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RESPONSE PAPER #3: REVIEWING SMART METERING COSTS IN THE DEFAULT TARIFF CAP – HAVING REGARD FOR CARRY FORWARD BALANCES

1. Introduction

1.1. On 30 April 2019, we published an initial consultation ("the April consultation") on how we proposed to review the efficient costs of rolling out smart meters and how we proposed to set the non-pass-through Smart Meter Net Cost Change (SMNCC) allowance ("the allowance") in the default tariff cap ("the cap").[1]

1.2. We are responding to stakeholders' major themes through a suite of papers ("the Response Papers"). This paper examines in detail our proposal to have regard for advance payments or lagged payments in the first three cap periods as assessed by our new SMNCC model, when setting the allowance in forthcoming cap periods. We present the issues for stakeholders to consider and comment on.

1.3. In April, we stated that:

- Over the life of the cap, the combined allowances should not exceed our estimate of the efficient costs relating to rolling out smart meters, however, we have no expectation that any individual supplier's costs of installing smart meters would match the smart metering allowance *in any single cap period*.
- Suppliers effectively recover their costs through the allowance in arrears (for smart meters already installed), or charge in advance of their costs (for smart meters not yet installed).[2]

1.4. Advance payments or lagged payments are timing differences between when suppliers collect allowances for installing smart meters and when they incur the associated expenditure. They occur because the smart metering allowance is based on a single notional rollout profile that may differ from each actual suppliers' rollout profile. This is inevitable. We can only set one allowance for all suppliers, so suppliers' costs may differ from the allowance in a specific cap period if they install more or fewer meters in that period than assumed in the allowance. However, over the life of the rollout the difference between the rollout profile in the allowance and individual suppliers' rollout should net out.

[1] Ofgem (2019) Reviewing the smart metering costs in the default tariff cap. (https://www.ofgem.gov.uk/publications-and-updates/reviewing-smart-metering-costs-default-tariff-cap)
[2] Ofgem (2019) Reviewing the smart metering costs in the default tariff cap, paragraphs 2.5-2.17 (https://www.ofgem.gov.uk/publications-and-updates/reviewing-smart-metering-costs-default-tariff-cap)

1.5. When setting the allowance for the fourth cap period and beyond we proposed to have regard to any substantial advance payment (or lagged payment) in the first three cap periods based on the new SMNCC model.[3] We noted that preliminary data suggests that the allowance in the first three cap periods may be somewhat higher than the actual efficient costs, which are payments in advance for installations that occur later. However, in having regard to timing differences, we said that we would not necessarily adjust the allowances for the fourth and subsequent cap periods. There may be other concerns, such as uncertainty or impact on the rollout that make an adjustment inappropriate.[4]

1.6. In response to the consultation, suppliers raised various objections, which we discuss in detail at the end of this paper. A principal concern raised by stakeholders was that we should not correct errors retrospectively. Suppliers were concerned that we would have regard for advanced payments and reduce the SMNCC allowance. It is worth noting that if we did not reassess the first three cap periods (using the new SMNCC model), then the advance payment would be larger and we might reduce future SMNCC allowances to a greater extent. We explain this in detail below.

1.7. While reading this working paper, it is worth keeping in mind two points:

- **Hypothetical cases** - Much of the analysis and numbers used in this paper are hypothetical. The purpose of the paper is to present the principles behind this issue and explore some of the options we might take. Our final proposals will be informed by the new SMNCC model, which is based on the new Smart Metering Implementation Programme Cost Benefit Analysis ("SMIP CBA").[5]
- **Complexities** – In this paper, we discuss the principles at a high level. When analysing the detailed costs there are many complexities. For brevity, we do not discuss each complexity in this paper.

2. Considering timing differences

Smart Metering Allowance

2.1. Our review of smart metering costs in the price cap will set the allowances from the fourth cap period onwards. The allowances in the first three cap periods were calculated using the methodology set out in our decision document published on 6 December 2018 ("our Decision").[6] We set the allowance in each cap period using the current non-pass-through Smart Metering Net Cost Change model ("SMNCC model"). By April 2020, at the start of the fourth cap period, three cap periods (spanning 15 months) will have passed.

2.2. The amount allowed for in the first three cap periods from the non-pass-through smart metering allowance is approximately £309m as illustrated in Figure 1.[7] The majority of default customers are served by suppliers that price their tariffs at the cap level. On that basis, we take suppliers as having fully drawn down funding allocated to the smart meter rollout so far.

