

Consultation Appendix

Default Tariff Cap: Statutory Consultation

Appendix 6 – Operating costs

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We are consulting on our proposals for setting and updating a default tariff cap in accordance with the Domestic Gas and Electricity (Tariff Cap) Act 2018. This supplementary appendix provides details of the proposals and methodology in relation to operating costs. This document is aimed at those who want an in-depth understanding of our proposals. Stakeholders wanting a more accessible overview should refer to the Default tariff cap – Overview document.

We welcome views from stakeholders on all of our proposals set out within this document. Please see the Default tariff cap – Overview document for instructions on how to respond to the consultation.

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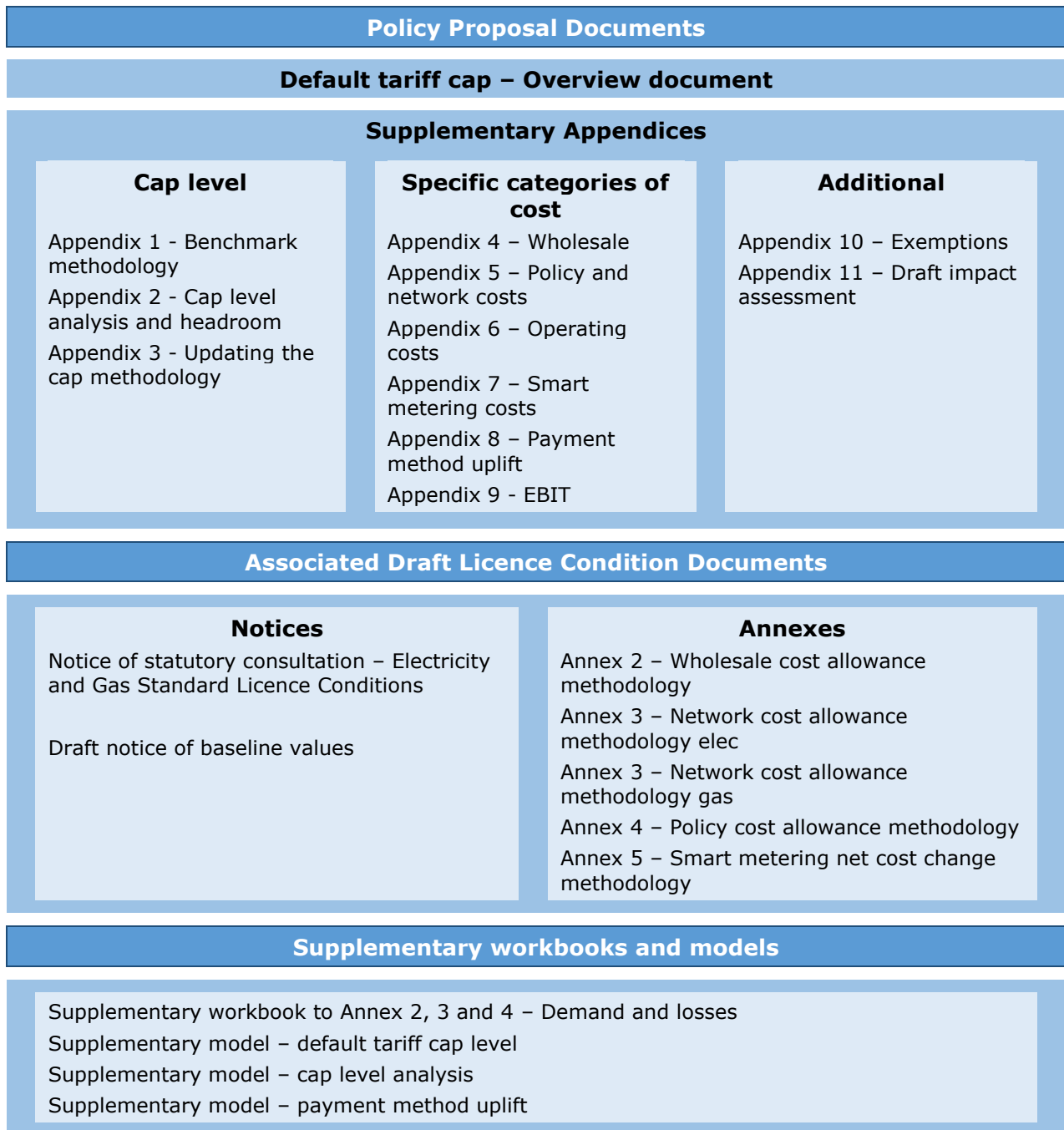
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Document map

Figure 1 below provides a map of the default tariff cap documents published as part of this statutory consultation.

Figure 1: Default tariff cap – statutory consultation document map



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1. Introduction

Overview

- 1.1. As set out in Appendix 1 – Benchmark methodology, operating costs are a significant component of suppliers’ cost base, and estimating the appropriate level of these costs to include in the default tariff cap is a key part of our assessment of the efficient benchmark.
- 1.2. We define operating costs as a supplier’s own costs of retailing energy, excluding the costs of purchasing energy; the cost of meeting environmental and social obligations; and network charges. We have summarised the main types of expenditure we include within our definition of operating costs in Table A6.1 below. In many cases these costs are indirect, in the sense that they are shared across the customer base, rather than being attributable to any single account.

Table A6.1: Key elements of operating costs

Cost	Description
Customer contact	Costs associated with operation of contact centres and other customer relations
Billing and payment collections	Billing, collections and bad debt costs
Metering	Meter rental, installation, maintenance, reading (including smart metering)
Sales and marketing	Sales activities, advertising and branding, third party commissions
Central overhead	Telecoms, IT, property, HR, regulation, corporate recharges
D&A	Depreciation and amortisation, largely relating to investment in metering; IT and billing systems; and property
Industry charges	Charges from Elexon, Xoserve, and the smart metering industry bodies

- 1.3. Operating costs are the component of an energy bill over which suppliers have greatest control. Variation in these costs between suppliers is the key source of the inefficiency in the retail market that was identified by the CMA following its detailed investigation.
- 1.4. We have carried out a benchmarking analysis, comparing different suppliers’ historic expenditure, to estimate what is an efficient level of operating costs. For 2017, we estimate an efficient level of operating costs to be equal to £78 per customer per year for electricity and £89 for gas. We propose to adjust this allowance over time when updating the level of the cap to reflect the latest trends in inflation and the costs of the smart metering rollout.

Estimating suppliers’ operating costs

- 1.5. In Chapter 2, we describe the details of our proposed approach to calculating the operating costs of different suppliers, to be used for the purpose of estimating what is an efficient level of these costs to include in the default tariff cap.

- 1.6. In most respects, our proposals are similar to those which we described in our May consultation:
- a) We propose to calculate for each supplier their operating cost in £ per customer, based on their reported costs in financial year 2017.
 - b) We propose not to benchmark separately for different types of expenditures (eg metering, billing etc), nor estimate operating costs separately for, for example, customers on default or fixed tariffs.
 - c) We propose to exclude from our benchmarking sample suppliers with fewer than 250,000 customers (in 2017), and those which target specific market segments.
- 1.7. Building on feedback to our consultation:
- a) We propose to benchmark suppliers according to their overall operating costs per customer account (with dual fuel counted twice), rather than comparing suppliers separately for gas and electricity.
 - b) We propose to adjust suppliers' operating costs to reflect the number of customers they supply that use standard credit or prepayment, to allow like-for-like comparisons between suppliers.
 - c) We propose to adjust the sales and marketing expenditures reported by suppliers that have not capitalised these costs, to increase consistency in their accounting treatment.

Efficient benchmark

- 1.8. In Chapter 3, we describe the variation in operating costs that we observe across suppliers in our sample. We find that costs vary significantly between suppliers, even after controlling for differences in payment methods.
- 1.9. We considered the extent to which some of this variation may be driven by differences in suppliers' operating conditions (and in particular their customer bases) rather than relative efficiency. We set out our view that factors other than efficiency *are* likely to drive some of the variation in reported operating costs per customer between suppliers. We discuss our proposal to therefore set the efficient benchmark above the level of the lowest cost suppliers in the sample.
- 1.10. More specifically, we propose to set the allowance to reflect a level equal to the lower quartile of costs of suppliers in the benchmarking sample in 2017, minus an efficiency factor equivalent to £5 for a dual fuel customer. The resulting operating cost benchmark is £78.30 per customer per year for electricity, and £89.26 per customer per year for gas (for the cap period April 2017 to September 2017). This reflects a level of operating costs that is approximately 15% higher than our frontier benchmark.

Updating the allowance for operating costs over time

- 1.11. In Chapter 4, we describe our approach to updating the allowance for operating costs over time:

- a) we propose to update the operating costs component of the default tariff cap using CPIH (ie the consumer price index, including owner occupiers' housing costs)
- b) to this, we propose to add a component to reflect the trend in net industry costs associated with the smart metering rollout (the Smart Metering Net Cost Change, SMNCC)
- c) we do not propose to include any other indexation or efficiency factor when updating the operating cost allowance included in the cap.

Context and related publications

- 1.12. Ofgem (2018), Default tariff cap working paper – setting the level of the cap. <https://www.ofgem.gov.uk/publications-and-updates/default-tariff-cap-working-paper-setting-level-cap>
- 1.13. Ofgem (2018), Default tariff cap: policy consultation. Appendix 8 – Operating costs. https://www.ofgem.gov.uk/system/files/docs/2018/05/appendix_8_-_operating_costs.pdf

2. Estimating suppliers' operating costs

In this chapter, we describe our proposed approach to calculating the operating costs of different suppliers, to be used for the purpose of estimating what is an efficient level of these costs to include in the default tariff cap.

We discuss:

- a) the types of expenditures we propose to include within our definition of operating costs
- b) how to treat electricity versus gas when comparing companies
- c) what time period to consider
- d) what suppliers should be in our benchmarking sample
- e) what adjustments to make to suppliers' data to reflect the differences in the payment methods used by their customer base and
- f) what adjustments to make to reported sales and marketing costs to increase comparability.

