ofgem
Making a positive difference
for energy consumers

Energy price cap operating cost review: smart metering working paper

1. Introduction

1.1 The default tariff cap (the 'cap') was introduced in 2019 to protect existing and future domestic customers on standard variable and default tariffs (which we refer to collectively as 'default tariffs'), ensuring that customers pay a fair price for their energy that reflects the efficient underlying cost to supply that energy. The cap is set out in legislation through the Domestic Gas and Electricity (Tariff Cap) Act 2018 ('the Act').[1, 2]

1.2 One component of the cap is the operating cost allowances. These are:

- Core operating costs allowance - a supplier's own costs of retailing energy;
- Smart Metering Net Cost Change (SMNCC) allowance – the net change in costs as part of the transition for the smart meter rollout; and
- Payment Method Uplift (PMU) - allowances for the additional costs of serving customers who pay by different payment methods.

1.3 In May 2024, we published our policy consultation on the operating cost allowances review.[3] In the policy consultation, we split the review into four component areas:

- Core operating costs;
- Debt-related costs;
- Smart metering costs;
- Pass-through industry charges.

1.4 The four areas have different factors and requirements that may determine the best approach for setting the methodology. Splitting them allows us to consider different sets of options and approaches, enabling us to set a more flexible cap.

[1]Domestic Gas and Electricity (Tariff Cap) Act 2018.
https://www.legislation.gov.uk/ukpga/2018/21
[2] We explain the five matters which we must have regard to when setting the cap and additional information on the background of the cap in our policy consultation.
Ofgem (2024), Energy price cap operating cost allowances review, paragraphs 2.1-2.5.
https://www.ofgem.gov.uk/consultation/energy-price-cap-operating-cost-allowances-review
[3] Ofgem (2024), Energy price cap operating cost allowances review.
https://www.ofgem.gov.uk/consultation/energy-price-cap-operating-cost-allowances-review

1.5 The SMNCC allowance provides an allowance for the smart meter rollout. The SMNCC allowance is made up of two parts: the 'non-pass-through' (NPT) and 'pass-through costs'.[4]

1.6 This working paper only focuses on the NPT SMNCC costs. For further context on both smart metering costs within the cap and the SMNCC allowance, please refer to our policy consultation.[5]

1.7 The original operating costs benchmark was baselined using 2017 data, which included some costs for smart metering. However, as the majority of the smart meter rollout was due to be completed after 2017, we included the SMNCC allowance to reflect the way these costs change as the rollout progresses. The NPT SMNCC allowance is therefore calculated as the change in rollout costs between 2017 and subsequent years. Given the operating cost allowances review will set a new core operating costs baseline, we consider it appropriate to review the current methodology for setting the SMNCC allowance.

1.8 Given the uncertain nature of future costs, benefits and rollout profile of smart metering, the rationale for an SMNCC allowance still holds. While a more fundamental review of the approach may be appropriate in the future, we consider that this would be premature ahead of the Department of Energy Security and Net Zero's (DESNZ) decisions on the future of the smart meter framework beyond 2025.

1.9 In the meantime, we expect to retain an SMNCC allowance which will require changing the NPT SMNCC model to align with the new baseline. This provides us with an interim opportunity to consider our approach for modelling smart meter rollout costs and in particular, whether any simplification of the model is appropriate.

Purpose of this working paper

1.10 In this working paper, we will be considering whether there is a simpler way of estimating the future net cost change of rollout, beyond those which will be included within the revised operating costs baseline. This working paper sets out our views on developing options for how a simpler SMNCC model could work. We

[4] SMNCC 'pass-through' costs reflect the change in industry charges. SMNCC 'non-pass-through' costs reflect the change in suppliers' net costs of rolling out smart meters.
[5] Ofgem (2024), Energy price cap operating cost allowances review, paragraphs 5.5-5.24. https://www.ofgem.gov.uk/consultation/energy-price-cap-operating-cost-allowances-review

further discuss the different combinations of costs and benefits that could be included/excluded within a simpler SMNCC model.

1.11 Typically we update the NPT SMNCC model inputs annually, setting the allowances for the forthcoming year each October. As we now plan to set the revised operating costs allowance in 2025, we have also needed to consider how to set the SMNCC in the interim period between October 2024 and implementation of the measures arising out of the operating cost allowances review.[6] This document therefore also provides a decision on how we will update the SMNCC model for October 2024 (using 2023 annual supplier returns (ASR) data inputs). Alongside the August 2024 cap update, we have published a letter explaining how this affects the SMNCC values within 'Annex 5 – Smart metering net cost change methodology'.[7]

1.12 In this working paper, we do not include a summary of all stakeholder comments relating to the smart meter section of our policy consultation, nor do we address each individual point. Instead, we reference stakeholder comments where appropriate, and we will address other comments in our statutory consultation.

1.13 This working paper includes the following sections:

- Section 1: Introduction;
- Section 2: Background;
- Section 3: The case for change;
- Section 4: Simplification options;
- Section 5: Updating the allowance: August 2024;
- Section 6: Next steps;
- Appendix 1: Costs and benefits;
- Appendix 2: Privacy notice.

1.14 We are seeking responses to this working paper by 20 September 2024. Please send your response to priceprotectionpolicy@ofgem.gov.uk.

[6] Ofgem (2024), Energy price cap operating cost allowances review, paragraphs 5.56-5.58. https://www.ofgem.gov.uk/consultation/energy-price-cap-operating-cost-allowances-review
[7] Ofgem (2024), Annex 5 – Smart metering net cost change methodology. https://www.ofgem.gov.uk/energy-policy-and-regulation/policy-and-regulatory-programmes/energy-price-cap-default-tariff-policy/energy-price-cap-default-tariff-levels

2. Background

SMNCC approach

2.1 The cost of installing and operating smart meters, as part of the smart meter rollout, is reflected in the cap through two allowances: the operating cost allowance and the SMNCC allowance. The core operating costs allowance includes the smart metering costs in the 2017 baseline year (alongside other operating costs). This allowance is uplifted for CPIH[8] each time the cap is updated.

