Decision Appendix

Default Tariff Cap: Decision		
Appendix 1 – Benchmark methodology		
Publication date: 6 November 2018	**Contact:**	Anna Rossington, Deputy Director
	Team:	Retail Price Regulation
	Tel:	020 7901 7000
	Email:	retailpriceregulation@ofgem.gov.uk

In accordance with the Domestic Gas and Electricity (Tariff Cap) Act 2018, we are implementing the default tariff cap to come into effect from 1 January 2019. This supplementary appendix sets out our decision and the detailed methodology in relation to the benchmark methodology.

Please see the default tariff cap – decision overview document for an accessible summary of the complete methodology.

Document map

Figure 1 below provides a map of the documents published as part of the decision on the implementation of the default tariff cap.

Figure 1: Default tariff cap – decision document map

Policy decision documents

Default tariff cap – decision overview document

Supplementary Appendices

Cap level	Specific categories of cost	Additional
Appendix 1 - Benchmark methodology Appendix 2 - Cap level analysis and headroom Appendix 3 - Updating the cap methodology	Appendix 4 – Wholesale Appendix 5 – Policy and network costs Appendix 6 – Operating costs Appendix 7 – Smart metering costs Appendix 8 – Payment method uplift Appendix 9 - EBIT	Appendix 10 – Exemptions Appendix 11 – Final impact assessment

Associated licence condition documents

Notices	Annexes
Notice of modification of electricity and gas Standard Licence Conditions Final notice of baseline values Statement to terminate SLC 28AA	Annex 2 – Wholesale cost allowance methodology Annex 3 – Network cost allowance methodology electricity Annex 3 – Network cost allowance methodology gas Annex 4 – Policy cost allowance methodology Annex 5 – Smart metering net cost change methodology Supplementary workbook to Annex 2, 3 and 4 – Demand and losses

Initial level of the cap

Default tariff cap level – 01 January 2019 – 31 March 2019 Model – default tariff cap level

## Contents

1. Introduction

Overview

Methodology

1.1. In Chapter 2 we discuss the components of the methodology we have decided to use to set the default tariff cap and the reasons for our decisions.

1.2. The level of the default tariff cap will vary in proportion to consumption. To achieve this, we set two separate benchmarks: one at nil consumption and one at the current Typical Domestic Consumption Values (TDCV – referred to as typical consumption below). We then define the cap at other consumption levels by the line connecting the level of the cap at nil and typical consumption (as shown in Figure A1.1).

1.3. We will set the benchmark in different ways for nil and typical consumption.

- At typical consumption, we set the efficient benchmark with reference to our bottom-up cost assessment. Under this approach, we estimate efficient allowances for different categories of costs. We then add these together to derive our estimate of the total costs for a given customer type. We set the overall level of the cap with reference to this estimated benchmark.

- At nil consumption, we set the initial value of the benchmark with reference to market prices in 2017.

1.4. We deliberately used a different approach to set the benchmark at nil consumption. Setting the benchmark in line with efficient costs (the same approach we use at typical consumption) would have set the benchmark at nil consumption at £220 in 2017-18 for a dual fuel, direct debit customer.[1] This would be a significant departure from how suppliers set their prices at nil consumption. For example, as set out in the statutory consultation, in June 2017 large suppliers set direct debit prices at nil consumption for variable tariffs which ranged between £116 and £190. If suppliers priced to the cap, the standing charges they offered could have increased substantially. This would be an unintended consequence of the cap, negatively affecting consumers with low consumption.

1.5. In order to protect these consumers, we consider that the least disruptive approach is to take account of market prices when setting the benchmark at nil consumption. As a consequence of our decision, the benchmark at nil consumption is lower than the cost-reflective level, but the unit rate is higher.

1.6. Figure A1.1 below illustrates this, using single rate electricity as an example. The solid line shows our benchmark in 2017-18, while the dotted line shows the alternative based on a cost reflective cap at nil consumption. As the benchmark at nil consumption changes, the slope (unit rate) pivots around the benchmark at typical consumption.

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[1] This figure excludes headroom, but includes VAT. It is based on GB average network charges.

