

By email: Anna Rossington Deputy Director, Retail Price Regulation Ofgem

29th May 2019

Dear Anna,

Reviewing smart metering costs in the default tariff cap

Thank you for the opportunity to respond. This review is of critical importance.

Our objective is to assist Ofgem with ensuring that the efficient costs of the smart programme are included within the cap, to enable the sustainable delivery of the programme and related benefits to customers. As suppliers are obliged to take all reasonable steps to install smart meters to domestic premises by the end of 2020, this requires, as per the Electricity and Gas Acts, that the necessary investment and activities are financed, otherwise the roll-out is compromised. We have significant concerns in this regard.

Our headline comments:

- We support the use of the updated SMIP CBA as the basis for the SMNCC. This should be cross checked with the findings of the National Audit Office report (2018) which highlighted the escalation of costs above the 2016 CBA;
- Ofgem's proposed two-stage approach does not prevent Ofgem from addressing the existing, known errors and shortfall (c£10 per meter) in the SMNCC for the October update;
- We explain how the notion that a lower than forecast roll-out profile means that the current SMNCC is above the efficient level of costs, is seriously flawed, and why any suggestion of a claw-back adjustment is wholly inappropriate. Suppliers should not suffer stranded fixed costs incurred to comply with smart obligations, arising as a result of a delayed roll-out due to factors largely outside our control (for examples, see Appendix 5 of our previous response appended to this letter).

Ofgem must keep the SMNCC under review as the smart programme progresses. We also highlight the policy and regulatory uncertainty around the post-2020 smart landscape, which may have implications for the price cap (dependent on the review of conditions for effective competition)

We expand on these issues in the appendix to this letter and would be happy to discuss further.

Yours sincerely,

Chris Harris Head of Regulation 07989 493912

Cc: Paul Finch, Regulatory Advisor

npower

Npower Group Ltd Trigonos Windmill Hill Business Park Whitehill Way Swindon Wiltshire SN5 6PB

T +44(0)1793/87 77 77 F +44(0)1793/89 25 25 I www.npower.com

Registered office: Npower Group Ltd Windmill Hill Business Park Whitehill Way Swindon Wiltshire SN5 6PB

Registered in England and Wales no. 8241182

Appendix: npower's response to "Reviewing smart metering costs in the default tariff cap" 29th May 2019

SMNCC (April – September 2019)

We previously raised concerns that all significant costs of the smart programme are not included within the cap methodology. This remains the case. Fundamentally, it seemed perverse to us to base the costs on the lower cost 2017 Foundation period in which DCC problems delayed mass roll out, rather than fully recognise the true costs of SMART in a 2019 mass deployment period including the cost consequences of those delays. In our response to the default price cap statutory consultation, we explained how smart costs were potentially understated by at least £10 per meter. Ofgem subsequently increased the SMNCC on average by £4.50 per meter (although this was offset by other cap adjustments).

Of the list we provided, we recognise that Ofgem amended some calculations around Comms Hubs in 2018, and deferral of supplier benefits, but all other issues we raised were not addressed, and hence remain. For example, traditional meter PRC charges. For ease of reference, we append the relevant appendix of our previous response which provided a breakdown of the shortfall.

We are particularly concerned about three issues which should be addressed in the price cap by inclusion and adding to the SMNCC from October 2019. These are:

- The failure to adequately address SMETS 1 costs; in particular the shorter asset life of 10 years (which increases current MAP charges) rather than Ofgem's incorrect assumption of 15 years and the additional communications costs. We estimate that these issues combined equate to around £5 per meter in 2019 (annualised). There are potentially further costs in 2020 (c£2 per meter) of SMETS 1 PRC charges resulting from the Enrolment & Adoption process;
- 2. The impact of the delay in the rollout, and the resulting inefficiency that is imposing on our business through stranded fixed costs, including labour costs. Further details on this are provided below, but at a high level we estimate this to equate to a further £3 per meter, although this may vary across the industry depending on individual MAP contracts;
- 3. IT investment costs it was not possible to quantify what Ofgem included in the price cap due to the lack of transparency, required in law, in the consultation process, but we do not believe they adequately reflect the increasing costs to the industry. Ofgem should clarify. In particular, the use of a 15 year asset life for IT investment is clearly inappropriate, and we were surprised and disappointed that Ofgem chose to continue using this assumption in the modelling despite it's obvious flaw. Since the consultation in 2018 IT costs have continued to increase due to industry delays, particularly around the prepayment solution and the rollout of dual band comms hubs (DBCH).

Accordingly, the SMNCC for the first two cap periods (January to September 2019) remains well below the actual costs incurred by efficient suppliers, and by a value that is broadly similar to the \pounds 10 per meter (minimum) that we stated in our consultation response in 2018. Much of this shortfall can, and should, be addressed in advance of the updated SMIP CBA and an adjustment made to the cap period starting in October 2019.

