Decision Appendix

Default Tariff Cap: Decision

Appendix 2 – Cap level analysis and headroom

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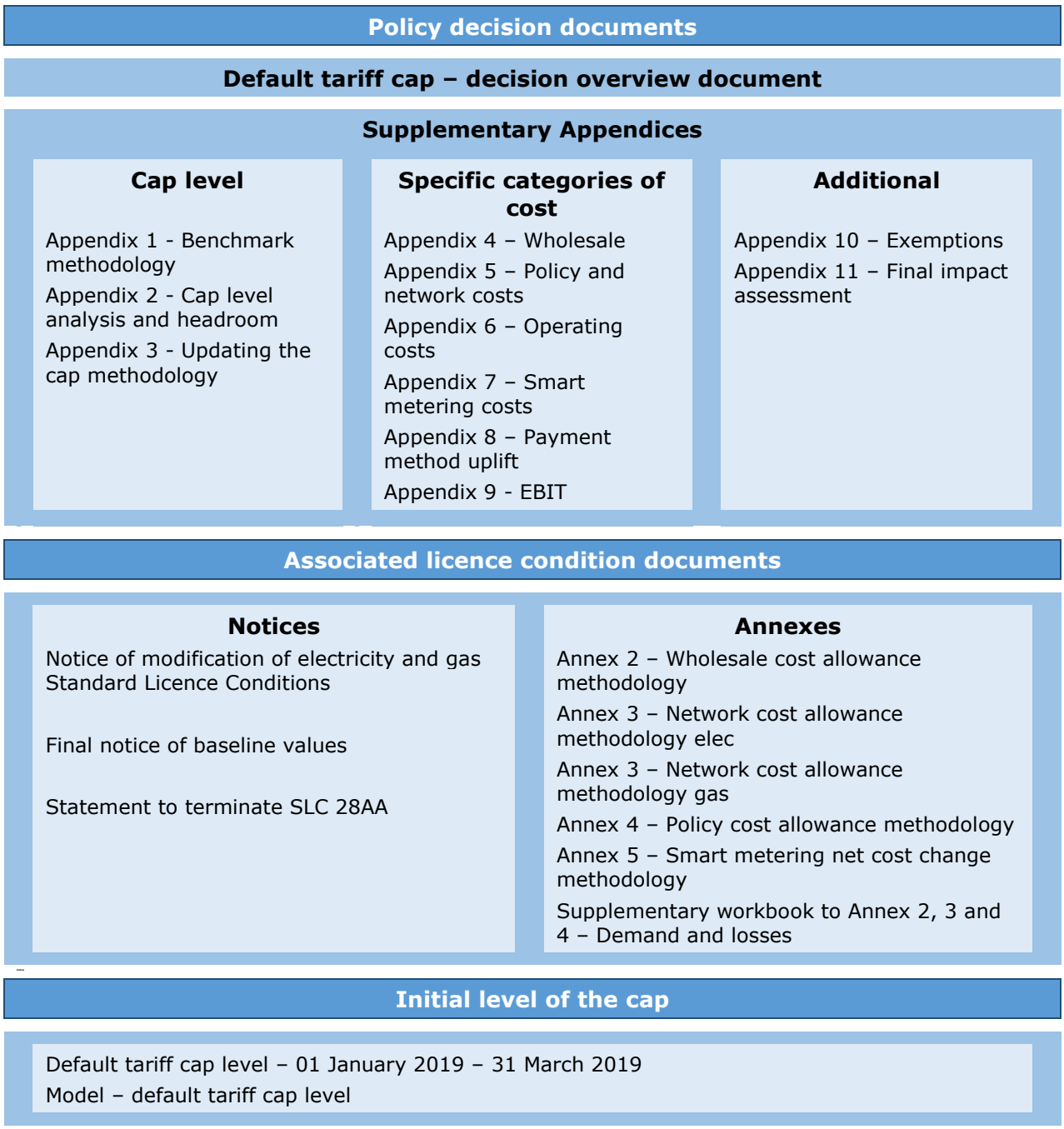
In accordance with the Domestic Gas and Electricity (Tariff Cap) Act 2018, we are implementing the default tariff cap to come into effect from 1st January 2019. This supplementary appendix sets out our decision and the detailed methodology in relation to cap level analysis and headroom

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

Document map

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

Figure 1: Default tariff cap – decision document map



Contents

1. Introduction

Overview

1.1. We have set the level of the default tariff cap, including a headroom allowance, to meet the objective of the Domestic Gas and Electricity (Tariff Cap) Act ("The Act") and with due consideration to the matters to which we must have regard.[1] The headroom allowance recognises uncertain cost pressures that are not already included in our efficient benchmark.

1.2. We have set the headroom allowance as an absolute value for the baseline cap period (2017) – £10 for direct debit customers (excluding VAT). This is unchanged from our statutory consultation. We then convert this into a percentage of costs excluding network costs (1.46%). For the first cap period (January - March 2019) this generates a headroom allowance of £12.

1.3. We have set the baseline default tariff cap, using a bottom-up cost assessment, at £998 (dual fuel, single rate) for customers who pay by direct debit, and £1,074 for customers who pay by standard credit at typical domestic consumption values (TDCV) in 2017 terms. In the first cap period these figures are £1,137 and £1,221 respectively.

Methodology

1.4. In Chapter 2, we set out the overall level of the cap, including the level of headroom allowance and how it will update over time. We then explain how the overall level of the cap and its design meets the requirements of the Act.

1.5. We then provide details of how we have calculated the headroom allowance, and how this will be updated over time. Further details of our approach and the evidence underpinning it can be found in Appendix 2 of our statutory consultation.[2]

Key issues raised in response to our consultation

1.6. In Chapter 3, we summarise the key issues raised in response to the proposed approach to calculating and updating the headroom allowance, as set out in our statutory consultation.

1.7. First, we discuss submissions relating to how we have met the objective of the Act to protect customers, and how we have appropriately had regard to the matters set out in the Act relating to efficiency, effective competition, switching and financeability. Key points include how we have interpreted "protection", how we have had regard to maintaining incentives to switch, and how we have had regard to ensuring efficient suppliers are financeable.

[1] Detail on the level of the cap is set out in the Overview document.
[2] https://www.ofgem.gov.uk/system/files/docs/2018/09/appendix_6_-_operating_costs.pdf

1.8. Second, we discuss submissions relating to the net costs of uncertainty, and to variations in efficient cost. Key points include how we have considered these potential costs in the efficient benchmark, uncertainties in wholesale costs, and how we have considered variations in customer characteristics.

1.9. Third, we discuss design considerations relating to how the headroom allowance changes over time. Key points include which cost categories headroom should be set as a percentage of, and whether the headroom allowance should change over time to provide particular incentives to suppliers.

Context and related publications

1.10. Ofgem (2018), Default tariff cap working paper – setting the level of the cap. https://www.ofgem.gov.uk/publications-and-updates/default-tariff-cap-working-paper-setting-level-cap

1.11. Ofgem (2018), Default tariff cap: policy consultation. Appendix 11 – Headroom. https://www.ofgem.gov.uk/system/files/docs/2018/05/appendix_11_-_headroom.pdf

1.12. Ofgem (2018), Default tariff cap: statutory consultation. Appendix 2 – Cap level analysis and headroom. https://www.ofgem.gov.uk/system/files/docs/2018/09/appendix_2_-_cap_level_analysis_and_headroom.pdf

2. Methodology

We explain our methodology for setting an overall baseline level of the cap, setting the baseline headroom allowance, and the headroom design and how it updates over time.

Overview

2.1. We set the cap (including the headroom allowance) for the baseline (2017) period, and then update it to the first cap period (1 January to 31 March 2019). In this chapter we discuss the overall cap and the headroom allowance for the baseline cap period (2017).

2.2. Within the overall cap level, we have included a headroom allowance that is over and above our efficient benchmark. We have set the headroom allowance at an amount equal to £10 (plus VAT) in 2017 terms, but we update this over time. In the first cap period, the headroom allowance is £12.

2.3. This allowance is one of the ways in which we recognise the net cost of uncertain pressures that are not already captured in other areas of our methodology for setting and updating the cap. We also recognise uncertainty by using prudent assumptions when estimating the cost benchmark in a number of instances, setting the benchmark at a level that reflects the variation in costs that exists between suppliers for reasons other than efficiency, and updating the cap to adjust for changes in costs that are outside suppliers' control.

