

IDEAL ECONOMICS

Submission to Ofgem's Call for Input on Standing Charges

by

David Osmon

David Osmon is a former Senior Economist at Ofgem

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Ideal Economics (www.IdealEconomics.com)

Subtitles Ltd.
2nd Floor
32-33 Gosfield Street
Fitzrovia
London W1W 6HL
Tel. 020 8969 5995
Info@IdealEconomics.com

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Abbreviations used in this paper:-

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

CMA: Competition and Markets Authority.

PPM: Pre-payment meter.

SME: Small and medium-sized enterprise.

SoLR: Supplier of Last Resort

SVT: Standard variable tariff.

TCR: Targeted Charging Review

VAT: Value added tax.

Responses to the questions posed in the discussion paper

Answers are provided below to the questions posed in the discussion paper, with further information provided in annexes.

Q1: What are the barriers to suppliers using the existing flexibility under the price cap?

Q2: Why are suppliers not innovating on standing charges for tariffs not covered by the price cap?

Q7: Why do so few suppliers offer multi-tier or zero standing charge tariffs to their customers?

Q8: Why are zero standing charge tariffs no longer offered in the market, with the exceptions cited in this paper?

Actually the discussion paper says there aren't any exceptions: "at the time of writing, no active suppliers have sought to use this flexibility to offer low or no standing charge tariffs" (p.20).

This isn't an accident. Suppliers do not offer tariffs with zero standing charges because it is not in their interest to. The standing charges permitted under the price cap are much greater than the costs suppliers incur in serving each customer (see the answer to Q3 below). This means a significant part of the standing charge is revenue for which they don't have to provide anything in return, effectively 'free money', which they would not willingly forego.

The discussion paper reports the CMA Energy Market Investigation of 2016 referring to suppliers offering zero standing charge tariffs which became more expensive at higher consumption.¹ This could only be a possibility again if the standing charge cap was set much lower and did not exceed the level of related costs.

As such it is not meaningful for Ofgem to claim that there is no 'Ofgem standing charge' on the basis that suppliers could levy standing charges below the level of the cap². Similarly, Ofgem "encouraging" suppliers to offer lower standing charges³ is naïve and futile.

That said, one reason why larger suppliers might call for lower standing charges in the price cap is worth mentioning. Standing charges significantly above the costs suppliers incur in serving extra customers encourage the entry to the market and growth of firms seeking to gain customers (at the expense of established companies) in order to obtain these payments.

In fact high standing charges are likely to have been at least partly responsible for the collapse of suppliers during the energy crisis in 2021. They had encouraged the entry and expansion of suppliers that were more intent on capturing these payments than on managing their energy costs effectively. Many of the failed suppliers had amassed customers very quickly by offering deals that didn't cover their costs and hadn't bought enough energy in

¹ Paragraph 5.5.

² Page 7 of the discussion paper.

³ Paragraph 5.11.

advance so were caught out when wholesale energy costs increased. This is set out further in Annexe 1.

These company failures led to yet higher standing charges. The costs of paying suppliers to take on the customers of failed suppliers have been recovered through the Supplier of Last Resort (SoLR) process and added to the standing charge (see Annexe 7).

Q3: What changes could Ofgem make to improve provision for lower standing charges under the cap?

Ofgem should sharply reduce standing charges for all payment methods because the current level of the dual fuel (i.e. gas and electricity) standing charge exceeds by a substantial margin the costs suppliers incur in serving a customer. This is according to Ofgem's own analysis of suppliers' costs, which is set out in Annexe 3. When the price cap was introduced in 2019 the dual fuel standing charge of £169 p.a. (excl. VAT) for direct debit customers and £200 p.a. for those paying by standard credit already exceeded the efficient level of costs appropriately recovered through it by over £100.

This arose because when Ofgem introduced the price cap it inexplicably lowered only the unit rate, leaving the standing charge unaltered at the prevailing market rate (see Annexe 2). This was even though market rates for default tariffs were known to be excessive because that had been the central finding of the Competition and Markets Authority (CMA)'s Energy Market Investigation in 2016, which led to the price cap (see Annexe 10).

It was all the more surprising that Ofgem opted to structure the cap like that given that the few costs that should be recovered through the standing charge (those that relate to the number of customers served) can be estimated much more accurately and transparently than other costs. The difficulty of quantifying the many costs that vary with the amount of energy supplied (to be recovered through the unit rate) led Ofgem to set the price cap above the estimated cost level, reducing the savings to each customer by approx. £39 p.a. (incl. VAT). (This is explained in Annexe 2.)

Since then, the level of the dual fuel standing charge permitted under the cap has risen dramatically, to £288 p.a. (£303 p.a. incl. VAT) for direct debit customers and £330 p.a. (£347 p.a. incl. VAT) for standard credit customers. It is even more for PPM customers: £350 p.a. (£367 p.a. incl. VAT). (See Annexe 8.)

However, the level of costs that should be recovered through it is likely to be of the order of £74 p.a.: this is estimated by scaling up the 2019 costs (referred to above and as estimated in Annexe 3) by inflation. Thus the standing charge cap should be set at approximately this level for dual fuel non-PPM customers (excl. VAT), which is more than £200 lower than the current cap. (See Annexe 8.)

A large part of this increase in Ofgem's cap on the standing charge since 2019 was accounted for by two Ofgem policies: its Targeted Charging Review (TCR) and its Supplier of Last Resort (SoLR) process. These have added £66 p.a.⁴ and £34 / £10 p.a.⁵, respectively, to the costs suppliers incur for each customer they serve. Both the decisions to add these costs to the standing charge rather than the unit rate are flawed (see below in answer to Q4 for the TCR and Annexe 7 for the SoLR).

This means suppliers currently incur costs in serving each customer of approx. £150 p.a. (£74 + £66 + £10 p.a.). Thus the standing charge currently permitted under the price cap for non-PPM customers of c.£300 p.a. is of the order of £150 p.a. higher than the costs suppliers incur.

⁴ 18p per day (see paragraph 3.24 of the discussion paper).

⁵ "These costs were approximately £34 per customer per year in 2022/23 [presumably 2021/22] and had fallen to £10 per customer per year in 2022/23." (Paragraph 4.5)

Q4: As a result of TCR and changes to the recovery of residual costs, domestic consumers with very low consumption now bear a share of fixed network costs which is more in line with the cost of maintaining access to gas and electricity networks. Is this fair? Should more be done to shield these customers from these costs?

Ofgem's TCR runs counter to analyses of how network costs should be recovered that had previously been carried out by both Ofgem and the CMA:-

- Ofgem had 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 rather than the standing charge as they varied with the amount of energy consumed. Just a small element of electricity distribution costs was to be included in the standing charge.
- The CMA's Energy Market Investigation went further. In setting the prepayment meter (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".

(These analyses are referenced in Annexe 3.)

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

Ofgem's about turn was apparently driven by a desire to ensure that those who have invested in their own generation (installing solar panels etc) so consume less electricity from the grid do not avoid contributing to network costs. It followed a statement in 2018 by the then Secretary of State for Business, Energy and Industrial Strategy, Greg Clarke, that there should be no "free riders".

The TCR is fundamentally ill-conceived. In particular, Ofgem did not consider how fixed costs should be recovered in terms of a framework of the optimal, economically efficient outcome, namely that of competition, in which prices reflect costs. The electricity network is a natural monopoly, which is the reason its charges are regulated. The 'second best' solution adopted by regulators in such situations is Ramsey pricing. This minimises the distortion of consumption patterns relative to those that would occur under competition by adding mark-ups to cover the fixed costs that are inversely proportional to consumers' price elasticity (i.e. price sensitivity) of demand.

Lower consumption households have the highest price elasticity so economic efficiency calls for them to face the lowest mark-ups. This entails restricting the standing charge (which forms a higher proportion of the bills of these consumers) and recovering fixed costs through the usage charges. This is set out in Annexe 5.

Ofgem did in fact acknowledge that Ramsey pricing should be the guiding principle for the recovery of fixed costs (see Annexe 6 paragraph 8). However, it bizarrely and mistakenly didn't apply this in terms of the price sensitivity of consumers.

TCR is in fact a disproportionate response to the scale of the 'problem'. The discussion paper claims⁶ that its impact assessment found significant benefits from TCR but that impact assessment was opaque and contrived, as explained in Annexe 6.

The effect of the TCR is to penalise people who use little energy (typically lower income households), including those who have taken steps to reduce their consumption. By reducing unit rates it incentivises higher consumption, which increases carbon emissions and reduces energy security (see the answer to Q11 below).

Indeed the resulting higher demand means more investment is needed in the network. Some of the costs Ofgem described as 'fixed' that are funded by the TCR are in fact variable in the long run. Thus by reducing the unit rate relative to the standing charge the TCR is actually increasing the amount that will need to be spent on installing and maintaining the network and hence the amount that must be passed on to consumers (a vicious circle).

Overall, it is quite difficult to understand the rationale for the TCR policy and it seems that Ofgem isn't clear either. For example, the question above asserts that it is to ensure that all consumers bear their share of the cost of maintaining *access to* [our emphasis] gas and electricity networks. It isn't. The cost of accessing these networks is just the cost of providing meters, which accounts for the bulk of what the standing charge *should* cover. The TCR actually requires all customers to bear an equal share of the cost of installing and maintaining the entire electricity network regardless of how much they use it.

Ofgem's assertions⁷ that the TCR ensures the costs of investing in the network are borne by those who *use it* [our emphasis] and that the fixed charges it brought in enable recovery of revenue without driving inefficient behaviour are entirely incorrect.

The above is explained further in Annexe 6.

⁶ Paragraph 3.27

⁷ Paragraph 3.27

Q11: How significant an impact do standing charges have on customers' incentives to use energy efficiently? What evidence can you provide that this is the case?

Higher standing charges in the price cap entail lower unit rates which lead to higher energy consumption so raise greenhouse gas emissions and diminish security of supply.

Ofgem's principal objective 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. However, in its work describing how it set the price cap Ofgem has either: (i) failed even to mention the effect on greenhouse gas emissions and security of supply; (ii) failed to estimate the effect or (iii) downplayed the likely effect by highly selective use of price elasticities estimating the effect of changes in the price of energy on demand.