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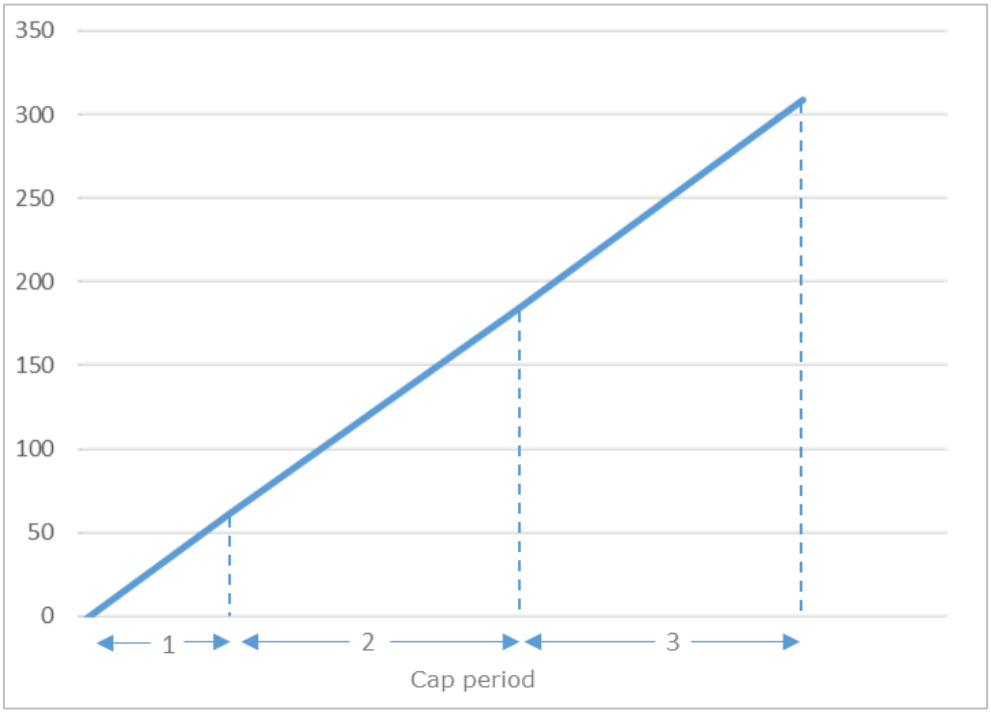
[3] We will base the new SMNCC model on the new Smart Metering Implementation Programme Cost Benefit Analysis ("CBA").
[4] Ofgem (2019) Reviewing the smart metering costs in the default tariff cap, paragraphs 4.19-4.20 (https://www.ofgem.gov.uk/publications-and-updates/reviewing-smart-metering-costs-default-tariff-cap)
[5] See Response Paper #1 for a discussion of our general approach and timeline. (https://www.ofgem.gov.uk/publications-and-updates/reviewing-smart-metering-costs-default-tariff-cap-response-papers-1-and-2)
[6] Ofgem (2018) Decision – Default tariff cap – overview document (https://www.ofgem.gov.uk/system/files/docs/2018/11/decision_-_default_tariff_cap_-_overview_document_0.pdf)
[7] To calculate the value, we multiplied the allowance by the number of capped customers, holding the number of capped customers fixed in each of the three periods. Note that the allowance provides funding for the net costs that are additional to the net costs already incurred by suppliers up to (and including) 2017.

Figure 1 – Cumulative smart allowance up to cap 4 (£m)



Note: The first cap period lasted three months (01 January 2019 – March 2019) as opposed to the standard six months.

2.3. The allowance in each cap period so far has been approximately £11 per gas account and £9 per electricity account.[8] The allowance is broadly dependant on two factors:

a) rollout profile (the number of smart meters installed), and

b) efficient net costs per smart meter installed.[9]

2.4. **Rollout profile** – the current SMNCC model uses a notional rollout profile. To set the rollout profile we used the average supplier rollout position at the end of 2018 (about 30%) as a starting point. For the second point to base the profile on, we used the EU target of 80% rollout by 2020. We then set a linear profile between those two points, meaning the allowance pegged funding to an installation rate of 12.5% (of default accounts) every six months. At that assumed pace, by the start of cap period four (April 2020) the rollout profile underpinning the allowance would reach 61% in total. This rollout profile is not a forecast. It sets the allowance at an installation rate that is consistent with the EU obligation.

2.5. **Efficient net cost per smart meter** – the allowance also depends on the cost per smart meter. The costs in the current SMNCC model are based on the 2016 SMIP CBA, with some adjustments to reflect data from 2017. In practice, some costs are fixed costs (at least in the short run) and will not vary with the number of smart meter installations. The allowance reflects the accrued costs of installing smart meters (spreading upfront capital costs over the life of the relevant assets).

[8] See model increment table in Annex 5 of default tariff cap (https://www.ofgem.gov.uk/publications-and-updates/default-tariff-cap-level-1-october-2019-31-march-2020)

[9] This is a simplified account for illustrative purposes. Not all costs are variable (with the number of smart meters installed). In addition, where we refer to costs, we are talking about net costs rather than gross costs. Benefits might not take effect until a certain threshold of rollout is achieved eg decommissioning systems. We discuss this issue below.

Relationship with suppliers' smart costs

2.6. In the first three cap periods, the smart metering allowances provide around £309m of funding. However, we have no expectation that each or any supplier will incur efficient costs in those three periods that match the allowances unless they install meters at the same pace. With all else being equal, the allowances in the first three cap periods provide funding for the efficient costs of around 7.8 million smart meter installations (31% of the rollout) whether or not suppliers actually install those meters in the same period of time.

2.7. In any single cap period, a supplier's efficient smart metering costs might not match the allowance provided in that period. The difference between a supplier's efficient costs in a specific cap period and the allowance in that same period is determined by the pace of the supplier's rollout in comparison to the rollout profile underpinning the allowance (reaching the 2020 EU target).

2.8. The progress of the rollout varies between suppliers. Therefore, in any given cap period suppliers install different proportions of their rollout obligation, so the efficient costs they incur in that period differ.

2.9. In our April 2019 consultation, we stated that, when considering a supplier's ability to finance its activities, we would not focus on each cap period in isolation. We proposed to focus on costs over the medium to long-term.

2.10. Over the life of the rollout, the timing differences between individual suppliers' costs and the allowance in any specific cap period should offset. Although their rollout profiles differ, all suppliers have the same obligation as set out in SLC 39 of the electricity and gas standard licence conditions. Suppliers that make early progress will incur higher costs than allowed for in the early cap periods, but then they will incur lower costs than allowed for in later cap periods as they will have fewer meters to install. The same applies in reverse.[10] This is illustrated in figure 2.

2.11. Figure 2 illustrates three hypothetical scenarios suppliers could be in with respect to their rollout profiles. The blue line is a hypothetical linear rollout profile used to set the (hypothetical) allowance in this example. The ten cap periods are also hypothetical, for illustrative periods only.

2.12. Supplier A represents suppliers that install smart meters in line with the profile provided for in the allowance. Their efficient costs in each cap period should match the allowance in each cap period.