2.4. We express the headroom allowance as a fixed percentage of all costs, excluding networks. This ensures the headroom allowance is indexed to its primary motivating factor – uncertainty in the underlying costs. Each time we update the cap, we apply this percentage (1.46%) to the relevant cost components to set the new headroom allowance. The percentage value is fixed. In the first cap period this provides £12 of headroom for dual fuel, single rate, direct debit customers (expressed in annualised terms).

2.5. The baseline cap level has changed by -£8 in 2017 terms since the statutory consultation. This reflects a £8 decrease in the benchmark to reflect improvements in the methodology, and no changes to the value of the headroom allowance. Specific changes are discussed in the relevant decision document appendices and summarised in the overview. As a result of the headroom allowance remaining constant with the decrease in benchmark, the headroom percentage has increased by 0.01%, to 1.46%.

Setting the overall level of the cap

2.6. We have set the baseline default tariff cap, using a bottom-up cost assessment, at £998 (Dual Fuel, Single Rate) for customers who pay by direct debit, and £1,074 for customers who pay by standard credit at typical domestic consumption values (TDCV) in 2017 terms. We consider this level of the cap best meets the objective of the Act.

We have given due consideration to the matters to which we must have regard in making our decision.[3]

2.7. Our decision on headroom has been taken in the round with our decision on the efficient costs benchmark. The default tariff cap includes an allowance reflecting our estimate of efficient costs and an additional amount of headroom. To set the level of the cap we considered the objective of the Act, and matters set out in Section 1(6) of the Act.

2.8. The objective of the Act is to introduce a cap which protects existing and future domestic customers on SVT and default tariffs. In doing so we must have regard to:

- 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.

2.9. The Act sets us the objective of protecting existing and future customers who pay standard and default rates. In setting the cap in pursuance of this objective, we must have due regard to the four needs identified by the statute, set out above. We have sought to do so carefully, rigorously and conscientiously.

2.10. 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. Rather, our duty is to bring each of these important needs into consideration when setting the cap.

2.11. We consider that the overall level of the cap meets the objective to protect customers, and that we have given due regard to all the matters in the Act. We have included allowances for uncertainty and variations in the efficient costs as a result of having given due regard to these matters.

2.12. We set out our detailed evidence and analysis in the Impact Assessment of the expected impacts of the overall level of the cap. Further detail is also available in our statutory consultation documents. Our views on the potential overall impacts are unchanged since the statutory consultation, except where explicitly stated in Chapter 3.

[3] Detail on the level of the cap is set out in the Overview document.

Headroom allowance and other allowances

2.13. We have decided to allow a headroom allowance between our assessed efficient cost and the default tariff cap in the baseline (2017), of £10 (Dual Fuel, Single Rate, direct debit). This allowance is set as 1.46% of all cost components excluding networks under the default tariff cap.

2.14. The headroom allowance is one of the ways we recognise the net cost pressure of uncertainties that are not already included in our efficient benchmark. We arrived at the headroom allowance by considering:

- upward cost pressures not captured in the efficient benchmark or other mechanisms inherent in the cap design;
- downward cost pressures not captured in the efficient benchmark or other mechanisms inherent in the cap design; and
- scope for any remaining unidentified errors and uncertainties.

2.15. The evidence we received in response to our statutory consultation enabled us to better understand these factors.

2.16. Taking the benchmark and headroom allowance together, we have included £37 (excluding VAT) in our baseline cap level to reflect uncertainty and the risk that an efficient supplier might incur costs above the 'efficient frontier' benchmark (Table A2.1). This approach differs to that taken by the Competition and Markets Authority (CMA) in setting the pre-payment meter cap, which set a competitive benchmark and added an explicit headroom allowance on top of this benchmark.

2.17. We have included:

- the £10 explicit headroom allowance that accounts for residual net uncertainty;
- £23 for variation in efficient operating costs; and
- an explicit 1.0% of wholesale costs (£3) allowance for additional uncertainty, beyond the prudent allowances for shaping, imbalance, and transaction costs.

Table A2.1: Components of benchmark and headroom (baseline cap values, 2017)

Cost component	Efficient frontier	Additional allowances	Total
Wholesale	366	3	369
Policy	117	0	117
Networks	258	0	258
Operating costs	146	23	169
Payment method uplift	11	0	11
EBIT at 1.9%	17	1	18
VAT @ 5%	46	1	47
Benchmark	**960**	**28**	**988**
Headroom	0	10	10
VAT @ 5%	0	1	1
Total impact on DD customers	**960**	**39**	**998**
Excluding VAT	914	37	951

Ofgem analysis, 2018

Notes:
1. Where columns and rows do not sum, this is due to rounding.
2. The additional allowances only show specific allowances for uncertainty and the difference between frontier and our benchmark costs. Other aspects of our methodology will reduce the impact of uncertainty, but they are not shown here. For instance we do not show the impact of prudent assumptions, updating the cap, or the extent to which mean consumption levels increase suppliers' profitability comared with typical consumption.
3. For the payment method uplift we use the lower quartile to set efficient costs – for direct debit customers the uplift is £4 higher than if we had used the frontier supplier (taken across all cost categories combined).

2.18. We have allocated allowances to cost categories in this way where possible because the allowance will then evolve over time in the same way as the underlying risk. For example, the explicit wholesale uncertainty allowance will scale with the underlying wholesale prices. The variation in efficient cost allowance scales with operating costs.

2.19. In addition to the overall headroom allowance, and the additional allowances included in components of the efficient cost benchmark which are summarised in the table, there are four other ways by which we accommodates uncertainty affecting our estimates of efficient costs:

- Prudent assumptions: for example, how we estimate shaping costs, and we use average smart installation costs (rather than lower quartile or frontier costs).
- How frequently we update the cap: The level of the cap is updated every 6 months, allowing changes in costs to be passed through on a regular basis.
- Reviews for areas of specific uncertainty: We will review the cost and pace of rolling out smart meters before the third cap period (October 2019).
- Above typical consumption: Because the level of the cap at nil consumption is set to reflect market practice in 2017 rather than being cost reflective, the design allows suppliers to earn more from consumers who use more energy than the median household, but less from those beneath the median. While energy use varies from year to year, actual mean consumption is in general above median consumption looking across the market as a whole, meaning that suppliers will

benefit on average. For a supplier setting their prices at the cap, and based on levels of consumption in 2017, we estimate this benefit would have been worth around £8 for a dual fuel customer at mean consumption in 2017.

Design

2.20. We have set headroom in percentage terms, so that it can scale with consumption. Also, to the extent that headroom plays a role to capture any uncertainty in costs, then it makes sense for it to increase when costs rise and decrease when costs fall.

2.21. The headroom allowance will scale in line with all cost components, except network costs. We think it is appropriate to exclude network costs since they are known with a reasonable degree of precision, and are unlikely to vary over a six-month period.

2.22. The efficient benchmark is set higher for customers paying by standard credit than for customers paying by direct debit. This reflects the additional costs and risks of supplying customers paying by standard credit.[4] As a consequence, the headroom allowance is slightly higher (£1 in 2017) for customers paying by standard credit.

2.23. The cost components in the efficient benchmark to which we apply the headroom allowance vary regionally due to differences in electricity losses. Headroom will be applied to these cost components due to the uncertainty associated with them. As a consequence of this, the absolute value of headroom will vary by region. However, the scale of these variations is very small. We estimate that there is less than 10p between highest and lowest in the baseline for a direct debit dual fuel customer with typical consumption.

2.24. We have decided to set the headroom allowance as a fixed percentage. We have not included a glide path either upwards or downwards. We consider that an initial downward glide path would result in a delay to the level of protection provided to consumers and would not be in line with the objective of the Act. We will consider our recommendation to the Secretary of State in 2020 on whether to remove the cap before considering whether there should be a glide path to support the transition out of the price cap regime. If we conclude one is appropriate, we would amend the headroom allowance through a modification of the licence.

[4] Our approach to allocating costs incurred between customers paying by direct debit and customers paying by standard credit is discussed in detail in Appendix 8 – Payment method uplift.

Changes in our approach from our statutory consultation

2.25. The level of the benchmark has been increased by an amount equivalent to £1 in the first cap period[5]. This is due to:

- increases in the allowance for unidentified gas (£2)[6], smart meter replacement costs (£6)[7], and error corrections (£4)[8]; and
- decreases in the allowance for corrections to how we benchmark the lower quartile costs for the payment method uplift (-£5)[9] and the treatment of direct debit working capital (-£6)[10].