Impact of rollout profile on net costs

[×]

Ofgem indicate that as smart installations are likely to be lower than assumed in the non-passthrough model, allowances in the first two cap periods may be above the level of efficient costs. This is seriously and logically flawed. We are surprised and concerned that such an argument has been put forward when the financial dynamics of the smart metering rollout are well known across the industry.

It was a policy decision that the Smart programme be supplier-led, underpinned by a licence obligation to take all reasonable steps to install smart meters. As external agencies have limited resource, we and other suppliers invested in building the metering capability and expertise required to comply with our obligations. We have taken on fixed costs, including additional field installation engineers and back office staff, in anticipation of a rollout that has not materialised due to factors largely outside our control. We incurred those fixed costs in good faith and on the understanding that they would be externally funded and amortised over the life of the meter, in line with the practice across the industry. We would also highlight that high MAP charges are causing through life cost increases, particularly where acquired under "customer churn" arrangements.

We are being forced to incur inefficiency due to the delayed rollout as we have installation staff that cannot be efficiently utilised, and this manifests itself in the lower productivity rate (i.e. meters installed per day). These costs are not being offset by payments from the MAP where a smart meter has not been installed. The consequences of the delayed rollout is that suppliers received less income from the MAP (due to lower installations) but the cost base does not reduce by the same level due to a significant proportion being fixed. This drives up the net cost of smart during the current year, which is the exact opposite to the impact suggested by Ofgem above. The model of recovering installation costs through MAP charges is essential to avoid npower paying for a smart installation and then not being able to recover the cost from a customer if they leave us.

Ofgem seems to imply that the model assumes that 100% of smart costs are variable. This is not the case for our installation costs, which are a mixture of fixed and variable, and are offset by income from our MAP which is fully variable. The key smart costs and income for npower are:

- Cost of meter this is a variable cost based on the volume of meters purchased, and the cost is offset by income from the MAP. Therefore, a reduction in the rollout volumes will mean less meters purchased, and less MAP income, which should broadly offset each other. There will be working capital implications as changes to the rollout profile impact the number of meters held in stock;
- Installation cost whilst in the long term this cost is variable, in practice this is a mixture of fixed and variable costs. The smart rollout model used by the industry assumes that installation costs are offset by MAP Income;
- MAP installation income this is paid by the MAP to suppliers on completion of a smart meter installation and is fully variable;
- IHD and Comms Costs these are fully variable costs, so will reduce if there is a reduction to the rollout profile.

Consequently, the net impact of one less smart meter installed in 2019 is an increase in our net cost, and this should be reflected in the SMNCC as the majority of reasons for the delay to the rollout are industry related, not a reflection of supplier inefficiencies. We believe that the movement in the rollout from what was expected in 2018, to what is now planned in 2019, adds an additional £3 per meter to the SMNCC. This should be reflected in the price cap from October 2019.

SMNCC from October 2019

It is incumbent on Ofgem, in ensuring the financing of licensed activities (as per the Electricity Act 1989 and Gas Act 1986), that the three key issues of SMETS 1 costs, inefficiency caused by the delay to the smart rollout and supplier IT costs, are corrected for the third cap period starting in October 2019. In addition, we are extremely concerned about Ofgem's intimation of claw-back of the SMNCC in future prices caps. Whilst it is good that Ofgem has finally and inevitably recognised the merit of a recovery mechanism (as is the norm in price controls), the logic for clawback based on rollout rate is completely flawed as explained above. We elaborate on this further below.

Recovery/correction mechanism

Ofgem's indicates (without being explicit) that it could potentially introduce a claw-back when it calculates the allowances for the fourth and subsequent cap periods (paras 4.19-20). We reiterate and explain in this response, how the current SMNCC during 2019 is not above the level of efficient costs and is in fact short, despite the lower than forecast rollout.

The general lack of recovery is a fundamental error in the cap mechanism, out of keeping with standard regulatory practice in price control (for example in network regulation in Great Britain), and flowing a deadweight cost price control (for example in network regulation in Great Britain), and flowing a deadweight cost of risk into the economy. There really is no excuse for not using the Recovery mechanism to correct genuine variance between cap and costs.

The Recovery mechanism is simple. If a cost factor out-turns above/below forecast then the next price control is elevated/reduced to recover the difference. Whilst there does remain volatility in accounting earnings, which has a deadweight cost of credit premium, the bulk of the cost of risk is reduced greatly with a benefit to the economy (this is "win-win" not a zero sum game).

We do recognise that large Recovery adjustments can distort the competitive market because the regulated price is forced higher or lower than the prevailing market price. However, if the regulator's misforecast is small then the effect is small and if the regulator's misforecast is large then absence of Recovery puts the regulator in breach of EA89/GA86. Hence the need for recovery is overwhelming.

In *Smart* in particular, the absence of Recovery provides significant moral hazard, since government and the regulator may wish to avoid opprobrium from avoidable cost over-runs and therefore hide the smart cost outside the cap. This is turn reduces the incentives to control costs. Hence suppliers' revenues fall and costs rise. The Smart model remains opaque, notwithstanding the disclosure room with limited access and significant impediment placed in front of suppliers that made calculation more or less impossible.