Figure A1.1: Varying the benchmark at nil consumption – effect on the single-rate electricity benchmark at different consumption levels
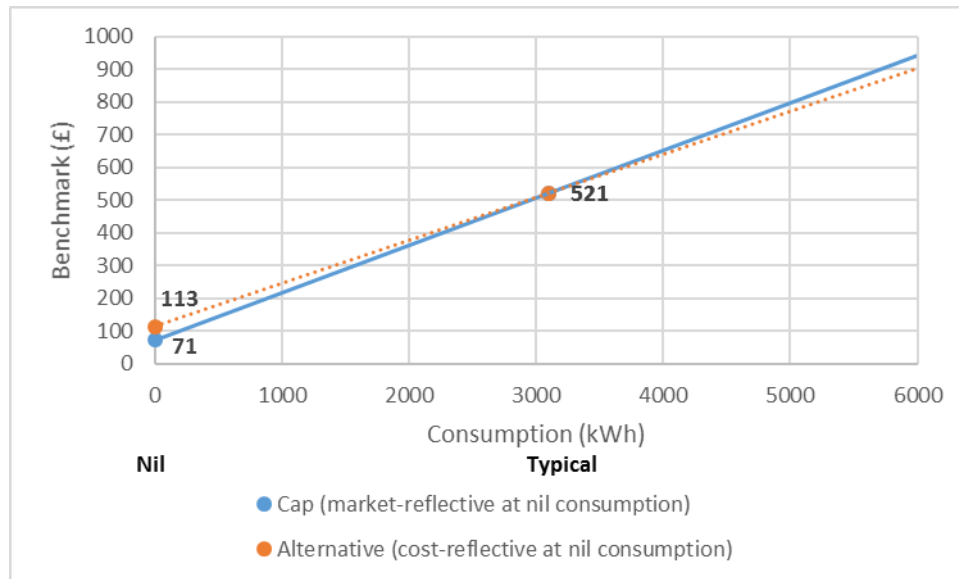
Notes: Benchmark levels are for direct debit customers, and are a weighted average for summer 2017-18 and winter 2017-18. These figures include VAT but exclude headroom. They include GB average network charges.

Considering consultation responses

1.7. In Chapter 3 we summarise the views we received in response to our statutory consultation, and our responses to them. These related to our approaches at both typical and nil consumption.

Context and related publications

1.8. 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

1.9. Ofgem (2018), Default tariff cap: policy consultation. Appendix 4 – Bottom-up cost assessment. https://www.ofgem.gov.uk/system/files/docs/2018/05/appendix_4_-_bottom-up_cost_assessment.pdf

1.10. Ofgem (2018), Default tariff cap: overview document. Appendix 1 – Benchmark methodology. https://www.ofgem.gov.uk/system/files/docs/2018/09/appendix_1_-_benchmark_methodology.pdf

2. Methodology

In this chapter, we explain how we set the benchmarks at typical consumption and at nil consumption.

Approach to setting the default tariff cap at typical consumption

2.1.   We have used a bottom-up cost assessment to estimate the efficient level of costs associated with supplying a customer with typical consumption.

Categories of costs

2.2.   Table A1.1 sets out the different components of suppliers' costs that we have estimated as part of our bottom-up assessment of costs, and summarises what each category contains. For each cost component we reference the appendix that explains our methodology and considers stakeholders' views.

Table A1.1: Categories of costs in the efficient benchmark at typical consumption

Cost component	Description
Wholesale costs (see Appendix 4)	• The direct cost of gas and electricity contracts for delivery in the price cap period, including allowances for shaping, forecast error and imbalance, and transaction costs • Capacity Market (CM) payments
Network costs (see Appendix 5)	• All gas and electricity transmission and distribution charges • Balancing Services Use of System (BSUoS) charges
Policy costs (see Appendix 5)	• The costs associated with schemes to support renewable and low-carbon electricity generation (Renewable Obligation (RO), Contracts for Difference (CfD), Feed in Tariffs (FiT)) • The costs associated with the Energy Company Obligation (ECO), supporting energy efficiency • The costs of providing support to fuel poor customers under the Warm Home Discount (WHD) scheme • The costs of providing assistance for areas with high electricity distribution costs (AAHEDC)
Operating costs (see Appendix 6, as well as Appendix 7 on smart metering)	Companies' internal operating costs, including: • metering (including smart metering) • sales and marketing (including commissions paid to price comparison websites or brokers) • billing and payment collections • customer service • central overheads (including IT) • Data Communications Company (DCC) and Smart Energy GB (SEGB) charges, Elexon and Xoserve charges, and other obligatory industry charges that specifically relate to supply • depreciation and amortisation charges associated with past capital expenditure

Cost component	Description
Payment method uplift (see Appendix 8)	An uplift reflecting the additional costs of supplying standard credit customers: • for direct debit customers, this will comprise a part of the additional bad debt and administration costs associated with standard credit customers, as well as reflecting the working capital benefit associated with direct debit • for standard credit customers, this will comprise the remainder of the additional bad debt and administration costs associated with standard credit customers, as well the cost of the additional working capital requirement of this payment method
Profit margin (see Appendix 9)	A profit margin reflecting a normal return on capital.

Overview of approach to each cost category

2.3. This section provides a high-level summary of the approach that we have used to calculate the allowance for each category of costs. We describe our methodology in greater depth in a series of separate appendices, and we provide further details in a set of models published on our website alongside this decision.[2]

2.4. The appendices and models include information about how costs vary between single rate electricity, multi-register electricity and gas.

Wholesale costs

2.5. We describe our approach to estimating wholesale costs in Appendix 4. As discussed in that appendix, we set the allowance for wholesale costs with reference to the prices of annual forward contracts, as observed over a six-month horizon. To this index, we add further allowances to reflect the costs of imbalance and forecast error, shaping, and transaction costs. We then uplift these costs to reflect the impact of electricity losses and unidentified gas. This provides our estimate of total direct fuel costs.

2.6. We estimate the allowance for capacity market payments using forecasts of the total value of capacity market payments for a given fiscal year. We combine this with estimates of the share of domestic customers' demand which falls into peak winter periods (uplifted for losses).

