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The case for a cap on the standing charge in energy bills

by

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Abbreviations used in this paper:-

CMA: Competition and Markets Authority. See paragraph 1.

PPM: Pre-payment meter. See paragraph 4.

SME: Small and medium-sized enterprise. See paragraph 3.

SVT: Standard variable tariff. See paragraph 1.

BEIS (DECC): Department for Business, Energy and Industrial Strategy (previously the Department of Energy and Climate Change). See footnote 29.

TDCV: Typical Domestic Consumption Values. See footnote 31.

VAT: Value added tax. See paragraph 86.

This is a revised version of the papers of the same name published in October 2017 and June 2018.

Executive summary

The Government is introducing a price cap on energy bills, which is due to come into effect by the end of the year. Ofgem is consulting on its proposals for setting this.

The consumers who are most vulnerable and in need of help from a price cap are low income households as they are least able to avoid paying high prices for energy and most likely to suffer hardship as a result. In particular, they consume the smallest amounts so the standing charge forms a large proportion of their total bill, which means they pay the highest overall rate for the energy they use.

This paper proposes capping just the standing charge. Energy suppliers levy an average of £156 p.a. for this, whereas the costs they incur related to it are approx. £100 lower at just £60 p.a. These few costs can be estimated much more accurately and transparently than suppliers' other costs so a standing charge cap will minimise the uncertainty and risk that come from introducing a cap. It can be set at the efficient level of costs, which maximises savings to consumers. Low income households will save £450 million p.a..

The problem with price caps generally is that they kill competition: consumers stop seeking out good deals and suppliers stop offering them. Indeed this is what happened when a cap for households with pre-payment meters was introduced last year. Many customers who are currently on good deals are liable to see their bills increase.

By contrast, however, if just the standing charge is capped this will dramatically boost competition. Consumers will find it much easier to compare tariffs as they will only need to consider unit rates. By combining more effective competition with protection for those who are unable to benefit from it, this measure has the potential to eliminate the entire £1.4 billion p.a. detriment currently suffered by consumers on the Big Six suppliers' default tariffs.

The total benefit of a standing charge cap will be greater still because, while those in fuel poverty will be able to afford more energy, the resulting higher unit rates will lead consumers to reduce energy consumption overall. This will lower carbon emissions. It will also improve security of supply and reduce the need for investment in generation and network capacity so will avoid future bill increases to pay for this.

Despite this, Ofgem is proposing to cap the total bill (both the standing charge and unit rate). It acknowledges that consumers may save less generally, that low income households will save *less* than those on higher incomes and that the adverse effect on competition means any savings are liable to be offset by increases in the price of better value tariffs.

This is perverse. At the very least Ofgem should have included the option of a standing charge cap in the impact assessment it carried out before deciding on the form of cap.

Ofgem's proposed cap will also increase carbon emissions but Ofgem has downplayed this effect. Ofgem has a statutory principal duty to *reduce* emissions.

Capping the standing charge in energy bills to businesses as well could eliminate the current £220 million p.a. detriment to SMEs in the same way.

Ofgem and the Government could reduce bills further by addressing competition problems in metering markets in order to reduce the costs suppliers incur in providing meters and by eliminating VAT on the standing charge.

A standing charge cap provides a general model for regulation of retail markets for essential services where competition is not effective, such as water.

Overview of this paper

Section 1. Background

The Competition and Markets Authority (CMA)'s Energy Market Investigation[1] in 2016 identified competition problems in the retail energy market. The 'Big Six' energy suppliers[2] have market power over passive consumers, which they exploit in the pricing of their default or standard variable tariffs (SVTs)[3]. The CMA estimated the total detriment to households at £1.4 billion p.a..

Almost £400 million p.a. of that was accounted for by households with pre-payment meters (PPMs), who were found to suffer particularly high levels of detriment. The CMA imposed a price cap for these customers, which was introduced in April 2017.

The CMA also found similar issues in the supply of energy to SMEs and estimated the detriment there at £220 million p.a. (mostly incurred by micro-businesses).

In February this year Ofgem, the energy regulator, introduced a temporary 'Safeguard' price cap for some vulnerable consumers. The Government also introduced legislation to put in place a 'default tariff' cap for customers on SVTs, which is due to come into effect by the end of this year. Ofgem is responsible for designing this cap.

Section 2. The vulnerable consumers in need of protection from high energy bills

The consumers who are most vulnerable and in need of protection by a price cap are low income households as they are less able to avoid paying high prices for energy and likely to suffer hardship as a result. They are the least engaged consumers and most likely to be on the poorest value tariffs. In particular, however, they pay the highest overall rate for the energy they use because they consume the smallest amounts so the standing charge forms a large proportion of their total bill. (Energy bills consist of a standing charge per day in addition to an amount per unit of energy consumed.) They can least afford to pay high prices for energy and are most likely to be in fuel poverty.

Section 3. The savings to vulnerable consumers from the PPM price cap, the Safeguard tariff and Ofgem's proposed default tariff cap

The way the PPM price cap is structured is fundamentally flawed as it offers the least protection to these low income households even though most PPM customers are on low income. The CMA said this cap would reduce PPM customers' detriment by £282 million p.a. but this was estimated using average consumption levels. A better estimate that reflects PPM customers' lower consumption is £91 million p.a..

Despite this, Ofgem chose to set its Safeguard tariff, which applies only to consumers on very low incomes, equal to the PPM cap. Again, because of these consumers' lower consumption levels their savings are likely to be a fraction of the £100 million p.a. that Ofgem claimed.

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[1] *Energy market investigation Final report* (June 2016) Competition and Markets Authority (hereafter referred to as 'CMA final report').
[2] British Gas, EDF Energy, E.ON, Npower, Scottish Power and SSE.
[3] SVTs are suppliers' default tariffs for domestic customers (i.e. households). If a customer does not choose a specific plan, for example after a fixed tariff ends, they are moved to an SVT. Ofgem data shows that they are usually more expensive than other available deals: *Standard variable tariff comparison: 28 November 2016* (Ofgem).

Ofgem is proposing to set the default tariff cap in the same way, with a cap on both the standing charge and the unit rate. Ofgem acknowledges that vulnerable lower income households consume less so will save less than higher income customers under such a cap. Moreover Ofgem is proposing to cap the standing charge at its current average level in SVTs even though these tariffs are acknowledged to be excessive, reflecting as they do suppliers' market power over customers on them.

Section 4. The case for regulating the standing charge

This paper proposes capping just the standing charge component of all gas and electricity tariffs. This would be supplemented by a ban on suppliers offering lower unit rates for higher levels of consumption in order to prevent them effectively raising the standing charge by charging high rates for the first units consumed.

This measure precisely targets protection at the (low income) households who most need protection.

The standing charges levied by energy firms are substantially greater than the related costs they incur. Dual fuel standing charges in SVTs average £156 p.a. (including VAT) or, as Ofgem estimates, £164 p.a.. Yet the cost-reflective level is some £100 lower, approx. £60 p.a., as most costs incurred by suppliers depend on the amount of energy rather than the number of customers supplied so should be recovered through the unit rate rather than the standing charge. This excess is economic rent.

However, despite agreeing with arguments set out in this paper that almost all network and policy costs should not be recovered through the standing charge, Ofgem rather bizarrely estimated the cost-reflective level of the standing charge at £225 p.a.. This cost estimate is not credible: it suggests that profit-maximising energy suppliers with market power over passive consumers currently price at below cost the part of energy tariffs which consumers have no discretion over paying. Ofgem cited this cost estimate as justification for setting the level of the standing charge in the cap at the current average level in SVTs.

Note that suppliers can currently recoup the costs they incur under government policies aimed at tackling fuel poverty and reducing carbon emissions through the standing charge rather than the unit rate. This makes energy *less* affordable for low income households while incentivising *higher* energy consumption and emissions so actually exacerbates these problems.

Standing charges should also be reduced on economic efficiency grounds. In particular, efficiency is achieved by Ramsey pricing, which entails capping the standing charge more tightly than the unit rate (if indeed the unit rate should be capped at all).

Section 5. The effect of a standing charge cap on the level of consumer savings

The efficient level of suppliers' costs to be recovered through the standing charge can be determined accurately and transparently. This means a standing charge cap can be set at the efficient level and will minimise additional costs arising from any perception of regulatory risk. It will thus maximise savings to consumers. Indeed Ofgem has previously said that a fixed standing charge could be set accurately at the level of costs and would provide certainty to suppliers about the future level of the standing charge.

However, Ofgem is proposing to include in the cap an additional amount ('headroom') of £12 p.a. per dual fuel customer, which it acknowledges will reduce savings for consumers. This is to allow for uncertainty about the efficient level of costs in a cap on the total bill and to

maintain competition (even though competition is not effective to begin with, which is the reason for introducing a price cap).

Section 6. Problems with price caps, including reduced competition

Price caps on energy bills have a number of drawbacks. In particular, they are liable to stifle competition by reducing consumer engagement and suppliers' incentives to attract customers. This means many customers on good deals are liable to see their bills increase. Indeed this is what happened following the introduction of the PPM cap: many of the tariffs that had been below the level of the cap were increased to the level of the cap. This compounds the importance of ensuring that any price cap is targeted as accurately as possible at those who need protection from high energy prices so as to avoid increases to other consumers' bills.

Despite setting out how a price cap was liable to affect competition adversely, in estimating the impact of the PPM cap the CMA assumed that tariffs currently below it would remain at the same level. This means the overall benefits of the PPM cap are lower than the £91 million p.a. referred to above.

Ofgem has acknowledged that the default tariff cap is also likely to reduce price competition.

Section 7. The effect of a standing charge cap on competition

Whereas capping the total bill would stifle competition, capping just the standing charge will dramatically boost it. The current large and variable standing charges make it difficult for consumers to compare tariffs. The CMA described how this leads to the weak customer response to which it attributed the adverse effect on competition in retail energy markets. Capping the standing charge will make it much easier for consumers to compare tariffs and switch as they will only need to consider the unit rate.

Section 8. The effect of a standing charge cap on carbon emissions and security of supply

While a standing charge cap will mean those in fuel poverty can afford more energy, the resulting higher unit rates will lead consumers generally to reduce their overall energy consumption. This will lower carbon emissions. It will also improve security of supply, reducing the need for investment in additional generation capacity and network enhancements and avoiding future bill increases to pay for this.

However, to the extent that Ofgem's price cap was successful in lowering prices, it would lead to higher energy consumption and hence more carbon emissions and reduced security of supply. Ofgem's principal objective and one of its statutory principal duties is to protect the interests of existing and future consumers, including their interests in the reduction of greenhouse gas emissions and security of supply. Yet its most recent consultation on the cap has downplayed the likely effect on emissions (its earlier consultations didn't even mention emissions), disregarded the effect on security of supply and has not sought to reduce emissions or improve security of supply.

Section 9. The benefits provided by a standing charge cap

A cap on the standing charge would immediately save low income households up to £100 p.a.. The total savings for customers of the Big Six from such a cap on SVTs are estimated at £450 million p.a., comprising £320 million p.a. for non-PPM customers and £127 million p.a. for PPM customers.

Moreover whereas a price cap on the total energy bill would adversely affect competition, a standing charge cap will boost competition. By combining heightened competition with protection for those who are unable to benefit from that, it has the potential to eliminate the entire £1.4 billion p.a. detriment observed by the CMA.

Furthermore the total benefit of a standing charge cap will be greater still given that it will lower carbon emissions and avoid future bill increases to pay for investment in generation and network capacity.

Ofgem has said that it proposes to set the default tariff with a cap on both the standing charge and the unit rate. It acknowledges that consumers may save less generally, that low income households will save *less* than those on higher incomes and that the adverse effect on competition means any savings are liable to be offset by increases in the price of better value tariffs. In addition, there will be a detriment to consumers from higher carbon emissions and reduced security of supply.

Section 10. Application to businesses

Similar competition problems apply to the supply of energy to SMEs and they (especially micro-businesses) face high energy bills too. Capping the standing charges businesses pay would substantially reduce the energy bills of micro-businesses in particular. By strengthening the competitive constraint on suppliers through improved price transparency and consumer engagement it could eliminate the entire £220 million p.a. detriment to SMEs.

Section 11. Metering costs & Section 12. VAT on the standing charge

Energy bills would be lowered and the benefits of a cap on the standing charge would be further enhanced if the standing charge paid by consumers was reduced by:-

(a) Ofgem taking action to resolve competition problems in metering markets and thereby reducing the costs suppliers incur in providing meters.

(b) The Government withdrawing VAT (currently levied on energy bills at 5%) from the standing charge. The standing charge confers the ability to access a supply of energy, which is a necessity. The belief that EU rules prevent this appears to be a misconception.

Section 13. Conclusion

The significance of standing charges was overlooked in the CMA's inquiry. Nonetheless this proposal efficiently achieves what the CMA had sought to do when it looked at both protecting disengaged customers and simplifying tariffs to make it easier to compare them. It is unique in dramatically boosting competition while protecting those who are unable to make the market work for them and suffer significant detriment as a result.

1. Background

SUMMARY

The Competition and Markets Authority (CMA)'s Energy Market Investigation in 2016 identified competition problems in the retail energy market. The 'Big Six' energy suppliers have market power over passive consumers, which they exploit in the pricing of their default or standard variable tariffs (SVTs). The CMA estimated the total detriment to households at £1.4 billion p.a..