2.26. In the baseline period (2017) the changes are similar, except that there are no changes to smart metering or error corrections relating to the smart metering allowance (because these are changes to the Smart Meter Net Cost Change (SMNCC) which is an incremental allowance which is separate to the baseline). Therefore, the level of the cap has decreased by £8, from £1,007 to £998[11].

2.27. The headroom allowance percentage has changed from 1.45% to 1.46%. This is because our method is to set the 2017 headroom allowance in cash terms at £10 (the same as in statutory consultation), and then convert that into a percentage. The decrease in the 2017 benchmark mean that the percentage has increased slightly. For the first cap period, headroom has marginally increased in cash terms compared to our consultation, and so remains at £12 when rounded to the nearest pound.

2.28. In response to our consultation, stakeholders have provided more evidence and views on the uncertainties they face, and their costs. Combined with changes to the benchmark, this allowed us to review our consideration of the uncertainties that suppliers face, and consider the residual net risk not already contained in the benchmark. The consultation responses have provided more detail on the particular risks that suppliers face, but have not caused us to change our views on the overall net risks involved. This is because identified uncertain upward cost pressures do not appear to outweigh the uncertain downward cost pressures we have identified. Overall, we consider that leaving the headroom level unchanged is a prudent approach. This is discussed in more detail in Chapter 3.

[5] Changes in individual components in the sub-bullets below may not sum to the totality of the change in the cap level due to rounding.
[6] See Appendix 4 – Wholesale for further details.
[7] See Appendix 7 – Smart metering costs for further details.
[8] The majority of these corrections relate to minor modelling updates relating to smart meters and detailed in Appendix 7.
[9] See Appendix 8 – Payment method uplift for further details.
[10] See Appendix 8 – Payment method uplift for further details.
[11] The change is from £1006.61 to £998.48, an £8 decrease.

3. Considering consultation responses

We describe the responses received to our statutory consultation, and explain what changes we have made and how we have reached our final decision.

Overview

3.1. We received over 40 responses to our statutory consultation. Respondents commented on various aspects of our approach to setting the overall level of the cap and the headroom allowance. We discuss the issues raised in this chapter. As respondents discuss the cap and provide figures for the initial cap period (January – March 2019), in this chapter we generally refer to the cap and the headroom allowance for the initial cap period.

3.2. The main issues raised relate to the overall level of the cap and our approach to estimating its impact:

- Our interpretation of the Act's requirement for us to protect existing and future SVT and default tariff customers.
- Our interpretation of the matters to which we must have regard as set out in Section 1(6) of the Act.
- Our data and approach for estimating the impacts of the overall cap on customers and suppliers.

3.3. The main issues stakeholders raised relating to the headroom allowance (and other allowances) were:

- The principle of including an allowance for headroom;
- The value of the allowances for the sources of uncertainty included in the efficient cost benchmark;
- The amount of headroom allowance allowed for the residual uncertainty not included in the efficient cost benchmark; and
- The value of the allowances for the sources of variations in cost included in the efficient cost benchmark and the headroom allowance.

3.4. Finally, respondents raised two main issues relating to the design of the headroom allowance:

- The cost categories to which the headroom allowance percentage is applied; and
- The inclusion or exclusion of a glide path.

The overall level of the cap and the underpinning analysis

3.5. 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. In so doing we must have regard to the following matters:

a) the need to create incentives for holders of supply licences 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 domestic supply contracts;

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

3.6. The Act therefore sets us the objective of protecting existing and future customers who pay standard and default rates.

3.7. In setting the cap in pursuance of this objective, we must have due regard to the four needs identified by the statute, set out above. We have sought to do so carefully, rigorously and conscientiously and we set out below (and in Appendix 2 of our statutory consultation) 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 impact of the cap level.

3.8. 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.[12] 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.

- 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 standard and default tariff customers.

[12] 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).

- 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 standard and default tariff customers.

- Ensuring that an efficient supplier with a very high cost customer base is financeable would entail 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 standard and default tariff customers.

3.9. We have at all times had well in mind that we must have regard to all of the needs the Act identifies, and we have done so in reaching our conclusions as to how best to fulfil our mandate to protect existing and future customers who pay standard variable and default rates.

The Act's requirement to protect existing and future default tariff customers

3.10. Our statutory consultation proposed a cap level which would have saved dual-fuel single-rate customers with typical consumption around £92 per annum in 2017 (£75 in 2019), and reduced bills by around £1.3 billion per annum. Our final decision is estimated to save customers around £102 per annum in 2017 (£76 in 2019), and reduce bills by around £1.4 billion per annum.[13] The range of savings for dual-fuel single-rate customers with typical consumption in 2017 would have been between £63 and £170 for the six largest suppliers. For an individual customer, the amount the savings under the cap varies depending on how much energy they use, where they live, how they pay for their energy and the identity of their current supplier.

3.11. Some stakeholders were supportive of the price protection we proposed providing to customers, arguing it would make a significant positive difference for households. Other stakeholders argued that the default cap level is too low, due to our incorrectly equating immediate financial savings with protection. They argued customers are best protected through effective competition and consequently a higher cap.

3.12. Some stakeholders also argued that we had placed insufficient weight on non-financial aspects of protection – including customer service and the level of consumer engagement in the market (impacting future customers) – and that the cap level should therefore be higher.

Considering how protection relates to financial savings

3.13. Our views are unchanged from the statutory consultation.[14] We consider customer protection to be related to the extent to which the customers will pay a price that fairly reflects efficient underlying costs. The cap ensures that any changes in the prices customers pay will only be as a result of justified changes in the underlying cost to serve. Regardless of suppliers' pricing, the cap is designed to protect SVT and default tariff customers from being overcharged, ensuring their bills reflect costs.

[13] The impacts of our final decision are set out in detail in the Impact Assessment.
[14] Appendix 2 of our statutory consultation, paragraphs 4.12 to 4.18.

3.14. In addition, we consider there will continue to be incentives for customers to switch and opportunities for suppliers to compete effectively. This will ensure that the market as a whole benefits from competition. SVT and default tariff customers would not see the benefits of this competition if we set a higher cap, as they would continue to be overcharged.

Considering how protection relates to customer service and market engagement

3.15. Some stakeholders stated that a cap could discourage people from engaging with the market and increase the proportion of people on SVTs in the long run. As discussed in the sections on switching and competition below, we consider that there will continue to be incentives for engaged customers to switch to cheaper fixed tariffs 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.

3.16. 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 for those in vulnerable circumstances who may need additional help, or services, to get good outcomes from the energy market. 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 successfully first time.

3.17. In addition, suppliers remain able to offer fixed, non-default tariffs, at a higher price point for additional qualities or higher levels of customer service, and consumers can choose to select these products. It is not clear why default customers should pay a premium for a service they may, or may not require. We will continue to enforce the standards required by the licence with regard to ensuring that suppliers provide a reasonable and effective customer service.

The Act's requirement to have regard to the need to create incentives for holders of supply licences to improve their efficiency

3.18. Some stakeholders argued that the cap level we proposed:

- represented a huge efficiency challenge for most suppliers
- including an £5 efficiency incentive that was not necessary, given the need to avoid setting a level of the cap below that which is necessary to ensure efficient suppliers can finance their activities, and given the temporary nature of the cap
- risked suppliers reducing costs in manner that is not sustainable or is detrimental to customer service, and
- would reduce competition, which they argued is the best means of driving efficiency.

Our consideration

3.19. In setting the efficient operating costs benchmark close to lower quartile costs, around £23 above the frontier,[15] we recognise that many suppliers in the market will currently have operating costs above the allowance. As discussed in Appendix 6 – Operating costs and in paragraphs 3.39 and 3.92 below, the level of the operating cost benchmark (£5 below the lower quartile) reflects our view on what is an efficient level of costs.

3.20. In setting the level above the frontier and by including a headroom allowance we have given due consideration to the need to create incentives for holders of supply licences to improve their efficiency whilst having regard to other factors, including financeability.

3.21. The evidence that we have collected suggests that setting the efficient benchmark at the level of the supplier closest to the lower quartile would likely lead to an operating cost allowance *above* the efficient level of costs, which would not protect customers. Our estimates suggest that differences in suppliers' customer bases would explain only a proportion of the difference in costs between the frontier and the lower quartile supplier. Given this, we do not consider that we have set the benchmark too low, or that the deduction equivalent to £5 for a dual fuel customer is unjustified. We expect suppliers to take action to improve their efficiency.