The effect is likely to be highly significant, especially in the long run. For example, the CMA estimated that a 1% rise in domestic electricity prices would reduce demand by around 0.85% (i.e. an elasticity of 0.85) as consumers are able to respond to increased prices by installing energy saving measures. It also cited a review which found that gas price elasticities are even greater.

Ofgem's comment in the discussion paper that raising standing charges rather than unit rates "arguably" weakens incentives for customers to reduce consumption⁸ is disingenuous as this effect is not in question. Ofgem also comments that lower electricity unit rates (due to higher standing charges) make some low-carbon technologies such as electric vehicles and heat pumps more affordable.⁹ One could point out that it works the other way too: lower electricity unit rates make it more attractive to use electricity for heating directly rather than either heat pumps or gas¹⁰, which is inefficient and increases carbon emissions. But in any case the principal, first order effect of lowering unit rates is to increase consumption (and carbon emissions) and make the adoption of measures that reduce it less financially worthwhile.

Higher demand (resulting from higher standing charges and lower unit rates) also means more investment is required not only in network enhancements (as mentioned above) but also in additional generation capacity in order to maintain energy security. The costs will be passed on to consumers.

This is discussed further in Annexe 9.

⁸ Paragraph 5.12

⁹ Paragraph 5.14

¹⁰ SoLR is adding to the standing charge for electricity but to the unit rate for gas.

Q10: Why do no suppliers offer rising block tariffs at present? Would these products offer benefits to consumers?

Once again, the reason suppliers don't offer rising block tariffs is that it is not in their interest to do so.

Consumers obtain diminishing marginal utility from their energy consumption: initial units confer more benefit to each consumer than further units. Thus the amount per unit consumers are prepared to pay decreases the more they consume. Therefore in order to sell more energy (and make more profit) suppliers need to make additional units of energy progressively cheaper rather than progressively more expensive.

They don't actually need to vary the unit rate to achieve this: the standing charge means that energy becomes progressively cheaper the more is consumed as the average price per unit decreases.

The way that Ofgem can bring energy pricing as close as possible to rising block tariffs is to minimise the standing charge.

Q12: Are there any forms of intervention in standing charges that Ofgem might consider that would minimise the risk of producing negative outcomes for some customers?

Q13: How can we identify the complex needs of vulnerable customers and ensure that they are able to receive tariffs that benefit them the most?

The discussion paper acknowledges that in general lower income households use less energy so would benefit from lower standing charges accompanied by higher unit rates.¹¹ (This is also set out in this paper, in Annexe 13.) Moreover those customers have a greater marginal utility (i.e. will obtain greater value) from those savings.¹²

Of course there are exceptions to this rule and the discussion paper is at pains to point out various groups of customers that would be adversely affected:-

1. Those who rely on electricity for heating¹³, which could in particular mean lower income households such as those who rent accommodation. Ofgem also mentions customers with communal heating (for example in social housing)¹⁴ although it is not clear that this would be electricity rather than gas.
2. Households with medical needs (e.g. requiring use of medical equipment) entailing high energy consumption¹⁵, who might be on low incomes.
3. Some customers with particular types of disability and other types of vulnerability that increase demand for energy (e.g. through needing more heating).¹⁶
4. Those in rural areas who are off the gas grid so use electricity for heating¹⁷. Although many people in this situation use liquefied petroleum (LPG) for heating, which is likely to be cheaper than electricity.

While some of these groups of people are likely to be vulnerable it should be pointed out that low income households in general are likely to be vulnerable. The fact that they spend less on energy means a higher proportion of what they pay goes on the standing charge, buying them no energy, and overall they pay the highest price per unit of energy. They are less able to afford to pay these high prices so will suffer particular detriment. As such they are likely to satisfy Ofgem's definition of consumer vulnerability (see Annexe 14).

Ofgem also argues that a higher marginal price of energy consumption could deter use of energy when necessary, leading vulnerable, low income people to disconnect. It cited the example of a diabetic consumer reliant on insulin turning their refrigerator off.¹⁸ However, for low income people the standing charge is typically a high proportion of their total spending on energy so a reduction in the standing charge would be likely to buy a significant amount of extra energy and would actually make self-disconnection much less likely.

¹¹ Paragraph 5.23

¹² Paragraph 5.32

¹³ Paragraph 5.23

¹⁴ Paragraph 5.29

¹⁵ Paragraphs 5.30, 5.43

¹⁶ Paragraph 5.36

¹⁷ Paragraph 5.35

¹⁸ Paragraph 5.44

It almost goes without saying that Ofgem should proceed to reduce standing charges on the basis that the net effect is beneficial. It would be remarkable if there were no exceptions to this general rule. Most of the people who have a need to consume more energy and would lose out can be identified, for example because they have specific medical conditions or are in receipt of disability benefits. It would be more efficient to address these relatively few instances with specific measures targeted at them rather than forcing all low-income households to pay more.

These issues should be addressed by the government, whose role it is to ensure that citizens have enough money to be able to afford to purchase sufficient goods (including energy) to have a reasonable standard of living, rather than for the energy markets to be distorted trying to correct that. Ofgem should be very wary of moving into that space. That is likely to apply also to calls for it to introduce a social tariff.

Q9: What measures could Ofgem take to improve the range of tariffs available to domestic retail customers?

The introduction of the price cap followed the Competition and Markets Authority (CMA)'s Energy Market Investigation in 2016. This found that the level of default tariffs was excessive and attributed this to suppliers' market power over inactive consumers who failed to engage in the market effectively and select suppliers offering lower prices. A key aspect of this was their difficulty comparing tariffs, which was likely to be made worse by tariffs having large and variable standing charges in addition to unit rates.

In fact Ofgem had earlier (in 2012) proposed fixing the standing charge in all tariffs. It said "this should make it easy for consumers to understand their tariff options and select the cheapest standard tariff". In the event Ofgem decided not to because of opposition from respondents to its consultation, presumably suppliers.

This is set out in Annexe 10.

It is not clear why Ofgem now believes a greater range of tariffs would be beneficial.

Ofgem should cap the standing charge as tightly as possible, i.e. strictly at the efficient cost level and with the TCR and SoLR surcharges moved onto the unit rate instead¹⁹. This would substantially lower the standing charge, which would simplify bills as it would be largely discounted by consumers. They would need to consider just the unit rate when comparing tariffs, which would make it much easier to identify and switch to better value ones.

An effective standing charge cap would thereby constrain suppliers' ability to raise unit rates and would eliminate much of the detriment to consumers resulting from ineffective competition, which is what brought about the current cap.

¹⁹ NB A cap on the standing charge would need to be accompanied by a ban on energy 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.

Q14: What issues affecting standing charges in the non-domestic retail sector should we consider further?

The CMA's Energy Market Investigation reached similar conclusions in the markets for the supply of gas and electricity to SMEs as for domestic consumers. However, a price cap was not put in place to protect non-domestic consumers.

Ofgem's discussion paper also describes similar features of the market that impair non-domestic consumers' ability to compare energy contracts and identify those offering value for money, including a lack of transparency and wide variation in products, with standing charges in particular varying enormously.

The discussion paper also confirms that those on deemed rate contracts (in effect default tariffs) pay higher standing charges than those on contracted rates. It acknowledges, too, that many customers do not understand the reasons for large increases in their bills, especially standing charges.

Ofgem says it is not obvious that its focus should be on standing charges as it is not possible to judge value for money just by comparing them. This is true but misses the point: if standing charges were capped consumers would only need to compare unit rates to gauge value for money.

As in the domestic market, a cap on non-domestic standing charges would:-

- (1) Improve the competitive constraint on suppliers by improving customer engagement through increased price transparency and easier comparison of contracts.
- (2) Encourage lower consumption and hence reduce emissions and improve energy security through the accompanying higher unit rates.
- (3) Provide greater protection for lower users. They are likely generally to be smaller businesses and organisations less able to negotiate good deals and more susceptible to being put out of business by high energy bills.

A cap on non-domestic standing charges would vary significantly for different users according to the costs of meter provision.

Unfortunately Ofgem's TCR has increased standing charges for non-domestic consumers.

This is explained further in Annexe 11.

Further issues

VAT on energy bills

There have been demands to withdraw VAT from energy bills on the basis that energy is a necessity. In fact people need to consume only *some* energy although the ability to access a supply of it is undoubtedly a necessity. This is what payment of the standing charge confers and VAT should be removed from this element of energy bills.

If the standing charge was capped tightly this would significantly reduce the cost to the government of doing this so would make it more likely to happen.

Standing charges for PPM customers vis-à-vis direct debit and standard credit customers

Ofgem proposes to reduce standing charges for those who pay by PPM and standard credit by increasing them for those who pay by direct debit²⁰. It doesn't appear to have committed to actually making them equal, just more equal.

There is little justification for PPM standing charges to be higher than those for direct debit customers.

Following reviews of suppliers' costs, in 2014 Ofgem said it anticipated that the price differential would fall because smart meters would mean that specialised prepayment meters were no longer needed, while in 2016 the CMA said it would be "substantially eliminated".

In fact until September 2020 the current default tariff price cap included a cap for 'fully interoperable smart prepayment' which was set at the same level (for both the standing charge and unit rate) as the direct debit cap. However, from October 2020 the default tariff cap has merely specified prices for 'prepayment', with the standing charge set significantly higher than for direct debit. It is egregious that the appropriate protection for those with smart prepayment meters was removed and that these customers were subject to higher charges, seemingly without justification or explanation.

The CMA's Energy Market Investigation report suggested that prepayment meter customers may actually be cheaper to serve as they generally cannot incur debt. While those in debt are frequently transferred to PPMs that debt actually arose in other forms of payment.

Thus while PPM standing charges should generally be reduced to the level of direct debit standing charges, the price cap for PPM customers with smart meters should be reduced to *below* the direct debit level. This would:-

- reflect the relative costs these customers impose on suppliers
- provide consumers with a more effective means of controlling their debt and
- eliminate much consumer resistance to both PPMs and smart meters.

This is set out in Annexe 12.

²⁰ Pp. 3, 34.