2.2 The SMNCC allowance reflects the change in costs since 2017 as part of the transition for the smart meter rollout. When the operating cost allowance was set, the smart metering programme was already embedded in supplier operations, and we considered that the baseline costs of smart metering were included in the suppliers' operating cost. However, the majority of the smart meter rollout remained to be completed after 2017, so we added an allowance to reflect these costs.

3. The case for change

3.1 The operating cost allowances were introduced in 2019 and since then there have been several significant market changes such as market consolidations (eg acquisitions and exits), introduction of regulatory changes (eg quarterly cap updates) and external events (eg the COVID-19 pandemic and the gas crisis). Due to these changes, we considered it appropriate to undertake a review of the operating cost allowances.

3.2 We intend to update the operating costs baseline which will reflect the updated metering related costs (alongside other operating costs) to date.[9] This means that continuing to set the NPT SMNCC would not accurately reflect the updated baseline so we will need to decide whether and how to update the SMNCC allowance. Given rollout has advanced considerably since the operating cost allowances were first introduced, we will consider what a proportionate approach would be to reflect any further costs and benefits resulting from the smart meter rollout.

[8] CPIH = Consumer Prices Index including owner occupiers' housing costs.
[9] It is worth noting that the current operating costs allowance was benchmarked using data which included some smart meter rollout activity. Since then, the SMNCC allowance has focused on the change in rollout costs relative to the current operational cost baseline, therefore it reflects the additional costs of rollout and not the total costs.

3.3 We consider that we need to update the NPT SMNCC allowance as the future costs and benefits result from the smart meter rollout are still uncertain, so it will be in the customer interest that the cap is able to reflect these changes year on year.

3.4 However, the NPT SMNCC model is complex, and since the inception of the cap, several suppliers have commented on its complexity and perceived lack of transparency.[10] This review allows us to consider whether it would be proportionate to simplify the model.

3.5 In response to our consultation, some suppliers questioned the timing of the review, given the current smart meter rollout framework is due to expire next year. However, we do not consider it appropriate to 'do nothing' as the model baseline will need to be updated to be consistent with the operating costs baseline, since the SMNCC model calculates the change in costs relative to the baseline, rather than absolute cost.

3.6 One supplier in response to our policy consultation said that we should end the SMNCC allowance. It said that it was not clear why the adjustment would still be required if we update the baseline using more up-to-date data.

3.7 We consider that the SMNCC allowance will still be required to adapt for cost changes due to the smart meter rollout beyond the baseline year. Updating the baseline will move costs from the current SMNCC allowance to the new core operating costs baseline, causing the allowance to trend closer to zero than the current SMNCC allowance, but it would not eliminate the need for a separate allowance, if ongoing rollout led to cost changes beyond the new baseline year. We anticipate that related costs will continue to change in the future as the rollout is still not complete. As such we consider the future costs due to rolling out smart meters to be uncertain and are likely to vary from the new baseline.[11]

[10] The SMNCC allowance is calculated using the SMNCC model, which is based on the 2019 DESNZ (formally referred to as BEIS) Cost Benefit Analysis (CBA) model.
BEIS (2019), Smart meter roll-out: cost-benefit analysis 2019.
https://www.gov.uk/government/publications/smart-meter-roll-out-cost-benefit-analysis-2019

[11] Average smart meter rollout is 63% (at the end of March 2024)
DESNZ (2024), Smart meters in Great Britain, quarterly update March 2024.
https://www.gov.uk/government/statistics/smart-meters-in-great-britain-quarterly-update-march-2024

Post-2025 framework

Context

3.8 DESNZ's four-year smart metering rollout framework sets out the minimum installation requirements (subject to tolerance levels) for suppliers up until the end of 2025.[12] Under this framework, the government set out individual energy supplier targets and tolerance levels on a trajectory to 100% coverage.[13]

3.9 The supplier targets and tolerance levels are input into the SMNCC model and, alongside annual rollout profile data inputs/ updates, are used to set the SMNCC allowance for the forthcoming year.

3.10 Given the current framework is due to expire next year, if the government were to consult on a new framework, then we would need to consider how this could interact with our modelling approach.

Considerations

3.11 In response to our May 2024 policy consultation, two suppliers suggested delaying the SMNCC review.

3.12 One of these suppliers questioned the value of introducing a new model that only considers rollout until the end of the current framework. It said that it expected to hear more on plans for the next phase of rollout. A different supplier referenced the current rollout framework running until the end of next year and as such said that no change should be made to the SMNCC now, but rather a full review of how costs are captured should take place alongside the new target-based rollout framework. It said that we should work with government to review and update this framework and the impact assessment for installing smart meters.

3.13 We consider that the current framework, which sets annual installation targets, helps to ensure that the cost calculations remain accurate and relevant. This is important for the SMNCC model, which calculates the net cost change for suppliers as they roll out smart meters.

[12] DESNZ (2023), Smart Meter Targets Framework: minimum installation requirements for Year 3 (2024) and Year 4 (2025). https://www.gov.uk/government/consultations/smart-meter-targets-framework-minimum-installation-requirements-for-year-3-2024-and-year-4-2025

[13] These targets are designed to ensure that suppliers have installed a specific number of smart meters by a certain deadline, aiming for 100% coverage. The "tolerance levels" refer to the allowable margin of error or flexibility given to suppliers each year.

3.14 We have considered three options for how we plan to proceed with consideration for a post-2025 framework. These are:

- Option 1: Delay the SMNCC review until a decision on a post-2025 framework has been made;
- Option 2: Progress with the SMNCC review and consider the post-2025 framework following a decision on the revised rollout framework;
- Option 3: Set the SMNCC to £0 until a decision on a post-2025 framework has been made.

3.15 Option 2 is our preferred option. This will allow us to simplify the current SMNCC model (if we deem that a simpler model would be more appropriate), whilst considering any changes from a post-2025 framework.

3.16 There is a degree of uncertainty on what a post-2025 framework would include, or how similar/ different it will be in contrast to the existing framework. We intend to only consult on the new framework in future if there is a material change in rollout which could impact our revised model. However, the scope of any such consultation is still to be determined.