Almost £400 million p.a. of that was accounted for by households with pre-payment meters (PPMs), who were found to suffer particularly high levels of detriment. The CMA imposed a price cap for these customers, which was introduced in April 2017.

The CMA also found similar issues in the supply of energy to SMEs and estimated the detriment there at £220 million p.a. (mostly incurred by micro-businesses).

In February this year Ofgem, the energy regulator, introduced a temporary 'Safeguard' price cap for some vulnerable consumers. The Government also introduced legislation to put in place a 'default tariff' cap for customers on SVTs, which is due to come into effect by the end of this year. Ofgem is responsible for designing this cap.

1. The Competition and Markets Authority (CMA)'s Energy Market Investigation[4] identified an adverse effect on competition in the retail energy market arising from weak customer response. Inactive customers fail to engage in the market effectively and to select suppliers offering lower prices[5]. This means energy suppliers have market power over them and exploit this in the pricing of their default or standard variable tariffs (SVTs)[6,7].

2. The CMA's final report in June 2016 estimated the detriment from excessive prices in SVTs to domestic customers of the Big Six energy suppliers[8] at £1.4 billion a year.[9] The Big Six have all increased their prices further since then and Ofgem revealed last year that their profit margins were at the highest level since it began collecting figures in 2009[10].

3. The CMA also estimated the detriment to SME customers of the Big Six at £220 million p.a., of which £180 million related to micro-businesses.[11]

4. The CMA found that pre-payment meter (PPM) customers have suffered particularly high levels of detriment due to constraints on the number of tariffs that suppliers can offer

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[4] *Energy market investigation Final report* (June 2016) Competition and Markets Authority (hereafter referred to as 'CMA final report').
[5] CMA final report paragraph 9.562.
[6] SVTs are suppliers' default tariffs for domestic customers (i.e. households). If a customer does not choose a specific plan, for example after a fixed tariff ends, they are moved to an SVT. Ofgem data shows that they are usually more expensive than other available deals: *Standard variable tariff comparison: 28 November 2016* (Ofgem).
[7] CMA final report paragraphs 158, 160 of the Summary.
[8] British Gas, EDF Energy, E.ON, Npower, Scottish Power and SSE.
[9] CMA final report paragraph 10.125.
[10] *Latest data on Consolidated Segmental Statements, Supplier Cost Index and standard variable tariffs* (August 2017) Ofgem (https://www.ofgem.gov.uk/data-portal/all-charts?search_api_views_fulltext=pre-tax+domestic+supply+margins&=Search).
[11] CMA final report paragraph 283 of the Summary.

them. It calculated this at £147 p.a. each, totalling £388 million p.a. for all prepayment customers[12]. The CMA's broader package of remedies would take time to implement so the CMA decided that a transitional price cap should be introduced for PPM customers.

5. The PPM cap was introduced for each of gas and electricity in April 2017 and is administered by Ofgem. It will apply until December 2020 although it may be extended in the event that the smart meter rollout is behind schedule. The CMA estimated the PPM price cap would reduce detriment to PPM consumers by about £75 each, a total of around £300 million per year[13].

6. The CMA rejected a price cap for all SVT customers in its Energy Market Investigation. Nevertheless in February this year the Government introduced legislation[14] to put in place a 'default tariff' cap for customers on SVTs which will continue until 2020, with the possibility of being extended to 2023. Ofgem is responsible for designing and implementing this price cap, which it anticipates will come into effect by the end of this year.

7. Also in February, Ofgem effectively extended the PPM cap when it introduced a temporary 'Safeguard' price cap at the level of the PPM cap for 0.9 million 'vulnerable' consumers[15]. This will fall away when the default tariff is implemented or by the end of 2019. If the default tariff cap is not in place by the end of this year Ofgem intends to extend its Safeguard cap to cover a further two million vulnerable customers in winter 2018-19.

8. It should be noted that the CMA had considered extending the PPM cap to the types of people who are disengaged consumers: those on low incomes, with low qualifications, disabled, living in rented accommodation or above 65 years of age. It concluded that this would be ineffective and/or disproportionate, with the practical difficulties of such an approach outweighing the benefits. These demographic characteristics could not be used directly to target a cap, which would need to use benefits system proxies, and the process of identifying customers covered by the cap would have been time-consuming and inefficient.[16]

9. Notwithstanding this, Ofgem has said that its preferred option in identifying vulnerable consumers to be covered by a broader Safeguard tariff is to use selected means-tested and disability benefits as a proxy to identify eligibility[17]. Ofgem also said it is continuing to consider other proxies that suppliers could use to identify vulnerable consumers.[18] This paper provides one, as described in the next section.

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[12] CMA final report paragraph 14.18.
[13] CMA final report paragraph 14.279.
[14] The Domestic Gas and Electricity (Tariff Cap) Bill
[15] Those in receipt of the Warm Home Discount (see Annex 3).
[16] CMA final report paragraphs 11.95-11.97.
[17] It said that the Digital Economy Act 2017 introduces new information sharing provisions that allow data sharing between specified public authorities and energy suppliers to assist with alleviating fuel poverty. It said the Government has recently issued a follow-up consultation to amend this legislation to facilitate data-matching between the Department for Work and Pensions and suppliers to identify vulnerable consumers eligible for the price cap. *Update on our plans for retail energy price caps* (6 March 2018) Ofgem p.4.
[18] *Update on our plans for retail energy price caps* (6 March 2018) Ofgem p.4.

2. The vulnerable consumers in need of protection from high energy bills

SUMMARY

The consumers who are most vulnerable and in need of protection by a price cap are low income households as they are less able to avoid paying high prices for energy and likely to suffer hardship as a result. They are the least engaged consumers and most likely to be on the poorest value tariffs. In particular, however, they pay the highest overall rate for the energy they use because they consume the smallest amounts so the standing charge forms a large proportion of their total bill. (Energy bills consist of a standing charge per day in addition to an amount per unit of energy consumed.) They can least afford to pay high prices for energy and are most likely to be in fuel poverty.

10. The consumers most in need of protection by a price cap are those who are less able to avoid paying high prices for energy and for whom this is likely to cause hardship. This accords with Ofgem's definition of consumer vulnerability as "when a consumer's personal circumstances and characteristics combine with aspects of the market to create situations where he or she is:

    - Significantly less able than a typical consumer to protect or represent his or her interests in the energy market; and/or
    - Significantly more likely than a typical consumer to suffer detriment, or that detriment is likely to be more substantial."[19]

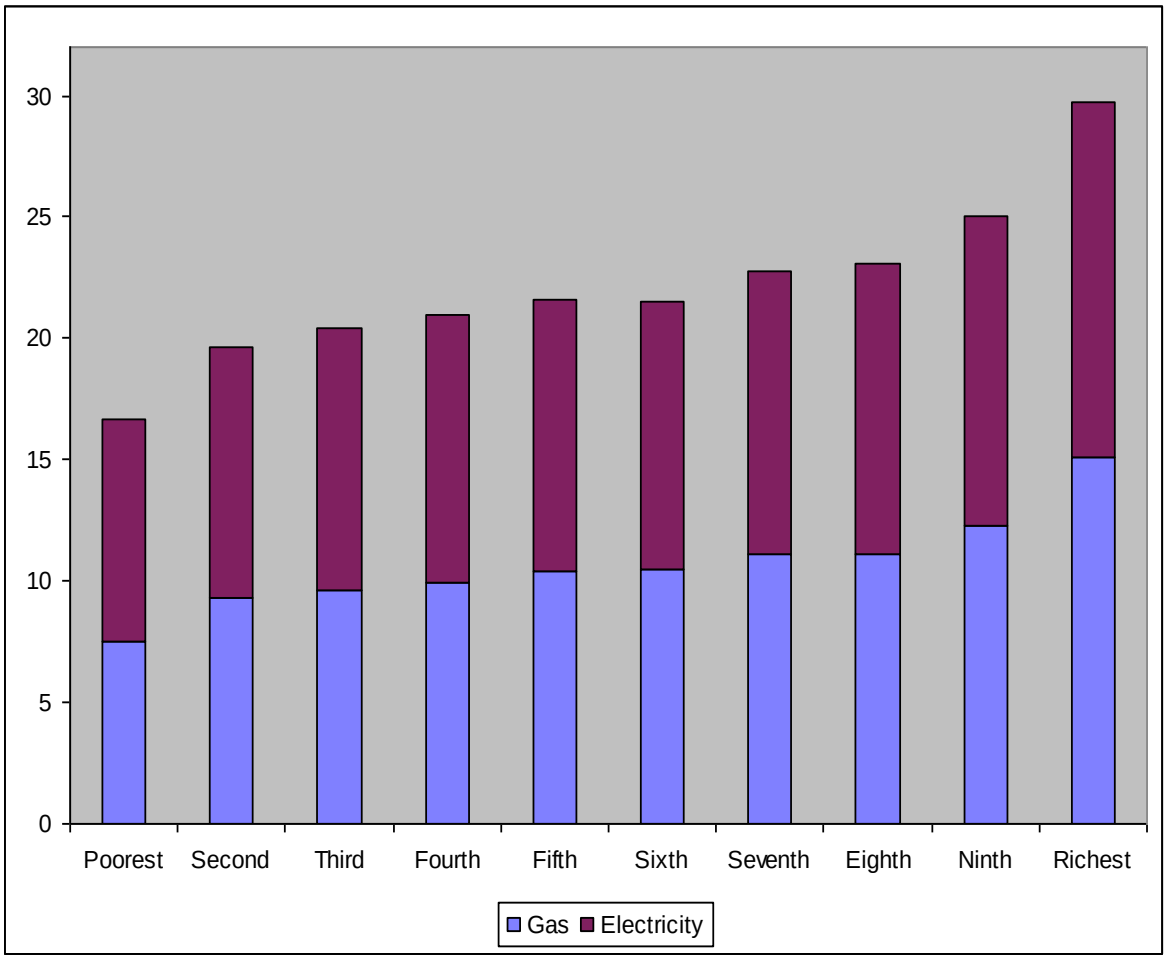
    These conditions are usually both satisfied only by households on low income.

11. Low income households are significantly less engaged in the market[20,21] and tend to find it more difficult to make value for money assessments of available tariff options[22]. Their potential gains from switching are also less[23] because they consume less energy: the

[19] Consumer Vulnerability Strategy (2013) Ofgem, paragraph 3.4.
[20] The CMA domestic customer survey showed that those with household incomes below £18,000 a year are significantly less engaged. They are less likely to have ever considered switching supplier in the past; to have shopped around in the last three years; to have switched supplier in the last three years or to consider switching in the next three years. (CMA final report paragraphs 9.9-9.11 and Appendix 9.1 paragraph 7 p.3 and paragraph 64 p.17.)
[21] Ofgem's survey of consumer engagement also detailed the link with income. Those with incomes below £16,000 a year are significantly less likely to have (a) switched supplier; (b) changed tariff with their existing supplier; (c) compared tariffs and (d) to say they have time for switching energy supplier. (*Consumer engagement in the energy market since the Retail Market Review - 2016 Survey Findings (Report prepared for Ofgem)* (August 2016) Ofgem (hereafter called 'Ofgem survey report') (https://www.ofgem.gov.uk/publications-and-updates/consumer-engagement-energy-market-retail-market-review-2016-survey-findings) (a) Qs.18-20 and Tables 23-25 of survey data tables (b) Qs.35, 36 and Tables 46, 52 of survey data tables (c) Qs.41-44 and Tables 48, 50, 54, 56 of survey data tables (d) Q.121 and Table 162 of survey data tables.
[22] The CMA listed the groups of customers that lack the capability to search and consider options fully as those with low levels of education or income; the elderly and/or those without access to the internet. (CMA final report paragraph 9.563(b)(i).)
[23] Both the CMA and Ofgem have used survey evidence to estimate the amounts consumers need to save in order for switching to be deemed worthwhile. The CMA survey found the minimum savings needed to encourage respondents to switch supplier had a median of £120 and a mean of £204 as some customers responded with very large amounts (CMA final report Appendix 9.1 Table 12 and

following graph demonstrates the strong link between household income and energy consumption[24].

FIGURE 1
Household expenditure on gas and electricity (£ per week) by disposable income decile



Source: *Family Spending 2016* Office for National Statistics (Table A6)

12. As a result low income households are most likely to be on suppliers' SVTs and the worst value tariffs generally. That was the finding of the CMA domestic customer survey – indeed a large majority (75%) of low income consumers are on SVTs.[25] Ofgem's consumer survey similarly found that low income, disadvantaged and financially struggling consumers are most likely to be on SVTs.[26]

13. It has been overlooked generally, however, that what really sets low income households apart is that they are liable to pay the highest overall rate for the energy they use

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paragraph 120 p.38). The Ofgem survey report found that consumers feel they need to save, on average, just under £300 per year to make it worth changing their supplier or tariff (p.71).

[24] Ofgem confirmed that low income households consume less than higher income households. (*Default Tariff Cap: Policy Consultation Appendix 11 – Headroom* May 2018 Ofgem paragraph 2.3.) Similarly, a DECC paper reported a research finding that "evidence that a relationship between income and demand for domestic gas does exist". (*Annex D Gas price elasticities: the impact of gas prices on domestic consumption – a discussion of available evidence* June 2016 DECC p.9.)

