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Consultation

Price Cap: final consultation on updating the prepayment SMNCC allowance

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Response deadline:	11 June 2021		
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This is our final consultation on updating the smart metering allowance (the Smart Metering Net Cost Change or SMNCC allowance) for prepayment meters in the default tariff cap in time for winter 2021-22. We would like views from stakeholders with an interest in the level of the default tariff cap. We particularly welcome responses from domestic energy suppliers, consumer groups and the public.

This document outlines the scope, purpose and questions of the consultation and how you can get involved. Once the consultation is closed, we will consider all responses. We want to be transparent in our consultations. We will publish the non-confidential responses we receive alongside a decision on next steps on our website at **Ofgem.gov.uk/consultations**. If you want your response – in whole or in part – to be considered confidential, please tell us in your response and explain why. Please clearly mark the parts of your response that you consider to be confidential, and if possible, put the confidential material in separate appendices to your response.

Any enquiries related to the text of this publication should be sent to Ofgem at:
10 South Colonnade, Canary Wharf, London, E14 4PU. Alternatively, please call Ofgem on 0207 901 7000.

This publication is available at **www.ofgem.gov.uk**. Any enquiries regarding the use and re-use of this information resource should be sent to: psi@nationalarchives.gsi.gov.uk

Contents

Executive summary

The default tariff cap ('cap') protects domestic customers on default tariffs, ensuring that they pay a fair price for their energy, reflecting its underlying costs. There has been a cap level for prepayment meter (PPM) customers on default tariffs since January 2021, when the Competition and Markets Authority's prepayment charge restriction ('the CMA PPM cap') expired. This consultation sets out our updated proposals for the PPM level of the Smart Metering Net Cost Change (SMNCC) allowance in the cap, which reflects the change in smart metering costs since 2017.

Setting the PPM-specific rollout profile

There is greater variation in PPM rollout across suppliers, relative to average progress, compared to credit. We are proposing to use a single PPM-specific rollout profile to set the PPM SMNCC and reflect a given level of modelled costs. This approach enables us to represent the market costs of rolling out smart meters for PPM customers while maximising model transparency.

Calculating the PPM-specific rollout profile

The Department for Business, Energy and Industrial Strategy (BEIS) has introduced a new smart meter policy framework, which will be implemented on 1 July 2021. BEIS has consulted on the proposed smart meter roll out enforceable obligations that suppliers will face.

The rollout profile is a key input to the calculation of the SMNCC. There are several options for how we set the rollout profile, based on the combination of two variables. The first variable is the level of smart meter rollout achieved at the start of the new framework – this could be an average supplier or the supplier whose rollout profile generates the highest SMNCC. The second variable is the rate of rollout during the new framework – whether suppliers roll out smart meters in line with BEIS's policy ambition of market-wide rollout by mid-2025 (a 'target' approach), or in line with their minimum installation requirements (a 'tolerance' approach).

We propose to set the PPM SMNCC allowance based on the weighted market average PPM rollout. This is different from the approach for the credit SMNCC. We propose to calculate funding based on suppliers' rollout obligations ('tolerance' approach). This reflects that suppliers are legally required to meet the tolerances, which increases our confidence that suppliers would spend the revenue available through the SMNCC on smart metering. This is the same as the credit SMNCC.

Differing cost methodologies across credit and PPM

We are proposing to set certain assumptions and approaches that we consider should be specific to the PPM SMNCC allowance. We propose PPM-specific assumptions on traditional meter asset life, premature replacement charges (PRCs) and the PPM cost to serve benefit. We also propose a different method for assessing how the cap level should vary across consumption levels, as well as an approach to offsetting the possible under-recovery of efficient PPM costs. These assumptions reflect the areas where the costs to rollout smart meters to PPM customers differ from those on credit.

We propose to maintain common approaches and assumptions with the credit SMNCC on other inputs to the SMNCC model.

Other areas

We note that – in line with our August 2020 decision – advanced payments would start to take effect from this review.[1] These would take account of the cumulative revenues and costs since the fifth cap period. If we cannot reach a conclusion on our current review, we propose to use our updated SMNCC model as a starting point, which we would adapt to set the contingency allowance.

Proposed PPM SMNCC values

For cap period seven, we propose to set the PPM SMNCC at -£6.86 per typical dual fuel customer. For cap period eight, we propose to set the PPM SMNCC at -£9.16 per typical dual fuel customer. Appendix 1 shows the detail on the proposed PPM SMNCC values for individual fuels, as well as the proposed values for subsequent cap periods (after our next scheduled review of the SMNCC). These values are lower than when we set the PPM SMNCC at £0 for cap periods five and six, our contingency approach, in our August 2020 decision.

Next steps

We are seeking views by 11 June 2021. We intend to take a decision ahead of the next cap update in early August 2021. This would take effect from cap period seven, which begins on 1 October 2021.

[1] Ofgem (2020), Protecting energy consumers with prepayment meters: August 2020 decision, paragraph 6.14. https://www.ofgem.gov.uk/system/files/docs/2020/08/protecting_energy_consumers_with_prepayment_meters_-_august_2020_decision.pdf

1. Consultation Process

Consultation stages

1.1. As part of this review, we previously published two working papers in November 2020 and February 2021.[2,3] This consultation follows on from these working papers.

1.2. We will consider feedback from this consultation before deciding whether to amend the Smart Metering Net Cost Change (SMNCC) values in the default tariff cap ('cap'). We intend to publish a decision in early August 2021, ahead of announcing the cap level for cap period seven. Any changes would take effect from 1 October 2021.

Disclosure

1.3. Alongside this consultation, we are carrying out a similar disclosure process as for our May 2020 consultation.[4] This allows stakeholders to inspect the SMNCC model and for their advisers to inspect certain other pieces of analysis, in each case subject to confidentiality restrictions.

1.4. If you would like to participate in the disclosure process and have not yet registered your interest, please contact us as soon as possible at: retailpriceregulation@ofgem.gov.uk.

[2] Ofgem (2020), Setting the PPM smart meter cost allowance in the default tariff cap – working paper. https://www.ofgem.gov.uk/publications-and-updates/setting-ppm-smart-meter-cost-allowance-default-tariff-cap-working-paper

Ofgem (2021), Setting the level of rollout for the PPM smart meter cost allowance: working paper. https://www.ofgem.gov.uk/publications-and-updates/setting-level-rollout-ppm-smart-meter-cost-allowance-working-paper

[3] On the cover page of our February 2021 working paper, the publication date and response deadline were incorrectly dated with the year as 2020. The year should instead have been 2021 for both.

[4] Ofgem (2021), Price Cap – Disclosure arrangements for the late-Spring 2021 consultations. https://www.ofgem.gov.uk/publications-and-updates/price-cap-disclosure-arrangements-late-spring-2021-consultations

Related publications

1.5. Key related publications:

- May 2020 consultation: https://www.ofgem.gov.uk/publications-and-updates/statutory-consultation-protecting-energy-consumers-prepayment-meters
- August 2020 decision: https://www.ofgem.gov.uk/publications-and-updates/decision-protecting-energy-consumers-prepayment-meters
- November 2020 first prepayment SMNCC working paper ('PPM SMNCC WP1'): https://www.ofgem.gov.uk/publications-and-updates/setting-ppm-smart-meter-cost-allowance-default-tariff-cap-working-paper
- November 2020 first credit SMNCC working paper ('SMNCC WP1'): https://www.ofgem.gov.uk/publications-and-updates/updating-allowance-smart-metering-costs-default-tariff-cap-working-paper
- February 2021 second prepayment SMNCC working paper ('PPM SMNCC WP2') : https://www.ofgem.gov.uk/publications-and-updates/setting-level-rollout-ppm-smart-meter-cost-allowance-working-paper
- February 2021 second credit SMNCC working paper ('SMNCC WP2'): https://www.ofgem.gov.uk/publications-and-updates/smart-meter-rollout-and-default-tariff-cap-working-paper
- April 2021 consultation on the credit SMNCC: Published alongside this consultation and available on our website
- BEIS June 2020 government response to the consultation on smart meter policy framework post 2020: https://www.gov.uk/government/consultations/smart-meter-policy-framework-post-2020
- BEIS November 2020 consultation on post 2020 minimum annual installation requirements: https://www.gov.uk/government/consultations/smart-meter-policy-framework-post-2020-minimum-annual-targets-and-reporting-thresholds-for-energy-suppliers

How to respond

1.6. We want to hear from anyone interested in this consultation. Please send your response to the person or team named on this document's front page.

1.7. We do not ask specific questions in this document. Rather, we welcome views on any of the matters discussed in this consultation.

1.8. We will publish non-confidential responses on our website at www.ofgem.gov.uk/consultations.

Your response, data and confidentiality

1.9. You can ask us to keep your response, or parts of your response, confidential. We'll respect this, subject to obligations to disclose information, for example, under the Freedom of Information Act 2000, the Environmental Information Regulations 2004, statutory directions, court orders, government regulations or where you give us explicit permission to disclose. If you do want us to keep your response confidential, please clearly mark this on your response and explain why.

1.10. If you wish us to keep part of your response confidential, please clearly mark those parts of your response that you *do* wish to be kept confidential and those that you *do not* wish to be kept confidential. Please put the confidential material in a separate appendix to your response. If necessary, we'll get in touch with you to discuss which parts of the information in your response should be kept confidential, and which can be published. We might ask for reasons why.

1.11. If the information you give in your response contains personal data under the UK General Data Protection Regulation (UK GDPR), the Gas and Electricity Markets Authority will be the data controller for the purposes of UK GDPR. Ofgem uses the information in responses in performing its statutory functions and in accordance with section 105 of the Utilities Act 2000. Please refer to our Privacy Notice on consultations, see Appendix 6.

1.12. If you wish to respond confidentially, we will keep your response itself confidential, but we will publish the number (but not the names) of confidential responses we receive. We won't link responses to respondents if we publish a summary of responses, and we will evaluate each response on its own merits without undermining your right to confidentiality.

General feedback

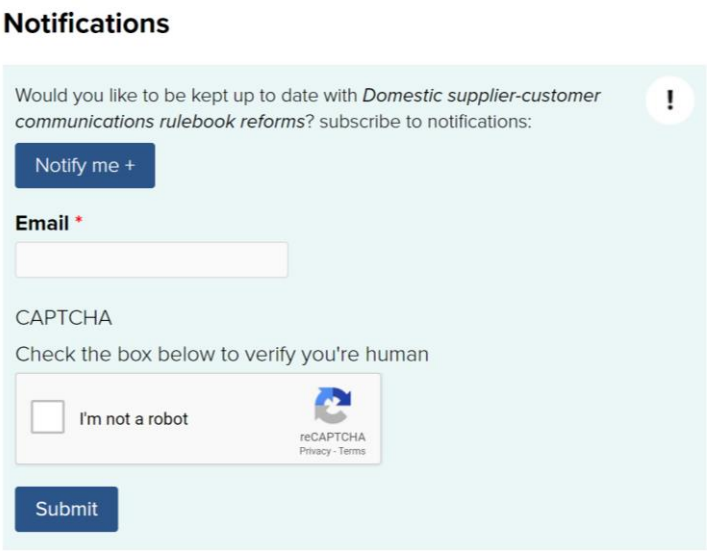
1.13. We believe that consultation is at the heart of good policy development. We welcome any comments about how we've run this consultation. We'd also like to get your answers to these questions:

1. Do you have any comments about the overall process of this consultation?
2. Do you have any comments about its tone and content?
3. Was it easy to read and understand? Or could it have been better written?
4. Were its conclusions balanced?
5. Did it make reasoned recommendations for improvement?
6. Any further comments?

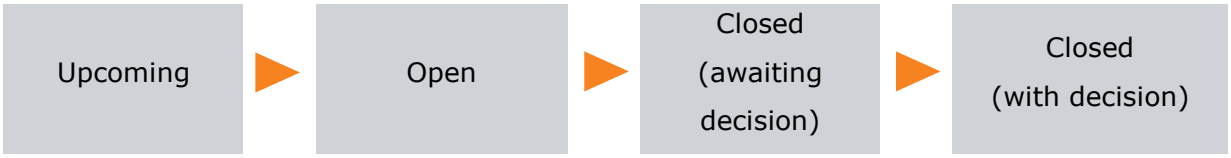
Please send any general feedback comments to stakeholders@ofgem.gov.uk

How to track the progress of the consultation

You can track the progress of a consultation from upcoming to decision status using the 'notify me' function on a consultation page when published on our website. Ofgem.gov.uk/consultations.



Once subscribed to the notifications for a particular consultation, you will receive an email to notify you when it has changed status. Our consultation stages are:


Upcoming
Open
Closed (awaiting decision)
Closed (with decision)

2. Introduction

What are we consulting on?

2.1. The cap protects approximately 15 million domestic customers on standard variable and default tariffs (which we refer to collectively as "default tariffs"), ensuring that they pay a fair price for their energy, reflecting its underlying costs. The cap is one of the key activities which fall within the outcome "consumers pay a fair price for energy and benefit from rights and protections" within our Forward Work Programme for 2021-22. We set the cap by considering the different costs suppliers face. The cap is made up of a number of allowances which reflect these different costs.

2.2. One cost to suppliers is the net cost of installing and operating smart meters. We reflect this in the cap through two allowances. The operating cost allowance includes the cost of smart metering in the 2017 baseline year (alongside other operating costs).[5] The SMNCC allowance reflects the change in smart metering costs since 2017.

2.3. The SMNCC allowance comprises a 'pass through' element covering industry charges relating to smart metering and a 'non pass through' element covering suppliers' own smart metering costs.

- We update the 'pass through' element as part of the six-monthly price cap updates. This element is not the focus of this consultation.

- We use a forward looking modelled approach to set the non-pass-through (NPT) element for future cap periods. **This consultation focuses on the NPT SMNCC allowance for customers with PPM** (which we refer to as **'the PPM SMNCC'** for the remainder of this document).

2.4. In August 2020, we decided to introduce a PPM level in the cap to protect default tariff PPM consumers beyond the expiry of the Competition and Markets Authority's prepayment charge restriction ('the CMA PPM cap'). As part of our decision, we decided to include a PPM SMNCC allowance in the PPM level of the cap. However, we opted to use our contingency

[5] We index this allowance with inflation as part of the six-monthly cap update.

option and set the value at zero. We said that we would introduce a specific PPM SMNCC methodology for cap period seven (starting on 1 October 2021).

2.5. The purpose of this consultation is to give stakeholders the opportunity to comment on the key issues that we have considered as part of this review, and on the resulting proposed PPM SMNCC values. We have published a separate consultation on the non-pass-through SMNCC allowance for customers with credit meters.[6] For the elements discussed in this consultation, we set out the similarities and differences between the credit SMNCC and the PPM SMNCC in Chapters 3 and 4.

Overview of issues covered in this consultation

Table 1 below provides a high-level view of the main elements which make up the calculation of the PPM SMNCC. It indicates how the issues we discuss in this consultation fit into this overall structure.

Table 1 – High-level SMNCC structure and issues covered in this consultation

High-level category	Overview of how categories interact	Sub-category	Main discussion in this document
Rollout	Feeds into cost and benefit calculations		Chapter 5 (all), Chapter 6 (all) Appendix 4 (all)
Costs	Uses rollout and cost inputs to calculate different costs	In-premises costs	Chapter 3 (In-premises costs)
		IT costs	Chapter 3 (IT costs)
		Other costs	Chapter 3 (Operating and maintenance costs), Chapter 3 (Cross-referenced costs across credit and PPM), Chapter 4 (Meter asset life and premature replacement charge age)

[6] Ofgem (2021), Price Cap: final consultation on updating the credit SMNCC allowance. https://www.ofgem.gov.uk/publications-and-updates/price-cap-final-consultation-updating-credit-smncc-allowance

Benefits	Uses rollout and benefit inputs to calculate different benefits	PPM CTS benefit	Chapter 4 (PPM cost to serve benefit), Appendix 3 (all)
Calculating SMNCC	Uses cost and benefit calculations to calculate change in net costs since 2017 baseline	Baseline adjustment	Chapter 3 (Setting the allowance to account for efficient net costs)
		Calculating net costs	Chapter 3 (Setting the allowance to account for efficient net costs)
		Calculating SMNCC	Chapter 3 (Setting the allowance to account for efficient net costs), Chapter 4 (Setting the SMNCC at nil consumption, Offsetting additional PPM costs)
		Uncertainty	Chapter 7 (Review of uncertainty), Appendix 5 (all)
		Advanced payments	Chapter 7 (Advanced payments)

2.6. **Notes:** This is a high-level overview only. It is not intended to be comprehensive. In the final column, text in brackets indicates the section name within a given chapter (or "all" if the entire chapter relates to a particular sub-category).

Context and related publications

Previous process

2.7. This paper is the third in a series of three consultations that will lead to the decision in August 2021 for setting the PPM SMNCC from 1 October 2021. In November 2020 we published our first working paper of this series on certain areas related to the methodology and assumptions of prepayment meter (PPM) specific costs. This covered areas where our methodology or assumptions related to costs that differed from the credit SMNCC.[7] Our second working paper in February 2021 focused on issues relating to the smart meter rollout

[7] Ofgem (2020), Setting the PPM smart meter cost allowance in the default tariff cap – working paper. https://www.ofgem.gov.uk/publications-and-updates/setting-ppm-smart-meter-cost-allowance-default-tariff-cap-working-paper

(separate papers were published for issues relating to the rollout of smart meters for PPM customers and credit customers).

2.8. We also consulted on the PPM SMNCC allowance in May 2020, and we published our decision in August 2020 to continue protection for default tariff PPM customers via the default tariff cap, once the CMA PPM cap expired at the end of December 2020. This decision discussed how we planned to design the PPM level of the default tariff cap in the future. We decided to set it at the level of the existing PPM cap for the upcoming cap periods (cap periods 5 and 6). We decided to include a PPM SMNCC in the PPM cap level, but set it to zero for that cap period. The proposals we are consulting on in this paper therefore build on the May 2020 consultation as well as the more recent working paper series.

2.9. Subject to this consultation, we intend to announce the PPM SMNCC allowance values at the start of August 2021. This aligns with our six-monthly update of the cap. These PPM SMNCC allowance values would take effect from cap period seven (beginning in October 2021).

The new rollout framework

2.10. BEIS has a new smart metering rollout framework. In this new framework suppliers will be set individual installation targets subject to an annual tolerance level.[8]

2.11. BEIS has now consulted on the annual tolerances associated with this framework.[9] We do not repeat its consultation here, although we would encourage stakeholders to read BEIS's consultation. Key elements of BEIS's proposals are as follows.

- BEIS has proposed tolerances for the first two years of its new framework (July 2021 to June 2023).[10]

[8] BEIS (2020), Delivering a Smart System Response to a Consultation on Smart Meter Policy Framework Post-2020. https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/893124/delivering-smart-system-post-2020-govt-response-consultation.pdf

[9] BEIS (2020), Smart meter policy framework post 2020: minimum annual targets and reporting thresholds for energy suppliers. https://www.gov.uk/government/consultations/smart-meter-policy-framework-post-2020-minimum-annual-targets-and-reporting-thresholds-for-energy-suppliers

[10] BEIS (2020), Smart meter policy framework post 2020: minimum annual targets and reporting thresholds for energy suppliers, paragraph 8. https://www.gov.uk/government/consultations/smart-

- These tolerances are the same for all suppliers: 4% for year one of the framework (1 July 2021 to 30 June 2022), and 5.5% for year two of the framework (1 July 2022 to 30 June 2023).[11]

- Each supplier's rollout target is based on a profile to market-wide rollout by mid-2025.[12] As each supplier will have a different rollout position at the start of the framework, suppliers will have different targets.

- The tolerances are applied to the targets to calculate the minimum annual installation requirements. Suppliers' legal obligations are to meet these minimum installation requirements,[13] calculated after applying the tolerances.[14] Suppliers would therefore have different legally-binding installation requirements.

2.12. BEIS calculated its proposed tolerances by modelling an achievable level of rollout. It took into account: customers' attitudes towards smart meters, suppliers' operational performance in rolling out smart meters, and the industry capacity to roll out smart meters.[15]

meter-policy-framework-post-2020-minimum-annual-targets-and-reporting-thresholds-for-energy-suppliers

[11] BEIS (2020), Smart meter policy framework post 2020: minimum annual targets and reporting thresholds for energy suppliers, paragraph 77. https://www.gov.uk/government/consultations/smart-meter-policy-framework-post-2020-minimum-annual-targets-and-reporting-thresholds-for-energy-suppliers

[12] BEIS (2020), Smart meter policy framework post 2020: minimum annual targets and reporting thresholds for energy suppliers, paragraph 5. https://www.gov.uk/government/consultations/smart-meter-policy-framework-post-2020-minimum-annual-targets-and-reporting-thresholds-for-energy-suppliers

[13] Technically the obligation is to install a certain number of smart meters in a given year (rather than to reach a certain rollout percentage at the end of the year). This is to cover the case where a supplier installs a smart meter and then the customer switches away. This distinction is not significant for our comparison of rollout profile options in this consultation.