Calculating operating costs by supplier

Proposed decision

- 2.1. When comparing suppliers' historic operating costs for the purposes of setting the allowance to include within the default tariff cap, we propose:
 - a) To estimate operating costs in £ per customer. Bad debt costs for standard credit customers will be calculated as a percentage of the overall cost benchmark (see Appendix 8 – Payment method uplift).
 - b) To estimate *overall* operating costs per customer for each supplier, rather than breaking this down between different types of expenditure (eg metering, customer service etc).
 - c) To estimate operating costs across suppliers' entire domestic customer base, rather than attempting to separately estimate operating costs for customers in different regions, customers with different types of electricity meter, or customers on default and fixed tariffs.
- 2.2. In defining what we include within operating costs, we propose to use as our starting point the main categories of indirect costs as defined within the guidance that the large suppliers are required to follow when preparing their Consolidated Segmental Statements (CSS)¹, and then make a series of adjustments to increase comparability and ensure relevant costs are captured. This includes adding third party commissions and depreciation and amortisation; and excluding administration costs associated with the Energy Company Obligation (ECO) and Feed in Tariffs (FITs) schemes. The cost lines we propose to add and remove are summarised in Table A6.2.

¹ We require the large energy suppliers to produce audited annual CSS to show the costs, revenues and profits for the different segments of their generation and supply businesses. The CSS guidelines are published on our website:

https://www.ofgem.gov.uk/sites/default/files/docs/2015/05/css_guidelines_jan_2015.pdf

Table A6.2: Defining operating costs

Added to indirect costs (where not already included):	Removed from indirect costs (where these costs can be identified):
<ul style="list-style-type: none"> • Third party commissions (sales and marketing only) • Depreciation and amortisation • Standardised element to reflect charges for smart metering industry bodies • Standardised element to reflect Elexon/Xoserve charges • Warm Home Discount (WHD) administration costs (which are not captured in target spending used to calculate the WHD allowance) • Other obligatory industry charges, where these have been separated and are not captured elsewhere in our methodology (eg charges associated with Supply Point Administration Agreement) 	<ul style="list-style-type: none"> • ECO/FITs administration costs (which are captured in policy costs allowance) • Exceptional restructuring costs (where these were not included in published financial statements) • Any charges from smart metering industry bodies that are already included in indirect costs • Any charges from Elexon/Xoserve that are already included in indirect costs • Costs associated with activities other than energy supply (where these can be identified) • Fines for non-compliance (although note that no fines were identified affecting costs reported in financial year 2017) • Wholesale energy transaction costs (which are captured in our wholesale cost allowance.)

What we consulted on

- 2.3. In our May consultation, we proposed to estimate an efficient allowance for operating costs by comparing suppliers' operating costs in £ per customer. This was because the number of customers a supplier serves will be a key driver of operating costs.
- 2.4. We noted that bad debt costs might be an exception, in that these costs might be expected to vary depending on a customer's level of consumption. We invited views on how, given this, these costs should be treated under the default tariff cap.
- 2.5. We proposed carrying out our analysis at the level of total operating costs per customer, rather than breaking this down into allowances for individual components of operating costs (eg metering, bad debt, customer service etc). This was to take into account the possible substitutability between different categories of expenditure, and to reduce some of the challenges associated with ensuring that operating costs were allocated to individual categories on a consistent basis across companies.
- 2.6. We described that we would look at operating costs across suppliers' entire customer base. This meant that we would not calculate – for example - separate operating cost benchmarks for customers with different types of electricity meters or in different regions, or for customer on default or fixed tariffs.
- 2.7. We proposed that, in defining operating costs for the purposes of our benchmarking, our starting point would be companies' reported "indirect costs", as defined within the guidance which the large suppliers are required to follow when preparing their CSS. To this, we would add and remove a number of cost lines, for example, including third party commission and depreciation and amortisation; and excluding exceptional restructuring costs.

Stakeholder feedback

- 2.8. In most cases, respondents broadly supported our approach to calculating operating costs for the purposes of our benchmarking analysis, in terms of how we proposed to

measure operating costs, whether or not we would aggregate operating costs together, and what cost lines we would include within our definition of operating costs.

- 2.9. The majority of respondents argued that bad debt costs would vary with consumption, and that this should be taken into account in the way that the cap was set.
- 2.10. A number of respondents suggested that default tariff customers would have higher costs than other customer types, and this should be taken into account in how the cap was set. We were told that:
- Customers on default tariffs – particularly deemed tariffs – would be expected to have higher debt costs.
 - Customers on default tariffs would have higher customer service costs as they provide meter readings less frequently.
 - Customers on default tariffs were likely to have higher cost to serve because they were more likely to be served offline, pay by standard credit, or be in vulnerable circumstances.
- 2.11. In relation to our proposal to remove exceptional costs and the costs associated with fines for non-compliance:
- One respondent argued that there are some exceptional costs that should be allowed, as suppliers would face these costs at some point – and excluding them would risk that they would never be recovered.
 - Similarly, another respondent argued that we should not exclude exceptional restructuring costs because these often reflect the required investment for business improvements.
 - One respondent argued that where a supplier was fined for non-compliance in the period, an adjustment should be made to ensure any cost reductions associated with the actions that led to that fine were accounted for.

Rationale for decision

- 2.12. We propose to calculate each supplier's operating costs using broadly the same approach as outlined in our May consultation. The main difference is our approach to estimating operating costs separately for gas and electricity for the purposes of benchmarking, which is discussed in the next section.
- 2.13. Suppliers' bad debt costs will predominantly be captured via the payment method adjustments that we include in the cap (we propose to allocate these costs across both standard credit and direct debit customers – see Appendix 8 – Payment method uplift). In line with those responses to our consultation, which argued that these costs scale with consumption, we intend to apply the part of this payment method uplift that relates to bad debt as a percentage.
- 2.14. We recognise that default customers may have higher debt costs on average. However, the data we have collected shows that the most significant driver of debt

costs is whether a customer pays by standard credit or direct debit. Therefore we expect this to be largely accounted for in our proposal to calculate separate levels of the cap for standard credit and direct debit customers.

- 2.15. We also recognise that SVT customers may – on average – be less likely to manage their accounts online and more likely to be vulnerable. However, we noted that these customers are also likely to have significantly lower sales and marketing costs, given that for many suppliers, a significant proportion of these customers have been on a default tariff for more than three years (and in some cases, for the ex-incumbent suppliers, were inherited when the market was privatised). Given this, we did not see a clear case for assuming that the operating cost allowance for customers on default tariffs should be either higher or lower, and so have not sought to make an adjustment.
- 2.16. We agree that if there were evidence that a supplier had not been compliant in the relevant period, and this had led to them having materially lower costs, we should control for this in how we set the benchmark. However, we have not seen any evidence of non-compliance in financial year 2017 leading to materially lower costs among suppliers in our sample, and similarly are not aware of any retail-specific fines having been incurred by the suppliers in our sample which appear in the accounting data for financial year 2017 used in our benchmarking analysis.
- 2.17. We have proposed to exclude restructuring costs in our analysis where these are exceptional, as including them would risk distorting our estimate of operating costs. We note however that this affects only one supplier in our sample in 2017, and the scale of the adjustment is small (less than 1% of total operating costs).
- 2.18. Consistent with the proposals in our May consultation, we have added administration costs associated with the Warm Home Discount (WHD) scheme to operating costs, where these had not already been reported in indirect costs. For those suppliers in the sample which were not obligated under the scheme in a given year covered by our data, we have added to their costs our estimate of the average cost per customer associated with this cost line, looking across the other suppliers in our sample.
- 2.19. Where suppliers have been able to separately identify them, we have also removed administration costs associated with the ECO and FITs schemes, which are captured under our policy costs allowance. For some companies it has not been possible to make this adjustment, meaning that there may be some double counting of these costs (although any impact on our analysis is likely to be relatively small, given the materiality of these costs).
- 2.20. There are other costs that for a number of suppliers we have not been able to identify and remove in the accounting data collected – for example costs associated with industry initiative expenditure under the WHD, and in some cases costs associated with activities other than gas and electricity sales. While this could cause our estimates to overstate an efficient level of operating costs, we expect the impact to be small.
- 2.21. We propose to include within operating costs a standardised component to reflect industry charges which are not captured elsewhere in our allowances – including smart metering industry costs such as the Data Communications Company (DCC), Smart Energy GB (SEGB) and Smart Meter Installation Code of Practice (SMICoP) charges. These charges are described in Appendix 7 – Smart metering costs, and are calculated

according to the methodology set out in Annex 5 to licence condition 28AD (which we are consulting on alongside this document).²

- 2.22. Finally, as discussed in Appendix 1 – Benchmark methodology (in which we set out our proposed approach to categorising the different costs that supplier incur), we also propose to include Elexon and Xoserve charges within operating costs rather than a separate cost category, given the scale of these costs.
- 2.23. We have revised our proposed approach to estimating these charges. We no longer propose to base our estimate on an average of the Elexon and Xoserve administration costs as reported by suppliers in 2017, as in some cases it was not clear that these had been stated on a consistent basis. Instead, we propose to estimate a standardised allowance for these costs as follows:
- for Elexon³ using its forecast total budget for 2017/18
 - for Xoserve⁴ using its published grand total of data services charges for 2017/18.
- 2.24. We divide these two costs by total system volumes and the number of gas supply points respectively, giving estimated costs of £0.23 per customer for Elexon and £0.69 per customer for Xoserve.

Estimating costs separately for gas and electricity

Proposed decision

- 2.25. We propose to choose our benchmark by comparing suppliers' total operating costs per customer account (counting dual fuel twice), rather than benchmarking gas and electricity separately.
- 2.26. Having chosen the benchmark level of operating costs on this basis, we would then set the ratio of the allowances for gas and electricity with reference to the operating costs of the company closest to the benchmark, unless there is evidence that the supplier had not allocated costs to fuels.

² Annex 5 to licence condition 28AD <https://www.ofgem.gov.uk/publications-and-updates/default-tariff-cap-overview-document>

³ Specifically, for Elexon, we take the 2017/18 total forecast budget as per Table 12 of [this](https://www.elexon.co.uk/wp-content/uploads/2018/03/BSCCoBusinessPlan2018_19_final.pdf) document (£38.5m), and divide by the sum of total supply and total generation volumes as forecast in Table 13 https://www.elexon.co.uk/wp-content/uploads/2018/03/BSCCoBusinessPlan2018_19_final.pdf (514TWh), giving a cost of £0.07/MWh, or 23 pence for single rate customer with typical consumption.

⁴ For Xoserve, we take the 2017/18 total of charges for shipper users as per Table 5 of [this](https://www.gasgovernance.co.uk/sites/default/files/ggf/page/2017-11/CDSP%20Annual%20Charging%20Statement%202017-18.pdf) document (£16.5m), and divide by total supply points (24m) to derive our estimate of cost per customer. <https://www.gasgovernance.co.uk/sites/default/files/ggf/page/2017-11/CDSP%20Annual%20Charging%20Statement%202017-18.pdf>

What we consulted on

- 2.27. In our May consultation, we set out our proposal to calculate separate allowances for gas and electricity, in order to allow us to set separate caps for the two fuels.
- 2.28. We noted that it is relatively common for companies to allocate operating costs between fuels for their own business purposes, and that the large suppliers also routinely allocate costs between fuels when preparing their audited CSS.