Policy costs

2.7. We set out our approach to estimating policy costs (ie the costs associated with suppliers' environmental and social obligations) in Appendix 5. In general, this involves using data published by the administrators of the different schemes to calculate the cost to a domestic customer in a given obligation year. In some cases these costs are known with a large degree of accuracy in advance. In other cases these costs must be based on forecasts and are subject to greater uncertainty. However, we expect our

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[2] These are called: Annex 2 – Wholesale cost allowance methodology, Annex 3 – Network cost allowance methodology (separate versions for gas and electricity), Annex 4 – Policy cost allowance methodology, Annex 5 – Smart metering net cost change methodology, and Supplementary workbook to Annex 2, 3 and 4 – Demand and losses.

estimates to cover costs on average over time and note that historically forecasts have overestimated costs.

2.8.   These policy cost estimates include the administrative costs that a supplier incurs for Feed-in Tariffs and the Energy Company Obligation. For other schemes – in particular the Warm Home Discount (WHD) – we include administrative costs within operating costs.

Network costs

2.9.   We discuss our approach to estimating network costs in Appendix 5 – Policy and network costs. We set the allowance for network charges by combining the charges published by the network companies with assumptions about demand and losses. This allows us to estimate the charges incurred in each region in pounds per customer.

Operating costs

2.10.   We estimate the allowance for operating costs with reference to information on suppliers' costs in previous financial years. Historically there have been large differences in operating costs between suppliers. We have therefore carried out a benchmarking analysis to form a view on what is an efficient level. We discuss how we estimate suppliers' historical operating costs, and benchmark them, in Appendix 6 – Operating costs.

Smart metering costs

2.11.   For the baseline year (2017), we include the costs associated with the rollout of smart meters within the operating cost element of the benchmark. For subsequent periods we add a separate increment, which we call the Smart Metering Net Cost Change (SMNCC). This reflects changes in smart metering costs from 2017 – both in relation to industry body charges for smart metering and suppliers' smart metering net rollout costs. (As this is a change since 2017, the value of the SMNCC in the base period is zero). We discuss our approach in more detail in Appendix 7 – Smart metering costs.

Payment method uplift

2.12.   We estimate the allowance for the additional costs associated with supplying customers who pay by standard credit using historical data collected from suppliers. This relates to the additional working capital, bad debt, and other administrative costs of supplying customers who pay for their energy in this way. We spread a proportion of these costs over customers who pay using payment methods other than standard credit (especially direct debit). We discuss our approach in more detail in Appendix 8 – Payment method uplift.

Profit margin

2.13.   Finally, we include an allowance for suppliers to earn a normal rate of return on capital employed. We set this allowance with reference to the estimates prepared by the

Competition and Markets Authority (CMA) during its market investigation.[3] We discuss this in more detail in Appendix 9 - EBIT.

Headroom and VAT

2.14. To set the overall cap level, we apply an additional headroom allowance and VAT on top of our efficient benchmark. Please see Appendix 2 for the discussion of headroom and the overall cap level. We add VAT at the prevailing rate for gas and electricity, which is currently 5%.

Updating the benchmark at typical consumption

2.15. We will update the cap every six months[4] with reference to trends in exogenous cost drivers, ie information on trends in costs that is not produced by the suppliers, and cannot be influenced by suppliers' actions.

2.16. Our approach, set out in Appendix 3 – Updating the cap methodology, varies for different cost components.

- **Wholesale, policy and network costs:** We will base our updates on third party information on trends in wholesale prices, government programme costs, and network charges respectively.

- For **operating costs**, we will index the allowance included in the cap to inflation, using the Consumer Prices Index including owner-occupiers' housing costs (CPIH). We will add an increment to reflect changes in the costs associated with the smart meter rollout. We are able to calculate part of this smart metering cost increment with reference to industry body charging statements and budgets. However, the remainder is more uncertain. For this reason, we will set the "non-pass through" element in advance for the first two periods of the cap (up to the end of September 2019), and review its level in 2019 so that it is set appropriately for later periods. In contrast to other parts of the update process, this review will – in part – draw on supplier data.

- The **payment method uplift** has a fixed element and a percentage element. We will index the fixed element using CPIH. The percentage element will be a fixed proportion of wholesale, policy, network and operating costs.

- We have set both the **EBIT**[5] **margin and headroom** as percentages of suppliers' costs (with headroom not applying to network charges). We calculate the updated allowances for these elements using these percentages and the updated costs above.

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[3] CMA (2016), Energy market investigation – final report.
https://assets.publishing.service.gov.uk/media/5773de34e5274a0da3000113/final-report-energy-market-investigation.pdf
[4] The first update of the cap is sooner, reflecting that the first cap period is only three months long.
[5] Earnings Before Interest and Tax – ie the profit margin to provide a return on capital.

Our benchmark at typical consumption

2.17. Table A1.2 sets out our estimates of efficient costs based on our bottom-up assessment of costs. We calculate these for a customer with a typical level of consumption. We show separate values for electricity and gas, and for single rate and multi-register electricity meters. We also show values for a direct debit customer and for a standard credit customer. You can find details of the calculations used to set the overall cost level by adding the different cost components together in the model – default tariff cap level, which we have published on our website alongside our decision.