[14] BEIS (2020), Smart meter policy framework post 2020: minimum annual targets and reporting thresholds for energy suppliers, paragraph 65. https://www.gov.uk/government/consultations/smart-meter-policy-framework-post-2020-minimum-annual-targets-and-reporting-thresholds-for-energy-suppliers

[15] BEIS (2020), Smart meter policy framework post 2020: minimum annual targets and reporting thresholds for energy suppliers, paragraph 43. https://www.gov.uk/government/consultations/smart-meter-policy-framework-post-2020-minimum-annual-targets-and-reporting-thresholds-for-energy-suppliers

2.13. BEIS then applied an Installation Calibration Mechanism to ensure that the model did not project meter installations at a rate above levels that the market has demonstrated it can successfully complete, currently and historically.[16]

2.14. The framework applies to both domestic and non-domestic rollout. In relation to domestic rollout, the framework applies without distinction between credit and PPM rollout.

2.15. BEIS intends to confirm the tolerance levels in the government response to its November 2020 consultation, which is planned for publication in April 2021.[17] We intend to incorporate BEIS's final tolerance values in our decision, which we will publish in early August 2021.

The statutory framework

2.16. We set the cap in accordance with the Domestic Gas and Electricity (Tariff Cap) Act 2018 ('the Act'). Section 1(6) states that we must protect existing and future domestic customers who pay standard variable and default rates.[18] In doing so, we must have regard to the following matters:

- the need to create incentives for holders of supply licences to improve their efficiency
- the need to set the cap at a level that enables holders of supply licences to compete effectively for domestic supply contracts
- the need to maintain incentives for domestic customers to switch to different domestic supply contracts

[16] BEIS (2020), Smart meter policy framework post 2020: minimum annual targets and reporting thresholds for energy suppliers. Annex B: Analytical Evidence, paragraph 24. https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/937398/smart-meter-policy-framework-post-2020-minimum-targets-reporting-thresholds-annex-b.pdf
[17] BEIS (2020), Smart meter policy framework post 2020: minimum annual targets and reporting thresholds for energy suppliers, paragraph 38. https://www.gov.uk/government/consultations/smart-meter-policy-framework-post-2020-minimum-annual-targets-and-reporting-thresholds-for-energy-suppliers
[18] Domestic Gas and Electricity (Tariff Cap) Act 2018, Section 1(6). http://www.legislation.gov.uk/ukpga/2018/21/section/1/enacted

- the need to ensure that holders of supply licences who operate efficiently are able to finance activities authorised by the licence.

2.17. The requirement to have regard to the four matters identified in section 1(6) of the Act does not mean that we must achieve all of these. In setting the cap, our primary consideration is the protection of existing and future consumers who pay standard variable and default rates. In reaching decisions on particular aspects of the cap, the weight to be given to each of these considerations is a matter of judgment. Often, a balance must be struck between competing considerations.

2.18. In setting the cap, we may not make different provisions for different holders of supply licences.[19] This means that we must set one cap level for all suppliers.

[19] Domestic Gas and Electricity (Tariff Cap) Act 2018, Section 2(2). http://www.legislation.gov.uk/ukpga/2018/21/section/2/enacted

3. Common cost methodologies across credit and PPM

Section summary

This chapter sets out our proposals on cost methodologies for the PPM SMNCC that are the same as those we use for credit customers. We discuss in-premises costs, IT costs, net reduction in energy theft, organisational costs, COVID-19 and installation costs, and the implications of our rollout profile choice on costs.

3.1. Some aspects of the smart meter rollout are the same or similar across payment types, so our proposed approaches to these are the same or similar when setting both the credit and PPM SMNCCs.

3.2 We did not discuss the cost methodologies listed in this chapter in our PPM working papers. For a discussion of stakeholder views and our comments to date on these methodologies, please refer to our May 2020 consultation.

In-premises costs

3.3 The majority of suppliers' costs relate to the net impact on operating costs of replacing traditional PPMs with smart meters (in-premises costs).

Net installation costs

3.4 Net installation costs consist of smart meter installation costs and the avoided costs of installing traditional meters.

3.5 Smart meter installation costs are the costs of paying for staff to install smart meters in customers' homes, providing installers with the equipment they need (eg vans), and organising back office support. These costs largely increase in proportion to suppliers' cumulative progress installing smart meters. This is because the costs are capitalised and amortised over the life of the assets being installed through meter rental payments. These gross costs are similar to the costs of installing smart meters in credit customers' homes. As the allowance is a weighted average, efficient costs are recovered at an industry level.

3.6 Second, due to the smart meter rollout, suppliers do not need to install as many new traditional meters, if any. Suppliers avoid the cost of replacing expired traditional meters with new traditional meters, because they install smart meters instead. This is a benefit of the smart meter rollout. The avoided cost builds up over time in line with the cumulative number of traditional meters that suppliers would have needed to install. Due to the higher asset costs and the need to replace them more frequently, these avoided costs are much larger for PPM than for credit meters.

3.7 There are also premature replacement charges (PRCs) associated with installation costs – we discuss these, along with our assumptions on the meter asset life, in Chapter 4.

3.8 We discuss our approach to installation costs under COVID-19 later in this chapter.

Proposal

3.9 We propose to use the same cost per smart PPM installation and smart meter rental uplifts (MRUs) as the credit SMNCC. The MRUs account for the difference between commercial costs of meter rental and the economic (amortised) costs of the installation. They reflect that the rental payments suppliers pay to Meter Asset Providers (MAPs) may not correspond to the way we model the costs of smart meter assets and installations.[20]

3.10 The Smart Meters Annual Information Request (SMAIR) data separates the costs of installing a traditional meter by both meter type and fuel type.[21] As such, and consistent with the BEIS 2019 Cost-Benefit Analysis (CBA), we propose to use the PPM-specific SMAIR values for traditional meter installation costs.[22] In practice, the individual installation cost is similar for PPM and credit traditional meters. We would also use a PPM-specific MRU for both gas and electricity traditional meters (explained below).

[20] We discussed the MRUs in our previous documents. See for example Ofgem (2020), Technical annex to reviewing smart metering costs in the default tariff cap: August 2020 decision, paragraphs 3.29-3.42. https://www.ofgem.gov.uk/system/files/docs/2020/08/technical_annex_to_reviewing_smart_metering_costs_in_the_default_tariff_cap_-_august_2020_decision.pdf

[21] Suppliers submit Smart Meters Annual Information Request (SMAIR) data to BEIS each year. BEIS previously collected this information through a request known as the Annual Supplier Return (ASR). We use the term SMAIR throughout this consultation, whether referring to the SMAIR or its predecessor.

[22] BEIS (2019), Smart meter roll-out: cost-benefit analysis 2019, pg 83. https://www.gov.uk/government/publications/smart-meter-roll-out-cost-benefit-analysis-2019

Considerations

3.11 These are the same as our May 2020 consultation proposals. For more detail on our considerations, please see Chapter 5 of our May 2020 consultation.[23]

Net asset costs

3.12 Net asset costs consist of four cost categories: smart meter asset costs, communications hub costs, In-Home Display (IHD) costs and the cost of new traditional meters.

Proposal

3.13 Smart meter asset costs: As the smart meter asset is identical for PPM and credit, we propose to use the same smart meter asset unit cost as in the credit SMNCC. This is consistent with the BEIS 2019 CBA. We also propose to use supplier data from the SMAIR. We would amortise these over the average smart meter rental period, as in credit. We would also use the same MRUs for SMETS1 meters as in credit, to account for the difference between commercial costs of meter rental and the economic (amortised) costs of the installation.

3.14 Communications hubs cost: The cost of communications hubs for SMETS2 meters is recovered through Data Communications Company (DCC) charges. These are included in the pass-through SMNCC allowance and therefore we do not include them here. We include the cost of non-interoperable SMETS1 communications hubs from the SMAIR (because they have not been enrolled in the DCC), and amortise the costs over their lifetimes. As the communications hub is identical for a PPM or credit meter customer, we propose to use the same communications hub unit cost as for the credit SMNCC.

3.15 IHDs: Suppliers install IHDs alongside smart meters. We propose to base the cost calculation on supplier data from the SMAIRs, and include a downward adjustment to reflect

[23] In the May 2020 consultation it was incorrectly stated that we use PPM-specific MRUs for both gas and electricity SMETS1 meters. We use the same MRUs for smart meters across both credit and PPM, as stated in this consultation. As our August 2020 decision was to set the PPM SMNCC to £0 according to our contingency approach, the error had no impact on that value.
Ofgem (2020), Statutory consultation for protecting energy consumers with prepayment meters, paragraphs 5.61-5.66. https://www.ofgem.gov.uk/publications-and-updates/statutory-consultation-protecting-energy-consumers-prepayment-meters

that several suppliers have purchased IHDs with enhanced functionality above the SMETS requirements at an additional cost. The costs of IHDs are expensed in-year (rather than being amortised).

3.16 There may be some differences in costs between the IHD for PPM and credit smart meters. However the SMAIR data does not distinguish between payment types for IHD costs and so a weighted average cost is already being used in the credit SMNCC. For consistency we consider it is appropriate to adopt the same approach for the PPM SMNCC, so we use the same IHD unit cost as for the credit SMNCC.

3.17 New traditional meters: As stated above, suppliers avoid having to pay for new traditional meters that they would have needed in the absence of a smart meter rollout programme. However, they still need to pay for the relatively small volume of new traditional meters they install as part of the rollout.

3.18 The BEIS 2019 CBA separates asset costs by meter type. The asset costs for traditional PPMs, particularly gas, are much higher than for credit, so we propose to use the PPM-specific traditional meter asset costs, including a PPM-specific MRU.

Considerations

3.19 These are the same as our May 2020 consultation proposals. For more detail on our considerations, please see Chapter 5 of our May 2020 consultation.[24]

Premature replacement charges

3.20 Suppliers incur a charge for replacing a meter before the end of its rental period – a PRC. There are no structural differences between PRCs for credit and PPMs, but the values of the calculation inputs are different.

[24] In the May 2020 consultation it was incorrectly stated that we use PPM-specific MRUs for both gas and electricity SMETS1 meters. We use the same MRUs for smart meters across both credit and PPM, as stated in this consultation. As our August 2020 decision was to set the PPM SMNCC to £0 according to our contingency approach, the error had no impact on that value.
Ofgem (2020), Statutory consultation for protecting energy consumers with prepayment meters, paragraphs 5.71-5.78. https://www.ofgem.gov.uk/publications-and-updates/statutory-consultation-protecting-energy-consumers-prepayment-meters

3.21 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 prepayment customer's meter. Generally, the PRC decreases as the meter ages. We do not amortise the PRC – it is an in-year cost to suppliers.

3.22 For credit, smart meter PRCs are calculated for replacing traditional and SMETS1 meters prematurely. As very few SMETS2 meters are expected to be replaced prematurely during the smart meter rollout programme, we do not include PRCs for SMETS2 meters in our calculations.

Proposal

3.23 We propose to use the same calculation approach for PPM as for credit.

3.24 However, the inputs for PPM are different. As set out above, we use PPM-specific asset costs, installation costs, MRUs and lifetimes. We discuss the rollout profile in Chapters 4 and 5, which we use in this calculation to calculate early replacement volumes.

Considerations

3.25 These are the same as our May 2020 consultation proposals. For more detail on our considerations, please see Chapter 5 of our May 2020 consultation.[25]

3.26 We discuss meter asset life and PRC age in Chapter 4.

Avoided costs of rental payments of prematurely replaced meters

Context

3.27 Once a supplier pays the PRC, it pays no rent in subsequent years for the meter it removed. Without a smart meter rollout programme, the supplier would have paid these

[25] Ofgem (2020), Statutory consultation for protecting energy consumers with prepayment meters, paragraphs 5.61-5.70. https://www.ofgem.gov.uk/publications-and-updates/statutory-consultation-protecting-energy-consumers-prepayment-meters

rental payments. This benefit recurs for each year that the prematurely replaced asset would otherwise have incurred a rental charge.

Proposal

3.28 For both traditional and SMETS1 meters, we propose to include the offsetting asset and installation costs that a supplier avoids in future years after replacing a meter early. We calculate this by looking at the annual charges that a supplier would have faced in future years (including financing costs and, where relevant, an MRU).

3.29 We calculate this using an identical method to the credit SMNCC, with PPM-specific inputs for asset and install costs, lifetime, meter age stock, MRUs and volumes prematurely replaced.

3.30 This is the same as our May 2020 consultation proposal. For more detail on our considerations, please see Chapter 5 of our May 2020 consultation.[26]

IT costs

Context

3.31 We expect suppliers to incur additional IT costs related to the smart meter rollout. These are set out in detail in our August 2020 decision on the SMNCC allowance for credit meters.[27]

3.32 These costs are supplier overheads relating to the smart meter rollout. IT costs are equally relevant for the PPM and credit SMNCCs, and are not disaggregated based on payment method.

[26] Ofgem (2020), Statutory consultation for protecting energy consumers with prepayment meters, paragraphs 5.84-5.87. https://www.ofgem.gov.uk/publications-and-updates/statutory-consultation-protecting-energy-consumers-prepayment-meters
[27] Ofgem (2020), Reviewing smart metering costs in the default tariff cap: August 2020 decision, paragraphs 4.38-4.46. https://www.ofgem.gov.uk/publications-and-updates/decision-reviewing-smart-metering-costs-default-tariff-cap

Proposal

3.33 We assume that suppliers do not identify IT costs based on payment method. As such, we propose to use the same supplier IT costs as for credit meters (on a per meter basis). Where supplier IT costs are included in the costs to serve, any changes in these from moving a customer from traditional PPM to smart PPM are included in the cost to serve calculation (discussed in Chapter 4).

Operating and maintenance costs

3.34 Operating and maintenance (O&M) costs are incurred over the lifetime of the smart meter, largely reflecting costs associated with replacing faulty meter equipment. As the asset is the same for credit and prepayment customers, we expect the costs of O&M to be the same for both customer types. However as there are different O&M costs for traditional PPM and credit meters, there are different benefits associated with moving customers to smart meters.

Proposal

3.35 The credit SMNCC estimates the net O&M cost as a fixed amount for each meter and fuel type. This fixed amount is derived from a 2019 supplier RFI, and represents the additional O&M cost compared to the meter type and fuel it is replacing. The RFI also includes PPM-specific O&M information. As the costs of the traditional meters differ, we propose to use the PPM-specific values for the additional O&M costs of smart meter rollout. This is the same as our May 2020 consultation position.[28]

Setting the allowance to account for efficient net costs

Context

3.36 We proposed in our May 2020 consultation to use the same approach for PPM as for credit to reflect the change in efficient operating costs relative to 2017 for a supplier with an average smart meter rollout profile.

[28] Ofgem (2020), Protecting energy consumers with prepayment meters: May 2020 consultation, paragraphs 5.90 - 5.91. https://www.ofgem.gov.uk/publications-and-updates/statutory-consultation-protecting-energy-consumers-prepayment-meters

3.37 We account for the costs of the smart metering programme through a) the operating cost allowance, which captures the costs of smart metering in 2017, and b) the SMNCC, which captures incremental changes in costs since 2017.

3.38 To set the SMNCC, we proposed the following approach:

- recognise the change relative to 2017 in our assessment of the net impact of the smart meter rollout on the efficient operating costs of a supplier with an average rollout profile;
- allocate our estimate of efficient smart metering rollout costs in 2017 between (a) costs already included in the operating cost allowance and (b) costs we still need to recognise in the SMNCC (this includes an adjustment for the impact of the stricter definition of the 'efficient benchmark' we used to assess total operating costs in 2017, and an adjustment for the difference between portfolio-wide costs and costs for replacing PPMs in isolation);
- adjust for the sunk costs incurred as a result of COVID-19; and
- convert our annual SMNCCs into values for six monthly cap periods

Adjusting for different 'efficient' benchmark definitions

3.39 Our definitions of 'efficiency' differ in the analyses of the operating cost allowance and the SMNCC. For the SMNCC, we benchmark efficient smart metering costs to the average costs suppliers incur with an average rollout profile. To set the operating cost allowance we benchmarked suppliers' costs to the lower quartile (a 'stricter' benchmark), so we need to account for the difference.

Proposal

3.40 We propose to use the same approach for PPM as in credit. We propose to correct for this in the SMNCC by subtracting the lower quartile 2017 baseline costs from the relevant

year's average efficient costs. This means that the SMNCC allowance includes both the allowance for costs changing over time and for the move to a different definition of efficiency.

Considerations

3.41 This is the same as our May 2020 consultation proposal, as well as the August 2020 decision on the SMNCC allowance for credit. For more detail on our considerations, please see Chapter 4 of our August 2020 credit decision.[29]

Smart meter 2017 baseline costs – removing the impact of weighted average smart meter costs in the operating cost allowance

3.42 If the efficient net costs of the smart meter rollout in 2017 were fully included in the operating cost allowance, then the SMNCC would only need to account for the change in efficient costs since 2017. However, the operating cost allowance is not payment type-specific, and so it includes the weighted average cost of replacing all traditional meters, including PPM.

3.43 As credit smart metering costs are (per customer) estimated to be higher than PPM smart metering costs in 2017, the weighted average figure included in the operating cost allowance is too low for credit, and too high for PPM. As the operating cost allowance does not change over time (except with inflation), this implies the allowance in every cap period would be too high (for PPM) or low (for credit).

Proposal

3.44 In line with our August 2020 credit decision, we propose to exclude one supplier which was not included in our operating cost benchmarking analysis and had high smart metering costs relating to PPM.[30] We would exclude this supplier from the weighted average PPM rollout profile.[31] We have considered whether we should exclude all suppliers who were not included

[29] Ofgem (2020), Reviewing smart metering costs in the default tariff cap: August 2020 decision, paragraphs 4.73-4.77. https://www.ofgem.gov.uk/publications-and-updates/decision-reviewing-smart-metering-costs-default-tariff-cap
[30] Ofgem (2020), Reviewing smart metering costs in the default tariff cap: August 2020 decision, paragraph 4.79. https://www.ofgem.gov.uk/system/files/docs/2020/08/reviewing_smart_metering_costs_in_the_default_tariff_cap_-_august_2020_decision.pdf
[31] This is in line with the approach we took when calculating the SMNCC for our August 2020 decision.

in our operating cost benchmarking, but do not consider that this is necessary given that it would have no significant impact on the rollout values used for this adjustment.

3.45 By calculating the weighted average of the credit and PPM 2017 smart metering efficient costs, we estimate the weighted average efficient cost included in the 2017 baseline to be around £10.90 for electricity and £12.12 for gas (excluding IT). Dual fuel, the operating cost allowance is £1.83 too low for credit, and £9.60 too high for PPM.

3.46 We propose to adjust the credit SMNCC and PPM SMNCC by these values in the model for every cap period (i.e. from cap period 1, starting 1 January 2019, onwards), so that the total allowance in the price cap (the 2017 baseline smart costs within the operating cost allowance, plus the SMNCC) equals the estimate of smart meter efficient costs for each meter type. This reduces the SMNCC (dual fuel) by £9.60 for the PPM default tariff cap. We adjust this figure for inflation in each period.

Considerations

3.47 This is the same as our May 2020 consultation proposal. For more detail on our considerations, please see Chapter 5 of our May 2020 consultation.[32]

Adjusting for the sunk costs incurred as a result of COVID-19

Context

Normal approach to installation costs

3.48 As set out earlier in the chapter, data on installation costs is available in arrears through the SMAIR. For the years where we have actual data, our normal approach is to calculate the average cost per smart meter installation using this data. We divide the total installation costs by the total number of installations. We then amortise the average cost (to spread it over a number of years) and apply the MRU. We use this uplifted cost per

[32] Ofgem (2020), Protecting energy consumers with prepayment meters: May 2020 consultation, paragraphs 5.110-5.113. https://www.ofgem.gov.uk/publications-and-updates/statutory-consultation-protecting-energy-consumers-prepayment-meters

installation in the SMNCC model. The total installation costs then depend on rollout in that year.

3.49 For future periods, we estimate the installation cost by taking the latest historical average installation cost and adjusting it based on expected future changes in productivity.[33] We then amortise this value and apply the MRU. The total installation costs are the uplifted average cost multiplied by the number of smart meters that we expect will be rolled out in that year (according to the rollout profile used).[34]

Installation costs under COVID-19

3.50 As set out in SMNCC WP1, where suppliers were unable to install as many smart meters as expected due to COVID-19, they may have been unable to scale down their cost bases accordingly. Costs incurred in relation to meters which could not be installed would be an immediate (sunk) cost to suppliers.[35]

3.51 In our August 2020 credit decision, we included an estimate of sunk installation costs for 2020. One key assumption was that installation numbers in 2020 would be 30% of the level previously expected (absent COVID-19). We therefore assumed that suppliers incurred sunk costs in relation to the remaining 70% of expected installations. Another key

[33] In our August 2020 credit decision, we maintained a level of productivity which reflected historical levels. However, we said that we would consider productivity in our next review, taking into account the new BEIS framework.
Ofgem (2020), Reviewing smart metering costs in the default tariff cap: August 2020 decision, paragraphs 2.28-2.29.
https://www.ofgem.gov.uk/system/files/docs/2020/08/reviewing_smart_metering_costs_in_the_default_tariff_cap_-_august_2020_decision.pdf
[34] Ofgem (2020), Updating allowance for smart metering costs in the default tariff cap: working paper, paragraphs 3.1-3.2.
https://www.ofgem.gov.uk/system/files/docs/2020/11/updating_allowance_for_smart_metering_costs_in_the_default_tariff_cap_working_paper.pdf
[35] Ofgem (2020), Updating allowance for smart metering costs in the default tariff cap: working paper, paragraphs 3.3-3.4.
https://www.ofgem.gov.uk/system/files/docs/2020/11/updating_allowance_for_smart_metering_costs_in_the_default_tariff_cap_working_paper.pdf

assumption was that, where a meter could not be installed, nearly all installation costs would be sunk.[36]

Proposal

Updating 2020 sunk installation costs with actual data

3.52 We propose to estimate sunk installation costs in 2020 using the sunk installation cost data that suppliers provided following our February 2021 RFI. This is the most direct approach to estimating sunk installation costs.