The forecasts for some of these costs have been extremely volatile over the past few years. Although the projections of DCC fixed charges are becoming more robust, there remains uncertainty around AltHANCo¹ costs beyond March 2020.

The lack of a mechanism in the cap to correct for under-recovery results in deadweight cost of risk to suppliers and ultimately customers. It is incompatible with Ofgem's duties to have regard to the need to finance activities, particularly when coupled with a low margin. Ofgem's arguments for not correcting forecasting errors are weak. We do recognise that the recovery mechanism, in a price control can cause a slight decoupling to prevailing uncapped prices but we see any policy concern with this as small compared to the deadweight cost of risk. In practice, there are some similarities to the ex-post cost pass-through by suppliers in a competitive market.

For the avoidance of doubt, whilst we are generally supportive of recovery, there is no justification for clawback in respect of cap periods 1-3 as the SMNCC is below efficient costs.

Ofgem questions

Question 2.1: Do you agree with how we propose to consider an appropriate allowance for smart metering costs? Please explain your views.

In part.

The Tariff Cap Act (TCA18) did not repeal the Electricity Act 1989 and Gas Act 1986 (specifically, the financing duty) and does not have primacy. Hence it remains the case that Ofgem may not in law set prices below costs. Therefore TCA18, and Ofgem's implementation of it, must interpret and not change the definitions in EA89/GA86.

We recognise that Ofgem must set one cap for all suppliers. In the context of Ofgem's statutory duties, benchmarking to average costs is more appropriate than lowest quartile². However, we do not agree that this should be considered a conservative approach, as companies with above average efficient costs will lose money. Whilst we recognise that efficiency plays a role in the interpretation of EA98/GA86, the interpretation is clearly at the higher end of efficient costs. Ofgem should recognise the current strong incentives to be efficient to maximise investor returns.

Ofgem has previously cited lack of evidence from suppliers in relation to costs. We would request that Ofgem clarifies the evidence that it would accept, for example, in relation to accounting approach relative to Ofgem's assumptions (e.g. asset life, IT). The lack of transparency has also made it difficult to understand certain assumptions in order to validate or challenge with evidence.

Question 3.1: Do you agree with how we propose to review efficient smart metering costs? Please explain your views.

Yes.

We agree that Ofgem should use the updated CBA as the basis for updating the SMNCC, as this is preferable to the continued use of outdated assumptions from 2016.

However, we are disappointed that Ofgem does not consider it possible to update the basis of its analysis in time for the October cap update. It should be possible for Ofgem to liaise with BEIS and

¹ In smart meters, the standard Home Area Network (HAN) solution does not work for all. Hence the need for coordinated procurement of Alternative (Alt) standardised solutions ² We explained in the main price cap consultation how this logic was flawed. To take a single example, the lowest quartile spend on

buying cars every year is zero. Therefore cars are free.

consider the draft CBA, along with the collection of additional cost data that suppliers / Energy UK have identified as relevant to the calculation of the SMNCC.

In addition, we believe it should be possible for Ofgem to correct the basic errors in the current SMNCC calculations that we have identified above in advance of the updated CBA, and in time for implementation in the price cap period starting in October 2019.

We believe it is important for the updated CBA to be cross-checked with the NAO report to ensure that BEIS have taken on board the NAO conclusions. In particular, the NAO highlighted the escalation in costs (above the previous CBA) and the impact of delays to the programme.

Scrutiny and transparency

It is essential that Ofgem liaise closely with BEIS during the updating of the CBA, with relevant data collected in a timely manner, including gaps in Annual Supplier Returns that Energy UK has highlighted to BEIS and Ofgem.

We support in principle Ofgem providing the non-pass-through SMNCC model in a confidentiality ring, but not if impediments placed in front of licensees prevent effective scrutiny. The previous data-room exercise included unreasonable limitations on access to the disclosure room; the insistence on a physical disclosure room; the short time available for analysis and in particular the wholly excessive use of redactions that significantly undermined our ability to review the assumptions and calculations behind the complex modelling (e.g. IT spend – see Appendix 5 of our previous response, appended to this letter). The essence of a confidentiality agreement is to facilitate scrutiny of sensitive information not in the public domain, at least on an average and/or aggregated basis.

We are also concerned that Ofgem proposes access to the model with its final consultation as this will not provide sufficient time for effective scrutiny prior to decision. To ensure this process adds value in helping to set the SMNCC correctly, Ofgem should provide access to the model and assumptions with the initial consultation in August / September 2019.

Question 4.1: Do you agree with how we propose to set the allowance for the third cap period? Please explain your views, and any alternative proposals if applicable.

No.