Other considered options

3.17 This section explains our considerations for the alternative options which we have considered and discounted (Option 1 and Option 3).

3.18 We consider that the SMNCC review is being driven by the operating costs review which will lead to a new baseline year. We will need to update the SMNCC model baseline so that it is compatible and consistent with the implementation of the revised core operating costs baseline. We have therefore discounted Option 1 as we consider that a "do nothing" approach is not an option.

3.19 We also consider that delaying the SMNCC review could lead to a longer timeframe for when a revised SMNCC could be in place.

3.20 Option 3 assumes that we do not need to consider the revised core operating costs baseline now. It adopts a simplified approach by setting the allowance to £0 for an interim period, until a decision on the next rollout framework has been made.

3.21 We consider that under Option 3, there is a risk of mismatch between the interim allowance and costs for credit/prepayment meter (PPM) customers, when

compared to updating the baseline. This is because we would assume the impact of smart meters rolled out after the baseline year is zero. The SMNCC would therefore not reflect the notionally efficient costs of rolling out smart meters which would not be in customers' or suppliers' interest.

3.22 In 2019, DESNZ conducted a comprehensive analysis to evaluate the overall costs and benefits of the smart meter rollout. Their findings indicated that the smart meter rollout is expected to deliver significant net benefits.[14] Further, we continue to see year on year cost/ benefit changes which could be material for credit/ PPM customers, and we consider that the allowance should be able to react to these changes. The SMNCC allowance reflects cost changes resulting from smart meter rollout. Continuing the SMNCC allowance will ensure that customers pay the efficient costs of smart meter rollout, whilst also having regard to the need for suppliers who operate efficiently to be able to finance their licensed activities, based on the efficient costs of a notional supplier.

3.23 Given the forthcoming post-2025 framework, we consider that now is not the time to change the intention of the SMNCC model, but we are interested in introducing simplifications that retain the current model scope. Therefore, we are not proposing to change the benchmark or rollout methodology, but are looking to reduce unnecessary complexity in the costs and benefits.

4. Simplification options

4.1 In this section of the working paper, we consider the options for how we could set the smart metering allowance for the remainder of rollout once the new operating cost allowance is in place. We build on the considerations of a simpler SMNCC type model (option 2) and do not focus on the status quo approach.[15] This is so we can focus on identifying what a simpler SMNCC type model could look like, in order to develop this option. As such, we do not consider all elements of the SMNCC review here, but only those relating to a simpler model. We include considerations on the (i) costs and benefits, (ii) rollout, (iii) benchmark, (iv) annual review process and (v) advanced payments adjustment.

[14] DESNZ (2019), Smart meter rollout cost-benefit analysis.
https://www.gov.uk/government/publications/smart-meter-roll-out-cost-benefit-analysis-2019

[15] In our policy consultation, we set out two options. 1: updating the current SMNCC approach (status quo), and 2: a simpler SMNCC type model.
Ofgem (2024), Energy price cap operating cost allowances review, paragraph 5.32.
https://www.ofgem.gov.uk/consultation/energy-price-cap-operating-cost-allowances-review

Costs and benefits

Context

4.2 In this section we consider how we could take a simpler approach to modelling the transitional costs of the smart meter rollout relative to the current SMNCC model. We would seek to keep the same principle of calculating a net cost change allowance as the most robust approach. This will ensure we are not double counting costs (in the absence of having accurate data to split out smart and traditional metering costs in the new operating cost baseline).

4.3 We consider that simplifying the SMNCC model is feasible as some costs, which previously varied along the smart meter rollout, are now more consistent year-on-year given the progress suppliers have made in rolling out smart meters. We consider that costs which no longer vary significantly year-on-year are less likely to change with future rollout, so there would be limited value in including them in the SMNCC model. These costs will still be included in the baseline operating cost allowance. This section therefore considers the key components to include within the SMNCC model.

4.4 The SMNCC model measures the change in costs year-on-year relative to a baseline period, so it is not simple to say that some components are 'costs' and others are 'benefits' in the context of the SMNCC, as the direction of each component is, in part, dependent on its value during the baseline period.

4.5 Each component within the model shows us the cost change and historically we know that some components have trended upwards or downwards which makes them appear as a benefit or cost to suppliers relative to the current baseline. However, as we move to a new baseline, it is difficult for us to say how they will continue to trend year-on-year.

4.6 We have set out our considerations below on which components in principle could vary materially from the baseline year. We welcome comments from stakeholders on these considerations. Following this feedback, we intend to present a revised option for the statutory consultation, including figures where relevant. We encourage stakeholders to engage on the principles of each option and provide representations of whether each option contains components which they think will materially change going forwards relative to the new baseline.

Options

4.7 We have considered different options for setting up a simplified model, which include different sets of components. These are presented in Table 1.

Table 1: Simplified model options

Option	Key components
1	Asset and installation costs
2	Option 1 plus in year Premature Replacement Charges (PRC) for traditional meters and avoided rental costs for meters where a PRC was previously incurred; asset and installation cost of installing traditional meters during rollout
3	Option 2 plus In-Home Displays (IHDs) and non-zero direct operational benefits
4	Status quo approach: Smart meter asset and installation costs, traditional meter asset and installation costs, IHDs, non-zero direct operational benefits and other costs

4.8 The options presented are for the purpose of this working paper so there may be further options that we could consider. We welcome feedback on further options with additional complexity that consider adding costs and/or benefits.

4.9 Each option builds on the previous option, such that option 2 contains all components in option 1 and option 3 contains all components in option 2. This means that the structure of each option does not change, but rather the individual components included within it do.

4.10 Each option represents a refinement of smart metering costs, which we consider less complex and more transparent. In addition, it is likely to reduce the time taken to update the model each year. We consider that a simplified model is able to deliver a sufficient level of robustness in the context of a revised core operating costs baseline.

4.11 Option 4 (status quo) approach has been included to act as a comparison of the components which are included in the current SMNCC model.

4.12 A summary of the components and sub-components which are captured for each option is illustrated below in Table 2. In Appendix 1, we provide a description alongside the data inputs used for each sub-component.