Projecting sunk installation costs in 2021

3.53 We propose to include sunk installation costs for 2021. This reflects that COVID-19 has affected smart meter installations for at least the first quarter of the year.

3.54 We propose to estimate sunk installation costs in 2021 by flatlining (in real terms) the sunk installation cost figures that suppliers provided for 2020. We consider that using actual data from a previous year is likely to be more accurate than our previous approach to modelling sunk installation costs for the credit SMNCC (which would lead to a higher projected sunk installation cost for 2021). Our proposed approach could still be too high, but we will take any difference against actual data into account through advanced payments in our next review.[37]

Sunk installation costs beyond 2021

3.55 We do not propose to include sunk installation costs for the years beyond 2021. This reflects that while the impacts of COVID-19 are uncertain, it is expected that they will decrease as the societal restrictions in response to the pandemic are removed. It also reflects that suppliers may be able to include more flexibility in their plans over time to reduce the risk of sunk installation costs.

[36] We provided a more extensive description of this methodology in SMNCC WP1. Ofgem (2020), Updating allowance for smart metering costs in the default tariff cap: working paper, paragraph 3.5. https://www.ofgem.gov.uk/system/files/docs/2020/11/updating_allowance_for_smart_metering_costs_in_the_default_tariff_cap_working_paper.pdf

[37] See Chapter 7 for an explanation and discussion of the advanced payments adjustment.

Updating 2020 costs per installation achieved with actual data

3.56 We propose to estimate the cost per installation achieved (ie where suppliers were able to install smart meters) for 2020 using the RFI data from suppliers. This is to ensure that our approach is coherent, by using the same data source as for sunk installation costs.

Projecting costs per installation achieved in 2021

3.57 We propose to maintain the cost per installation at the same level (in real terms) calculated for 2020. This is to ensure that we are being coherent in using the same data source for sunk and productive installation costs in 2021.

3.58 We do not propose to use this value as the starting point for projecting installation costs in future years (ie 2022 and 2023). This is because we are not proposing to include sunk installation costs for future years, so the same issue of coherence does not apply.

Considerations

3.59 We expect the considerations on the PPM SMNCC to be similar to those on the credit SMNCC. Please see Chapter 4 of our April 2021 consultation on the credit SMNCC for a detailed discussion of the considerations for each of the proposals above.[38]

Converting from annual allowances to six month cap periods

Proposal

3.60 We propose to use the same methodology as the credit SMNCC. Each six month cap period value is set to either:

- the same value as the annual SMNCC, if the cap period is entirely within that year; or
- the average of the annual SMNCC values for the two years covered by the cap period.

[38] Ofgem (2021), Price Cap: final consultation on updating the credit SMNCC allowance. https://www.ofgem.gov.uk/publications-and-updates/price-cap-final-consultation-updating-credit-smncc-allowance

Considerations

3.61 This is the same as our May 2020 consultation proposal, as well as the August 2020 decision on the SMNCC allowance for credit. For more detail on our considerations, please see Chapter 4 of our August 2020 credit decision.[39]

Cross-referenced costs across credit and PPM

3.62 There are other cost categories for which we are proposing the same approach as credit, and are detailed in our April 2021 consultation on the credit SMNCC.

Organisational costs

3.63 Organisational costs include the legal, institutional and organisational set-up costs for the smart meter rollout.

Proposal

3.64 Organisational costs are supplier overheads associated with the smart meter rollout overall. They are relevant for PPM as well as credit meters and we do not consider there is any reason for them to differ materially between payment types. As such we propose to use the same organisational costs as for credit meters (on a per meter basis). Please see Appendix 6 of our April 2021 consultation on the credit SMNCC for more detail.

Implications of rollout profile

3.65 We are proposing to use a weighted average tolerance rollout profile. We discuss this further in Chapter 6. This section covers other issues that could be affected by the rollout profile chosen (beyond installation costs in 2020 and 2021, which we cover earlier in the chapter). The issues are:

- installer productivity;

[39] Ofgem (2020), Reviewing smart metering costs in the default tariff cap: August 2020 decision, paragraphs 4.91-4.97. https://www.ofgem.gov.uk/publications-and-updates/decision-reviewing-smart-metering-costs-default-tariff-cap

- marketing costs; and
- smart meter asset and installation costs.

3.66 For more detail on our considerations on these issues, please see Chapter 5 of our April 2021 consultation on the credit SMNCC. They are the same for both credit and PPM.

Installer productivity

Context

3.67 Installer productivity ('productivity') is the number of smart meters that a supplier can install a day per installer. We use productivity when estimating the cost per installation in future years. Specifically, we use productivity to model the change in in-house installation costs (excluding training costs).[40] If productivity improves, then the cost per installation falls. This reduces the SMNCC.

3.68 BEIS has developed expectations for how suppliers' operational fulfilment[41] will improve in future. BEIS assumes that suppliers will improve their operational fulfilment gradually between the second half of 2021 and the second half of 2022, and that this will increase average market conversion rates[42] by 7% by the second half of 2022. This is based on discussions with suppliers, as well as improvements already delivered by some suppliers.[43] Improvement in operational fulfilment would mean higher productivity.[44]

[40] Ofgem (2020), Technical annex to reviewing smart metering costs in the default tariff cap: August 2020 decision, paragraph 3.81.
https://www.ofgem.gov.uk/system/files/docs/2020/08/technical_annex_to_reviewing_smart_metering_costs_in_the_default_tariff_cap_-_august_2020_decision.pdf
[41] Operational fulfilment is about the effectiveness of suppliers' processes to carry out smart meter installations, once a customer is eligible for a smart meter and willing to accept one.
BEIS (2020), Smart meter policy framework post 2020: minimum annual targets and reporting thresholds for energy suppliers, paragraph 43(ii) and figure 1.
https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/937448/smart-meter-policy-framework-post-2020-minimum-targets-reporting-thresholds-condoc.pdf
[42] Going from customers who are willing to accept a smart meter to those who have one installed.
[43] BEIS (2020), Smart meter policy framework post 2020: minimum annual targets and reporting thresholds for energy suppliers, paragraph 54.
https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/937448/smart-meter-policy-framework-post-2020-minimum-targets-reporting-thresholds-condoc.pdf
[44] BEIS (2020), Smart meter policy framework post 2020: minimum annual targets and reporting thresholds for energy suppliers, paragraph 89.

3.69 In SMNCC WP2, our initial view was that it would be appropriate to apply BEIS's expected improvements in operational fulfilment if we were using a tolerance rollout profile. This was to reflect an achievable level of productivity improvement in future cap periods.[45]

3.70 We noted that BEIS has only set out expectations for improvements in operational fulfilment. Its modelling of meter installations does not make assumptions about the level of installer productivity. We would therefore need to be able to apply the improvements in operational fulfilment to a base level of productivity. Our initial view was that this base level of productivity could be the level we currently use in the SMNCC model, based on the average productivity between 2017 and 2019.[46] We said that we would not use productivity data from 2020 to project future productivity, given that this data would be affected by COVID-19.[47]

Proposal

3.71 We propose to incorporate BEIS's assumed improvement in operational fulfilment. This reflects that BEIS's work is the best analysis we are aware of for whether there will be an improvement in operational fulfilment. Given our proposal above to project installation costs in 2021 at the same level (in real terms) as in 2020, the operational fulfilment assumption would only affect installation costs in 2022 and 2023.

3.72 We propose to apply this improvement in operational fulfilment to the base level of productivity that we currently use in the SMNCC model for years starting from 2020, which is based on the average productivity between 2017 and 2019. We would continue to use actual data for 2019 productivity.

https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/937448/smart-meter-policy-framework-post-2020-minimum-targets-reporting-thresholds-condoc.pdf

[45] Ofgem (2021), Smart meter rollout and the default tariff cap: working paper, paragraph 3.6. https://www.ofgem.gov.uk/system/files/docs/2021/02/smart_meter_rollout_and_the_default_tariff_cap_-_working_paper.pdf

[46] Ofgem (2020), Reviewing smart metering costs in the default tariff cap: August 2020 decision, paragraph 3.63. https://www.ofgem.gov.uk/system/files/docs/2020/08/reviewing_smart_metering_costs_in_the_default_tariff_cap_-_august_2020_decision.pdf

[47] Ofgem (2021), Smart meter rollout and the default tariff cap: working paper, paragraph 3.7. https://www.ofgem.gov.uk/system/files/docs/2021/02/smart_meter_rollout_and_the_default_tariff_cap_-_working_paper.pdf

Marketing costs

Context

3.73 Suppliers may incur marketing costs to encourage customers to take up smart meters.[48] We include marketing costs as a category in the SMNCC model. Higher marketing costs therefore increase the SMNCC.

3.74 In SMNCC WP2, we noted previous feedback that we should consider how higher rollout obligations could increase marketing costs.[49] Under a tolerance rollout profile, our initial view was that no additional allowance for marketing was required. This reflected that the tolerances do not require suppliers to roll out more smart meters than they currently do, removing one reason why suppliers might incur increased marketing costs. It also reflected that BEIS is not assuming that suppliers persuade customers to develop more positive attitudes to smart meters at a greater rate than previously.[50]

Proposal

3.75 We propose to use the same approach to calculating marketing costs as for the credit SMNCC.[51] We do not consider that under a weighted average tolerance rollout profile suppliers will incur higher total marketing costs than historically.

[48] In this consultation, we use the term 'marketing costs' for consistency with our previous publications on the SMNCC. This does not indicate that we consider that offering smart meters to customers constitutes marketing from a data privacy perspective.
[49] Ofgem (2021), Smart meter rollout and the default tariff cap: working paper, paragraph 3.14. https://www.ofgem.gov.uk/system/files/docs/2021/02/smart_meter_rollout_and_the_default_tariff_cap_-_working_paper.pdf
[50] Ofgem (2021), Smart meter rollout and the default tariff cap: working paper, paragraphs 3.15 to 3.18. https://www.ofgem.gov.uk/system/files/docs/2021/02/smart_meter_rollout_and_the_default_tariff_cap_-_working_paper.pdf
[51] Ofgem (2020), Technical annex to reviewing smart metering costs in the default tariff cap: August 2020 decision, paragraph 3.316. https://www.ofgem.gov.uk/system/files/docs/2020/08/technical_annex_to_reviewing_smart_metering_costs_in_the_default_tariff_cap_-_august_2020_decision.pdf

Smart meter asset and installation costs

Context

3.76 Two significant smart metering costs are buying and installing smart meters. These costs depend on both the number of smart meters installed, and the unit costs of smart meter assets and installations. The higher these costs, the higher the SMNCC.

3.77 In SMNCC WP2, we said that increasing the number of smart meters rolled out could, in some circumstances, create pressure on unit costs. We noted that the tolerances do not require suppliers to increase their rollout, so the risk of increased unit costs therefore only applies in the case of a target rollout profile. We also said that we had not identified a reason why there would be increased unit costs, even if rollout increased.[52]

Proposal

3.78 As in credit, we do not propose to increase the unit costs of smart meter assets and installations due to our rollout profile proposal. This reflects that suppliers would not have to increase their rollout under a tolerance rollout profile.

Data updates

3.79 As we use the SMNCC model to set both the credit SMNCC and PPM SMNCC, there are some proposals on data updates that apply to both, detailed below.

3.80 For more detail on our considerations on these issues, please see Appendix 5 of our April 2021 consultation on the credit SMNCC. They are the same for both credit and PPM.

[52] Ofgem (2021), Smart meter rollout and the default tariff cap: working paper, paragraphs 3.26 to 3.27. https://www.ofgem.gov.uk/system/files/docs/2021/02/smart_meter_rollout_and_the_default_tariff_cap_-_working_paper.pdf

SMAIR data

Context

3.81 We discussed SMAIR data in SMNCC WP1.[53] We said that we intended to update the SMNCC model using the data in certain areas. We did not intend to update the other areas included in the SMAIR.

Proposal

3.82 In line with the August 2020 credit decision, we propose to update the SMNCC model using the number and cost of avoided site visits.[54] This would apply to both credit and PPM.

3.83 We propose to make some consequential edits as a result of using the SMAIR data. These are: removing optimism bias from the 2020 values and starting any assumed cost erosion from after the last actual data.[55]

Other data gathering

Context

3.84 In SMNCC WP1, we said that we did not intend to carry out any further data gathering. We encouraged any stakeholders who disagreed to explain their rationale.[56]

[53] Ofgem (2020), Updating the allowance for smart metering costs in the default tariff cap: working paper, paragraph 2.1 to 2.5. https://www.ofgem.gov.uk/publications-and-updates/updating-allowance-smart-metering-costs-default-tariff-cap-working-paper
[54] Ofgem (2020), Reviewing smart metering costs in the default tariff cap: August 2020 decision, paragraphs 4.51-4.52. https://www.ofgem.gov.uk/publications-and-updates/decision-reviewing-smart-metering-costs-default-tariff-cap
[55] The SMNCC model assumes that the costs of smart meter assets and SMETS1 communications hubs decline slightly over time, for years where data is forecast. The SMNCC model refers to this as cost erosion.
[56] Ofgem (2020), Updating the allowance for smart metering costs in the default tariff cap: working paper, paragraphs 2.6 to 2.10. https://www.ofgem.gov.uk/publications-and-updates/updating-allowance-smart-metering-costs-default-tariff-cap-working-paper

Proposals

3.85 We do not propose to gather other data to update the SMNCC model. We do not consider that further data gathering is likely to increase the accuracy of the SMNCC model significantly, or that this would be a proportionate use of resources.

Minor updates

Context

3.86 We discuss the rollout profile in Chapters 5 and 6 of this consultation. This section discusses some more minor issues which relate to, or are affected by, rollout. These are points which do not require RFIs.

Proposals

3.87 We propose to update the following inputs to the SMNCC model: the profile for the proportion of SMETS1 meters enrolled with the DCC, the date at which SMETS1 meters are treated as enrolled, the proportion of SMETS1 meters expiring early, the scaling factors for the proportion of SMETS1 meters losing smart functionality, and the proportion of installations which are SMETS1 or SMETS2 for 2020 and 2021. These updates are to better reflect the current situation, given the impact of COVID-19 on installations and the enrolment of SMETS1 meters.

3.88 We propose to turn off the bottleneck uplifts in the SMNCC model (which increase costs in years when a large number of smart meters are installed), as otherwise these would be triggered by our proposal to apply a weighted average tolerance rollout profile from 2018. This would not reflect reality. The considerations on this are the same as with the market leader tolerance rollout profile we are proposing for credit.

3.89 We propose to take into account the revised rollout, due to our proposal to use the weighted average tolerance rollout profile, when setting the MRUs. The considerations on this are the same as with the market leader tolerance rollout profile we are proposing for credit.

Model simplification

3.90 In our August 2020 credit decision, we decided to review the SMNCC every 12 months.[57] In light of this, we have made some changes to simplify the model, so that it is more user-friendly for a series of annual reviews.

3.91 The changes have largely been to remove irrelevant material – particularly most of the non-domestic information, and information on advanced meters. We have also made structural changes to reduce the number of input sheets in the SMNCC model. These changes were presentational – they did not affect the modelling results.[58]

[57] Ofgem (2020), Reviewing smart metering costs in the default tariff cap: August 2020 decision, paragraph 2.44. https://www.ofgem.gov.uk/system/files/docs/2020/08/reviewing_smart_metering_costs_in_the_default_tariff_cap_-_august_2020_decision.pdf

[58] We have retained a small amount of non-domestic information, where this affects the calculated SMNCC values.

4. Differing cost methodologies across credit and PPM

Section summary

This chapter sets out our proposals relating to certain aspects of the SMNCC methodology which differ between the credit and PPM allowance. These are on meter asset life and premature replacement charges, the PPM cost to serve benefit, setting the SMNCC at nil consumption, offsetting additional PPM costs and operations and maintenance costs.

4.1 In setting an appropriate PPM-specific SMNCC allowance, there are certain assumptions and approaches that we consider should differ from the SMNCC methodology for customers with credit meters.

4.2 In the PPM SMNCC model, assumptions are made on the traditional meter asset life, the amortisation period for how asset and installation costs spread over time and the age after which PRCs for traditional meters expire. The traditional meter asset life is a key driver of both costs and benefits in the SMNCC model, whilst the age after which PRCs for traditional meters expire will affect costs incurred of replacing these meters early. We propose to increase the PPM traditional meter asset life to 14 years for electricity and 12 years for gas, maintain our proposal of having a 10 year amortisation period for traditional PPMs and maintain our 10 year assumption for the age after which PRCs no longer apply.

4.3 The PPM cost to serve (CTS) benefit is another assumption specific to the PPM SMNCC model. It reflects part of the operational cost savings of replacing a traditional PPM with a smart meter operating in PPM mode. It covers all the operational benefits for the PPM rollout. We propose to use RFI data and changes in benchmarking method to update the PPM CTS benefit.

4.4 To ensure the default tariff cap varies with consumption, we set the cap at the typical consumption level and at nil consumption. This defines the cap level for all consumption levels. In PPM SMNCC WP1, we proposed to remove the nil consumption scalar for PPM,

setting both typical consumption level and nil consumption level of the SMNCC to the same value in the PPM cap level.[59] We propose to maintain this proposal.

4.5 The PPM cost offset is a mitigation step to account for the possible under-recovery of efficient PPM costs by PPM specialists. In our August 2020 decision, we stated that we would not reduce the PPM SMNCC until the additional PPM costs were fully recovered from PPM customers. However, we also said that we would only allow suppliers to recover the additional PPM costs up to the point that it did not increase prices for PPM customers.[60] We consider this further, proposing to implement the PPM cost offset on a per cap period basis rather than cumulatively, in our Annex 5 model (Annex 5 – smart metering costs).

Meter asset life and premature replacement charge age

Context

4.6 Traditional PPM meters have different underlying costs to traditional credit meters and so may require different assumptions when setting the PPM SMNCC allowance. In PPM SMNCC WP1, we set out proposals to amend the traditional meter asset life assumption we consulted on in May 2020 for the PPM SMNCC. However, we proposed to maintain the previous assumption on the amortisation period for traditional PPMs and on the PRC.

4.7 The traditional meter asset life assumption is a key driver of both costs and benefits in the SMNCC. It has a direct impact on the in-premises net costs (including the avoided traditional meter installations) discussed in Chapter 3.

4.8 The traditional meter life assumption determines the rate at which traditional meters expire and should be replaced, which affects the number of meters needing replacement in

[59] Ofgem (2020), Setting the PPM smart meter cost allowance in the default tariff cap – working paper, paragraph 3.16.
https://www.ofgem.gov.uk/system/files/docs/2020/11/setting_the_ppm_smart_allownance_in_the_default_tariff_cap_-_working_paper_final_publication.pdf
[60] Ofgem (2020), Protecting energy consumers with prepayment meters: August 2020 decision paragraph 4.31 – 4.34.
https://www.ofgem.gov.uk/system/files/docs/2020/08/protecting_energy_consumers_with_prepayment_meters_-_august_2020_decision.pdf

each year. In the absence of the smart meter rollout, these meters would be replaced by new traditional meters. Therefore, for the SMNCC, this is a benefit (an avoided cost).

4.9 We currently assume that the PPM traditional meter asset life is 10 years. In PPM SMNCC WP1, we proposed to increase the traditional meter asset life to 14 years for electricity and 12 years for gas, based on 2019 RFI data.[61] All else being equal, we expected this to increase the PPM SMNCC as the number of avoided traditional meter installations will decrease and therefore reduce the benefit of installing smart meters. For credit meters, we assume the traditional meter asset life for electricity and gas is 20 years.

4.10 The amortisation period for traditional PPMs will reflect how installation and asset costs are spread over the lifetime of the asset. We also proposed to maintain the 10 year amortisation period for traditional PPMs in PPM WP1. This is intended to be a proxy for meter rental contract lengths in our model.[62] For credit meters, we assume a 20 year amortisation period.

4.11 PRCs are proportional to the age of the meter being replaced (ie younger meters have higher PRCs) and stop being applicable after the contract expires. The age after which PRCs no longer apply determines what proportion of traditional meters replaced incur PRCs because they are replaced early.

4.12 The age after which traditional PRCs no longer apply are currently 10 years in the PPM SMNCC model. In PPM SMNCC WP1, we proposed to maintain the 10 year assumption for the age after which PRCs no longer apply, considering that this captures the majority of PRCs in our 2019 RFI data.[63] For the credit SMNCC, we assume the age after which PRCs no longer apply is 15 years for electricity and 20 years for gas.