Stakeholder feedback

- 2.29. A number of suppliers highlighted that the difficulty of allocating some operating costs between fuels meant that considering gas and electricity independently could be misleading, and may result in an artificially low benchmark being set. In particular, if different suppliers have allocated costs between fuels on a different basis, then this could result in the supplier that has allocated least costs to a given fuel being chosen as the benchmark, rather than the most efficient supplier.

Rationale for decision

- 2.30. We considered the extent to which variation in operating costs between gas and electricity observed in the data we collected would be likely to reflect differences in costs, rather than differences in the extent to which suppliers had been able to allocate these costs.
- 2.31. For most suppliers in our sample, reported costs per customer were higher for gas than for electricity. This was primarily driven by higher metering costs for gas.
- 2.32. However, for some suppliers in our sample, costs per customer were very similar for both fuels. There was evidence to suggest that this was a result of how suppliers had allocated costs – simply pro-rating costs according to customer numbers - rather than these suppliers being relatively more efficient for gas, relatively less efficient for electricity. Given this, we concluded that carrying out our benchmarking exercise separately for gas and electricity created a risk that we might set the benchmark artificially low for gas.
- 2.33. For this reason, we propose to choose our benchmark by comparing suppliers' total operating costs per customer account, rather than benchmarking gas and electricity separately. That is, for each company, we propose to take total operating costs in £m, combined across gas and electricity, and divide by the total number of gas and electricity accounts. We propose to use this combined measure of operating costs per account in our benchmarking analysis.
- 2.34. Having chosen the benchmark level of operating costs on this basis, we would then set the ratio of the operating cost allowance between fuels with reference to the gas and electricity operating costs reported by the supplier closest to the benchmark, unless there is evidence that the supplier had not allocated costs to fuels.
- 2.35. This avoids the risk that we set the benchmark artificially low for gas due to differences in the way that suppliers have allocated costs between fuels. We consider this to be a conservative approach, as it means that where there are suppliers that are particularly efficient for one fuel, this will not be captured in our analysis.

Time period

Proposed decision

- 2.36. We propose to set our operating cost allowance with reference to suppliers' reported costs in financial year 2017.⁵

What we consulted on

- 2.37. In our May consultation, we proposed to base our analysis of operating costs on the most recent financial year, to ensure that the default tariff cap reflects the most recent trends in operating costs.
- 2.38. However, we also highlighted the risk that operating costs that a supplier incurs in any one reporting year may be atypical, due to exceptional events or as a result of where that particular supplier is in their investment cycle. We therefore described our intention to consider whether there was any evidence to suggest that costs in 2017 were atypical.

Stakeholder feedback

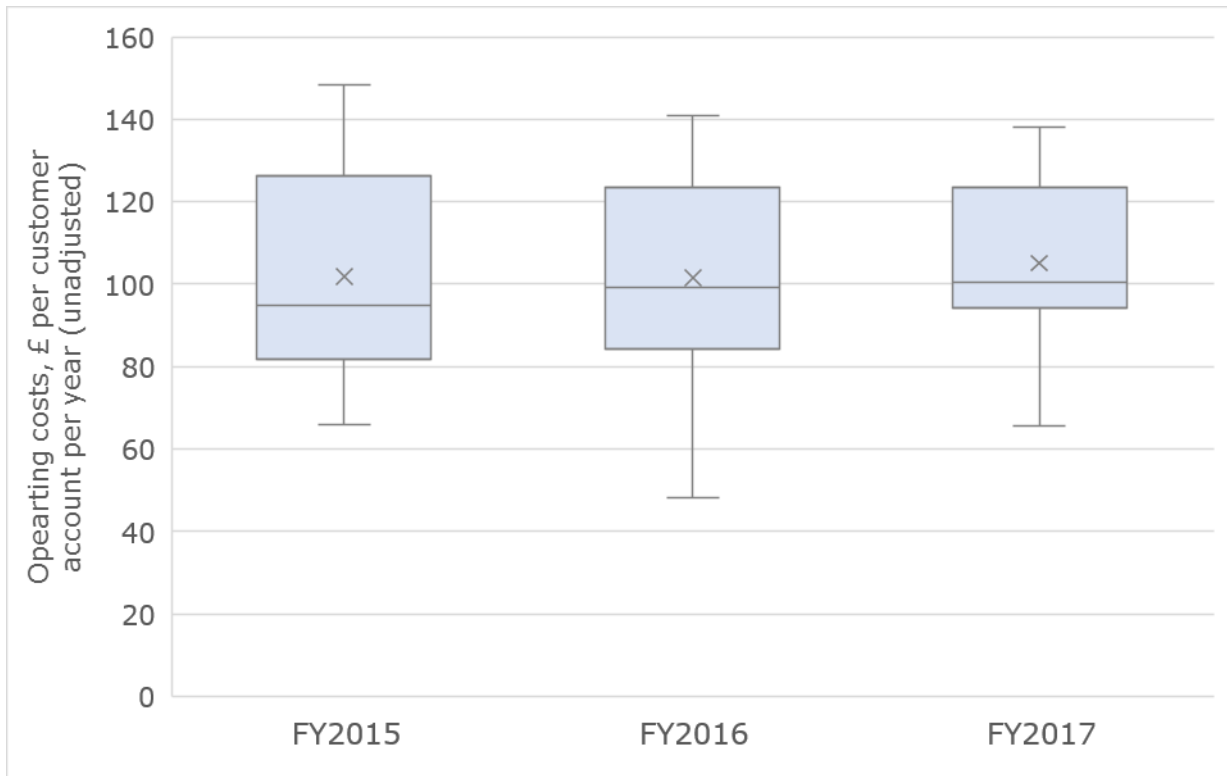
- 2.39. Most respondents agreed with our minded-to position to set the benchmark with reference to operating costs in the most recent financial year for which we had information available – 2017 – conditional on the results of our comparison of 2017 with other financial years.
- 2.40. No evidence was provided in response to our consultation to suggest that financial year 2017 was unusual.

Rationale for decision

- 2.41. We have considered whether there is any evidence to suggest that suppliers' operating costs in 2017 reflected exceptional events or atypical market conditions. We looked in particular at whether operating costs for individual suppliers – or the sample as a whole – were significantly different in 2017 compared to historical periods – and if so, if this was in the direction expected given trends in known cost drivers.
- 2.42. We compared the distribution of operating costs per customer account (in 2017 prices) across those companies in our sample for financial years 2015, 2016 and 2017. We found that while there were some differences between the years – and in particular the extent of variation in operating costs narrowed in 2017, the overall distribution was similar in each year, and we did not see evidence to suggest that 2017 was particularly unusual. Our findings are reported in Figure A6.1.

⁵ Different companies have different reporting years. In referring to "financial year 2017" or "2017", we refer to the period Jan 2017 – Dec 2017 for a company with a reporting year ending in December (the majority of suppliers in our sample) - and the period Apr 2017 – Mar 2018 for companies with a reporting year ending in March.

Figure A6.1: Trend in distribution of operating costs per customer account per year (2017 prices)



Note:

1. The chart shows "box plots" to express the range of results for 13 suppliers with data for all three years only. The "X" shows the 'mean' average. The "box" shows three values - the median (the line in the middle of the box), the lower quartile (the bottom of the box) and the upper quartile (the top of the box). The "tails" above and below the box, show the maximum and minimum values.
2. Note that these values do not include any payment method or sales and marketing adjustments. Values for 2015 and 2016 have been inflated to 2017 prices using the annual value of the CPIH, taken from the ONS website.

2.43. For the six largest suppliers that are required to publish CSS, we also compared operating costs per account in 2017 to costs (in 2017 prices) in the period 2012 to 2016, in order to put the most recent financial year in a longer term perspective. We found that most of these companies reported relatively high operating costs per customer in 2017 compared to the historic period. This is in line with our expectation, given trends in smart meter expenditures and the declining customer base of these suppliers. The main exception was EDF, which saw historically low operating costs in 2017. It attributed these reductions to its cost efficiency programme.

2.44. We concluded that while there were movements in costs in 2017 compared to previous years for a number of suppliers, these were in most cases upwards. While we might expect this given recent trends in smart metering costs and customer losses amongst the large suppliers, we have not identified any reason to expect 2017 to be otherwise atypical. There is therefore some risk that we are overstating efficient operating costs by choosing 2017 rather than a longer time-period. We propose to set our benchmark with reference to operating costs in 2017, the most recent financial year for which information on operating costs is available. However, we have taken into account the fact that 2017 costs were higher when developing our proposals on headroom and the efficiency factor.

Which suppliers to include when benchmarking operating costs?

Proposed decision

- 2.45. To ensure that our benchmark reflects the costs of a supplier that is operating at scale, when designing our information request to collect cost data from suppliers, we excluded from our sample any company with fewer than 250,000 customers as of April 2017.
- 2.46. We therefore collected information from 15 suppliers. From this sample, when choosing our benchmark level of operating costs, we propose to exclude five suppliers. We exclude one supplier, from whom information was collected but had fallen below 250,000 customers at the end of 2017. We exclude four suppliers because they had atypical customer bases (due to their business strategy).
- 2.47. This leaves us with a sample of ten suppliers which we propose to use to set our benchmark level of operating costs (our 'benchmarking sample'). Around 90% of all domestic customers were supplied by one of these suppliers in 2017 (the proportion is even higher for non-prepayment customers on default tariffs).

What we consulted on

- 2.48. In our May consultation, we set out our proposal to exclude suppliers beneath 250,000 customers from our sample. This is because small companies may have a significantly different cost base to suppliers that are at scale – particularly if they are growing rapidly.
- 2.49. For this reason, we sent our initial information request requiring detailed cost data to companies with over 250,000 customer accounts as of April 2017 (with dual fuel accounts counting twice).
- 2.50. We also proposed to exclude suppliers with a particular business model that may make it difficult to look at them on a like-for-like basis. We highlighted companies that target specific sub-populations of customers as possible candidates for exclusion, for example: suppliers targeting prepayment customers, rental properties, or companies that offer a bundled "multi-utility" service.
- 2.51. We proposed to exclude suppliers for which we do not have reliable data. Data quality varies between companies, and we will only set the level of the default tariff cap with reference to companies for which we have reliable financial data.
- 2.52. Finally, we proposed to exclude suppliers that are non-compliant. If a supplier was not meeting the requirements set out in its licence, one explanation could be that it was spending too little to ensure compliance (eg to deliver a compliant level of customer service). A supplier in this situation might therefore have lower costs than other suppliers. Including this supplier in the sample could risk meaning that the cap would be set at a level which would not allow an efficient supplier to comply with its licence.