Ofgem does not need to wait for the updated CBA to address the known errors and shortfall in the SMNCC for the price cap period starting in October 2019 (as highlighted in our response to the statutory consultation and reiterated in this response). In particular:

- The failure to adequately address SMETS 1 costs; in particular the shorter asset life of 10 years (which increases current MAP charges) rather than Ofgem's incorrect assumption of 15 years and the additional communications costs. We estimate that these issues combined equate to around £5 per meter in 2019 (annualised). There are potentially further costs in 2020 (c£2 per meter) of SMETS 1 PRC charges resulting from the Enrolment & Adoption process;
- 2. The impact of the delay in the rollout, and the resulting inefficiency that is imposing on our business through stranded fixed costs, including labour costs. Further details on this are provided below, but at a high level we estimate this to equate to a further £3 per meter, although this may vary across the industry depending on individual MAP contracts;

npower's response to SMNCC review (May 2019)

3. IT investment costs – it was not possible to quantify what Ofgem included in the price cap due to the lack of transparency in the consultation process, but we do not believe they adequately reflect the increasing costs to the industry. Ofgem should clarify. In particular, the use of a 15 year asset life for IT investment is clearly inappropriate, and we were surprised and disappointed that Ofgem chose to continue using this assumption in the modelling despite its obvious flaw. Since the consultation in 2018 IT costs have continued to increase due to industry delays, particularly around the prepayment solution and the rollout of dual band comms hubs (DBCH).

Question 4.2: Do you agree with how we propose to set the allowance for the fourth cap periods and beyond? Please explain your views, and any alternative proposals if applicable.

Yes.

We agree, in terms of using the updated CBA for a complete review of the SMNCC ahead of the fourth cap period.

However, we have explained above how the current SMNCC during 2019 is not above the level of efficient costs and is in fact short, despite the lower than forecast rollout.

Ofgem's indication (without being explicit) of potentially introducing a correction mechanism, would be inconsistent with Ofgem not allowing such an approach in relation to pass-through smart costs.

Ofgem must keep the SMNCC under review as the smart programme progresses. We also highlight the policy and regulatory uncertainty around the post-2020 smart landscape, which may have implications for the price cap (dependent on the review of conditions for effective competition).

Extract from npower's response to statutory consultation (Appendix 5: Smart costs)

Summary Framework

We welcome the proposal to identify smart metering costs as a separate element of the price cap, and the decision to separate smart costs between pass-through and non-pass-through. Whilst this is a positive step, we have a number of comments and significant concerns, which are outlined below, about the approach and the detail behind some of the assumptions.

The methodology used in the calculation of smart metering costs is a relative, rather than absolute, calculation. Whilst we understand the theory behind this, the methodology requires assuming that the 2017 cost submissions are reflective of smart costs at that point, and then specifically identifying cost movements. It also requires unpicking some costs from 2017 that are now defined as pass-through, and then reapplying those costs in the new category. This process has added unnecessary complexity, and we have had to spend a considerable amount of time in the consultation period reviewing these cost movements to attempt to identify that they have correctly been moved from non-pass-through to pass-through. The restrictions of the data disclosure room have meant that we have not been able to do this, and therefore we have no assurance that the principles behind the SMNCC have been applied in practice.

We believe that going forward it would be preferable to calculate the smart costs as an absolute number, rather than referencing to a baseline period that was very different to where we will be in late 2019.

Whilst the relative principle has been used in the prepayment price cap, there has been significantly more movement in smart metering as the programme rolls out, and therefore we believe that an absolute method would be more appropriate. Therefore, we suggest that when Ofgem reviews smart for the cap periods from October 2019 this methodology is used. In particular, we would like assurance that the choice of methodology will not be influenced by any desire to avoid revealing the true cost of smart metering to consumers.

Pass-Through Costs

As mentioned above, we welcome the decision to include smart related industry costs as a straight pass-through for the purposes of calculating the price cap. These are unavoidable costs over which suppliers have no discretion, and are in principle no different to network charges or social / environment obligations. As with several other factors, Ofgem's minded to decision not to follow standard best practice in price control by having a Recovery mechanism, the absence of Recovery of cost true up from forecast to actual causes perverse incentives to under-forecast and the further effect of increasing costs (having escaped public scrutiny)

We have some comments on the detail of the pass-through costs as they are outlined in the consultation:

• The use of a relative methodology adds unnecessary complexity to the process given that the absolute charges are available for the cap period. These are laid out in Annex 5, and could be used as an absolute number. The need to reference back to 2017 is also made more complicated by the lack of a like for like comparison for some costs. Particular examples are Dual Band Comms Hubs (DBCH³) and Alt HAN costs, which were not specifically identified in the DCC charges prior to 2018.