[61] Ofgem (2020), Setting the PPM smart meter cost allowance in the default tariff cap – working paper, paragraph 2.17. https://www.ofgem.gov.uk/system/files/docs/2020/11/setting_the_ppm_smart_allownance_in_the_default_tariff_cap_-_working_paper_final_publication.pdf

[62] Ofgem (2020), Setting the PPM smart meter cost allowance in the default tariff cap – working paper, paragraph 2.13-2.23. https://www.ofgem.gov.uk/system/files/docs/2020/11/setting_the_ppm_smart_allownance_in_the_default_tariff_cap_-_working_paper_final_publication.pdf

[63] Ofgem (2020), Setting the PPM smart meter cost allowance in the default tariff cap – working paper, paragraph 2.19. https://www.ofgem.gov.uk/system/files/docs/2020/11/setting_the_ppm_smart_allownance_in_the_default_tariff_cap_-_working_paper_final_publication.pdf

Proposal

4.13 We propose to increase the PPM traditional meter asset life to 14 years for electricity and 12 years for gas.

4.14 We propose to maintain the 10 year amortisation period for traditional PPMs.

4.15 We propose to maintain the 10 year assumption for the age after which PRCs no longer apply.

Overview of responses to our working paper

4.16 Three suppliers commented on these proposals. The respondents supported our proposals to increase the assumed traditional PPM asset life and maintain the assumptions for amortisation period and PRC.

Considerations

4.17 One supplier raised concerns with assuming that smart meters in PPM mode are cheaper for suppliers than traditional PPM meters.

4.18 We allow for the rental contracts for smart meters to be more expensive than traditional meters in our SMNCC methodology through the MRU. This will account for any difference between ammortised meter asset costs and meter rental costs (both for smart meters in PPM mode and traditional PPM meters) in our final SMNCC allowance. Therefore if the meter rental costs are driving smart meter costs to be higher than traditional meter costs, the SMNCC methodology will reflect this after applying the MRU.

PPM cost to serve benefit

Context

4.19 The PPM CTS benefit reflects the operational cost savings of replacing a traditional PPM with a smart meter operating in PPM mode (excluding differences in meter asset and installation costs, which are accounted for separately in the SMNCC model). It covers all operational benefits for the PPM rollout.

4.20 The benefits in reduced CTS from moving to smart meters are estimated to be greater for PPM customers than for credit meter customers. This benefit accumulates over time at a supplier and industry level, as cumulative smart rollout increases.

4.21 In our May 2020 consultation, we set out that we intended to account for certain benefits after installing a smart meter with the calculated PPM CTS benefit. These specific benefits relate to the reduced meter reading costs when a customer changes suppliers, reduced customer calls, customer switching benefits and the ability to change tariffs remotely.

4.22 In our May 2020 consultation, we proposed to use data collected by BEIS through SMAIR to calculate the PPM CTS benefit.[64] We proposed to calculate the difference between the traditional PPM CTS and the smart PPM CTS for each supplier. We then proposed to benchmark those differences using the weighted average.

4.23 In PPM SMNCC WP1, we proposed to maintain the same methodology and data source than in our May 2020 consultation, updating the calculation with 2020 SMAIR data.[65] This was provided that the 2020 data was not materially affected by COVID-19. If it was materially affected, we stated that a decision would need to be made on whether it would be appropriate to exclude the 2020 data and continue to base the calculation on 2019 data only.

4.24 We also stated in PPM SMNCC WP1 that we intend to consider whether the previous PPM CTS benefit calculation overlapped with other PPM operational benefits in the SMNCC model.

4.25 The SMAIR data does not provide a breakdown of the cost items that make up the total cost to serve traditional PPM customers and the total cost to serve smart PPM customers. This makes it difficult to determine which PPM CTS benefits overlap with other PPM operational benefits considered in the SMNCC model.

[64] Ofgem (2020), Statutory consultation for protecting energy consumers with prepayment meters, paragraph 5.100 https://www.ofgem.gov.uk/publications-and-updates/statutory-consultation-protecting-energy-consumers-prepayment-meters
[65] Ofgem (2020), Setting the PPM smart meter cost allowance in the default tariff cap – working paper, paragraph 2.28-2.30.https://www.ofgem.gov.uk/publications-and-updates/setting-ppm-smart-meter-cost-allowance-default-tariff-cap-working-paper

4.26 Therefore, we issued an RFI to collect more granular data on a wider supplier pool. We requested that suppliers reconcile their RFI submission with their 2019 SMAIR submission, but also gave them the opportunity to add any additional and relevant cost items affecting the PPM CTS benefit.

4.27 In our PPM SMNCC WP1 we also proposed to apply a 12% reduction to the final PPM CTS benefit to address concerns of inconsistency in the way the efficiency benchmark is defined in the SMNCC methodology compared to the 2017 operating cost benchmark. This is in line with the methodology we used for the credit SMNCC for calculating benefits, from our August 2020 decision paper for credit.[66]

Proposal

4.28 We propose to include operational benefits in the PPM SMNCC, as we consider there to be operational benefits to replacing traditional PPMs with smart meters.

4.29 We propose to account for other PPM operational benefits considered in the SMNCC model with the PPM CTS benefit calculation. These are benefits of reduced customer calls, customer switching benefits, changing tariffs remotely, and reduced costs of a meter reading when a customer changes supplier.

4.30 We propose to use the RFI data to calculate the PPM CTS benefit. We propose to include all suppliers that we have collected data from on PPM CTS using our RFI, ie all suppliers who have over 1% PPM market share.

4.31 We propose to retain our methodology of calculating the operational cost savings of replacing a traditional PPM with a smart PPM across individual suppliers and then calculating a weighted average of those savings. We propose to set weightings according to each supplier's total PPM meters.

[66] Ofgem (2020), Reviewing smart metering costs in the default tariff cap: August 2020 decision. https://www.ofgem.gov.uk/system/files/docs/2020/08/reviewing_smart_metering_costs_in_the_default_tariff_cap_-_august_2020_decision.pdf

4.32 Due to the impacts of Covid-19, we propose to exclude the 2020 RFI data and only use the 2019 RFI data in the calculation.

4.33 We maintain our proposal to apply a 12% reduction to the final PPM CTS benefit to address concerns of inconsistency between the benefit and the 2017 operating cost benchmark. This is in line with the methodology we used for the credit SMNCC for calculating benefits, from our August 2020 decision paper for credit.[67]

Overview of responses to our working paper

4.34 Four suppliers commented on the PPM CTS benefit.

4.35 One supplier commented on the potential sample bias impacts of using SMAIR data, as suppliers with fewer than 10,000 smart PPM customers would be excluded.

4.36 Two suppliers noted broad agreement with our proposal to apply a 12% reduction to the CTS benefit. One of them stated that it would consider the 12% benefit reduction fully when the model becomes available, to ensure it remains appropriate.

4.37 Another supplier stated how transparency was needed to scrutinise the data. A different supplier reserved comment on the scope of the PPM CTS benefit until they had further information.

Considerations

4.38 We consider it would be important to capture all the costs and benefits of PPM in our SMNCC allowance. Therefore, we are proposing to include PPM CTS benefits in our methodology.

Sample size

[67] Ofgem (2020), Reviewing smart metering costs in the default tariff cap: August 2020 decision, paragraph 4.49.
https://www.ofgem.gov.uk/system/files/docs/2020/08/reviewing_smart_metering_costs_in_the_default_tariff_cap_-_august_2020_decision.pdf

4.39 Suppliers with fewer than 10,000 smart PPM customers are not obliged to complete the smart PPM CTS element of the SMAIR. Therefore, under the PPM SMNCC WP1 proposal of using SMAIR data, some suppliers would be omitted from our analysis. One supplier noted that omitting these suppliers would introduce a source of bias. It stated a need to gather smart PPM data from a wider supplier pool so that the calculated CTS benefit is more representative. It said that this should be remedied by either discussing with BEIS to modify the SMAIR, or issuing an RFI to suppliers not meeting the 10,000 smart PPM customer threshold.

4.40 We are proposing to use our RFI data to calculate the CTS benefit. Our new RFI collects data from a wider supplier sample, as it does not exempt large suppliers with fewer than 10,000 smart PPM customers from completing it.

4.41 We are proposing to include all relevant suppliers with average CTS figures across traditional and smart in our calculation. This is different to the previous PPM CTS benefit calculated from SMAIR data that excluded suppliers from the sample that were considered to be outliers. We consider that there is no strong rationale to exclude any supplier from the new sample given that the RFI offers a bottom-up calculation of the PPM CTS, with necessary checks in place on individual cost items to ensure comparability across suppliers.

4.42 Our sample for calculating the CTS benefit differs from the one used to calculate the PPM rollout profile. This is because we exclude some suppliers as outliers in the rollout analysis (discussed in Chapter 5). Our usual approach for calculating costs and benefits in relation to smart metering is to calculate a weighted average across the suppliers where we have usable data, so we would need a clear reason to deviate from this case. We consider that a weighted average of all suppliers in the sample could better reflect how efficient costs will vary across suppliers. The PPM CTS benefit may be affected by a number of factors, including how far a supplier is in their rollout, but we deem that this is not the only factor that will affect an individual supplier's CTS benefit. We therefore do not consider that we should exclude a supplier's data solely due to one factor (such as their rollout stage) among many others that could potentially affect a supplier's CTS benefit.

Disclosure

4.43 One supplier stated that any use of cost and benefit data from the SMAIR must be appropriately transparent and scrutinised by suppliers. Another supplier stated that it would reserve comment on how we intend to consider how far other costs fall under PPM CTS until we have given further information on this.

4.44 We are running a disclosure process, and relevant data, such as the use of SMAIR data, will be disclosed after publication of this consultation. [68]

Efficiency benchmark

4.45 We calculate a weighted average benchmark for the PPM CTS benefit, weighted by the total PPM served by each supplier. The previous method instead weighted the PPM CTS benefits by the total smart PPM for each supplier. However, we consider that weighting by total PPM appropriately reflects the average benefits of suppliers across the market, rather than reflecting the benefits of suppliers who are furthest ahead with their smart meter rollout.

4.46 The proposal to adjust the CTS benefit by 12% originated from the August 2020 credit decision, where it was decided that smart meter related benefits would be reduced by 12%. This made sure that we assessed all smart metering costs and benefits using an average efficiency level.[69] When we set the 2017 operating cost benchmark, we applied a stricter benchmark of £5 below the lower quartile. The efficiency of smart metering costs was defined less stringently using a weighted average.[70] This led to a potential mismatch between the level of efficiency across all SMNCC costs. The aim of the 12% adjustment factor was to reduce these costs to the approximate level they would have been if they were measured at the same level of efficiency as operating costs. This same rationale applies here in respect to the PPM CTS benefit.

Operational benefits

4.47 We consider that the PPM CTS benefit calculated from our RFI overlaps with the benefits of reduced customer calls, customer switching benefits, changing tariffs remotely, and reduced costs of a change of supplier meter reading in the model. Our RFI provided a

[68] See Chapter 1 for more detail.
[69] Ofgem (2020), Reviewing smart metering costs in the default tariff cap: August 2020 decision, paragraph 4.49.
https://www.ofgem.gov.uk/system/files/docs/2020/08/reviewing_smart_metering_costs_in_the_default_tariff_cap_-_august_2020_decision.pdf
Ofgem (2020), Technical annex to reviewing smart metering costs in the default tariff cap: August 2020 decision, paragraph 4.12 – 4.23.
https://www.ofgem.gov.uk/system/files/docs/2020/08/technical_annex_to_reviewing_smart_metering_costs_in_the_default_tariff_cap_-_august_2020_decision.pdf
[70] This was due to greater uncertainty over the efficient costs of a new activity, and to mitigate the effects on suppliers with above average rollout.

granular breakdown of the cost items that make up supplier PPM CTS benefits, which already covers these other PPM operational benefits. Therefore for the PPM SMNCC we exclude these specific benefits, replacing this with the PPM CTS benefit metric instead.

Other costs

4.48 PPM SMNCC WP1 included our initial thoughts on some other costs.[71] Our calculation of the PPM CTS benefit now reflects the impact of smart PPM on both customer contacts and the cost of changing tariff remotely, as we received data on this in the RFI responses.

4.49 Enrolement costs are still captured by the IT cost component that is common across both credit and PPM. We also still consider the number of traditional meter installations driven by customers refusing a smart meter to be limited, as opposed to other factors.

4.50 Please see Appendix 3 for detail on our treatment of fixed costs in particular.

Quantitative impact of our proposals

4.51 Our dual fuel PPM CTS benefit calculated from the RFI data, including all suppliers in our sample and weighting by total PPM, is £36.64 (£15.43 for electricity, £21.22 for gas). This differs from the previous £29.80 dual fuel PPM CTS benefit (£14.90 for electricity and gas) calculated from the 2019 SMAIR data, excluding outlier suppliers and weighting by smart PPM.

4.52 Comparing the proposed new dual PPM CTS benefit with the original PPM CTS benefit, when used in the PPM SMNCC model, gives the PPM SMNCC allowances in Table 3.[72]

[71] Ofgem (2020), Setting the PPM smart meter cost allowance in the default tariff cap – working paper, paragraph 2.40. https://www.ofgem.gov.uk/publications-and-updates/setting-ppm-smart-meter-cost-allowance-default-tariff-cap-working-paper

[72] The PPM CTS benefit used in our model is a single value that is applied to all years-historical, current and future. The impact this has on previous and future cap periods can be considered through our advanced payment mechanism.

Table 3: Impact on the PPM SMNCC allowance of new PPM CTS benefit

	Cap 5	Cap 6	Cap 7	Cap 8	Cap 9	Cap 10	Cap 11
	Oct 20 - Mar 21	Apr 21 - Sep 21	Oct 21 - Mar 22	Apr 22 - Sep 22	Oct 22 - Mar 23	Apr 23 - Sep 23	Oct 23 - Dec 23
Impact on electricity SMNCC of new PPM CTS benefit (£)	0.23	0.27	0.37	0.47	0.59	0.72	0.72
Impact on gas SMNCC of new PPM CTS benefit (£)	-0.68	-0.78	-1.34	-1.64	-2.02	-2.39	-2.39

Notes:

As we apply one value of the PPM CTS benefit to all cap periods, it affects historic cap periods as well. If we update the PPM CTS benefit in future reviews and this results in updated SMNCC values for previous cap periods, we will take this into account through the advanced payments adjustment. This adjustment is discussed in Chapter 7.

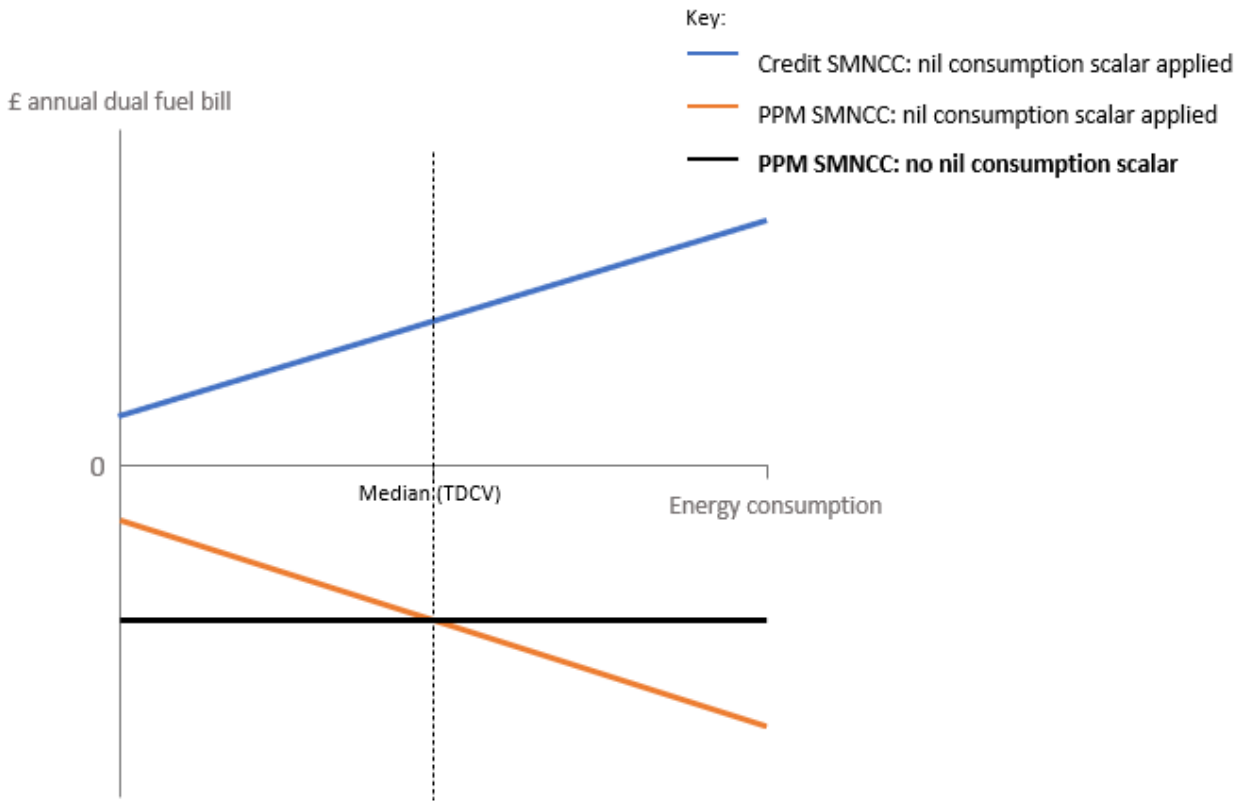
Setting the SMNCC at nil consumption

Context

4.53 We usually discuss and express the SMNCC at Typical Domestic Consumption Value (TDCV).[73] However, to ensure the default tariff cap varies with consumption, we set the cap at typical consumption and at nil consumption. The cap for all other consumption levels is defined by a straight line between these two (as shown in Figure 1).[74]

[73] Where we discuss the Typical Domestic Consumption Value (TDCV), we are referring to the TDCV values used to set the cap rather than the latest values set by Ofgem. The cap values are 3,100kWh for electricity and 12,000 kWh for gas.
[74] Ofgem (2018), Decision – Default tariff cap – Overview document, paragraph 2.91 – 2.100. https://www.ofgem.gov.uk/publications-and-updates/default-tariff-cap-decision-overview

Figure 1: The implicit direct debit fuel cap level at different consumption levels



4.54 In our 2018 decision, we set the credit SMNCC at nil consumption as 69% of the credit SMNCC at TDCV, to protect low consumption consumers (blue line in Figure 1).[75] While we consider this appropriate for credit customers where the SMNCC is a net cost, it is not appropriate for PPM where the SMNCC is a net benefit (so the slope of the line would be negative, as shown by the orange line in Figure 1).

4.55 In PPM SMNCC WP1, we stated that if the SMNCC for PPM customers is negative, following our consultation and any policy updates, we would propose to allocate the PPM SMNCC entirely to the standing charge rather than the unit rate.[76] This means we were

[75] We used the scalar to set the cap at nil consumption in line with market prices in our baseline year, 2017. This was to ensure that the default tariff cap would not significantly increase prices for low consumption customers from the standing charges the market was already offering them.
[76] Ofgem (2020), Setting the PPM smart meter cost allowance in the default tariff cap – working paper, paragraph 3.16.https://www.ofgem.gov.uk/publications-and-updates/setting-ppm-smart-meter-cost-allowance-default-tariff-cap-working-paper

proposing to set the PPM SMNCC to the same value at both TDCV consumption and nil consumption (black line in Figure 1).

4.56 The nil consumption scalar approach would make offsetting the additional PPM costs more complex, as we would need to offset at both nil consumption and TDCV.[77] In PPM SMNCC WP1, we stated that removing the nil consumption scalar is the least complex method that retains protection for low consumption users.

Proposal

4.57 We propose to remove the nil consumption scalar for PPM. This means that we are proposing to allocate the PPM SMNCC entirely to the standing charge rather than the unit rate.

4.58 Applying the PPM SMNCC to the standing charge will reduce the complexity of the method we use to set the PPM cap level. This will increase transparency to our stakeholders. Moreover, we do not believe that the nil consumption scalar is the right tool to protect vulnerable high consumption consumers.

Overview of responses to our working paper

4.59 Two suppliers commented on this.

4.60 One supplier was generally supportive of our approach. It agreed that the costs to be addressed are independent of consumption, and hence applying the costs to the first band is an equitable solution.

4.61 Another supplier disagreed, questioning whether our proposal has sufficient regard for all vulnerable consumers.

Considerations

4.62 For PPM, reducing the SMNCC by a scalar at nil consumption would reduce the benefit, and hence increase the cap at nil consumption relative to the cap at TDCV. This would be contrary to the policy intent of our 2018 decision to protect low consumption consumers.

[77] See 'Offsetting additional PPM costs' in this chapter for further explanation of this.

Therefore, consistency with the credit decision is maintained by removing the nil consumption scalar for PPM.

4.63 One supplier stated that whilst it understands the policy intent to protect low consumption consumers, it considers that we also need to have regard to the principle of cost-reflectivity. It stated that we need to bear in mind that some vulnerable customers (eg on electric heating) may have higher than average consumption.