Stakeholder feedback

- 2.53. Most respondents agreed with our broad proposals for the groups of suppliers we should exclude from our benchmarking analysis.
- 2.54. A number of stakeholders argued that the additional criteria should be used to ensure that smaller or newer suppliers did not distort the analysis:
- One respondent said that it may be more robust to exclude companies with fewer than 500,000 customers – the point at which the obligation exemptions fully cease.
 - One stakeholder argued that only suppliers that had been obligated for three or more years should be included, as those with less experience may not have incurred the required investment to maintain operating at this level.
 - One respondent argued that we should exclude suppliers that could not provide two full accounting years' operating cost data.
 - One respondent argued that we should exclude any suppliers that have been trading for less than a year or have not been operating with over 250,000 customers for a year.
- 2.55. Some respondents proposed additional criteria which should be used to exclude suppliers from our sample:
- One respondent suggested that a simplified and easier approach to adopt may be to only include companies that have published an audited CSS – giving the greater assurance of an independent third party audit and aiding comparability. There would be nothing to preclude any supplier from publishing this information.
 - One respondent argued that suppliers that do not make single fuel tariffs available in the same manner as dual fuel tariffs should be excluded, as this could skew the customer base and associated costs.
- 2.56. One respondent flagged the risk that a supplier that was included in the benchmark could subsequently be found to have been non-compliant during the observation period.

Rationale for decision

- 2.57. In relation to the size of suppliers we include in our benchmarking sample, we continue to take the view that it is appropriate to exclude suppliers with fewer than 250,000 customers from our benchmarking analysis. We consider that including smaller suppliers in our benchmarking could risk that the cap could be set at a level that would not reflect the per customer operating costs of a company at scale, in steady state.
- 2.58. We propose to exclude one supplier, from whom information was collected, but had fallen below 250,000 customers at the end of 2017.
- 2.59. In relation to the arguments raised by respondents in relation to the size threshold:

- We do not consider it necessary to increase the threshold to 500,000 customers, nor to include only companies that have been obligated under WHD and ECO for over three years; nor to include only companies that have had over 250,000 customers for over a year. This is because whether a company is obligated under the WHD and ECO schemes has not been our motivation for excluding small companies from our sample, because our proposed methodology ensures that we capture the costs of these schemes in the cap (see Appendix 5 – Policy and network costs). Rather, we have used the threshold to ensure that the level of the cap reflects the costs that we would expect for a company operating at significant scale.
- Our benchmarking sample does not contain companies that have been trading for less than a year, or companies that have been unable to provide two years of accounting data.

2.60. We propose to exclude four suppliers from our sample used for benchmarking analysis, due to their focus on specific customer segments. We expect these customer bases to have substantially different costs to serve than the majority of customers that will be covered by the default tariff cap.

2.61. We did not consider it necessary to either:

- exclude suppliers that have not published a CSS - our information gathering powers require suppliers to provide information that is accurate and not misleading
- exclude suppliers that do not actively promote gas-only tariffs from our sample, given that such suppliers nevertheless supply significant numbers of gas customers, and so provide a relevant comparator for the operating costs associated with supplying gas.

2.62. We considered the risk that a supplier included in the benchmark was subsequently found to be non-compliant. We noted that the supplier's non-compliant behaviour would have to have resulted in the company having materially lower or higher operating costs for this to distort our benchmark. As described in Appendix 3 – Updating the cap methodology, we have the ability to modify the design of the cap in the event that the methodology is found to systematically and materially result in its level being set too high or too low.

Adjusting our estimates to reflect differences in customers' payment method

Proposed decision

2.63. Because customers paying via standard credit or prepayment are on average more expensive to serve than those paying via direct debit, the proportion of a supplier's customer base using different payment methods is likely to have a material impact on their reported operating costs per customer in 2017.

2.64. To account for this, we have adjusted suppliers' operating costs per customer to the level that we would expect were they to only supply direct debit customers, using estimates of the additional cost of supplying a standard credit and the additional cost of supplying a prepayment customer. The scale of these adjustments range across

suppliers, but are on average equal to a reduction in our operating cost estimates of £15 per customer for electricity in 2017, and £15 per customer for gas.

- 2.65. Note that, when setting the final level of the default tariff cap, we propose to add an uplift to this benchmark to reflect our proposed allocation of the additional costs of bad debt and administration for direct debit and standard credit customers. Our proposed approach, including how we calculate the uplifts for direct debit and standard credit customers, is discussed in more detail in Appendix 8 – Payment method uplift.

Background

- 2.66. We described in our May consultation that – because customers paying via standard credit or prepayment are likely to be more expensive to serve than those paying via direct debit – the proportion of a suppliers’ customer base using different payment methods is likely to have a material impact on their operating costs. For this reason, this was listed as one of the factors that we would consider adjusting for in our benchmarking analysis.
- 2.67. We discuss the difference in the costs suppliers face when serving customers paying via standard credit and those paying in advance via direct debit in Appendix 8 – Payment method uplift. We have found that standard credit customers have bad debt costs that are on average significantly higher than direct debit customers. In addition, supplying standard credit customers also involves higher debt administration costs and customer service costs.⁶
- 2.68. In its investigation, the CMA identified a number of additional costs of supplying prepayment customers.⁷ It estimated a reasonable cost differential for an efficient supplier to be £24 per customer for electricity, £39 per customer for gas (in 2015 prices).
- 2.69. In response to our May consultation, a number of stakeholders argued that differences in the payment method profile of suppliers’ customer bases would have an impact on operating costs.

Methodology

- 2.70. In order to ensure that we select the most efficient supplier rather than the supplier with the highest proportion of direct debit customers, we have used our estimates of the additional costs of supplying standard credit and prepayment meter customers to adjust each supplier’s operating costs for 2017 such that they more closely reflect the direct debit level.
- 2.71. Specifically, we have subtracted:
1. **all costs associated with bad debt charges reported by suppliers in 2017 from our estimates, with the exception of the bad debt costs specifically reported for direct debit customers.** For two suppliers in our sample, we do not

⁶ Additional working capital costs associated with these customers will not affect suppliers’ indirect costs.

⁷ See “[Appendix 9.8 Analysis of indirect cost by payment method](#)” of the CMA’s final report.

have information on the reported bad debt charge per direct debit customer – and so we have estimated this using the average across the other suppliers in our sample (£0.84 per direct debit customer for electricity, and £0.46 per customer for gas).

2. **an estimate of the additional costs associated with standard credit customers (other than the bad debt charge).** This is calculated using suppliers' own estimates of the additional costs they face of supplying a standard credit customer, including the costs of debt collection and contact centre costs.
3. **a standardised estimate of the additional costs of supplying prepayment customers.** This is calculated by combining the CMA's estimate of the prepayment uplift, as calculated for inclusion in the prepayment meter price cap as of 1 April 2017 (£24.41 for electricity, £39.66 for gas), with the proportion of each supplier's domestic gas and electricity customers that pay via prepayment. We used the CMA's estimate because we did not otherwise need to estimate the costs of supplying prepayment customers with traditional meters for the default tariff cap, given this cap does not apply to them.

2.72. Table A6.3 summarises the amount by which we have reduced suppliers' operating costs per customer as a result of each of these adjustments. It shows that, on average, the combined adjustments reduce our estimates of suppliers' operating costs per customer by £15 for electricity, and £15 for gas. Adjustments are larger for companies with more standard credit and prepayment customers; for companies with larger reported bad debt charges; and for companies with larger reported additional costs of supplying standard credit customers.

Table A6.3: Summary of adjustments made to suppliers' operating costs per customer in 2017 to reflect the payment method of their customer base, by fuel

£ per customer	Electricity			Gas		
	Min	Max	Mean	Min	Max	Mean
1. Bad debt adjustment	2	11	7	1	12	7
2. Adjustment for other standard credit costs	1	10	5	0	8	5
3. Adjustment for prepayment costs	0	6	3	0	10	4
Total adjustment	7	22	15	6	22	15

Notes: all adjustments are negative – ie values are subtracted from our estimate of operating costs per customer. Adjustments are shown for the 10 suppliers in our benchmarking sample only.

Treatment of sales and marketing costs

Proposed decision

- 2.73. There are differences in suppliers' approaches to accounting for sales and marketing costs. Some suppliers capitalise these expenditures and spread them over several years to reflect the expected length of time that the customer will stay with the supplier. Others report in their accounts the level of these costs incurred in any given year.
- 2.74. To increase comparability and consistency between companies, we propose to make an adjustment for those companies that have not capitalised sales and marketing costs, to

reflect an estimate of the level these costs would have been had they been capitalised using an assumed customer tenure of five years.

- 2.75. For companies that have already capitalised these costs, we do not intend to make an adjustment.

What we consulted on

- 2.76. Most suppliers incur costs in relation to sales and marketing activities designed to attract new customers, or retain existing customers. Sales and marketing strategies differ significantly between suppliers, but they can include expenditure on advertising, branding, outbound sales calls, or third party commissions (eg commissions paid to price comparison websites).
- 2.77. In our May consultation, we set out our view that if there is variation in how suppliers account for customer acquisition costs, and this has a material impact on reported operating costs, then this is something that we would want to reflect in our analysis. In particular, if some suppliers had treated these as a cost in the year they were incurred, and other suppliers had capitalised these costs in order to amortise them over several years, there would be a risk that this could drive significant variation in costs that are not related to efficiency. This is a particular concern where suppliers are growing, and where their customer acquisition costs are therefore likely to be a higher proportion of their operating costs (than for suppliers with flat or declining customer numbers).
- 2.78. We noted that in choosing the competitive benchmark used to set the level of the prepayment meter cap, the CMA took steps to ensure that the customer acquisition costs of the benchmark companies were amortised over a consistent period.⁸ This adjustment had a material impact on the level of the existing safeguard tariffs.

Stakeholder feedback

- 2.79. Some respondents said that they agreed with the principle that sales and marketing costs should be amortised on a consistent basis.
- 2.80. One supplier told us that while sales and marketing costs may be lower for customers on default tariffs, it would be wrong to assume these costs were zero given that a large proportion of customers have been on an SVT for less than three years. Another respondent argued that it may be simpler and more transparent to expense customer acquisition costs fully rather than trying to standardise.