³ Where the local geography and fabric of the home does not work well for one of the two standard radio frequencies

- Our concerns on the relative methodology are exacerbated by a comment that appears a number of times in Annex A of Appendix 7, which at best can be described as misleading. This comment states that "DCC Charges are included in the SMNCC as pass-through charges". This is incorrect it is only the movement of DCC charges since the April September 2017 charging period that is included. The same principle applies to Smart Energy GB costs. These costs from 2017 should remain within the baseline non-pass-through costs, but due to the restrictions and redactions of the data disclosure room we have been unable to ascertain whether this is the case. Therefore, we are concerned that the principle of pass-through costs has not been applied in practice and that these costs are not fully included in the price cap;
- Our concerns about the volatility of DCC charges, and in particular the Alt HAN costs have not been addressed. We believe that for the principle of "pass-through" to work in practice there has to be a reconciliation with actual charges. Anything less means that these costs are no longer "pass-through". We are particularly concerned by the somewhat cavalier approach in paragraph 3.41 that suggests that because historic changes between DCC draft and final charging statements is "relatively low" they can be ignored. An efficient supplier cannot afford to simply ignore "relatively low" cost variances. In addition, the comment at the end of paragraph 3.41 is extraordinary – no supplier is likely to adjust standard variable and default tariffs as a result of DCC charges on their own, but when considering tariff changes ALL costs, including DCC charges, will be factored into the decision.
- Finally, there appears to be some small discrepancies between the DCC charges shown in Annex 5 and the DCC published statements:
 - The baseline charging period should, we understand, be the final DCC Charging statement for 2017/18, as published in March 2017. This shows electricity fixed charge to be £0.463 per month and gas fixed charge to be £0.350 per month. The charges shown in Annex 5 as the baseline are £0.473 and £0.358 respectively. We suggest that the numbers in the March 2017 published charging statement are used as the baseline.
 - The latest charging statement from DCC for 2018/19 (published in September 2018) are also slightly different from Annex 5, so we are assuming that these will be corrected for the first cap period (January to March 2019) and that the values for the second cap period (April to September 2019) will be based on the draft DCC Charging Statement for 2019/20 to be published in December 2019.

Comments on Non-Pass-Through Costs

It has been particularly challenging to assess whether the proposed non-pass-through element of the SMNCC is an accurate reflection of the principles outlined in the consultation due to the rules and restrictions of the data disclosure room. However, based on the information we have been able to obtain, together with the consultation proposal, we have identified five specific areas of concern which are outlined below:

Productivity Assumptions

We note the 40% productivity assumption increase that has been applied to the insourced variable costs, and that this has been applied on the basis of assumptions provided in supplier returns. However, based on the information available in the data disclosure room we cannot be comfortable

that this is an accurate reflection of supplier returns. We have the following concerns regarding the calculation of this increase:

- The 40% assumption is stated to be based on the average of six suppliers. However, as npower did not submit a 2017 figure, this is not the case unless data was used from five other large suppliers and complemented from information of one of the small or medium suppliers.
- It is unclear if the other five suppliers provided both 2017 and 2018 data, and if one or more suppliers did provide data for both years whether the sample is large enough for this assumption to be relied upon.
- It is unclear how robust this figure is, and it is unclear how it would be impacted if npower's 2017 figures are included, or if mid-tier suppliers are included.

Aside for these concerns around the methodology we are surprised that any supplier would be forecasting such productivity improvements at a time when the industry is transitioning from SMETS 1 to SMETS 2 meter rollout. In our Large Supplier Rollout Plan for 2018 we indicated that productivity would be impacted negatively in 2018 due to the national issues with SMETS 2. We are concerned that suppliers who predicted such productivity increases did not have a realistic view of the challenges facing the industry with the SMETS 2 rollout.

Furthermore, those productivity assumptions that were made were put together some time ago, either in late 2017 or early 2018. These were made on the basis of the industry rollout plans at that point in time, and assumed that SMETS 2 meters would be in mass rollout by late 2018 and early 2019. The assumptions on which the productivity improvements were made have moved on during 2018, and it is absolutely the case that the industry end to end testing of SMETS 2 meters has continued to experience multiple issues. Some examples of these are:

- Inconsistent communications in the Arqiva / North region differing outcomes on the same service request /command to the same Comms Hub (CH) when sent minutes/hours apart. This leads to a lack of confidence in or being able to prove overall stability/readiness for next stage of roll out.
- Communications drop in the Arqiva / North region Communications to CH working fine and then drops off the network and doesn't return until the next day/days after. This leads to a lack of confidence in or being able to prove overall stability/readiness for next stage of roll out.
- Traditional Registration Data Update Feed in Data Services Provider (Core DCC) customers who have changed supplier but the core registration data in DCC still shows the old supplier. Unable to install against the meter point (MPAN/MRPN).
- End to End (E2E) Change of Supplier spanning DCC there are a number of issues in DCC's change of supplier process on both the loss and gain journeys, meaning the overall solution doesn't work.
- Parallel Processing in the Arqiva / North region The Arqiva implemented solution is unable to communicate to multiple devices in parallel. This impacts when 2 Service Users or 2 engineers are performing an install in the same area and possibly when an installer is completing parallel work finishing off commissioning a meter whilst starting the Prepayment activities under our install process.
- Due to the ongoing issues with the Telefonica and Central & South Region (C&S) Toshiba Comms Hubs the testing on the C&S Wistron NeWeb Corporation (WNC manufacturer of

npower's response to SMNCC review (May 2019)

one of the C&S CHs) has been put on hold to allow the resources to focus on the primary variants in the deployment environment. Once confidence is established in the gas side of Telefonica / Toshiba this will be back in play, and hence allow us to release all the currently quarantined WNC CHs.