2.13. Suppliers B and C are examples of how a supplier's rollout profile might deviate from the profile underlying the allowance. Supplier B has an 'early rollout' scenario where they install more smart meters than the allowance provides for in the first three cap periods. Initially, its total cumulative costs are higher than the cumulative allowances, as it installs more meters than the profile used to set the allowance. However, after period three, it installs fewer meters (in each new period) than the allowance provides for, meaning its total costs in each new cap period are lower than the allowance in those cap periods and its cumulative costs trend back toward the cumulative allowance. Over the life of the rollout, its total costs reflect the combined allowances, regardless of its different rollout profile.[11]

2.14. The opposite applies to supplier C. Supplier C initially installs fewer meters than allowed for (caps one to three) meaning it has lower cumulative costs than the cumulative allowances in the early period. After cap period three, its rolls out more meters (in each new period) than allowed for, and hence it has higher costs (in each

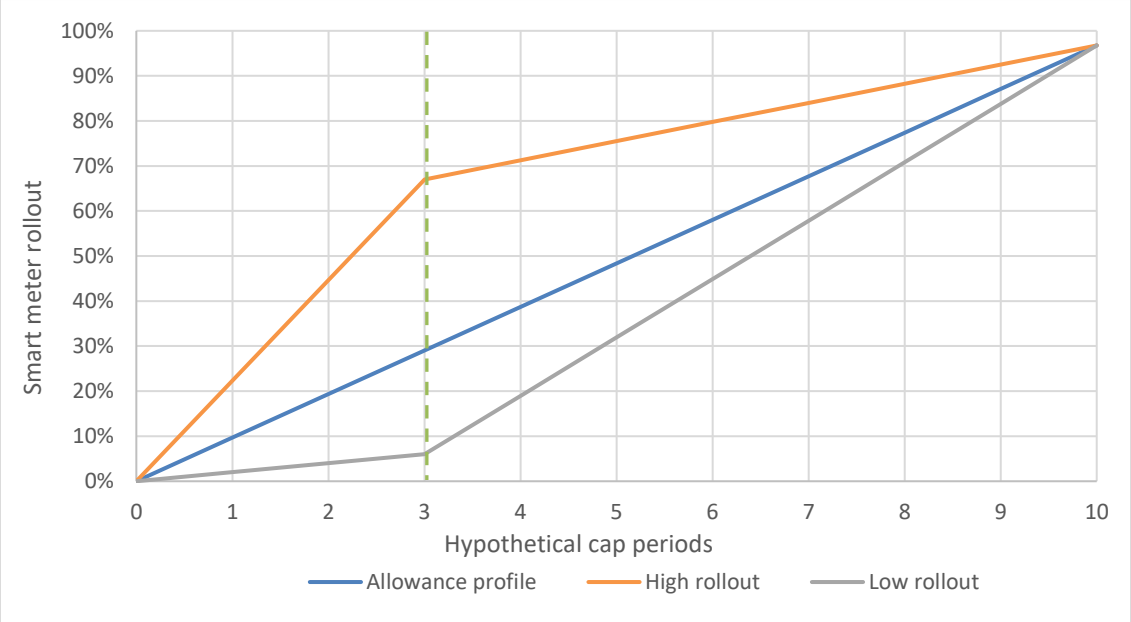
[10] This assumes that there is not an efficient rollout profile (a profile that is less costly than others). We will consider whether this is accurate, and if it is not, then what regard we should have for efficient (or inefficient) rollout profiles.

[11] In this simplified account, the efficient cost per smart meter installed is constant. We discuss this in section four.

new period) than allowed for. Like supplier B, over the life of the rollout, its total costs reflect the combined allowances.

2.15. Overall, at a hypothetical cap period 10, the percentage of smart meters rolled out for the three suppliers is the same. Over the life of the cap, the total combined allowances provided is the same for each of the suppliers, and matches their efficient costs. The timing of when those costs were incurred should not be critical, assuming a constant efficient cost per smart meter.[12]

Figure 2 – Illustrative supplier rollout per cap period



2.16. When comparing the SMNCC allowance and suppliers' costs, we must account for differences in suppliers' rollout profiles. For instance, if a supplier installs fewer meters than allowed for in a specific cap period, then their costs in that cap period should be lower. We would not provide more money in later periods when the smart meters (that have already been provided for) are actually installed.

Carry forward balances: Considering timing differences

2.17. In a single cap period, the timing difference between the allowance and the associated efficient cost results in a 'carry forward balance'. In each cap period, suppliers should carry forward an efficient under spend or an efficient over spend unless their rollout is in line with the allowance. A supplier will carry forward a surplus when it installs fewer smart meters in a cap period than underpins the allowance. When a supplier installs more smart meters in a cap period than underpins the allowance it will carry forward a deficit. Over the life of the rollout the carry forward balances from each specific cap period should net out.[13]

2.18. In the April consultation, we stated that the allowances in the first three cap periods were set using a steeper rollout profile than suppliers have, on average, achieved in practice. All else being equal, this should result in a significant advanced payment (a surplus carry forward balance). We proposed to have regard to the average advanced

[12] In this simplified account, the life of the rollout and the life of the (hypothetical) cap are the same. In practice, that is not the case for the default tariff cap. The cap started after the smart meter rollout, so suppliers had different starting points in January 2019. Also, the cap may be removed before the smart meter rollout is complete. Below, we propose to consider these issues when having regard for the timing differences between the allowance and suppliers' efficient costs ("carry forward balances").
[13] See note 11.

payment as assessed using the new SMNCC model to ensure the combined allowances over the life of the cap reflect the efficient costs over that period.

2.19. In section four and five, we discuss how we might give regard to carry forward balances, and some of the challenges involved.

3. Challenge of adjusting underlying assumptions in the SMNCC model

Potential changes in underlying assumptions

3.1. In our April 2019 consultation[14], we proposed to review the efficient costs of the smart meter rollout and, in setting the allowances, have regard for advance payments or lagged payments carried forward using the new SMNCC model. The new SMNCC model, which uses the new SMIP CBA as starting point, will likely include different rollout assumptions and costs assumptions to those underpinning the current non-pass-through SMNCC model, which uses the 2016 SMIP CBA as a starting point.

3.2. In the first three cap periods, compared to the assumptions in the current SMNCC model, the assumptions in the new SMNCC model may reflect:

- **A slower roll out profile**: The first three allowances provide sufficient funding to reach 61% rollout by April 2020 (from a starting point of about 30% in January 2019).[15] Analysis suggests that the rollout is likely to be lower than 61% by the start of cap period four; under half the installations allowed for in those cap periods.
- **Higher installation costs**: Suppliers have suggested that the actual efficient cost per smart meter may be higher than assumed in the smart meter allowance for the first three cap periods.