[25] CMA final report paragraphs 9.14 and 9.21-9.22. Thus the CMA domestic customer survey revealed that the proportion of consumers on SVTs is highest (75%) among those whose income is below £18k pa (CMA final report paragraph 9.14 and Appendix 9.1 paragraph 251).

[26] Ofgem survey report p.77 and Table 12 of data tables.

regardless of what tariff they are on. This is because the fact that they consume the least energy means the standing charge, which is a substantial amount (see paragraph 27 below), forms a large proportion of their total bill.[27] (Energy bills consist of a standing charge per day and a price per unit of energy consumed: the unit rate.)

14. These consumers' low income also means they are less able to afford to pay these high prices so will suffer particular detriment. They are most likely to be in fuel poverty[28], as energy prices and income are key determinants of this.[29]

[27] Ironically, the only reference in the report of the CMA's Energy Market Investigation to suppliers' ability to levy excessive standing charges and the distributional impact of this appears to be a comment from one of the Big Six energy suppliers, SSE. It said that suppliers could respond to a form of PPM price cap previously mooted by the CMA by increasing standing charges. It said this "would be particularly disadvantageous to lower users, a group which includes some of the most vulnerable consumers". (CMA final report paragraph 14.76.)

[28] A household is considered to be fuel poor if: they have required fuel costs that are above average (the national median level); and, were they to spend that amount, they would be left with a residual income below the official poverty line. The drivers of fuel poverty are income, energy prices and the energy efficiency of dwellings.

[29] The median level of income for fuel poor households is £10,118 p.a. whereas the median for all households is £21,333. 78% of households that are classed as fuel poor are situated in the first or second income deciles and virtually all are within the first three income deciles. (*Annual Fuel Poverty Statistics Report, 2017* (2015 data) (June 2017) BEIS (Department for Business, Energy and Industrial Strategy) p.4, p.26 & Table 28 of *Fuel Poverty Detailed Tables 2017*.)

3. The savings to vulnerable consumers from the PPM price cap, the Safeguard tariff and Ofgem's proposed default tariff cap

SUMMARY

The way the PPM price cap is structured is fundamentally flawed as it offers the least protection to low income households, even though most PPM customers are on low income. The CMA said this cap would reduce PPM customers' detriment by £282 million p.a. but this was estimated using average consumption levels. A better estimate that reflects PPM customers' lower consumption is £91 million p.a..

Despite this, Ofgem chose to set its Safeguard tariff equal to the PPM cap, even though the people eligible for it are on very low incomes. Again, because of these consumers' lower consumption levels their savings are likely to be a fraction of the £100 million p.a. that Ofgem claimed.

Ofgem is proposing to set the default tariff cap in the same way, with a cap on both the standing charge and the unit rate. Ofgem acknowledges that vulnerable lower income households consume less so will save less than higher income customers under such a cap. Moreover Ofgem is proposing to cap the standing charge at its current average level in SVTs even though these tariffs are acknowledged to be excessive, reflecting as they do suppliers' market power over customers on them.

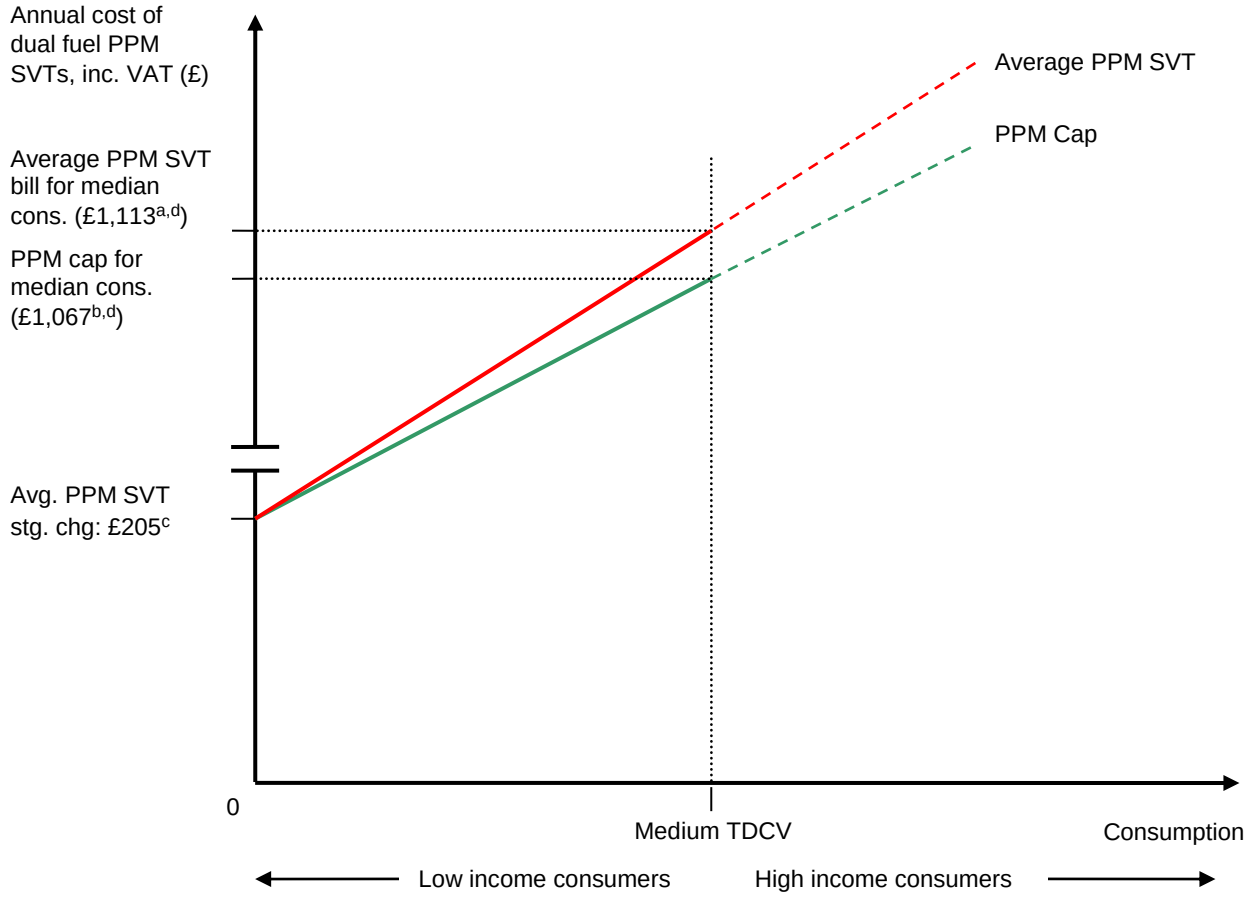
15. The way the PPM price cap is structured is fundamentally flawed as it offers the least protection to the low income households most in need of help with energy bills, even though most PPM customers are on low income. It actually provides the greatest savings to those who consume most, who are on high incomes and need help least.

16. The PPM cap is calculated[30] for each level of consumption of both gas and electricity according to a straight line drawn through prices for supplying energy at zero and the median level of energy consumption[31]. The latter price reflects the CMA's estimate of a competitive benchmark tariff for PPM customers. However, the price at nil consumption is the average of the Big Six suppliers' PPM standing charges. This is despite the CMA identifying that the Big Six exploit their market power through their prices and that PPM customers are especially badly affected, which was the reason for the PPM price cap.[32]

17. Figure 2 shows the effect of the PPM price cap on the annual energy bills of customers with different levels of consumption (and income). The amount they save is the vertical distance between the red 'PPM SVT' line and the green 'PPM cap' line.

[30] CMA final report paragraphs 14.70-14.77 and 14.103-14.254.
[31] The median of household consumption in Great Britain is Medium Typical Domestic Consumption Values (TDCV). As of Sept. 2017 this was 3,100 kWh p.a. for electricity and 12,500 kWh p.a. for gas.
[32] CMA final report paragraphs 154, 156-160, 162-167 and 245 of Summary.

FIGURE 2
Effect of the PPM price cap on annual energy bills



[a] Average of the 10 largest suppliers in the prepayment segment for 28 Jan. and 28 Feb. 2017 (i.e. prior to imposition of PPM cap). (Source: Ofgem website data portal Sept. 2017.)
[b] PPM cap at median consumption for April – Sept. 2017. (Source: Ofgem website data portal Sept. 2017 and *State of the energy market report* Ofgem October 2017 Figure 2.13 p.32.)
[c] PPM cap at zero consumption for April – Sept. 2017 (i.e. gas £95.60 and electricity £100.00, plus VAT). (Source: Ofgem.[33])
[d] Note that figures for Feb. 2017 onwards differ slightly from the figures currently shown on the Ofgem website as a note there now states that they "are calculated using the new TDCV values that entered into effect from 1st of October 2017… in practical terms this means that the tariffs offered after February 2017 are likely to appear slightly lower than those before February 2017." It seems strange to lower retrospectively the tariffs that are reported for months prior to the change of TDCV quantities, especially as the PPM cap was introduced in that period. Therefore we have continued to use the figures that applied at that time (and were displayed on the Ofgem website in September 2017).

18. This means the PPM price cap is of limited benefit to those who consume less than the median level of energy consumption. These are typically low income households who are the most in need of help with energy bills. Indeed the CMA itself found that PPM customers are significantly more likely to have an income below £18,000 p.a.[34], which is well below the median income level of £21,333 p.a. (see footnote 29 above]), so they are

[33] https://www.ofgem.gov.uk/publications-and-updates/prepayment-price-cap-1-october-2017-31-march-2018 (Pre-payment price cap calculations spreadsheet, columns for '2017-18 summer')
[34] CMA final report paragraph 9.34.

likely to consume less than the median level. The PPM cap actually offers most protection to people who consume most[35], even though they least need protection.

19. The CMA acknowledged this: "We note... that, when comparing the cap to existing tariffs, it is in fact less stringent at lower levels of consumption and more stringent at higher levels of consumption"[36]. However, it appeared to offer little in the way of justification for setting the zero consumption component of the price cap in this way.[37]

20. The CMA estimated that its PPM cap would reduce the average annual bills paid by PPM customers of the Big Six suppliers by £71 per customer. This amounted to a reduction in total PPM consumer detriment of £282 million p.a. out of the total detriment for PPM customers of the Big Six of £388 million p.a.[38]. However, this was calculated using the median level of consumption. A better estimate that takes into account the lower savings for PPM customers given their lower consumption is £91 million p.a.[39] (Note that the CMA's estimate of the PPM cap's impact incorrectly assumed that it would not lead tariffs below it to be increased. This means the overall benefits of the PPM cap are lower than £91 million p.a. See paragraph 43 below.)

21. Despite this[40], Ofgem set its Safeguard tariff equal to the PPM cap. Ofgem had estimated the average saving for the 0.9 million dual fuel customers eligible for it at £110 p.a. incl. VAT (a total reduction in bills of £100 million p.a.)[41]. Ofgem said this figure was based on average household consumption (medium TDCV)[42]. However, this price cap is applicable to consumers in receipt of the Warm Home Discount rebates. This means they are either in or at risk of fuel poverty so they do not consume anything like the average consumption level (in fact are at the very bottom of the income scale – see footnote 29). As a result their savings will be a fraction of the amount Ofgem claimed.

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[35] Thus the CMA's analysis in its final report (paragraphs 14.295-14.310) showed that for each fuel (i.e. gas and electricity) the PPM price cap is above more of the Big Six firms' PPM customer bills at low than at high levels of consumption.

[36] CMA final report footnote 44, p.955.

[37] Its only comment appeared to be that this "provides comfort that the price cap at nil consumption is compatible with current tariff levels" (CMA final report paragraph 14.110).

[38] CMA final report table 14.13 p.997 and paragraph 14.261.

[39] This estimate uses Ofgem data from when the PPM cap was imposed as depicted in Figure 1. It is calculated as: 3,962,722 / 2 * (£1113 - £1067) / 2
where:

- 3,962,722 is the no. of dual fuel PPM customers of the Big Six suppliers (see CMA final report Table 14.13 p. 997 and footnote 152 p.1001)
- The difference between the latter two amounts is the saving for households on median consumption and half this is the average saving for those who consume less than medium TDCV given that the saving at zero consumption is nil. (Although note that the figure of £1113 is for the biggest 10 suppliers rather than the Big Six.)

This considers only the effect on those (low income households) consuming below average who are more in need of protection: less able to avoid paying high prices and less able to afford them (see section 2 above). It assumes that PPM consumers are spread evenly across the entire consumption range. In fact most PPM customers are likely to be in the lower half of the consumption range as they are significantly more likely to have an income well below the median income level (see paragraph 18 above).

[40] The flaw with the PPM cap and Ofgem's claims for the benefits of its proposed Safeguard tariff were pointed out in Ideal Economics' submission to Ofgem's statutory consultation for this in November 2017. http://idealeconomics.com/ofgems-plans-price-cap-vulnerable-consumers-fundamentally-flawed/

[41] *Financial protections for vulnerable consumers* (October 2017) Ofgem Table 1 p.35.

