Decision

Decision – Default tariff cap – Overview document

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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 overview document summarises the decisions we have made on the methodology for setting and updating the default tariff cap, following our statutory consultation undertaken in September 2018.

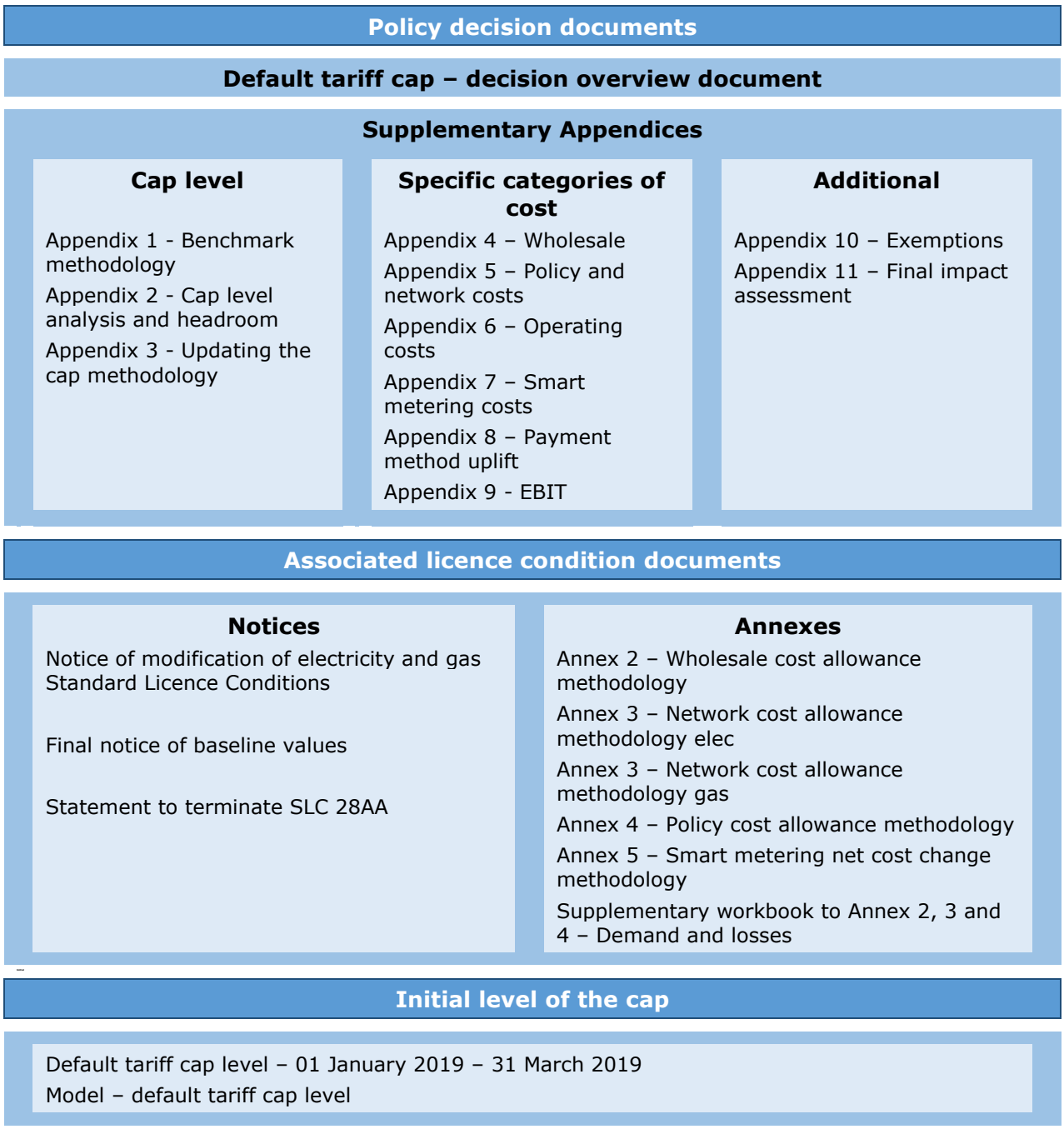
For detailed discussions in relation to each aspect of the cap, please see the appendices to this document.

Updated version 1.1, published 14 November 2018, correcting a minor error and typos.
All changes from the version published on 6 November are listed at the end of this document.

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



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Executive summary

In September, we published a statutory consultation on our proposals to introduce a default tariff cap (the cap). This cap will protect default tariff and Standard Variable Tariff (SVT) customers from being overcharged for the energy they use.[1]

This document summarises how we have designed the cap, changes we have made following consultation, the reasons for our decision, and the impact we expect the cap to have.

The Act: protecting customers on default tariffs

Energy suppliers charge their default tariff customers considerably more than customers who choose fixed-term tariffs (FTs). The Domestic Gas and Electricity (Tariff Cap) Act 2018 (the Act) came into force on 19 July 2018. It requires Ofgem to, as soon as practicable, implement a cap to protect default tariff customers.

In setting the cap with a view to protecting default tariff customers, section 1(6) of the Act requires us to have regard to the following matters:

(a) the need to create incentives for suppliers to improve their efficiency

(b) the need to set the cap at a level that enables suppliers to compete effectively for domestic supply contracts

(c) the need to maintain incentives for domestic customers to switch to different supply contracts and

(d) the need to ensure suppliers who operate efficiently are able to finance their licenced activities.

We recognise that each need is in principle desirable. However, we do not consider that the Act requires us to achieve the four statutory needs. Rather, our duty is to consider each of these important needs when setting the cap. We have sought to do so carefully, rigorously and conscientiously, based on our analysis and consultees' representations.

What will the first cap level be?

The default tariff cap sets maximum prices, not maximum bills. For an individual customer, the amount they will pay under the cap varies depending on how much energy they use, where they live, and how they pay for their energy. The cap level will not depend on who a customer's energy supplier is.

In the first cap period (1 January to 31 March 2019), we have set the cap level at £1,137 for a typical default tariff customer – a dual fuel single rate customer paying by direct debit using a typical amount of energy in annualised terms.[2] For a similar customer paying by standard credit, the cap will be £1,221, to reflect the higher costs to serve these customers. We will update the cap level every six months from 1 April 2019 to reflect changes in efficient costs.

[1] We use the phrase "default tariff customers" to refer to "existing and future customers who pay standard variable tariffs or default rates", the intended beneficiaries of the cap as specified in the Act.
[2] We state the cap level in annualised terms, using Typical Domestic Consumption Values (TDCV) and national average network charges. TDCV represents the median level of consumption for domestic energy consumers. The TDCV for single rate electricity is 3,100 kWh per year. The TDCV for gas is 12,000 kWh per year.

We have set the first cap level slightly (£1) higher than the level we proposed in our statutory consultation. Based on consultation responses and reviews of our approach, this higher cap level reflects the net impact of improving the accuracy of our assumptions and correcting errors in our estimates of efficient costs. Our corrections increase some cost components within the cap, and reduce others.

What impact will the cap have?

Protecting default tariff customers

We have designed a cap that will provide a high level of protection – preventing unjustified price increases and ensuring default tariffs reflect more closely the underlying costs of supplying energy. Given the large increase in wholesale prices this year, in February 2019 we expect to announce that the cap level for the second cap period will be higher than the first cap level. Default tariff customers can be confident that any price increases will be justified by underlying costs, and the cap will reduce when underlying costs fall.

We estimate that the cap will save 11 million default tariff customers in total about £1 billion each year. Savings for each individual vary depending on their circumstances. For a customer in 'typical' circumstances (with a dual fuel SVT with typical consumption), the first cap level will be £76 less than the current average SVT price (in annualised terms).

We consider the cap level meets the objective of the Act to protect default tariff customers, and in doing so, we have given proper and conscientious consideration to the needs identified in section 1(6) of the Act.

- *Improving efficiency:* The cap creates incentives to reduce inefficiency. The Competition and Markets Authority (the CMA), in its investigation, concluded that large suppliers were inefficient, with costs higher than to be expected if competition was more effective.[3] We have set an operating cost allowance below large suppliers' historical costs, sharpening incentives to reduce costs. In setting the allowances, we gave regard to the possibility that efficient costs might vary due to differences in suppliers' customer bases.
- *Incentives to switch:* The cap provides incentives for domestic customers to switch contracts. We expect small- and medium-sized suppliers to continue offering cheaper FT contracts, incentivising customers to switch. Suppliers with high operating costs per customer are less likely to offer low tariffs, and some or all may increase their FT prices. While the cap is in place, we think it likely that switching rates will be lower than today's levels (absent other changes). However, once the cap is removed, we expect switching to grow as transformation in the market introduces conditions for effective competition.
- *Enabling competition:* The cap enables a range of suppliers to compete. Although certain – relatively inefficient – suppliers may face more challenges once default tariff prices reduce, our analysis suggests that a range of different types of supplier will be able to compete effectively. We do not consider it would be consistent with the Act's objective if we set a higher cap level to enable every supplier – even those who may be relatively inefficient – to offer low FTs by overcharging their default tariff customers.
- *Financing efficient costs:* We have set the cap with reference to our estimate of efficient costs, so we consider that an efficient supplier will be able to finance its activities. We recognise that some suppliers have higher efficient costs than others – due to the different circumstances of their customers – and that costs can be uncertain and volatile, and we have had regard to this when setting the cap by making further allowance for risk and uncertainty not already contained in our cost estimates. First, we set the operating cost allowance higher than the level of the suppliers with the lowest operating costs. Second, we include an additional headroom allowance, over and above our estimate of efficient costs and profit.

[3] Competition and Markets Authority, Energy market investigation. https://www.gov.uk/cma-cases/energy-market-investigation#final-report

How do we set the cap?

We set the cap at typical consumption levels using a bottom-up cost assessment. For each component of a customer's bill, we set an efficient allowance. In total, these allowances ensure that default tariffs will reflect the efficient costs of supplying energy. We have set the cap at nil consumption in line with market prices for standing charges in 2017.

Wholesale, network, and policy costs

We set and update allowances for wholesale, network, and policy costs with reference to data external to suppliers. This provides us with robust forecasts of the costs suppliers should efficiently incur and pass on to customers in a particular cap period.

Compared with the proposal set out in the statutory consultation, we have increased the allowance for unidentified gas (UIG) from 0.96% of gas wholesale costs to 2.0%. The system is not losing more gas than was historically the case, but the level of UIG is uncertain. We have taken into account that previous estimates miss out factors that may affect UIG and as such 0.96% is likely to be an underestimate. We have also considered incentives to reduce UIG. We expect suppliers to engage with industry bodies to improve data, and take the necessary steps to manage UIG more efficiently.

We have set the wholesale allowance for the first cap period using the approach proposed in our statutory consultation – an average price of forward contracts between February 2018 and July 2018. A number of suppliers made representations that we should revert to the proposals in our May policy consultation (which would set the allowance in line with the average price for a later period, when wholesale prices were higher).

We consider the proposal in our statutory consultation is more appropriate, as it better protects the majority of default tariff customers. Given the sharp and sustained increases in wholesale prices, had we decided to proceed on the basis of the May proposal, suppliers with a typical approach to forward purchasing energy could have charged the majority of default tariff customers substantially more than their actual costs would justify.

Suppliers' operating costs

We have set the operating cost allowance about 15% higher than the operating costs per customer of the lowest cost suppliers we observed in our analysis – by setting our benchmark £5 below the costs per dual fuel customer for the lower quartile supplier (one of the largest six suppliers). We consider that not all suppliers could match the level of the lowest cost suppliers, due to differences in their customer bases. Based on our analysis, we consider that efficient suppliers with a range of potential customer bases (including those matching each of the suppliers in our benchmarking sample) would be able to finance their activities under the cap. This benchmark is below some suppliers' costs and sharpens incentives for them to improve their efficiency.

We set a higher cap for standard credit customers, because efficient suppliers incur additional working capital, bad debt, and administrative costs when serving standard credit customers. To match the trend in underlying costs, the difference between the direct debit and standard credit caps scale with a customer's energy consumption.

We have made two adjustments to the proposal on payment methods we set out in our statutory consultation. First, our proposal included a proportion of additional standard credit working capital costs in our direct debit benchmark, which overstated both the standard credit and direct debit caps. We have corrected that error. Second, we proposed to benchmark costs to the lower quartile supplier for each additional cost component, for each fuel separately. Consultation responses suggested that differences in how suppliers allocate or target their spending may distort cost estimates. For operating costs, where we face the same risk, we compare each supplier's total spending across each cost component and fuel together. We now apply that approach to additional standard credit costs. This adjustment reduces the cap levels for direct debit and standard credit, compared with our previous estimates.

Smart metering costs

We include the net cost of installing smart meters up to 2017 in our operating cost benchmark, as these costs are an intrinsic part of suppliers' operations. Over time, we increase the operating cost allowance in line with inflation. However, we recognise that, as they install more smart meters, suppliers' net costs will rise faster than inflation. On that basis, we provide an additional allowance so that suppliers can complete the smart meter rollout.

We have been careful not to constrain the rollout of smart meters, so we use conservative assumptions to set the allowance. We use suppliers' average net cost per installation, rather than a cost reflecting the most efficient suppliers in the market. We also assume that suppliers will meet their rollout commitments by 2020.

Some suppliers have implied they might reduce their efforts to offer smart meters to their customers unless we increased the cap. We expect suppliers to meet all their licence obligations in relation to smart meters, including taking all reasonable steps to install a smart meter in every domestic and small non-domestic premises by 2020. We have set the allowance in the cap so they can achieve this. The cap allows suppliers with average net installation costs to provide a smart meter to an additional 25% of all default tariff customers each year (2.5 million homes). In one year, this would almost double the number of all smart meters currently in default tariff customers' homes. Inefficient suppliers must improve their efficiency. They must not reduce their plans to install smart meters, using this as justification for avoiding taking necessary steps to improve their efficiency.

However, we recognise that the cost and pace of providing smart meters is uncertain. Therefore, we will review the smart meter allowance in time to inform the third cap period (October 2019 to March 2020).

Considering risk and uncertainty

We have set the cap level higher than our assessment of underlying efficient costs. In setting this 'headroom' allowance we assess the extent to which there are net costs of risk and uncertainty that are not already allowed for in our cost assessment. We provide an allowance at 1.46% of costs not including network costs (equivalent to £12 in the first cap period). In addition, we include a 1% allowance of wholesale costs to account for specific uncertainties in this area.

Headroom is not the only way we address the net cost of uncertainty. We assess headroom by considering uncertainties, including those identified in consultation responses. We also address uncertainty in the benchmark: by the assumptions we make, how we set the baselines (for instance, to give regard to variation in efficient costs), and how we update the cap to reflect changes in underlying costs.

We do not consider it in accordance with the Act to provide additional headroom so that suppliers can subsidise cheap FTs by charging default tariff customers more. We consider lower cost suppliers provide sufficient incentives for customers to switch energy contracts.

Who does the cap apply to?

The cap applies to all customers with a default tariff. However, the Act provides for us to exempt customers or tariffs in certain situations.

Default tariff customers on existing price caps

Customers with prepayment meters will continue to be protected by the prepayment meter cap; they are exempt from the default tariff cap.[4]

[4] The PPM cap does not protect prepayment customers with smart meters that are fully interoperable. The default tariff cap will protect these customers, if they also have a default tariff. See Chapter 5.

Customers benefitting from the existing safeguard tariff, by virtue of receiving Warm Home Discount will now be within scope of the default tariff cap. We will apply the direct debit cap to these customers, regardless of whether they pay by direct debit or standard credit. This protects standard credit customers from an appreciable change in the level of protection they receive when the default tariff cap is introduced.

SVTs that support renewable generation

Suppliers can request a derogation for SVTs that support the production of gas, or the generation of electricity, from renewable sources. To receive a derogation, suppliers must demonstrate that:

- the SVT provides, at a material cost, support for renewables beyond existing subsidies, and
- customers actively chose that SVT (ie default customers are not on the tariff).

All suppliers, irrespective of whether they have received a derogation, will be required to have a default tariff that is compliant with the cap. This ensures that default customers who have not made an active choice to be on the derogated SVT, receive protection.

The derogation process is now live. We invite suppliers to apply for a derogation where they believe they have an eligible SVT. If we do not receive a full and complete application **within one week from inviting derogation requests,** it is likely that we will not be able to make a provisional decision that can take effect in time for the start of the cap

We do not propose to be prescriptive in setting out how suppliers must demonstrate that their SVT supports the outcomes we have specified. However, we provide guidance on the types of activities and evidence that we consider would demonstrate an SVT supports each outcome, and examples of those that we do not consider to clearly support each outcome.

We are cognisant of the risk of suppliers using the derogations process to "game" the cap, so we will apply a high bar for approving any derogation requests. If the risks to undermining the protection for consumers afforded by the cap are too great, we will not grant the derogation request.