4.64 We acknowledge that allocating the PPM SMNCC entirely to the standing charge rather than the unit rate will result in a higher cap level for consumers at consumption levels above TDCV. As one supplier stated, this may include consumers with electric heating, and households in properties with electric heating are more likely to be fuel poor. However, low income consumers are distributed across consumption levels. For example, there are more very low income consumers below electricity TDCV than above electricity TDCV (1,922,000 > 644,000).[78] This means that we cannot assume prioritising the protection of high consumption consumers over the protection of low consumption consumers would be the best way to protect the vulnerable. Therefore, we do not think that the nil consumption scalar is the most appropriate way to protect high consumption, vulnerable consumers.

4.65 In our Consumer Vulnerability Strategy 2025, we noted that both of our price caps cover a range of consumers in vulnerable situations, but are not specifically aimed at these consumers. We mentioned that groups of consumers that have higher energy needs, consumption and therefore costs due to their personal circumstances, are still facing higher than average energy bills. We stated that we will carefully monitor the market to consider the case for future price protection, particularly for various specific vulnerable groups.[79]

4.66 Applying a nil consumption scalar would also add a great deal of complexity to our calculation to offset the possible additional PPM costs.[80] The complexity would come from having different values of the PPM SMNCC at different levels of consumption. These different values may mean that we offset different amounts at different consumption levels, for each of electricity and gas. This complexity would be compounded by the fact the value of the PPM cost offset affects our advanced payments adjustment. We are aware that being able to

[78] Ofgem (2020), Assessing the distributional impacts of economic regulation, pg 14. https://www.ofgem.gov.uk/publications-and-updates/impact-assessment-guidance
[79] Ofgem (2019), Consumer Vulnerability Strategy 2025, paragraphs 4.11-4.13. https://www.ofgem.gov.uk/publications-and-updates/consumer-vulnerability-strategy-2025
[80] See 'Offsetting additional PPM costs' for further explanation of this.

understand these aspects of the cap can be important for suppliers' business planning. Therefore, we consider that removing the nil consumption scalar would improve transparency to stakeholders and allow them to better prepare for changes in the cap level.

Offsetting additional PPM costs

Context

4.67 Customers with traditional PPMs have higher costs to serve than direct debit (DD) customers with traditional meters. As part of setting a PPM level of the default tariff cap, we decided in our August 2020 decision to reflect this difference through a PPM-specific payment method uplift.[81,82]

4.68 We decided in our August 2020 decision to adopt the CMA's PPM cost differential between PPM customers and DD customers for our PPM uplift.[83] We decided to use the CMA's value (a) to protect PPM customers from an increase in prices and thereby a reduction in their protection (before considering the net impact of the smart meter rollout), and (b) because, for suppliers with an average mix of customers across payment methods, any additional PPM costs above the CMA's differential are included in the existing operating cost allowance and are therefore recovered across all customers. However, we acknowledged that PPM specialists may under-recover their efficient costs through the existing operating cost allowance.

4.69 As the smart meter rollout continues, it will erode the additional costs of serving PPM customers with a traditional meter. That means the SMNCC allowance determined by our model will grow increasingly large and negative. However, we decided that we would not use this to reduce the PPM cap level until the additional PPM costs were fully recovered from PPM customers.[84] This is the PPM cost offset.

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[81] Ofgem (2020), Protecting energy consumers with prepayment meters: August 2020 decision, paragraph 4.1, 4.6.
https://www.ofgem.gov.uk/system/files/docs/2020/08/protecting_energy_consumers_with_prepayment_meters_-_august_2020_decision.pdf
[82] From now on we will refer to the PPM-specific payment method uplift as the PPM uplift.
[83] The CMA PPM cap was in place prior to Ofgem introducing a PPM level in the default tariff cap in January 2021.
The PPM uplift increases tariffs for PPM customers relative to DD customers to reflect the cost differential.
[84] The May 2020 version of the PPM SMNCC model already showed negative SMNCC allowances, meaning that the smart meter rollout for PPM would decrease prices for PPM customers. It was expected

4.70 In our May 2020 consultation, we estimated that the cost to serve PPM customers compared to DD customers (when both have traditional meters) was up to £17 (£7.95 electricity, £8.97 gas) higher than the CMA's PPM uplift.[85] This is the specific amount we aim to offset. While this estimation was based on the same data used by the CMA, but using a less aggressive definition of efficiency, it only represents a possible under-recovery of efficient PPM costs.[86,87]

4.71 By including the offset, we no longer need to recover the additional PPM costs over all default tariff customers through the operating cost allowance. However, the August 2020 decision was to maintain the existing operating cost allowance, treating the additional amount as headroom.[88] This is deemed consistent with our 2018 default tariff cap decision, since we would have considered these costs in our assessment of uncertainty when setting headroom.[89]

4.72 In PPM SMNCC WP1, we proposed to implement the offset by amending the model 'Annex 5 – smart metering net cost change' referred to in standard condition 28AD of the gas and electricity supply licences ("the Annex 5 model").[90]

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that prices would continue to decrease as smart meter rollout progresses.

[85] We estimated that the cost differential between PPM and DD could be up to £81 (32.36 for electricity, £48.63 for gas) based on judgement of efficiency.

[86] In our May 2020 consultation, we concluded that the PPM uplift was uncertain, and that the CMA's PPM uplift (£64) was an appropriate lower bound estimate considering they chose a specific judgement on efficiency that was close to the frontier level. This judgment represents a more aggressive definition of efficiency than we adopted. We benchmarked by taking the difference between (a) the weighted average costs to serve direct debit customers reported by the six largest suppliers and (b) the weighted average costs to serve PPM customers.

[87] Ofgem (2020), Protecting energy consumers with prepayment meters: May 2020 consultation, paragraph 4.15 – 4.19. https://www.ofgem.gov.uk/system/files/docs/2020/05/protecting_energy_consumers_with_prepayment_meters_may_2020_consultation.pdf

[88] Ofgem (2020), Protecting energy consumers with prepayment meters: August 2020 decision, paragraph 4.77. https://www.ofgem.gov.uk/system/files/docs/2020/08/protecting_energy_consumers_with_prepayment_meters_-_august_2020_decision.pdf

[89] Ofgem (2018), Decision – Default tariff cap – Overview document, paragraph 2.77 – 2.81. https://www.ofgem.gov.uk/system/files/docs/2018/11/decision_-_default_tariff_cap_-_overview_document_0.pdf

[90] Ofgem (2020), Setting the PPM smart meter cost allowance in the default tariff cap – working paper, paragraph 3.13.https://www.ofgem.gov.uk/publications-and-updates/setting-ppm-smart-meter-cost-allowance-default-tariff-cap-working-paper

Proposal

4.73 We propose to use a PPM cost offset that works on a cap period basis rather than cumulatively. This means that for a given cap period, any remaining under-recovered PPM costs that cannot be offset by the current SMNCC allowance will not be carried over to the next cap period.

4.74 We propose to implement the PPM cost offset in the Annex 5 model.

Overview of responses to our working paper

4.75 One supplier commented on the approach of offsetting the under-recovered PPM costs.[91] It broadly agreed with our proposal to unwind the under-recovery of PPM costs by offsetting this against a reduction in the SMNCC, without changing the operating cost allowance.

4.76 We did not discuss whether to use a PPM cost offset that works on a cap period basis rather than cumulatively in PPM SMNCC WP1.

Considerations

Using a per cap period PPM cost offset

4.77 We can calculate the PPM cost offset per cap period or cumulatively. Table 2 demonstrates this difference with a hypothetical example over two cap periods. When offsetting on a cap period basis, if the SMNCC allowance is not low enough to offset the full PPM cost to serve difference in cap period 1, the remaining PPM cost to serve (£5) is not carried over to cap period 2. Instead, under the per cap period offset, in cap period 2 we would only look to offset the PPM cost to serve difference in that specific cap period.

4.78 Under the cumulative PPM cost offset, the remaining PPM cost to serve (£5) in cap period 1 is carried over to cap period 2, where the SMNCC allowance of -£15 is low enough to offset both the amount carried over and the PPM cost to serve difference in cap period 2.

[91] Ofgem (2020), Setting the PPM smart meter cost allowance in the default tariff cap – working paper. https://www.ofgem.gov.uk/publications-and-updates/setting-ppm-smart-meter-cost-allowance-default-tariff-cap-working-paper

Table 2: PPM cost offset hypothetical example – cap period, cumulative

	Cap Period A	Cap Period B	Total
PPM cost to serve difference (£)	10	10	20
SMNCC from the model (£)	-5	-15	-20
Per cap period PPM cost offset (£)	5	10	15
Amount carried over from cap period A (£)		0	
Cumulative PPM cost offset (£)	5	15	20
Amount carried over from cap period A (£)		5	
Net SMNCC (per cap period offset) (£)	0	-5	-5
Net SMNCC (cumulative offset) (£)	0	0	0

4.79 We consider that a cumulative cap period offset would not be the appropriate approach. We have always maintained that the value of the PPM uplift is a possible under-recovery (representing an upper-bound) rather than a definite one, so even if we do not manage to offset £17 in every cap period, this would not necessarily underfund suppliers. A judgement needs to be made as to the best approach in circumstances where the amount that will need to be offset in future periods is uncertain. We consider that there is a risk that any offset could be too generous to suppliers. A per cap period offset would be less risky on this basis.

4.80 When considering the offsetting approach, we must strike the right balance between protecting consumers and having regard to suppliers' efficient costs. The latter can vary depending on suppliers' circumstances and business models. As we are only able to set one PPM cap for the market as a whole, the trade-off is between potentially overfunding suppliers who serve the large majority of the PPM market with potentially underfunding suppliers who

serve the remainder of the market. In proposing a per cap period offset, we choose to err on the side of a slightly greater risk of under-compensating suppliers because of the overriding need to protect consumers.

4.81 In practice, given the current SMNCC allowances for gas and electricity, the impact of using a cumulative PPM cost offset instead of a per cap period offset would be limited. This is due to our tariff differential approach from our August 2020 decision which means that we would not offset the PPM SMNCC beyond the point at which the net PPM SMNCC reaches £0. Table 4 demonstrates this, showing the current SMNCC profiles for gas and electricity for cap period 5 onwards when using the weighted average rollout profile.[92]

4.82 For electricity, the initial PPM cost to serve difference to offset is £7.95. Therefore, even when using a cumulative PPM cost offset, we would not be able to ever fully offset £7.95 in any future cap periods. For the cumulative method to offset more than the per cap period method, the electricity SMNCC would have to be considerably lower in all cap periods beyond cap period 5. It would have to be low enough to offset both the full £7.95 that needs to be recovered in each subsequent cap period and the portion of the £7.95 PPM cost to serve difference that was not recovered in cap period 5.

4.83 For gas, the initial PPM cost to serve difference to offset is £8.97. The SMNCC allowance is low enough to offset the full PPM cost to serve difference in one cap period. Therefore, a cumulative PPM cost offset is not necessary as there is unlikely to be any under-recovery to carry forward to future cap periods.

Table 4: PPM SMNCC from the model

	Cap 5 Oct 20 - Mar 21	Cap 6 Apr 21 - Sep 21	Cap 7 Oct 21 - Mar 22	Cap 8 Apr 22 - Sep 22	Cap 9 Oct 22 - Mar 23	Cap 10 Apr 23 - Sep 23	Cap 11 Oct 23 - Dec 23
Electricity - SMNCC	-1.36	-0.50	-0.93	-1.36	-1.96	-2.55	-2.55
Gas - SMNCC	-13.30	-12.99	-16.46	-18.76	-21.58	-24.40	-24.40

[92] We discuss our proposal to use a weighted average rollout profile in Chapter 6.

5. Setting the PPM-specific rollout profile

Section summary

In this chapter, we set out our proposal to have a separate rollout profile for the PPM SMNCC compared to credit. We also propose to use a single rollout profile to set the PPM SMNCC.

5.1. The number of smart meter installations drives the majority of costs and benefits in the PPM SMNCC allowance. It affects the costs in that year and the costs in future years because we amortise certain costs over time (eg meter asset and installation costs).

5.2. We model the profile of installations over time – we refer to this as the rollout profile. We need to decide whether to use the same rollout profile for PPM as credit.

5.3. We use a rollout profile to calculate a PPM SMNCC allowance that broadly reflects a given level of modelled costs (eg when we use the weighted average rollout profile, we expect to calculate a PPM SMNCC that broadly reflects the average cost of rolling out smart PPM). This means we also need to decide if we can use a single rollout profile for PPM to reflect a given level of modelled costs, or if we need to choose another option.

5.4. We are proposing to use a single PPM-specific rollout profile to set the PPM SMNCC. We are proposing to use this as an input for the SMNCC model used to set the credit SMNCC, to calculate the PPM SMNCC.

Differentiating rollout between credit and PPM

Context

5.5. In our May 2020 consultation, we proposed to use the same rollout profile for the credit and PPM SMNCC.[93]

[93] Ofgem (2020), Statutory consultation for protecting energy consumers with prepayment meters. https://www.ofgem.gov.uk/publications-and-updates/statutory-consultation-protecting-energy-consumers-prepayment-meters

5.6. However, we found that setting a single weighted average rollout profile across both credit and PPM would set a PPM SMNCC below average costs, which was not our intention. As this meant methodological changes were required, in our August 2020 decision, we decided to implement our contingency position from our May 2020 consultation. This introduced a PPM-specific SMNCC for the PPM level of the cap (and consequently set a credit-specific rollout profile for the credit SMNCC), and our contingency approach was to set the value to £0.[94]

5.7. In PPM SMNCC WP2, we continued to propose to set a PPM-specific rollout profile for the PPM SMNCC.[95] We acknowledged that while the new rollout framework does not differentiate between the credit and PPM rollout, the net costs of rolling out smart meters to PPM customers are different to those for credit customers. We maintained the position stated in our August 2020 decision that the progress of the PPM rollout is not significantly different to the credit rollout in general. However, there is much greater variation in PPM rollout across suppliers, relative to average progress, compared to credit. Therefore, our considerations on how to calculate the rollout profile are likely to be different for PPM than for credit. This is consistent with our August 2020 decision for the credit SMNCC.[96]

Proposal

5.8. We propose to set a PPM-specific rollout profile for the PPM SMNCC, distinct from the one for credit.

Overview of responses to our working paper

5.9. Three suppliers commented on this, and two were explicitly supportive of setting a rollout profile for PPM separate from credit.

[94] Ofgem (2020), Decision on protecting energy consumers with prepayment meters, paragraphs 5.20-5.40. https://www.ofgem.gov.uk/publications-and-updates/decision-protecting-energy-consumers-prepayment-meters
[95] Ofgem (2021), Setting the level of rollout for the PPM smart meter cost allowance: working paper. https://www.ofgem.gov.uk/publications-and-updates/setting-level-rollout-ppm-smart-meter-cost-allowance-working-paper
[96] Ofgem (2020), Decision on protecting energy consumers with prepayment meters. https://www.ofgem.gov.uk/publications-and-updates/decision-protecting-energy-consumers-prepayment-meters

5.10. The third supplier accepted in principle the need for us to consider whether there is a need to set a specific PPM rollout profile.

Considerations

5.11. One of the explicitly supportive suppliers stated that PPM rollout is lagging substantially behind the credit meter rollout. Therefore, it stated that the use of a single aggregate rollout profile would risk substantially overstating savings realised by efficient suppliers.

5.12. We consider that it is not accurate to state that the PPM rollout is lagging substantially behind the credit meter rollout. The rollout out for smart PPM is in line with prepayment market share. At the end of 2020, 14% of all smart meters were in prepayment mode, in line with the levels of PPM in the market (also 14%).[97] However, there is greater variation between suppliers for the PPM rollout compared to credit, which strengthens the reasoning for setting a PPM-specific rollout profile.

5.13. One supplier said that the absence of access to our modelling and scenario testing meant it was hard to judge the extent to which differences between credit and PPM drive the need for a different approach for the PPM allowance; or what approach is appropriate. This was despite their acceptance of the need for a PPM-specific rollout profile in principle. We are running a disclosure process, and relevant data, such as the modelling for the PPM SMNCC, will be disclosed after publication of this consultation. [98]

Our analysis of rollout and costs

Context

5.14. In PPM SMNCC WP2, we stated that our analysis suggested that the PPM SMNCC allowance calculated using the weighted average rollout profile could be lower than the PPM SMNCC for a supplier who is significantly ahead of or behind the average. This analysis was based on the data we had in our model and using our assumptions at the time.

[97] BEIS (2021), Smart meters in Great Britain, quarterly update December 2020, pg 5. https://www.gov.uk/government/statistics/smart-meters-in-great-britain-quarterly-update-december-2020
[98] See Chapter 1 for more detail.

5.15. Our initial assessment suggested that the issue could be caused by the weighted average PPM rollout profile having a modelled lower cost increase/higher cost decrease over 2021-2023 relative to the 2017 benchmark compared to other rollout profiles. Our modelling suggested this was because of a decrease in traditional meter costs and an increase in operational benefits, which more than offset the continued increase in smart meter asset and installation costs.

Proposals

5.16. We propose to continue using the SMNCC model to set the PPM SMNCC.

5.17. We also propose to amend our calculation of the weighted average rollout profile to make it broadly reflective of the average cost of rolling out smart meters. We discuss this in more detail later in this chapter.

Overview of responses to our working paper

5.18. Two stakeholders commented on the non-linear relationship between the rollout profiles and costs, in response to PPM SMNCC WP2. One supplier commented on our presentation of the relationship.

Considerations

5.19. We do not repeat our discussion of the analysis presented in PPM SMNCC WP2. We focus instead on responding to the feedback from stakeholders.

Treatment of meter costs in our model

5.20. One supplier stated that we might be considering the cost of exchanging a meter as an expense, rather than a cost that is capitalized into the meter asset on which rental is charged, with a cash-neutral impact. It said that this may be causing the non-linear relationship between rollout and costs.

5.21. We capitalize meter exchange costs in our modelling. We do, however, expense PRCs. Some suppliers may not be liable for PRCs, but our model only reflects the average situation across the market. We do not consider it a flaw in our model if it does not reflect aspects of supplier business models that are not the norm. We also do not consider that this would be the reason for the non-linear relationship between rollout and costs.

5.22. The supplier also said that the COVID-19 related lockdown led to suppliers incurring, and expecting to incur, fixed installation costs that cannot be recovered. This was despite the cash-neutral impact of meter replacement mentioned above. It stated that provision for this should be made in the price cap.

5.23. Our approach to meter costs, including taking account of the impact of Covid-19 on installation costs, is discussed in Chapter 3.

SMNCC model

5.24. The supplier also stated that our use of the SMNCC model should be replaced with an approach consistent with the rest of the price cap. It described the model's approach as complexity without merit. The approach is calculating the SMNCC by comparing actual 2017 relevant costs with a 2017 counterfactual case (where there is no smart meter rollout) and comparing this result with a second comparison of the factual scenario against the counter factual for the relevant cap period. It stated that this may be causing the non-linear relationship between rollout and costs. It said that instead, smart metering costs for 2017 and the contemporary period should both be estimated directly, and the direct change in the cost should be provided as an allowance in the cap.

5.25. We consider that the approach suggested by the supplier and our model would give similar results. However, the current approach gives us the ability to look at the change in the additional costs of smart metering (which are incurred only due to the rollout), rather than solely the change in the total costs of smart metering. The total costs could give a misleading impression of the costs of the smart metering programme. Removing the counterfactual would also involve significant changes to the 2019 CBA modelling approach, which would not be proportional to the analytical benefits.

5.26. We will continue to review the components and inputs of the model, based on updated data and stakeholder comments. This ensures that our model remains appropriate for our needs.

Installation of traditional PPM meters

5.27. One stakeholder brought up the Smart Meter New and Replacement Obligation (NRO), and stated that it requires energy suppliers to take all reasonable steps to install a compliant smart meter wherever a meter is replaced or where a meter is installed for the first time. It said that it meant we should not consider that a supplier could roll out slowly by replacing

traditional PPM like for like with traditional PPM. It stated that this would reward suppliers that are effectively breaking the obligation.

5.28. If a supplier rolls out smart meters later than the average, our model assumes that it has to install more traditional meters to replace those expiring than suppliers further ahead with their rollout. This is because they would not have carried out enough smart PPM installations to replace expiring traditional PPM. Therefore, they would have more traditional meter costs later in the rollout period than a supplier who replaced more of their traditional PPM with smart PPM earlier. This contributes to the PPM SMNCC generated by this late rollout profile being higher than the average rollout profile, which contributes to the observed non-linearity.

5.29. However, we consider this to be a reasonable modelling assumption. Firstly, the NRO only came into effect on 30 June 2019, so it does not cover most of the historic rollout period. Secondly, we recognise that there will have been instances where a supplier had to replace a traditional PPM with another traditional PPM, despite taking all reasonable steps to install a SMETS2 meter.[99] This is because there were technical constraints on the deployment of SMETS2 meters in prepayment mode, which have now been resolved.[100] Therefore, to date, we consider that our assumption that a supplier could roll out slowly by replacing traditional PPM like-for-like with traditional PPM, would not be rewarding suppliers for breaking their obligations.

5.30. BEIS's new rollout framework will set individual rollout targets for suppliers, as well as tolerance levels that set their legal obligations.[101] These would be a stronger driver of rollout going forward than one particular modelling assumption.