[42] CMA final report paragraph 14.248 and footnote 142 p.998.

22. In fact a price cap a price cap for customers with conventional meters set on the same basis as the PPM price cap should have been set significantly lower than the PPM cap. In setting the PPM cap, the CMA took into account that it was more costly for suppliers to serve customers with PPMs than with conventional meters, with the differential per dual fuel customer estimated at £63 p.a.. Ofgem defended not reducing the cap by this amount as "proportionate given that this is a temporary measure"[43]. However, the way the PPM cap is calculated was well understood (indeed the PPM cap was already in place and Ofgem was administering it). Simply subtracting £63 from the level of the PPM cap would not have caused any administrative difficulty or delay.

23. Ofgem is proposing to set the default tariff cap in the same way, with a cap on both the standing charge and the unit rate[44]. Ofgem acknowledges that the original version of this paper pointed out that vulnerable lower income households consume less so save less under such a cap than the average (and higher income) customers[45].Moreover Ofgem is proposing to cap the standing charge at its current average level in SVTs[46] even though these tariffs are acknowledged to be excessive, reflecting as they do suppliers' market power over customers on them.

[43] *Statutory consultation for a vulnerable customer safeguard tariff* October 2017 Ofgem p.3.
[44] *Working paper #1: setting the default tariff cap* (12 March 2018) Ofgem paragraph 4.4 and *Default tariff cap: policy consultation overview document* (May 2018) Ofgem paragraph 2.79.
[45] *Default Tariff Cap: Policy Consultation Appendix 14 – Initial View on Impact Assessment* May 2018 Ofgem paragraphs 4.70-4.71.
[46] *Statutory Consultation – Default tariff cap – Overview document* September 2018 Ofgem paragraph 2.76.

4. The case for regulating the standing charge

SUMMARY

This paper proposes capping just the standing charge component of all gas and electricity tariffs. This would be supplemented by a ban on suppliers offering lower unit rates for higher levels of consumption in order to prevent them effectively raising the standing charge by charging high rates for the first units consumed.

This measure precisely targets protection at the (low income) households who most need protection.

The standing charges levied by energy firms are substantially greater than the related costs they incur. Dual fuel standing charges in SVTs average £156 p.a. (including VAT). Yet the cost-reflective level is some £100 lower, approx. £60 p.a., as most costs incurred by suppliers depend on the amount of energy rather than the number of customers supplied so should be recovered through the unit rate rather than the standing charge. This excess is economic rent.

Note that suppliers can currently recoup the costs they incur under government policies aimed at tackling fuel poverty and reducing carbon emissions through the standing charge rather than the unit rate. This makes energy *less* affordable for low income households while incentivising *higher* energy consumption and emissions so actually exacerbates these problems.

Standing charges should also be reduced on economic efficiency grounds. In particular, efficiency is achieved by Ramsey pricing, which entails capping the standing charge more tightly than the unit rate (if indeed the unit rate should be capped at all).

24. This paper proposes capping just the standing charge component of all gas and electricity tariffs. This would be supplemented by a ban on suppliers offering lower unit rates for higher levels of consumption in order to prevent them effectively raising the standing charge by charging high rates for the first units consumed.

25. This limited measure precisely targets protection at the (low income) households who most need protection.

26. The standing charge is also the element of energy bills for which there is the strongest rationale for price regulation on economic efficiency grounds. Efficiency[47] would require suppliers to recover the costs that depend on the amount of energy supplied through the unit rate and those that relate to serving customers through the standing charge.

27. However, as set out earlier (paragraph 1), suppliers have market power[48] over passive consumers which they exploit through their SVT prices. In particular, it is clear that the standing charges that suppliers levy are substantially greater than the costs they incur in

[47] Economic efficiency is achieved when nobody can be made better off without someone else being made worse off. Economic efficiency enhances social welfare by ensuring resources are allocated and used in the most productive manner possible.

[48] Market power is a cause of market failure, where the market mechanism alone cannot achieve economic efficiency. Another is externalities, where an activity produces benefits or costs for others. Examples are energy consumption producing carbon emissions and necessitating investment in additional generation and network capacity. This is addressed in Section 8.

arranging to supply customers. The average dual fuel SVT standing charge is £156 (including VAT) p.a. (see Annex 1) or, as Ofgem estimates, £164 p.a.[49]. This is about £100 more than the efficient, cost-reflective level of £60 p.a. (see Annex 2)[50], as most costs incurred by suppliers depend on the amount of energy supplied. A number of firms charge yet more still: Ovo Energy £210 a year, British Gas £190 and Scottish Power £189. The mark up on costs is economic rent.

28. However, despite agreeing with arguments set out in this paper that almost all network[51] and policy[52] costs should not be recovered through the standing charge, Ofgem rather bizarrely estimated the cost-reflective level of the standing charge at £225 p.a.[53]. This cost estimate is not credible: it suggests that profit-maximising energy suppliers with market power over passive consumers currently price at below cost the part of energy tariffs which consumers have no discretion over paying.

29. This cost estimate is Ofgem's justification for setting the level of the standing charge in the cap at the current average level in SVTs. Ofgem is in fact proposing to set the level of the cap sharply higher, at £181 p.a., during the first cap period in 2019[54].

30. Note that suppliers can currently recoup the costs they incur under government policies aimed at tackling fuel poverty and reducing carbon emissions through the standing charge rather than the unit rate. This actually makes energy *less* affordable for low income households while incentivising *higher* energy consumption and emissions overall so is counter-productive and exacerbates these problems. This is discussed in Annex 2.

31. Given the suppliers' market power, economic efficiency is achieved by Ramsey pricing. This entails regulating prices to ensure that mark ups are lower on the prices paid by those who reduce their consumption most in response to higher prices, i.e. those whose price elasticity of demand is high.

32. Price elasticity of demand for energy varies according to households' income and consumption (which are closely correlated, as demonstrated in Section 2 above). It is higher for lower income / consumption households, as evidence presented in Annex 4 shows and as Ofgem noted in describing analysis undertaken by the BEIS of gas price elasticities[55]. This may be explained by the effect of energy spending on consumers'

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[49] *Statutory Consultation – Default tariff cap – Overview document* September 2018 Ofgem paragraph 2.76.

[50] Incidentally, this is the approximate amount of the total detriment that SVT customers suffer: £100 * (3,962,722 + 13,432,168) = £1.7 billion, where 3,962,722 is the no. of dual fuel PPM customers of the Big Six suppliers (see footnote 39) and 13,432,168 is the no. of SVT customers of the Big Six suppliers (see footnote 105 and Annex 1)

[51] *Default tariff cap: statutory consultation Appendix 5* September 2018 Ofgem paragraph 2.1 and table A5.2.

[52] *Default tariff cap: statutory consultation Appendix 5* September 2018 Ofgem paragraph 3.1 and table A5.4.

[53] *Statutory Consultation – Default tariff cap – Overview document* September 2018 Ofgem paragraph 2.77.

[54] *Statutory Consultation – Default tariff cap – Overview document* September 2018 Ofgem paragraph 2.76.

[55] "BEIS noted the lack of established research on differences between income groups but concluded that 'initial indications suggest that lower income groups possess higher price elasticities and are more sensitive to changes in price compared to higher income groups'." *State of the energy market report* (October 2017) Ofgem p.73. The BEIS report referred to is National Energy Efficiency Data Framework (NEED) report summary of analysis *Annex D Gas price elasticities* (June 2016) DECC p.10.

budgets. It forms a higher proportion of the budget of lower income households so a variation in the price of energy will have a greater effect on their budgets and hence on how affordable energy is.

33. Efficiency thus calls for mark-ups to be lowest for low income / consumption households, which entails capping the standing charge more tightly (in relation to the relevant costs) than the unit rate. (Indeed given that a standing charge cap will stimulate competition which will constrain the unit rate (see section 7 below) it may not be necessary on efficiency grounds to cap the unit rate at all.) It also means preventing suppliers offering lower unit rates for higher levels of consumption, which would be necessary in any case to prevent them effectively raising the standing charge by charging high rates for the first units consumed.

(https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/532539/Annex_D_Gas_price_elasticities.pdf)

5. The effect of a standing charge cap on the level of consumer savings

SUMMARY

The efficient level of suppliers' costs to be recovered through the standing charge can be determined accurately and transparently. This means a standing charge cap can be set at the efficient level and will minimise additional costs arising from any perception of regulatory risk. It will thus maximise savings to consumers. Indeed Ofgem has previously said that a fixed standing charge could be set accurately at the level of costs and would provide certainty to suppliers about the future level of the standing charge.

However, Ofgem is proposing to include in the cap an additional amount ('headroom') of £12 p.a. per dual fuel customer, which it acknowledges will reduce savings for consumers. This is to allow for uncertainty about the efficient level of costs in a cap on the total bill and to 'maintain' competition (even though competition is not effective to begin with, which is the reason for introducing a price cap).

34. It is feasible to estimate accurately just the few cost elements that should be recovered through the standing charge (as listed in Annex 2). A standing charge cap will thus avoid any need for an additional amount ('headroom') to be added to the estimated benchmark level of costs to mitigate uncertainty as to what the efficient level of costs is[56,57]. This makes it possible to set a standing charge cap at the efficient level, thereby maximising the savings to consumers.

35. With a standing charge cap it is also feasible to set the level of a cap through bottom up estimation of costs (again as per Annex 2). This will give clarity as to which cost elements are being included in the benchmark and how each is being treated[58]. A clear and transparent methodology for setting the cap can reduce the perceived regulatory risk arising from regular changes to the level of the cap[59]. As noted below (paragraph 41), a perception of regulatory risk might lead investors to seek higher rates of return, so increasing suppliers' costs (and ultimately their prices to consumers), and deter new entry. Again, this maximises the savings to consumers.

36. Ofgem previously proposed implementing a fixed standing charge (referred to in Annex 2) by incorporating a schedule of standing charges into licences, with an automatic adjuster for subsequent years. Ofgem considered that it would be possible to estimate the level of future costs with a reasonable degree of accuracy and that this would provide some certainty to suppliers about the future level of the standing charge.[60]

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[56] *Default Tariff Cap: policy consultation overview document* (May 2018) Ofgem p.8 and paragraphs 2.2-2.8, 2.48.
[57] Ofgem's consultation document on headroom mentioned two other possible sources of uncertainty that could be managed by headroom: volatile pass-through costs, particularly of purchasing energy, and above-average costs for reasons outside suppliers' control (e.g. due to differences in their customer base). (*Default Tariff Cap: Policy Consultation Appendix 11 – Headroom* May 2018 Ofgem paragraph 1.2.) Presumably the latter refers to bad debt (which would have accrued mainly due to charges for energy consumed – see Annex 2). Both these other sources of uncertainty thus relate to costs that should be recovered through the unit rate and are not applicable to a standing charge cap.
[58] *Default Tariff Cap: policy consultation overview document* (May 2018) Ofgem paragraph 2.40.
[59] *Default Tariff Cap: Policy Consultation Appendix 14 – Initial View on Impact Assessment* May 2018 Ofgem paragraph 4.46.
[60] Standardised Element document paragraphs 2.26-2.29.

37. By contrast, a cap on the total bill would involve quantifying costs that are recoverable through the unit rate, notably wholesale energy costs, which would be much more challenging. Thus Ofgem's consultation document for the default tariff cap emphasised the difficulties inherent in estimating the efficient benchmark level of suppliers' costs[61].

38. Ofgem has thus said that the default tariff cap will include headroom of £12 p.a. per dual fuel customer[62] in addition to the efficient level of costs[63]. The CMA also included headroom in setting the PPM cap[64]. Ofgem has acknowledged that adding headroom would reduce savings for consumers[65].

39. Ofgem is considering adding headroom not only to mitigate uncertainty but also to maintain consumer switching and competition between suppliers[66,67]. Note that this is not necessary with a standing charge cap, as competition will be effective in that case anyway (see Section 7 below).

40. However, it is widely acknowledged that many customers do not currently switch tariffs and competition is not effective (see paragraph 1 above). In fact this is the very reason for introducing a price cap to protect consumers. Thus Ofgem's approach to designing the default tariff cap appears compromised. Reducing the level of protection by adding headroom in order to maintain some (ineffective) competition rather calls into question why a price cap is being introduced at all.

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[61] *Default Tariff Cap: policy consultation overview document* (May 2018) Ofgem pp. 14-15.
[62] *Statutory Consultation – Default tariff cap – Overview document* September 2018 Ofgem paragraph 2.68.
[63] *Default tariff cap: policy consultation overview document* (May 2018) Ofgem p.8.
[64] CMA final report paragraphs 14.34, 14.116, 14.124-14.131, 14.250-14.275.
[65] *Working paper #3: approach to headroom* (9 April 2018) Ofgem paragraphs 3.1-3.4. Similarly, *Default tariff cap: policy consultation overview document* (May 2018) Ofgem p.8.
[66] The proposed legislation for the default tariff cap requires Ofgem to set it at a level that maintains incentives for consumers to switch supply contracts and enables suppliers to compete effectively for customers. (*Update on our plans for retail energy price caps* March 2018 Ofgem p.2)
[67] *Working paper #3: approach to headroom* (9 April 2018) Ofgem paragraph 3.3.