Table A1.2: Estimates[i] of efficient benchmark in 2017-18[ii], £ per customer (GB average, typical consumption[iii])

Category	Cost	Electricity Single rate	Electricity Multi-register	Gas	Dual fuel[iv]
Wholesale	Direct fuel	166.30	225.91	199.48	365.77
	Capacity Market	3.41	3.63	0.00	3.41
Policy	Renewables Obligation	57.79	78.29	0.00	57.79
	Contracts for Difference	8.33	11.49	0.00	8.33
	Feed-in Tariffs	14.39	19.51	0.00	14.39
	Energy Company Obligation	9.43	12.77	12.41	21.84
	Warm Home Discount	6.70	6.70	6.70	13.40
	Assistance for Areas with High Electricity Distribution Costs	0.78	1.06	0.00	0.78
Networks	Transmission	37.27	40.08	8.81	46.07
	Distribution	89.84	89.99	113.65	203.49
	Balancing Services Use of System	8.35	11.34	0.00	8.35
Operating costs		78.72	78.75	89.94	168.67
Direct debit					
Payment method adjustment		5.78	6.22	5.00	10.78
EBIT (applied to everything)		9.43	11.34	8.44	17.88
VAT @ 5%		24.83	29.85	22.22	47.05
Total, inc VAT, excl headroom		**521.33**	**626.95**	**466.65**	**987.98**
Standard credit					
Payment method adjustment		41.91	47.41	38.36	80.27
EBIT (applied to everything)		10.13	12.14	9.09	19.22
VAT @ 5%		26.67	31.95	23.92	50.59
Total, inc VAT, excl headroom		**560.00**	**671.03**	**502.36**	**1062.36**

[i] Please see the model on our website for full details of how these values have been derived, as well as levels of the benchmark for other periods, including 2019.
[ii] Values shown are a weighted average of our estimates for summer 2017-18 and winter 2017-18.
[iii] Typical consumption values used are 3,100 kWh per year for electricity (single rate), 4,200 kWh per year for electricity (multi-register) and 12,000 kWh per year for gas.
[iv] We have not set a cap specific to dual fuel, and we show dual fuel costs for illustration only. We calculated these by adding together our estimates for single rate electricity and gas.

Changes to our benchmark

2.18. In light of our statutory consultation, we have reviewed and updated our benchmark to reflect our best estimate of underlying efficient costs. This is based on our review and stakeholders' responses. The main changes are listed below.

- Accounting for **minor calculation errors.** This increases the benchmark. We discuss these corrections in the relevant appendices.

- Adjusting our estimated allowance for **unidentified gas.** We have increased this allowance – this increases the benchmark. (See Appendix 4 – Wholesale costs).

- Adjusting estimates of the **number of recently installed meters that suppliers replace with smart meters**. This increases the smart metering allowance, and therefore the benchmark. (See Appendix 7 – Smart metering costs).

- Correcting an error in how we account for the **working capital benefits direct debit customers provide to suppliers** and increasing methodological consistency of how we **benchmark additional standard credit costs** across cost components and fuels. This reduces the payment method uplift, and therefore the benchmark. (See Appendix 8 – Payment method uplift).

2.19. Table A1.3 below shows the overall impact of changes to our benchmark since the statutory consultation. For clarity, we focus on dual fuel.

Table A1.3: Comparing statutory consultation and decision estimates of efficient benchmark in 2017-18[i], £ per customer (dual fuel[ii], GB average, typical consumption)

Category	Cost	Statutory consultation[iii]	Decision	Difference
Wholesale	Direct fuel	363.59	365.77	2.18
	Capacity Market	3.41	3.41	0.00
Policy	Renewables Obligation	57.79	57.79	0.00
	Contracts for Difference	8.33	8.33	0.00
	Feed-in Tariffs	14.39	14.39	0.00
	Energy Company Obligation	21.84	21.84	0.00
	Warm Home Discount	13.40	13.40	0.00
	Assistance for Areas with High Electricity Distribution Costs	0.78	0.78	0.00
Networks	Transmission	46.07	46.07	0.00
	Distribution	203.49	203.49	0.00
	Balancing Services Use of System	8.35	8.35	0.00
Operating costs		168.73	168.67	-0.07
Direct debit				
Payment method adjustment		20.84	10.78	-10.05
EBIT (applied to everything)		17.69	17.88	0.19
VAT @ 5%		47.43	47.05	-0.39
Total, inc VAT, excl headroom		**996.11**	**987.98**	**-8.14**
Standard credit				
Payment method adjustment		90.51	80.27	-10.24
EBIT (applied to everything)		19.01	19.22	0.21
VAT @ 5%		50.98	50.59	-0.40
Total, inc VAT, excl headroom		**1070.66**	**1062.36**	**-8.31**

[i] Values shown are a weighted average of our estimates for summer 2017-18 and winter 2017-18.
[ii] We have not set a specific cap for dual fuel. We calculated the dual fuel estimates by adding together our estimates for single rate electricity and gas. The typical consumption values used are 3,100 kWh per year for electricity (single rate), and 12,000 kWh per year for gas.
[iii] This column uses the figures published in Appendix 1 to the statutory consultation.