Conclusion

The standing charge should be capped at the efficient level of costs for both domestic and non-domestic consumers, with the costs imposed by the TCR and SoLR switched to the unit rate. This would reduce the standing charge by over £200 p.a.

This would have powerful beneficial effects in the domestic sector:-

1. Savings for low income households.
2. Overall savings to consumers would be maximised as the few costs that should be recouped through the standing charge can be estimated much more accurately and transparently than suppliers' other costs.
3. While those in fuel poverty would be able to afford more energy the resulting higher unit rates would lead consumers to reduce consumption overall. This would lower carbon emissions and improve security of supply, reducing the investment needed in the network and generation capacity.
4. Consumers would find it much easier to compare tariffs as they would only need to consider unit rates. This would boost competition and lead to lower prices for consumers generally.
5. Growth of suppliers would be on the basis of offering better, sustainable deals for energy, which would reduce the likelihood of supplier failures.

Corresponding effects would arise in the non-domestic sector.

The PPM standing charge should be reduced to the level of the direct debit standing charge. The price cap for PPM customers with smart meters should be reduced to below the direct debit level.

Ofgem should lobby the government to provide additional funding to those individuals with a particular need to consume more energy than others and to withdraw VAT from the standing charge.

Annexe 1: A vicious circle: high standing charges and the energy crisis

1. Ofgem structuring the price cap by lowering the unit rates that suppliers could levy but not the standing charges (see Annexe 2) contributed to the energy crisis. It heightened suppliers' exposure to the increases in wholesale energy prices that caused them to lose money serving customers protected by the cap. Perhaps more significant, however, is how the price cap is likely to have perpetuated a flawed business model.
2. When the price cap was introduced in 2019 the dual fuel (i.e. gas and electricity) standing charge was already over £100 more than the efficient level of it (i.e. the costs suppliers incurred in serving a customer as opposed to the costs of the energy they supplied). (This is explained in Annexe 3.)
3. It is distinctly possible that a number of the suppliers that failed in 2021 had entered the market more focused on acquiring customers in order to capture the 'rent' of standing charges than on managing their energy costs effectively. For example, Citizens Advice has described how many failed suppliers amassed customers very quickly by offering deals that didn't cover their costs and hadn't bought enough energy in advance.²¹ Certainly the biggest company to collapse, Bulb, with 1.7 million customers, was brought down by its high levels of debt, having expanded too fast.
4. The energy crisis in turn led to yet higher standing charges. The cost of paying suppliers to take on the customers of failed suppliers were recovered through the SoLR process and added £34 to the standing charge in 2021-22 (see Annexe 7).

²¹ *Market Meltdown How regulatory failures landed us with a multi-billion-pound bill* Citizens Advice January 2022 p.3.

Annexe 2: The level of the standing charge when the price cap was introduced

1. The price cap Ofgem introduced in 2019 lowered only the unit rate, leaving the standing charge unaltered even though it greatly exceeded the costs suppliers incurred in serving customers.²² This was even though market rates for default tariffs were known to be excessive as that was the finding of the Competition and Markets Authority (CMA)'s Energy Market Investigation in 2016, which led to the price cap (see Annexe 10). (Ofgem also acknowledged that this meant the price cap thus conferred the lowest savings on low-income consumers, who use the least energy.²³)
2. Ofgem opting to reduce the unit rate and not the standing charge was all the more surprising given the difficulty of quantifying the many costs of suppliers that vary with the amount of energy supplied, which are recoverable through the unit rate. This led Ofgem to set the price cap above the estimated cost level, reducing the savings to each consumer by approx. £39 p.a. (incl. VAT).²⁴ The few costs that should be recouped through the standing charge (those that relate to the number of customers served rather than the amount of energy supplied) can be estimated much more accurately and transparently than suppliers' other costs. (See Annexe 3.)

²² Ofgem set the standing charge in the default tariff cap at the current average level of the standing charge in default tariffs, £175p.a., during the first cap period in 2019. (Decision – *Default tariff cap – Overview document* November 2018 Ofgem paragraph 2.94.) It justified this on the basis that it apparently estimated the cost-reflective level of the standing charge at £220 p.a. in 2017 terms (op. cit. paragraph 2.96.) However, it did not explain how this cost estimate was arrived at and it appears implausible given that Ofgem agreed with analysis set out in this paper that almost all network and policy costs depend on the amount of energy supplied (see Annexe 3), in which case they should not be recovered through the standing charge.

This estimate was plainly not credible in any case: it suggested that profit-maximising energy suppliers with market power over passive consumers were then pricing at below cost the part of energy tariffs which consumers cannot avoid paying.

²³ Ofgem acknowledged that the default tariff cap provided the smallest savings to low-income households: *Default Tariff Cap: Policy Consultation Appendix 14 – Initial View on Impact Assessment* May 2018 Ofgem paragraphs 4.70-4.71.

²⁴ Ofgem added extra amounts to the level of the default tariff cap in order to mitigate variation in operating costs and uncertainty as to the efficient level of costs:

- An allowance of £23 p.a. to allow for suppliers that have higher operating costs because they have a customer base that is more expensive to serve.
- An allowance of £3 p.a. to allow for uncertainty in wholesale costs due, for example, to changes in demand volumes (such as caused by extreme weather).
- 'Headroom' of £10 p.a.: added to the estimated benchmark level of costs to capture the residual risk and uncertainty faced by an efficient supplier that was not already captured in the assessment of costs.

Together, these measures increased the level of the default tariff cap and reduced savings for consumers by approx. £39 p.a. (incl. VAT) across all customers in the 2017 baseline. (*Default Tariff Cap: Decision Appendix 2 – Cap level analysis and headroom* November 2018 Ofgem Table A2.1 p.10.) NB The figures corresponding to the second and third bullets above were higher, £4 and £12 respectively, in the first cap period (January to March 2019) (op. cit. paragraph 3.66).

Annexe 3: The efficient level of the standing charge

1. The efficient level of 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.
2. It is shown below that when the default tariff cap was introduced in 2019 the average dual fuel standing charges levied by suppliers in default tariffs for direct debit customers of £169 p.a. and £200 p.a. for those paying by standard credit (excl. VAT) was over £100 more than the efficient level of costs appropriately recovered through it of £50-60 p.a. (excl. VAT).

Cost elements of the standing charge

3. In 2012 Ofgem considered which cost elements might be included in a fixed standing charge in all tariffs as part of its Retail Market Review reforms aimed at simplifying tariffs²⁵. 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.
4. Ofgem said that under a 'narrow' definition the standing charge would include only network costs²⁶. It estimated those costs that might be included under the widest definition of the standing charge²⁷ as shown in the following table²⁸:

TABLE 1
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) ^m	✓	X
Other supplier fixed costs*		25 (gas), 25 (elec)	✓	X

^d The Distribution Use of System (DUoS) fixed charge

* 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

²⁵ *The Standardised Element of Standard Tariffs under the Retail Market Review* (February 2012) Ofgem (<https://www.ofgem.gov.uk/publications-and-updates/standardised-element-standard-tariffs-under-retail-market-review>).

²⁶ *The Standardised Element of Standard Tariffs under the Retail Market Review* (February 2012) Ofgem Appendix 1 paragraph 1.2.

²⁷ *The Standardised Element of Standard Tariffs under the Retail Market Review* (February 2012) Ofgem paragraph 2.10 p.10.

²⁸ *The Standardised Element of Standard Tariffs under the Retail Market Review* (February 2012) Ofgem table 2.1, p.11.

Source: *The Standardised Element of Standard Tariffs under the Retail Market Review* (February 2012) Ofgem (Table 2.1 p.11).

5. However, Ofgem did not conclude on whether to adopt a narrow or wide definition as it decided against fixing the standing charge because of opposition from respondents to its consultation, presumably energy firms²⁹.

6. 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 varied with the amount of energy consumed. Just a small element of electricity distribution costs was to be included in the standing charge³⁰.

The CMA's Energy Market Investigation 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"³¹. It said that the network charging statements of the network companies defined 'use of system' charges to be nil at nil consumption³².

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. Annexe 4 describes how suppliers are charged for each of these policies.

Ofgem has confirmed that the costs that suppliers incur under three of these four schemes (ECO, FITs and RO) as well as for Contracts for Difference, the Capacity Market and AAHEDC³³ 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. It said that it would expect to design the default tariff cap to reflect this.³⁴

The WHD was the exception. However, it seems counter-productive for the costs of measures aimed at reducing fuel poverty to be included in the standing charge rather than the unit rate. This itself makes energy less affordable for low-income households.

²⁹ *The Retail Market Review – Updated domestic proposals* (October 2012) Ofgem paragraph 3.11.

³⁰ *The Standardised Element of Standard Tariffs under the Retail Market Review* (February 2012) Ofgem Appendix 1 paragraphs 1.7-1.11.

³¹ *Energy Market Investigation Final report* June 2016 CMA footnote 59 p.962.

³² *Energy Market Investigation Final report* June 2016 CMA paragraph 14.144.

³³ Assistance for Areas with High Electricity Distribution Costs

³⁴ *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.

In addition, smaller suppliers are exempt from the costs of three of the four policies (ECO, FITs and WHD). There is thus no justification for these suppliers' standing charges to reflect these costs. 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.³⁵ However, it is not appropriate to require low consumption/low-income households to shoulder the burden of rectifying that problem.

Thus, it seems inappropriate for any of these policy costs to be recovered through the standing charge.

iii) Costs of meter provision

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 2017-18³⁶. 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 cap³⁷.

Suppliers also need to pay for the smart meter roll-out. The cost of this was estimated at £1.50 per customer per year³⁸.

iv) Other fixed costs

Ofgem calculated these simply by subtracting the above costs from the typical standing charge levied by suppliers³⁹. Given the lack of constraint on the amounts suppliers levied as standing charges given the lack of effective competition this estimate is not meaningful and is liable to have been a significant overestimate.

Ofgem has said separately that suppliers' other operating costs include the costs associated with billing and bad debt and costs associated with depreciation and amortisation⁴⁰. 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 an effective cap on the standing charge, 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 roll-out of smart meters will reduce this and the costs of serving customers generally⁴¹.