1. Overview of the default tariff cap

In this chapter we discuss the purpose of the default tariff cap, the cap level, and how it changes over time.

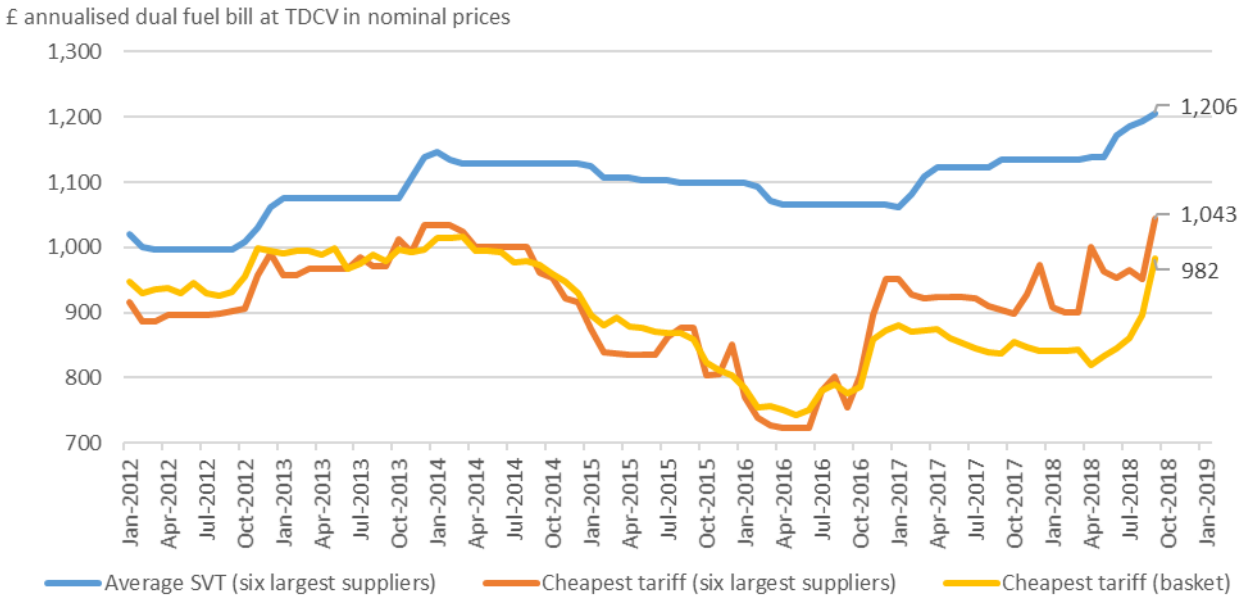
Purpose of the default tariff cap

Default and standard variable tariff customers

1.1. Around 60% of domestic customers pay for their energy on Standard Variable Tariffs (SVTs) or default fixed-term tariffs (FTs). Suppliers generally charge default and SVT customers considerably more than customers who choose FTs. In September 2018, the simple average SVT offered by large suppliers cost a typical consumer £1,206 if they paid by direct debit. This was around £160 more than the cheapest FT offered by those large suppliers, and around £225 more than the cheapest tariffs in the market (Figure 2).

1.2. In its energy market investigation, the Competition and Markets Authority (the CMA) concluded that suppliers had market power over default tariff customers enabling them to overcharge these customers.[5] The market power exists because these customers tend to be less engaged in the market, switching to new energy contracts less frequently.

Figure 2: SVT prices offered by the six largest suppliers and FTs (2012 to present)



Source: Energylinx (until May 2017) and Energyhelpline (June 2017 onwards). Information correct as of October 2018
Notes: Tariffs show GB average network costs. The typical domestic consumption value for gas reduced from 12.5 MWh to 12.0 MWh in October 2017. Updates provided in Ofgem, retail market indicators, https://www.ofgem.gov.uk/data-portal/retail-market-indicators#thumbchart-c7770745751913637-n95437
Note: this chart shows a simple average of the direct debit tariffs offered by the six largest suppliers. Based on announcements as at 31 August 2018, the weighted average SVT for these suppliers is £1,212 and £1,208 for the ten largest.

[5] Competition and Markets Authority, Energy market investigation. https://www.gov.uk/cma-cases/energy-market-investigation#final-report

The Act

1.3. In July 2018, Parliament passed the Domestic Gas and Electricity (Tariff Cap) Act 2018 (the Act).

1.4. Section 1(6) of the Act provides that we must set the cap with a view to protecting existing and future customers who pay standard variable and default rates. By protecting default tariff customers, we expect the cap to prevent them from being overcharged, and ensure they pay prices that more closely reflect the underlying cost of supplying them energy.

1.5. In protecting default tariff customers, we must have regard to the following matters:

- the need to create incentives for holders of supply licences to improve their efficiency
- the need to set the cap at a level that enables holders of supply licences to compete effectively for domestic supply contracts
- the need to maintain incentives for domestic customers to switch to different domestic supply contracts and
- the need to ensure that holders of supply licences who operate efficiently are able to finance activities authorised by the licence

1.6. We recognise that the Act identifies the four matters set out in section 1(6) as being "needs" and we have proceeded on the basis that each is in principle desirable. However, we do not consider that the Act requires us to achieve the four statutory needs.[6] Rather, our duty is to bring each of these important needs into consideration when setting the cap. For instance:

- a cap that is set too low could risk unintended consequences in incentivising suppliers to improve their efficiency, such as by cutting costs in a way that harms customers. This would not be consistent with meeting the objective of providing protection to default tariff customers.
- enabling *all* suppliers to compete effectively would require setting a very high cap level for even inefficient suppliers to compete beneath. This would not be consistent with meeting the objective of providing protection default tariff customers.
- To fully maintain incentives to switch supplier would require setting the cap at a level at, or above, current SVT prices. This would not be consistent with the objective of providing protection to the customers of these tariffs.

[6] See for example the interpretation of the statutory wording in: *R (Brown) v SSWP* [2008] EWHC 3158 (Admin); *London Borough of Hackney v Haque* [2017] EWCA Civ 4; *R (Baker & Ors) v Secretary of State for Communities and Local Government* [2008] EWCA Civ 141; *R (Hurley and Moore) v Secretary of State for Business Innovation & Skills* [2012] EWHC 201 (Admin).

- Ensuring that an efficient supplier with a very high cost customer base is financeable would mean setting the cap at a very high level for all suppliers. This too would not be consistent with protecting default tariff customers.

1.7. In making our decision, as to how best to fulfil our mandate to protect default tariff customers, we have had well in mind that we must have regard to all of the needs the Act identifies. In doing so, we carefully, rigorously and conscientiously considered the potential impact of the cap based on our own analysis and our review of stakeholder's representations.

1.8. The Act requires us to introduce the cap "as soon as practicable" after the Act has passed. The licence modifications we are making alongside this document bring the cap into force on 1 January 2019.

1.9. Under the Act, the cap will be temporary. In 2020, we must review whether the conditions are in place for effective competition, and publish a report, including a recommendation on whether the cap should be extended or not. The Secretary of State will then decide whether to extend the cap. If the cap is not removed, we would carry out further reviews in 2021 and 2022. If the cap is extended after each of our reviews, it will cease to have effect at the end of 2023.

How does the cap work?

1.10. The default tariff cap sets a maximum rate that suppliers can charge default tariff customers per day (known as "the standing charge") and a maximum rate per unit of energy. In effect, this approach sets a cap level – the maximum amount that a default tariff customer would pay each year – depending on their circumstances and consumption.

1.11. In this document, we discuss the cap level for a default tariff customer in typical circumstances. By this, we mean the maximum amount that a default tariff customer would pay in a year if they had a dual fuel (gas and electricity) account, paid their bills by direct debit, and used a typical amount of energy.[7] The cap level will also vary for electricity customers depending on what type of meter they have.

1.12. We do not set a 'dual fuel' cap. We set caps for each fuel separately. When we express the dual fuel 'cap level' for a typical customer, this is the combined effect of the gas cap at typical consumption and the electricity cap at typical consumption.

1.13. For any particular customer, the gas cap level and electricity cap level will vary depending on the following factors:

- **Consumption**: The price cap is a cap per unit of gas and electricity, with standing charges taken into account. It is not a cap on customers' energy bills, which will still rise or fall in line with their energy consumption.

[7] By "typical amount of energy", we use median consumption (Typical Domestic Consumption Values (TDCV). See https://www.ofgem.gov.uk/gas/retail-market/monitoring-data-and-statistics/typical-domestic-consumption-values. We also use the national average network charge Network charges differ across 14 electricity distribution network regions of the country.

- **Payment method:** The underlying cost of serving customers who pay by direct debit is lower than for customers who use standard credit. The cap for standard credit customers is higher to account for these additional costs.

- **Location**: The cost of transporting energy varies across the country. We set the cap to reflect the underlying transportation costs in each of the 14 electricity distribution network regions in Great Britain.

- **Meter type:** Most customers pay for their energy with at a single rate per unit of energy. Customers with multi-register electricity meters pay more than one rate, for instance, paying a cheaper rate at night. Multi-register tariffs will have a different cap level.

The cap level

The first cap period

1.14. We have set the first cap level for a 'typical' dual fuel customer at £1,137 (in annual terms). The first cap level will last from 1 January to 31 March 2019. Table 1 (overleaf) shows the maximum unit rates and standing charges and apparent cap levels for default tariff customers.

1.15. For a dual fuel default tariff customer with typical consumption paying by standard credit we have set the cap level at £1,221. This additional amount reflects the fact that underlying costs are higher for standard credit customers. We set a different cap for customers with multi-register tariffs (such as Economy 7).

1.16. We have set the first cap level slightly higher than our statutory consultation proposal. We made changes in light of stakeholders' responses to our consultation, and our subsequent review of how we estimate suppliers' efficient costs and uncertainty.

1.17. We have increased our assessment of efficient costs by £1. We discuss reasons for these changes in Chapter 2. This increase represents a net change, comprising:

- an increase to the wholesale cost allowance (£2), because we adjust our estimate of unidentified gas (UIG) from 0.96% to 2.0%

- an increase to the smart metering allowance by £9, because we adjust our estimate of the number of recently installed meters that suppliers replace with smart meters (an increase of £6), and a group of other changes in response to feedback by suppliers (an increase of £3)

- a decrease in the payment level uplift by £11. This was to correct an error that meant we included in our direct debit benchmark a portion of the additional working capital costs of serving standard credit customers, and to improve methodological consistency in benchmarking additional standard credit costs across cost components and fuels.

- a net increase of approximately £1 to account for other minor errors.

1.18. In Chapter 2, we explain our methodology, the updates we have made, and the main themes of stakeholders' comments.

Table 1: Cap levels in January 2019, including VAT

	Typical annual consumption level	Standing charge p/day	Unit rate p/kWh	Annualised standing charge	Annualised bill at typical consumption
Gas, single rate, direct debit	12,000 kWh	26p	3.7p	£94	£542
Electricity, single rate, direct debit	3,100 kWh	23p	16.5p	£83	£595
Implied dual fuel, direct debit	**N/A**	**N/A**	**N/A**	**£177**	**£1,137**
Gas, single rate, standard credit	12,000 kWh	30p	3.9p	£111	£582
Electricity, single rate, standard credit	3,100 kWh	27p	17.4p	£99	£639
Implied dual fuel, standard credit	**N/A**	**N/A**	**N/A**	**£210**	**£1,221**
Electricity, multi-register, direct debit	4,200 kWh	23p	15.4p	**£83**	**£731**
Electricity, multi-register, standard credit	4,200 kWh	27p	16.2p	**£99**	**£781**

Source: Ofgem, *Model - default tariff cap level v1.1*

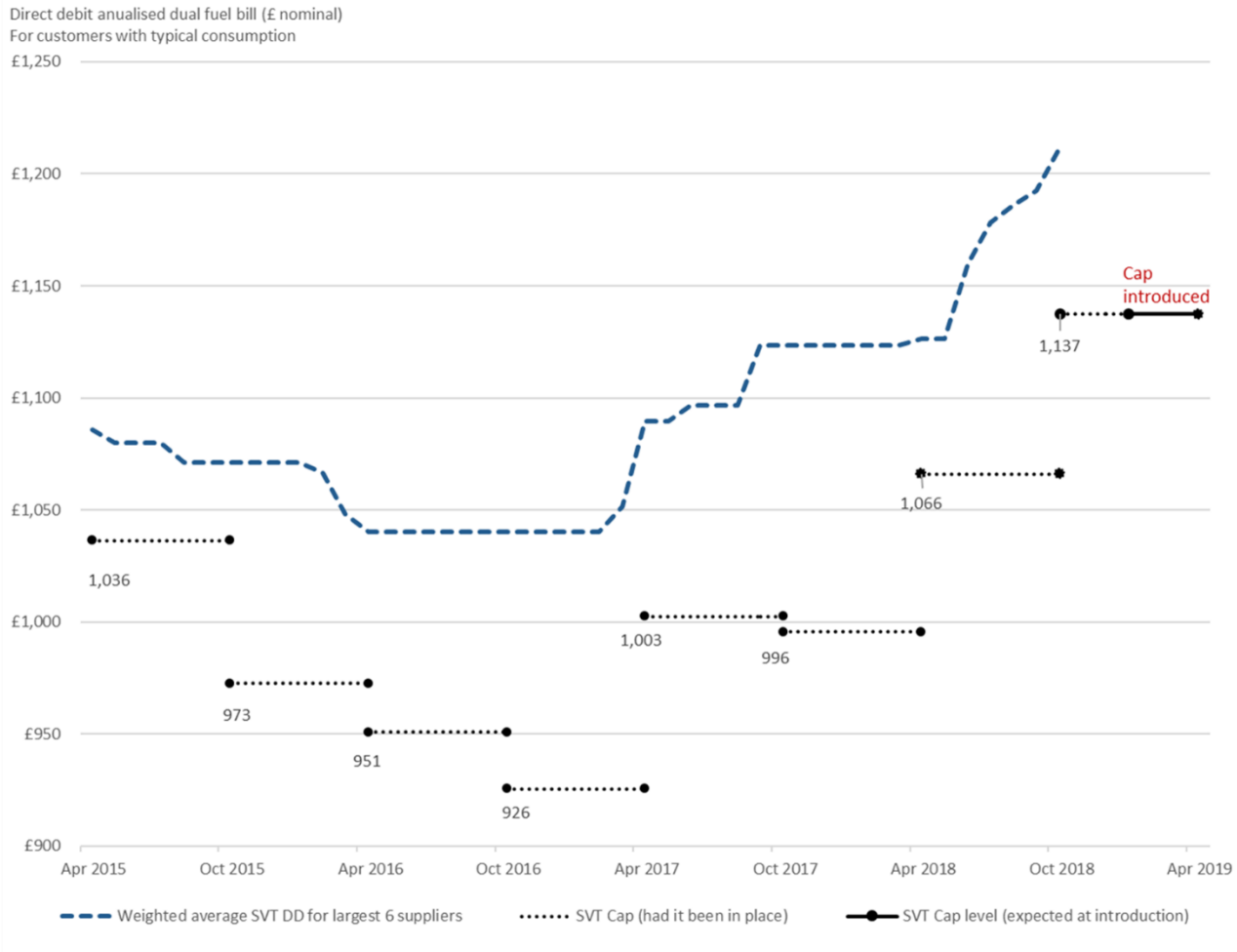
Note: We set the cap level based on analysis of 2017 (described in Chapter 2). We then updated to the cap level using the methodology set out in Chapter 3, to establish these levels for a cap period from January to March 2019. Economy 7 customers have a higher TDCV (4,200 kWh) than single rate electricity customers (3,100 kWh), so their typical bill is higher. Economy 7 customers actually pay less per unit of consumption than single rate customers do.

Updating the cap to track underlying costs

1.19. The first cap period will last from 1 January to 31 March 2019. From that point, we will update the cap level every six months: on 1 April and 1 October each year. We will inform stakeholders of the forthcoming cap level in early February and early August respectively.

1.20. We update the cap to reflect changes in the underlying costs of supplying energy. Over time, the underlying costs of supplying energy vary as the costs of buying and transporting energy change. We adjust the cap to reflect decreases or increases in these underlying costs. Figure 3 shows the different levels at which we would have set the cap since April 2015 for a direct debit dual fuel customer with typical consumption.

Figure 3: Average SVTs for the six largest suppliers, and cap levels (2015 to 2019)



Source and notes: Energyhelpline data. SVT data between April 2015 and July 2018 shows the price of direct debit dual fuel paperless bills at typical domestic consumption (3,100 kWh for electricity and 12,000 kWh for gas). The average shown is a weighted average of the six largest suppliers using their market share of direct debit SVTs in 2017. SVT prices between August and October 2018 show the latest price changes announced by suppliers, as of 31 August 2018. Cap levels before April 2017 include smart metering costs at 2017 levels – we have not adjusted them downwards, meaning the cap levels between April 2015 and March 2017 will be slightly overstated.