Approach to setting the default tariff cap at nil consumption

2.20. We have decided to set the initial level of the benchmark at nil consumption in line with market prices in 2017.

Setting the benchmark at nil consumption

2.21. We collected tariff data through a request for information to suppliers in April 2018.[6] This data contains information on the number of customers on each tariff, and information on the prices of individual tariffs.

2.22. The data consists of four snapshots of suppliers' tariffs, at the end of each quarter in 2017. The request excluded prepayment tariffs, non-Economy 7 restricted meters, and multi-tier tariffs.

2.23. We have processed the tariff data to consolidate the information from suppliers into a single dataset. This largely involved ensuring that the data was formatted in a consistent way across suppliers so that it could be analysed together. For example, we needed to make sure that categories (eg tariff types) were named consistently. We also checked for issues with suppliers' data, and clarified these where necessary.

2.24. Our approach seeks to calculate the size of the operating cost component for the efficient benchmark at nil consumption as the residual that is left once our estimates of other elements of costs at nil consumption are removed. We therefore looked at price data from 2017, and removed the cost elements that would have fed into these prices in that period, in order to calculate the implied allowance for operating costs.

2.25. Specifically, we calculated the annual price in 2017 at nil consumption for each tariff. This is the result of taking the annual standing charge and subtracting the value of any discounts.

2.26. We then removed electricity distribution network charges. (There are no gas network charges at nil consumption). We used the values calculated through our network charging model. (See Appendix 5 – Policy and network costs). We used the network cost value which applied at each quarter end, for the applicable region.

2.27. We then calculated the average bill (excluding electricity distribution network charges) at nil consumption. We did this separately for single rate electricity, Economy 7 electricity and gas. This involved a number of design choices.

   - **Date:** We used information from each of the four snapshots in our dataset. This averages out any differences in prices across 2017.

   - **Payment method:** We used information on direct debit tariffs. We apply a separate payment method uplift (in the same way as at typical consumption) when setting the benchmark at nil consumption.

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[6] We originally issued this request for information to inform our development of the updated competitive reference price approach.

- **Tariff type:** We used data on variable tariffs.

- **Suppliers:** We used data from the same ten suppliers used in the operating cost analysis at typical consumption (ie the "benchmarking sample" as discussed in Appendix 6 – Operating costs).

- **Region:** We already removed network charges, which vary regionally. We therefore calculated a national average.

- **Weighting:** We calculated a customer-weighted average across all the tariffs that meet the design choices above.

2.28. Finally, to calculate the implied operating cost allowance at nil consumption, we then subtracted five components: headroom, EBIT, the fixed and percentage elements of the payment method uplift, and the costs of the WHD scheme. In response to feedback from the statutory consultation (see Chapter 3), we amended our calculation approach by subtracting the payment method uplift elements. This is to better reflect our policy intent of setting the initial level of the benchmark at nil consumption in line with market prices in 2017.

- Although suppliers would not have included **headroom** in their prices in 2017, we will apply headroom in future at nil consumption in the same way as at typical consumption. We therefore remove an estimate for what headroom would have been. (We are seeking to align the initial level of the cap in 2017 with market prices, rather than seeking to align the benchmark alone to market prices). We calculated the implied headroom component by multiplying the average price at nil consumption, excluding network charges, by the headroom adjustment percentage. In response to feedback from the statutory consultation, we amended our calculation approach and no longer apply headroom to network charges. This corrects an error, given that we do not apply headroom to network charges in the model used to update the cap over time.

- We adjusted for **EBIT** by adding together the average price at nil consumption excluding network charges and a GB average figure for network charges at nil consumption in 2017, and then subtracting the implied headroom component. We then applied the EBIT margin percentage to this figure. This gives us an implied EBIT component.

- For the **fixed element of the payment method uplift**, we used the baseline value for April-September 2017. (This is referred to as $PAAC_0$ in standard licence condition 28AD). We used the direct debit value of the payment method uplift at nil consumption for each benchmark (single rate electricity, Economy 7 electricity and gas).

- For the **percentage element of the payment method uplift**, we subtracted the previous components (headroom, EBIT and the fixed element of the payment method uplift) from the average price at nil consumption excluding network charges. We then multiplied this residual by the payment method adjustment percentage.

- We obtained the relevant **WHD costs** from our policy cost model.

2.29. We subtracted the above five amounts from the average price at nil consumption excluding network charges. Having removed all the other cost sources, the remainder is our estimate of the operating cost component at nil consumption. (This is referred to as OC_0 in standard licence condition 28AD). Like our operating cost figure at typical consumption, we used April-September 2017 as the base period for the cap.

Updating the benchmark at nil consumption

2.30. The description above explains our approach to setting the initial level of the benchmark at nil consumption. We then need to update the benchmark over time – we will do this every six months.