³⁵ *The Standardised Element of Standard Tariffs under the Retail Market Review* (February 2012) Ofgem Appendix 1 paragraph 1.36.

³⁶ *Metering charges from 1 April 2017* National Grid p.6. (<http://www2.nationalgrid.com/UK/Services/Metering/Publications/Metering-Charges/>).

³⁷ *Energy Market Investigation Final report* June 2016 CMA paragraph 14.122.

³⁸ *Energy Market Investigation Final report* June 2016 CMA paragraph 14.238.

³⁹ *The Standardised Element of Standard Tariffs under the Retail Market Review* (February 2012) Ofgem Appendix 1 paragraph 1.47.

⁴⁰ *Retail Energy Markets in 2016* Ofgem p.31.

⁴¹ *Energy Market Investigation Final report* June 2016 CMA paragraph 14.119 and paragraph 3 of Appendix 9.8.

Ofgem said suppliers earn a margin on their sales of energy too⁴². 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 have an intrinsic value to consumers.

7. Thus the costs of providing meters 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.
8. Of the costs in Table 1 above, the only ones that were rightfully included in the standing charge are:-
 - a) (possibly) electricity distribution costs (£13)
 - b) some proportion of the metering costs of £38, although note that this may be an overestimate 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 prior to the imposition of the default tariff cap was of the order of £50-60 (excl. VAT). This was over £100 less than the average dual fuel standing charges levied by suppliers in default tariffs for direct debit customers of £169 p.a. and for standard credit customers of £200 p.a. (excl. VAT).

⁴² *Retail Energy Markets in 2016* Ofgem p.31.

Annexe 4: How suppliers are charged for the costs of government social and environmental policies

1. This feeds into paragraph 6 (ii) of Annexe 3.
2. The policies in question are:-

The Energy Company Obligation (ECO)⁴³

This aims to reduce carbon emissions and tackle fuel poverty. It requires medium and large energy suppliers 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 customers⁴⁴.

Feed-in tariffs (FITs)⁴⁵

These encourage small-scale, low carbon generation but have largely closed to new applicants. Suppliers are required to make payments to individuals and organisations for 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)⁴⁶.

The Warm Home Discount (WHD)⁴⁷

This requires larger suppliers (more than 50,000 domestic customers) to provide support, primarily through bill rebates, to customers who are in or at risk of fuel poverty. These suppliers fund the scheme and manage the rebates process.⁴⁸ 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.⁴⁹

Renewables Obligation (RO)

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

⁴³ *Energy Market Investigation Final report* June 2016 CMA paragraphs 3, 6-20 of Appendix 8.1.

⁴⁴ *Energy Market Investigation Final report* June 2016 CMA paragraphs 11-14 of Appendix 8.1.

⁴⁵ *Energy Market Investigation Final report* June 2016 CMA paragraphs 3, 21-23, 26-28 of Appendix 8.1.

⁴⁶ *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.

⁴⁷ *Energy Market Investigation Final report* June 2016 CMA paragraphs 3, 24-27, 29 of Appendix 8.1 of and *The Standardised Element of Standard Tariffs under the Retail Market Review* (February 2012) Ofgem paragraphs 1.31-1.36.

⁴⁸ Between October 2022 and March 2023 this was a one-off discount, typically on electricity bills, of £150. In England and Wales consumers should receive it automatically if they get pension credit or are on certain benefits and have 'high energy costs'. (Source: Moneysavingexpert.com February 2023.)

⁴⁹ *The Standardised Element of Standard Tariffs under the Retail Market Review* (February 2012) Ofgem paragraphs 1.34-1.35.

Annexe 5: The economic rationale for regulating the standing charge

1. The standing charge is the element of energy bills for which there is the strongest argument for price regulation on economic efficiency⁵⁰ grounds. Ideally the prices charged for different products equal the costs of producing them. Thus energy suppliers would recover through the standing charge the costs incurred in arranging to supply customers, while those costs that depend on the amount of energy supplied would be recouped through the unit rate.
2. Suppliers' default tariff prices reflect the exploitation of their market power⁵¹ over passive consumers⁵². Market power complicates considerations of economic efficiency as it means suppliers' revenue exceeds their costs. In these circumstances the most economically efficient outcome is achieved by Ramsey pricing, which minimises the distortion of consumption patterns relative to those that would occur if competition was effective. It involves regulating prices so that mark-ups are lower for those consumers who reduce their demand most in response to higher prices (i.e. those whose price elasticity of demand is highest).
3. Price elasticity of demand for energy varies according to households' income and consumption (which are closely correlated, as described in Annexe 13). It is higher for lower income/consumption households, as evidence presented below shows. This may be explained by the effect of energy spending on consumers' 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.
4. 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, if indeed the unit rate should be capped 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.

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

5. Price elasticity of demand for energy is higher for lower-income/consumption households, as Ofgem noted in describing analysis undertaken by BEIS of gas price elasticities:

“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

⁵⁰ Economic efficiency is achieved when nobody can be made better off without someone else being made worse off. It maximises social welfare by ensuring resources are allocated and used in the most productive manner possible.

⁵¹ 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.

⁵² The CMA's Energy Market Investigation in 2016 identified that energy suppliers had market power over inactive consumers who failed to engage in the market effectively and select suppliers offering lower prices. (*Energy Market Investigation Final report* June 2016 CMA paragraph 9.562 and paragraphs 158, 160 of the Summary.) This accounted for the then excessive level of suppliers' default tariffs and led to the price cap on these.

elasticities and are more sensitive to changes in price compared to higher-income groups.”⁵³

6. Similar results were found by the Institute for Fiscal Studies, which 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 2
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.

7. 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.⁵⁴
8. 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 8. This, too, suggests that the demand for energy of low-income households (who consume less energy than high-income households) is more price responsive.

TABLE 3
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)

⁵³ *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 *Annexe D Gas price elasticities* (June 2016) DECC p.10. (https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/532539/Annexe_D_Gas_price_elasticities.pdf)

⁵⁴ Crawford, I., Smith, S. and Webb, S. (1993), *VAT on Domestic Energy*, Institute for Fiscal Studies, Commentary no. 39.

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.

Annexe 6: Ofgem's Targeted Charging Review (TCR) of network costs

1. Following a major review of electricity network charges⁵⁵ Ofgem changed how some of the costs of installing and maintaining the electricity network were to be recouped from suppliers (and hence from end users).
2. Ofgem distinguished between the costs of running the electricity network that have a clear cost driver (which it calls 'cost-reflective' or 'forward-looking' costs) and those that don't (those not driven by either the amount of electricity consumed or the number of users) and are in effect fixed ("residual costs").
3. The network companies' charges to suppliers should reflect the forward-looking costs so that (on the assumption that these are passed through in the unit rate) consumers are incentivised to use the network only if the benefit to them is greater than the additional cost they impose on the network.
4. The residual costs, which amount to about 40% of network charges, had previously been recovered from suppliers by a usage-related charge (i.e. charges related to the amount of electricity supplied and hence added to the unit rate charged to consumers), like the forward-looking costs.⁵⁶ However, Ofgem decided they were instead to be recovered through a substantial fixed charge per consumer (i.e. added to the standing charge).
5. The reasoning was that to the extent these charges were passed on to end consumers in the unit rate users who have their own generation (typically businesses and better-off households) were able to avoid paying them while still being able to make use of the network as and when they wished to. Such reductions in usage did not cause any reductions in residual costs so other users have ended up paying more.⁵⁷ This problem was expected to grow as the amount of such distributed (or 'behind the meter') generation increased.
6. Seemingly following a principle articulated by the then Secretary of State for Business, Energy and Industrial Strategy that there should be no 'free riders'⁵⁸, Ofgem decided that these costs should instead be recovered through a fixed charge per customer.
7. This policy runs counter to the previous analyses of how network costs should be recovered of both Ofgem and the CMA (see Annexe 3). It will have various adverse effects and, notwithstanding the basic rationale outlined above, is ill-conceived. Moreover Ofgem's impact assessment justifying this decision appears opaque and contrived:-

⁵⁵ *The Targeted Charging Review: minded to decision and draft impact assessment* Ofgem November 2018.

⁵⁶ These 'residual' charges were previously recovered from smaller users, such as households and small businesses, via per-unit consumption charges and from larger users by a mix of per-unit consumption charges and peak demand charges for transmission.

⁵⁷ Although Ofgem's current discussion paper says (paragraph 3.11) that earlier versions of the charging arrangements recovered this 'residual' element from users at peak times. It said users' peak costs could be avoided if they were able to shift their use out of peak times or replace use of the network at peak time through use of on-site generation. However, solar (PV) panels barely generate any electricity in either the morning or evening peak: generation is sharply skewed to the middle of the day.

⁵⁸ BEIS and Ofgem have adopted a principle that users of the network should pay their fair share of the costs of the energy system. This corresponds to a principle articulated by the Secretary of State, Greg Clarke, in November 2018 that there should be no 'free riders' (<https://www.gov.uk/government/speeches/after-the-trilemma-4-principles-for-the-power-sector>).

- i. It appears to be a disproportionate response to the issue. The decision and impact assessment document⁵⁹ did not quantify the adverse effect of electricity consumers with their own generation avoiding paying the residual costs, which was the justification given for the new policy. In fact, only a very small proportion of users have their own generation, and this typically reduces their consumption by only a fraction, so it is difficult to understand the justification for such a significant change in policy.
- ii. Ofgem acknowledged that this policy would increase bills for households that use the least electricity.⁶⁰ As pointed out in Annexe 1, these tend to be low-income households. Indeed, a paper published by Grid Edge Policy⁶¹ had highlighted that consumers who use less than the average amount of electricity (low-income households) would pay more while those on high incomes would pay less, in some cases significantly less.

However, Ofgem disingenuously attempted to argue that recovering residual charges through a fixed charge would not in general adversely affect vulnerable consumers as these were found at all levels of consumption⁶². While it is true that even the highest consuming households are liable to include some vulnerable consumers there will undoubtedly be fewer than among those who consume less given the very clear link between levels of consumption and income (see Annexe 13) and the fact that income is a key determinant of vulnerability (see Annexe 14).