1.21. The reduction in default tariff customers' bills will differ depending on how close to underlying costs their supplier currently sets its default tariff prices. In the 2017 baseline year, an average single rate dual fuel direct debit customer with typical consumption would have paid £104 less had the cap been in place (ranging between £69 and £165 for the six largest suppliers). When we introduce the cap, we expect the average reduction in SVT prices to be slightly less than in 2017 – equivalent to a £76 reduction for a typical customer (in annualised terms, ranging between £55 and £136 for the six largest suppliers). Figure 3 shows that average SVT prices have been consistently around £95 higher than the cap levels we would have set between April 2015 and September 2018, although the amount varies depending on the timing of price increases.

1.22. Updating the cap in line with underlying costs ensures that those protected always pay a fair price for their energy. Updating the cap level allows us to account for changes in underlying costs, while ensuring default tariff customers are not overcharged. In

response to our consultation, some suppliers suggested they would have increased their SVT prices to around £120 higher than the cap level we proposed. Regardless of changes in suppliers' pricing, the cap will always protect default tariff customers from being overcharged.

Recent trends in underlying costs

1.23. Underlying costs are increasing steeply. Wholesale costs have risen significantly since 2017. This is mostly due to the global rise in oil prices feeding through to wholesale gas prices, which impacts both household heating and electricity generation. Currently, wholesale prices are around 35% higher than they were a year ago.[8]

1.24. If this trend in underlying costs continues, it is likely that in February 2019 we will announce an increase in the level of the cap to take effect in April. Customers can be confident that any increase will only reflect changes in the actual costs of gas and electricity, so that the level of the price cap is always fair. When underlying costs fall (as they did in 2015 and 2016) then updating the cap will ensure that suppliers pricing their default tariffs at the cap will pass on those cost savings to customers.

[8] Comparing day ahead contracts in 22-29 October 2018 and 23-30 October 2017. Gas prices were 41% higher in the latter period, and electricity prices were 34% higher.

2. Setting the level of the cap

In this chapter we explain how we set the cap level at typical consumption, how we set the cap level at nil consumption, and how we determine the cap level for different consumption levels.

How we set the cap level at typical consumption

A bottom-up assessment

2.1. We set the cap level at typical domestic consumption using a bottom-up assessment of suppliers' costs. This means that for each component of a customer's bill we set an allowance based on the cost we would expect a hypothetical efficient supplier to incur. This approach ensures that, in aggregate, our benchmark (and cap) reflects the underlying efficient costs of supplying customers with energy.

2.2. In response to our statutory consultation, stakeholders were in favour of our proposal to use a bottom-up approach. No stakeholders suggested we use the main alternative that we had calculated and considered (the updated competitive price reference approach).[9] Please see Appendix 1 - Benchmark methodology for a full discussion of our methodology, stakeholders' views, and our consideration of the issues raised.

An overview of how we have set allowances for each cost component

The allowances

2.3. Table 2 sets out the values of each cost component for 2017 – the baseline we used to calibrate the cap level – and the first cap period (January to March 2019). We use different methodologies to set the level for each component. In this document, we provide a summary of the main aspects of each methodology and key issues raised by stakeholders in response to our consultation. Table 2 specifies which appendix provides detail on each methodology, stakeholders' views, and how we considered those responses in our decision.

2.4. We include an additional component (headroom), which 'tops-up' the cap to ensure we give due regard to the net cost of residual risk and uncertainty not already compensated by our efficient cost estimates. We do not consider headroom and residual uncertainty in isolation. Headroom is not only way we address uncertainty within the overall cap level. Our benchmark cost estimates include conservative assumptions (for instance, in smart metering costs), and we update the cap level to pass through changes in underlying costs, reducing risk. We use headroom to 'top up' the benchmark only where we believe there is residual uncertainty that is likely to be a net cost.

[9] The two approaches produced very similar cap levels. We chose the bottom-up cost assessment as we can update it with greater accuracy.

Table 2: 2017 direct debit default tariff cap baseline, and 2019 comparator

Cost component	2017 dual fuel (implied) cap	The first cap period	Appendix providing detailed methodology and discussion
Wholesale costs	369	447	4 – Wholesale
Policy costs	117	137	5 – Policy and network costs
Network costs	258	258	5 – Policy and network costs
Operating costs, and smart metering	169	198	6 – Operating costs 7 – Smart metering costs
Payment method uplift	11	12	8 – Payment method uplift
Normal profit	18	20	9 – EBIT
VAT	47	54	
Benchmark	**988**	**1,126**	1 – Benchmark methodology
Headroom	10	12	2 – Cap level analysis and headroom
Cap level	**998**	**1,137**	

Source: Ofgem, *Model - default tariff cap level v1.1*
Notes:
1. Numbers may not sum due to rounding.
2. The 2017 baseline is the weighted average of two cap periods (April to September 2017, and October 2017 to March 2018).
3. VAT is applied to headroom, but not shown separately in the table.

The challenge of estimating efficient costs

2.5. In our statutory consultation, we recognised that estimating an efficient cost benchmark for each cost component is challenging. In particular:

- We cannot observe efficient costs for particular suppliers. Suppliers may be inefficient, which means their actual costs are too high. In its investigation, the CMA concluded that the six largest suppliers' costs would have been lower, if competition was working more effectively.
- We must set a cap that is appropriate for the market as a whole, rather than a separate benchmark for each supplier. However, different suppliers will have different efficient costs due to variation in their circumstances.
- Suppliers' costs can be difficult to anticipate or volatile, making it harder to establish the future efficient cost with certainty.
- Suppliers will not always record their information in exactly the same way, increasing the risk that data is not comparable or reliable.
- Solely relying on cost data risks that we understate some components (by making aggressive assumptions, or by missing out certain costs) and overstate

other cost components (eg by making overly conservative assumptions, or double counting costs).

Scrutinising our estimates

2.6. To overcome these challenges we have scrutinised our approach. This scrutiny ensures the benchmark reflects our best estimate of costs.

- We have considered stakeholders' views on our approach. Stakeholders' responses reduce some of the risk that the cap is misstated. Their scrutiny of our methodology and models has identified ways we could correct and improve our estimates and assumptions.

- We consider the risk of selection bias. In our May and statutory consultations, we highlighted that suppliers have an inherent advantage when they present and explain their costs (given the complexity and number of costs incurred by suppliers, and the fact that these change over time). There is a risk that suppliers identify areas where we have understated our estimates, but they could overlook areas where we have overstated our estimates. We note that the majority of suppliers' consultation responses identified issues that suggested we should increase the cap. Few responses commented on where we had made more conservative assumptions, or identified errors that would reduce the cap.

- We have fully reviewed and adjusted our estimates where it is clear we should do so. We have considered each stakeholder response seriously, we have updated our approach where we consider it makes our estimates more accurate. In general, these adjustments increase our estimates. To mitigate the risk of selection bias, we have scrutinised the methodology fully when considering responses. Where we have found clear errors (in either direction), we have corrected them to ensure the cap reflects our best possible estimate. Some of those corrections increased our estimates, others have decreased them.

2.7. In the next section, we explain our methodology for each cost component. We then set out the main themes from stakeholders' responses, and explain how we considered each theme in coming to our decision.

Setting the wholesale cost allowance

Our approach

2.8. We set and update the wholesale allowance in three parts:

- a direct fuel allowance, based on the prices of forward energy contracts

- additional allowances, for costs not captured in our analysis of forward contracts, and

- an allowance for Capacity Market costs

2.9. The direct fuel allowance accounts for the majority of wholesale costs. We set this allowance using the weighted average cost of forward contracts for energy that will be delivered in a 12-month forward view period: starting on the first day of the cap

period. We observe the prices for that forward view period during a six-month observation period, which starts eight months before the first day of the cap period. To illustrate, this approach means that, for a normal winter cap period (October to March), we take the weighted average cost of contracts offered for delivery between October and September, as observed between the February and July preceding the cap period.

2.10. We set four additional allowances for legitimate costs that we do not capture in our analysis of forward contracts. If we based the wholesale allowance purely on forward contracts, we would have excluded some of the underlying wholesale costs that suppliers face. To account for these costs we need additional allowances for:

- **Shaping, forecast error, imbalance, and transaction costs**: We set these allowances at 6.4% (of the forward contract cost) for electricity and 4.6% for gas. Suppliers incur these costs because when they purchase energy in advance, contracts only reflect long periods (eg a six-month season, and three-month quarterly contract). However, when they deliver energy, they must match their supply to the specific shape of customers' demand on a particular day. To do this, suppliers convert less granular contracts into granular ones (a specific half hour, or day), which incurs costs. Our models were scrutinised by some stakeholders; we have made some minor corrections.

- **Gas losses:** We provide an allowance for gas losses – UIG – at 2.0%, an increase from the 0.96% we proposed in our statutory consultation. Suppliers incur charges for gas losses, for example through theft or leaking pipes. The amount of UIG is highly uncertain. Suppliers must use the actions they have available to them to reduce the overall levels of UIG costs, such as more regular submission of meter reads into settlement. We discuss this issue below, when considering stakeholders' key themes. We account for electricity losses as an input when calculating wholesale, policy, and network cost allowances, so there is no need for an additional allowance for electricity.

- **Additional uncertainty:** We provide an additional 1.0% (of the forward contract cost) for electricity and 1.0% for gas. In our statutory consultation we proposed this additional allowance to help suppliers manage additional exposure to volatility and risk, not already accounted for in the benchmark. The allowance also guarded against errors and uncertainty in our modelling. Evidence from responses suggests this allowance is sufficient.

2.11. We provide an allowance for the Capacity Market scheme, designed to ensure security of supply. We calculate these costs by combining incurred costs and forecasts.

2.12. In Appendix 4 - Wholesale costs we set out our detailed methodology, present stakeholders' views, and consider in detail the issues raised.

Considering the major themes in consultation responses

2.13. In response to this part of our consultation, suppliers raised three major themes.

- concerns about how we set the wholesale allowance for the first cap period

- concerns that our proposed allowance for UIG was insufficient

- examples and valuations of the uncertainty they face that they felt the cap should allow for. This helped us assess whether our proposed allowances were sufficient or too high.

Responses theme: wholesale allowance for the first cap period

2.14. For the first cap period (January to March 2019), we have calculated the direct fuel allowance using our standard approach for a winter season. To set the allowance, we use an average of wholesale prices observed between February 2018 and July 2018 for contracts that would be delivered between October 2018 and September 2019. We consulted on this methodology in our statutory consultation. In May, we proposed using the average price for contracts offered between April and September 2018. In a flat wholesale market, there would be no difference between the two approaches. However, wholesale prices have increased significantly during 2018. The statutory consultation proposal sets the wholesale allowance around £35 (on an annualised basis) lower than it would be if we had maintained our May proposal.

2.15. Many stakeholders were disappointed by the variation to the composition of the proposed six-month period set out in the statutory consultation, the effect of which was to reduce the amount they could charge their customers. They made three principal objections, which we address below. These were:

- that we had engendered a legitimate expectation and therefore should not have changed our proposal in the statutory consultation
- that they would no longer recover their costs, and
- that we should have requested more evidence to identify suppliers' underlying costs for the energy they will supply in the first cap period.

2.16. In May, we asked consultees about different aspects of our proposal and which they suggested we should change. Nearly all suppliers suggested an alternative approach to some or all elements of our May proposal. It is of course an inherent feature of the consultation process that proposals may change as the process takes its course, and all stakeholders knew that the May policy consultation was only one part of the process, and that the statutory consultation process would follow subsequently. In our statutory consultation, we proposed an allowance based the average prices of an earlier period. We consider that we were entitled to do so.

2.17. In accordance with the Act, our primary concern is whether our proposal appropriately protects default tariff customers. We have concluded that the proposal set out in our September statutory consultation would better protect the majority of SVT customers than the May proposal.

2.18. Had we maintained our May proposal, the majority of SVT customers could have been significantly overcharged. Setting the allowance based on average wholesale *prices* between April and September 2018 would not have reflected the actual wholesale *costs* of a supplier that used a typical approach to purchasing energy for its SVT customers.

2.19. We do not agree with the suggestion that we ought to have sought further evidence or information before deciding on the composition of the six-month period. Our analysis of a typical supplier's approach to purchasing energy has been informed by information provided to us by the six largest suppliers as recently as 2017. In 2017, we analysed

the approach taken by each of the six largest suppliers to purchasing energy for SVT customers and obtained relevant information from those suppliers. The analysis showed that these suppliers (which serve around 90% of SVT customers) typically start purchasing energy 18 months in advance.

2.20. Given their stated rationale for their approach to purchasing energy as provided to us in 2017, it is unlikely these suppliers would have deviated materially from that approach in the succeeding months. On the contrary, during the consultation process one of the largest suppliers twice recommended that we use a typical (ie. an 18-month average of wholesale prices) approach to set the allowance. In March 2018 (in response to our first working paper) and again in June 2018 (in response to our May consultation) they reiterated the benefits of this typical approach, providing the same rationale they had given in 2017.

2.21. Since we had so recently obtained this information direct from the large suppliers, we did not consider it was necessary or proportionate to repeat the long, detailed process we had undertaken in 2017. Although we recognise that suppliers may regularly adjust their strategy in small ways, no development in the market since 2017 suggests a substantial change in approach before May 2018.

2.22. The statutory consultation process afforded suppliers an opportunity to respond to our proposal and make representations as to the impact of our proposal on themselves and their customers.

2.23. We have given careful consideration to the financial impact of this aspect of our decision on suppliers, as part of our duty to have regard to the need for an efficient supplier to finance its licenced activities.

2.24. The first cap period will be short – only three months long. Nonetheless, we sought to analyse and understand the financial impact during the first cap period of our decision. This includes the impact on suppliers that may have adjusted their purchasing strategy in the wake of our May proposal (even though that proposal was not part of the statutory consultation process, which as all suppliers knew in May, would come later).

- **For suppliers that, after May 2018, continued to use a typical strategy when purchasing energy for SVT customers**: Typically, a supplier would start purchasing energy for its SVT customers 18 months before the contract starts. Therefore, a typical supplier's *costs* would reflect the average price between April 2017 and September 2018. We set the cap based on the average *price* between February and July 2018, when wholesale prices were higher. We calculate that our wholesale allowance remains higher than the average cost of using this typical strategy.

- **For suppliers that used a typical strategy up to May 2018, but then adjusted following the May proposals.** Some suppliers have told us they incurred higher than typical costs, because they adjusted to our May proposal. We compared the allowance we have set to the net costs of taking this approach. Having done so, we consider that our decision to adopt the proposal set out in the statutory consultation better meets the Act's objective. On average, the profit a supplier would have made in May (when selling the contracts they had already bought at a lower price) offsets the impact of the change in the composition of the six-month period as between the May and September proposals. Some suppliers may have more favourable or less favourable positions than average. This variance is an inherent outcome of the cap, as the Act requires one

allowance for all suppliers. We also take the view that any residual impact on particular suppliers has to be considered in the context of a two to five year cap period.

- **For small suppliers who purchase energy closer to the period of delivery.** Considered in isolation, the wholesale allowance in the first cap period is likely to undercompensate for the actual wholesale costs of these small suppliers. However, considering the cap more broadly, for these suppliers, other allowances are higher than their actual costs. They also tend to have few SVT customers, so are less exposed to any deleterious impact arising from the change in the composition of the six-month reference period for the first three months of the cap.

2.25. Keeping these financial impacts in mind, we consider that setting the wholesale allowance using the proposal we set out in our statutory consultation is appropriate. Compared to our May proposal we consider it better meets the objective of the Act, to protect default tariff customers.

Responses theme: unidentified gas (UIG)

2.26. In response to our consultation, most stakeholders felt that we should provide a greater allowance in the cap for gas losses. Stakeholders noted the recent increases and volatility in reported UIG levels (since the implementation of Project Nexus), which has increased costs and risk for suppliers. Suggestions for the allowance varied from 2% to 8%. Some stakeholders said we should set a rolling allowance based on the prevailing reported average.

2.27. It is uncertain what the physical level of UIG is. Following our consideration of the information presented through the consultation and discussions with Xoserve, we consider that the level of UIG remains uncertain. Ultimately, the physical level of losses from the gas system has not changed since the implementation of Project Nexus (ie the system is not losing more gas), rather a new methodology for reporting UIG levels has been introduced. As such, if UIG were at the upper end of the range suggested by suppliers, it is difficult to explain how such large losses had gone unnoticed for decades.

2.28. Having considered what information is available, we consider that the 0.96% level in our statutory consultation is likely to be an underestimate of UIG. There is evidence to suggest that underlying UIG is higher than 0.96%. For example, the relevant expert on UIG (Allocation of Unidentified Gas Expert), which set the level at 0.96%, is currently reviewing the impact of certain factors such as temperature and pressure on UIG levels. This work is ongoing and the conclusions are uncertain.