2.31. When updating the benchmark at nil consumption, we will take a similar approach to the efficient benchmark at typical consumption, in that we will use the same cost models. However, the cost components that apply at nil consumption are different than at typical consumption.

- **Wholesale costs:** Neither direct fuel costs nor capacity market costs apply at nil consumption, and so wholesale costs will be zero. Direct fuel costs do not apply because no energy is consumed. Capacity market costs do not apply because suppliers are charged for these costs based on demand. (See Appendix 4 – Wholesale costs for further information on the capacity market).

- **Policy costs:** The only policy cost which applies at nil consumption is WHD. (Appendix 7 of the May consultation set out which schemes have costs to the supplier which vary with volume).[7] We will use the relevant value of WHD from the policy costs model.

- **Network costs:** As explained above there are no gas network charges at nil consumption. For electricity, we will use the values from our network charging model.

- **Operating costs:** We will update the benchmark operating cost at nil consumption (OC_0) using CPIH. We will add a scaled-down version of the SMNCC – see below.

- **Payment method adjustment:** We will apply the payment method adjustment in exactly the same way as at typical consumption. However, because the bad debt and working capital elements of the payment method adjustment are based on percentages, the absolute uplift values will be smaller at nil consumption than at typical consumption.

- **EBIT:** We are using a 1.9% EBIT margin. As at typical consumption, we will apply this using the multiplier 1.9%/(1 - 1.9%). (See Appendix 9 – EBIT for an explanation of this).

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[7] Ofgem (2018), Default tariff cap: policy consultation. Appendix 7 – Policy and network costs. Table A7.2.
https://www.ofgem.gov.uk/system/files/docs/2018/05/appendix_7_-_policy_and_network_costs.pdf

- **Headroom and VAT:** To set the overall cap level, we will apply the same headroom adjustment percentage as at typical consumption. We will also apply VAT at 5%.

2.32. Our treatment of the costs associated with the smart meter rollout (the SMNCC) is different at nil consumption from at typical consumption. At nil consumption, we will include a reduced SMNCC value (69% of the full SMNCC amount). This is the ratio,[8] in our base period,[9] between the direct debit benchmarks[10] calculated using: our approach at nil consumption and a fully cost-reflective approach. (This is lower than the 73% figure in the statutory consultation. This is a consequence of the changes to the nil consumption benchmark discussed above).

2.33. We will still apply 100% of the SMNCC at typical consumption. This means that if the SMNCC increases, the increase at typical consumption would be larger than the increase at nil consumption.

2.34. We are setting the benchmark at nil consumption below cost. Since we set the benchmark at two points, nil consumption and typical consumption, reducing the benchmark at nil consumption increases the implied unit rate (for a given benchmark at typical consumption). (See Figure A1.1). This means that it will be more profitable to serve customers with above-typical (ie above-median) consumption, and less profitable to serve customers with below-typical consumption.

2.35. Given that the average (mean) consumption of a supplier's consumers is higher than the typical consumption (median), the overall impact on suppliers is to provide them with additional profits (relative to looking at their profitability at typical consumption). The size of the effect will vary between suppliers depending on the average consumption across their customers. We estimate that the impact on large suppliers ranges from £3 to £17 per dual fuel customer in 2017. (See Appendix 2 – Cap level analysis and headroom).

Our benchmark at nil consumption

2.36. Table A1.4 below sets out the value of the benchmark at nil consumption for 2017-18.

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[8] Expressed to the nearest percent.
[9] April-September 2017
[10] For the purpose of this calculation, we use the benchmarks excluding VAT.

Table A1.4: Estimates of benchmark in 2017-18[i], £ per customer (GB average, nil consumption)

Category	Cost	Electricity Single rate	Electricity Multi-register	Gas	Dual fuel[ii]
Wholesale	Direct fuel	0.00	0.00	0.00	0.00
	Capacity Market	0.00	0.00	0.00	0.00
Policy	Renewables Obligation	0.00	0.00	0.00	0.00
	Contracts for Difference	0.00	0.00	0.00	0.00
	Feed-in Tariffs	0.00	0.00	0.00	0.00
	Energy Company Obligation	0.00	0.00	0.00	0.00
	Warm Home Discount	6.70	6.70	6.70	13.40
	Assistance for Areas with High Electricity Distribution Costs	0.00	0.00	0.00	0.00
Networks	Transmission	0.00	0.00	0.00	0.00
	Distribution	16.43	16.43	0.00	16.43
	Balancing Services Use of System	0.00	0.00	0.00	0.00
Operating costs		39.88	40.16	65.49	105.37
Direct debit					
Payment method adjustment		3.66	3.66	3.41	7.07
EBIT (applied to everything)		1.30	1.32	1.42	2.72
VAT @ 5%		3.40	3.41	3.85	7.25
Total, inc VAT, excl headroom		**71.37**	**71.68**	**80.87**	**152.24**
Standard credit					
Payment method adjustment		17.15	17.17	17.19	34.34
EBIT (applied to everything)		1.56	1.58	1.69	3.25
VAT @ 5%		4.09	4.10	4.55	8.64
Total, inc VAT, excl headroom		**85.81**	**86.15**	**95.63**	**181.43**

[i] Values shown are a weighted average of our estimates for summer 2017-18 and winter 2017-18.
[ii] We are not setting a cap specific to dual fuel, and dual fuel costs are shown for illustration only. We calculate these by adding together our estimates for single rate electricity and gas.

