgem of 2 and 3 October 2018 refer.
[10] BMI Healthcare Limited v. Competition and Markets Authority (No.1), [2013] CAT 24 paragraph 69.

used to calculate smart metering benefits, are hard-coded and the column labelled “Source” was empty.

2.2.5 Ofgem failed to share necessary data with suppliers. The limited amount of information disclosed, combined with the undertakings restricting the data advisers could share, meant it was not possible for ScottishPower to properly test Ofgem’s assumptions. It has also prevented ScottishPower from gathering and assessing evidence on the costs or benefits suppliers actually experience. The strict approach taken by Ofgem to redaction has made it impossible for ScottishPower’s advisers to reveal input assumptions or provide a breakdown of Ofgem’s outputs. For ScottishPower to understand, for example, any divergence between Ofgem’s model and internal modelling, it would have been necessary to convey some of this information. For example, Ofgem should have allowed the sharing of, at the least, the following details from its model:

- a further breakdown of costs and benefits into the categories listed in table A7.3 of the statutory consultation;
- the net value of smart metering in the different years, rather than just the difference compared to 2017;
- input assumptions used where they do not directly rely on other suppliers’ data.

2.2.6 Ofgem failed to allow the results of the sensitivity analysis to be shared with ScottishPower.

2.2.7 Ofgem also failed to provide adequate models and data. The DR provides (limited) data on only two components of the tariff cap: wholesale costs and SMNCC, This limitation has meant that ScottishPower has been unable to assess (i) the robustness of the entire cap, and (ii) the consistency of assumptions used by Ofgem across multiple parts of the cap.

2.2.8 Ofgem has insisted on redaction of other suppliers’ costs. This has meant that ScottishPower has been unable to assess, or test, the effect of Ofgem’s adjustments on its own internal data both in relation to components of the cap and the overall level of the cap itself. As a result, ScottishPower has been unable to verify whether particular data points should have been excluded as outliers. For instance, if an average given in the Ofgem data, diverges significantly from Scottish Power’s figure, there is no way ScottishPower can assess whether this could be the result of an extreme outlier.

2.3 In addition, the access arrangements and operation of the DR were also inadequate:-

2.3.1 Only printed materials were allowed in the DR, presenting a significant barrier to comprehensive and efficient analysis. In particular, any alternative input data or analysis derived in Excel spreadsheets could only be brought into the DR as physical printouts, which meant it had to be manually inserted again into the DR computers. In addition to being inefficient, this process also introduced inaccuracies; for example, inadvertent rounding in analysis and the impossibility of tracing any formulae in the materials brought in.

2.3.2 Further inadequacy arose from Ofgem failing to provide its consultation documents in a pdf format on DR computers which would have allowed efficient searching for a specific parameter or word. Other practical inadequacies in the arrangements included the failure to provide a mouse with any of the DR computers, and the requirement that only two individuals could work in the DR at a time.

2.3.3 As noted in our letter to Ofgem of 4 September 2018, Ofgem refused to allow creation of a virtual DR, hampering the ability of advisors outside London from reasonable and easy access to the DR. There was no justification for this restriction.

2.3.4 Undertakings and DR Rules were issued only 3 days before Ofgem required them to be signed. This significantly restricted ScottishPower's ability to engage with Ofgem on the inconsistencies and errors in the undertakings, and to make representations to Ofgem. In reality, given the time constraints and Ofgem's failure to respond to ScottishPower, Ofgem in fact provided no opportunity for ScottishPower to address the significant concerns it had on the content and drafting of the undertakings. Consequently, the undertakings have drafting errors and are unnecessarily wide in scope. Ofgem's letter of 5 October 2018 failed to meaningfully address these important issues.

3. Legal context

3.1 Ofgem is required to conduct consultations within the framework of its Consultation Policy[11] including its public law duties to act transparently, and in a fair and reasonable way. In light of the significant issues identified above, ScottishPower considers that Ofgem has failed to act fairly and transparently, and as such, has failed to ensure that the DR and wider consultation have been conducted in a lawful manner. As a consequence, and in order to ensure the consultative process complies with relevant legal requirements, we have called on Ofgem to re-open the DR on the basis of a full disclosure of all relevant underlying data. This call for full disclosure is supported by relevant case law and the practice of the CMA.

3.2 A key issue raised above is Ofgem's failures to provide full access to the model, to explain hard coded numbers and to provide additional relevant materials/models and assumptions. In this context, principles of procedural fairness require that parties should be able to make "worthwhile representations" and should be informed of the 'gist' of the case. Further, *Eisai Ltd v National Institute for Health and Clinical Excellence (NICE)*[12] established that the term 'gist' can require significant access to underlying data/models. Whilst *Eisai* concerned the judicial review of guidance issued by the UK's National Institute of Clinical Excellence (NICE), the observations on the limited model produced in that case have parallels with the limited model produced by Ofgem discussed above. In *Eisai* the model was 'read only' which did not comply with the requirements of fairness. However, in its judgment, the Court of Appeal required that a fully executable version of the model be provided as NICE's failure to do so placed "…*consultees…at a significant disadvantage in challenging the reliability of the model. In that respect it limits their ability to make an intelligent response on something that is central to the appraisal process"*[13]. The limitations identified above amply support the view that Ofgem has failed to act in a fair and

[11] https://www.ofgem.gov.uk/consultations/our-consultation-policy
[12] CI/2007/2219
[13] Ibid. paragraph 66

reasonable way, and failed to provide sufficient data in the DR to allow meaningful engagement in the consultative process.