[99] Ofgem (2019), Smart Meter Rollout: Energy Suppliers' Progress and Future Plans - Open Letter June 2019, pg 5. https://www.ofgem.gov.uk/publications-and-updates/smart-meter-rollout-energy-suppliers-progress-and-future-plans-open-letter-june-2019

[100] There are now very limited circumstances where suppliers are not able to install a SMETS2 meter. Ofgem (2021), Smart Meter Rollout: Energy Suppliers' Rollout Delivery - Open Letter March 2021. https://www.ofgem.gov.uk/publications-and-updates/smart-meter-rollout-energy-suppliers-rollout-delivery-open-letter-march-2021

[101] See Chapter 6 for more detail on the new framework and our proposals to take it into account.

Information presented in our working paper

5.31. One supplier welcomed our inclusion of charts in the working paper to illustrate the dependence of costs on different rollout profiles, but was disappointed that we omitted all information relating to the y-axis.[102] It stated that it is very important to have some idea of the magnitude and materiality of the differences (and whether values are positive or negative). The supplier encouraged us to provide such information in future.

5.32. We will be disclosing part of our modelling for the PPM SMNCC, which will give more information on the magnitude and materiality of the differences when using different rollout profiles.

Options and discussion for setting the PPM SMNCC

Context

5.33. In PPM SMNCC WP2, we considered two options for setting the PPM SMNCC:

- using a single rollout profile; and
- taking the average of the PPM SMNCC allowances generated by using a sample of rollout profiles.[103]

5.34. Our preferred option was to use a single rollout profile to calculate the PPM SMNCC. This method is in line with our proposals for the SMNCC (both PPM and credit) to date.

5.35. We stated that we would look to use a rollout profile that produces a PPM SMNCC level that broadly reflects the average cost of the smart meter rollout to PPM customers. If the weighted average rollout profile based on our sample does not achieve this, we stated that we could consider whether excluding outliers from our sample may give a more reliable result. Additionally, we stated that we could consider whether a weighted average rollout

[102] Ofgem (2021), Setting the level of rollout for the PPM smart meter cost allowance: working paper, Appendix 2. https://www.ofgem.gov.uk/publications-and-updates/setting-level-rollout-ppm-smart-meter-cost-allowance-working-paper
[103] Ofgem (2021), Setting the level of rollout for the PPM smart meter cost allowance: working paper, 4.15-4.26. https://www.ofgem.gov.uk/publications-and-updates/setting-level-rollout-ppm-smart-meter-cost-allowance-working-paper

profile is the best statistical metric to model the average cost of the smart meter rollout to PPM customers.

Proposal

5.36. We propose to use a single rollout profile, in line with our proposals for the SMNCC (both PPM and credit) to date.

Overview of responses to our working paper

5.37. Two suppliers commented on using a single rollout profile, and both were supportive.

5.38. One of them agreed with the option of using a single rollout profile provided we commit to excluding PPM-specialist outliers from the sample of suppliers used to generate the weighted average rollout profile. It agreed that the option of taking average PPM SMNCC allowances generated by a sample of rollout profiles is sensitive to the sample of suppliers, overly complex and limits our ability to break down the allowance into cost categories.

Considerations

5.39. We consider that we can calculate a PPM SMNCC that broadly reflects the average cost of rolling out smart meters using a single rollout profile.

5.40. We set out in Appendix 4 the assumptions we used to construct the weighted average rollout profile, including the weights used and the treatment of outliers. There is little difference between the SMNCC produced by a single weighted average rollout profile and the weighted average costs of our sample of suppliers for electricity and gas. The absolute value of the difference was less than £1 for both fuels. As we have not yet received the Q1 2021 data and suppliers' projections for the first half (H1) of 2021 that will be used to construct the rollout profile we will use to make our decision, at this stage, we consider that these are not large enough differences for us to move away from our preferred option in PPM SMNCC WP2 of using a single rollout profile.[104] We consider these differences to be evidence that by using

[104] Please see the section on the 'All reasonable steps' framework in Chapter 6 for more detail on this data.

a single rollout profile, we can calculate a PPM SMNCC that broadly reflects the average cost of rolling out smart meters.

5.41. The added advantage of using a single rollout profile is that the SMNCC model is set up to use this method. Moving away from this approach could require significant changes to the model. Moreover, using the average of the PPM SMNCC allowances generated by using a sample of rollout profiles is likely to require multiple additional models. Due to the complexity this would add to our methodology, and the consequent reduction in transparency to stakeholders, we do not consider this to be a proportionate approach. This is strengthened by the fact a single rollout profile is able to produce a PPM SMNCC that is close to the weighted average costs of suppliers.

5.42. The PPM SMNCC using a weighted average costs of our sample of suppliers would also rely more heavily on the costs generated by the supplier rollout profiles. The variation in rollout between suppliers means that the resulting average PPM SMNCC may be much more sensitive to changes in the sample of suppliers.

5.43. Using the average of individual PPM SMNCCs would also limit our ability to break down the overall PPM SMNCC allowance into the cost categories set out in the May 2020 consultation.[105]

[105] Ofgem (2020), Statutory consultation for protecting energy consumers with prepayment meters, pg 71-96. https://www.ofgem.gov.uk/publications-and-updates/statutory-consultation-protecting-energy-consumers-prepayment-meters

6. Calculating the PPM-specific rollout profile

Section summary

In this chapter, we consider how we calculate the PPM-specific rollout profile since the beginning of the smart meter rollout and until the end of the cap. We consider how to calculate the historical rollout, the rollout over the remaining period of the 'all reasonable steps' framework, and the rollout under the new BEIS framework.

6.1 The cap covers PPM customers from 01 January 2021. Prior to this they were protected by the PPM cap, set by the CMA. In our analysis, we only consider the cost of rollout of smart meters to PPM customers from the point they were protected by the cap. This is the period over 2021-2023 (the years covering the remaining cap periods from cap period seven onwards).[106]

6.2 In order to set the rollout profile for PPM, we need to take into account the historical rollout of smart PPM as well as a forecast of future rollout, taking into account the different BEIS frameworks. There are three time periods that we need to decide how to model:

- historical periods up to the end of 2020;
- January 2021 – June 2021 that is covered by the 'All reasonable steps' framework – the current framework for the smart meter rollout, which is set to end in June 2021;
- July 2021 – end-2023 that is covered by the new smart meter rollout framework, which begins on 1 July 2021. BEIS's policy ambition for the new framework is market-wide rollout by mid-2025.

6.3 For the new smart meter rollout framework, we are proposing to reflect the average net cost of the smart meter rollout to PPM customers (using the weighted average rollout profile to reflect the market average of smart meters) rather than the highest net cost to PPM customers (the highest cost rollout profile for a supplier to meet the policy ambition).

[106] This is dependent on the Secretary of State's decision each year on whether to extend the cap.

Therefore, in this chapter we primarily discuss how we constructed the weighted average rollout profile. We use a very similar method to construct each supplier-specific rollout profile, but we highlight in the footnotes where details differ.

6.4 We are also proposing to set the rollout profile in line with suppliers' minimum installation obligations (a 'tolerance' approach).

6.5 In SMNCC WP2, we set out four principles which we intended to use to help us choose between rollout profiles.[107] These were:

- reducing costs to default tariff customers
- increasing the benefits from smart metering
- supporting suppliers to deliver their obligations
- ensuring cost-effectiveness.

6.6 We noted that there would be clear trade-offs between these principles, so there would be judgement about which rollout profile option to select.[108] We consider that these are also relevant for PPM.

6.7 Throughout this chapter, we discuss the net costs or PPM SMNCCs of individual suppliers. It is important to note that these are solely driven by differences in rollout profiles between suppliers rather than differences in unit costs (which we keep fixed in the model). Therefore, when we say the average rollout profile should broadly reflect the average PPM SMNCC, we mean the average of the modelled PPM SMNCCs generated by a sample of rollout profiles, all else being equal. Additionally, where we mention a rollout profile, we are referring to a PPM-specific rollout profile.

[107] Ofgem (2021), Smart meter rollout and the default tariff cap: working paper, paragraphs 2.22-2.26. https://www.ofgem.gov.uk/system/files/docs/2021/02/smart_meter_rollout_and_the_default_tariff_cap_-_working_paper.pdf
[108] Ofgem (2021), Smart meter rollout and the default tariff cap: working paper, paragraphs 2.22-2.26. https://www.ofgem.gov.uk/system/files/docs/2021/02/smart_meter_rollout_and_the_default_tariff_cap_-_working_paper.pdf

Historical periods

Context

6.8 We need to calculate the historic portion of the rollout profile as the number of installations in a year does not just affect the costs in that year. It also affects the costs in future years because we amortise certain costs over time (eg meter asset and installation costs).

6.9 In PPM SMNCC WP2 we stated that, for past periods, we proposed to largely use supplier rollout data, and use a modelled approach to fill in any missing data points.[109]

Proposal

6.10 We continue to propose to use the available supplier rollout data, and use a modelled approach to fill in any missing data points.

6.11 We propose to use supplier rollout data over 2017-2020. The modelled approach would cover 2011-2016.

Overview of responses to our working paper

6.12 One supplier said that there were ambiguities in our narrative relating to how we propose to calculate the profile for historical periods. For example, it stated that it was unclear whether our use of suppliers' data will commence from 2017 or 2016.

Considerations

6.13 Our approach to historical periods for the weighted average rollout profile is:

- To use supplier rollout data from the 2020 SMAIR for the years 2017-2020.

[109] Ofgem (2021), Setting the level of rollout for the PPM smart meter cost allowance: working paper. https://www.ofgem.gov.uk/publications-and-updates/setting-level-rollout-ppm-smart-meter-cost-allowance-working-paper

- To use data collected by BEIS on the number of operating smart PPM for each supplier in 2016 as a proxy for the 2016 rollout. We propose to set the 2016 rollout percentage equal to the proportion of the total number of operating PPM that were smart PPM in 2016.

- To use BEIS data on the overall market rollout percentage in 2015 to model the average 2015 rollout. This data is not split by payment type, but should still be a reasonable proxy.[110,111]

- To set the rollout from 2011-2014 to 0%. This is a reasonable assumption as, before 2015, all but one supplier had very few smart PPM customers. This supplier is currently removed from our sample as an outlier, which strengthens our reasoning for assuming 0% rollout over 2011-2014.

6.14 The supplier that commented on calculating historical rollout stated that we did not clarify whether we had considered the impact of outlier suppliers on the weighted average. We have considered the impact of outliers, and as a result, plan to remove them. We detail our considerations on outliers in Appendix 4.

6.15 The supplier also stated that we did not explain the purpose and value of calculating the profile all the way back to 2011. We do not have year-specific cost data in the early years, and we assume that very few smart meters are rolled out in that period. This means our exact starting year has little impact on our modelling output. Therefore, we use 2011 to align with the base year in the 2019 BEIS CBA.[112]

[110] The alternative would be to assume the same change from 2015 to 2016 as from 2016 to 2017, and use that to calculate the 2015 rollout percentage. However, this is likely to give a rollout percentage that is too high, as only about half of the suppliers in our sample are recorded by BEIS as having installed any smart PPM in 2015.
[111] To be able to ascertain whether the weighted average rollout profile is the most appropriate rollout profile to set the PPM SMNCC, we also need to construct a rollout profile for each supplier in our sample. This allows us to compare different rollout profile options. For the individual supplier rollout profiles, we propose to assume the same change from 2015 to 2016 as from 2016 to 2017 and use that to calculate the 2015 rollout percentage.
[112] BEIS (2019), Smart meter roll-out: cost-benefit analysis 2019, pg 17. https://www.gov.uk/government/publications/smart-meter-roll-out-cost-benefit-analysis-2019

'All reasonable steps' framework

Context

6.16 At the time of publishing PPM SMNCC WP2, we expected that we would receive data on PPM rollout progress up to the end of 2020 before taking our decision on the PPM cap in August 2021.[113] We therefore set out possible options to estimate rollout in the first half of 2021 under the current framework.

6.17 In PPM SMNCC WP2, we identified three options. In each case the starting point, the cumulative rollout at the end of 2020, is the same - so the options look at how we should forecast rollout over the subsequent six-month period:

- Option 1 – use the average smart PPM rollout between 2017 and 2019
- Option 2 – roll forward suppliers' smart PPM rollout over 2020 (i.e. assume the rate of rollout in H1 2021 is the same as in 2020)
- Option 3 - use suppliers' rollout plans for the first half of 2021

6.18 On option 1, we stated that there is a risk that historical performance over 2017-2019 could overstate what is achievable if the effects of COVID-19 extend into 2021. Conversely, this approach may understate the level of PPM rollout if suppliers have waited for SMETS2 meters before starting their PPM rollout.[114]

6.19 On option 2, we stated that the COVID-19 impacts over 2020 are not necessarily the same as those that suppliers will face during the first half of 2021. Using 2020 data might therefore understate the smart PPM rollout that suppliers are able to achieve in the first half of 2021.

6.20 For option 3, the rollout plans are not split by credit and PPM. This option assumes that the incremental rollout is the same in the first half of 2021 for credit and PPM. Given that

[113] Ofgem (2021), Setting the level of rollout for the PPM smart meter cost allowance: working paper, paragraphs 2.11-2.19. https://www.ofgem.gov.uk/publications-and-updates/setting-level-rollout-ppm-smart-meter-cost-allowance-working-paper

[114] A PPM solution for SMETS2 meters was not available for the majority of the 2017-2019 period, but is now available at scale so we may expect higher levels of PPM rollout.

credit meters represent the vast majority of domestic meters, credit rollout and overall rollout will be broadly similar. However, the potential scale of any discrepancy would be larger for PPM. That said, at the time of PPM SMNCC WP2 we did not have a clear reason to expect there to be a large discrepancy in practice.

Proposal

6.21 We propose to use actual Q1 2021 smart PPM rollout numbers to represent this quarter in the PPM-specific rollout profile.[115] This is in line with stakeholder responses to our working paper but not one of the options that we had considered in PPM SMNCC WP2.

6.22 We propose to use suppliers' updated rollout plans provided to BEIS for Q2 2021 to model rollout progress by the end of the first half (H1) of 2021. This is a variation on option 3 in the PPM SMNCC WP2.

6.23 Our proposal is the same as the one for the credit SMNCC.

6.24 We also propose to use the actual Q1 2021 data and our 2021 RFI to evaluate the accuracy of suppliers' rollout plans.

Overview of responses to our working paper

6.25 Three suppliers commented on this. One supplier supported a variation on option 1 and the other two preferred option 3.

Considerations

Q1 2021

6.26 As one supplier noted, the actual smart PPM rollout data for Q1 2021 will be available in May 2021, and therefore we cannot incorporate it before this consultation.

[115] Quarter here refers to a calendar quarter rather than the financial quarter of a company.

6.27 However, similar to the credit SMNCC decision, we intend to use the actual Q1 2021 data for the decision. This will avoid the need for us to make an assumption.

Q2 2021

6.28 We consider that it is preferrable to use supplier rollout estimates for Q2 2021 as described in our option 3.

6.29 We do not consider that the rollout between 2017 and 2019 would be representative of the rollout in Q2 2021. This is because COVID-19 could still impact the number of smart meters that can be installed in this period. Smart meter installations in January 2021 were 40% lower than in January 2020, so it does not seem likely that by Q2 2021 we will be back to pre-pandemic levels of installations.[116]

6.30 We also do not consider that it would be appropriate to estimate the rollout for Q2 based on 2020 data. This is because we believe this option may understate the rollout that suppliers are able to achieve in Q2 2021. BEIS has stated that the greatest impact on smart meter installation numbers occurred during Q2 2020. Moreover, installation numbers have been rising, with Q4 2020 levels increasing by 14% on Q3 2020.[117]

6.31 A supplier stated that large variations between suppliers' smart PPM rollout progress in 2020 continued to be driven by a combination of regional technical constraints and the different growth strategies pursued by suppliers. It said that we did not elaborate on how we had considered this variation between suppliers in option 2. As we are proposing to choose option 3, we note that suppliers are likely to have taken into account regional technical constraints, their responses to them and their own growth strategies in their rollout plans. Moreover, policies such as smart meter installations in Scotland being paused until April 2021 primarily affect Q1 2021, for which we are using actual data.

6.32 One supplier said that of the options we are considering, it supported using suppliers' rollout plans for the first half of 2021. It stated that this is likely to be the most realistic and up-to-date assumption of costs. We will be using the updated rollout plans that suppliers have

[116] Electralink (2021), January smart meter installations 40% down from last year. https://www.electralink.co.uk/2021/02/jan-smart-meter-installs-40-down/
[117] BEIS (2021), Smart Meter Statistics in Great Britain: Quarterly Report to end December 2020. https://www.gov.uk/government/statistics/smart-meters-in-great-britain-quarterly-update-december-2020

provided to BEIS rather than the plans provided to Ofgem as proposed in PPM SMNCC WP2. This is because the rollout plans submitted to BEIS are the most up-to-date.

6.33 We still do not expect there to be a large discrepancy for PPM in practice compared to the rollout plans. Option 3 received the most support from suppliers, which may suggest that they do not expect their planned incremental increase in overall smart meter rollout to be materially different from the actual incremental increase in their smart PPM rollout. The impact of any discrepancy is also lessened by the fact we will be using the plans to represent only one quarter of 2021.

6.34 We will not be relying only on supplier comments to judge the accuracy of supplier rollout plans for PPM. We will also be able to use the actual data from Q1 2021 to make a judgement. One supplier stated that there was no mention in the working paper of how we proposed to cross-reference the information from our February 2021 RFI in our estimate of the rollout in the first half of 2021. The RFI collected the difference between 2020 expected and actual smart PPM installations, split by payment type, which we can use to judge how well suppliers are likely to meet their rollout plans for H1 2021. Based on this, we can reconsider which supplier rollout plans to include in our Q2 2021 calculations, as well as whether it would be more appropriate to roll forward suppliers' smart PPM rollout over Q1 2021.

6.35 One supplier said that option 3 is potentially the most closely aligned with their overarching view that it would be more appropriate for us to use a rollout profile based on the latest forward-looking industry average, excluding outlier PPM specialists. It stated that the extent to which outlier suppliers skew the overall average rollout is significant. However, it did not consider any of the options as presented in PPM SMNCC WP2 to be suitable.

6.36 We plan to remove outlier suppliers from the sample used to calculate the weighted average rollout profile. We detail our considerations on outliers in Appendix 4.

Interim approach for this consultation

6.37 Given our preferred data is not yet available, we need an interim approach to present a rollout profile in this consultation and to calculate the resulting SMNCC estimates. This is a placeholder only.

6.38 For this consultation, we assume that rollout in the first half of 2021 is equal to the average semi-annual progress between the end of 2017 and the end of 2020.[118] This is a broad approximation, which takes into account years before and during COVID-19.

New framework: average or highest net cost rollout profile

Context

6.39 In PPM SMNCC WP2 we discussed whether to set the PPM SMNCC allowance based on the market average PPM rollout or the rollout of the supplier with the highest net cost rollout. Our analysis suggested that the supplier with the highest net cost rollout would be the supplier with the lowest smart PPM rollout.

6.40 We proposed to use the market average PPM rollout to reflect the average net costs incurred by PPM customers for the rollout of smart meters. We stated that the market average should reflect the aggregate cost of the rollout to PPM consumers for a given level of efficient costs.

Proposal

6.41 We propose to set the PPM SMNCC allowance based on the market average PPM rollout.

Overview of responses to our working paper

6.42 One supplier provided some support to the average rollout profile approach, while six other stakeholders disagreed with it.

6.43 One supplier stated that based on the information currently available, it believes the average profile approach is consistent with the approaches used in other aspects of the cap.

6.44 Two stakeholders stated that they would welcome clarification as to the rationale behind our different approach to the PPM SMNCC compared to credit.

[118] We calculate this as the rollout at the end of 2020 minus the rollout at the end of 2017, divided by six (to reflect that there are six half years over this period)

Considerations

Overall view

6.45 One supplier said that we offered no explanation as to how suppliers with higher than average efficient costs can recover them with the average profile approach. Our proposal to use the market leader's rollout profile in credit would overfund most suppliers (most suppliers in credit have costs below the market leader). This means that using the highest net cost supplier's rollout profile in PPM would also lead to most suppliers being overfunded. This would be contrary to our principle of reducing costs to default tariff customers, especially as fuel poor customers are more likely to be on PPM.[119] Most of the suppliers who would be underfunded by the weighted average rollout profile in PPM would be overfunded in credit. Therefore, across both credit and PPM, most suppliers are likely to receive enough funding to cover the efficient costs of delivering their obligations.