- The consistency, timeliness and reliability of Gas SR6.21 certificate exchange process.
- Although improved, there is continued instability between the Gas Smart Meter (GSME) and the Gas Proxy function (GPF) CH on both the Arqiva and Toshiba CH variants which contributes to overall Dual Fuel confidence / stability.

We have been at the forefront of the SMETS 2 development, incurring significant extra costs in the process, and during 2018 have had proportionately more SMETS 2 installations than almost any other supplier. We are, therefore, in a good position to judge the state of the industry and the readiness for mass rollout of SMETS 2 meters. We believe it is completely unreasonable, and irrational, to assume a productivity improvement for the early stages of the SMETS 2 rollout, with no basis in evidence. If anything, the first cap period covering Q1 of 2019 should make an allowance for the productivity impact of the SMETS 2 rollout, whilst the second cap period should hold the 2017 productivity levels constant. Productivity assumptions beyond this should be part of the review of SMNCC in 2019. We believe that the impact of this productivity assumption is that it is reducing the SMNCC by around £0.50 per meter per year based on SMETS 2 costs being annualised over 15 years, which equates to around £5 per meter over its asset life.

[\gg] Our MAP contracts are not fully aligned to the assumptions used in the modelling and the impact of this is over £1 per meter per year and this should be added to the SMNCC.

It is important to stress that our concerns around productivity are not based on internal inefficiencies, but an assessment of the impact of national issues identified above that are beyond our control. Over the past few years these issues have added enormous costs to suppliers which have had to be passed on to consumers, and we believe that this will continue into 2019 and hence must be reflected in the SVT cap.

SMETS 1 Costs & Pass-Through Methodology

The methodology that has been proposed implies that certain costs, in particular those relating to SMETS 1 meters, have been removed from the baseline costs on the basis these will be charged by the DCC, and that "DCC charges are included in the SNMCC as pass-through costs". As mentioned above, we have particular concern with this statement, as it is only the movement in DCC charges from 2017 that are included in SMNCC. There is considerable ambiguity around this whole area, and this has not been helped by the fact that key information from the data disclosure room has been redacted.

We have a fundamental concern that the principles of the consultation are not being followed. The SMNCC calculation is based around the 2017 cost submission being the baseline, with all calculations being a movement from this position. If DCC and Smart Energy GB allowances in the SMNCC pass-through costs are only the movement from 2017 (and the calculations in Annex 5 confirm this) then we do not understand why any costs included in the 2017 baseline are being removed. There are numerous references to downward adjustments to the model in Annex A of Appendix 7. We therefore believe that the industry costs, in particular those relating to DCC and Smart Energy GB, are not fully reflected in the price cap, and that the pass-through principle is not being correctly adopted.

A particular concern within this is the treatment of SMETS 1 meters, where there is reference to a downward adjustment in 2019, and removal from 2020. As a supplier with around [\approx] SMETS 1 meter installations by the end of 2018 we will continue to incur charges for communication hubs [\approx] and data processing [\approx] until these meters are adopted by the DCC. Based on the current DCC proposals for Enrolment & Adoption (E&A) migration, the npower group of customers will not migrate until either Q4 2019 or Q1 2020, both of which are outside the two cap periods covered by the SMNCC. As mentioned above, the data disclosure room restrictions have meant that we have not been able to ascertain the assumptions around E&A, but we do not believe there should be any downward adjustment for SMETS 1 meter costs until after the first two cap periods, and that full allowance for the additional £11 communications and data costs of SMETS 1 meters should be made. With [\approx] such meters, this comes to an annualised cost of [\approx], which equates to over £2 per meter over all our customer base.

We also believe that there is an error in the calculation of the volume of SMETS 1 Communication Hubs in 2018, which in turn feeds through to 2019. We believe the model incorrectly calculates that half of all communication hubs installed in 2018 are SMETS 1, and half are SMETS 2. This incorrectly reduces SMNCC by around £0.50 per meter, and clearly this is inconsistent with the overall modelling assumptions around SMETS 1 and 2 deployment. We trust that this will be corrected in the final proposal.

Finally, we have been unable to verify whether the assumptions used in Annex 5 for the calculation of the pass-through elements of SMNCC are consistent with the changes made to the model in the calculation of non-pass-through costs. This adds to our concern that genuine, and unavoidable, smart metering costs are not being included in the price cap.

Industry IT Costs

We do not believe that the additional supplier IT costs, which are outside our control and driven by industry-wide issues that are noted above, have been adequately reflected in the calculation of non-pass-through costs.