Consideration of rollout variation

3.3. As described above, in principle, it does not cause significant difficulties when reviewing the smart metering allowance if a supplier's actual rollout profile differs from the profile underpinning the allowance. We do not need to consider suppliers' actual progress in any single cap period, or subset of cap periods.

3.4. What is important is that, over the life of the rollout, the assumptions underpinning the allowance are coherent. The default position of our methodology is that, when setting the allowances for cap period four and beyond, we consider the efficient costs of smart meters not already allowed for in previous cap periods.

3.5. We would not use different rollout profiles for the two periods before and after April 2020. There would be two potential problems if we used different rollout profiles to set the allowances in the first three cap periods (rollout from 30% to 61%) and to set the allowances from cap period four onwards (from actual progress in April 2020 to 100% and the end of the rollout).

- **Misstating installations**. For the sake of illustration, assume that the rollout reaches 45% by April 2020.[16] If we set the rollout profile at 45% in April 2020, then over the life of the rollout, we would assume that suppliers install 16% more smart meters than would actually be the case (61% in the period up to March 2020 (0% to 61%) and 55% from April 2020 onwards (45% to 100%)). This would bias the allowance.

[14] Ofgem (2019) Reviewing the smart metering costs in the default tariff cap. (https://www.ofgem.gov.uk/publications-and-updates/reviewing-smart-metering-costs-default-tariff-cap)
[15] As discussed above, we initially set the rollout profile in the SMNCC model to increase from 30% at the end of 2018 to 80% at the end of 2020 (the EU target).
[16] This is an arbitrary figure chosen for illustrative purposes because it is half ways between 30% (the average at the start of 2019) and 61% (the rollout in April 2020, using the assumption in the current SMNCC model).

- **Misstating net costs per meter**. We set the allowances in line with the accrued costs of installing smart meters. For instance, the capital cost of installing a smart meter in 2019 is spread out (accrued) over the life of the smart meter.[17] On that basis, a portion of the allowances in cap period four and beyond relate to the costs of smart meters installed in earlier periods. To set the allowance in cap period four appropriately we need to take into account the number of installations allowed for in previous cap periods. If we use two sets of rollout assumptions the costs would not be calculated on a consistent basis. Furthermore, there is added complication when considering there could be threshold effects where certain costs and benefits only take effect when the rollout hits a certain level.

3.6. There are various ways we could set the rollout profile so that the number of installations and the accrued costs per meter in the allowances are coherent. None of these approaches are error corrections. All of them maintain the current SMNCC model rollout profile up to April 2020. We could:

- Continue using the EU trajectory
- Flat line the assumed rollout progress until the new rollout reaches the initial assumed rollout
- Set a new rollout trajectory to the new end point

3.7. **Continue using the EU trajectory** – This approach would maintain the pace of rollout set by the linear trajectory passing through the average rollout at the end of 2018 and the 80% EU target at the end of 2020 (12.5% rollout per year).This is represented by blue dashed line 'A' in Figure 3. New installations would be complete by the end of 2021, only accrued costs of earlier installations would be included in the SMNCC after that date. This approach is simple and in line with our previous methodology. It would enable suppliers with front loaded rollout profiles to limit the deficits they carry forward. However, on average, the rollout underpinning the allowance would be considerably quicker than suppliers' average progress, increasing customers' bills in the near future for the benefit of customers in later periods.

3.8. **Flat line the rollout progress** – In the SMNCC model, we could assume that no new smart meters are installed until the actual average rollout profile catches up with profile underpinning the allowance. In figure 3, this would mean drawing a flat line from 61% on the solid blue line to 61% on the solid orange line in cap period 6 as shown by blue dashed line 'B'. This would realign the profile in the model with suppliers' actual average progress in the quickest possible time, while avoiding double counting new installations.

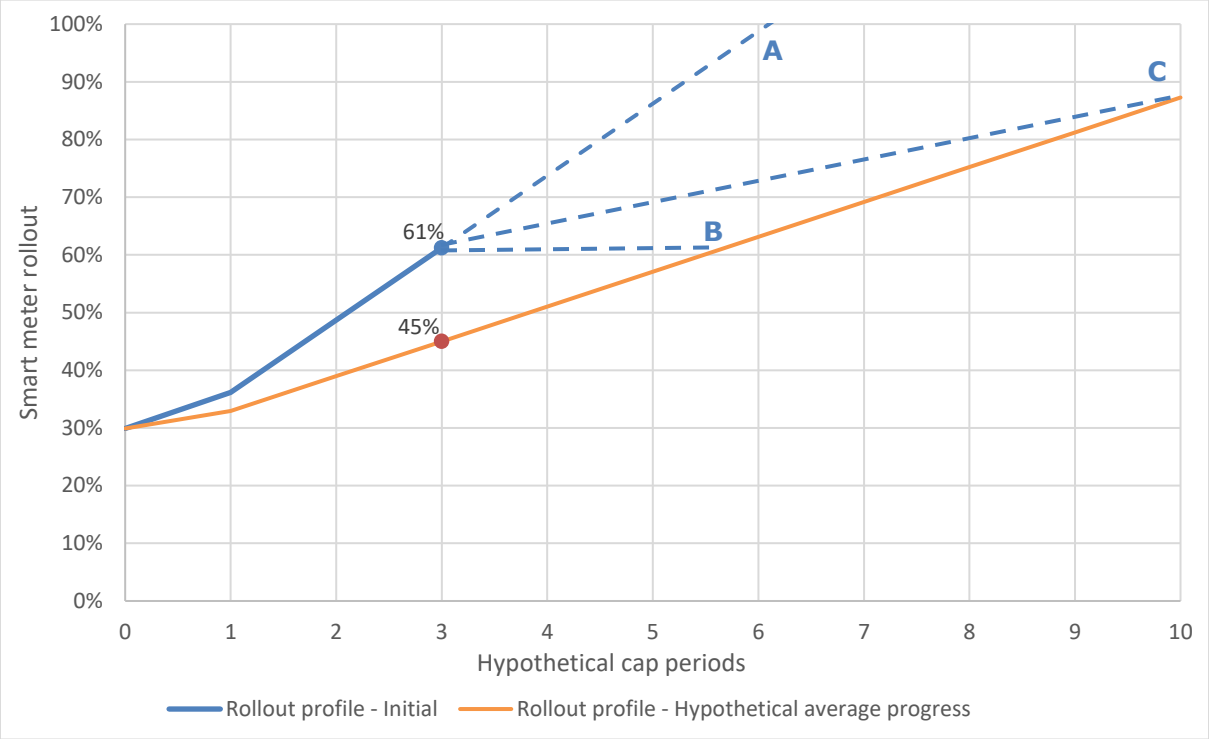
3.9. **Set a new rollout trajectory** – We could set a new rollout trajectory from the point the current allowances finish (61%) to the latest estimate of the likely rollout profile completion date. Blue dashed line 'C' in Figure 3 demonstrates this (note that the completion date shown is hypothetical).