3.3 This approach to disclosure was followed by the Competition Appeal Tribunal (**CAT**) in the subsequent case *HCA International Limited v Competition and Markets Authority*[14]. In this case, access to data and modelling methodology was required in relation to a particular piece of analysis carried out by the CMA. Specifically, HCA requested access to "*data and the CMA's computer model in an executable form, so that its economists can test and review the processes adopted by the CMA*"[15] in producing the relevant analysis. We submit there are very clear parallels with the position of HCA in that case and ScottishPower in the present.

3.4 Following the Court of Appeal's judgment in *Eisai*, in *HCA* the CAT observed:-

1.1.1. "*The Court of Appeal recognised in Eisai that the claimant would be hampered in making representations with full force and effect on that issue without access to the relevant computer model and held that this would be unfair. Similarly, we consider that HCA would be hampered in presenting its case with proper force and effect in these proceedings without having access to the underlying data and the modelling, and that this would be unfair to it in the context of this litigation. In our view, therefore, Eisai does lend material support to HCA's application for disclosure."*[16]

3.5 The CAT ordered, *inter alia,* the following data to be disclosed to HCA's advisors: (1) the raw data; (2) the cleaned data; (3) the full details of the methodology, analyses, and various coding values used in the computer modelling to produce the analysis; (4) the means to reproduce the full set of results from each step of the analysis, including all the standard outputs, together with all results; and (5) the means to reproduce the full sets of results from any sensitivity analysis or robustness checks which the CMA performed, together with all such results as are in the possession of the CMA[17].

3.6 We consider that Ofgem's approach is, as a result, at odds with the principles of procedural fairness adopted by the CAT, and the Court of Appeal. No real attempt has been made by Ofgem to engage substantively on these issues with ScottishPower, and ScottishPower has, as a result, been unable to fully participate in the consultative process.

3.7 In order for Ofgem to comply with the legal requirements and principles articulated by the CAT and Court of Appeal, the Disclosure Room requires to be re-opened with full access to all relevant information, data and material.

[14] [2014] CAT 11
[15] Ibid. paragraph 5.
[16] Ibid. paragraph 35
[17] https://www.catribunal.org.uk/cases/122961214-hca-international-limited

Annex 5

SUGGESTED AMENDMENTS TO PROPOSED SLC 28AD

SMNCC definition and provisions for 2019 review

As noted above (Annex 1, section 5), we suggest the SMNCC definition in paragraph 28AD.11 is amended as follows:

$SMNCC_{j,k}$ is the value of the Smart Metering Net Cost Change in the 28AD Charge Restriction Period j, at Benchmark Annual Consumption Level k, comprising:

- the Smart Metering Pass-Through Net Cost Change, which the Authority will, subject to paragraph 28AD.15 and 28AD.16 below, determine and publish semi-annually in accordance with paragraph 28AD.19 and in the format set out in Annex 5; and

- the Smart Metering Non-Pass-Through Net Cost Change, which the Authority will, ~~subject to paragraph 28AD.15 and 28AD.16 below~~, publish in the format set out in Annex 5 and:

  - following consultation, re-publish in the format set out in Annex 5 following a review of the Smart Metering Non-Pass-Through Net Cost Change which the Authority will undertake during the course of 2019, such re-publication ~~not~~ to take effect ~~before~~ for the 28AD Charge Restriction Period starting on 1 October 2019; and;

  - otherwise, and subject to paragraphs 28AD.15 and 28AD.16 below and following consultation, re-publish in the format set out in Annex 5 where it appears to the Authority that it is necessary to do so, such re-publication not to take effect before the first day of the 28AD Charge Restriction Period immediately following the date on which it is published.

Definition of Standard Credit in paragraph 28AD.40

As noted above (Annex 1, section 12), we consider that payment methods with the same working capital costs as standard credit (such as ScottishPower's Quarterly Direct Debit payment method) should be included within the definition of standard credit. We suggest this could be achieved in this case by amending the definition as follows:

'**Standard Credit**' means a payment method whereby a Domestic Customer pays the licensee directly for Charges for Supply Activities after receiving a Bill, such payment not being a fixed amount drawn automatically from a Domestic Customer's bank account by reason of a direct debit authorisation or otherwise;

Provision for review of UIG

As noted above (Annex 1, section 2), we consider that provision needs to be included in the proposed standard licence condition committing Ofgem to undertaking and implementing, in time for the 28AD Charge Restriction Period commencing on 1 April 2019, an urgent review of the UIG allowance. Without such a provision, the timing requirements for licence modification in s.4 of the 2018 Act could lead to a delay in implementation beyond that date.

ScottishPower
October 2018