2.29. In setting the allowance at the current reported UIG level we would undermine any incentive to reduce it. The current reported average UIG is about 4%. We have good reason to consider that the allowance in the cap should be set below this average, given the Xoserve-led UIG Task Force is aiming to identify recommendations by the end of 2018 that will reduce UIG below that level. Suppliers can influence and control elements of the UIG costs they face. For example, suppliers can limit the extent of their exposure by submitting more regular meter readings and tackling theft. Therefore, an allowance set at current UIG levels, or an allowance that 'tracked' the average over time, would undermine any incentive to improve.

2.30. Taking all this into account, we have increased the UIG allowance level to 2%. We consider that this is a better estimate of UIG than we proposed in September. We acknowledge UIG is currently volatile, and have given regard to this. We consider the allowance appropriately provides for physical losses and maintains incentives to reduce UIG. For further discussion see Appendix 4 – Wholesale.

Consultation response theme: residual uncertainty of wholesale costs

2.31. In our statutory consultation we proposed an additional allowance for uncertainty and volatility in wholesale costs, beyond that already provided for in the other wholesale allowances and headroom. The allowance also took into account uncertainty and potential errors in our methodology.

2.32. This allowance is not the only way we address uncertainty and we do not consider it in isolation. We give regard to the net cost of risk and uncertainty in our overall headroom allowance. The assumptions we make in our other allowances influences the level of residual uncertainty and risk, as does our approach for how we monitor and update the cap.

2.33. In response to the consultation, some suppliers argued that the allowance was too low. Several suppliers provided us with examples and valuations of risks and uncertainties that they face, or that were realised in the past few years.

2.34. We have set this allowance at 1% of wholesale costs, maintaining our consultation proposal. To set the allowance, we have carefully considered all the risks presented by suppliers in their consultation responses. We also considered the likelihood, frequency, and potential impact of unknown risks and the possibility that our estimates contain net error or optimism. Suppliers suggested five specific sources of risk that we have given regard to.

- **Weather changes.** Suppliers face costs when unforeseen weather changes affect energy demand. For instance, an extreme winter period – such as ”the Beast from the East” – means suppliers need more energy at a time when prices are high. Conversely, an unusually warm period means suppliers sell excess energy when wholesale prices are low. Alongside this, the resulting changes in demand increase or reduce their profits. We considered carefully the cost estimates that stakeholders provided for past and potential events of this type. Taking into account that significant events do not happen every year, we consider the combination of our shaping, wholesale uncertainty, and general headroom allowances to be appropriate.

- **Changes in customer numbers**. When suppliers purchase energy in advance, they have to estimate how many default tariff customers they will have. Some suppliers are better at forecasting than others, but none is perfect. Unlike forecast error due to weather, these errors do not affect the wholesale price so estimates provided by suppliers are comparatively low.

- **The impact of removing the Market Making Obligation on transactions costs.** Prior to the Market Making Obligation, average transaction costs (in this case, the difference between wholesale bid prices and offer prices – the bid-offer spread) were higher than their current levels. However, it is uncertain what impact removing the obligation would have. It is unlikely that spreads would return to previous levels as market conditions have changed. For example,

vertical integration has reduced, and the number of generators and suppliers in the market has increased.

- **Unexpected events.** One supplier suggested the cap should increase to manage the uncertainty of a no-deal Brexit, for instance if it reduced the value of sterling. The likelihood and impact of this type of event is inherently uncertain and difficult to value. However, in general it is likely that something unexpected could affect wholesale prices, either positively or negatively. This is one of the reasons we update the cap on a six monthly basis.

- **Basis risk and backwardation.** In response to our May consultation many suppliers were concerned that our approach to setting the direct fuel allowance exposed them to changes in the summer-winter spread (the difference between summer contract prices and winter contract prices), which could result in a profit or a loss. Some suppliers reported they could manage that exposure, for instance by hedging against changes in the spread. Some suppliers were concerned about the costs of backwardation – when the forward price for energy is lower than the price expected for that energy on the day of its delivery. This cost changes over time. There is benefit when forward prices are higher than prices will be on the day of delivery (known as "contango"). Over the last four years, we calculate that the costs net to zero. Although it is unclear what the net impact will be over the life of the cap, currently suppliers incur a cost. We have given regard to this when assessing the allowances.

2.35. We consider the consultation has reduced our assessment of methodological risk and uncertainty in our wholesale models. In our statutory consultation, we stated that when setting the uncertainty allowance, we considered the risk that our methodology may understate costs. Suppliers have scrutinised our allowance models, but have not identified significant errors. We know that our assumptions for imbalance and transaction costs slightly overstate these costs for large suppliers, who serve the majority of default tariff customers. We have not reduced the allowance, so on that basis we are slightly more conservative in this regard.

2.36. Please see Appendix 4 – Wholesale for detailed discussion on issues raised by stakeholders, and Appendix 2 – Cap level analysis and headroom for a discussion of how we account for the net costs of residual uncertainty more generally.

Network costs

2.37. Suppliers are charged for the costs of building, maintaining and operating the energy network and system infrastructure used to deliver energy to their customers.

2.38. We will set the network allowance by combining information on charges from network companies' charging statements with assumptions about demand and losses to estimate the costs to a supplier for each customer type. We will use broadly the same model we use to calculate and update the existing safeguard tariffs, as applied in the CMA's methodology.

2.39. The network allowance varies with a customer's location, because network costs differ by region. For the first cap period, costs range from £234 to £298, with a national average of £258 (all allowances stated in annualised terms for a typical dual fuel customer). These network charges vary depending on where their customers live, what type of electricity meter they have, and how much energy they use.

2.40. This approach is the same as our statutory consultation proposal. Stakeholders had no substantive comments on that proposal. Please see Appendix 5 - Policy and network costs for further detail on our approach, and stakeholders' views.

Policy (environmental and social obligation) costs

2.41. Energy suppliers are subject to a number of environmental and social obligations, designed to achieve a variety of different policy goals. In most cases, these obligations result in additional costs to suppliers, which they pass on to their customers.

2.42. We will set the policy cost allowance using data published by administrators of the different schemes to calculate the cost per customer and per MWh in the base period. Some suppliers are exempt from these costs. We set the allowance based on the costs that we would expect a fully-obligated supplier to incur in a steady state. This approach is the same as our statutory consultation proposal.

2.43. In the first cap period, this approach means we set the policy cost allowance at £137 for a typical dual fuel customer. The majority of policy costs apply to electricity bills.

2.44. In response to our consultation, stakeholders raised some points about how we treat specific policies. We discuss these issues and our methodology in detail in Appendix 5 – Policy and network costs.

Operating costs, including the cost of the smart meter rollout.

Our approach

2.45. We set an allowance for suppliers' operating costs by benchmarking different suppliers' expenditure in 2017 – the last full year of full data available. We set this benchmark using the lower quartile supplier in our sample, then we deducted a £5 efficiency factor (in dual fuel terms). For the 2017 baseline, we have set an operating cost allowance equal to £79 per customer per year for electricity and £90 for gas (£169 per dual fuel account).

2.46. We include smart metering costs in our operating cost baseline (2017). We do not separate out the net cost of smart meters (other than direct industry charges). This is because smart meters are an intrinsic and integrated part of suppliers' operations. We add an additional smart metering allowance to our 2017 baseline. This reflects the additional net costs associated with delivering the smart rollout and the movement from an adjusted lower quartile costs benchmark to an average efficiency approach for smart costs.

Updating the operating cost and smart metering allowances

2.47. For the first cap period, the operating cost allowance is £93 per customer per year for electricity and £105 for gas (£198 per dual fuel account).

2.48. We update the operating cost allowance over time in two parts. First, we increase the 2017 baseline in line with the latest trends in inflation (using Consumer Price Index including Housing costs (CPIH)). Second, recognising that the rollout of smart meters will increase suppliers' net costs during the lifetime of the cap, we provide an increment to reflect the increase in smart metering net costs since 2017.

2.49. We account for net[10] increases in smart metering costs in two elements. First, we set and allowance for industry charges (such as those from the Data Communications Company and Smart Energy GB)[11] based on the latest charging statements. Second, we provide an allowance for the increase in net costs relating to installing more smart meters. To avoid constraining rollout, the allowance for installing smart meters is conservative. We use average costs per installation (rather than lowest or lower quartile costs). We also assume a higher rollout profile[12] than that forecast by the average supplier (a substantial increase to their current progress to date).

2.50. We will review our approach to accounting for changes in smart costs in time for the third cap period, announced in August 2019 and in force from October 2019. We recognise that there is uncertainty around the costs, benefits, and pace of the smart meter rollout. The review will help ensure that assumptions remain appropriate.

2.51. Our approach to operating costs is the same as our statutory consultation proposal. Please see Appendix 6 – Operating costs for detail on our methodology, and detailed consideration of stakeholders' views.

2.52. Based on suppliers' feedback, we have made a small number of changes to our approach for recognising increases in smart costs. Please see Appendix 7 – Smart metering costs for detail on our methodology, and detailed consideration of stakeholders' views

Considering stakeholders' views

2.53. In response to our consultation, stakeholders raised three key themes:

- how we account for variation in suppliers' efficient costs, including our application of a £5 efficiency factor
- that non-smart related operating costs will increase faster than inflation
- that the allowance for installing smart meters is insufficient.

Theme: Variation in suppliers' efficient costs

2.54. We have set the operating cost allowance giving regard to variation in efficient costs. We have set the operating cost allowance 15% higher than it would be if we benchmarked costs to the frontier suppliers (the average of the two lowest cost suppliers in our sample). In our statutory consultation, we explained that suppliers' operating costs vary substantially. If we were satisfied that the only difference between suppliers' costs was due to their inefficiency, we would set the allowance at the frontier costs. However, our analysis suggests that factors other than efficiency

[10] We take into account benefits that accrue to suppliers from installing smart meters. The business case for smart meters includes benefits that accrue to consumers, but we do not include these in our calculations for the price cap.
[11] The central industry bodies responsible for establishing and managing the smart data communications network (DCC), and for the public promotion of smart meters (SEGB), respectively.
[12] This *exceeds* the supplier-produced forecast rollout profiles in gas for all of the six largest suppliers and five of the six largest suppliers for electricity.

cause some, but not all, of the variation in suppliers' operating costs per customer. For instance, some suppliers serve more customers on the Priority Services Register or customers with single fuel accounts, which would increase their efficient costs.

2.55. When considering variation in efficient costs, we bear in mind the level of customer protection the allowance provides. While in theory it is possible that an efficient supplier could exist (or could enter the market) with a customer base comprised entirely of expensive to serve customers on default tariffs, setting the cap to reflect their costs would necessarily allow all other default tariff customers to be overcharged, resulting in significantly less protection for customers on default tariffs. We also consider the issue of variation in the round, with all components of a supplier's cost base in mind. For instance, a supplier with more single fuel customers than average, could have fewer standard credit customers than average or higher average consumption. Considering the most disadvantageous circumstances for each cost component in isolation would set an unrealistically high cap level, to the detriment of default tariff customers.

2.56. Some suppliers suggested we use the lower quartile cost to set the allowance. The lower quartile cost in our sample is 18% higher than those of the lowest cost suppliers. These suppliers considered this would allow a supplier with a more challenging customer base to finance its efficient costs. Another supplier said that the high costs of larger suppliers are not explained by differences in their customer bases (relative to other suppliers), and that we should reduce our benchmark.

2.57. We consider our operating cost allowance an appropriate one, even where customer bases incur higher efficient costs. Our analysis shows that differences in customer bases account for some of the operating cost difference between suppliers, but not all. Having considered responses and our analysis of customer bases, we have decided it is right to set our benchmark below the lower quartile to avoid including inefficiency in the allowance. The data alone suggests we could have set the allowance lower, but we recognise the high level of uncertainty that assessing variation in efficient costs involves. On that basis, we deducted £5 from the level of the lower quartile costs for a dual fuel account. Based on our analysis, we consider that efficient suppliers with a range of potential customer bases (including those matching the *most* disadvantageous customer base of the suppliers in our benchmarking sample) would be able to finance their activities under the cap. For further detail, see Appendix 2 – Cap level analysis and headroom and Appendix 6 – Operating costs.

Theme: Trends in operating costs

2.58. Some suppliers challenged our proposal to update operating costs in line with inflation – indexed using CPIH. They expect operating costs to increase faster than inflation due to potential increased spending on regulatory programmes and industry charges. One supplier argued, based on the large suppliers' financial statements, that efficient operating costs have historically increased at a rate greater than CPIH.

2.59. We have assessed previous trends in operating costs per customer, but we do not consider that they suggest efficient costs will increase more quickly than inflation (excluding smart metering costs).

- The reported figures include smart costs. We agree that these will rise faster than inflation, which is why we account for the increase in smart metering costs separately.

- We have observed some operating cost increases in the past among the large suppliers. Large suppliers have been losing market share over this period. One supplier has reduced its operating costs per customer, but the others appear to have struggled to scale their costs with their customer bases. We do not consider that, where falling customer numbers are driving transitional increases in costs for some suppliers, this should be reflected in a higher level of the cap.

- We must give regard to trends in efficient costs, which may not be reflected among the past results of the six largest suppliers. Focusing only on the six largest suppliers ignores the possibility that trends in efficient costs may be driven by the entry or growth of suppliers with different business models.

2.60. We consider that indexing operating costs in line with inflation is appropriate, even considering other pressures. In effect, after accounting for increases in smart metering costs, we assume that efficient operating costs remain constant in real terms. While regulatory changes and increases in industry charges are likely to place some upwards pressure on the efficient level of costs, we consider that significant offsetting pressures exist (for example, opportunities for automation and digitalisation). It is uncertain whether the net effect would be upwards or downwards. However, we would expect it to be small. The alternative – modelling efficiency improvements and upward pressures – would be unnecessarily complex and likely introduce more error than it would remove.

Theme: Is the allowance for smart metering costs sufficient?

2.61. Some suppliers argued that they required a higher allowance for installing smart meters, in order to meet their commitments. Suppliers are required to take all reasonable steps to install smart meters in every domestic and smaller non-domestic premises by 2020. By the end of 2018, suppliers will have installed smart meter in nearly a third of homes.

2.62. We consider the smart metering allowance sufficient for efficient suppliers to meet their obligations. Given the importance of the smart meter rollout we have made the following assumptions to give regard to ensuring suppliers can meet their obligations:

- **Higher than efficient net costs per meter.** Suppliers' installation costs vary considerably, suggesting some suppliers are more efficient than their competitors. We use average costs, which increases funding by £5 per dual fuel customer, compared to using the lower quartile supplier.

- **Faster rollout than managed to date.** We use suppliers' actual and forecast rollout profile up to the end of 2018 (the start of the cap period). On average, suppliers expect to have installed smart meters in 29% by the end of 2018. The cap provides funding for suppliers to install smart meters in an additional 25% of all default tariff customers' homes per year (2.5 million homes, nearly doubling their overall progress to date in one year). This assumption increases the allowance (by £7 per dual fuel customer) as we assume suppliers will install a higher number of smart meters than the majority are forecasting.

2.63. Nonetheless, in response to suppliers' comments on our modelling and assumptions, we have increased the allowance (by £9 per dual fuel account in the first cap period). These adjustments relate to minor modelling errors, changes in assumptions, and a change in the way we model Premature Replacement Charges (PRC) – the rental termination costs suppliers incur for replacing non-smart meters that were installed

relatively recently. We have increased our estimate of the costs associated with this early termination, increasing the smart metering allowance.

2.64. Suppliers must not reduce their plans to install smart meters in order to avoid taking necessary steps to improve their efficiency. In their representations, some suppliers suggested they might have to consider reducing their smart meter rollout plans unless we increased the cap level. In setting the smart metering allowance, we have given regard to providing a sufficient allowance to enable suppliers to continue their smart metering rollouts in an efficient manner, meeting their obligations and exceeding current progress. We are unable to ring-fence funding for smart metering within the cap's allowances, so there is a risk some suppliers consider reducing their rollout because their other costs are inefficient. Inefficient suppliers must improve their efficiency. They must not reduce their plans to install smart meters in order to avoid improving their efficiency in other areas of their business.

2.65. We recognise the uncertainty about the cost and pace of rolling out smart meters, so we will review assumptions in time for the third cap period. The review will reduce the risk that actual costs and rollout deviate substantially from the assumptions in our model. The review ensures we will update the cap with the latest robust data on costs and rollout.

2.66. Please see Appendix 7 – Smart metering costs for a full description of our methodology and consideration of stakeholders' views.