3.22. We regard effective competition as the best way to improve long-term outcomes for engaged customers. We consider the principal way to drive effective competition is through market participation, long-term innovation and switching. But competition has not yet worked effectively in driving efficiency in the energy retail market, as documented by the Competition and Markets Authority.[16] As discussed further in paragraph 3.27 and the final Impact Assessment, we consider that there will still be considerable scope for innovation, active competition and switching in the market after the introduction of the default tariff cap, though acknowledge that this is likely to be lower than prior to the introduction of the cap. This will continue to create incentives for suppliers to become more efficient. Our long term work to reform the market will enable competition to be an effective driver of efficiency once the cap is lifted.

The Act's requirement for us to have regard to the need to enable suppliers to compete effectively for contracts

3.23. Stakeholders mainly focused on switching, which we discuss below. Some stakeholders also argued that:

- the level of the cap will lead to reduced market entry and/or increased market exit
- the level of the cap will lead to reductions in innovation, and

[15] This point, including responses to our statutory consultation, is discussed further in Appendix 6 – Operating costs.
[16] Competition and Markets Authority Energy Market Investigation Final Report, Paragraphs 188 – 202.

- the level of headroom unjustifiably distorts market competition, through amplifying issues with policy cost exemptions and small supplier risk profiles.

3.24. Stakeholders also raised concerns around the interaction between effective competition and financeability. We discuss this in the section on financeability below, paragraphs 3.36 to 3.44.

Our consideration

3.25. We have had regard to ensuring suppliers can compete. 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 new entrants to continue to offer competitive tariffs.

3.26. When setting the cap, we have had regard to allowing an efficient operator to make a reasonable return. 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. Ofgem has protections in place for consumers that ensure supplies remains secure and any credit they may have with their supplier is protected.

3.27. We do not consider the cap to be a significant barrier to innovation. The price cap will provide temporary protection to those consumers who are not engaging in the market and as a consequence 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 roll-out of smart metering, half-hourly settlement, faster and reliable switching, and our future supply market arrangements work should facilitate greater innovation. They mean that increasingly consumers will be able to engage in the market with a broader range of service providers, in different ways, delivering better consumer outcomes.

3.28. We recognise that policy cost exemptions and different risk appetites can support some small suppliers in their pricing strategy compared to mid-tier or larger suppliers. On the other hand, such small suppliers also face disadvantages such as the lack of a pre-existing stable customer base. Our evidence and analysis, as set out in our statutory consultation and the final Impact Assessment, supports our view that a number of suppliers will be able to offer tariffs significantly lower than the default tariff cap, with or without policy cost exemptions.

The Act's requirement for us to have regard to the need to maintain incentives to switch supplier

3.29. Some respondents argued that:

- the headroom allowance did not include any allowance for competition and switching

[17] State of the Market Report 2018, Figure 2.16.
https://www.ofgem.gov.uk/system/files/docs/2018/10/state_of_the_energy_market_report_2018.pdf

- a supplier using all of the allowances for uncertainty and efficient cost variation to price beneath the cap, even with policy cost exemptions for small suppliers, can still only price around £100 beneath the cap, and Ofgem's data suggested most customers are not willing to switch for less than this amount

- the estimated reductions in switching (up to 50%) are not consistent with maintaining incentives to switch

- recent market changes could lead to switching reducing by more than 50%.

3.30. No new sources of evidence for a higher cap with regard to the impact on switching have been presented in response to our consultation.

3.31. Our estimates of the impact remain unchanged for a relatively stable market, and in general have not been challenged by stakeholders.[18] Our statutory consultation set out comprehensively our data sources and methodology for analysing switching impacts. Our approach aligned closely to that suggested by stakeholders in response to our working paper[19] and our policy consultation in May.[20]

Our considerations

3.32. Switching today is primarily related to savings – any reduction in savings available will likely lead to reductions in switching compared to what they would be in the absence of the cap. It would not meet the objective of the Act for the cap to have no impact on savings available, as this would require a cap at or above current default prices, providing no protection to consumers. As such, it follows that switching would be unlikely to be maintained at current levels whilst achieving the objective of the Act. In that regard it would not appear to be consistent with the objective of the Act to allow customers on SVT and default tariffs to be overcharged simply in order to increase the headline savings available from switching to a better deal.

3.33. Incentives to switch are stronger if the price differential is higher (and the cap level correspondingly higher). However, we consider that the proposed level of cap meets the objective and we have given appropriate regard to the matters in the Act, including the need to maintain incentives for switching. Our top-down and bottom-up modelling suggests some suppliers can offer savings of £100 - £150 beneath the cap. The opportunity for different business models that do not rely on price alone to encourage switching will also persist when the default tariff cap is in place, for example, competing on customer service.

3.34. The default tariff cap is temporary. There are a number of long term programmes which will prompt consumer engagement and increase switching in the longer term, including smart meter roll-out, faster and more reliable switching, and customer prompts.

[18] The changes in our 'top down' analysis (set out in Appendix 2 (and its accompanying annexes) of our statutory consultation) are minor, and are discussed briefly in paragraph 3.10, and more fully in the Impact Assessment accompanying this decision document.
[19] Working Paper 3, "Our thinking on including a headroom allowance", April 2018.
[20] Appendix 2, policy consultation on the default tariff, May 2018.

3.35. We discuss the short-term implications of recent market trends in wholesale prices, fixed tariffs and SVT pricing in paragraphs 3.45 to 3.54 below.

The Act's requirement for us to have regard to the need to ensure efficient supplier financeability

3.36. Some consultation respondents argued that:

- Circumstances specific to an individual supplier (or group of suppliers) mean they are not financeable at our proposed cap level, even if they operate efficiently. For example, suppliers with higher proportion of vulnerable or single-fuel customers than the benchmark supplier, or a greater proportion of standard credit customers, could incur operating costs above the level allowed for in the cap. These respondents suggested that the Act requires that Ofgem set the cap at a level that allows *all* efficient suppliers to cover their costs.

- The proposed default cap level is not compatible with the levels of customer service some suppliers currently offer, and so it was suggested that such suppliers will need to reduce their level of customer service consistent with financeability at this level of the cap.

- An efficient supplier can make a normal return and be financeable by pricing at the cap level. Effective competition requires non-default tariffs priced below the cap level, to encourage market engagement, which must earn suppliers less than a normal return. It was suggested that efficient suppliers therefore cannot both compete effectively and earn a normal return (and hence be financeable) and that such an outcome is inconsistent with the Act.

3.37. Having carefully considered all the responses to the statutory consultation, we have decided not to change our approach to financeability set out in our statutory consultation. We do not agree that our approach is inconsistent with the Act. We have assessed financeability at the final level of the cap using both our top-down and bottom-up methodologies. These methodologies are discussed in detail in our statutory consultation. As discussed further in paragraphs 3.48 to 3.50, and in more detail in the Impact Assessment, the results from both approaches provide comfort that we have had appropriate regard to the financeability of efficient suppliers.

Variation in costs between suppliers

3.38. There may be differences between suppliers that are not related to their efficiency, but which drive significant differences in their costs. Most significantly, some suppliers have a customer base that is more expensive to serve than others, for example more customers on the Priority Services Register, or fewer dual fuel accounts. The additional efficient cost to serve particular customer groups is difficult to determine with precision– supplier estimates vary significantly, and several characteristics are correlated – some of which we provide an allowance for (eg via the payment method adjustment, reflecting the additional costs of standard credit customers), and some of which are within management control. In addition, suppliers with characteristics which may cause them to have higher costs in some areas (eg more high cost customers due to being an former incumbent) may have cost advantages in other areas (eg potential scale economies due to larger size, or a more disengaged customer base who contact the supplier less frequently).

3.39. As discussed in detail in Appendix 6 – Operating costs, we have chosen an operating cost allowance that is £23 (excluding VAT, 2017 initial baseline value) above the costs of the frontier suppliers. We expect that suppliers with a range of different customer bases can cover an efficient level of costs (including all of the suppliers in our benchmarking sample, supplying over 90% of customers on default tariffs, as discussed in more detail in paragraph 3.92). 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 SVT customers to be overcharged, resulting in significantly less protection for customers on default tariffs.

3.40. As we have stated in paragraphs 3.39 and 3.92, we consider that the operating cost benchmark is sufficient for an efficient supplier with the highest cost customer base among our benchmark sample of suppliers to cover its efficient costs. We recognise that there is some uncertainty around our estimates. This is discussed further in paragraphs 3.93 to 3.95.