- iii. Ofgem's decision to recover residual charges through a fixed charge rather than a volume-related charge appeared highly contrived in other ways, too. For example, it asserted that "there was a strong theoretical basis for fixed charges, as they cannot be easily avoided other than by disconnecting from the grid"⁶³. That is not a 'theoretical basis'!
- iv. Levying an increased fixed charge and reducing the unit rate will inevitably increase carbon emissions and reduce security of supply, although Ofgem did not acknowledge this or even provide any assessment of this issue⁶⁴. This echoed its

⁵⁹ *Targeted charging review: decision and impact assessment* November 2019 Ofgem.

⁶⁰ "Those who use least electricity [will] see an increase in their residual charge. Those who use the most will see a decrease." (*Targeted charging review: decision and impact assessment* November 2019 Ofgem pp. 68, 71.) "We recognise that charges for some low-using consumers will be higher than they are today – around £24 for our illustrative low user, while for others they will fall further – around £40 for our high user." (Op. cit. p.73)

⁶¹ *Understanding the Impacts of Ofgem's Targeted Charging Review* January 2019 Grid Edge Policy. The paper is co-authored by Maxine Frerk who, as Senior Partner Networks at Ofgem until 2016, was responsible for, among other things, network charging.

⁶² *Targeted charging review: decision and impact assessment* November 2019 Ofgem p.10. Similarly, it said:

- "People move in and out of vulnerability over time and also move location, which makes it difficult to link network charges to vulnerability." (Op. cit. p.66.)
- "While there is some correlation between vulnerability / affluence and energy usage, there are significant numbers of vulnerable consumers across usage levels" (Op. cit. p.69).
- "If we were to adopt an option which reduced charges for those who use less electricity, this would result in an increase for those who use the most electricity, a significant number of whom will also be vulnerable." (Op. cit. p.69).

⁶³ *Targeted charging review: decision and impact assessment* November 2019 Ofgem p.34.

⁶⁴ Ofgem merely stated "The modelling we have undertaken suggests that overall the combined impact of the TCR changes will reduce carbon emissions compared with no reforms." (*Targeted charging review: decision and impact assessment* November 2019 Ofgem p.15.) However, it provided

reluctance to address this issue in consultations and impact assessments for the default tariff cap and was in contravention of its principal objective to protect the interests of existing and future consumers, including their interests in the reduction of greenhouse gas emissions and in security of supply (see Annexe 9).

8. Furthermore Ofgem did not correctly consider the alternative charging options in terms of a general framework of the optimal, economically efficient outcome, namely that of competition, in which prices reflect costs:⁶⁵

In a competitive outcome, prices would equal the marginal (i.e. 'forward-looking') costs but they wouldn't recover the fixed (i.e. 'residual') costs. The large, fixed costs of the electricity network mean it is a natural monopoly and the network operator (National Grid) has market power, which is why its charges are regulated.

The 'second best' solution adopted by regulators in such situations is Ramsey pricing. This minimises the distortion of consumption patterns relative to those that would occur under competition by adding mark-ups to cover the fixed costs that are inversely proportional to consumers' price elasticity of demand.

Lower income/consumption households have the highest price elasticity, as evidence presented in Annexe 5 shows, so economic efficiency calls for them to face the lowest mark-ups. This entails restricting the standing charge and recovering fixed costs largely through the usage charges.

Ofgem did refer to 'Ramsey pricing' as the guiding principle for the economically efficient recovery of the residual costs in an Annexe to its decision paper. However, it mistakenly took this to mean that residual charges should be recovered more from fixed charges than volume-related charges on the basis that the former were less price elastic than the latter.⁶⁶ However, price elasticity refers to the price sensitivity of consumers, not whether the charges can be avoided!

To the extent that some households (and businesses) come to face higher usage charges than others this is indeed a distortion of consumption patterns but one which needs to be set against the wider efficient charging framework. Ideally Ofgem would seek to rectify this issue by other means as the charging method it is proposing is liable to produce much greater distortion.

9. Moreover some of the costs Ofgem described as 'fixed' are in fact variable in the long run. Indeed, Ofgem described the residual charges as "for the maintenance and investment for the longer-term"⁶⁷ (whereas forward-looking charges reflect short-term circumstances). This means projected reductions in usage incentivised by higher usage charges *would* lead to lower residual costs as less investment in the network would be called for. Thus, for example, Ofgem's proposal refers to the level of micro-generation,

no evidence in this document to support this and it did not compare the effects of increasing the standing charge with the effects of increasing the unit rate.

⁶⁵ A report commissioned by Ofgem concurred: "The key economic principle behind the optimal recovery of sunk costs is... that such charges should have as an objective creating minimal changes in behaviour relative to a set of efficient, cost-reflective charges, i.e. minimising distortions." *Distributional and Wider System Impacts of reform to Residual Charges* November 2018 Frontier Economics/LCP p.7.

⁶⁶ *Targeted charging review: decision and impact assessment* November 2019 Ofgem Annexe 3 – Academic research and international comparisons pp. 3-4.

⁶⁷ *The Targeted Charging Review: minded to decision and draft impact assessment Annexe 1 – Targeted Charging Review (TCR) Principles* November 2018 Ofgem paragraph 1.5.

which includes on-site and household solar generation, increasing more than ten-fold by 2040.⁶⁸ This forecast is based on assumptions of rapid decarbonisation and high decentralisation (such as might be incentivised by high usage charges).

10. It is also worth noting that this is National Grid's own forecast⁶⁹ and just one of four 'scenarios' they posit. In the other scenarios growth is substantially less. Indeed, the current scale of the problem of consumers having their own generation so avoiding residual costs remains small in the domestic sector.

⁶⁸ *The Targeted Charging Review: minded to decision and draft impact assessment* November 2018 Ofgem paragraph 2.11.

⁶⁹ See data workbook at <http://fes.nationalgrid.com/fes-document/> Table 3.6 'Community renewables' scenario.

Annexe 7: Supplier of last resort (SoLR) costs

1. Ofgem has also added the costs of paying suppliers to take on the customers of failed suppliers⁷⁰ to the standing charge for electricity (although they have been added to the unit rate for gas). This accounted for much of the large increase in the standing charge that occurred in April 2022⁷¹. The discussion paper said these costs were approx. £34 per customer p.a. in 2022-23 (presumably 2021-22 was meant) and had fallen to £10 per customer p.a. in 2022-23.⁷²
2. Ofgem did review whether such recovery via a fixed charge (i.e. recouped through the standing charge) was more suitable than a usage-based (volumetric) alternative (i.e. recovery through the unit rate)⁷³. It concluded that this generally increased costs for low-income consumers and where they were on PPMs could increase self-disconnection.
3. Nevertheless, it decided against increasing unit rates instead because:-
 - (1) There were exceptions to this rule, viz. some high consuming customers, some of whom are vulnerable, who could lose out. These included disabled consumers who use electricity-powered equipment and consumers with electric heating, including some in social housing and those in areas off the gas grid. However, Ofgem's decision should have been based on whether the overall effect on low income households was beneficial, with further analysis undertaken of those who would lose out and what could be done to target help at them.
 - (2) There was only a short period of time between the review (August 2022) and the next price cap period, which started in October 2022. However, that factor didn't apply to the subsequent price cap periods.
4. The discussion paper said that in addition to those suppliers whose failures were managed through the SoLR process, it is possible that some costs of the failure of Bulb Energy in 2021 will be claimed back through consumers' energy bills. The discussion paper said it is possible that these costs will be recovered through standing charges.⁷⁴ Thus it seems that Ofgem has already decided how they would be recovered, which seems at odds with the stated objective of the consultation paper.

⁷⁰ Recovery of the costs of the Supplier of Last Resort (SoLR) levy.

⁷¹ Ofgem estimated that the SoLR costs to be recovered from electricity consumers equated to a fixed charge of around £34 per household. *Follow up on our review into the arrangements for recovering the costs of supplier failure* Letter from Jonathan Brearley, CEO, Ofgem 18 August 2022 [https://www.ofgem.gov.uk/sites/default/files/2022-](https://www.ofgem.gov.uk/sites/default/files/2022-08/Follow%20up%20on%20our%20review%20into%20the%20arrangements%20for%20recovering%20the%20costs%20of%20supplier%20failure%20.pdf)

⁷² Paragraph 4.5.

⁷³ *Follow up on our review into the arrangements for recovering the costs of supplier failure* Letter from Jonathan Brearley, CEO, Ofgem 18 August 2022 <https://www.ofgem.gov.uk/sites/default/files/2022-08/Follow%20up%20on%20our%20review%20into%20the%20arrangements%20for%20recovering%20the%20costs%20of%20supplier%20failure%20.pdf>

⁷⁴ Paragraph 4.6.

Annexe 8: The current level of the standing charge in the price cap and the corresponding costs incurred by suppliers

1. The following table shows that the level of the dual fuel standing charge permitted under the cap is currently £288 p.a. (£303 p.a. incl. VAT) for direct debit customers. It is even more for standard credit and PPM customers: £330 p.a. (£347 p.a. incl. VAT) and £350 p.a. (£367 p.a. incl. VAT), respectively.

TABLE 4
The standing charge in the energy price cap January – March 2024

£	Gas	Electricity ^{a,b}	Total	Incl. 5% VAT
Payment method				
Direct debit	103	185	288	303
Standard credit (payment on receipt of bill)	122	209	330	347
Prepayment meter	140	209	350	367
Difference prepayment cf. direct debit				65

Source: Ofgem⁷⁵

Notes:

^a Average of 14 electricity distribution network areas.

^b Customers with single rate metering arrangement (cf. multi-register metering arrangement).

2. The next table shows that the costs rightfully recovered through the standing charge amount to approx. £74 per dual fuel direct debit customer p.a. (excl. VAT). This is estimated by scaling up by inflation the costs appropriately recovered through the standing charge in 2019 (as estimated in Annexe 3).
3. It also shows that suppliers incur costs of approx. £150 p.a. in serving each customer. This includes the costs added by the TCR and the SoLR process.
4. Thus the standing charge currently permitted under the price cap (£288 p.a.) is of the order of £138 p.a. (excl. VAT) higher than the costs suppliers incur in serving each customer.