6.46 We acknowledge that suppliers with few credit customers would not benefit to this extent from the overfunding in credit. There is a risk that these suppliers would not recover their efficient costs of delivering their obligations. The extent that this would be the case would depend on their efficiency when compared to the modelled allowance.[120]

6.47 On balance, we do not consider it appropriate to use the rollout profile of the supplier with the highest net cost to remove this potential impact.[121] Using the rollout profile of the highest net cost supplier would lead us to overfund most suppliers. It would also be likely to significantly overfund suppliers with a higher than average proportion of PPM customers, as, due to being ahead with their smart PPM rollout, they are likely to have costs below the highest net cost supplier. This amount of overfunding would be multiples above the potential underfunding under the average rollout approach. The overfunding from the highest net cost

[119] BEIS (2021), Annual fuel poverty statistics report 2021 (2019 data), pg 17. https://www.gov.uk/government/statistics/annual-fuel-poverty-statistics-report-2021
[120] Our allowance assumes average efficiency and costs for suppliers. Therefore the impact on these suppliers would depend on their individual costs compared to the market information used to calculate the allowance.
[121] We propose to exclude the rollout profile of any supplier where enforcement action has been taken, or is ongoing, in respect of their smart meter rollout as a single rollout profile option. We consider that such action may cast sufficient doubt as to whether the supplier has been rolling out at an efficient level. We also propose to exclude the rollout profile of any supplier with few PPM as a single rollout profile option, as they produce modelling outputs that are unrepresentative of most other PPM suppliers. Therefore, when we talk about the highest net cost supplier, we are talking about the highest net cost supplier out of the sample of suppliers who have not been excluded as an option for these two reasons.

supplier's rollout profile is therefore more material than the underfunding from the weighted average rollout profile.

6.48 We must set a single cap level, so there may be differences between the allowance we set and individual suppliers' efficient costs. This is an unavoidable consequence of setting a single allowance that protects customers, in accordance with Section 1(6) of the Act. We have considered the impact on these suppliers of our proposal, and consider the options set out in this consultation to be the most robust for setting the allowance. However, we welcome comments from stakeholders on alternative mechanisms and adjustments which could be considered.

Consistency with credit

6.49 Stakeholders requested clarification as to why we are considering a different option for PPM compared to credit. A supplier stated that we appear to dismiss the 'market leader' approach for reasons which are not well explained. It said that we did not suggest that an average profile approach would improve suppliers' incentives to favour PPM rollout over credit rollout.

6.50 We have considered the option of setting the rollout profile in line with the highest net cost supplier for both credit and PPM. For credit, the highest net cost supplier is the market leader. However, for PPM, the highest net cost supplier, when considering total costs across electricity and gas, is the lowest PPM rollout supplier. This is why we looked at the weighted average rollout profile and the lowest PPM rollout supplier's rollout profile, rather than the market leader's.

6.51 We are not aiming to incentivise suppliers to favour smart PPM rollout over smart credit rollout. Instead, we aim to support suppliers to deliver their obligations, while ensuring cost-effectiveness, across both PPM and credit.

6.52 One stakeholder stated that while the two options set out in PPM SMNCC WP2 are both valid options to be considered, they are clearly weighted towards the 'slow' end of the market. It stated we should bring into consideration a third option that sets the allowance based on a frontier of smart prepayment rollout. It considered this would mean that those suppliers that were slow to rollout smart PPM would be able to recover their costs, and those that were relatively slow would be incentivised to accelerate their rollout plans. We understand a frontier approach to mean using the market leader rollout profile.

6.53 Our analysis suggests that the market leader rollout profile would result in a lower SMNCC allowance than the weighted average rollout profile. This is because the market leader is far ahead of all other suppliers in terms of smart PPM rollout, and the modelling suggests they would therefore be experiencing higher smart meter benefits than other suppliers. This lowers the allowance. As the market leader rollout profile is likely to underfund suppliers, this would not match our principle of supporting suppliers to deliver their obligations. Underfunding most suppliers in the market would also not increase the benefits of smart metering across the whole market.

Objective of the rollout profile

6.54 One supplier stated that the argument that "the market average should reflect the aggregate cost of the rollout to PPM consumers for a given level of efficient costs" is not determinative in the case of credit.[122]

6.55 In Chapter 5 we detail our reasons for considering that the PPM-specific weighted average rollout profile broadly reflects the PPM market average cost of rolling out smart meters. As set out in PPM SMNCC WP2, our view is that PPM customers should pay for the average costs of the PPM rollout. Though this is not determinative in the case of credit, this view is in line with the four principles set out in SMNCC WP2 as those we intended to use to help us choose between rollout profiles for credit.

6.56 Using the weighted average rollout profile would reduce costs to default tariff customers, and still ensure cost effectiveness by likely funding most suppliers' efficient costs of meeting their obligations. In this way, the weighted average rollout profile supports suppliers to deliver their obligations and also increases the benefits from smart metering.

6.57 By ensuring that it is in line with with these four principles, our proposal to use the weighted average rollout profile remains consistent with our considerations in choosing a rollout profile for credit.

[122] Ofgem (2021), Setting the level of rollout for the PPM smart meter cost allowance: working paper, paragraph 3.10. https://www.ofgem.gov.uk/publications-and-updates/setting-level-rollout-ppm-smart-meter-cost-allowance-working-paper

Impact of the choice of rollout profile on smart PPM rollout

6.58 One supplier stated that adopting the average supplier profile risks curtailing rollout by lowering allowances when suppliers are expected to deliver more stringent statutory targets. It considered that this would be counter to our aim of protecting customers.

6.59 The SMNCC only affects smart meter benefits insofar as it affects the number of smart meters that suppliers roll out. However, the key driver of the number of smart meters that suppliers roll out will be their obligations, which are set by BEIS. We have detailed above why we consider that the average rollout profile, in conjunction with the market leader rollout profile in credit, is likely to fund most suppliers' efficient costs of meeting their obligation.

Recovering overfunding

6.60 One supplier stated that it is likely that there will be increased supplier costs related to the rollout (due to more stringent rollout obligations, and higher unit costs), so we should be open to considering the supplier profile with the largest forecast cumulative SMNCC over the full potential life of the cap. If costs are higher than currently modelled, it stated this can all be reconciled in the 12-month review without the need for any additional advanced payments. If costs are in line with or lower than current modelling, it stated that we can make a correction via the advanced payments adjustment process.

6.61 Using the rollout profile of the supplier with the largest forecast cumulative PPM SMNCC over the full potential life of the cap would create the same overfunding issues as using the rollout profile of the lowest PPM rollout supplier. Moreover, a high SMNCC allowance has an immediate cost to customers. As set out in our decision on the COVID-19 float for cap periods four to six, suppliers are better placed to manage cash flow risk than default tariff customers are. They typically have better access to capital and at a lower cost.[123] We would therefore be concerned about customers paying for potentially surplus funds, even if it was temporary.

[123] Ofgem (2021), Decision on the potential impact of COVID-19 on the default tariff cap, paragraph 3.18. https://www.ofgem.gov.uk/system/files/docs/2021/02/decision_on_the_potential_impact_of_covid-19_on_the_default_tariff_cap.pdf

Technical issues

6.62 One supplier said that there were technical constraints on the deployment of gas smart meters at scale to prepayment customers in areas of northern England and Scotland. It said this has significantly impacted smart PPM rollout in the north region, disproportionately hindering the progress of suppliers with large customer bases in this area of the country. We note that this may have caused some suppliers difficulties with their PPM rollout plans until autumn 2020, when a new version of the firmware on Communications Hubs for CSP North became available to support PPM services. However, we understand suppliers have been moving at very different paces even after the issues have been resolved. We therefore consider that some suppliers were less prepared than others to roll out smart PPM once the issues were resolved. We consider this to be a commercial decision, which does not justify increasing the funding for the market as a whole.

Analytical considerations

6.63 One supplier considered the proportionate response would be to discount outliers rather than reject all profiles with higher than average net cost. We agree and are proposing to remove outliers from our sample. Currently this means we would remove one supplier. This increases the SMNCC and makes it more reflective of the weighted average costs of the rest of the market, whose rates of rollout progress have been more similar. We detail our considerations on outliers in Appendix 4.

6.64 Another supplier stated that the difficulties we identify with averaging multiple profiles would not arise if we adopted the highest net cost rollout profile. In Chapter 5 we detail the changes we have made to our approach to constructing the weighted average rollout profile that have made the profile reflective of the weighted average costs of the suppliers in the market.

6.65 One supplier stated that it is not possible for suppliers to further assess whether an alternative approach would be an improvement, as the model is still unavailable to them. Another stated that a case might be made for excluding a particular supplier that is a clear outlier from the sample, but that we have not exposed the data to make such a case in the

working paper. We are running a disclosure process, and relevant data, such as the modelling for the PPM SMNCC, will be disclosed after publication of this consultation.[124]

New framework: target or tolerance rollout

Context

6.66 Under the new framework, BEIS proposes to set individual targets for suppliers' rollout, which will be combined with a standard tolerance.

6.67 BEIS has consulted on tolerance values for the first two years of its new framework.[125] These are the years ending in June 2022 and June 2023. The cap could run until the end of 2023, so we currently need to make an assumption for the second half of 2023.[126]

6.68 In PPM SMNCC WP2, we discussed two options:

- set the PPM allowance based on suppliers' target rollout; or
- set the PPM allowance based on suppliers' tolerance rollout.

6.69 Our initial view was that we would assume that the implied tolerance value for the end of 2023 would be a linear extrapolation from the tolerances for the previous two years.

6.70 We stated that we had not reached a view on which option we would use and would continue to consider these options ahead of our April 2021 consultation.

Proposal

6.71 We propose to set the PPM SMNCC based on the minimum installation obligation (tolerance).

6.72 In BEIS's proposal, the tolerance value increases by 1.5 percentage points year-on-year. Our implied tolerance value for the third year of the framework would therefore be 1.5

[124] See Chapter 1 for more detail.
[125] The proposed tolerances are the same for all suppliers (4% for 2021/2022 and 5.5% for 22/23).
[126] This is dependent on the Secretary of State's decision each year on whether to extend the cap.

percentage points higher than the tolerance applied in year two of the framework (July 2022 – June 2023). This would apply to the second half of 2023 in our analysis, as the third year of the framework would run July 2023 - June 2024.

6.73 This is the same proposal as credit.

Overview of responses to our working paper

6.74 Seven stakeholders commented on this, and all of them were supportive of using the target level.

6.75 Two suppliers supported adopting a target level profile on the basis that it will minimise the risks of some suppliers experiencing a deficit in revenue to cover efficient costs, thereby impacting their ability to deliver on their smart metering obligations.

Considerations

Overall view

6.76 The target options would allow suppliers to collect more revenue than the equivalent tolerance options, increasing the cost to customers.[127] The question is whether this would lead to a sufficient increase in rollout, so as to ensure cost-effectiveness. We do not have sufficient confidence that this would occur, although we recognise that this judgement is subject to uncertainty. We are concerned about customers paying costs that suppliers (in aggregate) may not then invest in accelerating rollout delivery. Individual suppliers may make different judgements about how to use any additional revenue, but cost-effectiveness depends on what suppliers do as a group.

[127] For PPM, at a high level, given our current data, there are two main reasons why a target approach leads to a higher SMNCC allowance than a tolerance approach. First, suppliers will incur some one-off costs in the year they install a smart meter (PRCs and purchasing IHDs). These temporary costs are higher under a target approach, which assumes suppliers install more smart meters (than under a tolerance approach). Second, when a supplier installs smart meters above the threshold of traditional meter replacements, it is carrying out additional installation visits which would not otherwise have been required. These have costs. In the context of our data, a target approach means installing more meters above the threshold of traditional meter replacements (than a tolerance approach). If in future, the data shows that these two reasons no longer hold, we will consider this as part of our annual reviews.

Funding efficient costs

6.77 One supplier stated that there is a need for us to consider both immediate and longer-term cost impacts for consumers in terms of smart metering cost recovery. It stated that if suppliers were systematically under-recovering their smart metering costs under the price cap allowance, they may look to alternative measures to fund their rollout plans that may lead to more expensive costs in the longer-term for consumers.

6.78 We have detailed earlier in this chapter our reasons for considering that the average rollout profile provides enough funding for suppliers' efficient costs for meeting their rollout obligations. Moreover, using the tolerance profile option would fund suppliers' efficient costs in meeting their legal obligations. If there was a systematic under-recovery in smart metering costs, we would also be able to adjust for this using advanced payments, as detailed below.

6.79 One supplier anticipated that under the new BEIS smart meter policy framework the incremental cost of installations is likely to increase. This would be due to suppliers looking to adopt additional measures to address customer engagement challenges in order to achieve the new level of legal annual installs. If there are changes in installation costs, we would be able to take this into account in our next review. The SMAIR data from BEIS that we use for our modelling includes the cost per successful installation

Precluding rollout levels above tolerance

6.80 A supplier said that if we restrict allowances to those necessary to meet the bare legal minimum, this effectively precludes any improvement on the minimum tolerance threshold – and indeed may put achievement of the tolerance at risk. Another stakeholder also preferred the target level profile, saying that it is important that suppliers are incentivised to rollout smart meters for PPM customers.

6.81 First, suppliers' legal obligations require them to roll out smart meters in line with the tolerance profiles. So, while we want suppliers to have ambitious rollout plans, we cannot hold them to account for not spending any additional revenue on smart metering (above their legal obligations). Allowing suppliers to charge more has a very high likelihood of increasing customers' bills (as most suppliers are highly likely to increase their default tariff prices to the maximum permitted), but suppliers would not be required to spend this revenue on smart metering. Suppliers may choose to spend some or all of the additional revenue in other ways. We would not consider this to be appropriate – the SMNCC is intended for smart metering, and the cap already allows for efficient costs in other areas.

6.82 Secondly, meeting targets would involve some suppliers rolling out more smart meters than they have done historically, which inevitably has some degree of uncertainty as a result of delivery challenges and external factors.

6.83 Increases in rollout would be supported by suppliers improving their operational performance (we discuss this in Chapter 5 of our April 2021 consultation on the credit SMNCC). Again, future improvements inevitably have some degree of uncertainty.

6.84 We consider that smart meters are beneficial for customers and society, and would like to see the rollout progress at pace. However, we are focussed on whether allowing suppliers to collect extra revenue through the cap is likely to be a cost-effective way of achieving additional smart meter rollout. In response to BEIS's 2019 consultation some suppliers said that they would only aim for the minimum legal obligation. BEIS has taken this into account when setting the tolerance.[128] This supports our consideration that suppliers are not guaranteed to roll out smart meters to their target even if we fund to the target level.

Overshooting the tolerance level

6.85 Two stakeholders said that any risk of overpayment by customers if suppliers do not roll out smart meters beyond their obligations is mitigated by our ability to recover these costs (such as through the advanced payments adjustment). We detail above in our considerations for proposing the weighted average rollout profile why we would be concerned about any approach that resulted in consumers overpaying, even temporarily.

6.86 One supplier said that prudent suppliers will aim to overshoot the compliance-minimum and it would not be appropriate to base the allowances on this minimum level of rollout.

6.87 If a supplier rolls out more smart meters than its obligations, this would be reflected in our weighted average rollout profile. Therefore, it would be taken into account in our next review. If on the other hand, suppliers' target installations above their obligations, but

[128] BEIS(2020), Smart Meter Policy Framework Post 2020: Minimum Annual Targets and Reporting Thresholds for Energy Suppliers, paragraph 70. https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/943993/smart-meter-policy-framework-post-2020-minimum-targets-reporting-thresholds-condoc.pdf

external factors mean that their outturn rollout is only in line with their obligations, then this would be reflected by a higher cost per installation.

6.88 The advanced payments point also cuts both ways. If suppliers roll out more smart meters than expected, then advanced payments would provide additional revenue to suppliers in later periods.

7. Other areas

Section summary

This chapter covers other areas of consideration for setting the PPM SMNCC. These are uncertainty, the advanced payments adjustment, and our contingency option.

Review of uncertainty

7.1 In Appendix 5 we set out our view that we should assess the uncertainty around our analysis to set the PPM SMNCC qualitatively, in line with credit. We explain our view that the net effect of the uncertainty is roughly neutral, and that we therefore do not propose to make a numerical uncertainty adjustment.

Advanced payments

Context

7.2 Advanced payments reflect when suppliers have received payment in advance for smart metering costs they have not incurred. We calculate the SMNCC allowance in a given historical cap period using the latest version of the SMNCC model, and compare it against the SMNCC allowance we provided in that cap period.

7.3 In our August 2020 decision, we said that we would calculate advanced payments from 1 January 2021.[129] We intended to apply advanced payments for the PPM SMNCC in the same way as for the credit SMNCC. Different to credit, however, the PPM SMNCC also includes an offset for the potential additional PPM costs, as described in Chapter 4.[130] Therefore, we have to decide whether to calculate advanced payments before or after applying this offset.

[129] This is the date at which the CMA PPM cap expired and PPM customers became protected by the default tariff cap.
[130] See 'Offsetting additional PPM costs' in Chapter 4 for more detail on these potential additional costs.

7.4 In PPM SMNCC WP1, we proposed to consider advanced payments on the net SMNCC for PPM, rather than the SMNCC determined by the model.[131] We stated that we should compare the original allowance for a given period (the net SMNCC we calculated for that period) to the updated net SMNCC figure we reach with new data.

7.5 For cases where there is either full or no offset in both the initial SMNCC and updated SMNCC, it does not matter whether we consider the SMNCC or net SMNCC for advanced payments.[132] In both scenarios, the choice between the SMNCC and the net SMNCC does not impact the advanced payments adjusted. This is illustrated in Table 5.

Table 5: Hypothetical example of advanced payments adjustment in full offset and no offset scenarios

	Full offset scenario		
	Cap period A	**Cap period A (updated)**	**Advanced payments adjustment**
SMNCC from the model	-15	-10	5
PPM cost offset	10	10	N/A
Net SMNCC	-5	0	5
	No offset scenario		
	Cap period B	**Cap period B (updated)**	**Advanced payments adjustment**
SMNCC from the model	5	0	-5
PPM cost offset	10	10	N/A
Net SMNCC	5	0	-5

7.6 However, we stated that we think it makes a difference:

[131] Ofgem (2020), Setting the PPM smart meter cost allowance in the default tariff cap – working paper. https://www.ofgem.gov.uk/publications-and-updates/setting-ppm-smart-meter-cost-allowance-default-tariff-cap-working-paper

[132] Full offset is when the SMNCC is low enough that all of the potential additional PPM costs that need to be offset can be offset. No offset is when none of the potential additional costs can be offset because the SMNCC is not low enough.

- when there is a partial offset in either the initial or updated SMNCC for a given period; or

- where the ability to offset the additional PPM costs changes between the initial and updated SMNCC values for a given period.

Proposal

7.7 We propose to calculate advanced payments using the net SMNCC for PPM (ie after we have applied the offset), rather than the SMNCC determined by the model.

Overview of responses to our working paper

7.8 Three suppliers commented on our proposal for advanced payments, and they all disagreed with some aspect of it.

7.9 However, one supplier explicitly supported using the net SMNCC rather than the SMNCC determined by the model. This supplier opposed advanced payments in principle, but, to the extent we continue to pursue it, it said this can only be done on a net basis.

Considerations

Principle of advanced payments

7.10 One supplier continued to disagree with advanced payments for the same reasons it objected to it for the credit SMNCC. It stated that allowances that have already been invested are not available to suppliers to carry forward and invest a second time.

7.11 As we stated in our reasoning for credit, suppliers have a certain level of control over the timing of smart meter costs.[133] When we set the PPM SMNCC for a cap period using a rollout profile, we are providing funding for suppliers to roll out a certain percentage of smart PPM. This means that if suppliers choose to not roll out the percentage of smart PPM that we

[133] Ofgem (2019), Response Paper #3: Reviewing smart metering costs in the default tariff cap – Carry forward balances.
https://www.ofgem.gov.uk/publications-and-updates/reviewing-smart-metering-costs-default-tariff-cap-response-paper-3

expect in the cap period, we need a mechanism to make sure we do not fund them twice when they roll out that percentage in a future cap period. Advanced payments allow us to adapt the amount of funding provided once we know the actual percentage of smart PPM rolled out and level of efficient costs incurred. This means that we can better ensure that the funding is used to roll out smart PPM. Suppliers using this funding for investing in other areas is not a valid reason for not introducing an advanced payments adjustment, as we include the SMNCC for the sole purpose of allowing suppliers to recover the efficient costs related to smart meters.

Consistency with other areas of the cap

7.12 Another supplier did not support advanced payments of over or under provision unless this is extended to other areas of the prepayment price cap. It stated that any advanced payments of over recovered smart metering costs should be accompanied by advanced payments of the under-recovered efficient costs.

7.13 The fact that suppliers can exert some control over when they incur the costs of the smart meter rollout, unlike other costs in the PPM cap (eg billing, customer service etc), is also a reason for us proposing advanced payments for only smart metering costs. Moreover, we review the PPM SMNCC annually, as the smart meter rollout is continuously changing in terms of progress, while the allowances set for other aspects of the cap are not subject to an annual review. This dynamic nature of the smart meter rollout, and consequently the PPM SMNCC, is why we need a mechanism to update the values set in previous cap periods.

Impact on suppliers' business planning

7.14 A supplier stated that suppliers cannot plan and budget with reasonable certainty if allowances can be retrospectively revised based on complex modelling that is not available to them for business planning purposes.

7.15 We considered similar points on certainty in our August 2020 decision on the credit SMNCC.[134] In summary, while we considered that stability for planning is beneficial, we

[134] Ofgem (2020), Reviewing smart metering costs in the default tariff cap: August 2020 decision, paragraphs 5.69-5.70. https://www.ofgem.gov.uk/publications-and-updates/decision-reviewing-smart-metering-costs-default-tariff-cap

considered that avoiding the harm to customers or suppliers that would come from letting the allowances deviate substantially from suppliers' costs (in either direction) outweighs any incremental uncertainty from such an approach.