Considering customer service

3.41. As discussed in paragraphs 3.15 to 3.17, we have set the cap at a level at which we consider efficient suppliers can provide a reasonable level of customer service. The cap level is sufficient for an efficient supplier to provide a reasonable level of customer service that is consistent with the licence conditions. We have created incentives for inefficient suppliers to become more efficient, and we recognise that they are likely to try to reduce their costs. We expect this to be done without compromising customer service – we will not relax our standards and will continue to enforce the standards required by the licence terms.

Considering normal returns and effective competition

3.42. We have assessed the finances of individual suppliers, and considered the potential for them to earn a normal return at the cap level if they become as efficient as the operating cost benchmark and potentially adapt their non-default tariff pricing strategy. We consider these actions to be within supplier management control, and that the cap provides strong incentives for suppliers to improve their efficiency.

3.43. We have had regard to providing sufficient allowance for efficient suppliers to earn a normal return. Through headroom, and a number of approaches built into the cap design (discussed in paragraphs 3.63 to 3.65), many efficient suppliers (both with and without policy cost exemptions) will be able to offer tariffs below the cap level and to earn a normal return. These suppliers can play an important part in enabling effective competition. In addition, we recognise that some suppliers with very few default tariff customers are willing to offer non-default tariffs significantly below the cap level in the current market, and that this position has persisted to a greater or lesser extent for several years.

3.44. We have had regard to ensuring that efficient suppliers are financeable (as discussed above), and to enabling the market as a whole to provide effective competition. Both our 'top-down' and 'bottom-up' analysis discussed in the statutory consultation inform this assessment.

Our data and approach for estimating the impacts of the overall cap on customers and suppliers

3.45. Our statutory consultation described our 'bottom-up' and 'top-down' analytical approaches to setting the level of the default tariff cap. We also set out our estimates of the potential impacts of the cap, and modelled several scenarios.

3.46. Most stakeholders did not challenge our analytical approach or evidence base. We have updated our analysis to reflect the small movements in the overall value of the cap. It gives similar results to those discussed in the statutory consultation. Taking this alongside our bottom-up analysis and recognising the margin of error around any analysis, we have not changed our overall views of the expected impacts of the default tariff cap. The final Impact Assessment published alongside this decision presents the results of the analysis in detail.

3.47. Some respondents stated that current fixed tariffs are rising towards the proposed first period default tariff cap level. They argue this reduction in price dispersion will lead to greater reductions in switching than suggested by our modelling, and potentially also reduce competition and make financeability more challenging. They also argued suppliers will no longer offer discounted acquisition fixed tariffs, further narrowing price dispersion.

Our consideration

3.48. We remain of the view that taken together, our analytical tools provide a robust and consistent indication of the cap's likely impact, as set out in our statutory consultation and in our final Impact Assessment.

3.49. When analysing the potential impacts of the cap, one relevant metric is the price dispersion between fixed tariffs and the default tariff cap. We considered this in two ways:

- How a hypothetical efficient supplier (with or without policy cost exemptions) may be able to offer fixed tariffs beneath the cap. We note and include in our analysis that such a supplier may or may not choose to cross-subsidise between their default and non-default tariff customers.

- How existing suppliers who offer fixed tariffs may behave following the introduction of the cap. It is plausible that some suppliers may continue to offer low prices, which may be low margin or even lossmaking, to attract market share. It would not be right for us to ignore current market dynamics when considering what impacts the (temporary) cap may have on prices.

3.50. Both of these approaches suggest that some suppliers will be able to price around £100 - £150 beneath the cap. This analysis is used in our Impact Assessment to support the estimates of potential changes to switching rates. The analysis is based on the most recent full year of data (2017), a period of relative market stability and so suitable for estimating the expected impact of the cap. We remain of the view this is the most appropriate approach to analysing the expected impacts of the cap.

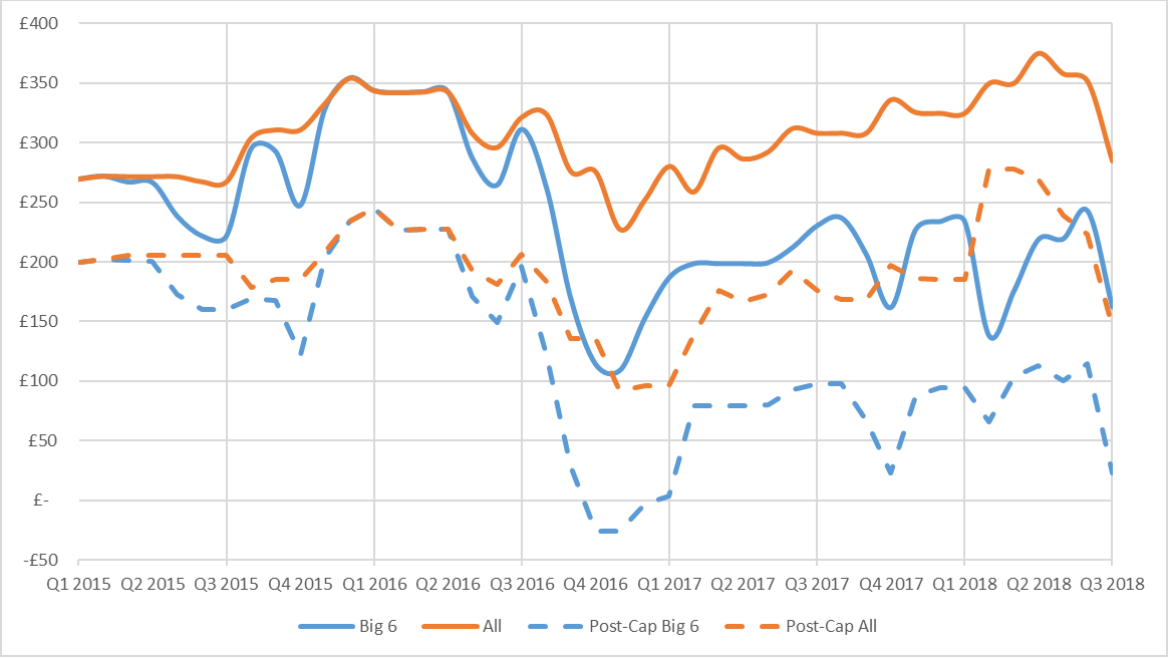
3.51. As stakeholders have noted, fixed tariff prices have recently risen, driven primarily by wholesale price increases. There is typically a longer lag for wholesale price rises to pass through to default customers than to fixed tariff customers. This therefore

reduces price dispersion with or without a price cap. This is because fixed tariff prices on offer in the market rise to reflect the underlying cost increases in the wholesale energy that needs to be purchased, whereas the wholesale energy costs for the default tariff customers (which have already been hedged) are initially unchanged.

3.52. We agree that in a period of rising wholesale prices the tendency of the price cap to reduce price dispersion will be exacerbated. In this case, there is a risk of switching falling further than we estimated. However we do not consider this to be a major concern:

- this already occurs in the market, and is a transitory effect that occurs when wholesale prices change
- the cap is updated relatively frequently (6 months), ensuring it remains cost-reflective. This is more frequently than many suppliers update their default tariffs currently
- the impact is symmetrical - in periods of stable wholesale prices, our estimates of reductions in switching remain appropriate, and in the event wholesale prices fall, may be too conservative
- the current situation appears to be relatively unusual (see Figure A2.1) – we still consider that basing our analysis on the relatively stable period of 2017 is most appropriate for considering the overall impacts of the cap.

Figure A2.1: Evolution of price dispersion, January 2015 to September 2018



3.53. As such, we do not believe a temporary fall in switching that is greater than our estimates would be inconsistent us having due regard to maintaining incentives to switch.

3.54. In addition, whilst some suppliers argue this issue exacerbates their financeability and effective competition concerns (discussed in paragraphs 3.36 to 3.44), we consider

that short term market trends and fluctuations should not be a key consideration for how we have appropriate regard to these matters as set out in the Act. It would not be proportionate for us to significantly increase the cap for its full duration just to mitigate the potential temporary impacts on switching in periods of rapidly increasing forward prices. Such an approach would not provide appropriate protection to customers whilst having due regard to the matters set out in the Act in the periods where wholesale prices are not developing in this way.