Rationale for decision

- 2.81. We have found that there are significant differences in how suppliers account for sales and marketing costs. A number of companies from which we collected cost information accounted for these costs in the period in which they were incurred. The remainder

⁸ See paragraphs 29 to 32 of Appendix 10.1 of the CMA's Final Report (2016):
<https://assets.publishing.service.gov.uk/media/576bcc60ed915d3cfd0000bd/appendix-10-1-domestic-retail-detriment-direct-approach-fr.pdf>

spread these costs over the expected customer tenure, using a number of different approaches.

- 2.82. We consider that in order to improve comparability, it is appropriate to estimate operating costs in 2017 as they would have been, had all suppliers' capitalised their sales and marketing costs. To do this, we have – for those suppliers that had not capitalised these costs - calculated an adjustment by spreading expensed costs over a five year period, and then comparing this to the sales and marketing costs included in the suppliers' cost data for 2017. This customer tenure is the assumed time that a new customer would remain with a supplier, based on our latest estimate of the market average annual switching rate.
- 2.83. More specifically, for each supplier that had not capitalised these costs, we took steps to adjust their sales and marketing costs as if they had been capitalised.
- We took their actual incurred sales and marketing expenditure in each year since 2012.
 - For the four years from 2013 to 2016, we divided each year's expenditure by five to estimate the amount of these costs to allocate to 2017.
 - For 2012 and 2017, we divided the expenditure in half, assuming that customers on average joined half way through the year. (We do this because these are the start and end years). We divided the resulting amount for each year by five to estimate the amount of these costs to allocate to 2017.
 - We added the results of each of these steps to estimate the total sales and marketing cost for 2017, assuming the suppliers had capitalised their historic expenditure using a five year customer tenure.
- 2.84. Table A6.4 summarises the scale of the resulting adjustments made. We do not intend to make any adjustments for those companies which have already capitalised these costs, as we consider it more accurate to use the adjustments based on suppliers' own assumptions about customer tenure.

Table A6.4: Summary of sales and marketing adjustments for those suppliers that had not already capitalised these costs

£ per customer account, 2017	Min	Max	Mean
Gas	-8	1	-1
Electricity	-8	1	-1

Source: Ofgem analysis

Note: The "minimum", shown as negative adjustment, reduced reported costs. The "maximum", shown as a positive value, increased reported costs.

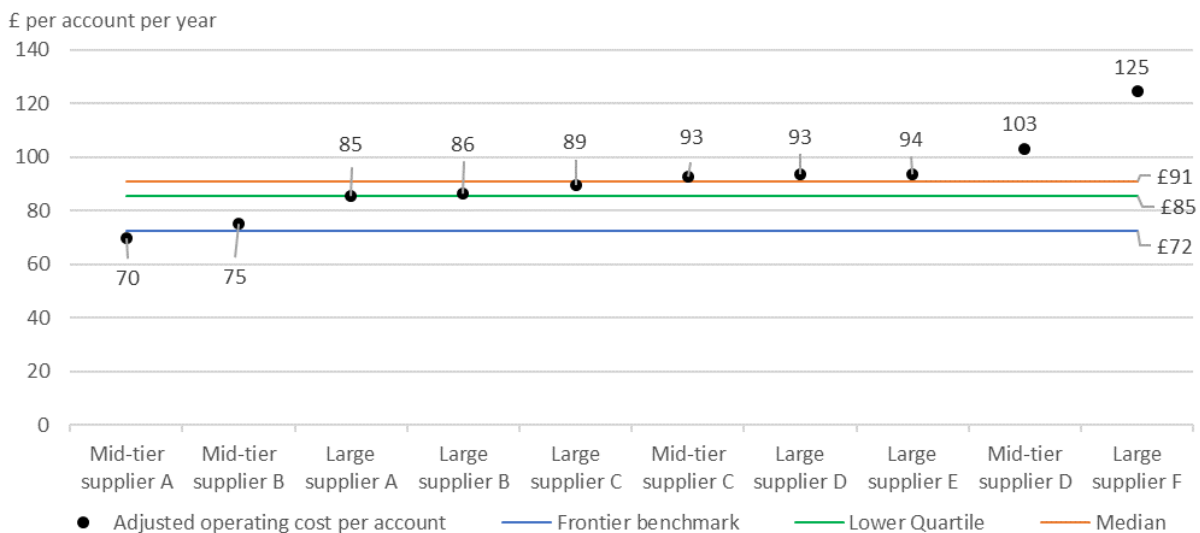
3. Efficient benchmark

In this chapter, we report the variation in operating costs that we observe across suppliers in our sample, and how – given this variation – we propose to estimate what is an efficient level of operating costs.

Overview

- 3.1. Figure A6.2 shows, for each company in our benchmarking sample, their operating costs per customer account in financial year 2017, combined across gas and electricity, and adjusted to reflect the costs of supplying a direct debit customer. It shows that there were material differences in operating costs between suppliers, even after we have controlled for differences in the payment method used by their customer base.

Figure A6.2: Adjusted operating costs per customer account, 2017 (direct debit)



Notes:

- Adjusted operating costs reflect an average across gas and electricity, and are calculated according to the methodology described in Chapter 2.
- The "Frontier benchmark" is calculated as a simple average of the operating costs of the two lowest cost suppliers in the benchmarking sample. (We use an average, in order to reduce the impact of selecting any one supplier, whose costs could be affected by their specific customer base). The "Lower quartile" of the benchmarking sample reflects the operating costs of the third lowest cost supplier in the sample. This supplier is also the lowest cost large supplier. The "Median" cost lies between the two suppliers in the middle of our sample.

- 3.2. Our expectation – drawing on the conclusions of the CMA – is that much of the variation in operating costs that we observe is likely to reflect differences in suppliers' relative efficiency.
- 3.3. We consider that the default tariff cap should be set with reference to an efficient level of costs. By this we mean that the benchmark should not be affected by instances where suppliers have incurred higher costs in the past, and this was a result of factors within their control (ie a result of management decisions). We consider that this is consistent with the Domestic Gas and Electricity (Tariff Cap) Act 2018 ("the Act"), which requires us to exercise our functions with a view to protecting existing and future customers on SVTs and default tariffs, and to have regard to the need to create incentives for suppliers to improve their efficiency.

- 3.4. If we knew the variation in historical costs was *only* due to companies' relative efficiency or inefficiency, we would set the allowance for operating costs included within the benchmark at or close to the level of the lowest cost supplier in our sample. However, in the second part of this chapter, we set out our view that – even subsequent to the various exclusions and adjustments we have made (as discussed in the previous chapter) - there may be some variation in suppliers' operating costs that is driven by aspects of companies' operating environments that do not relate to the efficiency of the supplier.
- 3.5. In the final part of this chapter, we therefore discuss our proposal – in light of this view and the potential uncertainty affecting our estimates – to set the efficient benchmark above the level of the lowest cost supplier in the sample.
- 3.6. More specifically, we propose to set the allowance at a level equal to the lower quartile of costs of suppliers in the benchmarking sample, minus an efficiency factor equivalent to £5 for a dual fuel customer. The resulting operating cost benchmark is £78.30 per customer per year for electricity, and £89.26 per customer per year for gas. This reflects a level of operating costs that is approximately 15% higher than the frontier.

Non-efficiency drivers of variation in operating costs

Proposed decision

- 3.7. We consider that there is likely to be some variation in suppliers' operating costs that is driven by aspects of the companies' operating environments, and which does not relate to the efficiency of the supplier. We expect this to be the case even *after* the adjustments we have made to reflect differences in payment method shares and to increase comparability of the treatment of sales and marketing costs (see above). We also expect it to be the case subsequent to the adjustments we make when updating the level of the cap to reflect a level of smart metering costs that is representative across the market (see Appendix 7 – Smart metering costs).
- 3.8. Specifically, we consider that the proportion of a suppliers' customers who are in vulnerable circumstances, the proportion who are single rather than dual fuel, and whether a supplier is subject to legacy pension arrangements are all to some degree outside of suppliers' control, and could together have a material impact on a company's operating costs. The cost of serving offline customers may also have a material impact on suppliers' costs, however, it is less clear the extent to which this is outside a supplier's control.
- 3.9. We also cannot rule out that operating costs of small and medium sized suppliers in our sample could be higher in financial year 2017 than would be expected were they operating at a larger scale (although the evidence on economies of scale is mixed).
- 3.10. We do not propose to take into account any of the other potential drivers of variation in operating costs that are discussed in this section when setting our benchmark.

What we consulted on

- 3.11. In our May consultation, we set out a number of possible factors which could drive variation in operating costs, but may not be related to relative efficiency or

inefficiency. Broadly speaking, these factors could be divided into features of the suppliers, and features of the suppliers' customer base.

- 3.12. The different factors that we discussed included variation in sales and marketing costs and differences in payment methods, both of which are discussed earlier in this appendix. It also included variation in smart metering costs. Tables A6.5 and A6.6 below list the remaining potential drivers of variation in operating costs that we identified in our consultation document.

Table A6.5: Possible drivers of variation in operating costs - supplier features

Supplier feature	Description	Position in May consultation
Company size	Larger suppliers will be able to spread their operating costs over a wider customer base, reducing their average cost per customer.	We set out our intention to consider the evidence on the relationship between realised costs and customer numbers.
Legacy pension obligations	The incumbent suppliers inherited legacy pension schemes at privatisation. Costs may be higher than for other pension schemes.	We proposed not to make a specific adjustment, even if we considered these cost differences to be material. This was due to the complexities of accurately estimating the incremental impact of legacy pension costs on the large suppliers' operating costs.
Customer service level	Provided they meet their regulatory requirements, suppliers have significant discretion over the customer service they offer. Offering additional services may result in additional costs.	We proposed not to take into account variation in customer service when setting the benchmark. Among other reasons, we noted that it is hard to know whether default tariff customers value features of their current tariffs, and that even if we set a higher level of the cap to reflect a higher level of customer service, there would be no guarantee that suppliers would actually provide this.
Participation in industry code panels and workgroups	The extent to which suppliers contribute to industry code panels and workgroups varies, and therefore the costs incurred vary between suppliers.	We proposed not to make an adjustment. We noted: that we had not seen evidence that the impact on costs was material; that suppliers may get benefits from participating voluntarily, and that it would be difficult in practice to make a specific adjustment.