⁷⁵ Level of the default tariff cap for Nil kWh (source: subsidiary document at <https://www.ofgem.gov.uk/publications/default-tariff-cap-level-1-january-2024-31-march-2024>).

TABLE 5

The level of costs suppliers incur in serving each dual fuel direct debit customer and the amount by which the standing charge cap exceeds this
January – March 2024

Costs per customer	£ p.a. (excl. VAT)
Level of costs appropriately recovered through the standing charge in 2019	approx. 55 ^a
Corresponding current level of costs appropriately recovered through the standing charge ^b	74
Increase in costs due to TCR (£66) and SoLR (£10) ^c	76
Total costs suppliers incur in serving each customer	150
Current level of standing charge for dual fuel direct debit customers ^d	288
Excess	138

Notes:

^a Source: Annexe 3 of this paper.

^b Figure above factored up by cumulative inflation rate Jan. 2019 – Jan. 2024 of 34%⁷⁶

^c Source: Ofgem discussion paper paragraphs 3,24 and 4.5

^d Source: Table 4 above.

⁷⁶ RPI: Jan. 2020 = 2.7%; Jan. 2021 = 1.4%; Jan. 2022 = 7.8%; Jan. 2023 = 13.4%; Dec. 2023 = 5.2% source: <https://www.ons.gov.uk/economy/inflationandpriceindices/timeseries/czbh/mm23>

Annexe 9: The effect of the default tariff cap on carbon emissions and security of supply

1. Higher standing charges in the cap entail lower unit rates.
2. It is a frequent misconception that, as a necessity, consumption of energy is largely unaffected by its price. The CMA cited⁷⁷ a study⁷⁸ 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). Elasticity is significantly greater in the long run (0.85) as consumers are able to respond to increased prices by installing energy efficiency measures. The CMA also cited a review⁷⁹ 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”.
3. Ofgem’s principal objective is to protect the interests of existing and future consumers, including their interests in the reduction of greenhouse gas emissions and in security of supply⁸⁰. However, Ofgem’s consultation and ‘Initial View on Impact Assessment’ for the default tariff cap in May 2018 did not even mention greenhouse gas emissions or security of supply, let alone seek to attempt to reduce emissions or improve security of supply⁸¹. Guidance on conducting impact assessments is very clear that the effect on total energy use and greenhouse gas emissions should be quantified and costed⁸². Ofgem also downplayed the likely effect on consumption (which would determine emissions and security of supply)⁸³.

Greenhouse gas emissions

4. Ofgem’s final impact assessment in November 2018 estimated that the default tariff cap would increase total UK domestic greenhouse gas emissions by between -0.01% and 0.40% with a value of £0.28 million p.a. to £17 million p.a. based on the price of carbon⁸⁴. However, this was based on estimates of energy price elasticities that were either at or below the lowest figures in the ranges of estimates in surveys of the studies of energy price elasticities that Ofgem cited:-

⁷⁷ *Energy Market Investigation Final report* June 2016 CMA paragraph 8.9.

⁷⁸ Espey, JA and Espey, M (2004), *Turning on the Lights: A Meta-Analysis of Residential Electricity Demand Elasticities*, *Journal of Agriculture and Applied Economics*, 36(01)

⁷⁹ Gillingham, K, Newell, R and Palmer, K (2009), *Energy efficiency economics and policy*, Resources for the Future Discussion Paper 09-13

⁸⁰ *Our Strategy* 2014 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.

⁸¹ 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.

⁸² The Green Book Central Government Guidance on Appraisal and Evaluation 2018 HM Treasury p.69.

⁸³ 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 opening paragraph of this Annexe) or those cited in Annexe 6 of this document.

⁸⁴ *Default Tariff Cap: Decision – Appendix 11 – Final impact assessment* November 2018 Ofgem paragraphs 7.54 - 7.57.

- For gas Ofgem referred to a review of price elasticities carried out for the Department for Business, Energy and Industrial Strategy (BEIS)⁸⁵. This found that studies of the price elasticity had produced estimates between -0.1 (in the short run, with the corresponding long run estimate being -0.17) and -0.28. This review also found evidence in the form of an additional study that the elasticity lies towards the lower magnitude end of the range. Ofgem used -0.1.⁸⁶
 - For electricity Ofgem referred to the paper the CMA had cited which summarised previous studies and yielded price elasticities of between -0.35 in the short run and -0.85 in the long run (see paragraph 2 of this Annexe). Ofgem's September 2018 consultation had adopted -0.35 but its November 2018 decision document also mentioned three other studies which estimated the short run price elasticity of demand as ranging from -0.20 to -0.24. Ofgem used -0.26, which was apparently the average of the (now four) studies although the paper it had previously relied on was based on 36 studies.⁸⁷
5. Ofgem's choice of elasticities to use in modelling the effect on greenhouse gas emissions appears highly selective:-
- Ofgem said the lowest figures (which are applicable only in the short run) were the most appropriate because these reflected the period the default tariff cap was expected to be in place. It said it would not expect consumers to alter their investment decisions based only on their knowledge of the temporary cap.⁸⁸ This was strange as consumers' behaviour would only ever be likely to be affected by prices, not their knowledge of a price cap, which in any case they would not expect to be withdrawn if doing so would lead to an increase in prices.
 - Ofgem did not include various other studies that had been brought to its attention in response to all of its consultations and which found energy price elasticities of -0.27 and -0.48.⁸⁹
 - Ofgem did not incorporate the CMA's finding based on a review of studies that gas elasticities are greater than electricity elasticities, which had been found to lie between -0.35 and -0.85 (see paragraph 2 of this Annexe).
6. In addition, estimates of the effect of changes in overall energy bills on consumption may underestimate the effect on consumption and emissions. Demand may be even more responsive to reductions in the unit rate (as the default tariff cap brings about) than the overall bill (i.e. including the standing charge) because it is this that determines how much consumers save by foregoing consumption.

⁸⁵ National Energy Efficiency Data Framework (NEED) report summary of analysis *Annexe 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/Annexe_D_Gas_price_elasticities.pdf)

⁸⁶ *Default Tariff Cap: Statutory Consultation Appendix 11 – Draft Impact Assessment* September 2018 Ofgem paragraphs 5.84, 5.87.

⁸⁷ *Default Tariff Cap: Statutory Consultation Appendix 11 – Draft Impact Assessment* September 2018 Ofgem paragraphs 5.85, 5.88.

⁸⁸ *Default Tariff Cap: Statutory Consultation Appendix 11 – Draft Impact Assessment* September 2018 Ofgem paragraphs 5.89-5.93.

⁸⁹ *The case for a cap on the standing charge in energy bills* June 2019 David Osmon (IdealEconomics.com) Annexe 5.

7. In consequence Ofgem's estimate of the potential effect of the default tariff cap on greenhouse gas emissions is likely to be misleadingly low. Using instead the corresponding long run 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, would suggest an increase in UK domestic emissions due to the cap of approx. 1.2%, with a carbon value of approx. £50 million p.a.
8. Ofgem did not conduct a full environmental impact assessment and said that conducting one would be "disproportionate"⁹⁰. However, it is clear that its cap may have had a very significant impact on greenhouse gas emissions.

Security of supply

9. Ofgem's consultations on the default tariff cap did not consider at all the effect of the increased energy consumption resulting from the default tariff cap on security of supply.
10. However, the impact assessment that formed part of its decision document said that a respondent to its statutory consultation had raised a concern that there could be an impact on security of supply.⁹¹ Ofgem duly acknowledged that there was "a limited risk of an increase in energy consumption affecting security of supply over the potential period of the cap". It based this on the flawed assumptions of the potential increase in consumption being relatively small; existing spare capacity in the supply of gas and electricity; and demand for gas and electricity decreasing over recent years and being expected to continue to fall.⁹²
11. It seems that Ofgem had sought to avoid its duty to protect the interests of consumers by reducing greenhouse gas emissions and improving security of supply.

⁹⁰ *Default Tariff Cap: Decision – Appendix 11 – Final impact assessment* November 2018 Ofgem paragraph 7.53.

⁹¹ *Default Tariff Cap: Decision – Appendix 11 – Final impact assessment* November 2018 Ofgem paragraph 7.59.

⁹² *Default Tariff Cap: Decision – Appendix 11 – Final impact assessment* November 2018 Ofgem paragraph 7.65.

Annexe 10: The effect of high standing charges on competition

1. The Competition and Markets Authority (CMA)'s Energy Market Investigation⁹³ identified an adverse effect on competition in the retail energy market arising from weak customer response. Inactive customers failed to engage in the market effectively and select suppliers offering lower prices⁹⁴. This meant energy suppliers had market power over them and exploited this in the pricing of their default or standard variable tariffs (SVTs), which were usually more expensive than 'fixed tariffs' that are actively chosen^{95,96}.
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 suppliers⁹⁷ conservatively at £1.4 billion a year.⁹⁸ Ofgem estimated the detriment to default tariff customers at £1.5 billion p.a. in 2017⁹⁹.
3. The CMA said 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 prices¹⁰⁰. Complex tariff structures contributed to inhibiting such value-for-money assessments of available options, particularly by those who lack the capability to search and consider options fully, including those on low incomes¹⁰¹.
4. Large and variable standing charges reduce the competitive constraint on energy bills by impeding consumers' ability to compare tariffs. The CMA described how standing charges led to the weak customer response to which it attributed the adverse effect on competition in retail energy markets referred to above. 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".¹⁰² Given that the standing charge was a significant component of energy bills (see Annexe 3 above) and was not fixed across tariffs but varied widely, understanding tariffs was likely to be more difficult still.
5. Both Ofgem and the CMA have previously sought to simplify tariffs (including by fixing or eliminating standing charges) to make it easier for customers to understand and

⁹³ *Energy market investigation Final report* (June 2016) Competition and Markets Authority (hereafter referred to as 'CMA final report').

⁹⁴ CMA final report paragraph 9.562.

⁹⁵ SVTs are default tariffs for domestic customers (i.e. households). If a customer does not choose a specific plan, for example after a fixed tariff (that provides a locked-in rate for a designated term) ends, the supplier moves them to a default tariff. The rates in default tariffs are typically variable but may also be fixed although in this paper 'fixed tariff' is generally used to refer to tariffs that are actively chosen, i.e. non-default.