Table 2: Detailed summary of options

Component	Sub-component	Option 1	Option 2	Option 3	Option 4
Smart meter asset costs	Cost of smart meter assets installed during rollout	**Captured**	**Captured**	**Captured**	**Captured**
Smart meter asset costs	Cost of prematurely replacing SMETS1	Not captured	Not captured	Not captured	**Captured**
Smart meter asset costs	Benefit of avoided rental charges for prematurely replaced SMETS1 meters	Not captured	Not captured	Not captured	**Captured**
Smart meter installation costs	Installation costs of installing smart meters during rollout	**Captured**	**Captured**	**Captured**	**Captured**
Smart meter installation costs	Cost of prematurely replacing SMETS1	Not captured	Not captured	Not captured	**Captured**
Smart meter installation costs	Benefit of avoided rental charges for prematurely replaced SMETS1 meters	Not captured	Not captured	Not captured	**Captured**
In-home display (IHD) costs	No sub-component	Not captured	Not captured	**Captured**	**Captured**
Traditional meter asset cost	Asset costs of installing traditional meters during rollout	Not captured	**Captured**	**Captured**	**Captured**
Traditional meter asset cost	Cost of prematurely replacing traditional meters	Not captured	**Captured**	**Captured**	**Captured**
Traditional meter asset cost	Benefit of avoided rental charges for prematurely replaced traditional meters	Not captured	**Captured**	**Captured**	**Captured**
Traditional meter asset cost	Benefit of not replacing old traditional meters with a new traditional meter	**Captured**	**Captured**	**Captured**	**Captured**
Traditional meter installation costs	Installation costs of installing traditional meters during rollout	Not captured	**Captured**	**Captured**	**Captured**
Traditional meter installation costs	Cost of prematurely replacing traditional meters	Not captured	**Captured**	**Captured**	**Captured**
Traditional meter installation costs	Benefit of avoided rental charges for prematurely replaced traditional meters	Not captured	**Captured**	**Captured**	**Captured**

Traditional meter installation costs	Benefit of not replacing old traditional meters with a new traditional meter	**Captured**	**Captured**	**Captured**	**Captured**
Non-zero operational benefits	Debt handling	Not captured	Not captured	**Captured**	**Captured**
Non-zero operational benefits	Customer enquiry benefits	Not captured	Not captured	**Captured**	**Captured**
Non-zero operational benefits	Change of tariff benefit	Not captured	Not captured	**Captured**	**Captured**
Non-zero operational benefits	Customer switching benefits	Not captured	Not captured	**Captured**	**Captured**
Non-zero operational benefits	Avoided site visits	Not captured	Not captured	**Captured**	**Captured**
Non-zero operational benefits	Prepayment cost to serve (PPM only)	**Captured**	**Captured**	**Captured**	**Captured**
Operating and maintenance costs	No sub-component	Not captured	Not captured	Not captured	**Captured**
Supplier IT	No sub-component	Not captured	Not captured	Not captured	**Captured**
Legal and organisational costs	No sub-component	Not captured	Not captured	Not captured	**Captured**
Other costs	Other costs	Not captured	Not captured	Not captured	**Captured**

Option 1: Asset and installation costs

4.13 Under option 1, we would only update the core cost components for smart meters: the costs of smart meter assets and installation costs alongside the benefit of not replacing traditional meters with a new traditional meter.

4.14 This option is the most significant simplification of the SMNCC model inputs compared to the current SMNCC model. These represent the most material individual costs and benefits, while excluding less significant costs such as premature replacement charges or IHDs as we consider these costs will be captured in the new baseline and would not change materially in the future.

4.15 There are other components, representing costs and benefits, which were not included in this option such as operational and maintenance, and IT costs.

Option 2: Option 1 plus in year costs of premature replacement charge's (PRC's) for traditional meters

4.16 In option 2, we set out to add the costs for PRCs in two forms: firstly, the cost of prematurely replacing traditional meters and secondly, the benefit of avoided rental charges for prematurely replaced traditional meters. Both of these relate to the meter asset and installation cost.

4.17 We expect that new traditional meters will be very limited after 2023 given the new and replacement obligation on suppliers.

Option 3: Option 2 plus non-zero direct operational benefits

4.18 The third option includes the costs of IHDs and non-zero direct operational benefits. Non-zero direct operational benefits include components such as debt-handling, customer enquiry benefits, customer switching benefits, avoided site visits and the prepayment cost to serve (for PPM only).

Option 4: status quo

4.19 The fourth option shows the current components which make up the current SMNCC model, and acts as a comparison to the simplified options for stakeholders. This option would also include an updated baseline and would retain the same components/ modelling structure as the current SMNCC model approach.

4.20 It includes smart meter asset and installation costs, traditional meter asset and installation costs, IHDs, non-zero direct operational benefits and other costs

Considerations

4.21 We consider which costs and benefits should be included within a simplified SMNCC model by taking a holistic look at the model. Any relatively stable costs are planned to be reflected within the new baseline, so we intend to only consider the materiality of any changes in costs and benefits relative to the new baseline. Some costs are more likely to be stable over time because they do not depend on rollout, such as IT costs. Other costs may be more likely to not be stable over time because they depend on in-year (rather than cumulative) rollout, such as IHD costs.

4.22 There are some costs which we have discounted as part of this review on the basis that the change in those costs from 2017 is not material, for example operational and maintenance costs, and organisational costs. We consider these

costs will be captured in the new baseline and would not change materially in the future.

4.23 One supplier in response to our policy consultation said that it did not accept that the costs of PRCs or IHDs were offset by the inclusion of other components. We consider that PRCs are currently a net saving to customers and have included the PRCs and IHDs in options 2 and 3 respectively. However, we still consider that they are less significant than the four key costs included within option 1.

4.24 Out of the options presented, we consider that option 3 would be the most robust approach. This option still significantly reduces the modelled costs and benefits being used to calculate the SMNCC. We are not concerned that the exclusion of costs or benefits will reduce the robustness of the model as it should still reflect the change in a notional supplier's smart meter rollout costs. We encourage stakeholders to provide representations for any alternative components which they consider will materially change in the future when compared to an updated baseline.