Payment method uplift – additional costs of standard credit

Our approach

2.67. We set different caps for customers paying by direct debit and standard credit. In the first cap period, the standard credit cap is £83 higher for a dual fuel customer with typical consumption. This higher cap reflects the additional efficient costs of providing standard credit.[13] To match the trend in underlying costs, the difference between the direct debit and standard credit cap scales with a customer's energy consumption.

2.68. We include a payment level uplift in the direct debit cap and the standard credit cap. We benchmark the difference in direct debit prices and standard credit prices at typical consumption levels to the market average in 2017. That price difference is lower than our estimate of the efficient additional costs of serving a standard credit customer. Therefore, we spread some of the additional costs across all customers, regardless of payment method. We allocate all of the additional working capital costs to standard credit customers, as these additional costs are a necessary consequence of standard credit. We allocate 52% of additional bad debt and additional administrative costs to standard credit customers, and spread the remainder. See Appendix 8 – Payment method uplift for details.

[13] In our May consultation, we proposed a smaller price differential, which many stakeholders were concerned would distort the market. In response, in our statutory consultation, we proposed this approach, which more closely reflects recent practice. Few stakeholders commented on this larger differential; the few that did comment were split on whether it should be higher or lower.

2.69. Compared to our statutory consultation proposal, we have made two corrections.

- **Correcting working capital benefits:** On average, standard credit customers incur a larger working capital requirement than direct debit customers as they pay in arrears. In our statutory consultation, we explained that, to establish the standard credit cap we would calculate the additional working capital cost for standard credit customers (compared to direct debit customers) and add that to the other components in our benchmark. However, the benchmark already includes (in the EBIT margin) the weighted average working capital cost, which is more than the cost for direct debit alone. This meant we overstated the direct debit cap and double counted a proportion of the additional standard credit costs in the standard credit cap. We noted in the statutory consultation that the effect could be small. Continued analysis has shown that it overstated the caps in the first cap period by £6, which we have corrected.

- **Analysing total additional costs, across all components and fuels:** In our statutory consultation, we benchmarked each additional cost component separately, for each fuel, to the lower quartile supplier. These benchmarks could be different suppliers. Some consultation responses suggested that we risked misstating the true additional cost of standard credit, as suppliers may misallocate costs between fuels and make strategic decisions between different cost components. They noted that we analysed operating costs across all components and both fuels to avoid the same risk, resulting in one benchmark supplier. They suggested we use the same principle for standard credit costs. We are persuaded that the costs for each component may be affected by differences between where suppliers choose to invest and how they allocate costs. These issues may not affect total costs. We now use the lower quartile supplier taking all cost components across both fuels together, rather than for each component and each fuel separately. This adjustment reduces the payment level uplifts.

2.70. See Appendix 8 – Payment method uplift for further details on our methodology, updates, and stakeholders' responses.

Considering responses

2.71. Many suppliers noted that our proposal to set separate caps for direct debit and standard credit is different to the way they consider direct debit prices and standard credit prices. We set the allowances in the cap with reference to the differences in underlying costs, which change with consumption. Currently suppliers offer a fixed 'discount' to direct debit will customers compared to standard credit customers. Unlike the underlying additional costs of providing standard credit, this discount does not vary with customers' consumption.

2.72. We consider our approach protects default tariff customers. The underlying costs of standard credit costs vary with consumption. By reflecting this in the cap, low consumption customers that do not switch to direct debit pay prices that reflect their low additional costs. Standard credit customers with higher consumption will have stronger incentives to switch to direct debit.

2.73. In Chapter 6, we consider concerns that stakeholders raised about implementing the payment method changes, and some suppliers' concerns around our treatment of interoperable smart meters for prepayment customer.

Profit: earnings before interest and tax (EBIT)

2.74. We set a profit allowance at 1.9% before interest and tax. An efficient supplier should make a normal level of profit to finance its activities. The profit margin reflects the profit calculated by the CMA in its energy market investigation, for a supplier that does not use a third party to manage its wholesale trading (ie a supplier with additional working capital requirements compared to a supplier that uses a third party).

2.75. This approach is the same as our statutory consultation proposal. We have corrected an error in how we applied the margin, increasing the allowance in cash terms slightly. We apply this profit margin to gas and electricity equally. In recent years, suppliers made large profits on gas and low profits or losses on electricity. Our approach means that gas bills will no longer subsidise electricity bills, so we expect gas bills will reduce by a larger amount than electricity bills. In some cases, electricity bills may increase, but for dual fuel customers that should be offset by gas bill reductions.

2.76. Some stakeholders were concerned that the profit margin is too low, and based on analysis that is out of date. In our statutory consultation, we did not consider it necessary to delay the cap to recalculate this analysis, nor would that delay be in default tariff customers' interests. We consider the CMA's analysis to be appropriate. Please see Appendix 9 – EBIT for further detail on the methodology, stakeholders' views, and how we considered these in our decision.

Setting the overall level of the cap (including headroom)

Headroom allowance

2.77. We have set the default tariff cap higher than our estimate of the efficient benchmark – the combined total of our estimates for each cost component. We call this additional allowance "headroom". In setting this allowance, we have given regard to the extent to which an efficient supplier would, on average, face a net cost of residual risk and uncertainty that is not already allowed for in our cost assessment. We consider upward and downward cost pressures not captured in the efficient benchmark or other mechanisms inherent in the cap design, and the scope for any remaining unidentified errors and uncertainties.

2.78. We do not consider uncertainty and headroom in isolation. We also account for uncertainty in the assumptions we make, how we set the allowance in the benchmark (such as when we consider variation in efficient operating costs), in other allowances (such as for wholesale uncertainty), and by updating the cap to account for changes in underlying costs.

2.79. We have set the headroom allowance at 1.46% of the other cost components, excluding network costs. We calculate this by setting an allowance at £10 in our baseline year (2017) for a direct debit dual fuel bill at typical consumption levels. We then converted this cash allowance into a percentage so it would scale with changes in underlying costs. This is the same level as in the statutory consultation. Given wholesale cost increases since 2017, the headroom allowance will be £12 in the first cap period.

2.80. We will apply the same headroom percentage in each cap period. We would expect to discuss this issue when we make our recommendation to the Secretary of State whether or not to extend the cap.

2.81. We provide a full discussion of our assessment of headroom in Appendix 2 – Cap level analysis and headroom. In that appendix, we also provide our detailed methodology and our consideration of stakeholders' views. Here, we summarise the purpose of headroom, how we considered stakeholders' views, and the main conclusions of our review.

How we considered stakeholders responses

2.82. Some stakeholders argued that we should increase the cap – by providing more headroom (or adjusting the efficient benchmark). Suppliers provided a number of reasons, each of which we discuss in Appendix 2. Here we address the two major themes they raised:

- more headroom, to increase incentives for customers to switch to cheap contracts, and
- more headroom for additional costs due to uncertainty and variation in customer bases.

Theme: Considering incentives to switch

2.83. Incentives to switch are stronger if the price difference between FTs and default tariffs is higher. Although switching is in principle desirable, it would not meet the objective of the Act for the cap to have no impact at all on financial incentives to switch. This would require a cap at or above current default prices, providing no protection to consumers. It follows that switching would be unlikely to be maintained at current levels while achieving the Act's objective. It would not appear to be consistent with the objective of the Act to allow suppliers to overcharge customers on default tariffs simply in order to increase the headline savings available from switching to a better deal. In our draft impact assessment we acknowledged that the price cap would likely reduce switching rates. Although customers' behaviour is difficult to predict, based on case studies and data we analysed, we estimated that switching rates could fall by 33% to 50%.

2.84. We consider that the cap provides incentives for default tariff customers to switch contracts. We expect sufficient suppliers in the market will offer cheaper fixed tariffs, providing financial savings to default tariff customers who switch. Some suppliers said that we should increase headroom, so that suppliers with higher cost could charge default tariff customers more, which would allow them to offer cheaper fixed tariffs more profitably. This approach would increase default tariff prices further away from their underlying costs, failing to protect customers sufficiently. We consider that we have had appropriate regard to the need to maintain incentives for customers to switch in setting the level of the cap. Please see Chapter 5 of this document and Appendix 2 – Cap level analysis and headroom for more detail.

Theme: Considering uncertainty and variation in efficient costs

2.85. A consumer group suggested that we exclude the headroom allowance altogether. We do not consider this prudent. Suppliers are exposed to uncertainty and risk in both directions (ie costs could be higher or lower than we expect). However, in the round, we consider that risk is a small net cost, which we consider when setting the headroom allowance.

2.86. In our statutory consultation, we explained that in setting the headroom allowance we gave regard to the net cost of residual uncertainty. The sources of residual uncertainty we specified were:

- the financial impact of managing costs that are volatile compared to the cap, for instance due to forecast errors
- inherent uncertainty in future events, for example, unexpected weather events, bad debt costs from a supplier failure, or new policy initiatives
- the intrinsic uncertainty in our modelling, given that efficient costs cannot be directly observed.

2.87. Suppliers suggested some examples of these issues, in particular costs they believed we had not included in the cap, or only partially included. The major issues included: the wholesale risk discussed above; higher costs for those with more challenging customer bases that average, variation in expected policy costs and increasing costs of regulatory programmes. In addition to specific issues, suppliers suggested that they require headroom to account for unspecified and unknowable risks that future costs increase, and to guard against optimism bias in our estimates.

2.88. We have given careful consideration to the net impact of uncertainty and volatility. We have reviewed the cost estimates provided by suppliers and considered the likelihood or frequency of them occurring in any given year. We have reviewed where we have made prudent assumptions (as noted in our cost estimates) and reviewed how we designed the benchmark to account for variation. We have scrutinised and provided access to our modelling. In the round, we have given regard to how these different potential costs and benefits may combine for a given supplier.

2.89. We have considered variations in suppliers' circumstances in both directions, as suppliers may benefit in some areas, offsetting constraints elsewhere. For instance, an efficient supplier could have more standard credit customers than average, so could under-recover those specific costs considering the payment method uplift in isolation. However, that same efficient supplier could have an average consumption level that exceeded the median consumption level we use to set the cap (a feature of current suppliers). At consumption levels above the median, the cap is further above underlying costs, increasing suppliers' average profit margin compared to the cap at typical consumption. The impact of mean consumption being above median consumption more than offsets constraints due to variation in customer bases.

2.90. We conclude that our approach provides an appropriate margin to enable suppliers to manage the net cost of risks that are outside their control.

Setting the default tariff cap at different consumption levels

Varying the cap with consumption

2.91. Customers' bills vary with their consumption. Most tariffs on the market have a variable charge and fixed charge (standing charge). The variable charge increases a customer's bill in line with the amount of energy they use. The standing charge increases a customer's bill a fixed amount each day.

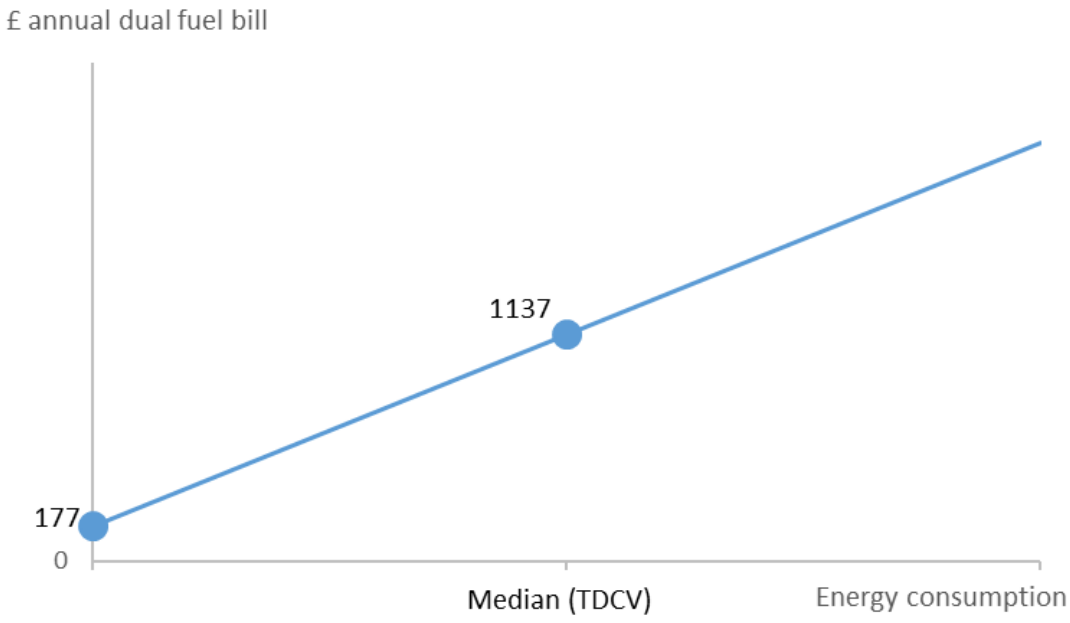
2.92. The default tariff cap varies with customers' consumption. We set a maximum standing charge and maximum variable charge (Table 3).

Table 3: Maximum standing charge and unit rate for the first cap level (direct debit)

	Electricity Multi-register	Electricity Single rate	Gas
Standing charge (p per day)	22.9	22.8	25.8
Unit rate (p per kWh)	15.4	16.5	3.7

2.93. To ensure the default tariff cap varies with consumption, we set the cap at typical consumption (as described above) and at nil (zero) consumption. The cap for all other consumption levels is defined by a straight line between the cap at nil consumption and the cap at typical consumption (Figure 4).

Figure 4: The implicit direct debit dual fuel cap level at different consumption levels



Source: Ofgem
Notes: The chart represents dual fuel cap levels. There is only an 'implied' dual fuel cap level, which we calculate by adding together the gas and electricity caps.

Setting the cap at nil consumption

Our approach

2.94. We set the cap at nil consumption in line with market prices in our baseline year, 2017. This gives a benchmark (excluding headroom) of £152 for a dual fuel direct debit customer (which is £175 during the first cap period).

2.95. To set the maximum standing charge, we divide the cap at nil consumption by the number the number of days in a year. To set the maximum variable rate we deduct the cap at nil consumption, from the cap at typical consumption, and divide by the current TDCV.

2.96. We use market prices to avoid significantly increasing charges for low consumption default tariff customers. Setting the cap using a bottom up cost assessment (the same approach we use at typical consumption) would have set the cap at nil consumption at £220 in 2017 terms for a dual fuel, direct debit customer. If suppliers priced to the cap, the standing charges they offer could have increased substantially. For example, in June 2017, large suppliers set direct debit prices at nil consumption for variable tariffs between £116 and £190. This would be an unintended consequence of the cap, negatively affecting consumers with low consumption. 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.

Considering consultation responses

2.97. Stakeholders agreed with our approach to use market prices. Some suppliers argued for a lower cap level at nil consumption. See Appendix 1 – Benchmark methodology for a full discussion of stakeholders' views.

2.98. We have reduced the cap level compared to our statutory consultation. One supplier noted that our proposed cap level at nil consultation did not match market prices in 2017 exactly. Instead, we had matched our benchmark to market prices and then added the payment method uplift on top. That approach meant the cap level was slightly higher than market prices. We have reset the cap level (including payment method uplift) to around the average market price in 2017. .

Providing a derogation for low consumption customers

Our approach

2.99. We recognise that our intended design might reduce suppliers' ability to provide tariffs with low or no standing charges. In these cases, low standing charges are offset with higher unit rates, which might not be possible under the cap. These tariffs can benefit consumers with low consumption. Even if we leave standing charges at the market average level, there is a risk that some standing charges would increase, and tariffs for low consumption customers could be removed from the market. It would be an unintended consequence of the cap if protection for low consumption customers reduced. However, this risk is likely to be small because suppliers can continue to offer fixed tariffs with zero or very low standing charges.

2.100. We are providing a derogation process for zero or low standing charge tariffs. The existing prepayment cap has a derogation and rebate process for tariffs with low standing charges. This approach allows higher unit rates, if a customer would not pay more than the total cap level (unit and standing charge combined). This would allow suppliers to continue offering tariffs for low consumption customers.

3. Updating the default tariff cap

In this chapter, we explain how we update the default tariff cap to reflect changes in underlying costs, how we consider unforeseen trends in efficient costs, and how we might assess whether to remove or extend the cap.

How we will update the cap

Routine updates to the cap

3.1. The cap ensures that customers' bills reflect the underlying costs of supplying energy. Many of the costs of supplying energy vary significantly over time, often for reasons outside of suppliers' control. For this reason, we have designed the default tariff cap in a way that allows us to update the cap periodically to reflect trends in efficient costs. If we did not update the cap, customers could be overcharged, or under pay for the energy they consume.