2.37. The operating cost in this table (£105 for a dual fuel customer) is lower than at typical consumption (£169 for a dual fuel customer, as shown in Table A1.2). This illustrates that our approach at nil consumption, which is based on market prices in 2017, does not reflect our full estimate of operating costs at nil consumption.

Implications for the Licence Condition

2.38. The structure of the licence condition reflects that we are estimating individual components of the cap.

2.39. Our decision to set the benchmark at nil consumption in line with market prices in 2017 affects the starting value for the operating cost parameter (OC_0 in standard licence condition 28AD). It does not affect how we update the benchmark at nil consumption – we will do this using the same model as the benchmark at typical consumption.

3. Considering consultation responses

In this chapter, we summarise stakeholders' responses to our statutory consultation, and consider the points raised.

High-level summary

3.1.   This chapter specifically focusses on stakeholders' responses to the benchmark methodology appendix of our statutory consultation. (We cover the more detailed points on the methodology through our other decision appendices). The main areas raised by stakeholders about our benchmark methodology in response to the statutory consultation were our use of:

- a bottom-up cost assessment at typical consumption

- market prices at nil consumption.

Using a bottom-up cost assessment at typical consumption

3.2.   In our statutory consultation, we proposed using a bottom-up cost assessment at typical consumption.

3.3.   Only a minority of stakeholders commented on this. Those stakeholders who did comment agreed with our proposal to use a bottom-up cost assessment at typical consumption. We did not receive comments supporting alternative (reference price) approaches.

3.4.   For example, one supplier said that the bottom-up cost assessment was "transparent and reasonably robust". One supplier said that the bottom-up cost assessment would provide "maximum flexibility and minimal risk to efficient suppliers". Another supplier told us that the choice of the bottom-up analysis was an essential improvement in establishing an appropriate cap level. One consumer group also said that it supported the principles used to select a bottom-up cost assessment.

3.5.   This was in line with responses to the May consultation, where most respondents stated their preference for using a bottom-up assessment of costs to estimate efficient costs. The reasons given included: greater transparency provided by the approach; greater accuracy and lower risk of error – particularly for direct costs (which make up the majority of costs); greater ease of communication to stakeholders; and the ability to give a fuller representation of the costs across all suppliers.

3.6.   We received a small number of comments on the categorisation of costs within the bottom-up cost assessment methodology.

- One supplier supported the allocation of Elexon and Xoserve costs to operating costs. However, it said that we should treat these costs as a pass-through like smart metering costs, rather than indexing them as proposed.

- One supplier said that we should classify smart costs separately from operating costs.

Consideration of methodology

3.7. Taking into account the support from stakeholders for our proposal, we have used a bottom-up cost assessment to estimate the efficient level of costs at typical consumption. Our full rationale is as set out in our statutory consultation.[11]

Consideration of cost categorisation

3.8. We consider our approach to updating Elexon and Xoserve costs as part of Appendix 6 – Operating costs.

3.9. As set out in the statutory consultation, we consider smart metering costs to be intrinsically linked to suppliers' wider operating costs (particularly metering costs). We therefore consider it appropriate to include these costs within operating costs more generally. However, within this high-level categorisation, we will update smart metering costs in a different way from other parts of operating costs. (We will use the SMNCC, rather than indexing a baseline value using CPIH). Our high-level categorisation therefore does not prevent us from recognising that smart metering costs are likely to evolve in a different way to other parts of operating costs.

Assessing costs for customers with nil consumption

3.10. In the statutory consultation, we proposed using market prices in 2017 to set the cap at nil consumption.

3.11. We received limited feedback on our proposed approach. One supplier agreed with our approach to set the standing charge using market prices. It said that this "is more reflective of current supplier pricing strategies and will act to mitigate the impact on lower consuming customers". No stakeholder suggested that the cap at nil consumption should be set in line with our assessment of costs.

3.12. Several stakeholders commented on the level of the cap at nil consumption.

- One supplier said that we should base the standing charge on the lower decile of the market price sample rather than on the average. It said that this would mitigate a potential increase in the standing charge, which would be likely to lead to increased annual costs for customers with low consumption.

- One supplier said that our proposal was higher than the prices it currently charges to its lowest consumption customers.

- One stakeholder said that we should cap the standing charge only. It said we could cap it at £60 per year. (It disagreed with our statutory consultation

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[11] Ofgem (2018), Default tariff cap: statutory consultation. Appendix 1, paragraphs 2.16 to 2.24.
https://www.ofgem.gov.uk/system/files/docs/2018/09/appendix_1_-_benchmark_methodology.pdf

estimate of the cost-reflective level of the standing charge at £225 per year). It said that its proposal would:

- make it easier for consumers to compare tariffs as they would only need to consider the unit rates

- better target the low income households who most need tariff protection

- reduce perceived regulatory risk from regular changes to the level of the cap

- reduce overall energy consumption and carbon emissions and improve security of supply, as a result of the higher unit rates leading consumers to reduce energy consumption overall.