3.10. In principle, each of these potential rollout profiles would be effective. The only difference would be how suppliers generate and utilise a carry forward balance as their actual rollout profiles relate to the notional profile used in the SMNCC model.

3.11. However, in practice, these approaches only work if there is a consistent efficient cost per smart meter in the current SMNCC model and our updated model.

[17] This varies depending on the type of cost. For example, IT costs would be accrued (amortised) over a different period of time.

Figure 3 – Hypothetical change in rollout



Note: The hypothetical rollout progress of 45% is an arbitrary figure chosen for illustrative purposes because it is half ways between 30% (the average at the start of 2019) and 61% (the rollout in April 2020, using the assumption in the current SMNCC model).

Consideration of variation in estimated unit costs

3.12. In response to our April consultation, suppliers suggested that the efficient costs per smart meter installed might be higher than the current allowance assumes. If the estimate of efficient costs per smart meter has changed (in either direction) then, unless we take this into account over all cap periods including the first three cap periods, the combined SMNCC allowances would not reflect the efficient costs of the rollout.

3.13. For instance, the allowances in the first three cap periods already provide for 31% of the rollout relating to default tariff customers (see paragraph 2.6). If suppliers' concerns are correct, then a significant proportion of the rollout would be undervalued. Unless we account for this, then over the life of the rollout, the combined allowances would underfund the smart meter rollout.

3.14. In the April consultation, we proposed to have regard for advance payments (surplus carry forward balance) using the new SMNCC model (which assess the cash amount paid, using updated rollout profiles and cost assessments). The default position in the existing methodology is that we would have regard for carry forward balances using the current SMNCC model. That would likely estimate a much greater carry forward balance. As suppliers' actual rollout (individually and on average) lags the pace of the allowance, there would be a surplus carried forward. If the current SMNCC model understates the efficient cost per meter, then that carry forward balance would be over-estimated, reducing the allowances over the life of the cap by more than it should do (if assessed using the new SMNCC model).

4. Considering a whole lift view

New cost assessment

4.1. In the April consultation, we proposed to reassess the allowances provided in the first three cap periods using the updated assumptions in the new SMNCC model. On this basis, the carry forward balances would be the difference between the cash amount provided using the current SMNCC model and the cash amount that would have been set using the new SMNCC model. This means we can use a consistent set of assumptions across the life of the cap, and prevent any potential undervaluation of the proportion of the rollout already allowed for from reducing the total funding available for the smart meter rollout over its life.

4.2. To calculate the new cost assessment, we will review the new CBA and consider:

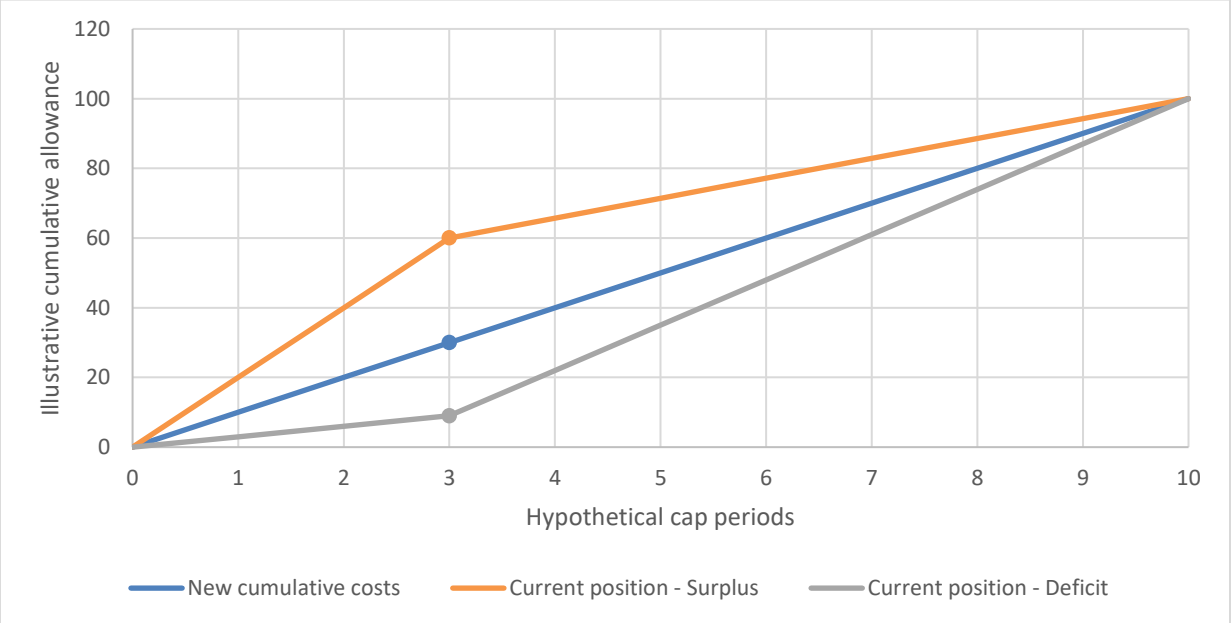
- the appropriate rollout profile (taking into account progress to date and the new post 2020 policy landscape);
- the associated efficient costs from the new CBA.