The role and value of the headroom allowance

3.55. There is uncertainty in the true costs that efficient suppliers will incur. Through their responses, stakeholders identified a number of such uncertainties which we have considered carefully. Where appropriate these uncertainties are addressed directly in specific cost allowances and in the design of the cap. Where this is not appropriate, we have considered them as part of the headroom allowance, alongside consideration of unidentified errors, unavoidable risk of modelling limitations, the need to avoid spurious accuracy, biases and other such factors. In so doing we have taken due consideration that not all uncertainties will occur simultaneously and will not affect each supplier equally, and that as well as uncertainties raised by suppliers that might suggest cost increases, some uncertainties are symmetrical, ie. they could push down on costs and that there are areas in the efficient benchmark where we have taken a more prudent approach to estimating the allowance, as discussed below. Below we discuss stakeholder views and our responses on:

- the principle of including a headroom allowance
- allowances for uncertainty included in the efficient benchmark
- residual uncertainty included in the headroom allowance, and
- variations in efficient cost included in the efficient benchmark and the headroom allowance.

The principle of including an allowance for headroom

3.56. Our statutory consultation proposed including a headroom allowance in the cap level, motivated by the need to provide an allowance for uncertainties and efficient cost variations not directly captured in the efficient cost benchmark.

3.57. Most stakeholders agreed that there is unavoidable uncertainty that should be considered when setting the cap. Some consultation respondents argued that separate headroom allowances are required for both uncertainty and for competition and switching.

3.58. Conversely, one respondent argued that no headroom allowance is necessary, as the efficient cost benchmark is sufficient, and suppliers should not be allowed to overcharge customers and earn excessive returns.

Our consideration

3.59. There is uncertainty in the true costs that efficient suppliers will incur. To the extent there is credible evidence of uncertain cost pressures which could lead to costs that are higher than the benchmark, as well as the existence of material variations in cost between supplier that are not driven by efficiency, there is a need for a headroom allowance.

3.60. We have given consideration to the impact of the cap on competition and incentives for switching and do not propose to include an additional headroom allowance in the cap for these purposes. We have set the level of the cap to meet the objective of protecting consumers. Setting separate additional allowances for uncertainty and for switching and competition would systematically allow some companies to make super normal profits, and would not meet our objective to protect default tariff customers. For some suppliers their operating costs will be substantially below the benchmark. These suppliers can utilise the available allowances to offer additional savings to existing and new consumers on default or fixed tariffs.

Treatment of uncertainties within the efficient benchmark

3.61. Our statutory consultation proposed a default cap level that, for 2017, measured against a frontier benchmark, included £39 of allowances to account for uncertainty and variation in efficient cost. It also proposed a number of assumptions and review mechanisms to further account for uncertainty.

3.62. Stakeholders in general did not comment on our approach to uncertainty in the efficient benchmark, and directed their comments primarily towards uncertainties that they argued should be included in the headroom allowance.

Our consideration

3.63. Our approach to accounting for uncertainty in how we estimate the different components of costs comprising the cap is largely unchanged:

- Uncertainty in wholesale costs is addressed through how we have constructed the wholesale cost allowance in the efficient benchmark. We have based the allowance on a hypothetical supplier who takes reasonable steps to manage their wholesale risks before delivery. We have taken into account the expected cost of shaping and transactions. These allowances use a combination of historical and industry standard data, so we consider that they capture typical wholesale market variability. We have also assumed suppliers always have to pay imbalance costs, rather than receive imbalance payments. In practice suppliers will sometimes benefit and this will partially offset the imbalance payments they make.

- We have also included an additional 1% of direct fuel cost in the efficient benchmark to help suppliers manage the uncertainty around risk, unmodelled volatility in demand, and methodological uncertainty, ie potential issues with our modelling. These are risks that all suppliers will face and are specific to wholesale, so we include an allowance in the benchmark. Our models have been reviewed by suppliers' advisors during the consultation period. They revealed limited changes, reducing the risk that we have understated the allowances due to methodological mistakes or simplification.

- While our allowance for policy costs rely on forecasts of scheme costs, and so will be subject to some uncertainty, we have sought to minimise this by using the best available information in relation to the expected costs of each scheme. We have found that there have been material differences between expected and outturn costs for some schemes in the past, with forecast costs typically exceeding outturn costs. However, there are also reasons to expect this variability to reduce going forwards.[21]

- Uncertainty in network charges principally affects Balancing Services Use of System (BSUoS) charges. To avoid undue uncertainty, we have designed the cap to pass through actual BSUoS charges with a lag of one year. The impact of the lag is discussed in paragraph 3.77 below.

- In relation to operating costs, as described above, we have set the level of the benchmark significantly above the costs of the lowest cost suppliers in our sample. This partly reflects the uncertainty we face as to what an efficient level of these costs is. Further, when updating the operating cost allowance over time, we do not capture our expectation of efficiency improvements at the frontier (for example due to opportunities for greater digitalisation and automation, driven by technological change), nor do we take into account the likelihood of falling customer acquisition costs, which may result if the cap leads to lower levels of customer churn.

- Uncertainty in smart costs is addressed primarily through a number of aspects of the smart cost increment approach. First, we will review the non-pass through costs 2019 for the third period of the cap. This review should enable any material changes in efficient costs or changes to roll-out, driven by policy decisions or other factors, to be identified and included in the allowance as appropriate. This should also allow for any additional information that becomes available over time to be factored into modelling assumptions. In addition, to allow for variations in efficient cost and to provide additional allowance for uncertainty, the non-pass through elements of the increment is based on average unit costs rather than lower quartile or frontier costs. Further, the modelled rollout profile is one that exceeds the majority of the suppliers forecasted rollouts.

- We have set the Payment Method Uplift (PMU) using the lower quartile cost supplier, which is £4 more expensive than the frontier supplier for direct debit customers. Whilst we recognise there is uncertainty and legitimate variation in efficient costs, we consider it unlikely that the true efficient cost is £4 above the frontier supplier, which is a large six supplier which broadly has a representative customer base.

3.64. The process we have decided to use to update the level of the cap will also minimise the scope for the cap to systematically over- or under-state the true level of efficient costs:

- First, because the regular six-monthly updates to the cap will allow trends in costs – whether anticipated or otherwise - to be passed through to the cap quickly. We note that suppliers already take on risk when setting their prices, and that default tariffs have rarely been changed more than twice in a year in the period since

[21] This is because of the proposed closure of the FiTs scheme (making generation and therefore costs more predictable); as the CfD program becomes more established; and as a new ECO obligation period begins (reducing the effect due to differences in the profile of suppliers' ECO expenditure over time).

liberalisation (while suppliers commonly offer fixed price tariffs with a duration of one year or more). This gives us confidence that a twice-annual review of the level of the cap should in general be sufficient to avoid undue risk for suppliers.

- Second, in the unlikely event that the cap was to materially depart from the intended level, we have flexibility to review the design to correct for this. Specifically, we would be able to amend the update process to reflect any systematic limitations of the design using the licence modification powers under the Act. We have included a provision within the licence condition to allow us to, subject to consultation, to make changes to the models used to update the wholesale, policy, networks and smart metering components of the cap under certain circumstances.

3.65. Further, because the level of the cap at nil consumption is set to reflect market practice in 2017 rather than being cost reflective, the unit rates for a simple tariff implicit in the cap is higher than it would be if the cap were fully cost reflective at nil consumption. This implies that suppliers can earn more from consumers who use more energy than the median household, but less from those beneath the median. While energy use varies from year to year, actual mean consumption is in general above median consumption looking across the market as a whole, meaning that suppliers will benefit on average. For a supplier setting their prices at the cap, and based on levels of consumption in 2017, we estimate this benefit would have been worth around £8 for a dual fuel customer at mean consumption in 2017. This varies by supplier, for example from £3 to £17 within the six largest suppliers alone.

Treatment of residual uncertainties in the headroom allowance

3.66. Our statutory consultation proposed a headroom allowance of £10 (initial baseline value), or 1.46% of costs excluding networks, to account for uncertain cost pressures that are not already accounted for in our efficient cost benchmark. We also proposed a wholesale uncertainty allowance of 1% of wholesale costs. In the first cap period (January to March 2019), these values were approximately £12 and £4 respectively. We have decided to not materially change these values.[22]

3.67. Some stakeholders have argued that specific allowances are not large enough to cover the costs of the underlying uncertainty. They have also identified a number of additional sources of uncertainty. In some instances they have provided additional evidence to support their arguments. These are discussed in paragraphs 3.68 to 3.87 below.

Our consideration

3.68. Costs will differ from the efficient benchmark from year to year across the industry for reasons that are not just related to efficiency. To the extent these are not captured in the efficient benchmark (as discussed above), there is a role for a headroom allowance. There are both upward and downward cost pressures that are relevant for our consideration in the round when setting the headroom allowance.

[22] As both are set as a percentage of other costs in 2017 terms, they have changed very slightly in absolute value as the underlying cost allowances have slightly changed, as discussed in paragraph 2.25.