3.2. The Act requires that we review the cap level – at least once every six months. Given the objective of the Act to protect default tariff customers, and the matters set out in section 1(6) of the Act, our key considerations in designing the process for updating the cap are to ensure:

- that the cap tracks changes in efficient costs over time. We do this to give consideration to whether, when costs rise, suppliers that operate efficiently are able to finance their activities – and when costs fall, that customers on default tariffs are protected from excessively high prices. Because an efficient level of costs cannot be directly observed, and must be estimated, the appropriate level of the cap will be subject to some uncertainty. We have taken this into account when designing the update process (and particularly the need for any reviews).

- that the cap does not create unintended incentives for suppliers that are detrimental for consumers. This includes ensuring that the mechanism used to update the cap does not reduce the incentive for suppliers to improve their efficiency by cutting costs, or their reduce incentive to compete for new customers by reducing their prices or offering better levels of service.

3.3. Below, we set out:

- the frequency and timing of updates

- our approach to making routine updates to the cap.

Frequency and timing of updates

3.4. We will update the cap every six months, on 1 April and 1 October. We will announce each updated cap level around two months before it comes into force. The first and last cap periods will be shorter, as shown in Table 4.

3.5. We consider that six monthly updates in April and October provide the best balance in terms of allowing changes in suppliers' costs to be passed through without undue delay

(reducing risk to suppliers), while avoiding a significant increase in the number of price changes that consumers have seen historically.[14]

Table 4: Timing of each cap period

Cap period	Cap level in force	Level announced
First cap period	1 January 2019 to 31 March 2019	Announced
Summer cap period	1 April to 30 September	February
Winter cap period	1 October to 31 March	August
Last cap period	1 October to 31 December	August

Source: Ofgem

3.6. For a full discussion of our approach and how we considered stakeholders' views, see Appendix 3 – Updating the cap methodology. Below we provide a summary of our approach to routinely updating the cap.

Our proposed approach to making routine updates

3.7. We update each cost component of the cap separately. This approach recognises that the cost drivers for each component differ from another, so they might change at different rates over time. We update the gas and electricity caps separately, but use the same approach for each.

3.8. For each component, we use the methodology described in Chapter 2. The majority of these approaches update the cost components using a set of cost drivers outside suppliers' control – linked to third party data and/or a pre-specified allowance for certain cost items. We use a similar approach under the existing safeguard tariffs, which we update with reference to changes in wholesale forward prices, network charges, and forecasts of policy costs and inflation.

3.9. Table 5 (overleaf) sets out how we will update each cost component. The table illustrates the impact of updating each cost component between 2017 and January 2019. The table uses a direct debit single rate dual fuel bill, with a national average network charge.

[14] On average, the large suppliers have updated their SVT prices between once and twice a year since market liberalisation, although the frequency varies between suppliers.

Table 5: Cost data and indices used to update each cost component, and illustrative impact on a single rate dual fuel direct debit bill between the 2017 baseline and January 2019

Cost component	Baseline	Proposed approach	Updated cap 2019	Change
Wholesale	£369	**Calculated.** Direct fuel cost allowance for forthcoming period calculated, based on forward energy contracts. Additional allowances applied as a fixed percentage of that allowance. Capacity Market costs calculated using latest data on scheme costs and the demand base across which costs are recovered.	£447	+21%
Network charges	£258	**Calculated.** Allowance for each period calculated directly using network companies' charging statements	£258	+0%
Policy costs	£117	**Calculated.** Updated using a combination of scheme data, OBR forecasts, and information on the expected demand base across which costs are recovered.	£137	+18%
Operating costs	£169	**Indexed.** Operating cost component in 2017 baseline, indexed using CPIH. **Calculated.** Increase in smart metering charges and net impact of rollout since baseline period added to allowance.	£198	+17%
Payment uplift	£11	**Calculated.** Bad debt and working capital related costs set as fixed percentage of previous components. **Indexed.** Administrative costs indexed using CPIH.	£12	+7%
EBIT	£18	**Calculated.** Profit as fixed percentage (1.9%).	£20	+14%
Headroom	£10	**Calculated**. Set as fixed percentage of costs (excluding network costs).	£12	+19%
VAT	£47		£54	+14%
Total	**£998**		**£1,137**	**+14%**

Source: Ofgem
Notes: CPIH refers to the Consumer Price Index including owner-occupiers' housing costs. OBR refers to the Office of Budget Responsibility.

Considering unforeseen trends in efficient costs

Correcting systematic or forecast errors

3.10. In this section, we consider how we might adjust the default tariff cap, if we discovered significant differences between efficient costs and those included in the cap. These could arise due to:

- **limitations of our cap design.** Efficient costs cannot be directly observed, and we must make simplifications and assumptions when estimating the costs an efficient supplier incurs in supplying different types of customers. This creates the possibility that there may be systematic features of our methodology which cause the cap to be too high or too low.

- **outturn costs departing from forecasts.** We will set the level of the cap in advance to reflect our expectation of costs in each price cap period. However, in some cases, there will be uncertainty about elements of suppliers' costs for the coming price cap period at the point we set the level of the cap. Even if our cap design accurately reflects expected costs, outturn costs may still depart from this forecast level.

3.11. To correct for unexpected changes in costs we:

- update the cap level
- include headroom
- adjust the models we use to update the cap, and
- can make licence modifications to change the methodology.

Updating the cap

3.12. We consider it appropriate to update the cap level every six months. This approach should in general allow cost trends to feed through to the level of the cap, and avoid undue risk for suppliers. Suppliers already take on risk when setting their prices. Suppliers have rarely changed default tariffs more than twice in a year in the period since liberalisation.

Headroom

3.13. We have included a general headroom allowance to account for uncertainties, or the net cost of undetected errors. As we stated in Chapter 2, uncertainty around costs could mean they are either higher or lower than we expect. In setting the headroom allowance, we assessed these risks.

Licence modifications

3.14. Nonetheless, if in the future we consider there are material systematic issues that require correction, we might modify the licence. The Act includes specific provision for

us to make supplemental modifications to the licence conditions. This would allow us to make any changes required to correct how the cap was updated, if it systematically and materially departed from an efficient level of costs. For example, we might consider making a modification were there a fundamental (and unanticipated) change to the environmental and social obligations that suppliers face, which had a material impact on their cost base.

Adjusting the updating models

3.15. We include a provision within the licence conditions which allows us, subject to consultation, to make changes to the models used to update the wholesale, policy, networks and smart metering net cost components of the cap. This will provide us some additional flexibility to carry out any urgent changes to the way that trends in the key categories of exogenous costs are passed through to suppliers if required.

Reviewing or correcting cost components

General reviews

3.16. We will not have a specific review of the cap level or methodology (apart from smart metering costs, as stated in Chapter 2). The type of specific systematic errors for which we would adjust the cap would need to be unforeseen, clear, material, and necessitate changes. Many of the issues relating to efficient costs are judgmental and uncertain. A scheduled review of these types of issues would undermine suppliers' incentives to improve their efficiency. This would reduce protection for customers, thereby undermining the purpose of the cap. If a review becomes necessary then we have the ability to undertake one.

Corrections

3.17. We will not include a mechanism in the cap for correcting previous forecast errors – whether or not they benefit suppliers. In our statutory consultation, we stated that we were concerned that an adjustment mechanism to correct for error in forecasts in the previous period would create a further distortion to the market. We note that in the long run, non-systematic forecast error should net out. Suppliers already manage short term forecast risks, and even with default tariffs, rarely adjust their prices more than twice a year. We have however considered the short term volatility when setting headroom.

3.18. Please see Appendix 3 - Updating the cap methodology, where we set out our approach, stakeholders' views, and our rationale in further detail.

Assessing whether to extend the default tariff cap

Conditions for effective competition

3.19. The default tariff cap is a temporary measure. It is intended to protect disengaged consumers until the right market framework is in place for competition to be effective for these consumers. The Act requires us to carry out a review of whether the conditions for effective competition are in place for a post-price cap market.

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

3.21. We intend to develop a framework that sets out how we will evaluate the prospect of effective competition in the market after the default tariff cap is removed. The framework will form the basis of our recommendation to the Secretary of State. We aim to develop a framework that is based on a broad set of market indicators that allows for a wide view of the market, being both evidence based and transparent. As stated in our May consultation, directly assessing market outcomes while the cap is in place is unlikely to tell us what would happen to competition when the cap is removed. We will therefore not set outcome based criteria with specific thresholds. Instead, we will take a higher level view of the market structure by assessing the wider market developments and the trends in competition.

3.22. We are continuing to review stakeholders' responses and are developing our approach to this framework. We will engage with stakeholders again in 2019.

4. Potential impact of the default tariff cap

In this chapter we consider our analysis of the potential impact our default tariff cap level would have had in 2017, had it been in place.

Analysing the potential impact of the cap

Our approach

4.1. We have assessed the potential impact of the default tariff cap. We have done this to understand the level of protection it might provide to default tariff customers and to give regard to the statutory needs (as set out in section 1(6) of the Act). We considered a wide range of information, including submissions to our working papers and our consultations.

4.2. One tool we used to help us assess the impact of any proposed cap level was a hypothetical scenario-based modelling analysis. This analysis looked at possible impacts of a cap, as they would have been in 2017, had it been in place.[15] Its results illustrate the potential impacts that different cap levels would have had. They are not predictions. We have set the cap using our cost benchmark methodology (as described in Chapter 2). These hypothetical scenarios (as well as other supporting evidence and qualitative considerations) inform our understanding of the assumptions in that methodology and their consequences.

4.3. We modelled three different types of cap:

- the frontier (based on the lowest cost suppliers in the market)
- the cap level we have chosen (around £35 higher than the frontier), and
- a higher cap (£70 higher than the frontier). Please see the Appendix 11 – Final impact assessment for further details on their illustrative results.

4.4. In this chapter we consider what impact the cap level would have had in 2017, had it been in place. First, we consider stakeholders' views of our analysis. Second, we consider stakeholders' views on how we give regard to the Act.

Considering stakeholders' views on our analysis

4.5. We received few comments on the accuracy of our analytical approach. However, some stakeholders did suggest that price differentials between default tariffs and FTs may be lower than we expected, as differentials had reduced recently. They argued that this meant switching levels might reduce by more than we had anticipated.

4.6. We do not consider the recent trend to change our view of the default tariff cap's long-term impact. In general, FTs reflect more recent wholesale prices than the wholesale

[15] 2017 is the latest year for which we have full data on prices and costs.

prices that SVTs reflect. When wholesale prices increase, as they have recently, this means FT prices increase at a faster rate than SVT prices, reducing the differential between them. When wholesale prices fall, as they may do later during the life of the cap, FTs prices will reduce before SVT prices do, increasing the price differential.

4.7. The impact on price differentials of rising wholesale costs should be temporary, and its effect should reduce when the cap comes into force. When the cap is in place, suppliers will (on average) purchase energy closer to the point of delivery than they currently do for their SVT customers. This 'shorter' approach will reduce the time lag between wholesale price changes passing into FT prices, and those changes passing into SVT prices. This reduction should make the differential between FTs and SVTs more stable. Our analysis of differentials is based on prices in 2017, when wholesale costs were relatively stable. This relative stability means that our impact assessment should be a better indicator of the average impact of the cap, than recent trends in price differentials.

Considering stakeholders' views on how we gave regard to the Act

4.8. Many stakeholders challenged whether the results in our draft impact assessment were consistent with our judgement that the cap level satisfies the objective of the Act, and that we have given due regard to the statutory needs set out in section 1(6).

4.9. We have reviewed and updated the analysis and consider that, in setting the cap, we have appropriately given regard to the matters in the Act. Below we summarise our views on the requirements of the Act, whether the cap achieves the Act's objective, and how we gave due regard to each of the needs in section 1(6) of the Act. For a full discussion of our consideration of stakeholders' views see Appendix 2 – Cap level analysis and headroom.

The Act's requirements

4.10. The Act sets us the objective of protecting existing and future customers who pay standard variable and default rates. In setting the cap in pursuance of this objective, we must have regard to the four needs identified by the statute.

4.11. We recognise that the Act identifies the four matters set out in section 1(6) as being 'needs' and we have proceeded on the basis that each is in principle desirable. However, we do not consider that the Act requires us to achieve the four statutory needs.[16] Rather, our duty is to bring each of these important needs into consideration when setting the cap. For instance:

- A cap that is set too low could risk unintended consequences in incentivising suppliers to improve their efficiency, such as by cutting costs in a manner detrimental to customers. This would not be consistent with meeting the objective of providing protection to standard and default tariff customers.

[16] See for example the interpretation of the statutory wording in: *R (Brown) v SSWP* [2008] EWHC 3158 (Admin); *London Borough of Hackney v Haque* [2017] EWCA Civ 4; *R (Baker & Ors) v Secretary of State for Communities and Local Government* [2008] EWCA Civ 141; *R (Hurley and Moore) v Secretary of State for Business Innovation & Skills* [2012] EWHC 201 (Admin).

- Enabling *all* suppliers to compete effectively would require setting a very high cap level for even inefficient suppliers to compete beneath. This would not be consistent with meeting the objective of providing protection to default tariff customers.

- To fully maintain incentives to switch supplier would require setting the cap at a level at, or above, current standard variable and default tariff prices. This would not be consistent with meeting the objective of providing protection to default tariff customers.

- Ensuring that an efficient supplier with a very high cost customer base is financeable would mean setting the cap at a very high level for all suppliers. This too would not be consistent with meeting the objective of providing protection to default tariff customers.

4.12. We have at all times had regard to all of the needs the Act identifies, and we have done so in reaching our conclusions as to how best protect default tariff customers. We have sought to do so carefully, rigorously and conscientiously and we set out below how we have considered these needs in setting the cap. As part of this consideration we have reviewed the arguments put forward by stakeholders on the potential impact of the cap level.

Protecting customers

4.13. Most stakeholders recognised that – in line with the Act – protection of current and future default customers should be our primary concern when considering the impact of the default tariff cap.

4.14. We consider customer protection to be related to the extent to which the customers pay a price that fairly reflects efficient underlying costs. The cap will ensure that any changes in the prices customers pay will only be as a result of justified changes in the underlying efficient cost to serve.

4.15. We expect the cap to provide a high level of protection – ensuring default tariffs reflect the costs of supplying energy more closely than they have done in recent years. To consider the level of protection that the cap affords, we calculated the following estimates. In 2017:

- 98% of default customers would have paid less under our proposed cap

- in total, default tariffs customers would have paid £1.4 billion less than they were charged in that year

- an average single rate dual fuel direct debit customer with typical consumption would have paid £104 less (ranging between £69 and £165 for the six largest suppliers)

- an average single rate dual fuel standard credit customer with typical consumption would have paid £97 less (ranging between £52 and £183 for the six largest suppliers), and

- on average, single fuel customers with typical consumption (ie those who have different gas and electricity suppliers) would have saved £78 on their gas bill and £46 on their electricity bill.

4.16. Our assessment of the cap's average benefit for customers has increased slightly compared to the impact we set out in our statutory consultation. However, the impact that we have reported for the first cap period (a reduction in SVTs of £76, in annualised terms) is roughly the same we suggested in our statutory consultation, and lower than the average protection stated in our impact assessment. There are two reasons for this:

- **Adjustments to the benchmark**: Our adjustments to the benchmark do not have an equal effect in all cap periods. Our correction of the payment method uplift reduces the benchmark. This has a relatively similar effect in 2017 and 2019. Our adjustment to the smart metering allowance increases the benchmark for 2019, but not 2017. This is because there were no incremental smart metering costs to adjust in 2017 (as costs for 2017 are included in the baseline).

- **Changes in suppliers' prices relative to our methodology:** on average, suppliers' SVT prices are around £90 to £100 above the cap level we would have set in any given period since April 2015 (see Figure 3 in Chapter 1 of this document). However, since 2017, suppliers have not increased their SVT prices at the same rate as wholesale prices, so currently the gap between average SVT prices and the cap level is lower. Had the cap not come into force, we would have expected suppliers to increase default tariff prices further, in line with previous trends. In their consultation responses, some suppliers confirmed they would have increased prices.

Wider types of protection

4.17. Some stakeholders reiterated that protection is a wider concept than savings to current default tariff customers. In summary, some stakeholders were concerned that:

- the cap could discourage people from engaging with the market and increase the proportion of people on default tariffs in the long run, and

- suppliers might reduce service quality when they attempt to reduce their operating costs.

4.18. We consider the cap protects default tariff customers appropriately. We consider that there will continue to be incentives for engaged customers to switch to cheaper FTs with the proposed cap in place. In addition, the cap is temporary, and there is no clear evidence that any reduction in engagement during the life of the cap would persist long-term when the cap is lifted. For those who are on default tariffs, the default tariff will protect them from overcharging.

4.19. In addition, we have a range of work underway to transform the nature of the current energy market, which should help introduce the conditions for effective competition. For instance, the faster switching programme and trials for prompts to engage. This work supports innovation and new products and services. It also helps customers to engage in the market.