⁹⁶ CMA final report paragraphs 158, 160 of the Summary.

⁹⁷ British Gas, EDF Energy, E.ON, Npower, Scottish Power and SSE.

⁹⁸ CMA final report paragraph 10.125-10.126.

⁹⁹ *Default Tariff Cap: Decision – Appendix 11 – Final impact assessment* November 2018 Ofgem paragraph 1.11.

¹⁰⁰ 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. Of those who had shopped around, 53% said they did not understand or found it difficult to compare the tariff options. Similarly, Ofgem's customer survey found that 36% believed it was difficult to compare tariffs. (*Consumer engagement in the energy market since the Retail Market Review - 2016 Survey Findings (Report prepared for Ofgem)* August 2016 Ofgem.

¹⁰¹ CMA final report paragraph 9.563(b)(i).

¹⁰² CMA final report paragraph 9.165.

compare those on offer but neither considered capping the standing charge. Those initiatives were deemed too restrictive but 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 them¹⁰³. This was intended to improve customer engagement and thereby enhance the competitive constraint provided by customer switching. The CMA recommended that Ofgem remove the ban on complex tariffs and the four tariff rule¹⁰⁴. It considered that they made it unlikely that suppliers would offer tariffs with no standing charge or a low one for low volume users.
- As part of its reforms Ofgem had considered fixing the standing charge¹⁰⁵. It said “this should make it easy for consumers to understand their tariff options and select the cheapest standard tariff”.¹⁰⁶ 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 charges¹⁰⁷. Unfortunately Ofgem didn’t consider capping the standing charge.
- 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 (apparently eliminating the standing charge) but decided against that because it might restrict suppliers’ competitive offerings¹⁰⁸.

¹⁰³ 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).

¹⁰⁴ 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)).

¹⁰⁵ *The Standardised Element of Standard Tariffs under the Retail Market Review* (February 2012) Ofgem p.1

¹⁰⁶ *The Standardised Element of Standard Tariffs under the Retail Market Review* (February 2012) Ofgem paragraph 2.27.

¹⁰⁷ *The Retail Market Review – Updated domestic proposals* (October 2012) Ofgem. Paragraph 3.11.

¹⁰⁸ 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).

Annexe 11: Standing charges faced by non-domestic consumers

1. The CMA's Energy Market Investigation in 2016 also identified features of the markets for the retail supply of gas and electricity to SMEs that gave 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.¹⁰⁹
2. The CMA estimated the detriment to SME customers of the Big Six energy suppliers (conservatively) at approx. £220 million p.a., of which £180 million related to micro-businesses.¹¹⁰
3. Non-domestic consumers are not protected by the retail price cap and Ofgem's discussion paper said that those on deemed rate contracts (in effect default contracts) face higher standing charges than those on contracted rates.¹¹¹
4. Ofgem's discussion paper described a number of features of the market that are likely to impair customers' ability to compare energy contracts and identify those offering value for money:-
 - (1) A lack of transparency: in some cases there is not a specified standing charge but instead the customer pays whatever the supplier is billed for the site, for example from the network company.¹¹²
 - (2) The wide variation in non-domestic products (with considerable differences in unit rates and standing charges¹¹³). In particular, standing charges vary enormously¹¹⁴. Which cost elements are included within standing charges vary widely across suppliers and across deemed and contracted rates.¹¹⁵

Contracts are more bespoke than those in the domestic market, often being tailored to individual customers¹¹⁶, and this arrangement is likely to favour the supplier.
5. The discussion paper acknowledges that many non-domestic consumers have said they do not understand the reasons for large increases in their bills, especially standing charges. Ofgem acknowledges that this indicates a lack of transparency.¹¹⁷
6. Ofgem says it is not obvious its focus should be on standing charges as the heterodox nature of products means that it is not possible to judge value for money just by comparing standing charges.¹¹⁸ This is true but misses the point: if standing charges were capped consumers would only need to compare unit rates to gauge value for money.

¹⁰⁹ CMA final report paragraphs 275-299 of Summary.

¹¹⁰ CMA final report paragraph 283 of the Summary.

¹¹¹ Paragraph 6.7.

¹¹² Paragraph 6.8.

¹¹³ Paragraph 6.5.

¹¹⁴ Paragraph 6.8.

¹¹⁵ Paragraph 6.9.

¹¹⁶ Paragraph 6.4.

¹¹⁷ Paragraph 6.10.

¹¹⁸ Paragraph 6.11.

7. 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 through increased price transparency and easier comparison of contracts.
8. As in the domestic market, a cap on standing charges would also:-
 - (1) encourage lower consumption and hence reduced emissions and improved energy security as a result of the accompanying higher unit rates
 - (2) provide greater protection for lower users. They are likely generally to be smaller businesses and organisations less able to negotiate good deals and more susceptible to being put out of business by higher energy bills.
9. Unfortunately just as in the domestic market Ofgem's TCR has increased standing charges by leading to residual network costs being levied as a daily site charge rather than usage charges.¹¹⁹
10. A cap on non-domestic standing charges would vary significantly for different users according to the costs of meter provision.

¹¹⁹ Paragraph 6.2

Annexe 12: Standing charges for prepayment meter customers

Smart meters

1. In 2014 Ofgem published the conclusions of a review of suppliers' costs¹²⁰ and said that while the costs of serving prepayment customers were generally higher than for direct debit customers¹²¹ they would be reduced by smart meters. Thus, for example, smart meters' ability to operate in prepayment mode removed the need to install and maintain a specialised prepayment meter for customers paying in this way. Smart meters were expected to be rolled out to all domestic consumers by the end of 2020.
2. Two years later the CMA went further. During its Energy Market Investigation, it analysed the costs to suppliers associated with serving customers using different payment methods. It said that it expected that the higher cost of serving prepayment customers (relative to direct debit customers)¹²² would be "*substantially eliminated* [our emphasis] as a result of the roll-out of smart meters"^{123, 124}.
3. Note that these lower costs of serving customers should be reflected in the standing charge whereas the costs of supplying them with energy would determine the unit rate.

Previous PPM cap levels

4. In fact, when the current price cap for those on default tariffs started in January 2019 it included a cap for 'fully interoperable smart prepayment', which was set at the same level (for both the standing charge and unit rate) as the direct debit cap. This continued until September 2020. From October 2020 the default tariff cap has merely specified

¹²⁰ *Price differences between payment methods - open letter* Ofgem 20 May 2014 pp.1,8.

¹²¹ Ofgem found the costs of supplying prepayment customers were generally higher than for direct debit customers due to:

- (i) the need to install a PPM at the customer's premises, which is more expensive to buy and maintain than a credit meter;
- (ii) prepayment relying on a bespoke payment infrastructure (NB Prepayment Meter Infrastructure Provision – PPMIP – is a system for reconciling back to the relevant energy supplier the advance payments made by prepayment customers at outlets such as corner shops and post offices);
- (iii) issues specific to prepayment customers, such as problems topping up the meter, which mean they are more likely to call their supplier, resulting in higher costs to serve.

(*Price differences between payment methods - open letter* Ofgem 20 May 2014 p.4.)

¹²² The CMA said the major indirect costs of serving prepayment customers differed from those of serving direct debit customers and were:

- (i) the cost of metering: prepayment meters are more costly than credit meters as they have additional functionality;
- (ii) the cost of collecting payment: this consists of the PPMIP (which provides management information and generally acts as a conduit for data, processing it for suppliers and also providing services such as replacement of the card keys prepayment customers use to add credit to their meters) and the actual collection of cash via the National Service Infrastructure Providers (NSPs) – Paypoint, Post Office and Payzone – which provide the infrastructure that deals with the payment.

Energy Markets Investigation Final report June 2016 CMA Appendix 9.8 paragraphs 30-32.

¹²³ *Energy Markets Investigation Final report* June 2016 CMA Appendix 9.8 paragraphs 2-3 (similarly paragraph 125).

¹²⁴ There would then be no, or negligible, differential costs of metering: the existing costs of PPMIP would disappear and the services of payment providers would not be needed as prepayment meter customers could top up by phone. (*Energy Markets Investigation Final report* June 2016 CMA Appendix 9.8 paragraph 125.)

prices for 'prepayment', with the standing charge set significantly higher than for direct debit.

5. This change coincided with the removal at the end of 2020 of the 'Safeguard Tariff', a price cap for PPM customers that had been in place since April 2017 following a recommendation by the CMA in its Energy Markets Investigation¹²⁵.

TABLE 6
Level of dual fuel annual standing charges in price caps before and after removal of the Safeguard Tariff (incl. VAT)

£	From April 2020	From Oct. 2020	From April 2021
Safeguard tariff	238.31	236.98	-
Default tariff cap:			
Smart PPM	188.80	-	-
PPM	-	236.98	237.86
Direct debit	188.80	184.17	187.94

Source: Ofgem

6. It is egregious that the appropriate protection for those with smart prepayment meters was removed and that these customers were subject to higher charges, seemingly without justification or explanation¹²⁶.

Debt control

7. The CMA report pointed out that bad debt was not attributable to prepayment, which suggests that prepayment customers may actually be cheaper to serve than customers using other payment methods.
8. While those in debt are frequently transferred to prepayment meters in order to recover that debt it is not actually a cost of prepayment as it arose in other forms of payment (direct debit or standard credit). Prepayment meter customers pay in advance and cannot incur debt except in certain limited circumstances and then just for small amounts.¹²⁷

Implications for the price cap and smart meter rollout

9. The fact that PPM customers cannot incur debt while those using other payment methods can is an argument for reducing PPM standing charges to the level of direct debit standing charges.

¹²⁵ The CMA had recommended a price cap because PPM customers were subject to various competition constraints that other customers weren't and the level of detriment suffered in terms of prices was particularly high, resulting in abruptly curtailed consumption. The CMA believed the roll-out of smart meters was necessary for addressing certain adverse effects on competition with respect to PPM customers. Those with fully interoperable (SMETS 2) smart meters were excluded from the Safeguard Tariff because the CMA believed that they would confer access to a wide range of tariffs. (*Energy Markets Investigation Summary of final report* June 2016 CMA paragraphs 244-248.)