4.3. We would then compare the cost profile from the new cost assessment to the profile of allowances provided in the first three cap periods. From this, we anticipate there will be one of three possible situations (as illustrated in figure 4):

- **No aggregate carry forward**– The profiles of the new cost assessment and the first three allowances are the same (blue line). There is no difference between costs and allowances to carry forward. For instance, this could happen if the average rollout is lower but installation costs are higher than previously allowed for, so that the impact nets out.
- **An aggregate deficit carried forward**– The current allowances are less than the new cost assessment profile (the allowances lag the cost of installing smart meters). This could occur if efficient costs per meter are significantly higher than previously allowed for (grey line).
- **An aggregate surplus carried forward**–The current allowances are greater than the new cost assessment profile (the allowance pays suppliers in advance for the efficient cost of installing smart meters). This could occur if the rollout is substantially lower than previously allowed for (orange line).

4.4. If we did **not** assess the allowances in the first three cap periods using the new SMNCC model, then we expect there would be a surplus carry forward balance, which could be overstated if efficient unit costs were higher than estimated originally.

Figure 4 – Illustrative assessment of cumulative allowance



Considering the carry forward

4.5. In our April consultation, we proposed to give regard to any substantial advance payment (or lagged payment) in first three cap periods (ie the aggregate carry forward).[18] We also stated that we would not automatically adjust the allowances for the fourth and subsequent cap periods to account for that carry forward.

4.6. If there were no other considerations, we would spread the aggregate carry forward over the remaining cap periods. If the carry forward balance was a deficit, then we would increase future periods to account for the lagged payments. If the carry forward balance was a surplus, then we would decrease future periods to account for the advanced payments. As shown in Figure 4, over the life of the rollout, the total funding provided would match the total efficient costs using this approach.[19]

4.7. However, it might not be appropriate to spread the entire amount of the carry forward. There are other considerations we should take into account.

Relationship between efficient costs and rollout

4.8. We would need to consider the amount of uncertainty in the calculation. For instance, the relationship between rollout and costs is complex, the impact of different rollout profiles on efficient cost may create variation across suppliers, and estimates include forecasts, which although robust, contain inherent uncertainty.

4.9. While much of this paper assumes that all rollout profiles incur the same costs (although they incur those costs at different times), we will have to consider whether this assumption is accurate. There might be a case where the relationship between efficient costs and the rollout profile makes it less costly to use a specific rollout profile (in effect, an efficient rollout profile).

4.10. In some circumstances, even if there is an efficient rollout profile, we might take a conservative approach to ensure rollout is not constrained. For instance, by only spreading a proportion of an aggregate carry forward surplus.

Life of the rollout and life of the cap

4.11. We need to consider the relationship between the life of the rollout and the life of the cap. The cap started after the smart meter rollout, so suppliers have different starting points. Within the cap period, suppliers that started with fewer meters installed than average may be underfunded if take into account an average carry forward. Suppliers that started with higher than average rollout would be over funded.

4.12. Different starting positions may not be a problem. If we consider the costs incurred and recovered *before the cap periods*, each supplier should have had an efficient carry forward balance at the start of the first cap period that offsets the effect impact of their differing rollout progress in January 2019. However, at face value, we would assume that prior to the cap being in place, suppliers would have recovered the costs they incurred (especially given the lack of competition in the default tariff market and high standard variable tariffs). On that basis, it might be the case that suppliers did not have efficient carry forward balances at the start of the cap (January 2019).

4.13. In addition, the cap may end before the smart meter rollout is complete.[20] It is possible that the amount carried forward would not be fully recovered during the life of the cap. We therefore could consider spreading the carry forward over different

[18] We assume that we would assess the carry forward balance for the first three cap periods and have regard to it when setting cap period found. However, if the SMIP CBA is not published before our final consultation, we propose to use the current SMNCC model to set cap period four. In this case, we would also include cap period four when considering the carry forward balance for setting the allowance in cap period five. For more detail on contingency arrangement, see Response Paper #1.

[19] In this example, we spread the entire carry forward balance over the remaining cap periods. In practice, we take a different approach to each judgement: the amount (how much of the carry forward is spread over future cap periods) and the time periods (how many cap periods we decide to spread that over).

[20] We are required to publish this review on or before 31 August 2020. The review must include a recommendation on whether the cap should be extended or not. The Secretary of State will then make a decision whether to extend the cap or not. If the cap is extended, we would carry out a further review in 2021 and if required in 2022. If the cap is extended after each of these reviews, it will cease to have effect at the end of 2023.

lengths of time rather than limiting it to either October 2020 cap period (the soonest potential cap end) or October 2023 (the last possible cap period). There may be advantages and disadvantages with each approach.

Managing working capital

4.14. The costs of managing working capital could also affect how we have regard to apparent balances carried forward. If a supplier has installed more meters upfront than the allowance provides for, they will incur higher costs up front. In this case, they will need working capital to service the debt. However, if a supplier's rollout rate is lower than what the allowance provides, they will have cash upfront from the allowance on which they could earn a return (a working capital benefit).

Value of money over time

4.15. Our illustrative analysis in this response paper presents money with a constant value over time. In practice, money received in later periods would be less valued than earlier period (the time value of money).

Objective of the default tariff cap

4.16. The primary objective of the Domestic Gas and Electricity (Tariff Cap) Act 2018 is to protect existing and future consumers. As well as consider costs passed on to customers, we stated in our April 2019 consultation that we would consider the impact of our proposals on the smart meter rollout, which will ultimately benefit customers.