4.20. We have set the cap at a level at which we consider efficient suppliers can provide a reasonable level of customer service. We expect suppliers to maintain service quality, ensuring they meet their obligations. The supply licence makes clear suppliers' obligations to treat their customers fairly and in particular to devote special attention to those in vulnerable circumstances who may need additional help or services.

4.21. We will monitor the level of service suppliers deliver to their customers and stand ready to take compliance and enforcement action in the event that any licence requirements are not met. 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, where poor service leads to higher costs as issues are not resolved in a timely manner.

The statutory needs we have given regard to

4.22. Based on our analysis of suppliers' costs and prices, and our modelling of the impact different cap levels would have had in 2017, had the default tariff cap been in place, we make the following judgements regarding the various needs to which section 1(6) of the Act requires us to have regard.

Improving efficiency

4.23. We have considered the impact of the cap on suppliers' incentives to reduce inefficient costs. The CMA, in its investigation, concluded that large suppliers were inefficient, with higher costs than it would expect if competition was more effective. If the cap had been in place in 2017, the cap would have reduced suppliers' revenue by 5.1% (£1.4 billon). Even if suppliers were to increase their FT prices, to recover some of their revenues, there would still be strong incentives to identify efficiencies and reduce their operating costs per customer.

4.24. We have considered how the allowances we have set might affect efficient suppliers in various circumstances. As discussed in Chapter 2, we have given regard to variation in efficient costs. Our analysis of differences in suppliers' customer bases suggests that setting the benchmark at the level of the lowest cost suppliers would be unlikely to be sufficient for an efficient supplier with a normal customer base. We have set the operating cost allowance 15% higher than the operating costs per customer of the lowest cost suppliers we observed in our analysis. We consider that efficient suppliers with a range of potential customer bases (including one matching the most disadvantageous customer base in our benchmarking sample) would be able to finance their activities under the cap. The operating cost allowance is below some suppliers' actual costs, sharpening incentives for them to improve their efficiency

Incentives for customers to switch

4.25. In response to our consultation, some stakeholders wrote that the cap level would not maintain incentives to switch. In particular, they wrote that our analysis that switching rates might reduce by 33% to 50%, was inconsistent with the need to maintain incentives for switching. Other stakeholders suggested that the remaining incentives to switch relied on suppliers with policy cost exemptions, or acquisitive strategies that meant they priced FTs below underlying costs. They argued that we should disregard these tariffs when considering incentives to switch.

4.26. We have considered carefully the potential impact of the cap on incentives to switch. Maintaining switching levels is, in principle, desirable. However, any cap level that provides protection for consumers would reduce financial incentives to switch. By reducing default tariff prices, the differential between FTs and default tariffs would reduce. As that differential is one of the main incentives to switch, we should expect that a cap would reduce switching rates. In reality, it is not possible to predict exactly how customers will behave in the future. However, we have considered data from various sources and case studies, and in our impact assessment we estimate that the cap level could reduce switching rates by up to 50%.

4.27. We consider that the cap level provides incentives to switch. Our analysis suggests that, had the cap been in place in 2017, the cheapest fixed tariff in the market would still have been around £130 lower than the cap, providing incentives to switch. We do not consider that a reduction in switching of 33% to 50% is inappropriate. Those switching rates would still represent a substantial number of people engaging in the market. Furthermore, we can assume that customers who currently switch are engaged in the market. We see no strong reason to assume these previous FT customers would no longer respond to financial incentives. However, we recognise that for some of these customers may not consider lower differentials are sufficient for them to switch supplier or tariff at the end of their current FT contract.

Enabling suppliers to compete

4.28. Some suppliers challenged whether the cap allowed suppliers to compete. They pointed to the fact that our draft impact assessment suggested that suppliers with high (relatively inefficient) costs would not be able to offer low FTs profitably. Others argued that the level of the cap could lead to reduced market entry, increased market exit, or reductions in innovation.

4.29. We consider it a feature of effective competition that suppliers would need to become more efficient to compete. We acknowledge that some suppliers may not be able to offer cheap FTs profitably. However, our analysis shows that in 2017, had the cap been in place, a range of different sized suppliers would have been profitable and able to compete. We do not consider it would be consistent with protecting default tariff customers to set a higher cap level for the purposes of enabling every supplier – even those who may be relatively inefficient – to offer low priced FTs.

4.30. We have considered the potential impact of the cap on market participation. Some small and medium-sized suppliers have costs below those allowed for in the tariff cap (even before considering policy cost exemptions). We expect these suppliers and efficient entrants to continue to offer competitive tariffs. We recognise that there is a risk that some inefficient suppliers may decide to exit the market rather than reduce costs to the level allowed by the cap. We have protections in place for consumers in the event of supplier exit. This ensures that suppliers remains secure and any credit consumers may have with their supplier is protected.

4.31. We do not consider the cap to be a significant barrier to innovation. The cap will provide temporary protection to consumers who are not engaging in the market and consequently are not seeing the full benefits of competition. Innovation has continued under the prepayment meter price cap – the number of innovative tariff features such as smart pay-as-you-go tariffs, and low credit/high consumption alerts have

increased.[17] Programmes like the rollout of smart metering, electricity settlement reform, faster and reliable switching, and our future supply market arrangements work should facilitate greater innovation.

Enable suppliers to finance their activities

4.32. Many suppliers suggested that the cap did not allow them to finance their activities. We have considered this evidence carefully, alongside our own analysis of the financial impact of the cap. These representations often make at least one of two assumptions that we bear in mind, but do not consider to constrain the amount of protection that the cap should provide to default tariff customers. First, that the supplier in question is efficient; respondents provided no evidence to demonstrate this. Second, those suppliers should be able to profitably offer FTs below their underlying costs.

4.33. We have set the cap with reference to our estimate of efficient costs, so we consider that an efficient supplier will be able to finance its activities.

4.34. We recognise that some suppliers have higher efficient costs than others – due to the different circumstances of their customers. We set the operating cost allowance higher than the level of the lowest cost suppliers. In doing so, we gave regard to the variation in efficient costs. We consider that an efficient supplier can finance its activities under a wide range of circumstances.

4.35. We recognise that efficient costs can be uncertain and volatile, increasing or decreasing in any given period. We include an additional headroom allowance, over and above our estimate of efficient costs and profit. In setting the allowance, we considered whether efficient suppliers could cover the net cost of risk and uncertainty not already contained in our cost estimates. We bear in mind that efficient costs can change. We have considered an efficient suppliers' ability to finance its activities over different time periods. We focus on the medium to long-term average, rather than focussing on each short-term period in isolation.

4.36. Please see Appendix 2 - Cap level analysis and headroom for a fuller discussion of stakeholders' views and how we analysed the potential impact of the cap level.

[17] State of the Market Report 2018, Figure 2.16.

5. Scope of the default tariff cap

Whether the default tariff cap applies to a customer, or how it applies, will differ depending on some customers' circumstances. In this chapter, we explain how the cap will affect different groups.

5.1. In most circumstances, the cap applies to all customers on an SVT. It also applies to any tariff onto which customers default after the expiry of the FT they have previously chosen. This includes customers whose contracts state that they will default on to another tariff – as we do not consider them to have actively chosen that tariff.

5.2. In this chapter we explain tariffs that are exempt from the cap and how the cap affects:

- customers who receive protection from other price caps by virtue of being deemed to be vulnerable due to their financial or other circumstances
- customers who have chosen tariffs that provide additional support for renewable energy
- prepayment meter customers receiving protection from the prepayment meter cap
- customers with a fully interoperable smart meter in prepayment mode who are not protected by the prepayment meter cap
- customers with default FTs
- customers with multi-register meters.

Protection for vulnerable customers

Current protection for some vulnerable customers

Our approach

5.3. The existing safeguard tariff currently protects default tariff customers who receive the Warm Home Discount (WHD). From 1 January 2019, they will fall within the scope of the default tariff cap. The level of the two caps is similar. We will apply the direct debit cap to these customers, regardless of whether they pay by direct debit or standard credit. This protects the standard credit customers from an appreciable change in the level of protection they receive (see Table 6).

Table 6: Comparison of default tariff cap and existing safeguard tariff

Cap	January to March 2019
Default tariff cap – standard credit	£1221
Default tariff cap – direct debit	£1137
Safeguard tariff	£1136
Difference between existing safeguard, and direct debit default tariff cap	**£1**

Source: Ofgem

Notes: The table states the cap levels at TDCV. The cap levels have different standing charges, which means at lower levels of consumption the default tariff cap is lower than the level of the safeguard tariff. At higher levels of consumption the default tariff cap is higher than the safeguard tariff. The cap levels also vary by electricity meter type.

Considering consultation responses

5.4. In response to our statutory consultation, some suppliers objected that they would not recover the full costs of WHD recipients on standard credit. The default tariff cap does not reduce the amount suppliers can charge these customers, compared to the existing safeguard tariff. Suppliers have relatively few standard credit customers receiving the WHD. We estimated the average total impact per dual fuel customer, spread across a suppliers' entire customer base, and have given this regard in our assessment of headroom in Appendix 2.

5.5. Some suppliers suggested they would not be able to transfer these customers onto the default tariff cap before the first cap period. We discuss this issue in Chapter 6 in our consideration of compliance and implementation issues.

5.6. Some stakeholders were concerned whether the level of protection for vulnerable consumers would be sufficient in the long term.

5.7. We will consider, as part of our work on the design of the future retail market design, whether long-term price protection is needed for vulnerable customers. We will engage with stakeholders regarding whether specific groups require protection and at what level.

5.8. For more detail on our approach, and how we have considered stakeholders' views, see Appendix 10 – Exemptions.

Tariffs supporting renewable energy

Derogation for tariffs supporting renewable energy generation

5.9. The default tariff cap applies to all SVTs, but the Act allows us to exempt SVTs from the default tariff cap that have been chosen by the customer and that appear to support the production of renewable gas or generation of renewable electricity.

5.10. We will allow suppliers to apply for a derogation for SVTs that provide additional support to renewable energy and that customers have actively chosen to be on. We expect suppliers to demonstrate that customers have made an active choice to be on any derogated tariff that is above the cap.

5.11. All suppliers, irrespective of whether they have received a derogation, must have a default tariff that is compliant with the cap. This ensures that default customers who have not made an active choice to be on the derogated SVT receive protection.

Applications

5.12. The derogations process is now live, and we invite suppliers to apply for a derogation where they believe they have an eligible SVT.

5.13. If we do not receive a full and complete application **within one week from inviting derogation requests,** it is likely that we will not be able to make a provisional decision that can take effect in time for the start of the default tariff cap. Where necessary, we will prioritise derogation requests against criteria that aim to minimise any potential consumer harm, such as prioritising tariffs with a large number of customers.

5.14. As a transitional measure only, we will run a two-stage derogation process: a time-limited derogation (fast-tracking priority derogation requests), followed by an enduring derogation (an in-depth review of derogation requests).

5.15. We have published questionnaire templates that suppliers will need to complete to apply for a derogation. We have also published a guidance document (in Chapter 5 of Appendix 10 – Exemptions) that explains:

- how to apply for a derogation
- the evidence we expect suppliers to provide when requesting a derogation
- how we will assess applications for derogations.

5.16. We expect to keep the guidance document under review. We will update it in light of any new evidence we gather through reviewing derogations or if we are concerned about attempts by suppliers to game the derogation framework.

Criteria

5.17. The default tariff cap provides important protections for consumers, so we will assess carefully whether the tariff in question meets the requirements before granting derogations. We will consider as part of any request how the protections the cap provides disengaged consumers are not being eroded. We will not award a derogation where the gaming risks are too high.

5.18. We may grant a derogation if a supplier demonstrates its SVT delivers three outcomes:

- materially higher costs due to supporting renewables

- support for renewables beyond existing subsidies, and
- only applies to customers who have chosen the SVT.

5.19. We do not propose to be prescriptive in setting out how suppliers must demonstrate that their SVT supports the outcomes we have specified. Suppliers have the freedom to choose how they demonstrate this, but the onus is on them to do so. However, in Appendix 10 – Exemptions we provide some clarity on the types of activities and evidence that we consider would demonstrate an SVT supports each outcome, and examples of those that we do not consider to clearly support each outcome.

Customers with prepayment meters

Protection under the prepayment meter cap

5.20. The Act exempts customers who already receive protection from the prepayment meter cap. That safeguard applies to all customers with a conventional prepayment meter. It also applies to smart meters in prepayment mode which are not fully interoperable (at present this means that SMETS1 smart meters are subject to the prepayment meter cap and SMET2 smart meters are not).

Interoperable smart meters in prepayment mode

Our approach

5.21. Customers with interoperable smart meters do not receive protection from the prepayment meter cap. Where they have SVTs or default tariffs, they will be protected by the default tariff cap.

5.22. We will apply the direct debit cap to default tariff customers with interoperable smart meters in prepayment mode. We have not set a separate cap for these customers. Currently, interoperable smart meters are SMETS2 meters. There are very few SMETS2 smart meters, so we do not yet have reliable data on their costs. As such, we are not able to make a reliable estimate of the separate cap level that would be appropriate.

5.23. In the future, we will consider using a specific prepayment payment method uplift when sufficient data is available. If we conclude that one is required (following consultation), there is a term in the licences that we can update.

5.24. Some suppliers were concerned about our approach to interoperable smart meters in prepayment mode, suggesting they would find implementation and communication with customers challenging. We discuss and address these challenges in Chapter 6.

Customers on fixed default tariffs

The default tariff cap applies to all customers on SVTs or default fixed tariffs.

5.25. The Act requires that suppliers set their default FTs are set below the level of the cap. Therefore, suppliers must reduce the price of pre-existing default FT in the event that we reduce the level of the cap below the level of those fixed tariffs. For example, take

a supplier that set the unit rate or standing charge of a default 12-month FT in January at a level equal to the maximum allowed under the cap. It would be required to reduce those charges in the event that the level of the cap fell when it was updated in April.

5.26. At the same time, standard licence condition 22C.9 means that a supplier would not be able to increase the price of a default FT in the event that the level of the cap increased. For example, a supplier that set the unit rate or standing charge of a default FT in January at a level equal to the maximum allowed under the cap would not be able to increase those charges in the event that costs rose and we increased the level of the cap in April or October. This creates an asymmetric risk for suppliers offering default FTs.

5.27. We note, however, that suppliers may choose to avoid this risk by linking the price of a default FT to the cap (as provided for under standard licence condition 22C.11(a)(i)). In doing so, suppliers must make clear the way in which the prices of the tariff would vary over time in their communications with their customers.

Multi-register electricity meters

Our approach

5.28. Some default tariff customers pay for their electricity using more than one rate. For instance, Economy 7 customers pay less for the electricity they use at night. There are a wide array of multi-register tariffs, and the number may increase as time-of-use tariffs become more common in the coming years.

5.29. For the most part, we will set the efficient benchmark for multi-register tariffs in the same way described in Chapter 2. The principal difference is that for multi-register tariffs, we propose to base the cap on assumed consumption splits, in line with the existing safeguard tariffs (ie assumed consumption splits are estimates of the proportion of the consumption of customers with different meter types that will take place in peak and off peak periods).

5.30. For Economy 7, the split is the same for all suppliers and all regions. We update this assumed split periodically.

5.31. For other multi-register tariffs, we require suppliers to propose a split to us based on the historical consumption patterns of customers on each tariff, prior to the start of each price cap period.

5.32. Note that on a per unit basis, Economy 7 customers pay less than single rate electricity customers. However, Economy 7 customers consume more energy than single rate electricity customers. This means that we state a higher Economy 7 bill at their typical consumption than we do for single rate electricity customers (stated at their lower typical consumption level).

6. The process for introducing the price cap

In this chapter, we discuss the consultation process, implementation issues and compliance.

The consultation process

Our work so far

6.1. This decision is the culmination of a consultation process over the course of 2018. In March and April, we published five working papers. In May, we published a policy consultation with initial draft licence conditions. In September, we published a second consultation – our statutory consultation with draft licence conditions plus draft baseline values and the models that support our analysis.

6.2. We also held a series of workshops, seminars, and bilateral meetings with stakeholders throughout this process.

6.3. We consider that stakeholders have had the opportunity to engage appropriately with the consultations. We have received responses from over 40 stakeholders, including extensive submissions on every aspect of our design and approach, including on the updating of smart metering costs.

Transparency and disclosure

6.4. Some suppliers raised concerns in the course of the process about the level of transparency, particularly around how we update smart metering costs.

6.5. We have given careful consideration to ensuring that our proposals are sufficiently transparent, and that stakeholders have access to the information necessary to meaningfully respond to our statutory consultation.

6.6. We have also had regard to issues of confidentiality and sensitivity that arise in respect of some of the information we have considered. For our statutory consultation, we considered it appropriate to establish a physical disclosure room – accessible to stakeholders' external economic and legal advisers. We did this in order to take account of the sensitivity of the information while at the same time facilitating a fair consultation process.