Table A6.6: Possible drivers of variation in operating costs – customer base features

Customer base feature	Description	Position in May consultation
Proportion of vulnerable customers	Customers with lower incomes or otherwise in vulnerable circumstances may be more costly to serve. The proportion of a supplier's customers in vulnerable situations is likely to have an impact on operating costs.	We proposed to consider this further, with reference to, for example, variation in the number of customers of different suppliers on the priority services register (PSR), and evidence on the additional cost of supplying these customers.
Proportion of customers serviced online	Customers that manage their accounts online may be cheaper to serve. The proportion of a supplier's customers that manage their account online is likely to have an impact on operating costs.	We proposed not to make a specific adjustment, given the difficulties in developing a robust estimate of the incremental cost of supplying an offline customer, the likelihood of strong correlations with other characteristics (such as payment method and vulnerability), and uncertainty about the extent to which the proportion of offline customers is outside a supplier's control. Instead, we proposed to consider this in the round when setting the overall benchmark.
Proportion of dual fuel and electricity-only customers	Dual fuel customers may be cheaper to serve, due to - for example - the economics of only having to send a single bill. Electricity-only customers may be more expensive to serve due to the nature of their metering arrangements.	We said that we may want to consider this factor when setting the benchmark, but noted that would depend on whether the evidence supported that this had a material impact on costs.

Stakeholder feedback

- 3.13. In response to our May consultation, a number of suppliers questioned the extent to which economies of scale existed for energy supply companies. One supplier argued that we should, in formulating the cap, consider those areas where new entrants' and challengers' costs would exceed those of the large suppliers – including recognising that finding and acquiring customers is expensive, and that not reflecting this in the cap would deter new entrants.
- 3.14. A number of respondents argued that legacy pension costs should be taken into account when comparing operating costs between companies. One large supplier argued that these costs were significant, however another questioned the materiality of these costs.
- 3.15. Some respondents argued that Ofgem should be wary of including suppliers with low operating costs but poor customer service in the benchmarking analysis, or suggested that suppliers with customer service that has breached licence conditions should be excluded.
- 3.16. Some respondents suggested that the costs of participating in industry code panels and workgroups was unlikely to be large in the context of the overall cap. However one respondent argued that, while small, these costs should still be taken into account when setting the benchmark, as otherwise this could discourage new entrants from participating in industry groups. Another respondent suggested that these costs could be captured by ensuring that suppliers that participate fully in such work form part of the benchmark. One respondent suggested that large suppliers would receive benefits as a result of their greater participation in industry processes.

3.17. A number of suppliers argued that vulnerable, single fuel and/or offline customers would be more expensive to serve – and were not distributed evenly between suppliers (with some respondents suggesting that the large incumbent suppliers were likely to have a higher proportion of these customers). One respondent provided specific estimates of the scale of the additional costs of supplying vulnerable and single fuel customers, estimating these to be material.

Rationale for decision

Variation in costs due to company scale

3.18. If smaller suppliers have higher operating costs due to their smaller scale, we do not consider that this should be reflected in a higher level of the default tariff cap. In particular, the Act requires us to set the cap to reflect an efficient level of cost – ie a supplier operating at an efficient scale.

3.19. We found some limited evidence on scale economies:

- We have reviewed the cost forecasts of a number of medium and smaller suppliers. Most envisage some cost savings related to expected growth.
- We considered whether – among those suppliers from which we collected cost information, and which had fewer than a million customers – companies with more customers had lower average costs. We found some evidence that this may be the case, although there were also examples of larger companies with higher costs, and smaller companies with lower costs.
- We also consider whether – over the past three financial years – companies that had grown had seen reductions in reported ‘central overheads’. We found evidence of examples where cost savings had been achieved, and other examples where this was not the case.

3.20. However, we do not consider that this provides evidence of the existence of strong economies of scale among those suppliers in our sample, nor are we able to quantify the scale of the impact. Therefore we do not propose to make a specific adjustment to take a supplier’s size into account when choosing the level of the operating cost benchmark.

3.21. Instead, because we cannot rule out that the operating costs of small and medium sized suppliers in our sample could be higher in financial year 2017 than would be expected, were they operating at a larger scale, we propose to take this into account as one of the factors we will consider in the round when choosing the overall level of the benchmark.

Legacy pension costs

3.22. We are aware that the ex-incumbent suppliers will face some legacy pension costs which are not incurred by other suppliers. We consider that where an ex-incumbent supplier’s costs are higher as a result of final-salary schemes that it inherited at privatisation, this will not reflect inefficiency, as these costs would be outside a supplier’s control given the protections that are in place.

- 3.23. As set out in our May consultation, we are limited in our ability to accurately estimate the incremental impact of legacy pension arrangements on the large suppliers' operating costs, among other reasons because of the difficulty of establishing the proportion of these costs relating specifically to the domestic supply business. As discussed in that document, the relevant comparator will not be zero, but rather the equivalent pension costs for staff in non-protected schemes.
- 3.24. In line with this, a number of suppliers were not able to separate these costs out from staff costs more generally in their financial data. For those suppliers that did attempt to provide estimates of the total costs associated with legacy pension schemes in 2017 specific to their domestic supply businesses, the reported costs amounted to a total cost per customer of legacy pension schemes of less than £1 per customer account for all companies except one. The remaining company reported legacy pension costs equating to about £8 per customer account, however it was not clear whether these costs were specific to domestic legacy pension arrangements only, rather than reflecting the wider pension costs of the supplier.
- 3.25. For all suppliers, we would expect the incremental cost compared to equivalent pension costs for non-legacy schemes to be significantly lower than this. Given this, while we propose to take these costs into account in the round when choosing our overall benchmark, we consider the overall materiality of these costs is likely to be limited.

Customer service

- 3.26. Our position on variation in costs driven by differences in levels of customer service remains unchanged compared to that set out in our May consultation. In particular, because they have not made an active choice, it is hard to know whether default tariff customers value non-price features of their current tariffs, or the service offering of their current supplier. Even if we set a higher level of the cap to reflect a higher level of customer service, there would be no guarantee that suppliers would actually provide this, unless we introduced new regulatory requirements.
- 3.27. Furthermore, we have not seen any evidence to suggest that better customer service is in fact related to higher costs. In some cases, the opposite could be the case: eg higher operating costs may be related to problems with billing systems, which may result in lower service levels. We also note that suppliers offering a higher level of customer service would still be able to recover any associated higher costs from fixed tariff customers – consumers would then make an active choice to select these tariffs, even if they are more expensive than the cap.
- 3.28. We have considered whether any suppliers in our benchmarking sample should be excluded due to having lower costs in 2017 as a result of delivering customer service below the level required under the licence, and have not received evidence as part of our work designing the default tariff cap that suggests this to be the case.
- 3.29. For these reasons, we do not propose to take into account customer service when setting the operating cost element of the efficient benchmark.

Industry codes

- 3.30. Our position on variation in costs driven by differences in the extent to which suppliers participate in industry code panels and workgroups also remains the same as set out in our May consultation.

- 3.31. In particular, we note that suppliers may receive a benefit from participating in industry code panels and workgroups. We requested data on the scale of these costs as part of the information on costs we collected - many suppliers were unable to separate these costs from other costs, but for those that were able to do so, the evidence that we have seen suggests that these costs are not significant.
- 3.32. For these reasons, we therefore do not propose to take into account the costs of participating in industry code panels and workgroups when setting the operating cost element of the efficient benchmark.

Customer base effects – impact on costs

- 3.33. We considered that, in principle, there were reasons to expect that whether a customer was in vulnerable circumstances, whether they were on a single or dual fuel contract, and whether they administered their account online would all affect their operating costs:
- Vulnerable customers (proxied by those on the Priority Services Register - PSR) may be costlier to serve than other customer groups. As well as the direct costs of providing PSR services, vulnerable customers may be associated with greater customer contact costs, as well as potentially having a higher risk of debt.
 - Single fuel customers may be costlier to serve, for example if there are diseconomies in issuing two bills to the same household, or in relation to fees (such as debt recovery charges) which are incurred per household rather than per account.
 - Customers who manage their accounts online may be less expensive to serve due to reduced costs of issuing bills and statements (eg avoiding postage costs). Dealing with customer service queries online may also be cheaper.
- 3.34. To test this, we gathered estimates of the additional costs of serving vulnerable customers (proxied by whether or not a customer was on the PSR); single fuel customers and offline customers from a number of suppliers.
- 3.35. This exercise illustrated some of the inherent difficulties and assumptions required to assess costs at this level of granularity. For example, although we asked for the costs for PSR and single fuel customers specifically for a direct debit customer, suppliers were not always able to attribute these costs to a particular payment method. This means that we cannot eliminate the possibility of double counting with costs covered through the payment method adjustment.
- 3.36. Given the differences in how suppliers prepared their submissions, we made adjustments where required. We ensured that the cost estimates for an average direct debit customer excluded PSR customers across all suppliers, and removed smart metering related costs where these were reported within suppliers' additional costs, as variation in these costs was being captured separately.
- 3.37. In relation to the additional costs of supplying PSR and single fuel customers, we found that:

- The median reported additional operating cost to serve a dual fuel PSR customer paying by direct debit was around £10 per customer account in 2017. However there was a significant range (ie the difference between the supplier with the largest reported additional costs per customer account and the lowest) of around £46 per customer between the suppliers.⁹
- The median reported additional operating cost to serve a single fuel electricity customer paying by direct debit was around £9 per customer in 2017, with a range of £8 between the lowest and highest cost in the sample.
- The median reported additional operating cost to serve a single fuel gas customer paying by direct debit was also around £9 per customer in 2017, with a range of £11 between the lowest and highest cost in the sample.

- 3.38. We consider that the wide ranges (particularly for the PSR estimates) illustrate the inherent difficulty in calculating an estimate of the costs of serving particular customer groups. Producing these estimates requires significant judgement in order to allocate indirect costs between customers; and is therefore subject to a large degree of uncertainty. There is likely to be inconsistency in the approaches taken by suppliers. We also note that focusing on the median reflects a conservative approach, in the sense that it may be expected to provide an estimate above the level of additional costs that would be incurred by an efficient supplier.
- 3.39. Despite these reservations, on balance we considered that the estimates suggest that there were material differences in the costs of supplying these customer groups.
- 3.40. We have found it more difficult to develop a reliable estimate of the additional costs of serving an offline customer using the data we have collected. In particular, some of the costs of serving an offline customer appear to relate to the costs of providing paper bills. This is a cost that is directly driven by serving an offline customer. However, other costs relate to the propensity of an offline customer to contact the supplier. This may partly be driven by the characteristics of offline customers – to the extent that these customers may also be more likely to be vulnerable, single fuel, or to pay by standard credit (as we expect to be the case), there is a risk of double counting between cost estimates.
- 3.41. One alternative source of information that we have considered is tariff data. A number of suppliers offer discounted versions of a particular tariff to customers that are willing to administer their accounts online. These discounts can range in value, with a maximum we observed of £60 per dual fuel customer per year (although most discounts offered were smaller than this).
- 3.42. However, we consider that tariff data provides limited insight into the differences in the costs of supplying online and offline customers. First, some suppliers do not offer an

⁹ We noted that this was larger than cost estimates previously provided to Ofgem. In December 2015 we published a set of [proposed changes to the PSR](#). As part of this review, we collected evidence from companies on the costs of services offered under the PSR. This suggested that the large companies incurred costs of around £5.7 million per year in 2013 – an average of around £1.20 per PSR customer per year (calculated by dividing the total cost estimate of £5.7m by the total number of customers on the suppliers' PSR in 2013, 4.8m). However, we note that one reason for the difference may be that the earlier estimate related more narrowly to the costs of providing PSR services only. https://www.ofgem.gov.uk/sites/default/files/docs/psr_final_proposals_final_0.pdf

online discount at all, and in other cases, a supplier may offer certain tariffs which are only available online, without offering a corresponding offline version. In these cases, a tariff may be particularly cheap because it is an acquisition tariff, rather than necessarily because it costs significantly less to serve a customer online. More broadly, suppliers may use online discounts as a method of price discrimination – ie as a competitive tool to attract new customers – rather than setting the prices of these tariffs to reflect true underlying cost differences.