Interaction between prepayment and credit customers

4.17. The adequacy of smart funding for customers that are not on default credit tariffs is outside the scope of the default tariff cap review. However, we are aware some stakeholders consider we should have regard to the adequacy of funding for prepayment customers when considering whether the smart metering allowances in the cap are sufficient to recover costs and protect the rollout.

Stranded fixed costs

4.18. When assessing the carry forward balance, we will also consider instances where fixed costs might have been incurred in the first three cap periods but the corresponding rollout level has not been achieved (effectively leaving the fixed costs stranded).

4.19. In this instance, it might not be appropriate to assume suppliers have not used the allowance where they haven't met the corresponding level of rollout.

4.20. Once we give regard to these other factors, we may not adjust the allowances to account for a carry forward, or may only adjust it partially.

5. Views raised by suppliers

5.1. In April 2019, we consulted on our approach to reviewing smart metering costs in the default tariff cap. The consultation mentioned that even taking potentially higher 2018 costs into consideration, preliminary data suggests that the proposed allowance for the third cap period is somewhat higher than the actual efficient costs and we expect the same to be true for the first two cap periods. We went on to say that, we consider any additional amounts to be viewed as payments in advance for installations that occur later. We would ideally want to align costs over the life of the cap.

5.2. Suppliers raised concerns about our proposal to have regard to advanced or lagged payments in the first three cap periods, when setting the allowance for forthcoming cap periods. We address the main concerns below.

Error correction

5.3. Stakeholders considered the carry forward a correction mechanism. They highlighted this was something we had dismissed previously when considering the broader default tariff cap methodology.

5.4. Some suppliers said that we should take, or might be expected to take, a consistent approach to error correction across each component in the cap. As we had opposed error correction in other areas of the cap, in their view we should not correct smart metering costs.

5.5. Some stakeholders thought that the market may consider we had set a precedent that allowances may be reviewed ex post.

Our consideration

5.6. In our Decision, we decided not to include a mechanism in the cap for correcting previous forecast errors. In our statutory consultation, we stated that we were concerned that an adjustment mechanism to correct for error in forecasts in the previous period would create a further distortion to the market. We noted that in the long run, non-systematic forecast errors should net out. We noted that we had considered short term volatility when setting headroom.[21]

5.7. We do not consider that we should have an uncritical and uniform approach to reviews or corrections. We consider that the specific circumstances of a cost component should be taken in account. On that basis, despite stating that we would not review the cap level in general, our Decision announced that we would review smart metering costs due to the specific uncertainty around the pace and cost of the smart meter rollout.

5.8. In general, we remain opposed to mechanisms that correct for forecast errors for the reasons stated in our Decision. We were concerned that in most cases, attempting to adjust errors may distort the cap by more than not attempting to make adjustments.

5.9. However, in the case of smart meter costs we do not consider these reasons to apply. Unlike other cost components, the smart meter rollout is not an instance where in the long run, non-systematic forecast errors should net out. We consider that the long run impact of potential errors could be significant. For instance, if we do not reconsider potential forecast errors in the SMNCC model (such as, the efficient cost per smart meters) then we would risk substantially underfunding the smart meter rollout. The first three cap periods provide funding to suppliers at an installation rate of 12.5% of the rollout obligation every six months. Those allowances assume a specific efficient cost that suppliers suggest could be to be too low. This would not be offset by future variances. Therefore, we risk a greater distortion to the market if we do not consider the adequacy of those assumptions than if we do consider correcting them. Underfunding could harm consumers, if the smart meter rollout itself is threatened.

5.10. Note that some suppliers appear to consider the rollout profile in the allowance as a forecast, and therefore they consider variances between suppliers' aggregate (or average) progress as an error. This is incorrect.

5.11. The differences between the rollout profile in the SMNCC model and suppliers' rollout profiles are not errors; they are inevitable, expected, and accounted for the in methodology, as discussed above. Unlike many costs in the cap, the timing of smart meter costs is within suppliers' control. We need to be able to consider the adequacy of the allowance in past periods and consider the reasons for variance. This will ensure we can avoid perverse incentives and prevent over allowance or under allowance when costs are reviewed. For instance, if a (hypothetical) supplier had not installed any smart meters during the first three cap periods, it is clear in our Decision that our policy intention is that this money has been provided for a specific proportion

[21] See paragraph 3.17. Ofgem (2018) Decision – Default tariff cap – overview document (https://www.ofgem.gov.uk/system/files/docs/2018/11/decision_-_default_tariff_cap_-_overview_document_0.pdf)

of that supplier's rollout obligation, regardless of when it met that obligation. It is clear we should not allow for the funding a second time (ie when the supplier eventually installs the meters we had already taken into account and funded at an earlier stage).

5.12. Overall, we consider it imprudent to assume that the first three cap periods were adequate for 30% of the rollout obligation between January 2019 and April 2020.[22] If our cost review shows that not to be the case, we consider it better, subject to consultation, to consider adjustments.

Size and direction of Carry Forward

5.13. Some stakeholders stated that the allowance provided in the first three periods has already been used for commitments and investments. They argued that taking it back would be detrimental.

5.14. Most suppliers considered that subsequent allowances should not be reduced to account for substantial prepayments in the first three cap periods, on the grounds that the allowances in the first three cap periods had been insufficient (below an updated assessment of efficient costs). In their view any downward adjustment would set the allowance below efficient costs.

5.15. One supplier suggested that if we did have regard to advance payments we should do so using updated assessment of the efficient costs (as it believed efficient costs had increased, which would reduce the size of the prepayment, or reveal that the allowance lags efficient costs). One supplier suggested that fixed costs had been incurred that could not be considered as a prepayment.

Our consideration

5.16. If suppliers have investments or commitments relating to smart meters, which are higher than the first three allowances, that could be because they have installed more smart meters than allowed for. As we discuss above, the progress of the rollout will vary for each supplier. Suppliers that install more meters early in the rollout, will incur lower costs later in the rollout. The timing differences between the smart allowances and the costs should net out.