The consultation references an industry-wide increase in supplier IT costs in paragraphs 3.44 to 3.49 of Appendix 7. We have not been able to ascertain what this allowance is, and the assumptions underpinning it, as all the key assumptions that would help us to do this have been redacted from the data disclosure room. Therefore we have no evidence to ascertain whether the allowance adequately reflects the costs incurred, and in particular we cannot determine whether the additional costs that have been incurred from the ongoing delays to SMETS 2 installation have been captured.

Furthermore, we note that the estimate of additional costs is based on a BEIS estimate, and we have no way of knowing whether this fully captures supplier costs. We note that in 2013 BEIS estimated industry-wide IT costs from programme delays would be £30m which has turned out to be a significant understatement. Without understanding the numbers and assumptions behind the additional costs we are at risk of understating externally driven, and non-controllable, costs from the price cap.

Finally, we have not been able to ascertain whether the accounting treatment of supplier IT costs is appropriate, and reflects the actual treatment by suppliers. Paragraph 4.31 of Appendix 7 states that the cost of system changes are capitalised over a 15 year period. It is not clear from our analysis of the data disclosure room what the capitalisation period is, and what percentage of supplier IT costs are not capitalised (i.e. are operating costs). Supplier IT costs are not capitalised over a 15 year period (5 to 10 years being general accounting practice) and a significant minority of

npower's response to SMNCC review (May 2019)

supplier IT costs (around [\gg] in our case) are not capitalised. We have not seen evidence to suggest that the accounting policy assumption match those of suppliers in relation to IT costs. All this information should have been available in the data disclosure room, and the fact that it has all been redacted is, in our view, highly unsatisfactory.

Furthermore, we are particularly disappointment in the Ofgem response to our question as to why these data has been redacted. The response essentially justifies redacting information on the basis that it is not in the public domain. This seems to imply a logic that suggests that only publically available information is available for disclosure, in which case it begs the question as to why there are confidentiality requirements in place at all. We consider the decision to redact this information as being deliberately obstructive. It has significantly undermined our ability to review the information in the data disclosure room, as well as our confidence in the overall process.

We believe that the impact of supplier IT opex costs and depreciation is around [\gg] per meter in 2019, based on a total cost of around [\gg] in operating IT costs and depreciation. We believe that this number should be reflected in the SMNCC, but have no way of determining the extent to which it is. Depending on a supplier's accounting policies, we believe that these costs could be between £3-7 per meter.

Supplier Benefits

Smart metering brings with it both benefits and costs to suppliers. The balance of benefits and costs will vary depending on where a supplier in on the rollout profile. Generally the costs are incurred in the earlier stages of the rollout, whilst the benefits are incurred towards the end and afterwards.

We note in paragraph 4.23 of Appendix 7 that additional costs relating to the smart meter rollout have been specifically excluded from the SMNCC, even though such cost increases will inevitably occur. The consultation approach, whilst agreeing that such costs are in theory like to occur (paragraph 4.37) places the burden of proof on suppliers to provide evidence that such cost increases will occur, despite the inherent problems associated with proving a future event.

Whilst supplier cost increases are excluded, no such exclusion is made for supplier benefits, as outlined in paragraphs 3.28 to 3.31. The benefits in the model are based on theoretical assumptions from the BEIS model that are at least two years out of date and assumed a very different rollout path than is currently taking place. The consultation appears to take those benefits as confirmed facts, not to be challenged, despite the uncertainties that surround them. Our analysis of the Data Room showed that there is downward movement on the SMNCC caused by the supplier benefits in the BEIS model, but again we cannot determine the actual amount as the figure has been redacted.

We are particularly concerned with the BEIS assumption that all benefits are realised in the year the smart meters are installed. There is no logical sense in this assumption given that installations are phased throughout the year. For example, the model assumes that if a smart meter is installed in December 2019, then the full benefit of two meter reads per year (£6 per meter) are included for 2019. The impact of this incorrect assumption alone for meter reading, customer enquiries and debt handling equates to [\gg] based on our installations for 2019. This works out at just over [\gg] per meter across our entire portfolio, so this assumption alone is incorrectly pushing down the SMNCC by at least [\gg] per meter. If a sensible assumption of a one-year delay in realising the benefits were to be applied, then the SMNCC would increase by around £3 per meter, and we believe that assumption should be applied.

We have been unable to ascertain what the validity of the assumptions are behind these benefits – as mentioned above the model appears to take the out of date BEIS assumptions without in any way challenging them. In addition, for customer enquiries, and particularly debt handling, there is inevitably a time lag between the installation of a smart meter and the benefits, and this lag should be included in any benefits modelling.

Finally, there is a consistency issue in that the consultation accepts the principle that suppliers have incurred additional IT costs as a result in changes to the industry-wide rollout (although as mentioned above it is difficult to ascertain what actual allowance has been made). It therefore follows that if there is an acceptance that industry delays have an impact on suppliers IT costs then they will also have an impact on the timing of supplier benefits beyond just updating the deployment profile. In order for smart metering non-pass-through costs to be a fair reflection of costs incurred by an efficient supplier then it is essential that the timing and scale of the supplier benefits in the BEIS model are updated to reflect the latest industry-wide circumstances.