- 3.43. While we have not been able to accurately quantify the scale of the impact, we nevertheless consider that offline customers are likely to incur somewhat higher costs, even after controlling for the greater likelihood that these customers are vulnerable, single fuel, or pay using standard credit.

Customer base effects – relevance to our benchmark

- 3.44. Suppliers cannot directly control whether they acquire or retain PSR-eligible customers, and providing additional support to these customers is not a discretionary activity. To the extent that PSR eligible customers may have certain characteristics which may make them less likely to switch on average¹⁰, then the former incumbent suppliers may be more likely to have these customers. Our recent report on [Vulnerable consumers in the energy market](#) shows this to be the case (see Figure 1.1 of that report).¹¹
- 3.45. Given the uneven distribution of these customers across suppliers, and the fact that we estimate there to be additional costs of supplying them, we therefore propose to take the proportion of PSR customers into account when setting the benchmark. In doing so, we have taken into account both the uncertainty of the scale of the additional costs, and that the PSR is an imperfect proxy for vulnerability. In particular, the number of customers on a supplier's PSR may be affected by any differences between suppliers in their effectiveness at identifying PSR customers.
- 3.46. Similarly, while a supplier may have some ability to influence whether it acquires single fuel customers through its pricing decisions, the former incumbent suppliers started with a single fuel customer base at privatisation (which was outside their control). Therefore, to the extent that consumers have not switched to a dual fuel contract, this might still be a source of single fuel customers, and cause these customers to be unevenly distributed across suppliers for reasons that are partly outside of their control.
- 3.47. Given this, and the finding that these customers incur additional costs, we propose to take the proportion of single fuel customers into account when setting our benchmark.
- 3.48. We consider that suppliers will have greater influence over the proportion of their customers that administer their accounts online, noting the evidence we have seen of some suppliers focusing on increasing digitalisation in their business plans. We consider whether a customer administers their account online to be less of an intrinsic feature of a suppliers' customer base. Therefore, while we propose to take this factor

¹⁰ In its customer survey, the CMA found that PSR customers were less likely to have shopped around or switched in the previous three years. See paragraph 7 of [Appendix 9.1 to its Final Report](#).
<https://assets.publishing.service.gov.uk/media/576bcbbc40f0b652dd0000b0/appendix-9-1-cma-domestic-customer-survey-results-fr.pdf>

¹¹ https://www.ofgem.gov.uk/system/files/docs/2018/06/ofgem_vulnerability_report_2018.pdf

into account in choosing our benchmark, we propose to place less weight on variation in the proportion of online customers given the greater control we expect suppliers to exert over these costs, and the less clear materiality of the incremental costs of supplying these customers.

Selecting the benchmark

- 3.49. Customer base effects, and the other factors we consider above, are relevant to considering how to define our efficient benchmark for the purposes of setting the level of the cap in accordance with the objective of the Act and the matters for regard in section 1(6). The implication of customer base effects and the other factors discussed above is that there is not one level of costs that represents the efficient level that each company could attain. Depending on their circumstances, there may be a different level of efficiency that each supplier could attain.
- 3.50. This means that a benchmark could be determined to ensure that a hypothetical (or real) supplier with an atypically high level of efficient costs can finance its activities. However, it seems to us that setting a benchmark at that level would not be consistent with the objective of the Act as customers of suppliers with more typical (and lower) efficient costs would be overcharged. Furthermore, in that case those suppliers with lower level of efficient costs would face weak (if any) incentives to improve their efficiency.
- 3.51. By contrast, setting the benchmark in line with the suppliers with the lowest cost in the market would ignore the differences in customer bases and the factors considered above. A benchmark set at that level may mean that an efficient supplier with a typical customer base might not be able to finance its activities.

Proposed decision

- 3.52. We have considered the level of operating costs per customer within the overall distribution set out in Figure A6.2 which best reflects an efficient level of operating costs, given the evidence we have reviewed on the role of suppliers' customer bases in driving variation in cost, as well as the degree of uncertainty affecting our estimates.
- 3.53. Given the evidence set out above, and the risk that other (unanticipated) differences in suppliers' operating conditions could be driving variation in costs, we considered that setting the benchmark at the frontier would be unlikely to be sufficient to cover the costs of an efficient supplier with a normal customer base.
- 3.54. We note that we already define 'the frontier' conservatively, before considering whether that level is appropriate for our benchmark. Rather than using the supplier with the lowest operating costs per customer, we take an average of the two lowest costs in the sample. This reduces the risk that our frontier benchmark is distorted by specific aspects of that supplier's customer base or data.
- 3.55. At the same time, we considered setting the efficient benchmark at or above the level of the supplier closest to the lower quartile (one of the large suppliers) – a level around 18% above the frontier, equating to £13 per customer account – would likely lie above an efficient level of costs for an efficient supplier with a normal customer base.

- 3.56. We therefore propose to set the efficient benchmark a small amount below the level of costs of the lower quartile supplier. Specifically, we propose to set the operating cost benchmark equal to the reported operating cost of the supplier at the lower quartile for gas and electricity, minus an efficiency factor amounting to £5 for a dual fuel customer (3% below the lower quartile level), pro-rated between the fuels.
- 3.57. This equals a benchmark of £78.31 per electricity customer (£2.34 below the lower quartile) and £89.25 per gas customer (£2.66 below the lower quartile). It reflects a level of operating costs that is approximately 15% higher than our frontier benchmark. Note this benchmark relates to the cap period April 2017 to September 2017. For the 2017 baseline discussed in Appendix 1- Benchmark methodology we update this to establish a weighted cap level for April 2017 to March 2018.

What we consulted on

- 3.58. In our May consultation we set out our view that – if we knew the variation in historical costs was only due to companies’ relative efficiency or inefficiency – we would set the baseline allowance for operating costs at the level of the lowest cost supplier in our sample. However, we recognised that this may not be appropriate if there is variation in suppliers’ operating costs driven by aspects of companies’ operating environments that do not relate to the efficiency of the supplier.
- 3.59. We said that if this were the case, one option would be to make specific adjustments to correct for the expected impact of a given cost driver (eg adding to the benchmark the additional costs we might expect a frontier company to incur were they subject to legacy pension obligations). However, we noted that in many cases it would be challenging to precisely identify the impact of a given factor on suppliers’ costs, particularly given the strong correlation between different cost drivers.
- 3.60. For this reason, we proposed that we would only seek to make specific adjustments where we could confidently do so. We proposed to take any other factors into account by setting the level of the benchmark to reflect our general expectation of what level of operating costs would allow an efficient supplier with ‘average’ characteristics to recover their costs.

Stakeholder feedback

- 3.61. One respondent noted that it would be difficult for Ofgem to accurately assess the impact of each of the different non-efficiency drivers of variation in costs, and suggested that a simple way to ensure these are considered would be to ensure at least one large supplier is included in the benchmark.
- 3.62. One respondent told us that the proposal to analyse efficient costs for a supplier with ‘average’ characteristics seemed sensible in principle, but that this would be subject to how ‘average’ is determined. It argued that it would be sensible to take an average over a number of suppliers to allow for any errors in adjustment when looking at a single supplier.
- 3.63. One respondent noted that Ofgem has tended to use an ‘upper efficiency quartile’ benchmark in RIIO price controls in the past – equivalent to the lower quartile cost benchmark in this context. It argued that it would be inappropriate to impose the same benchmark in this market, due to the greater potential for errors in efficiency estimation, and because RIIO network price controls allow companies a variety of

other 'bespoke' adjustments to cover company-specific factors (for example to take into account regional wage differentials). This respondent was concerned about potential errors particularly as it believes clauses 1(6)(b) and 1(6)(d) of the Act rule out a cap below the efficient level, while no corresponding clause rules out a cap above that level, which, to the respondent, suggests we should err on the side of caution when setting the cap.

- 3.64. One respondent said that it would be necessary to normalise costs to represent the 'average' customer – and avoid over-emphasis of the lower costs associated with managing niche customer groups. It argued that the cost benchmark should be set to the mean of the sample – providing a strong incentive for inefficient suppliers to reduce costs. Benchmarking to a single supplier would run the risk that costs are non-representative or distorted, and so the benchmark should cover at least 25% of the market and more than two suppliers.

Rationale for decision

- 3.65. As discussed above, in calculating each supplier's operating costs per customer in 2017, we propose to make specific adjustments for differences in the payment methods used by suppliers' customers. Given the extent of uncertainty affecting our estimates of the role of other factors in driving differences in costs – and the relationship that exists between these factors – we do not propose to make further specific adjustments to account for other differences in suppliers' customer bases affecting their operating costs.
- 3.66. In line with the position set out in our May consultation, we propose to set the efficient benchmark at a level that we expect to cover the costs of an efficient supplier with an average customer base. The level of the benchmark should also reflect the degree of uncertainty that we consider exists within our estimates of operating costs.
- 3.67. We have considered the extent to which setting the benchmark at the level of the lowest cost suppliers in the sample would meet this objective. Note that we already define 'the frontier' conservatively, before considering whether that level is appropriate for our benchmark. Rather than using the supplier with the lowest operating costs per customer, we take an average of the two lowest costs in the sample. This reduces the risk that our frontier benchmark is distorted by specific aspects of that supplier's customer base or data. This decision increases the frontier benchmark by around £2 per account.
- 3.68. We have found that the lowest cost suppliers have significantly fewer customers on the PSR and significantly fewer single fuel customers than the average across suppliers in our benchmarking sample. We also expect them to have a high proportion of online customers (although note that reliable information on the proportion of customers that administer their accounts online is not available). They will not be subject to legacy pension costs.
- 3.69. Given this, and the uncertainty in our estimates (including the possibility that other – unanticipated – exogenous differences in suppliers' operating conditions could be driving variation in costs), we considered that setting the benchmark at the frontier (even when conservatively defined) would be unlikely to be sufficient to cover the costs of an efficient supplier with a normal customer base. This is despite the possibility that these companies might have higher costs than we would expect were they operating at a larger scale, and given their less costly customer bases.