- Another stakeholder told us that we should cap the standing charge at a nominal level. It said this would help poorer households and encourage energy savings.

3.13. One supplier said that the average 2017 standing charge from our default tariff cap model was almost £11 higher than our calculation of the market average standing charge. It said that there were at least two errors in our calculations.

- We failed to subtract a payment method differential. It said that this was inconsistent with the rest of our methodology.

- We assumed that headroom applies to network costs in the nil consumption model, which is not the case in the default tariff cap model. The headroom figure component at nil consumption is therefore overstated.

Considering using market prices to set the cap at nil consumption

3.14. Taking into account the limited (and supportive) stakeholder feedback, we have used market prices in 2017 to set the cap at nil consumption. Our full rationale is available in the statutory consultation.[12]

Considering the level of the cap at nil consumption

3.15. Setting the efficient benchmark at nil consumption involves trade-offs. Given the current wide range of standing charges in the market, we are aware that some customers may see an increase in their standing charges when the cap is introduced. However, as discussed in Chapter 2, setting a lower standing charge would increase the unit rate, and therefore the amount paid by those with above-median consumption (relative to our statutory consultation proposal). Some of these customers will be vulnerable or on low incomes. The overall impact on consumers would also be negative, given that mean consumption is above median consumption. These impacts would be more pronounced the lower we set the efficient benchmark at nil

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[12] Ofgem (2018), Default tariff cap: statutory consultation. Appendix 1, paragraphs 4.8 to 4.13.
https://www.ofgem.gov.uk/system/files/docs/2018/09/appendix_1_-_benchmark_methodology.pdf

consumption. We therefore consider that it is preferable not to set an especially low cap at nil consumption.

3.16. We do not consider that capping the standing charge only would deliver sufficient protection to consumers on default tariffs (particularly those who are disengaged), as suppliers would remain free to set high unit rates. The estimated annual savings from a capped standing charge are significantly lower than the consumer benefit estimated from our proposed cap.

3.17. Furthermore, we are not convinced by the suggested benefits of this proposal. For example, we do not expect that tariffs would be easier to compare. The default tariff cap only applies to default tariffs, so even if we did cap the standing charges for these tariffs, there would still be an issue of comparability against fixed tariffs. In any case, many consumers compare tariffs using price comparison websites to obtain personalised quotes, rather than carrying out their own calculations. It is also incorrect to present a standing charge cap as a targeted form of protection – while low consumption customers may be more likely to be on low incomes, there will also be low income households who would have high consumption.[13] A lower standing charge would mean higher bills (than under our proposal) for these consumers, due to the effect on the unit rate.

3.18. We also disagree with the suggestion that there are only a limited number of costs which apply at nil consumption, and that £60 would be an appropriate cap at nil consumption. In particular, as set out in the statutory consultation, we would not generally expect operating costs per customer to vary with the amount of energy a customer consumes, and we have not seen evidence to the contrary.[14]

Considering the calculation of the cap at nil consumption

3.19. Our overall policy intention is to set the cap at nil consumption in line with market prices in 2017. We did not intend that the cap should be precisely the same number as the average market prices at nil consumption we calculated using tariff data. However, we have considered the calculation issues raised.

3.20. When calculating the operating cost parameter at nil consumption, we are making assumptions about the size of other parameters (eg EBIT). This is a modelling assumption for the purpose of setting the cap – it does not necessarily reflect the components making up suppliers' prices in 2017.

3.21. In light of this, we agree that removing a payment method uplift when calculating the operating cost parameter would be closer to our overall policy intent, and more consistent with our approach to other components. We have therefore made this correction. This will significantly reduce the efficient benchmark at nil consumption for both fuels.

3.22. We agree that it was erroneous to apply the headroom percentage to network charges when calculating the implied headroom component, given that our general position is not to apply headroom to network charges. We have therefore corrected this to better

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[13] For example due to living in poor quality housing.
[14] Ofgem (2018), Default tariff cap: statutory consultation. Appendix 1, paragraph 4.8.
https://www.ofgem.gov.uk/system/files/docs/2018/09/appendix_1_-_benchmark_methodology.pdf

reflect our policy intent. This has slightly increased the efficient benchmark at nil consumption for electricity. (It will not affect gas, as there are no gas network charges at nil consumption).

3.23. In aggregate, our dual fuel efficient benchmark at nil consumption is now £152.[15] (This figure takes into account the changes above, as well as all other changes affecting the efficient benchmark at nil consumption). This is around £11[16] lower than the equivalent figure proposed in the statutory consultation, which was £164.[17]

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[15] This figure is a 2017-18 weighted average, for a direct debit customer with GB average network charges. It includes VAT and excludes headroom.
[16] Figures do not sum due to rounding.
[17] Ofgem (2018), Default tariff cap: statutory consultation. Appendix 1, table A1.4.
https://www.ofgem.gov.uk/system/files/docs/2018/09/appendix_1_-_benchmark_methodology.pdf