4.25 Option 3, which contains the most costs and benefits, is closest to the current modelled approach, however it is important to note that this option is less complex than the current modelled approach. We consider that it is important the PPM SMNCC allowance contains the 'prepayment cost to serve' component to better reflect the operational benefit smart meters have on the costs of serving PPM customers.

4.26 Although option 3 is much simpler compared to the current modelled approach, we do not consider that would reduce its robustness. We consider this because the components not included within the option do not have material impacts on the allowance on an individual basis, and we they could be adding spurious accuracy rather than precision.

Rollout

Context

4.27 Suppliers' rollout profiles are an important part of how we estimate suppliers' costs result from rolling out smart meters and therefore the SMNCC. For credit, smart meters are a cost to a supplier within the period covered by our modelling, so the number of smart meters installed affects its costs.

4.28 We currently use a market leader tolerance approach for credit, and this approach allows a notionally efficient supplier with a market leader rollout profile to meet

its obligations. It also allows most other suppliers to collect more revenue than they would need to meet their obligations, however they may decide to spend it all on their smart meter rollout programme.

4.29 For PPM we use a weighted average rollout profile.

Considerations

4.30 We do not consider it necessary to change the way rollout currently works within the SMNCC model and are minded to continuing to use a market leader tolerance approach for credit and a weighted average rollout tolerance for PPM.[16]

4.31 Further, we are looking to simplify the model while retaining its broad intent. Changing the rollout approach would change the model intention, which we consider is premature ahead of decisions on the post-2025 framework.

Benchmark

Context

4.32 Under the legislative framework, we can only set one cap level across the market. This means we must take a single cost across suppliers to represent the efficient costs of a notional supplier. We refer to this as benchmarking.

4.33 There are four key considerations when assessing the options for the benchmarking metric (i) the level of price protection, (ii) the role of efficiency and non-efficiency factors, (iii) the resilience to future developments, and (iv) financeability.

4.34 In our 2018 decision, for the SMNCC allowance, we used an average benchmark. This was because we had expected the market to converge on the efficient way of procuring assets, so variation in suppliers' reported asset costs would be limited. We also considered that a stricter benchmark could limit rollout and undermine suppliers' willingness to roll out meters.[17]

Considerations

4.35 At this stage we do not consider that there is reasonable justification for moving away from using the weighted average to benchmark the SMNCC. We consider a

[16] Ofgem (2021), Decision on credit SMNCC allowance, paragraphs 2.11-2.12. https://www.ofgem.gov.uk/decision/price-cap-decision-credit-smncc-allowance
Ofgem (2021), Decision on PPM SMNCC allowance, paragraphs 4.8-4.9. https://www.ofgem.gov.uk/decision/price-cap-decision-ppm-smncc-allowance
[17] Ofgem (2018), Appendix 7 – Smart metering costs paragraphs 2.9. https://www.ofgem.gov.uk/decision/default-tariff-cap-decision-overview

weighted average is still valid as individual suppliers are at different stages of their smart meter rollout, and consequently the cost per additional smart meter may vary, which is unlikely to be a result of individual efficiency.

4.36 Stakeholders did not comment specifically on the benchmarking approach within the SMNCC model. We did not consider alternative benchmarks such as a lower quartile or above average. A lower quartile benchmark would not be appropriate given costs vary between suppliers while rollout progresses, so setting the benchmark to the supplier with the 25th percentile cost would be below the efficient cost for other suppliers. Setting a benchmark above the average level would reduce the level of price protection.

4.37 Our view here does not pre-judge any benchmarking decisions in the wider operating cost allowances review or elsewhere in the cap. Our considerations here are in the specific context of smart metering – a multi-year obligation where suppliers can sequence their activities in materially different ways.

Annual review process

Context

4.38 We currently update the SMNCC model annually, to set the allowance for the following October to September. This update involves including new ASR, rollout and GDP deflator data to produce the next year's NPT SMNCC values.

4.39 In our policy consultation we set out that we would consider the rollout progress and whether it would be proportionate to continue a review and update process. Consequently, we considered two options:

- Option 1: Maintaining the current approach of regular reviews and updates. The regular review process is mechanical. This option would not be creating a new consultation process for each update.
- Option 2: Set the profile of allowances with no further updates. We would set the forward profile of the allowances for the coming years when setting the initial operating cost allowance and we would not update the model with new costing or rollout data.

Considerations

4.40 Five suppliers in response to our May 2024 policy consultation supported option 1, as they said that there is still uncertainty within the rollout programme and reviews will provide flexibility to include new costs. One supplier had a slight

preference for not continually reviewing the SMNCC model each year, to reduce regulatory burden.

4.41 We consider that there is the potential for a material change in costs over time, given the current progress of rollout and as such we consider that continuing with the current annual review process will enable the model to better reflect the actual rollout and costs suppliers face.

4.42 It will be in the customer interest to continue annually updating the SMNCC allowance to ensure that it reflects a notional suppliers' efficient costs resulting from the smart meter rollout programme.

4.43 Should new costs or benefits emerge not currently captured by the present review process, we intend to consider these in line with our usual tests for amending the cap.

Advanced payment adjustment

Context

4.44 The SMNCC model contains an element called an "advanced payments adjustment" which is made to reflect when suppliers have received payment in advance for smart metering costs they have not yet incurred, or lagged payments for costs they have already incurred. This is calculated by considering the difference between the allowances set, and the allowance that would have been set had we used newer data.[18]

4.45 The advanced payments adjustment reflects that we set the SMNCC allowances based on estimates of future rollout and costs. We use the advanced payment adjustment once actual data becomes available, so as to align the cumulative allowances and costs for the rollout. Advanced payments are recovered over 12 months from each October.

Considerations

4.46 We intend to continue including advanced payment adjustment, and we also intend to carry over the current advanced payment adjustment in any revised SMNCC model.