6. Problems with price caps, including reduced competition

SUMMARY

Price caps on energy bills have a number of drawbacks. In particular, they are liable to stifle competition by reducing consumer engagement and suppliers' incentives to attract customers. This means many customers on good deals are liable to see their bills increase. Indeed this is what happened following the introduction of the PPM cap: many of the tariffs that had been below the level of the cap were increased to the level of the cap. This compounds the importance of ensuring that any price cap is targeted as accurately as possible at those who need protection from high energy prices so as to avoid increases to other consumers' bills.

Despite setting out how a price cap was liable to affect competition adversely, in estimating the impact of the PPM cap the CMA assumed that tariffs currently below it would remain at the same level. This means the overall benefits of the PPM cap are lower than the £91 million p.a. referred to above.

Ofgem has acknowledged that the default tariff cap is also likely to reduce price competition.

41. It is acknowledged that price caps are liable to affect competition adversely. They can have a number of unintended adverse consequences[68], including:-

    - Reduced customer engagement as price caps reduce the gain from switching supplier[69]. (Footnote 23 refers to research showing that the level of switching depends on the savings on offer from doing so.) Given the persistence of switching habits, the adverse effect of a price cap might continue after it was withdrawn.

    - Reduced competition between suppliers to attract customers who are protected by the cap, with a risk that the price cap forms a focal point to which suppliers raise their cheaper tariffs[70]. This could further reduce the savings that can be achieved by switching.

    - A perception of increased regulatory risk, which might lead investors to seek higher rates of return. This would increase costs to suppliers and ultimately the prices paid by consumers.[71] It might also deter new entry.

42. This means many customers' bills will increase following imposition of a cap. Indeed this is what happened following the introduction of the PPM cap when many of the suppliers pricing below the cap who were able to do so chose to increase their tariffs to the level of the cap and some tariffs with zero standing charges were withdrawn.[72] This adds to the importance of ensuring that any price cap is targeted as accurately as possible at those who need protection from high energy prices so as to avoid increases to other consumers' bills.

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[68] The risk of these effects is likely to be higher the lower is the price cap.
[69] CMA final report paragraphs 14.400-14.404.
[70] CMA final report paragraphs 14.405-14.413.
[71] CMA final report paragraphs 14.420-14.422.
[72] *State of the energy market report* (October 2017) Ofgem pp.7,33 and *Default Tariff Cap: Policy Consultation Appendix 14 – Initial View on Impact Assessment* May 2018 Ofgem paragraph 4.11.

43. Despite setting out how a price cap was liable to affect competition adversely, in estimating the impact of the PPM cap the CMA assumed that tariffs currently below it would remain at the same level (i.e. the cap would not form a focal point to which suppliers raised their tariffs).[73] This means the overall benefits of the PPM cap are lower than the £91 million p.a. referred to in paragraph 20 above.

44. Ofgem has acknowledged that the default tariff cap is also liable to reduce price competition[74].

45. In addition, a number of drawbacks may not apply in respect of the PPM cap but would be more likely to apply in the case of a more general cap:-

    - Suppliers might cut costs by reducing quality of service[75] and innovation[76]. For example, they might delay the introduction of time-of-use tariffs[77] for those with smart meters. This wasn't a concern with the PPM price cap as fully interoperable smart meters are outside its scope but that mitigation does not apply to a more general price cap.[78]

    - The price cap might become permanent because removal of the protection afforded by the cap would be perceived negatively. This risk is mitigated for the PPM price cap by tapering the price cap as smart meters are rolled out but this does not apply in the case of a general price cap.[79]

    - The competitiveness of key challenger suppliers could be damaged. The proposition of 'green' suppliers (notably Ecotricity and Good Energy) is based on pricing near to SVT levels to fund renewable energy development. The proposed legislation provides some discretion for Ofgem to exempt consumers who have chosen SVTs that support the production of renewable gas or electricity. However, even if they were excluded from a price cap the 'green' suppliers would be likely to lose market share if their tariffs were higher than the cap.

46. One of the five CMA members who conducted the Energy Market Investigation considered that the scale of consumer detriment called for a price cap for all SVT customers for a short period, say two years[80]. However, the majority believed this would run excessive risks of undermining the competitive process by reducing the incentives of customers to engage, reducing the incentives of suppliers to compete and increasing regulatory risk.[81]

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[73] CMA final report, paragraph 14.248(h).
[74] "The introduction of the default tariff cap could be expected to impact suppliers' ability to compete on price… if the design of the default tariff cap also has the effect of reducing customer engagement… then this might further reduce competition." *Default Tariff Cap: Policy Consultation Appendix 14 – Initial View on Impact Assessment* May 2018 Ofgem paragraphs 4.109-4.110. See also paragraphs 4.13-4.19, 4.73-4.78, 4.83-4.97 and 4.111.
[75] CMA final report paragraph 14.419.
[76] CMA final report paragraphs 14.423-14.430.
[77] Energy tariffs that charge different prices at different times of the day, week, month or year.
[78] CMA final report paragraph 14.428.
[79] CMA final report paragraphs 14.431-14.435.
[80] See Statement of dissent of Professor Martin Cave in CMA final report, pp. 1415-1417.
[81] CMA final report paragraphs 250-252 of the Summary and 11.86-11.94.

7. The effect of a standing charge cap on competition

SUMMARY

Whereas capping the total bill would stifle competition, capping just the standing charge will dramatically boost it. The current large and variable standing charges make it difficult for consumers to compare tariffs. The CMA described how this leads to the weak customer response to which it attributed the adverse effect on competition in retail energy markets. Capping the standing charge will make it much easier for consumers to compare tariffs and switch as they will only need to consider the unit rate.

47. Whereas capping the overall bill would adversely affect competition (see paragraph 41), capping just the standing charge will dramatically strengthen it. It will become much easier for consumers to compare tariffs as they will only need to consider the unit rate.

48. The current large and variable standing charges reduce the competitive constraint on energy bills by impeding consumers' ability to compare tariffs. The CMA detailed how this leads to the weak customer response to which it attributed the adverse effect on competition in retail energy markets (see paragraph 1). It said an energy tariff with both a fixed and variable component (meaning the standing charge and unit rate) "is likely to be more difficult for a domestic customer to understand than a tariff with just a variable component".[82] Given that the standing charge is not fixed across tariffs but varies widely (see paragraph 27 above), understanding tariffs is likely to be more difficult still.

49. These complex tariff structures contribute to inhibiting customers' value-for-money assessments of available options, particularly by those who lack the capability to search and consider options fully, including those on low incomes[83]. The CMA said such difficulty in assessing information was a central feature giving rise to customers' problems in engaging effectively in the energy markets and identifying suppliers offering lower prices[84].

50. Both Ofgem and the CMA have sought to simplify tariffs to make it easier for customers to understand and compare those on offer. These initiatives were deemed too restrictive but note that the objections to them do not apply to a standing charge cap:-

    - Ofgem's Retail Market Review reforms of 2014 banned complex tariffs and limited suppliers to offering four of them[85]. This was intended to improve customer engagement and thereby enhance the competitive constraint provided by customer switching.

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[82] CMA final report paragraph 9.165.
[83] CMA final report paragraph 9.563(b)(i).
[84] CMA final report paragraph 9.562. See also paragraphs 9.167-9.169. These cite results from the CMA's customer survey that of those (24%) who found it either fairly or very difficult to shop around, 85% found it difficult to make comparisons between suppliers and 74% found it difficult to understand the options open to them. Similarly, Ofgem's customer survey found that 36% believed it was difficult to compare tariffs.
[85] Under Ofgem's Retail Market Review reforms (see CMA final report paragraphs 9.478-9.513; paragraphs 12.356-12.452 and Appendix 9.7) tariffs were required to consist of a standing charge and either a single unit rate or time-of-use tariffs that could not vary with consumption (see CMA final report paragraph 2 of Annex A to Annex 9.7).

The CMA recommended that Ofgem remove the ban on complex tariffs and the four tariff rule[86]. It considered that they made it unlikely that suppliers would offer tariffs with a low or no standing charge for low volume users but note that this objection doesn't apply to a standing charge cap.

- As part of its reforms Ofgem had considered fixing the standing charge[87]. It decided against doing this apparently because respondents to its consultation expressed concern that this would prevent suppliers reflecting their fixed costs in the standing charge and offering tariffs with low or zero standing charges[88]. However, there is no reason why setting a standing charge would prevent recovery of fixed costs (recovery of costs through the standing charge is discussed in Annex 2). Neither of these objections would apply with a standing charge cap.

- The CMA also considered simplifying tariffs to make it easier for customers to compare tariffs. It debated requiring suppliers to structure all tariffs as a single rate but decided against that because it might restrict suppliers' competitive offerings[89]. However, again, note that capping the standing charge would be less restrictive than the CMA's idea as it merely caps rather than eliminates the standing charge and does not limit suppliers to just one unit rate.

51. Capping just the standing charge will boost competition by making it much easier for consumers to compare tariffs and hence switch. Consumers will effectively need to consider just the unit rate, especially if (as seems inevitable) suppliers all set their standing charges at the cap. Moreover it will become easier to distinguish between good and bad value tariffs as the difference between them in the unit rate will increase. In addition, higher consuming households on SVTs would become more likely to switch to better value tariffs as their savings from doing so would be greater.

52. By stimulating competition, a standing charge cap will obviate Ofgem's perceived need in setting the level of the cap to include headroom above the efficient level of costs "to enable suppliers to compete" (see paragraph 39).

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[86] It considered that they restricted innovation and competition between suppliers. It said they prevented suppliers from offering new products or tariffs that would be beneficial to certain segments of the customer population, particularly in relation to energy usage (see CMA final report paragraphs 12.380 and 12.382). The CMA appears to have objected to them partly because they curtailed the ability of suppliers to offer tariffs with no or a low standing charge for low volume users (see also CMA final report paragraph 9.509(c)).

[87] *The Standardised Element of Standard Tariffs under the Retail Market Review* (February 2012) Ofgem p.1

[88] *The Retail Market Review – Updated domestic proposals* (October 2012) Ofgem. Paragraph 3.11.

[89] The CMA considered requiring suppliers to structure all tariffs as a single unit rate in pence per kWh. It is assumed here that this meant no standing charge: the CMA said elsewhere that the existing tariff structure – with a fixed and variable element – was more difficult to understand than a tariff with just a variable component (CMA final report paragraph 9.165). The CMA decided against this because it considered that limiting tariff structures had the potential to stifle innovation and restrict competition and would limit suppliers' ability to respond to the smart meter roll-out by offering time-of-use tariffs (CMA final report, paragraph 12.381).

8. The effect of a standing charge cap on carbon emissions and security of supply

SUMMARY

While a standing charge cap will mean those in fuel poverty can afford more energy, the resulting higher unit rates will lead consumers generally to reduce their overall energy consumption. This will lower carbon emissions. It will also improve security of supply, reducing the need for investment in additional generation and network capacity and avoiding future bill increases to pay for this.

However, to the extent that Ofgem's price cap was successful in lowering prices, it would lead to higher energy consumption and hence more carbon emissions and reduced security of supply. Ofgem's principal objective and one of its statutory principal duties is to protect the interests of existing and future consumers, including their interests in the reduction of greenhouse gas emissions and security of supply. Yet its consultation on the proposed cap has downplayed the likely effect on emissions (its earlier consultations didn't even mention emissions), disregarded the effect on security of supply and has not sought to reduce emissions or improve security of supply.

53. A standing charge cap will reduce overall energy consumption and so reduce carbon emissions and improve security of supply whereas Ofgem's proposed cap would do the opposite.

54. Lower standing charges will mean those in fuel poverty can afford more energy but suppliers will respond by seeking to raise unit rates and this will lead consumers to reduce the amount of energy they consume overall. This will lower their carbon emissions. It will also improve security of supply and reduce the need for investment in additional generation capacity and network enhancements. The cost of this would have been passed on to consumers (see Annex 2) so a standing charge cap will avoid these future bill increases.

55. In this regard it is important to dispel a frequent misconception that, as a necessity, consumption of energy is unaffected by its price. It is in fact necessary to consume only a certain amount of it and as more of it is consumed the utility conferred by each additional unit diminishes so the amount consumed *does* depend on the price.

56. The CMA pointed out that the price elasticity of demand for energy is relatively low overall, which means that consumption reduces only slightly in response to an increase in bills[90]. It cited a study which found that in the short run a 1% rise in domestic electricity prices reduces demand by around 0.35% (i.e. an elasticity of 0.35). However, elasticity is significantly greater in the long run (0.85) as consumers are able to respond to increased prices by installing energy efficiency measures.[91] The CMA also cited a review of studies of elasticities across households for electricity and gas which concluded "on average, natural gas price elasticities are greater than electricity or fuel oil elasticities"[92].

[90] CMA final report paragraph 8.6.
[91] CMA final report paragraph 8.9.
[92] CMA final report paragraph 8.9.

57. Demand may be even more responsive to an increase in the unit rate (as would result from a standing charge cap) because it is this that determines how much consumers save by foregoing consumption.

58. Note in particular that, as mentioned above (see paragraph 30), an effective standing charge cap would prevent suppliers recouping the costs of government policies aimed at reducing carbon emissions through the standing charge rather than the unit rate. This incentivises higher energy consumption and emissions overall so is counter-productive and actually exacerbates the problem.