- 3.70. Given this, we next considered whether the costs of the lower quartile supplier would likely be above or below the efficient level of operating costs for a supplier with a normal customer base.
- 3.71. We began by noting that using the company with the lowest quartile costs (ie the upper quartile in terms of efficiency) was an approach commonly used in benchmarking analysis, which avoided outlying companies driving the benchmark. We did not agree with the respondent that argued that there was greater uncertainty affecting our analysis compared to the cost benchmarking carried out in relation to network companies. For example, we noted that unlike the network companies, the suppliers being benchmarked all operated across GB and supplied the same market. There was also much greater consistency in the outputs being provided by the suppliers than was the case for the network companies.
- 3.72. We found that the supplier closest to the lower quartile has proportions of PSR and single fuel customers that are much closer to the market average. As an ex-incumbent supplier, it is also subject to many of the same potential cost disadvantages that it has been argued affect the legacy companies. We considered whether, given the cost data we had collected, customer base differences appeared likely to explain the operating cost difference between the frontier and the lower quartile supplier.
- 3.73. We compared the operating costs and customer base of the lower quartile company to that of the supplier with the lowest proportion of single fuel and PSR customers in our sample (one of the suppliers with lowest costs per customer in our sample).
- 3.74. To test whether customer base effects were likely to explain the difference in operating costs per account, we compared the differential to the product of the difference in the proportions of PSR and single fuel customers served by the two suppliers, and the estimated additional costs of supplying the two customer types as set out in the previous section. We found that the combined implied difference in costs (to cover differences in the proportions of PSR and single fuel customers) would equal around £2-4 per account.¹² This assumes that there is no overlap between the cost estimates for PSR and single fuel customers.
- 3.75. While the estimate is subject to significant uncertainty, we consider that it suggests that differences in proportions of PSR and dual fuel customers are unlikely to account for the difference between the lower quartile supplier and our frontier benchmark – which is £13 below the lower quartile.
- 3.76. There may be other factors in addition to proportion of vulnerable and single fuel customers which could drive differences in suppliers' costs that are not related to efficiency. However, we consider that the impact on the appropriate benchmark is likely to be relatively small. We noted that the materiality of legacy pension costs – which in any event are included in the costs of the lower quartile supplier – is likely to be low. The proportion of offline customers is likely to a material extent to be within suppliers' control. To the extent to which the costs of the frontier suppliers are higher than they would be if they were operating at a larger scale, this may partly offset these effects.

¹² This is based on the median additional costs of supplying a PSR and single fuel direct debit customer.

- 3.77. We had regard to the benchmark implicitly included in the CMA’s direct analysis of detriment, which we considered implied a significantly tighter view on efficiency than the lower quartile in our sample. The CMA used a benchmark it considered to be lower cost than the large suppliers, whereas our lower quartile is based on one of these suppliers.
- 3.78. Given the evidence set out above, on balance we consider that an efficient supplier with an average customer base would likely have operating costs below the lower quartile. This is even after accounting for the uncertainty affecting our estimates of efficient costs. Setting the benchmark at this or a higher level – for example to reflect the mean operating costs of suppliers in the benchmarking sample – would therefore not in our view be consistent with the Act. Instead we propose to set the efficient benchmark a fixed amount below the lower quartile.
- 3.79. Specifically we propose to set the operating cost benchmark equal to the lower quartile for gas and electricity, minus an efficiency factor amounting to £5 for a dual fuel customer. This equals £78.31 per electricity customer and £89.25 per gas customer. It reflects a level of operating costs that is approximately 15% higher than our frontier benchmark.

4. Updating the allowance for operating costs over time

In this chapter, we describe our proposed approach to updating the allowance for operating costs over time.

Proposed decision

- 4.1. We propose to update the operating costs component of the default tariff cap using the most recent value of CPIH (ie the consumer price index, including owner occupiers' housing costs), as observed prior to the level of the cap being set. Specifically, for a price cap period starting on 1 October, the level of the cap would be updated using CPIH for the month of June preceding the start of this price cap period. For a price cap period starting on 1 April, the level of the cap would be updated using the CPIH for the month of December preceding the start of this price cap period.
- 4.2. To this, we propose to add a component to reflect the trend in net industry costs associated with the smart metering rollout (the Smart Metering Net Cost Change, SMNCC). This component is discussed in detail in Appendix 7 – Smart metering costs.
- 4.3. We do not propose to include any other indexation or efficiency factor when updating the operating cost allowance included in the default tariff cap.

What we consulted on

- 4.4. In our May consultation, we described how, over time, we expect there to be inflation in suppliers' operating costs (eg staff costs, IT and meter rental), that would be outside companies' control. We therefore proposed updating the operating cost allowance included in the cap every six months to reflect trends in inflation.
- 4.5. The main options for indexing the default tariff cap that we discussed were RPI (Retail Price Index), CPI (Consumer Price Index) and CPIH (CPI including owner occupiers' housing costs). We proposed using the CPIH given that, since 2017, it has been the Office of National Statistics' (ONS) lead inflation index.
- 4.6. In addition, we described that the ongoing rollout of smart meters is expected to affect many different elements of suppliers' operating costs, both upwards and downwards. We therefore proposed that an additional component in £ per customer is applied to the cap to reflect the change in net costs that is expected in 2018 to 2020 as a result of the smart rollout.
- 4.7. Finally, we noted that it is common for price controls to include an adjustment to reflect expected improvements in the efficiency frontier over the period of the price control (sometimes referred to as 'frontier shift'). This is distinct from any efficiency improvements expected for individual companies as they catch up to the frontier. It reflects the general expectation that even efficient companies will become more productive over time; for instance as a result of technological change.
- 4.8. We set out our minded-to position *not* to include an efficiency factor when updating the level of the default tariff cap, consistent with the approach taken in the existing safeguard tariffs.

- 4.9. This was partially because the initial duration of the price cap period is relatively short. We also stated our expectation that the scope for efficiency gains at the frontier over that period will be much more limited than the (likely large) scope for gains as companies catch up to that frontier. We also noted that anticipated cost savings resulting from the smart meter rollout would be captured in the specific adjustment for trends in these costs.

Stakeholder feedback

- 4.10. In response to our May consultation, the majority of respondents that expressed a view agreed with our proposal to update the allowance for operating costs using CPIH. However:
- One respondent stated their preference for using CPI rather than CPIH due to the greater consistency with the existing safeguard tariffs.
 - Another argued that we should use RPI or CPI, because CPIH was a relatively new index.
 - One said that it thought indexing the operating costs allowance using CPIH was reasonable. However it said that it would expect Ofgem to consider historic costs to see whether or not suppliers' non-smart costs had increased faster than CPIH, in which case a different index may be required.
 - One said that it thought indexing using CPIH was reasonable, but that, given that a significant proportion of operating costs were staff costs, using a blend of CPIH and RPI should be considered.
- 4.11. Most suppliers argued that the cap should not include an efficiency factor, citing as reasons: the temporary nature of the cap; the uncertainty about any future efficiency gains; the fact that gains could be used to strengthen competition or improve customer service; and questioning the assumption of general productivity improvements.
- 4.12. A number of respondents argued that the allowance for operating costs should be updated to reflect changes in regulatory requirements (eg the faster switching programme, mandatory trials of customer communications).
- 4.13. We also received a large number of comments on our proposed approach to updating the level of the cap to reflect trends in the costs associated with smart metering. These are discussed in Appendix 7 – Smart metering costs.

Rationale for decision

- 4.14. We considered whether CPI or RPI would be a more appropriate index than CPIH, or whether an average of more than one index should be used to update the allowance for operating costs included in the cap.
- 4.15. We do not propose to use RPI to index operating costs, because - as set out in our May consultation - the ONS has discouraged the use of RPI as a measure of inflation since 2013. While we recognised that using CPI would increase consistency with the existing prepayment meter safeguard tariff, we were mindful of the ONS' view that CPIH

provided a better guide to trends in inflation. We do not consider its relatively recent introduction to be an issue, given that it is the ONS' primary inflation index.

- 4.16. We considered the year-on-year changes in operating costs per customer of suppliers in our sample, and noted that while some suppliers' operating costs had increased by more than CPIH in the period covered by our data set, others had increased by less (or fallen). We noted that year-on-year trends would be driven by any efficiency savings suppliers were able to make, as well as how quickly fixed overheads scaled with customer numbers.
- 4.17. We considered whether further adjustments were required to the operating cost allowance over time, either to reflect:
- the costs to suppliers of programmes such as faster switching, half hourly settlement or consumer engagement trials; or
 - an expectation of general productivity improvements – i.e. an efficiency factor, as is common in price controls.
- 4.18. We considered that the true level of efficient costs – holding inflation and trends related to smart metering constant – could increase or decrease over time. However, we would not expect large effects in either direction over the lifespan of the cap (noting that regulatory change was part of 'business as usual', and would affect suppliers' costs in the benchmark period). There also would likely be offsetting impacts from possible increases in costs as a result of changes to suppliers' obligations under the supply licence relative to the position in 2017/18; together with general productivity improvements that would be expected as a result of, eg, increased digitalisation and automation. Given this, we do not propose to include any further elements when updating the operating cost component over time.

5. Next steps

In this chapter, we describe how we intend to disclose operating cost data with relevant parties to enable them to comment on the adjustments made.

- 5.1. During this consultation, we are disclosing additional information on the analysis we have carried out in relation to setting the efficient benchmark.
- 5.2. We will disclose, to each supplier in our sample,¹³ their operating costs directly back to the respective supplier along with the specific adjustments we made to the data they initially provided to us. We will also disclose the relevant operating costs back to each of the suppliers that were excluded from the benchmark along with the rationale.
- 5.3. This is an extra step, beyond the description of our process as set out in this appendix to enable the relevant parties to verify and comment on the adjustments made to their data.
- 5.4. For clarity, suppliers in the sample will see only their own data, they will not see operating cost data and adjustments for other suppliers in the sample.

¹³ This includes the five suppliers that were excluded, as well as the ten suppliers analysed.