6.7. In that regard we note that the information made available via the disclosure room accounted for three of the 13 models relevant to the default tariff cap proposals published for statutory consultation. We made the remainder of the information available either alongside our statutory consultation or through bilateral disclosures to stakeholders.

6.8. Through our approach to disclosure, we have taken steps to ensure that all stakeholders can review our methodology, calculations, and assumptions. Even those suppliers with concerns about the transparency of our smart metering models in particular have provided extensive comments on our methodology, calculation, and assumptions. We have considered these points and revised our approach where

persuaded this is necessary.[18] Suppliers have been able to see how we have used their raw data, and verify whether data is accurate.

6.9. We remain of the view that we have disclosed sufficient information to make our proposals on the default tariff cap clear. We consider that this enabled stakeholders to make meaningful and worthwhile representations to the statutory consultation.

6.10. We are grateful for stakeholders' responses to our statutory consultation. We have published non-confidential submissions alongside this document and provided summaries of feedback in the relevant appendices to this document.

Implementation issues

6.11. In response to our consultation, stakeholders raised some concerns about implementing the cap. There were four major concerns:

- clear communication with customers
- applying the cap to prepayment customers with a SMETS2 meter
- applying the cap to WHD customers
- changes required to how suppliers manage and market direct debit and standard credit tariffs.

Clear communication with customers

Notification

6.12. Two suppliers raised concerns that there may not be sufficient time to send Price Increase Notifications (PINs) to affected customers 30 days in advance of the default tariff cap becoming effective (in accordance with standard licence condition 23). One of these suppliers requested that the time requirement for PINs be reduced to 14 days.

6.13. We consider that 26 days[19] is sufficient to identify affected customers and notify them that their terms are changing. We expect suppliers to comply with all of their licence conditions, and to enable their customers to make informed choices about their energy supply.

Communication and understanding

6.14. Some consumer organisations and a price comparison website said that suppliers should be set prescriptive rules or guidance to govern how they explain the price cap to customers. For instance, explaining that the cap is a limit on prices, not bills, and

[18] For instance, see Appendix 4 – Wholesale, Appendix 7 – Smart metering costs, and Appendix 8 – Payment method uplift and publication of stakeholders' non-confidential responses.
[19] The time between our decision and 30 days before the cap comes into force

that annual projections are subject to change given the cap will be reviewed every six months.

6.15. We recognise stakeholders' concern around clear communication. We already have a number of rules in the supply licences relating to how suppliers communicate with their customers. This includes the overarching Standards of Conduct, which require suppliers to provide information that is complete, accurate and not misleading. This is to enable domestic consumers to make informed choices about their energy supply. The Standards apply to every piece of communication between suppliers and customers.

6.16. We are currently consulting on changes to the more detailed rules around domestic supplier-customer communications.[20] We are proposing to introduce five narrow principles that confirm and consolidate the policy intent of our existing rules, and remove a large number of detailed prescriptive rules. We expect to make a decision on these rule changes by the end of the year, with the new rules coming into effect in early 2019.

6.17. Under both the current rules and the proposed new rules, we expect suppliers to provide accurate and not misleading information that is communicated in plain and intelligible language. Suppliers should focus on delivering good consumer outcomes. In relation to contract changes such as price increases, this means that suppliers should provide consumers with information that enables them to understand what is changing and the main reason for that change. Consumers should also understand the implication of that change for them, and their rights and options.

6.18. We do not intend to provide any guidance as to how suppliers should communicate the price cap. Our existing and proposed new principles clearly set out the outcomes we expect suppliers to deliver. A key benefit of regulating through principles is to give suppliers more freedom to find more effective ways of delivering these outcomes. If we consider that suppliers are providing inaccurate or misleading information about the price cap to consumers, we stand ready to take action.

The cap level for interoperable smart meters in prepayment mode

6.19. The prepayment meter cap does not apply to customers with a fully interoperable smart meter (currently SMETS2 meters) operating in prepayment mode. To ensure default or SVT PPM customers with an interoperable meter receive protection they are included in the default tariff cap arrangements.

6.20. One supplier was concerned that its systems would not enable it to distinguish PPM customers with a SMETS1 meter from those with a SMETS2 meter. It was concerned that it could not ensure these customers were on different caps in time for the first cap period. Other stakeholders raised concerns about the impact of having two caps for PPM customers on the smart meter rollout and customer experience. We discuss these comments in more detail in Appendix 8 – Payment method uplift.

6.21. Through the statutory consultation, suppliers suggested that they should be allowed to apply the prepayment meter cap and not the default tariff cap to SMETS2 meters (in the same way as traditional and SMETS1 PPMs). In the first period of the default tariff

[20] Statutory consultation: Domestic supplier-customer communications rulebook reforms

cap, the PPM cap will be similar to the direct debit default tariff cap. In the first cap period, the dual fuel prepayment meter cap will be slightly below the default tariff cap at typical consumption, and slightly above it at lower consumption volumes.

6.22. Ultimately, we think that suppliers' and industry systems should be able to distinguish between different types of smart meters. Suppliers will need to know what metering equipment is in the customers' premises in order to offer them a good quality of service using the smart functionality of the meter. However, we recognise there may be challenges to this in the short-term for suppliers.

6.23. We recognise that until suppliers have a critical mass of customers with interoperable smart meters, then they may have difficulties identifying these customers or managing their communication in a clear way. This that could lead to some customer confusion.

6.24. To that end, and to protect consumers, we will monitor any deviations from the default tariff cap and would urge suppliers to ensure that any deviations do not exceed the prepayment meter cap. This will allow suppliers to align the treatment of SMETS2 PPM customers with those on the prepayment meter cap and ensure a smooth transition on the smart meter rollout.

6.25. We will keep this position under review as the factual position changes regarding the level of the two caps and the rollout of fully interoperable meters operating in prepayment mode. We plan to work with the CMA when it conducts the mid-term review of the prepayment meter cap in 2019 to ensure our approach and thinking is aligned.

Customers on the existing safeguard tariff

6.26. One supplier requested additional time to transfer SVT customers currently receiving the WHD and therefore protected by the existing safeguard tariff from that tariff to the default tariff cap. It suggested that we allow customers to remain on the existing safeguard tariff until April 2019.

6.27. We do not propose any special implementation approach for these customers. We expect suppliers to transfer them to the default tariff cap from its implementation on 1 January 2019.

Direct debit and standard credit tariffs

6.28. Some suppliers and an industry body were concerned that we set the direct debit cap and standard credit cap in relation to their underlying costs, rather than using a flat discount or surcharge to differentiate between the two. They argued that:

- customers may be confused
- it will take time to implement changes to their systems, and
- it constitutes a wide-reaching change and warrants further consultation with industry.

6.29. We do not consider that our approach will materially increase confusion. Suppliers already have to explain how their tariffs, with unit and standing charges, link to bills. Many suppliers and price comparison websites are structured to help customers understand this relationship. The instance where a customer needs to compare a direct debit tariff with its standard credit equivalent is the relatively narrow case of customers switching between payment methods. In this case, suppliers may consider a range of ways to communicate the relationship. For example, suppliers may use examples at typical consumption levels, or may illustrate the projected difference for the customer's expected consumption, which they might already provide to consider quotes. With the rollout of smart meters, suppliers (and price comparison websites) should have a way to obtain up to date actual consumption data for the purposes of providing such a comparison.

6.30. The application of payment method differentials varies across the market. We therefore do not consider that our methodology constitutes a wide-reaching policy change in how prices are set for payment methods for non-default tariffs. Non-default tariffs are a separate case.

6.31. We will introduce the caps on 1 January 2019. The approaches suppliers take to implementing changes will depend on their systems and approaches to managing and marketing tariffs within the caps. We will not exempt individual suppliers with unique challenges from the cap, nor do we consider it reasonable to delay protection for all customers for this reason.

Compliance

6.32. We expect suppliers to take seriously their obligations to implement the default tariff cap and will be closely monitoring their compliance. With this in mind, we will be issuing a new Request for Information (RFI) to all suppliers for information about their tariffs and customer account numbers, as per our communication on 19 October 2018. We intend to issue the first RFI later in November 2018. We will allow suppliers sufficient time to review the RFI and submit the requested data once the default tariff cap has been introduced in January 2019.

6.33. We are keen to streamline our data collection as much as possible. We therefore intend to replace the current customer accounts RFI (that we issue every six months to suppliers) with this new RFI. In the future, we will also look to coordinate this information with the Department for Business, Energy, and Industrial Strategy (BEIS) to consolidate our new RFI with what it currently collects through the quarterly Domestic Fuel Inquiry, and with the reporting that we currently use to assess compliance with the prepayment meter cap. Our aim is to reduce duplication and inconsistency and to maximise the use of data at hand.

6.34. In order to make the provision of data as simple as possible for suppliers we are working towards a submission system where suppliers can upload their tariff and customer accounts data combinations in the format of their own system outputs. We expect this will provide more flexibility for suppliers, allowing them to use their current data collection systems and reduce manual inputs. We will assess the feasibility of this proposal after the first RFI data submission.

Concerns raised by stakeholders

6.35. Stakeholders identified four main compliance risks. These were:

- whether the payment method uplift conflicts with SLC27.2A, regarding the cost reflectivity of price differences
- time of use tariffs
- customer service standards and consumer protection monitoring under the cap
- the risk of more regulatory fines.

Payment method

6.36. Some suppliers were concerned that our approach to payment methods would contravene licence condition SLC27.2A. This states that any difference in terms and conditions between payment methods for paying charges shall reflect the costs to the supplier of the different payment methods.

6.37. We do not consider that the default tariff cap contravenes SLC 27.2A. The underlying costs of standard credit scale with consumption so we have set the cap along those lines.

6.38. Neither do we consider the default tariff cap to determine how a supplier manages payment methods for FTs. Suppliers may choose to offer fixed discounts in that context. We interpret SLC27.2A to mean that price differences cannot be more than is justified by cost reflectivity. However, this depends on the context and always requires some simplification to be implemented. For example, it may not be strictly cost-reflective to treat an individual standard credit customer as though they incur the costs of the average standard credit customer. However, this simplification is necessary for a practical pricing approach.

6.39. We also do not consider it a requirement of SLC27.2A that suppliers take the same approach on FTs and SVTs. Suppliers may choose to use the same approach on both tariff types but that is a matter for them.

Time of use tariffs

6.40. In response to the consultation, there was some concern that innovative time of use tariffs could be hindered by the current proposals for the cap – even though they might present an opportunity for some customers to save money.

6.41. Currently the limited number of time of use tariffs available are multi-register. We present the implied cap level for multi-register electricity meters. Suppliers must ensure that their tariffs comply with the cap, for the applicable assumed consumption splits.

6.42. For new tariff types it is difficult to speculate without knowing how new tariffs will be designed. We encourage suppliers to engage with us to consider how the principles of the cap might be applied to new offers as they occur.

Customer services

6.43. Stakeholders raised concerns about how we intend to ensure that customer service standards do not decline under the cap and how we intend to ensure that consumers are properly informed.

6.44. Our ongoing complaints monitoring is designed to ensure that suppliers meet customer service standards. We publish complaints indicators in order to increase transparency around customer service. Our revised complaints data reporting, which came into effect in August 2018, allows us to identify the main reasons behind the complaints each supplier receives. In this way, we have a clear understanding of areas where suppliers face challenges. We follow up with engagement to identify if there is a temporary issue that can be rectified or whether compliance action is necessary.

6.45. We will closely monitor the level of service suppliers deliver to their customers and we stand ready to take compliance and enforcement action in the event that suppliers do not meet any licence requirements. 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, where poor service leads to higher costs as issues are not resolved in a timely manner.

Risk of regulatory fines

6.46. A supplier was concerned that the cap would not account for regulatory fines, where the supplier is not demonstrably at fault and now faces a more complex and uncertainty regulatory regime.

6.47. We will not include an allowance for regulatory fines. We expect an efficient supplier to comply with its licence obligations. Where stakeholders believe they face risk we encourage them to work closely with us to identify and rectify issues. We encourage suppliers to get in touch sooner rather than later if they identify potential compliance issues.

Change list

Following publication of this decision overview document on 6 November 2018, we identified an error in the TDCV values in Table 1 (the electricity TDCV was entered against gas and vice versa). In this revised version of the document we have corrected the table. At the same time we have taken the opportunity to correct a number of minor typos and missing words. The changes are not material and do not impact our decision.

The list below itemises all the changes we have made. Changes are indicated as underlined, with deletions shown by strikethrough and additions shown in italics.

Page	Change
5	In the first cap period (1 January to 31 March 2019), we have set the cap level at £1,137 for a typical default tariff customer – a dual fuel single rate customer paying by direct debit using a typical amount of energy *in annualised terms*.
5	Footnote 2: We state the cap level *in annualised terms*, using Typical Domestic Consumption Values (TDCV) and national average network charges. The TDCV for single rate electricity is 3,100 kWh *per year*. The TDCV for gas is 12,000 kWh *per year*.
8	Footnote 4: The PPM cap does not protect~~s~~ prepayment customers with smart meters that are fully interoperable.
10	Figure 2 title: £ annualised dual fuel bill at TDCV in ~~nominal~~ *2018* prices
14	Table 1: column 2 title: Typical *annual* consumption level Gas, single rate, direct debit - Typical annual consumption level – ~~3,100 kWh~~ *12,000 kWh* Electricity, single rate, direct debit - Typical annual consumption level – ~~12,000 kWh~~ *3,100 kWh* Gas, single rate, standard credit - Typical annual consumption level – ~~3,100 kWh~~ *12,000 kWh* Electricity, single rate, standard credit - Typical annual consumption level – ~~12,000 kWh~~ *3,100 kWh* Source: Ofgem. ~~Supplementary model – default tariff cap level~~ *Model - default tariff cap level v1.1* Note: We then updated to the cap level using the methodology set out in Chapter 3, to establish these ~~proposed~~ levels for a cap period from January to March 2019
16	Footnote 8: Gas prices *were* 41% higher *in the latter period*, and electricity prices were 34% *higher*.
18	Table 2. Source: Ofgem. ~~Supplementary model – default tariff cap level~~ *Model - default tariff cap level v1.1*
24	para 2.34: Suppliers suggested five specific source*s* of risk that we have given regard to.
25	para 2.34: Unexpected events: However, in general *it* is likely that something unexpected could affect wholesale prices, either positively or negatively.
30	para 2.68: Therefore, we spread some of the additional costs across all customer*s*, regardless of payment method
34	para 2.89: At consumption levels above the median, the cap is further above underlying costs, increasing suppliers' average ~~revenues~~ *profit margin* compared to the cap at typical consumption.
35	para 2.95: To set the maximum variable rate we deduct the cap at nil consumption, from the cap at typical consumption, and divide~~d~~ by the current TDCV.
43	Chapter summary: In this chapter we consider our analysis of the *potential* impact our ~~proposed~~ default tariff cap level would have had in 2017, had it been in place.

43	para 4.1: We *have* done this to understand the level of protection it might provide to default tariff customers and to give regard to the statutory needs (as set out in section 1(6) of the Act).
43	para 4.2: We ~~propose to~~ *have* set the cap using our cost benchmark methodology (as described in Chapter 2). These hypothetical scenarios (as well as other supporting evidence and qualitative considerations) inform our understanding of the assumptions in that methodology and their consequences.
43	para 4.4: In this chapter we consider what impact ~~our proposed~~ *the* cap level would have had in 2017, had it been in place.
46	para 4.16: Adjustments to the benchmark: This is because there were *no* incremental smart metering costs to adjust in 2017 (as costs for 2017 are included in the baseline).
50	Chapter summary: In this chapter, we explain how the ~~proposed~~ cap will affect different groups.
50	para 5.1: It also applies to any tariff onto which customers default after the expiry of *the* FT they have previously chosen.
53	para 5.19: Suppliers have the freedom to choose how they demonstrate this, but the onus is on them to *do* so.
53	para 5.20: It also applies to smart meters in prepayment mode which are not fully interoperable (at present this means that SMETS1 smart meters are subject to the prepayment meter cap and SMET2 smart meters are not).
55	para 6.1: This decision is the culmination of a~~n~~ consultation process over the course of 2018.
55	para 6.7: We made the remainder of the information ~~was made~~ available either alongside our statutory consultation or through bilateral disclosures to stakeholders.
58	para 6.23: ~~However w~~*We* recognise that until suppliers have a critical mass of customers with interoperable smart meters, then they may have difficulties identifying these customers or managing their communication in a clear way.
59	para 6.33: In the future, we will also look to coordinate this information with the Department for Business, ~~the Environment~~ *Energy*, and Industrial Strategy (BEIS) to consolidate our new RFI with what it currently collects through the quarterly Domestic Fuel Inquiry, and with the reporting that we currently use to assess compliance with the prepayment meter cap.