7.16 We recognise that a supplier will not have certainty on what advanced payment adjustments may later apply, and that the extent of advanced payments will depend on other suppliers' rollout. This could reduce a supplier's willingness to carry out discretionary spending on smart metering, beyond the amount required to meet its obligations. However, we generally expect that suppliers' smart metering obligations will be the main driver for their planning.

7.17 We are also running a disclosure process, and relevant data, such as the modelling for the PPM SMNCC, will be disclosed after publication of the April 2021 consultation.[135] This should allow suppliers to plan and budget with more certainty.

7.18 The supplier also stated that suppliers cannot draw on past model outputs as a rough guide in the case of PPM SMNCC, as our decision to set the PPM SMNCC for cap periods five and six to £0 means there are none. We are planning to set the PPM SMNCC for the next cap period (1 October 2021 to 31 March 2022) using the SMNCC model, rather than choosing the contingency option of setting it to zero. The resulting modelling outputs can also be used by suppliers to guide their planning and budgeting in future periods.

Time period covered by advanced payments

7.19 One supplier stated that if there must be advanced payments for the PPM SMNCC, it should start from the beginning of the CMA price cap. Otherwise, it said that it is likely suppliers will substantially under-recover the costs of historical under-provision for smart metering costs, while at the same time perhaps having a small over-recovery for a short period being deducted from a future cap period. It pointed out that our own assessment of the prepayment price cap up to October 2019 is that it was substantially understated.

7.20 We have acknowledged that the CMA concluded that its PPM cap undervalued smart meter industry charges. As a result of this conclusion, in June 2019, the CMA decided to change the methodology for calculating the PPM cap. Two suppliers at the time had requested

[135] See Chapter 1 for more detail.

that under-recovery of costs in the PPM cap till that point should be addressed by the inclusion of an ex-post recovery mechanism. The CMA noted that when introducing the PPM cap, it did not include any adjustment or reconciliation mechanism based on outturn costs. As such, it considered that any discrepancy between the level of the PPM cap and such costs are part of the ongoing regulatory risk borne by suppliers in the energy market. In addition, it noted that the PPM cap included headroom. This, while designed for allowing competition under the PPM cap, would have in practice offset under-estimations of costs in the cap methodology. The CMA did not consider it to be within the scope of their review to give consideration to including an ex-post recovery mechanism when this was not provided for in the original PPM cap.[136] We do not consider it is our role to reopen a decision that the CMA has already considered and made.

Calculating advanced payments

7.21 We aim to maintain the cost differential between cap levels for PPM and DD customers. This means that we would not set the net SMNCC above £0, to maintain the differential and the level of protection PPM customers currently have.[137] This £0 limit means that we may not always be able to apply the full cost offset to the SMNCC from the model. One supplier argued that in these instances, any under-recovery of the offset should also be considered as part of the advanced payments adjustment in a future period in which the SMNCC is negative enough to apply it. This would be similar to using a cumulative cost offset approach. We discuss in detail why we are proposing a per cap period offset approach rather than a cumulative one in Chapter 4.

Quantitative impact of our proposal

7.22 Tables 6 and 7 show the provisional quantitative impacts on the electricity SMNCC and gas SMNCC, respectively, of our proposal on the advanced payments adjustment. The numbers are provisional as they are based on our current data, and may change with updated data before our decision.

[136] CMA (2019), Final Decision. https://www.gov.uk/cma-cases/review-of-the-energy-market-investigation-prepayment-charge-restriction-order-2016
[137] See 'Offsetting additional PPM costs' in Chapter 4 for more detail.

Table 6: Provisional impact of the advanced payments adjustment on the electricity PPM SMNCC

	Cap period seven	Cap period eight	Cap period nine	Cap period ten	Cap period eleven
SMNCC: Electricity	-0.93	-1.36	-1.96	-2.55	-2.55
Advanced payments adjustment	0.00	0.00	0.00	0.00	0.00
SMNCC after advanced payments applied	-0.93	-1.36	-1.96	-2.55	-2.55
PPM cost offset	8.51	8.51	8.51	8.51	8.51
Net SMNCC	0.00	0.00	0.00	0.00	0.00
Final SMNCC: Electricity	0.00	0.00	0.00	0.00	0.00

Notes:

All values are £/customer, nominal. A positive advanced payments adjustment means that cumulative allowances have exceeded cumulative costs to date. We calculate the advanced payments adjustment using the net SMNCC, as proposed, and then add it to the SMNCC from the model. For this provisional calculation, we are using the CPIH indexed PPM cost offset value from cap period 6 for all cap periods. This is because this is the latest CPIH indexed PPM cost offset value that we have.

Table 7: Provisional impact of the advanced payments adjustment on the gas PPM SMNCC

	Cap period seven	Cap period eight	Cap period nine	Cap period ten	Cap period eleven
SMNCC: Gas	-15.28	-17.57	-20.37	-23.18	-23.18
Advanced payments adjustment	-1.18	-1.19	-1.21	-1.22	-1.22
SMNCC after advanced payments applied	-16.46	-18.76	-21.58	-24.40	-24.40
PPM cost offset	9.60	9.60	9.60	9.60	9.60
Net SMNCC	-6.86	-9.16	-11.98	-14.80	-14.80
Final SMNCC: Gas	-6.86	-9.16	-11.98	-14.80	-14.80

Notes:

All values are £/customer, nominal. A positive advanced payments adjustment means that cumulative allowances have exceeded cumulative costs to date. We calculate the advanced payments adjustment using the net SMNCC, as proposed, and then add it to the SMNCC from the model. For this provisional calculation, we are using the CPIH indexed PPM cost offset value from cap period 6 for all cap periods. This is because this is the latest CPIH indexed PPM cost offset value that we have.

Contingency

Context

7.23 Through this review, we intend to develop revised values of the relevant costs and benefits to set the PPM SMNCC which will apply from October 2021 onwards. However, we need to consider what the contingency SMNCC allowance should be for cap period seven, in the event that we cannot complete this review in time.

7.24 We need a contingency SMNCC allowance because we must set the level for cap period seven by a fixed date. A contingency allowance therefore ensures that there is still a reasonable SMNCC allowance in place, even if we are not able to conclude our review in time.

7.25 Our August 2020 decision was to set the default tariff cap for PPM customers using our contingency proposal, which set the payment method uplift using the methodology used in the CMA PPM cap and set the SMNCC at £0.

Proposal

7.26 If we require a contingency allowance, we propose to use our updated SMNCC model as a starting point, which we would adapt to set the contingency allowance. This would make use of the most recent data available.

7.27 However, if we considered (after examining stakeholders' representations) that we could place limited or no weight on the updated SMNCC model to set the contingency allowance, then we propose to set the PPM SMNCC to £0 as in cap periods five and six.

Considerations

7.28 One reason for our August 2020 decision to set the SMNCC at £0 was that using a weighted average profile would have set a PPM SMNCC below average costs, which was not our intention. We have had more time since then to address this through methodological

changes, so we consider the SMNCC model to now be an appropriate starting point for our contingency approach.

7.29 Even if we were unable to use our revised assessment of net costs to update the PPM SMNCC, it might still provide a broad indication of the likely scale of costs. The reliability of the updated SMNCC model as a starting point would depend on the extent to which we considered stakeholders had raised valid concerns in response to this consultation.

7.30 We propose to use the updated model contingency because it would take into account the most recent data available. The precise adjustment that we would apply would depend on the issues raised by stakeholders in response to the consultation.

7.31 In our May 2020 consultation, we recognised that there was considerable uncertainty in the environment at that time, that many stakeholders were re-prioritising to focus on maintaining essential services and supporting customers, and that our statutory consultation was the first opportunity to see some of the details of our proposals and associated modelling. This is also why we proposed the contingency approach that became our decision in August 2020.

7.32 We will be disclosing more of the modelling associated with our proposals in April 2021, which should give suppliers time to sufficiently scrutinise it and share their views in response to this consultation. As the impacts of COVID-19 have lessened compared to during our May 2020 consultation, we also consider that there is less uncertainty and suppliers should have more resource to dedicate to analysing our model and responding to it.

7.33 However, for completeness, we need to consider the case where we could place limited or no weight on the updated SMNCC model. In that situation, we propose to set the PPM SMNCC to £0 as in cap five and six.

7.34 In a future review, we would then consider any difference between the allowance provided and our revised assessment of the PPM SMNCC for cap period seven. We would take this difference into account through advanced payments. This would ensure that we were eventually recovering the appropriate level of efficient costs.

Appendices

Index

Appendix	Name of appendix
1	Proposed provisional SMNCC values
2	Provisional SMNCC values using the highest net cost supplier's tolerance rollout profile
3	Treatment of fixed costs to serve when calculating the PPM CTS benefit
4	Calculating the weighted average rollout profile
5	Detailed review of uncertainty
6	Privacy notice on consultations

Appendix 1 - Proposed provisional SMNCC values

1.1. We propose to make the changes to the SMNCC (as set out in this consultation) in the document 'Annex 5 – Methodology for determining the Smart Metering Net Cost Change' referred to in standard condition 28AD of the electricity and gas supply licences.

1.2. Within that document, we propose to make changes to sheet '2a Non pass-through costs', cells O9:S10.

1.3. The provisional values we propose to insert are set out in the table below. These are the output values from the model we have disclosed, and may change by the time of the decision.

1.4. These values are not comparable to the ones in Table A1.1 of our April 2021 consultation on the credit SMNCC, due to differences in modelling considerations.

Table A1.1: Provisional values to insert into annex 5 of SLC28AD

	Cap period seven	Cap period eight	Cap period nine	Cap period ten	Cap period eleven
SMNCC: Electricity	-0.93	-1.36	-1.96	-2.55	-2.55
SMNCC: Gas	-16.46	-18.76	-21.58	-24.40	-24.40

Notes:

All values are £/customer, nominal. These SMNCC values are before the PPM cost offset has been applied, so they are different from the final SMNCC figures in Chapter 7.

Appendix 2 – Provisional SMNCC values using the highest net cost supplier's tolerance rollout profile

1.1. We are proposing to use the weighted average tolerance rollout profile to set the PPM SMNCC. This appendix shows what the PPM SMNCC values would be, provisionally, if we calculated them using the highest net cost supplier's tolerance rollout profile.

[Table A2.1]: Provisional PPM SMNCC values calculated using the highest net cost supplier's tolerance rollout profile - electricity

	Cap period seven	Cap period eight	Cap period nine	Cap period ten	Cap period eleven
SMNCC: Electricity	-0.09	-0.05	-0.46	-0.87	-0.87
Advanced payments adjustment	0.00	0.00	0.00	0.00	0.00
SMNCC after advanced payments applied	-0.09	-0.05	-0.46	-0.87	-0.87
PPM cost offset	8.51	8.51	8.51	8.51	8.51
Net SMNCC	0.00	0.00	0.00	0.00	0.00
Final SMNCC: Electricity	0.00	0.00	0.00	0.00	0.00

Notes:

All values are £/customer, nominal. For this provisional calculation, we are using the CPIH indexed PPM cost offset value from cap period 6 for all cap periods. This is because this is the latest CPIH indexed PPM cost offset value that we have.

[Table A2.2]: Provisional PPM SMNCC values calculated using the highest net cost supplier's tolerance rollout profile - gas

	Cap period seven	Cap period eight	Cap period nine	Cap period ten	Cap period eleven
SMNCC: Gas	-8.25	-10.26	-13.40	-16.53	-16.53
Advanced payments adjustment	0.00	0.00	0.00	0.00	0.00
SMNCC after advanced payments applied	-8.25	-10.26	-13.40	-16.53	-16.53
PPM cost offset	9.60	9.60	9.60	9.60	9.60
Net SMNCC	0.00	-0.66	-3.80	-6.93	-6.93
Final SMNCC: Gas	0.00	-0.66	-3.80	-6.93	-6.93

Notes:

All values are £/customer, nominal. For this provisional calculation, we are using the CPIH indexed PPM cost offset value from cap period 6 for all cap periods. This is because this is the latest CPIH indexed PPM cost offset value that we have.

Appendix 3 - Treatment of fixed costs to serve when calculating the PPM CTS benefit

1.1. In determining the relevance of supplier-included additional costs, we considered how fixed cost elements were included across both traditional and smart. We also sense checked if any cost item values could be viewed as outliers (after seeking further supplier clarification where necessary), considered whether additional cost items were strictly relevant to PPM CTS and excluded additional cost items that were already accounted for in the SMNCC model.

1.2. As part of the RFI, suppliers were asked to state if a cost item is fixed. The approach to treating fixed cost elements has a relatively high impact on the final PPM CTS benefit value compared to the other checks mentioned above.

1.3. As a supplier progresses their PPM rollout, their smart PPM customer base increases relative to their traditional PPM customer base. This will drive down average fixed costs to serve for smart relative to traditional customers. This is because average smart PPM fixed CTS for each supplier is calculated by dividing its total smart PPM fixed CTS by its total number of smart PPM customers, and its average fixed traditional PPM CTS is calculated by dividing its total traditional PPM fixed CTS by its total number of traditional PPM customers. This means that as a supplier's smart customer base increases relative to its traditional customer base, the smart fixed CTS are being spread over a larger number of customers relative to the traditional fixed CTS. We reflect this by including each supplier's average smart PPM fixed CTS and average fixed traditional PPM CTS in our PPM CTS benefit calculation. The fixed PPM CTS values are based on what suppliers have stated as fixed in their response.

1.4. The SMNCC model already assumes a percentage level of fixed prepayment infrastructure costs that is deducted from the total PPM CTS benefit. This calculation will be removed from the SMNCC model given we are proposing to include fixed cost elements as part of our new method to calculate the PPM CTS benefit.

Appendix 4 – Calculating the weighted average rollout profile

1.1. In PPM SMNCC WP2, we considered two options for setting the PPM SMNCC:

- using a single rollout profile; and
- taking the average of the PPM SMNCC allowances generated by using a sample of rollout profiles.

1.2. To decide between the two options, we set the single rollout profile as a weighted average rollout profile. We primarily used data from the 2019 SMAIR. We constructed a weighted average rollout profile based on the total rollout rate of all suppliers included in the dataset (fifteen suppliers), as well as individual rollout profiles for all suppliers who had smart PPM customers in 2019 (ten suppliers).

1.3. The approach to historical periods we used for this analysis is detailed as our proposal for calculating historical rollout in Chapter 6.

1.4. We are proposing to remove outliers. Currently we consider only one supplier to be an outlier. This is due to the combination of two reasons, and we would not consider a supplier an outlier for one of these reasons alone.

1.5. Firstly, the supplier is far ahead of all other suppliers in terms of smart PPM rollout (the next fastest supplier has 17% less smart coverage of its PPM customers and it had markedly more smart PPM customers than other supplier in 2011-2014). This results in it skewing the PPM SMNCC to be lower than is reflective of the average costs of the rest of the market. We set the PPM cap for the whole market, and so have to be mindful of outlier suppliers skewing our calculations so that our results are no longer representative of the market as a whole. Secondly, it is not included in our 2017 operating cost benchmark, so we would not be comparing its smart meter rollout costs since 2017 to its own costs in 2017. We removed it from both the weighted average costs calculation and the modelling inputs of the weighted average profile.

1.6. We then calculated the difference between the SMNCC produced by the weighted average profile with the weighted average costs of our sample of suppliers, for each of electricity and gas. The weights were based on the percentage of prepayment customers each of the ten suppliers had compared to the other nine.

Appendix 5 - Detailed review of uncertainty

Context

1.1. We calculate the SMNCC using the SMNCC model, which includes a significant amount of detail. However, our analysis is still subject to uncertainty. This is made up of uncertainties about individual elements of the analysis. These uncertainties can arise from (for example): assumptions, simplifications to the analytical approach, and choices about whether to gather and update data.

1.2. Some of these uncertainties are likely be conservative (increasing the SMNCC), and others are likely to be less-conservative (decreasing the SMNCC). This gives an overall balance of uncertainty – whether our calculated SMNCC is conservative or less-conservative. We can then consider whether to make a numerical uncertainty adjustment to the calculated SMNCC.

Proposal

1.3. We propose to assess uncertainty qualitatively for the PPM SMNCC, as is done for the credit SMNCC. We consider that this is a straightforward and proportionate approach.

1.4. Our assessment of uncertainty suggests that the net effect is roughly neutral. We therefore do not propose to make a numerical uncertainty adjustment.

Considerations

Scope of review

1.5. We consider that our existing approach is straightforward. It provides stakeholders with significant information on what we consider the uncertainties are, allowing stakeholders to comment on them. It does not go beyond this to suggest that our uncertainty assessment can achieve a high degree of precision, given that we know this is impossible.

1.6. We also consider that our existing approach is proportionate. Carrying out significant additional work on uncertainty would likely have a limited impact on the accuracy of the SMNCC allowance we set, given the inevitable degree of judgement involved. Assessing uncertainty is also only one step in setting the SMNCC.

1.7. For further discussion of our proposed approach to reviewing uncertainty, please see Chapter 5 in our April 2021 consultation on the credit SMNCC.[138]

Consideration of uncertainty

1.8. Table A2.1 lists the full set of uncertainties – both those which are conservative (increasing the SMNCC) and less-conservative (reducing the SMNCC).

1.9. We consider that the net degree of conservatism remains roughly neutral. This reflects two factors:

- There are a large number of uncertainties in both directions, so these will net off to some extent.
- We do not consider that the uncertainties in one direction are systematically larger than those in the other direction.

1.10. Given our assessment is roughly neutral, we do not consider that a numerical uncertainty adjustment is required. As we cannot calibrate a precise numerical uncertainty adjustment, this conclusion would not be affected by small changes to our assessment of uncertainty.

Table A5.1: Our considerations for each assumption reviewed for uncertainty

	Description	Relevant paragraphs in Appendix 6 of April 2021 consultation on the credit SMNCC
Methodological considerations	As in credit, we adopt a more conservative benchmark in our review of efficient costs than would normally be the case. This has regard to suppliers that have made above-	1.22-1.24

[138] Ofgem (2021), Price Cap: final consultation on updating the credit SMNCC allowance. https://www.ofgem.gov.uk/publications-and-updates/price-cap-final-consultation-updating-credit-smncc-allowance

	average progress with their rollout. This will become even more conservative over time, as suppliers install more smart meters. However, PPM and credit differ in that we are proposing to use the weigthed average rollout profile rather than the market leader rollout profile. Therefore, unlike in credit, our choice of efficient benchmark is not more conservative than previously.	
Conservative aspects of rollout profile	Same considerations as in credit	1.25-1.30
Conservative aspects of smart metering in-premises costs	Same considerations as in credit	1.31-1.35
Conservative aspects of smart metering IT cost assessment	Same considerations as in credit	1.36-1.38
Other conservative costs	Same considerations as in credit	1.39-1.43
Conservative assessment of benefits	In the past suppliers have commented that PPM customers who are most likely to get a smart meter tend to also be the cheapest PPM customers to serve. A smart meter should make it easier for them to change to an alternative payment method from PPM. This means that over time, the costs to serve the PPM customer base may	1.44-1.49

	increase as the cheapest customers leave. We do not include any debt-related benefits for PPM in the SMNCC model. Even though this may have an impact on our outputs, we expect it to be small, as debt-related benefits are of low relevance to PPM. Otherwise, PPM has the same considerations as in credit.	
Less conservative in-premises costs	Same considerations as in credit	1.50-1.58
Less conservative smart metering IT costs	Same considerations as in credit	1.59-1.61
Other less conservative costs	Same considerations as in credit	1.62-1.63
Less conservative benefits	Benefits from electricity-only SMETS1 switches and those related to inbound customer calls and remote change of tariff are included in the PPM CTS benefit. The PPM CTS benefit is calculated using figures from our February 2021 RFI. This reduces uncertainty on these benefits for PPM, as we have more detailed and up-to-date data on them than the 2019 BEIS CBA. We do not include any debt-related benefits for PPM in the	1.64-1.68

	SMNCC model. We also therefore exclude the trends in the Long-Run Variable Cost (LRVC) profile for PPM, as it is only relevant for calculating the debt-related benefit. Even though this may have an impact on our outputs, we expect it to be small, as debt-related benefits are of low relevance to PPM.	
Default tariff customers	Nearly all PPM customers are on default tariffs. Therefore, we consider that the number of PPM customers with smart meters and the number of PPM default tariff customers with smart meters should be approximately the same. Consequently, we do not think significant uncertainty arises from using data on all PPM customers to set the SMNCC for PPM default tariff customers.	1.69-1.72
Impact of COVID-19	Same considerations as in credit	1.73
IT amortisation period	Same considerations as in credit	1.74
Quality of SMAIR data	Mostly the same considerations as in credit. We also have our 2021 RFI data that can be used to check SMAIR data on PPM costs-to-serve. This reduces uncertainty around our estimates.	1.75

Appendix 6 – Privacy notice on consultations

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. ie a consultation.

4. With whom we will be sharing your personal data

We may share consultation responses with BEIS.
Please note that responses not marked as confidential will be published on our website. Please be mindful of this when including personal details.

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 six months after the project, including subsequent projects or legal proceedings regarding a decision based on this consultation, 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".