[18] Ofgem (2023), February 2023 decision on approach to reviewing the SMNCC allowances, paragraphs 3.26-3.27.
https://www.ofgem.gov.uk/decision/price-cap-february-2023-decision-approach-reviewing-smncc-allowances

4.47 This is to ensure that, over time, notional suppliers working efficiently continue to finance their licensed activities, based on the efficient costs of a notional supplier' for rolling out smart meters, as the advanced payment adjustment will take into account differences between the set allowance and the allowance suppliers should have received. We consider that continuing advanced payment adjustment will be in the customer interest to ensure that, over time, they pay the notionally efficient cost of smart meter rollout.

5. Updating the allowance: August 2024

Context

5.1 Historically, we have updated the NPT SMNCC allowance annually to reflect the latest data for a defined list of inputs.[19] In our May 2024 policy consultation, we set out that we could either carry out an update of the existing SMNCC model using the latest (2023) ASR, or we could use the existing inputs in the SMNCC model to set the forward profile of the allowance from October 2024.

Stakeholder response summary

5.2 Four suppliers supported using the existing SMNCC model inputs to set the allowance for October 2024 onwards. They said that this would be the simplest approach and that it was pragmatic.

5.3 Three suppliers said that we should update the model with the latest (2023) ASR data to support cost recovery.

Decision

5.4 We have decided to update the NPT SMNCC model with the latest data inputs.

5.5 The updated model reflects (i) the data inputs from the 2023 ASR data provided by suppliers, (ii) the rollout target and tolerance values for 2024 and 2025 of the Smart Meter Targets Framework published in July 2023,[20] and (iii) the GDP deflator estimates and forecasts from the Office for National Statistics (ONS) and Office for Budget Responsibility (OBR) respectively.[21]

[19] This includes inputs from annual supplier returns, the smart meter policy framework, the ONS and OBR.
[20] DESNZ (2023), "Smart Meter Targets Framework: minimum installation requirements for Year 3 (2024) and Year 4 (2025)", table 3 page 72, https://www.gov.uk/government/consultations/smart-meter-targets-framework-minimum-installation-requirements-for-year-3-2024-and-year-4-2025
[21] Values up to 2023 from ONS 2024Q2 Quarterly National Accounts. Values for 2024 to 2027 from OBR July 2024 Economic and fiscal outlook publication

5.6 We have published a letter alongside this working paper explaining the update of the non-pass-through SMNCC allowances.[22]

5.7 For the avoidance of doubt, we have also updated the pass through SMNCC allowance.

Considerations

5.8 We have considered the evidence around whether to update the SMNCC allowance with 2023 ASR data now and decided to proceed with the update. This will ensure that the allowance reflects the change in the notional efficient costs for suppliers rolling out smart meters, which we consider is in the customer interest.

5.9 As stated previously, we consider that we will need to continue using advanced payments[23] if we set up a new SMNCC model. This will ensure that suppliers are able to recover the difference between previous year's allowances and what they would have been set to with actual data. We will set out further detail on how we intend to manage this transition through our statutory consultation.

6. Next steps

6.1 We are seeking responses to this working paper by 20 September 2024. Please send your responses to priceprotectionpolicy@ofgem.gov.uk.

6.2 Following this working paper, we intend to publish a statutory consultation later this year. We also plan to review the need to carry out a disclosure exercise alongside that consultation.

[22] Ofgem (2024), Annual update of non-pass-through Smart Meter Net Cost Change allowances. https://www.ofgem.gov.uk/energy-policy-and-regulation/policy-and-regulatory-programmes/energy-price-cap-default-tariff-policy/energy-price-cap-default-tariff-levels

[23] The advanced payments adjustment reflects that we set the SMNCC allowances based on estimates of future rollout and costs. We use the advanced payment adjustment once actual data becomes available, so as to align the cumulative allowances and costs for the rollout.

Appendix 1: Costs and benefits

Overview

A1.1 In this appendix, we further explain each cost/benefit mentioned in section 4, what data inputs are used and the method to calculate.

Component	Sub-component	Description	Data inputs used	Option 1	Option 2	Option 3	Option 4
Smart meter asset costs	Cost of smart meter assets installed during rollout	Each year, suppliers install meter and communication hub assets in their customers' homes. They may rent these assets from Meter Asset Providers (MAPs), in which case the supplier will pay fees over the rental period. Alternatively, the supplier may have purchased the assets, and amortise that capital investment over the life of the asset.	Through statistical returns from energy suppliers and regular contact with delivery partners the programme has collected information on the costs of smart meters using ASR data.	**Captured**	**Captured**	**Captured**	**Captured**
Smart meter asset costs	Cost of prematurely replacing SMETS1	Suppliers incur a charge for replacing a meter before its costs have been paid off – a PRC. Suppliers may incur PRCs for SMETS1 meters they are unable to enrol with the DCC.	Data we collected on meter asset lives, which helps us to model the relevant costs (bottom-up). We also collected actual PRCs, to consider the cost suppliers have actually paid (top-down). These data are not updated annually.	Not captured	Not captured	Not captured	**Captured**

Component	Sub-component	Description	Data inputs used	Option 1	Option 2	Option 3	Option 4
Smart meter asset costs	Benefit of avoided rental charges for prematurely replaced SMETS1 meters	This benefit captures the accumulated meter rental charges a supplier would have had to pay for a meter that was prematurely replaced. This benefit is captured in each year from when the SMETS1 meter is replaced to the modelled remaining length of contract.	Data we collected on meter asset lives, which helps us to model the relevant costs (bottom-up). This data is not updated annually.	Not captured	Not captured	Not captured	**Captured**
Smart meter installation costs	Installation costs of installing smart meters during rollout	Installation costs are one of a supplier's principal costs in the rollout. These cover the costs of training installers, providing tools, installer wages, managing installers in the field, appointment setting, insurance, legal, and other back-office support costs.	The programme collects information on the cost of smart meter installations through regular statistical returns from suppliers using ASR data. Costs have been provided for single and dual fuel installations for both in-house and third-party installations.	**Captured**	**Captured**	**Captured**	**Captured**
Smart meter installation costs	Cost of prematurely replacing SMETS1	Suppliers incur a charge for replacing a meter before its costs have been paid off – a PRC. Suppliers may incur PRCs for SMETS1 meters they are unable to enrol with the DCC.	Data we collected on meter asset lives, which helps us to model the relevant costs (bottom-up). We also collected actual PRCs, to consider the cost suppliers have actually paid (top-down). This data is not updated annually.	Not captured	Not captured	Not captured	**Captured**