PRC Costs

The cost of Premature Removal Charges (PRCs) caused by the smart metering programme is, and will continue to be, significant to all suppliers. For that reason the treatment of these costs in the price cap is of particular importance. We note the detailed treatment of these costs in the SMNCC as outlined in paragraphs 3.50 to 3.60, and welcome the fact that the consultation recognises the importance of these costs.

However, our analysis of the Data Room has shown that the SMNCC is extremely sensitive to the modelling assumptions, in particular the average age of traditional meters in 2011, and to the assumption that PRCs only apply to meters up to 15 years. The reality is that these costs are significant, and uncertain, and are caused as a result of suppliers meeting their smart metering licence obligations. The consultation appears to expect efficient suppliers to simply absorb these uncertainties. We believe that this is unreasonable, and that only a post-event true-up of PRC costs is going to fairly reflect the costs and risks associated with this issue.

The analysis from the data suggests that the PRC impact in 2019 is around half the PRC figure of 2017 even though the number of displaced dumb meters is four times as many. This has the effect of reducing the SMNCC. Whilst we accept that the aging of meters will have some downward impact on PRC charges (offset by the higher volume of displacement) we cannot understand how ageing meters with an asset life of 15 years by two years can have the effect of halving the PRC value. We can only assume that the combination of all the modelling assumptions and the modelling methodology has produced this illogical outcome. Particular concerns around the mechanics of the model include:

- Under-estimating the number of traditional meters expiring through use of the incorrect starting year. This incorrectly reduces SMNCC by £0.50 per meter.
- The counterfactual cost of the traditional meter, where the logic and rationale underpinning the calculation of the PRC is unclear.
- The application of the PRC calculation, and an apparent double count of the average dumb meter cost.
- The application of a recertification assumption, and the result that it increases the average age of meters, reducing the SMNCC as a result. This incorrectly reduces SMNCC by between £1 and £2 per meter.

Overall, whilst we welcome the recognition by Ofgem of PRC costs and their complexity, we are concerned about the mechanics of the model, together with some of the starting assumptions, and

consequently do not have confidence in the results. As mentioned above, this has a large potential impact on the SMNCC.

We do not accept that there should be a downward adjustment to the SMNCC for PRC charges, and consequently believe that the most appropriate way forward is to exclude the downward adjustment for the price cap period to September 2019, and undertake a post-event reconciliation of PRC charges in 2019, as part of the overall SMNCC review, and include this in subsequent price caps.

It is important to note that we incur PRC and even stock stranding costs through no fault of our own. To take a single example, in 2018 we had to guess whether DCC would miss another target. In order not to stall the rollout due to inability to connect to the DCC, we ordered extra SMETS1 stock. Despite repeated assurances to the contrary, the DCC did in fact miss the deadline and we were saved by our prescience. If the DCC had achieved the deadline then we would have been stranded with the stock. Similar situations may arise in future, which would incur costs to suppliers not included in the cap, and yet not caused by them.

Finally, there is no allowance for PRC costs for SMETS 1 meters. Whilst we accept that the vast majority of SMETS 1 meters will be successfully adopted by the DCC, there will inevitably be some meters that cannot be upgraded to be compliant, and hence have to be replaced. In essence the consultation is assuming a 100% success rate in adopting SMETS 1 meters, without explicitly saying so, or saying why such a rate is the most likely outcome. We believe that a [\gg] success rate is a challenging but realistic assumption, based on our experiences to date in Over The Air (OTA) upgrades. Such a rate would cost npower around [\approx], or just over [\gg] per meter spread over our portfolio. Consequently, we believe that an allowance of £1 per meter needs to be made in the SMNCC for PRC costs for SMETS 1 meters.

Overall Impact on SMNCC

In summary, we believe that the following increases need to be made to the per meter SMNCC to reflect our concerns:

•	Productivity	assumption	£0.50
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- SMETS 1 Comms Hub Error £0.50
- Asset life assumptions £1.00
- SMETS 1 Comms Hub Rental £2.00
- Supplier IT Costs potentially £3-7
- Supplier Benefits deferral £3.00
- PRC corrections £2.00
- SMETS 1 PRC Charges £1.00

Overall, we believe that the SMNCC is potentially understated by at least £10 per meter, although it is impossible to determine the exact amount due to the extensive restrictions of the data disclosure room.

<u>Glossary</u>

- DCC Data Communications Company
- DBCH Dual Band Communciation Hub
- IHD In-home Display
- MAP Meter Asset Provider

MAP Income – payment made by the MAP to a supplier on completing the installation of a smart meter, amortised over the life of the meter

- NAO National Audit Office
- PRC Premature Replacement Charge
- SMIP CBA Smart Metering Implementation Programme Cost Benefit Analysis