3.69. This allowance is not intended to take account of all possible risks of a divergence in costs above the levels identified in the cap. Such an approach would lead to an unfeasibly high cap that would not reflect how suppliers manage risks, and would not provide the level of protection to customers for Ofgem to meet the objective of the Act. Rather it reflects an allowance in the round for the net cost of such uncertainties, recognising that they may or may not occur in any given year and that individual uncertainties are not necessarily correlated to each other. In a typical year, such costs may well be lower.

3.70. We consider that headroom and uncertainties need to be considered in the round because of the inherent difficulty in quantifying any one issue and estimating its potential frequency and the extent to which uncertainties may offset each other. Moreover there will be unidentified uncertainties and limitations in any modelling of this nature. The value of headroom needs to be considered in the round to take account of these issues. We set out the particular uncertainties we have considered in setting the allowance.

Wholesale cost uncertainties

3.71. In August 2018, Ofgem announced it was considering whether there was a case for suspending the Market Making Obligation (MMO). The MMO was designed to support the availability of hedging products and improve price robustness in the wholesale market. Under this at the outset, six market makers were obligated to post bids and offers for specific wholesale products (eg electricity for delivery in the next season) at specific times every day. However, if planned changes in the ownership of generation assets, Ofgem considers it likely that the resulting structure of the market would not support the continued operation of the MMO. The impact this may have on supplier costs is very uncertain and therefore hard to predict. In the event of an increase in the bid-offer spread to the levels seen before the introduction of the MMO, this would increase costs to suppliers. We cannot forecast what the exact market impact would be, but we consider it unlikely that spreads for the contracts we are assessing would return exactly to pre-MMO levels as the market context is now very different.

3.72. Suppliers face a demand volume risk when purchasing their energy wholesale in advance of delivery. Suppliers will not be able to perfectly forecast their default tariff customer numbers, though we consider that forecasting customer numbers accurately is a core activity of being an energy supplier, meaning suppliers should have some control over this risk. To the extent that they make errors, they may have to buy/sell the wholesale energy purchased to meet this unforeseen change in demand and so are exposed to wholesale price risk. One supplier valued this as being in the order of £0.50 per customer for every 1% change in customer numbers, a relatively small upward uncertain cost pressure.

3.73. Suppliers face additional cost if the market is in backwardation.[23] This is not a recurring cost if the market does not persist in backwardation. In this context, we have assessed a four-year period and found that the associated cost would broadly net out over the longer-term. However, we acknowledge that the impact of this exposure does have to be managed by suppliers. We consider that this will give a lower, but a material and recurring management cost. We have therefore given regard to basis risk

[23] See Appendix 4 – Wholesale costs for a detailed discussion of backwardation.

and the current market conditions when setting the wholesale uncertainty allowance and the headroom allowance.

3.74. Suppliers face additional uncertainty from our decision to align the capacity market to fiscal years, which increases our reliance on forecasts, and creates a mismatch between the costs incurred by a supplier in a given period and those captured in the cap. This risk is symmetric, and could cause efficient suppliers to incur slightly lower or higher costs than included in the efficient benchmark (although we expect costs to be higher than allowed for in the cap in the first period, as a result of our setting the allowance based on fiscal years).

3.75. A number of suppliers discussed the risks of extreme weather events and deviations from seasonal normal demand. One supplier estimated the costs of the "Beast from the East"[24] as £4 per gas customer for a single day. Our view is that this was a particularly exceptional weather event that could not be expected to occur every year, though another event of this nature might happen during the price cap, and so is a relatively small upward uncertain cost pressure to consider. We have also considered the impact of year-on-year fluctuations in temperature on supplier revenues and costs, to the extent that such fluctuations requires additional working capital to manage the risk. However, we consider that the impact of this variation will balance out over the longer-term.

3.76. These cost uncertainties are also addressed through the 1% wholesale uncertainty allowance, and discussed in Appendix 4 – Wholesale costs.

Network costs uncertainties

3.77. We have minimised uncertainty in our estimates of BSUoS costs by using lagged values of the actual charges to suppliers. However, two possible residual sources of uncertainty exist:

- First, because we use the charges from an early, rather than the final, settlement run (to avoid the lag that would otherwise be created), it is possible that costs may depart from the level in the cap due to revisions through the settlement process. We have reviewed the historic data and there is no clear pattern of under or overstating the final settlement value, with the variance under 3% of the BSUoS charge.

- Second, it was put to us that the use of lagged values may lead to under-recovery over the lifetime of the cap in the event BSUoS charges systematically increase over time (as they have done in the past). However, we note that there is considerable uncertainty over future trends in BSUoS charges, with factors which could cause these to rise or fall in the future. Even if BSUoS charges increase in line with historic trends, the materiality of the impact of the lag on suppliers' costs is likely to be relatively small.

3.78. One stakeholder argued that the cap should reflect the impact of group correction factors greater than one on suppliers' costs. This issue is discussed in detail in Appendix 5 – Policy and network costs. Our view is that while the scale and direction of any effect on costs is highly uncertain in advance, we'd expect it to even out over time.

[24] The most recent extreme weather event, in late February 2018.

While group correction factors for the previous two financial years would have led to costs above the level of the cap, we estimate the scale of the effect was small.

3.79. Unexpected trends in demand could also affect the network charges that companies incur, as a result of demand patterns departing from those assumed in our models. This risk is symmetric, and efficient suppliers could incur slightly lower or higher costs than included in the efficient benchmark.

Policy cost uncertainties

3.80. One stakeholder requested an adjustment to reflect that the benefits of FiT deemed exports to suppliers were entirely theoretical. Whilst we consider that this is a benefit to suppliers, we do recognise that both the level and the distribution of benefits between individual suppliers is uncertain and so have considered this in the round when setting the headroom allowance. In the extreme case that suppliers accrued no benefit as a result of exports (which we do not believe to be the case), one stakeholder argued that this could increase the allowance by around £0.90 per customer.

3.81. Unexpected trends in demand or wholesale prices could cause our forecasts of policy costs to turn out to be too high or too low. This risk is symmetric, and efficient suppliers could incur slightly lower or higher costs than included in the efficient benchmark.

3.82. One stakeholder requested additional headroom for policy cost volatility, amounting to an increase of £3.85. We consider this to be a high estimate, and in any case we do not consider any increase to be necessary – the EBIT margin is set to provide a return reflecting the overall level of risk borne by suppliers, including policy costs. To provide additional headroom allowance to suppliers for bearing this risk would double count the EBIT margin, to the extent that there is a cost.

Operating cost uncertainties

3.83. There are a number of factors which could increase or decrease suppliers' operating costs over time which are not captured in the cap, such as the changes in costs associated with regulatory programmes compared to the baseline period, increased charges from Xoserve as a result of systems investment, improvements in technology over time (eg automation) and falling customer acquisition costs.[25] We considered that it was uncertain whether the net effect would be an upwards or downwards influence on costs compared to the allowance included in the cap, but consider that the overall materiality of the effect would in either case be small.

Smart cost uncertainties

3.84. One source of uncertainty the smart increment (and review mechanism) does not fully address is differences between draft and final DCC charging statements in price control determinations, and any unscheduled additional pass-through charges. However, the materiality of this lag is low (eg between 2017/18 and 2018/19 we have modelled an

[25] Further discussion of these factors is detailed in Appendix 6 – Operating costs.

increase of £0.07 per dual fuel customer) and we note budgets may go down as well as up. We therefore consider the risks associated with this uncertainty are very low.

Other cost uncertainties

3.85. There is uncertainty (both upward and downward) in the EBIT margin – like all cost allowances it is an unbiased best estimate. As set out in Appendix 9 - EBIT, we do not agree with some suppliers' higher EBIT estimates.

3.86. If a supplier gets into financial difficulties and exits the market, there may be knock-on costs imposed onto other suppliers, for example, if the failed supplier has bad debts under the industry codes (which exceeded credit requirements that are set out in industry codes) or mutualisation schemes such as ROCs shortfalls, these may be spread across the industry through a variety of mechanisms and would not necessarily be included in the efficient benchmark allowance. Last Resort Supply Payments are managed through network charges, and so would be included in the efficient cost allowance through the network allowance. The credit arrangements set out in industry codes and other rules are designed to reduce the risks of these costs being passed onto other industry parties. Whilst it is not possible to estimate the cost, frequency or likelihood of such events, we note that in some circumstances some proportion of the headroom allowance may need to be used to cover such costs in the event they materialise.[26]

3.87. There is residual uncertainty for unanticipated non-weather related events which could affect wholesale prices, such as macroeconomic or commodity shocks.