Component	Sub-component	Description	Data inputs used	Option 1	Option 2	Option 3	Option 4
Smart meter installation costs	Benefit of avoided rental charges for prematurely replaced SMETS1 meters	This benefit captures the accumulated meter rental charges a supplier would have had to pay for a meter that was prematurely replaced. This benefit is captured in each year from when the SMETS1 meter is replaced to the modelled remaining length of contract.	Data we collected on meter asset lives, which helps us to model the relevant costs (bottom-up). This data is not updated annually.	Not captured	Not captured	Not captured	**Captured**
In-home display (IHD) costs	No sub-component	Suppliers install In-Home Display units (IHDs) which display information to customers about their energy use. In the SMNCC model, we include the full IHD costs in the year they are installed, rather than amortising them over time.	ASR data collected from energy suppliers on the unit cost of an IHD provided with both SMETS1 and SMETS2 meters. An adjustment for the cost of IHDs with additional functionality is applied, based on the 2019 CBA input.	Not captured	Not captured	**Captured**	**Captured**
Traditional meter asset cost	Asset costs of installing traditional meters during rollout	During the rollout, suppliers still installed traditional meters in some cases. We amortise these costs in the SMNCC model.	Through statistical returns from energy suppliers and regular contact with delivery partners the programme has collected information on the costs of traditional meters based on information used by DESNZ for the 2019 CBA.	Not captured	**Captured**	**Captured**	**Captured**

Component	Sub-component	Description	Data inputs used	Option 1	Option 2	Option 3	Option 4
Traditional meter asset cost	Cost of prematurely replacing traditional meters	Suppliers incur a charge for replacing a meter before its costs have been paid off – a PRC. The level of the PRC depends on several factors including the contract with the meter owner and (in particular) the age of the meter. Generally, the PRC a supplier faces decreases as the meter ages.	Data we collected on meter asset lives, which helps us to model the relevant costs (bottom-up). We also collected actual PRCs, to consider the cost suppliers have actually paid (top-down). This data is not updated annually.	Not captured	**Captured**	**Captured**	**Captured**
Traditional meter asset cost	Benefit of avoided rental charges for prematurely replaced traditional meters	This benefit captures the accumulated meter rental charges a supplier would have had to pay for a meter that was prematurely replaced. This benefit, only applied to non-expired meters, is captured in each year from when the traditional meter is replaced to the modelled remaining length of contract.	This uses the same data as for the cost of prematurely replacing traditional meters.	Not captured	**Captured**	**Captured**	**Captured**
Traditional meter asset cost	Benefit of not replacing old traditional meters with a new traditional meter	These are benefits and do not scale with the smart meter rollout. Each year a portion of a supplier's traditional meters would have expired. Due to the rollout, a supplier no longer incurs the costs of installing a certain number of new traditional meters. Except in a few rare cases, suppliers do not have to install these meters and therefore, they do not incur those costs, because they have installed a smart meter instead.	Through statistical returns from energy suppliers, the programme has collected information on the costs of traditional meters based on information used by DESNZ for the 2019 CBA. Annual rollout data inform the level of benefit realised.	**Captured**	**Captured**	**Captured**	**Captured**

Component	Sub-component	Description	Data inputs used	Option 1	Option 2	Option 3	Option 4
Traditional meter installation costs	Installation costs of installing traditional meters during rollout	As for smart meters, suppliers incur installation costs when installing traditional meters.	Through statistical returns from energy suppliers, the programme has collected information on the costs of traditional meters based on information used by DESNZ for the 2019 CBA.	Not captured	**Captured**	**Captured**	**Captured**
Traditional meter installation costs	Cost of prematurely replacing traditional meters	Suppliers incur a charge for replacing a meter before its costs have been paid off – a PRC. The level of the PRC depends on a number of factors including the contract with the meter owner and (in particular) the age of the meter. Generally, the PRC a supplier faces decreases as the meter ages.	Data we collected on meter asset lives, which helps us to model the relevant costs (bottom-up). We also collected actual PRCs, to consider the cost suppliers have actually paid (top-down). This data is not updated annually.	Not captured	**Captured**	**Captured**	**Captured**
Traditional meter installation costs	Benefit of avoided rental charges for prematurely replaced traditional meters	This benefit captures the accumulated meter rental charges a supplier would have had to pay for a meter that was prematurely replaced. This benefit is captured in each year from when the traditional meter is replaced to the modelled remaining length of contract.	Data we collected on meter asset lives which helps us to model the relevant costs (bottom-up). This data is not updated annually.	Not captured	**Captured**	**Captured**	**Captured**

Component	Sub-component	Description	Data inputs used	Option 1	Option 2	Option 3	Option 4
Traditional meter installation costs	Benefit of not replacing old traditional meters with a new traditional meter	These are benefits and do not scale with the smart meter rollout. Each year a portion of a supplier's traditional meters would have expired. Due to the rollout, a supplier no longer incurs the costs of installing a certain number of new traditional meters. Except in a few rare cases, suppliers do not have to install these meters and therefore, they do not incur those costs, because they have installed a smart meter instead.	Through statistical returns from energy suppliers, the programme has collected information on the costs of traditional meters based on information used by DESNZ for the 2019 CBA. Annual rollout data inform the level of benefit realised.	**Captured**	**Captured**	**Captured**	**Captured**
Non-zero operational benefits	Debt handling	Smart metering helps to avoid or reduce the impact of debt (both the consumer and the energy supplier). The SMNCC model includes certain benefits related to debt handling: • Earlier identification of debt build-up and faster follow-up action • Consequential reduced debt management costs	•Earlier identification of debt build-up and faster follow-up action: the SMNCC broadly maintains the 2019 CBA assumptions. • Reduced debt management costs: the SMNCC model maintains the 2019 CBA assumptions.	Not captured	Not captured	**Captured**	**Captured**
Non-zero operational benefits	Customer enquiry benefits	Smart meters provide suppliers with accurate billing information. This should reduce the need for customers to contact their suppliers to discuss errors.	The 2019 CBA uses a combination of current data (i.e. volume of calls, cost per call based on ASR data, lower fixed costs) from suppliers and assumptions about future trends.	Not captured	Not captured	**Captured**	**Captured**