59. By contrast, Ofgem is proposing a default tariff price cap that, to the extent it was successful in lowering bills, would lead to higher energy consumption and carbon emissions and reduced security of supply. This is despite the fact that Ofgem's principal objective and one of its statutory principal duties is to protect the interests of existing and future consumers, including their interests in the reduction of greenhouse gas emissions and in security of supply[93].

60. The June 2018 version of this paper pointed out that Ofgem's consultation on the default tariff cap in May 2018 did not even mention carbon emissions or security of supply, let alone attempt to reduce emissions or improve security of supply as Ofgem is required to[94]. Indeed Ofgem appeared to downplay the likely effect on overall consumption (and hence on emissions and security of supply)[95].

61. Ofgem had similarly disregarded the effect on carbon emissions in its consultation on its Safeguard tariff[96] and downplayed the likely effect on overall consumption (and hence emissions) then too[97].

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[93] *Our Strategy* Ofgem (Ofgem's Corporate Strategy) (https://www.ofgem.gov.uk/sites/default/files/docs/2014/12/corporate_strategy_0.pdf) p.4. Ofgem also claims to aim to deliver through its regulation a consumer outcome of reduced environmental damage. *Op cit* p.10.

[94] In the 413 pages of consultation documents for the default tariff cap Ofgem devoted just three small paragraphs to the possible impact "on the environment". *Default Tariff Cap: Policy Consultation Appendix 14 – Initial View on Impact Assessment* May 2018 Ofgem paragraphs 4.162-4.164.

[95] It said that "For most customers, it might be expected that price elasticities are low as energy is an essential good." *Default Tariff Cap: Policy Consultation Appendix 14 – Initial View on Impact Assessment* May 2018 Ofgem paragraph 4.24. It cited "a range of studies" implying that domestic demand for gas in the UK is relatively inelastic (in fact just two studies) and made no mention of the CMA's (much larger) estimates (see paragraph 56 above) or those cited in Annex 4 of this document.

[96] Its only statement was that "Carbon emissions associated with electricity generation are captured within the EU Emissions Trading Scheme (ETS) and capped. Therefore any changes in consumption should not affect emissions or the UK's legally binding energy targets." (*Financial protections for vulnerable consumers Technical Document* October 2017 Ofgem paragraph 5.58.) However, this ignored the fact that Ofgem's Safeguard cap covers gas as well as electricity (for the majority who purchase gas from the same supplier as they purchase electricity) and the widely held view that the cap on emissions in the ETS is insufficiently stringent. As Ofgem would have been aware, this is why it is to be tightened from 2021 and is one of the reasons the UK government has developed alternative policies to invest in low carbon generation and improve energy efficiency. (CMA final report paragraphs 2.79-2.80 and 5.238.)

[97] It cited (*Financial protections for vulnerable consumers Technical Document* October 2017 Ofgem paragraph 5.55) median elasticities in a review of residential electricity demand rather than the more appropriate (and higher) mean elasticities cited by the CMA for the same article (CMA final report paragraph 8.9). Similarly, Ofgem then mentioned (much lower) elasticity values for residential gas consumption in another paper. No reference was provided but a literature search suggests that it refers to analysis of U.S. data (so of only limited application to this country) and that the figures Ofgem cited for gas consumption appear to be estimates of elasticities of *electricity* demand.

62. However, our June 2018 paper pointed out that guidance on conducting impact assessments is very clear that the effect on total energy use and greenhouse gas emissions should be quantified and costed[98].

63. Ofgem's most recent (September 2018) consultation included an estimate of the extent to which its price cap will increase energy consumption and greenhouse gas emissions[99]. However, it used the lowest figures in the ranges of estimates in the studies of energy price elasticities that it cited (0.35 for electricity[100] and 0.1 for gas[101]). Ofgem offered no justification as to why the lowest figures (which are applicable only in the short run) were the most appropriate[102].

64. Using these lower figures, Ofgem found that its proposed price cap would lead to an increase of 0.36% in total UK domestic greenhouse gas emissions (to the extent that the cap does not lead to prices of tariffs not covered by the cap rising to the level of the cap)[103]. However, using the corresponding long run or overall elasticity estimates from the studies cited (0.85 for electricity and 0.28 for gas), which may be said to be more appropriate as they capture the entire effect of the price cap, suggest the increase in total UK domestic emissions caused by the cap would be approx. 1%.

65. Ofgem has not conducted a full environmental impact assessment and said that conducting one would be "disproportionate"[104].

66. Again, Ofgem does not appear to have considered the effect of the increased energy consumption resulting from the price cap on security of supply. It also has not sought to protect the interests of consumers by reducing greenhouse gas emissions and improving security of supply even though this is one of its statutory principal duties.

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[98] The Green Book Central Government Guidance on Appraisal and Evaluation 2018 HM Treasury p.69.
[99] *Default Tariff Cap: Statutory Consultation Appendix 11 – Draft Impact Assessment* September 2018 Ofgem paragraphs 5.92-5.96, 7.53-7.55.
[100] See paragraph 56 above.
[101] This review included one study of the price elasticity of demand for gas which found it to be 0.28 and another study which found it to be 0.1 in the short run and 0.17 in the long run. National Energy Efficiency Data Framework (NEED) report summary of analysis *Annex D Gas price elasticities* (June 2016) DECC (now BEIS) p.10. (https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/532539/Annex_D_Gas_price_elasticities.pdf)
[102] *Default Tariff Cap: Statutory Consultation Appendix 11 – Draft Impact Assessment* September 2018 Ofgem paragraphs 5.85-5.91.
[103] *Default Tariff Cap: Statutory Consultation Appendix 11 – Draft Impact Assessment* September 2018 Ofgem paragraph 7.53.
[104] *Default Tariff Cap: Statutory Consultation Appendix 11 – Draft Impact Assessment* September 2018 Ofgem paragraph 7.51.

9. The benefits provided by a standing charge cap

SUMMARY

A cap on the standing charge would immediately save low income households up to £100 p.a.. The total savings for customers of the Big Six from such a cap on SVTs are estimated at £450 million p.a., comprising £320 million p.a. for non-PPM customers and £127 million p.a. for PPM customers.

Moreover whereas a price cap on the total energy bill would adversely affect competition, a standing charge cap will boost competition. By combining heightened competition with protection for those who are unable to benefit from that, it has the potential to eliminate the entire £1.4 billion p.a. detriment observed by the CMA.

Furthermore the total benefit of a standing charge cap will be greater still given that it will lower carbon emissions and avoid future bill increases to pay for investment in generation and network capacity.

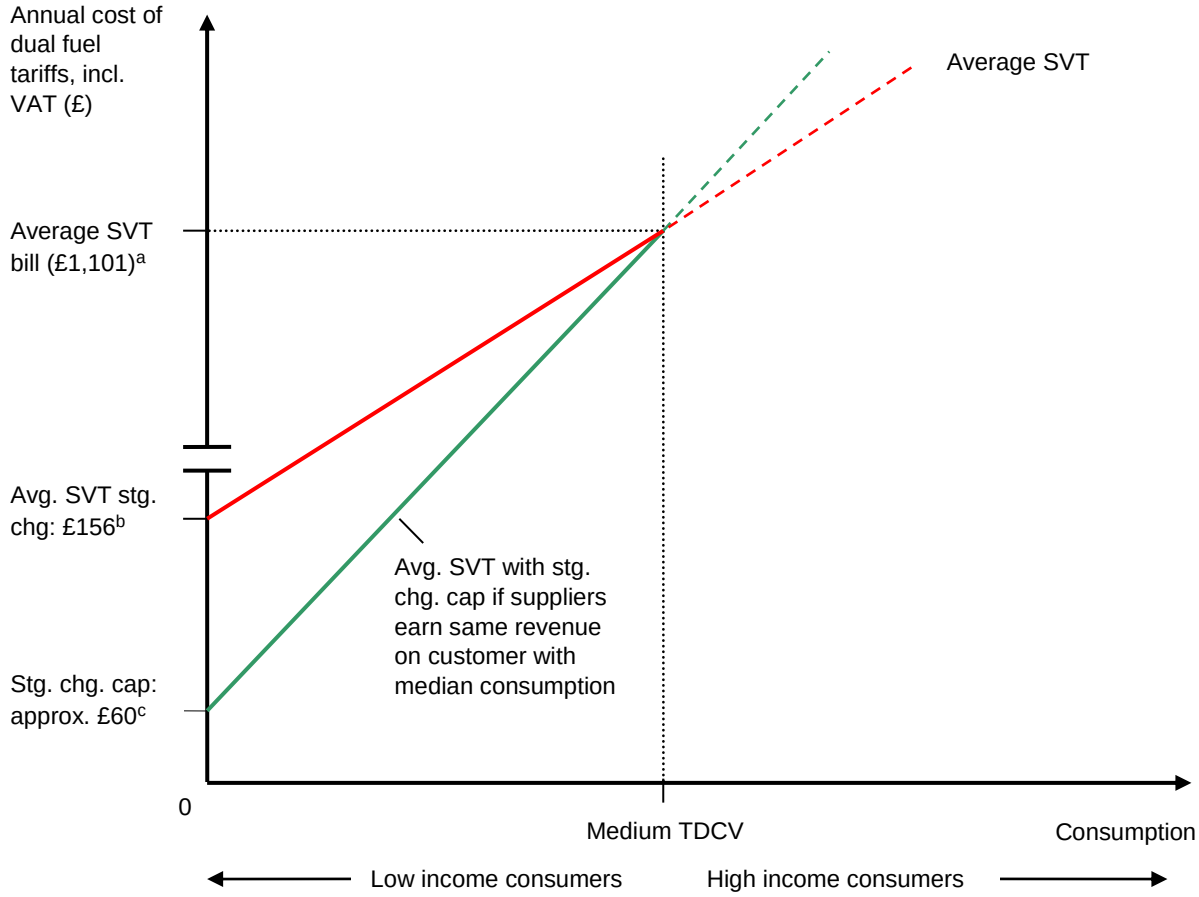
Despite this, Ofgem has said that it proposes to set the default tariff with a cap on both the standing charge and the unit rate. It acknowledges that consumers may save less generally, that low income households will save *less* than those on higher incomes and that the adverse effect on competition means any savings are liable to be offset by increases in the price of better value tariffs. In addition, there will be a detriment to consumers from higher carbon emissions and reduced security of supply.

67. A cap on the standing charge would be effective in protecting low income households, who are the most in need of protection from high energy bills (see section 2 above). The burden of the standing charge falls disproportionately on them because it forms a large part of their total bill and means they pay the highest price overall for the energy they consume (see paragraph 13 above).

68. The standing charges suppliers levy are substantially more than the costs they incur in arranging to supply customers, as set out in paragraph 27 above. The average dual fuel standing charge in (non-PPM) SVTs is £156 p.a. (including VAT), while the appropriate, cost-reflective level is approx.. £60 p.a. so a standing charge cap would save consumers on SVTs up to £100 p.a. each.

69. The following diagram illustrates the effects of a standing charge cap on the annual energy bills of SVT customers with different levels of consumption (and income).

FIGURE 3
Effect of a standing charge cap on SVT annual energy bills



[a] Weighted average of annual SVT (direct debit) bills according to numbers of SVT customers of the 10 suppliers that have more than 250,000 non-PPM customers. Source: Ofgem website (SVT bills as of June 2017, no. of SVT customers as of Aug. 2017).
[b] Average standing charge of 10 suppliers with more than 250,000 non-PPM customers as at Sept. 2017 = £155.54 (see Annex 1).
[c] See paragraph 27 and Annex 2.

70. The savings of Big Six customers currently on (non-PPM) SVTs from a standing charge cap are estimated at £320 million p.a.[105]. The equivalent savings for customers of the 10

[105] The savings are calculated as: 13,432,168 / 2 * (£155.34 - £60) / 2
where:
- 13,432,168 is the no. of SVT customers of the Big Six suppliers (see Annex 1)
- £155.34 is the average standing charge among the Big Six and
- £60 is the estimate of the appropriate level of a standing charge cap.
- The difference between the latter two amounts is the saving for households on zero consumption and half this is the average saving for those who consume less than medium TDCV given that the saving at medium TDCV is zero.

This estimate disregards the effect on consumers with above average income (and consumption) because they are less in need of protection: more able to avoid paying high prices and more able to afford them (see section 2 above). It assumes that half of all SVT consumers consume less than the medium TDCV level for all consumers and are spread evenly across the lower half of the consumption range. In fact more than half of SVT consumers are in the lower half of the consumption range because they consume less than others (low income households, who consume less, are more likely to be on SVTs - see paragraph 12 above).

biggest suppliers are £336 million p.a.[106]. This corresponds to the area in Figure 3 under the red 'SVT' line and above the green 'SVT with a standing charge cap' line.

71. Similarly, replacing the current PPM cap with a cap on the standing charge in PPM SVTs would provide greater benefit to PPM customers in need of help with energy bills. In this case the savings to PPM customers would be £127 million p.a.[107] rather than the savings from the current PPM cap (which are £91 million p.a. as estimated in paragraph 20 above less the reduction due to the adverse effect on competition – see paragraph 43). The consumer savings from introducing a standing charge cap on all SVTs (both PPM and non-PPM) are thus approx. £450 million p.a..