5.17. Alternatively, suppliers might have investments or commitments relating to smart meters, which are higher than the first three allowances, because they have higher costs per smart meter. To the extent costs are higher because efficient costs have increased, we have proposed to take that into account by using the new SMIP SMNCC model to assess efficient costs in the first three cap periods. If, on aggregate, the allowances in the first three cap periods were insufficient, then we have proposed to have regard to those timing differences and would potentially increase subsequent allowances, not decrease the allowances.

5.18. If a supplier's costs were higher because it was less efficient than its competitors, then we would not consider that when setting the allowance.

5.19. The smart meter allowance should not have been used for commitments and investments not relating to smart meters. Any allowances received in advance should only have been used for the smart meter rollout. In our Decision for the default tariff cap, we discussed the risk that because we are unable to formally ring-fence funding for smart metering within the cap, then some suppliers might try to use the smart metering allowance for other purposes. For example, by reducing their plans to install smart meters so they can use the surplus to cover inefficiencies in costs elsewhere. We stated that this approach was unacceptable. We do not intend to consider non-smart related investments in our review.[23]

[22] Note that costs are accrued, so we do not imply that 30% of the capitalised installation cost was provided.
[23] See paragraph 2.64. Ofgem (2018) Decision – Default tariff cap – overview document (https://www.ofgem.gov.uk/system/files/docs/2018/11/decision_-_default_tariff_cap_-_overview_document_0.pdf)

5.20. For the avoidance of doubt, it is our express intention to assess the suitability of the allowances in the first three cap periods using updated assessments of the efficient costs (the new SMNCC model). If those costs are higher than previously assumed (as suppliers believe) we will take that into account. In that assessment we will consider the extent to which fixed costs may have stranded and whether that increases efficient costs.

Changing portfolios

5.21. Some suppliers suggested that having regard for advance payments would be inaccurate because suppliers' default tariff customer base is not static. That could be unfair on suppliers with new or growing portfolios who might not have received the higher allowances in the first three cap periods. These suppliers would not have a carry forward surplus sufficient for the remaining cap periods.

Our consideration

5.22. Our consideration of the carry forward above assumes a stable customer base. If there is an aggregate surplus carried forward (across all suppliers), then in principle, new suppliers and growing suppliers may be at a disadvantage as they would not have been able to generate the full carry forward. Suppliers with declining portfolios may be at an advantage. We will consider this effect.

5.23. In practice, the impact on suppliers with growing customer bases is unlikely to be significant. New suppliers and suppliers with growing portfolios are unlikely to have high risk exposure to any adjustments to the smart metering allowance. We would expect newly acquired customers to be on fixed tariffs, and not in scope of the default tariff cap. Similarly, new suppliers are unlikely to have a large default tariff customer base and they tend to price below the cap so the adequacy of the allowance is not crucial for them.

Procedural fairness

5.24. Some suppliers argued that our proposal was procedurally unfair. It reasoned that we had proposed a reversal of policy and that when we consulted on the SMNCC methodology for the first two cap periods it had not understood that these could be corrected at a later date. One supplier said that we should only consider timing differences in the third cap period (as the methodology for that period was consulted on in June 2019, after we made suppliers aware that we may consider advanced payment and lagged payments).

Our consideration

5.25. We do not consider our consultation on this proposal unfair.

5.26. Our Decision was clear that the allowance in the first two cap periods related to a specific and ambitious rollout profile. The Decision noted that the rollout profile exceeded the supplier-produced forecast rollout profiles in gas for all of the six largest suppliers and five of the six largest suppliers for electricity and therefore should not restrict supplier's ambitions to meet or exceed their current forecasts.[24] We did this so as not to disadvantage energy suppliers who were making progress above the industry average or to disincentives them from rolling out smart meters.[25] As the supplier itself mentions in its response to the April consultation, differences in rollout profile (between the allowance and suppliers) are expected to net out over the life of the cap. It is part of that methodology that suppliers that install fewer meters than provided for, do not receive additional money at a later date.

[24] Ofgem (2018), Default Tariff Cap Decision, Appendix 7 – Smart metering costs, paragraph 1.13 (https://www.ofgem.gov.uk/system/files/docs/2018/11/appendix_7_-_smart_metering_costs.pdf)
[25] Ofgem (2018), Default Tariff Cap statutory consultation , Appendix 7 – Smart metering costs, paragraph 3.13 (https://www.ofgem.gov.uk/system/files/docs/2018/09/appendix_7_-_smart_metering_costs_0.pdf)

5.27. As mentioned above, our Decision also makes clear that money allocated to the smart meter rollout should not be spent on other costs, such as inefficient operating costs.[26] Any money charged to customers that relates to smart meters should be reserved for smart meters, even if that supplier has not yet rolled out smart meters at the rate allowed for.

5.28. In our Decision we made clear our concern that the pace and costs of the smart meter rollout were uniquely uncertain. On that basis, we proposed to review the efficient costs of the smart meter rollout, despite our view that general reviews would not improve the functioning of the cap.[27]

5.29. We did not specify the scope of that review of smart costs, however, given supplier representations we consider there is a risk that the efficient costs per smart meter are too low, and that the interaction with fixed costs, means that the assumption underpinning the allowances in the first three cap periods undervalue the efficient cost of the rollout over its life time. On that basis, we have proposed having regard to those issues, and sought suppliers' views on that basis.

Next steps

If you wish to submit views on the issues discussed in this paper, we encourage you to get in touch with us as soon as possible, and in any event no later than close of business on **13 September 2019**.

Please provide any comments to **retailpriceregulation@ofgem.gov.uk**. Please provide as much detail as possible to explain and justify your views.

Yours faithfully,

Anna Rossington

Deputy Director – Retail Price Protection

[26] Ofgem (2018), Default Tariff Cap Decision, Overview, page 8 (https://www.ofgem.gov.uk/system/files/docs/2018/11/decision_-_default_tariff_cap_-_overview_document_0.pdf)

[27] Ofgem (2018), Default Tariff Cap Decision, Appendix 7 – Smart metering costs, paragraph 1.16 (https://www.ofgem.gov.uk/system/files/docs/2018/11/appendix_7_-_smart_metering_costs.pdf)