Component	Sub-component	Description	Data inputs used	Option 1	Option 2	Option 3	Option 4
Non-zero operational benefits	Change of tariff benefit	For traditional meters, suppliers must visit a customer to switch them from a single rate tariff to a multiple rate tariff (eg standard to Economy 7) or vice versa.	The 2019 CBA includes this benefit across both fuel types. In the SMNCC model, we allocate the total benefit to electricity meters only.	Not captured	Not captured	**Captured**	**Captured**
Non-zero operational benefits	Customer switching benefits	Smart meters deliver benefits when customers switch suppliers. Switching benefits relate to smart metering reducing the cost of obtaining a change of supplier meter reading.	In the SMNCC model, the automated meter reading benefit in the 2019 CBA is only applied to SMETS2 and enrolled SMETS1 meters.	Not captured	Not captured	**Captured**	**Captured**
Non-zero operational benefits	Avoided site visits	Energy suppliers will avoid costs from not having to send meter reading operatives to properties to obtain a meter reading or inspect a meter for safety purposes. The former will not be required for smart meters, while safety inspections will be conducted independently of meter readings.	Using data from energy suppliers on the volume of meter reading/inspection visits and the overall expenditure on these, the unit costs of a meter read visit and the average frequency with which these visits occur is tracked.	Not captured	Not captured	**Captured**	**Captured**
Non-zero operational benefits	Prepayment cost to serve (PPM only)	Smart meters bring savings in the costs that energy suppliers incur in serving customers with prepayment meters (PPM). For example, smart meters enable remote switching (as opposed to requiring a site visit), and smart meters in prepayment mode require less maintenance and service.	Using data from the Competition and Markets Authority report on their analysis of costs varying by payment type and data from suppliers	**Captured**	**Captured**	**Captured**	**Captured**

Component	Sub-component	Description	Data inputs used	Option 1	Option 2	Option 3	Option 4
Operating and maintenance costs	No sub-component	The costs associated with maintaining existing smart meters. Costs will scale with the number of smart meters in service.	The 2019 CBA assumes an annual O&M cost for smart meters of 2.5% of the meter purchase price.	Not captured	Not captured	Not captured	**Captured**
Supplier IT	No sub-component	Suppliers incur additional IT costs related to the smart meter rollout, over and above the expenditure they would have incurred without the smart meter rollout. Costs include amortised investment in hardware and software (excluding enrolment), amortised investment in enrolment costs (the costs suppliers are expected to incur to enrol SMETS1 meters with the DCC), and ongoing operating expenditure.	IT costs for capital expenditure (excluding enrolment) are based on 2019 RFI data. IT costs for capital expenditure related to enrolment are based on the 2019 CBA. IT operating costs are based on 2020 RFI data.	Not captured	Not captured	Not captured	**Captured**
Legal and organisational costs	No sub-component	Suppliers incur legal, institutional, and organisational set-up costs for the smart meter rollout. The 2019 CBA assumes these costs relate to setting up the smart meter programme between 2013 and 2017	The SMNCC model freezes legal and organisational costs at the 2017 level stated in the 2019 CBA.	Not captured	Not captured	Not captured	**Captured**

Component	Sub-component	Description	Data inputs used	Option 1	Option 2	Option 3	Option 4
Other costs	Other costs	Includes: • Marketing: on average these costs peaked in 2017 (the financial benefits from marketing are not included). Costs are frozen at 2018 levels and should become increasingly conservative in later years. • Restructuring: efficient suppliers may incur some restructuring costs as a result of adapting their businesses to smart metering.	Marketing costs are based on 2018 RFI data. Restructuring data is not explicit within the SMNCC model and is considered in our review of uncertainty for our 2020 decision.	Not captured	Not captured	Not captured	**Captured**

Appendix 2: Privacy notice

Personal data

The following explains your rights and gives you the information you are entitled to under the General Data Protection Regulation (GDPR).

Note that this section only refers to your personal data (your name address and anything that could be used to identify you personally) not the content of your response to the consultation.

1. The identity of the controller and contact details of our Data Protection Officer

The Gas and Electricity Markets Authority is the controller, (for ease of reference, "Ofgem"). The Data Protection Officer can be contacted at dpo@ofgem.gov.uk

2. Why we are collecting your personal data

Your personal data is being collected as an essential part of the consultation process, so that we can contact you regarding your response and for statistical purposes. We may also use it to contact you about related matters.

3. Our legal basis for processing your personal data

As a public authority, the GDPR makes provision for Ofgem to process personal data as necessary for the effective performance of a task carried out in the public interest. i.e. a consultation.

4. With whom we will be sharing your personal data

We may share consultation responses with officials from the Department of Energy Security and Net Zero.

5. For how long we will keep your personal data, or criteria used to determine the retention period.

Your personal data will be held for 6 months after the project, including subsequent projects or legal proceedings regarding a decision based on this consultation process, is closed.

6. Your rights

The data we are collecting is your personal data, and you have considerable say over what happens to it. You have the right to:

- know how we use your personal data
- access your personal data
- have personal data corrected if it is inaccurate or incomplete
- ask us to delete personal data when we no longer need it
- ask us to restrict how we process your data
- get your data from us and re-use it across other services
- object to certain ways we use your data
- be safeguarded against risks where decisions based on your data are taken entirely automatically
- tell us if we can share your information with 3rd parties
- tell us your preferred frequency, content and format of our communications with you
- to lodge a complaint with the independent Information Commissioner (ICO) if you think we are not handling your data fairly or in accordance with the law. You can contact the ICO at https://ico.org.uk/, or telephone 0303 123 1113.

7. Your personal data will not be sent overseas

8. Your personal data will not be used for any automated decision making.

9. Your personal data will be stored in a secure government IT system.

10. More information For more information on how Ofgem processes your data, click on the link to our "ofgem privacy promise".