72. A standing charge cap would be likely to lead suppliers to attempt to increase unit rates to compensate for their loss of revenue from standing charges. Thus the green line in Figure 3 has a steeper slope than the red line, with suppliers assumed to earn the same revenue from customers at the median consumption level as before imposition of the cap.

73. In fact suppliers' ability to increase unit rates is likely to be severely constrained because a standing charge cap will dramatically boost competition by making it much easier to compare tariffs, as set out in section 7 above. In addition, higher consuming households on SVTs would become more likely to switch to better value tariffs as their savings from doing so would be greater.

74. By combining heightened competition with protection for those consumers unable to benefit from it, a standing charge cap has the potential to eliminate all of the £1.4 billion p.a. detriment that the CMA said resulted from competition problems.

75. Indeed the total estimated benefit of a standing charge cap will be greater still given that it will lower carbon emissions and reduce the need for investment in additional generation and network capacity, which will avoid future bill increases to pay for these, as outlined in Section 8.

76. Despite this, Ofgem has said that it proposes to set the default tariff with a cap on both the standing charge and the unit rate (see paragraph 23 above). It acknowledges that consumers may save less generally (see paragraph 38), that low income households will save *less* than those on higher incomes (see paragraph 23) and that the adverse effect on competition means any savings are liable to be offset by increases in the price of better value tariffs (see paragraph 44). In addition, there will be a detriment to consumers from higher carbon emissions and reduced security of supply (see Section 8).

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[106] Calculated as: 14,076,746 / 2 * (£155.54 - £60) / 2
where:
- 14,076,746 is the no. of SVT customers of the 10 biggest suppliers (see Annex 1)
- £155.54 is the average standing charge among the 10 biggest suppliers and
- £60 is the estimate of the appropriate level of a standing charge cap.

[107] The savings are calculated as: 3,962,722 / 2 * (£205 - £77) / 2
where:
- 3,962,722 is the no. of dual fuel PPM SVT customers of the Big Six suppliers (see footnote 39 above)
- £205 is the average PPM standing charge (based on those of the Big Six - see paragraph 17 and Figure 2 above) and
- £77 is the estimate of the appropriate level of a PPM standing charge cap (see Annex 2).

10. Application to businesses

SUMMARY

Similar competition problems apply to the supply of energy to SMEs and they (especially micro-businesses) face high energy bills too. Capping the standing charges businesses pay would substantially reduce the energy bills of micro-businesses in particular. By strengthening the competitive constraint on suppliers through improved price transparency and consumer engagement it could eliminate the entire £220 million p.a. detriment to SMEs.

77. The CMA also identified features of the markets for the retail supply of gas and electricity to SMEs that give rise to an adverse effect on competition through an overarching feature of weak customer response from micro-businesses. Aspects of this included limited customer engagement; a general lack of price transparency and various default tariffs that customers can be automatically moved on to if they have not actively engaged with their energy supplier or have not agreed a contract. Detriment was estimated (conservatively) at approx. £220 million pa, of which approx. £180 million pa related to micro-business customers.

78. As with domestic energy bills, capping the standing charge on non-domestic energy bills has the potential to strengthen the competitive constraint on suppliers by improving customer engagement and price transparency. It would in any case substantially reduce the energy bills of smaller businesses that consume least energy.[108]

[108] CMA final report paragraphs 275-299 of Summary.

11. Metering costs

SUMMARY

Energy bills would be lowered and a standing charge cap could be set lower still, in which case the benefits of a cap would be further enhanced, if Ofgem took action to resolve competition problems in metering markets. This would reduce the costs suppliers incur in providing meters.

79. A report published by Ofgem in 2016[109] expressed concern that competition in the provision of gas metering products and services at non-domestic premises was not as effective as it should be[110].

80. In particular, gas suppliers incur significant costs when they switch meter provider. Incoming providers appointed by suppliers are not generally able to adopt meter assets in situ so must replace them[111]. These switching costs weaken competitive constraints on metering providers and form a barrier to entry[112]. The limited competition, costs incurred in replacing meters and raised financing costs for meter provision (as shorter asset life means riskier investment) result in higher meter rental charges to suppliers. These are likely to feed through to end customers in their energy bills.[113]

81. The rental charges on gas meters provided at domestic premises are regulated, although the report included evidence which indicates that meter providers' margins on domestic-size meters may actually be higher than for other meters.[114]

82. The same issues affecting suppliers' metering costs may be expected to apply in relation to electricity meters and to smart meters once they are installed.

83. Dermot Nolan (Ofgem's Chief Executive) gave a commitment to the Public Accounts Committee in June 2014 (in relation to smart meters) that there should be a requirement (as opposed to just a commercial incentive) for suppliers to use the same physical metering equipment when a customer changes supplier[115]. Note that this means that metering equipment should be transferred between providers and does not relate to whether smart meters are interoperable, which merely refers to whether different companies would be *able* to operate meters (if given permission by the meter owners).

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[109] *Review of the non-domestic gas metering market* (March 2016) Ofgem (hereafter referred to as 'Market review report').
(https://www.ofgem.gov.uk/system/files/docs/2016/03/market_review_report_final.pdf).
[110] Market review report p.4.
[111] Market review report p.4.
[112] Market review report chapter summary p.18.
[113] Market review report p.30.
[114] It said analysis of one meter provider's costs and prices (which appeared to be representative of the industry) suggested that additional mark-ups that were unrelated to costs were being added to what were already comfortable rates of return net of inflation. (Market review report p.30.) These mark-ups were 20% for domestic-size meters and 15% for other meters (market review report footnote 43 p.30).
[115] Stephen Lovegrove, Permanent Secretary at the Department for Energy and Climate Change (now BEIS, the Department for Business, Energy and Industrial Strategy), gave a similar commitment. (http://data.parliament.uk/writtenevidence/committeeevidence.svc/evidencedocument/public-accounts-committee/smart-meters-followup/oral/10401.html Qs.68-73, 76).

84. Ofgem said in the report that it intended to take a number of actions to address its concerns[116] such as exploring the scope for encouraging meter providers to sell or rent meters in situ to incoming providers[117]. It said that in due course it would review progress and the effect of its actions on the state of competition in the market. If progress was not evident it would consider whether it might be appropriate to take other actions, including consulting on a market investigation reference to the CMA[118].

85. However, it is not apparent what Ofgem has done in relation to these various commitments.

[116] Market review report p.32.
[117] Market review report p.33.
[118] Market review report p.37.

12. VAT on the standing charge

SUMMARY

Energy bills would also be lowered and the benefits of a cap on the standing charge further enhanced if the Government withdrew VAT (currently levied on energy bills at 5%) from the standing charge. The standing charge confers the ability to access a supply of energy, which is a necessity. The belief that EU rules prevent this appears to be a misconception.

86. The benefits of a cap on the standing charge would also be further enhanced if the Government withdrew value added tax (VAT), currently levied at 5% on all elements of energy bills, from the standing charge. This would be on the basis that the standing charge confers the ability to access a supply of energy, which is a necessity[119]. Doing this would also accord with the Ramsey principle of minimising distortions in consumption patterns, which entails lower mark-ups on consumers with more elastic demand, as mentioned earlier (paragraphs 31-33).

87. There is a belief that EU rules prevent this but that does not appear to be the case.

88. EU directives constrain the application of reduced rates of VAT. They permit no more than two different reduced rates (each of no less than 5 per cent) that can apply to a restricted set of goods and services[120]. However, there are exceptions whereby EU members are allowed to charge 'special rates' of VAT – reduced rates for additional goods and services and reduced rates under 5 per cent (including zero rates). They are allowed to apply a reduced rate to the supply of natural gas, electricity and district heating.[121]

89. Moreover items not subject to VAT prior to the introduction of the EU Single Market in 1992 may continue to be zero-rated where the exemptions have "been adopted for clearly defined social reasons and for the benefit of the final consumer".[122] It is thought that this means the standing charge could be zero-rated as energy bills (including the standing charge) were zero-rated prior to 1992.

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[119] That energy is an 'essential of life' was an argument propounded by, for example, the Mirrlees Review of the tax system (a collaborative research venture led by the Institute for Fiscal Studies) in favour of goods such as domestic fuel facing lower rates of tax. Mirrlees, J., Adam, S., Besley, T., Blundell, R., Bond, S., Chote, R., Gammie, M., Johnson, P., Myles, G. and Poterba, J. (2011), *Tax By Design*, Oxford University Press pp. 156, 159.

[120] Article 98 of the EU VAT Directive (*Council Directive 2006/112/EC of 28 November 2006 on the common system of value added tax*) (http://eur-lex.europa.eu/legal-content/EN/ALL/?uri=CELEX:32006L0112). The categories of goods or services to which the reduced rates may apply are listed in Annex III of the Directive.

[121] Article 102 of the EU VAT Directive.

[122] Article 110 of the EU VAT Directive.

13. Conclusion

SUMMARY

The significance of standing charges was overlooked in the CMA's inquiry. Nonetheless this proposal efficiently achieves what the CMA had sought to do when it looked at both protecting disengaged customers and simplifying tariffs to make it easier to compare them. It is unique in dramatically boosting competition while protecting those who are unable to make the market work for them and suffer significant detriment as a result.

90. The significance of standing charges was overlooked in the CMA's investigation. Ironically, the only reference in the CMA's report to suppliers' ability to levy excessive standing charges and the distributional impact of this appears to be a comment from one of the Big Six energy suppliers, SSE. It said that suppliers could respond to a form of PPM price cap previously mooted by the CMA by increasing standing charges. It said this "would be particularly disadvantageous to lower users, a group which includes some of the most vulnerable consumers"[123].

91. Nonetheless a cap on the standing charge would efficiently achieve what the CMA had sought to both when it considered extending the PPM cap to the types of people who are disengaged consumers (see paragraph 8) and when it considered simplifying tariffs to make it easier for customers to compare tariffs (see paragraph 50).

92. Moreover it meets all of the CMA's criteria for the effectiveness and proportionality of a price cap. It has the advantages over any cap on the overall bill that:-

- It provides far more protection to those (low income households) most in need of help with their bills.
- Rather than weakening competition it actually strengthens it.
- It reduces carbon emissions and the need for investment in generation and network capacity.
- It involves minimal intervention in the market, engendering less uncertainty and regulatory risk.

93. One of the five members of the CMA inquiry panel believed that the scale of detriment justified a price cap on the total bill for all SVT customers on a temporary basis, while the rest believed that this risked undermining the competitive process (see paragraph 46). A standing charge cap reconciles those who believe the scale of detriment justifies intervention in the market to protect consumers with those who believe doing so would inevitably harm competition.

[123] CMA final report paragraph 14.76.

Annex 1: The average non-PPM SVT standing charge

The average standing charge is calculated according to the standing charges in the non-PPM SVTs of the 10 suppliers with more than 250,000 non-PPM customers in September 2017. These are weighted by the number of customers on each of these suppliers' SVTs (source: Ofgem).

TABLE 1
Large suppliers' non-PPM SVT standing charges and calculation of the average

Supplier	Name of SVT (direct debit)	Daily stg. charge (p)[a]		Total p.a. (£)[b]	No. of non-PPM SVT customers[c]
		Gas	Elec.		
British Gas	Standard - Paper and Paperless	26.0	26.0	189.87	4,847,737
E.ON	E.ON Energy Plan (fixed dir. debit)	21.9	16.4	119.89	2,248,613
EDF Energy	Standard (Variable)	26.3	18.9	164.80	1,557,526
Npower	Standard - Paper and Paperless	15.8	15.8	115.51	1,246,569
Scottish Power	Standard	27.4	27.4	189.45	1,034,426
SSE	Standard (paper billing)	16.5	16.5	120.09	2,497,297
OVO Energy	Simpler Energy Paper & Paperless	28.8	28.8	210.02	148,294
Utility Warehouse	Gold and Double Gold	21.6	22.4	160.65	248,859
Co-operative Energy	Green Pioneer Paper & Paperless	20.0	20.0	146.00	92,296
First Utility	First Variable - Paperless	27.5	5.0	118.63	155,129
				Big Six:	13,432,168
			Average:	155.34	
				Total	14,076,746
			Average	155.54	

[a] Including VAT
[b] Adjusted for dual fuel discounts (i.e. offered by suppliers to customers who purchase both gas and electricity from them).
[c] As of April 2017. Source: Ofgem website (in September 2017).

Annex 2: The efficient level of the standing charge

The efficient level of a cap on the standing charge depends on which elements of the costs incurred by suppliers should be recovered through it. This essentially depends on whether they are incremental costs of serving customers or, rather, related to the amount of energy consumed, in which case they should be recouped through the unit rate instead.

In 2012 Ofgem considered which cost elements might be included in a fixed standing charge as part of its reforms aimed at simplifying tariffs (see paragraph 50 above)[124]. It assessed costs incurred by suppliers according to whether they varied with energy consumption and consulted on whether to adopt a narrow or wide definition of a standardised standing charge.