Treatment of efficient cost variations in the benchmark and headroom

3.88. Suppliers may differ in ways that are not related to their efficiency, but which drive significant differences in their costs. Most notably, some suppliers could have higher operating costs due to having a customer base that is more expensive to serve. For this reason our statutory consultation proposed an operating cost allowance set a significant amount above the costs of the frontier suppliers, which are likely to not have wholly representative customer bases. This additional allowance was equal to £23 for the baseline 2017 period.

3.89. Some stakeholders have argued that the cap does not provide sufficient headroom to accommodate the costs of suppliers with higher costs for reasons other than their relative efficiency. They highlighted additional costs for:

- suppliers with above-average numbers of Priority Services Register (PSR), single fuel and offline customers
- suppliers with above-average numbers of standard credit (SC) customers

[26] We have undertaken a sensitivity analysis to consider the impact of such events occurring, to understand potential upward pressure on the headroom allowance.

- suppliers with Warm Home Discount SC customers (for whom, under our proposal, the level of the cap will equal the direct debit cap amount)

- large suppliers following the changes to how obligations are calculated under the ECO scheme from April 2019.

3.90. One smaller supplier said that while differences between suppliers' customer bases would lead to variations in costs, these differences would not be able to account for the extent of the difference between its own costs and the benchmark. It also submitted that while PSR customers were likely to interact more frequently with their supplier, customers that had been with their supplier for a longer period of time were, on average, less likely to interact.

Our consideration

3.91. We agree that there is likely to be variation in costs between suppliers that is not driven by efficiency, and we have had regard to this in how we have designed the level of the cap, and the amount of headroom we have included. As discussed above, this is principally addressed through the operating cost allowance, which in part reflects that we expect customer base differences to drive variation in operating costs between suppliers.

3.92. We expect this allowance to be sufficient for suppliers with a range of different customer bases to cover their costs, were they operating efficiently (including all of the suppliers in our benchmarking sample, supplying over 90% of customers on default tariffs). In this regard, we note that the supplier in our benchmarking sample with potentially the *highest cost* customer base (supplier A) has a level of costs only a small amount above the lower quartile supplier. In addition, a comparison of the number of PSR and single fuel customers supplied by supplier A and the frontier supplier – combined with our estimates of the additional costs of supplying PSR and single fuel customers suggests that the greater number of these high cost customers served by supplier A would account for only a part of the difference in costs between the frontier and the efficient benchmark. Therefore, even for the supplier with the potentially highest cost customer base in our benchmarking sample, our operating cost benchmark (set £5 below the lower quartile) contains a significant amount of allowance for uncertainty over and above customer base effects.

3.93. We have also (as discussed in paragraph 3.63) included scope for variation in efficient costs in the payment method uplift. Nevertheless, we consider that the possibility exists that suppliers with greater numbers of SC customers could face costs above the allowance, due to the way that we have spread these additional costs across different payment types (based on the market average ratio of direct debit to standard credit customers).

3.94. The cap is designed so that customers who receive the Warm Home Discount (WHD) and pay by standard credit are charged only the cap level for customers who pay by direct debit. Suppliers with such customers will therefore under-recover for this part of their base. This principally affects the six largest suppliers, by roughly £2.50 per customer when the under-recovery for WHD SC customers is spread across their entire default tariff cap customer base.

3.95. Finally, we note that there will be differences in suppliers' costs due to their obligations under government schemes. Our general approach has been to set the level of the cap to reflect the costs of a fully obligated supplier. However, as discussed in Appendix 5 –

Policy and network costs, from April 2019 the largest suppliers could incur ECO costs above the level allowed for in the cap. In general, we do not consider it appropriate to set the allowance for the overall cap on the basis of the supplier with the maximum obligation level, given the overall aim of protecting customers on default tariffs. Larger suppliers are also expected to have economies of scale in ECO delivery which should offset these additional costs. Nevertheless, we have considered this in our overall headroom deliberations, as one factor which could cause some suppliers to have higher costs than others for reasons other than efficiency. This could impact the largest suppliers by up to £1.25.

3.96. Appendix 6 – Operating costs of this decision document and Appendix 5 of the statutory consultation set out in further detail how we have had regard to the sufficiency of the operating cost allowance and the headroom allowance for the financeability of efficient suppliers.

Overall view of the headroom allowance

3.97. We have considered the upward pressures identified in paragraphs 3.66 to 3.87 and the variation in efficient cost identified in paragraphs 3.88 to 3.96, in the context of the treatment of uncertainty in the efficient benchmark as discussed in paragraphs 3.61 to 3.65.

3.98. The upward uncertain cost pressures identified do not appear to be larger than the uncertain downward cost pressures we have identified. However, we recognise that there is uncertainty in each of these elements, that residual risk of undetected errors, modelling limitations and unidentified uncertainties remains, and that there is a risk of our not being sufficiently conservative when considering the impacts of individual uncertainties both upward and downward. As such, we have decided to keep the headroom allowance in the 2017 baseline unchanged at £10. Combined with the prudent approaches and adjustment mechanisms taken into account in the efficient benchmark, we think this results in a cap which meets the objective to protect consumers and reflects our consideration of the matters set out in the Act to which we have to have due regard.

The design of the headroom allowance

3.99. Our statutory consultation proposed setting the headroom allowances as a fixed percentage of all costs, excluding network costs.

The cost categories to which the headroom allowance percentage is applied

3.100. In our statutory consultation we proposed that the headroom allowance would be a percentage applied to all costs in the efficient benchmark except for networks. We noted that as some of these costs vary slightly by region, headroom would vary by region (by less than 10p per customer per year).

3.101. Stakeholders generally agreed with our proposals. One stakeholder suggested that the headroom percentage should also be applied to BSUoS charges (a part of network costs).

Our consideration

3.102. We agree that it is appropriate for headroom to scale with consumption. Also, to the extent that headroom plays a role to capture any uncertainty in costs, then it makes sense for it to increase when costs rise and decrease when costs fall. Our approach to considering uncertainties where possible as part of the individual cost allowances which make up the efficient benchmark means that any allowance would scale in line with the element to which it relates. The headroom allowance will scale in line with all cost components except network costs. We think this approach is reasonable because it avoids an allowance either over-scaling and undermining protection for consumers, or under-scaling and exposing suppliers to potential risks.

3.103. We recognise there is uncertainty associated with BSUoS charges. However the cap design directly addresses the vast majority of this uncertainty through providing an allowance of lagged actual values. Whilst there is a small amount of residual uncertainty due to the differences between settlement runs, we consider that this can be addressed in the round in the headroom allowance absolute value without the need to amend the licence to change the categories of cost to which headroom is applied.

The inclusion or exclusion of a glide path

3.104. Our statutory consultation proposed setting the headroom allowance as a fixed percentage, not changing over time. Most respondents did not comment on this point.

3.105. One stakeholder supported an initially higher headroom level, followed by a downward glide path where headroom decreases over time. The rationale for this was primarily to give suppliers time to adjust, and to give us time to see the impacts of the initial price cap level on the market and consumers before further increasing consumer protection.

3.106. One stakeholder argued we should keep headroom under review, to allow us to observe the competitive dynamics of the market and amend if necessary, for example, increasing headroom if switching falls by a greater amount than anticipated.

Our consideration

3.107. As discussed in paragraphs 3.97 to 3.98, we have decided to keep the headroom allowance unchanged from our statutory consultation proposals. We believe we have set the allowance at level which delivers a cap that meets the objective to protect consumers as set out in the Act. We have had due regard to the other matters in the Act and do not consider a transitional period is necessary. We do not think it likely that uncertainties and cost variations relevant to the setting of this headroom allowance are likely to decrease over time relative to the underlying cost allowances. As such, we have set the headroom allowance as a fixed percentage. In addition, a fixed percentage provides certainty and simplicity to industry in how headroom changes alongside the overall cap.

3.108. We have considered whether we would want to adjust headroom prior to the removal of the temporary cap. At this point in time, we expect that we would most likely not consider any such headroom adjustment before considering our recommendation to the Secretary of State in 2020 on whether to remove the cap. It is not necessary to include an adjustment mechanism should we take a decision in the future to adjust the level of headroom to support the transition out of the price cap regime. We are concerned that including such an adjustment mechanism could create regulatory uncertainty and weaken the efficiency incentives of the cap. If we consider there are material systematic issues that require correction, we might modify the licence. The Act includes provision for us to do this.