Ofgem said that under a 'narrow' definition the standing charge would include only network costs[125]. It estimated those costs that might be included under the widest definition of the standing charge[126] as shown in the following table[127]:-

TABLE 2
Ofgem's estimate of costs to be included in the standing charge

		Illustrative annual cost for average consumer (£)	Recovered through	
			standing charge	unit rate
Network costs:	Gas transmission	6	X	✓
	Gas distribution	122	X	✓
	Electricity transmission	19	X	✓
	Electricity distribution	81	✓(£13)[d]	✓(£68)
Policy costs:	Energy Co. Obligation*	29 (gas), 29 (elec)	✓	X
	Warm Home Discount*	7 (gas), 7 (elec)	✓	X
Metering costs*		23 (gas), 15 (elec)	✓	X
Other supplier fixed costs*		25 (gas), 25 (elec)	✓	X

* Not included under a narrow definition of the standing charge
[m] Metering costs estimates were based on traditional meters, not smart meters
[d] The Distribution Use of System (DUoS) fixed charge
Source: *The Standardised Element of Standard Tariffs under the Retail Market Review* (February 2012) Ofgem (Table 2.1 p.11).

However, Ofgem did not conclude on whether to adopt a narrow or wide definition as it decided against fixing the standing charge (see paragraph 50 above).

Considering the possible elements of a fixed standing charge:-

i) Network (transmission and distribution) costs

Ofgem determined that the bulk of the charges incurred by suppliers for use of the transmission and distribution networks should be recovered through the unit rate as they

[124] *The Standardised Element of Standard Tariffs under the Retail Market Review* (February 2012) Ofgem (hereafter referred to as 'Standardised Element document') (https://www.ofgem.gov.uk/publications-and-updates/standardised-element-standard-tariffs-under-retail-market-review).
[125] Standardised Element document Appendix 1 paragraph 1.2.
[126] Standardised Element document paragraph 2.10 p.10.
[127] Standardised Element document table 2.1, p.11.

varied with the amount of energy consumed. Just a small element of electricity distribution costs were to be included in the standing charge[128].

The CMA went further. In setting the PPM price cap for nil consumption at the average standing charge of the Big Six energy firms' PPM tariffs it broke the standing charge down into its components. It stated that "the value of the price cap at nil consumption does not include, nor need to include, network costs since these are volume driven"[129]. It said that the network charging statements of the network companies defined 'use of system' charges to be nil at nil consumption[130].

Thus it has been acknowledged that almost all (if not all) network costs should be recovered through the unit rate.

ii) Costs of government policies: the Energy Company Obligation (ECO), Feed-in tariffs (FITs), the Warm Home Discount (WHD) and the Renewables Obligation (RO).

These are all aimed at tackling fuel poverty and/or reducing carbon emissions. Annex 3 describes how suppliers are charged for each of these policies.

The original version of this paper in October 2017 found that the costs that suppliers incur under three of the four (ECO, FITs and RO) depend on the amount of energy supplied rather than the number of customers served. Thus they would efficiently be recovered through the unit rate rather than the standing charge. (Ofgem had said previously that if ECO obligations were to be allocated on the basis of consumption rather than the number of customers it would not expect it to fall within the scope of the standing charge[131].)

Since publication of that analysis, Ofgem has confirmed this for these schemes as well as for Contracts for Difference, the Capacity Market and AAHEDC[132]. It said that it would expect to design the default tariff cap to reflect this.[133]

The WHD was the exception. However, it is in any case counter-productive for the costs of measures aimed at reducing fuel poverty or emissions to be included in the standing charge rather than the unit rate. This itself makes energy less affordable for low income households while incentivising higher consumption and emissions overall.

Smaller suppliers are exempt from the costs of three of the four policies listed in Annex 3 (ECO, FITs and WHD). There is no justification for smaller suppliers' standing charges to reflect these costs given their exemption from them. Ofgem offered the justification for small suppliers' standing charges including these costs that it would enable the smaller suppliers to recover their higher than average fixed costs.[134] However, it is not appropriate to require low consumption / low income households to shoulder the burden of rectifying that problem.

Thus it may be said to be inappropriate for these policy costs to be recovered through the standing charge.

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[128] Standardised Element document Appendix 1 paragraphs 1.7-1.11.
[129] CMA final report footnote 59 p.962.
[130] CMA final report paragraph 14.144.
[131] Standardised Element document footnote 16 of Appendix 1.
[132] Assistance for Areas with High Electricity Distribution Costs
[133] *Working paper #4: Treatment of environmental and social obligation costs under the default tariff cap* (April 2018) Ofgem paragraph 1.6, Table 2, paragraphs 4.8-4.9.
[134] Standardised Element document paragraph 1.36 of Appendix 1.

iii) Metering costs

The costs incurred in providing meters clearly relate to serving customers so are appropriately recovered through the standing charge. The cost suppliers incur for providing domestic gas meters is regulated by a price cap, which was set at £15.93 p.a. for 2017-18[135]. Electricity meters appear to be cheaper to provide: they are less sophisticated than gas meters, which involve a hazardous substance, and the CMA allowed less for electricity meters when it set the PPM price cap[136].

Suppliers also need to pay for the smart meter rollout. The cost of this has been estimated at £1.50 per customer per year[137].

Metering costs are considered further in Section 11 of this paper.

iv) Other fixed costs

Ofgem calculated these simply by subtracting the above costs from the typical standing charge levied by suppliers[138]. Given the lack of constraint on the amounts suppliers levy as standing charges (see paragraph 27 above), this estimate is not meaningful and is liable to be a significant over-estimate.

Ofgem has said separately that suppliers' other operating costs include the costs associated with billing, bad debt and costs associated with depreciation and amortisation[139]. It is not possible in this short paper to quantify all such factors and assess what proportion of them might be attributable to the standing charge. However, billing costs undoubtedly would be, while bad debt might be mainly attributable to charges for energy consumed, especially following a standing charge cap, as charges for energy supplied account for the bulk of energy bills.

Meter reading costs form another category of costs that are clearly attributable to the standing charge. However, the rollout of smart meters will reduce this and the costs of serving customers generally[140].

Ofgem said suppliers earn a margin on their sales of energy too[141]. It does not seem appropriate for suppliers to earn a margin on the standing charge given that this merely enables a customer to receive supply of energy and does not itself confer benefit to consumers.

Thus metering costs appear to be the main category of costs that do not vary with the level of consumption so are justifiably recouped through the standing charge. Other elements may be (possibly) a small element of electricity distribution costs; meter reading costs; billing costs; and some fraction of other overheads / other fixed costs.

Of the costs in Table 1 above, the only ones that are rightfully included in the standing charge are:-

(a) (possibly) electricity distribution costs (£13)

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[135] *Metering charges from 1 April 2017* National Grid p.6. (http://www2.nationalgrid.com/UK/Services/Metering/Publications/Metering-Charges/).
[136] CMA final report paragraph 14.122.
[137] CMA final report paragraph 14.238.
[138] Standardised Element document Appendix 1 paragraph 1.47.
[139] *Retail Energy Markets in 2016* Ofgem p.31.
[140] CMA final report paragraph 14.119 and paragraph 3 of Appendix 9.8.
[141] *Retail Energy Markets in 2016* Ofgem p.31.

(b) some proportion of the metering costs of £38, although note that this may be an over-estimate given the amounts cited in (iii) above, and

(c) some fraction of the other fixed costs of £50.

This suggests that the appropriate level of the dual fuel standing charge for non-PPM customers is of the order of £50-60 (say £60 including VAT), which is much less than the standing charges currently levied by suppliers.

That the average SVT standing charges currently levied are excessive can also be judged by inspection of the components of the PPM cap at zero consumption. As calculated by Ofgem for summer 2017 according to the methodology set by the CMA, these are:-

TABLE 3
Components of the PPM cap at zero consumption

£ (excl. VAT)	Electricity	Gas
Network	0.0	0.0
Policy	42.2	8.5
Other	29.4	44.2
PPM uplift	24.4	39.7
Headroom	4.1	3.2
Total	100.0	95.6

Source: Ofgem[142]

Subtracting the PPM uplift gives a dual fuel total of £131.50 (or £138.08 including VAT), which is significantly less than the current average level of (non-PPM) standing charges of £156 including VAT (see paragraph 27 and Annex 1). Subtracting headroom (included by the CMA in order to allow suppliers to price below the cap) and policy costs (which we have shown should be recovered through the unit rate) leaves just 'other costs', which total £73.60 (or £77.28 including VAT). This may be an over-estimate given Ofgem's previous estimate of these, as summarised in (b) and (c) above.

[142] https://www.ofgem.gov.uk/publications-and-updates/prepayment-price-cap-1-october-2017-31-march-2018 (Pre-payment price cap calculations spreadsheet, columns for '2017-18 summer')

Annex 3: How suppliers are charged for the costs of government social and environmental policies

This feeds into section (ii) of Annex 2.

The policies in question are:-

The Energy Company Obligation (ECO)[143]

This aims to reduce carbon emissions and tackle fuel poverty. It requires large energy suppliers (more than 250,000 domestic customers) to install energy efficiency measures such as insulation. Each supplier's obligation is determined according to how much gas and electricity it supplies to its customers[144].

Feed-in tariffs (FITs)[145]

These encourage small-scale, low carbon generation. Large suppliers (more than 250,000 domestic customers) are required to make payments to individuals and organisations for both generating and exporting low carbon electricity. The costs of the FIT scheme are spread across all electricity suppliers according to each supplier's share of the electricity market in terms of the amount of electricity supplied (taking into account FIT payments they have already made)[146].

The Warm Home Discount (WHD)[147]

This requires large suppliers (more than 250,000 domestic customers) to provide support, primarily through bill rebates, to customers who are in or at risk of fuel poverty.[148] Each supplier's costs are liable to vary with the number of its customers so Ofgem considered there would be merit in this cost being recovered through the standing charge.[149]

Renewables Obligation (RO)

This requires suppliers to source a specified proportion of their electricity from eligible renewable sources or pay a penalty.

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[143] CMA final report paragraphs 3, 6-20 of Appendix 8.1.
[144] CMA final report paragraphs 11-14 of Appendix 8.1.
[145] CMA final report paragraphs 3, 21-23, 26-28 of Appendix 8.1.
[146] *Feed-in Tariff Annual Report 2015-16* (Dec. 2016) Ofgem p.5 and *Feed-in Tariff: Guidance for Licensed Electricity Suppliers (Version 8.1)* (May 2016) Ofgem chapter 9.
[147] CMA final report paragraphs 3, 24-27, 29 of Appendix 8.1 of and Standardised Element document paragraphs 1.31-1.36.
[148] Those on the Guarantee Credit element of Pension Credit receive automatic rebates. (In winter 2017-18 these are for £140 off electricity bills.) Energy companies can set their own rules about which other vulnerable groups can apply for a rebate, typically those on means-tested benefits with young children or a disabled member. (CMA final report paragraph 2.108).
[149] Standardised Element document paragraphs 1.34-1.35.

Annex 4: How households' own-price elasticity of demand for energy varies with their income level and energy consumption

The Institute for Fiscal Studies estimated the change in energy consumption that would have resulted from the imposition of VAT on domestic energy at 15 per cent for each income decile. The results and the implied own-price elasticities were:-

TABLE 4
Own-price elasticity of demand for energy by income decile

Decile	Change in fuel consumption (%)	Implied own-price elasticity
Lowest	–9.61	–0.64
2	–9.50	–0.63
3	–8.26	–0.55
4	–6.83	–0.46
5	–4.84	–0.32
6	–4.11	–0.27
7	–3.43	–0.23
8	–1.97	–0.13
9	–0.06	–0.00
Highest	1.09	0.07
Average	–4.12	–0.27

Source: Johnson, P., McKay, S. and Smith, S. (1990), *The Distributional Consequences of Environmental Taxes*, Institute for Fiscal Studies pp. 8-16.

Another study when VAT was first introduced on domestic fuel suggested that a VAT rate of 17.5 per cent would reduce energy consumption among the poorest fifth of households by around 9.2 per cent, compared with a reduction of just 1.1 per cent among the richest fifth of households.[150]

Similarly, the price elasticity of demand for energy has been observed to decrease generally with the level of expenditure on a group of commodities including fuel, as shown in Table 6. This, too, suggests that the demand for energy of low income households (who consume less energy than high income households) is more price responsive.

[150] Crawford, I., Smith, S. and Webb, S. (1993), *VAT on Domestic Energy*, Institute for Fiscal Studies, Commentary no. 39.

TABLE 5
Own-price elasticity of demand for energy according to level of expenditure on energy (and other commodities)

Total expenditure*	Own-price elasticity (with standard error in parentheses)
low 5 per cent	–0.680 (0.020)
6–10 per cent	–0.641 (0.034)
11–25 per cent	–0.599 (0.027)
middle 50 per cent	–0.486 (0.026)
76–90 per cent	–0.369 (0.082)
top 10 per cent	–0.425 (0.159)
all	–0.479 (0.025)

* 'Total expenditure' is expenditure on food, clothing, services, fuel (household energy), alcohol, transport and other non-durables. Data are drawn from the annual British Family Expenditure Survey (FES) 1970–84.

Source: Blundell, R.W., Pashardes, P., and Weber, G. (1993), 'What do we Learn About Consumer Demand Patterns from Micro Data?', *The American Economic Review* vol. 83, no.3, pp. 570-97. Table 3 Part D p.582.