¹²⁶ The letter announcing and explaining the new levels of the default tariff cap made no mention of this change. *Default tariff cap update for 1 October 2020* (Letter from Anna Rossington) Ofgem 7 August 2020 <https://www.ofgem.gov.uk/publications/default-tariff-cap-level-1-october-2020-31-march-2021>

¹²⁷ *Energy Markets Investigation Final report* June 2016 CMA Appendix 9.8 paragraphs 33, 60, 65-66, 117-118.

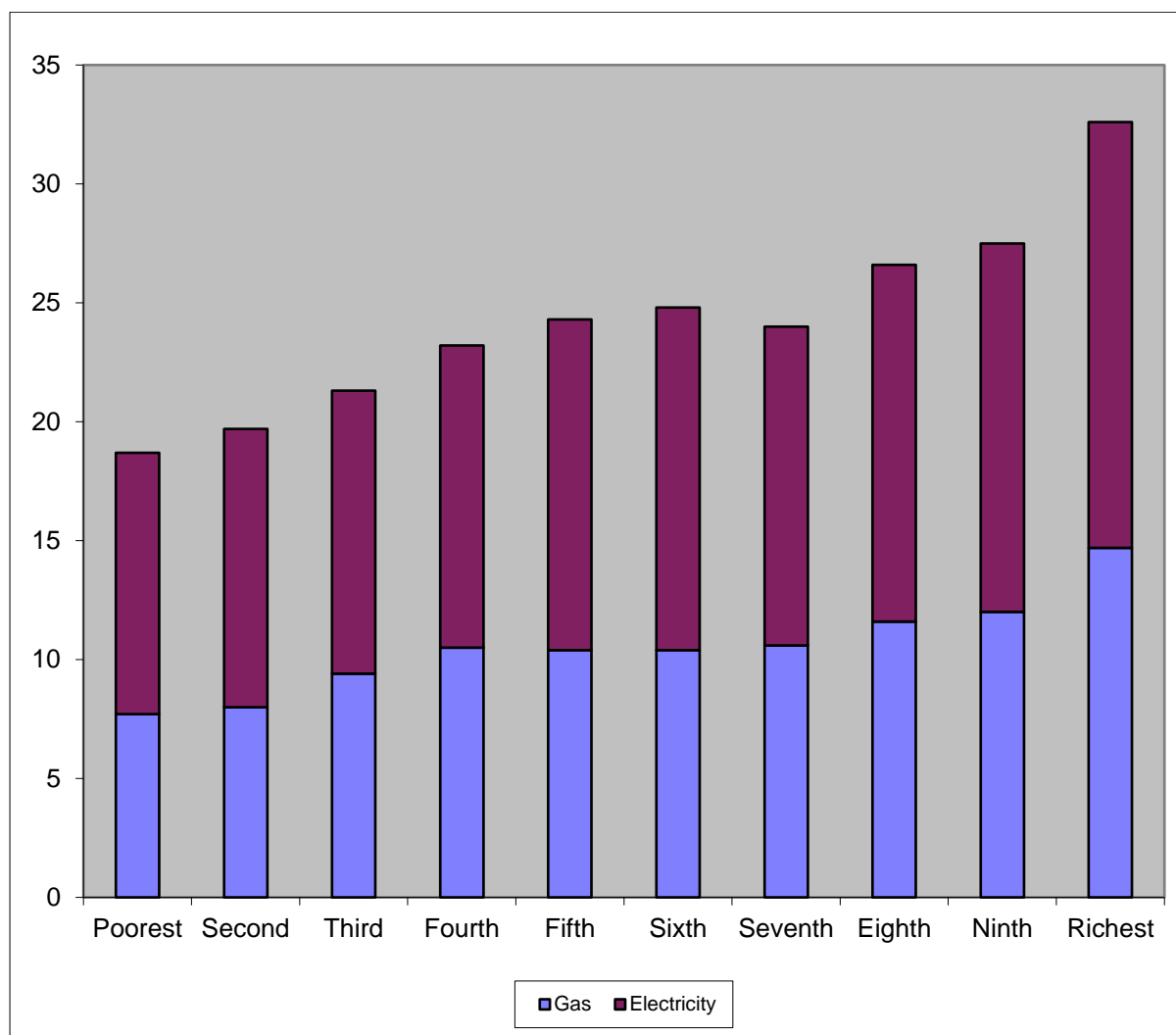
10. Approximately half of prepayment meters are smart¹²⁸. It appears likely from the above that they cost less to serve than customers using other payment methods.
11. Moreover the higher charges for all those with PPMs (regardless of whether they are smart or not) coupled with remote switching of smart meters to prepayment mode without customers' consent are threatening consumers' acceptance of both PPMs and smart meters.
12. The PPM price cap for those with smart meters should be reduced to *below* the direct debit level. This would:-
 - reflect the relative costs these customers impose on suppliers
 - provide consumers with a more effective means of controlling their debt and
 - eliminate a great deal of consumer resistance to both PPMs and smart meters.

¹²⁸ *Kept in the dark - the urgent need for action on prepayment meters* Citizens Advice January 2023 p.16.

Annexe 13: Energy spending increases with household income

1. Spending on energy bills increases with income:

Household Expenditure on Gas and Electricity (£ per week) by Gross Income Decile (UK, financial year ending 2022)



Source: ONS¹²⁹

129

TABLE 7
Average household expenditure by gross income decile group (UK, financial year ending 2022)

£	Lowest ten per cent	Fifth decile group	Highest ten per cent
Gross annual income	<13,200	31,800 - 39,600	>94,000
Weekly expenditure:			
Electricity, gas, and other fuels	20.00	25.70	34.90
Electricity	11.00	13.90	17.90
Gas	7.70	10.40	14.70
Other fuels	1.30	1.40	2.30

Source: ONS, Family Spending (Released May 2023) Table A6.

2. Once households' spending on energy bills is adjusted for the high cost of the standing charge it is apparent that energy *consumption* of low-income households is even lower relative to high-income households than energy *spending* is.
3. In 2018 Ofgem confirmed that low-income households consume less than high-income households¹³⁰. However, in 2020 it said that "energy expenditure does not in general rise monotonically with income"¹³¹.
4. That assessment followed an exercise in which incomes data in a survey of household spending¹³² were *equivalised*, i.e. adjusted according to household size to reflect the fact that a large household requires more income to attain the same standard of living as a smaller household (and vice versa)¹³³. However, the methodology adopted was not fully explained and appears flawed. For example, data on energy expenditure were also equivalised¹³⁴.
5. Equivalisation may be better suited to assessing the distributional impact of policies (its purpose according to the HM Treasury *Green Book*) than explaining household demand for energy. Size of household may indeed help to explain energy demand, but this would ideally be investigated by econometric modelling of energy demand, with size of household included as a separate explanatory variable (in addition to income, for example).
6. Furthermore, it is understood that the survey data on energy expenditure were converted to energy consumption using an average price from BEIS¹³⁵. However, lower income households were likely to pay a higher unit price and if they do pay a higher price the analysis will overstate their consumption¹³⁶. Moreover, the standing charge is a higher proportion of the bill of low consumption households so they pay a higher average price and the analysis will have overstated their consumption for that reason too.
7. Ofgem's conclusion then was also at odds with what consumer bodies accustomed to looking at the problems faced by low-income households observe¹³⁷.

¹³⁰ *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". (*Annexe D Gas price elasticities: the impact of gas prices on domestic consumption – a discussion of available evidence* June 2016 DECC p.9.)

¹³¹ *Assessing the distributional impacts of economic regulation* Ofgem May 2020 *Annexe – Understanding how energy spend varies with income* paragraph 34.

¹³² ONS Living Costs and Food Survey

¹³³ The process is described in *The Green Book: Central government guidance on appraisal and evaluation* HM Treasury 2018 *Annexe A3 Distributional Appraisal* p.79.

¹³⁴ "Intuitively if income has been adjusted to reflect the fact that smaller households need less income to cover all their living costs – including energy – then it does not make sense to also scale up the energy consumption for those households in assessing the impacts. This feels like double counting. Ofgem have not provided an adequate explanation for why this is necessary." *Ofgem's Approach to Distributional Impacts: A Technical Assessment* Frerk, Maxine and Kenway, Joshua (Grid Edge Policy) Sept. 2020 p.7.

¹³⁵ *Ofgem's Approach to Distributional Impacts: A Technical Assessment* Frerk, Maxine and Kenway, Joshua (Grid Edge Policy) Sept. 2020 p.4.

¹³⁶ *Ofgem's Approach to Distributional Impacts: A Technical Assessment* Frerk, Maxine and Kenway, Joshua (Grid Edge Policy) Sept. 2020 p.5.

¹³⁷ *Ofgem's Approach to Distributional Impacts: A Technical Assessment* Frerk, Maxine and Kenway, Joshua (Grid Edge Policy) Sept. 2020 p.8.

8. In fact, Ofgem later appeared to have reversed its view (again) when in August 2022 it accepted that “there is a broad link between affluence and consumption”¹³⁸.

¹³⁸ *Follow up on our review into the arrangements for recovering the costs of supplier failure* Letter from Jonathan Brearley, CEO, Ofgem 18 August 2022
<https://www.ofgem.gov.uk/sites/default/files/2022-08/Follow%20up%20on%20our%20review%20into%20the%20arrangements%20for%20recovering%20the%20costs%20of%20supplier%20failure%20.pdf>

Annexe 14: Low income households are more likely to be vulnerable

1. Low income households spend less on energy than high income households, as shown in Annexe 13.
2. This means a higher proportion of what they pay goes on the standing charge, buying them no energy, and overall they pay the highest price per unit of energy.
3. As such they are likely to satisfy Ofgem's definition of consumer vulnerability:

“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 domestic consumer to protect or represent his or her interests; and/or
- significantly more likely than a typical domestic consumer to suffer detriment or that detriment is likely to be more substantial.”¹³⁹

They pay the highest overall rate for the energy they use and their low income means they are less able to afford to pay these high prices so will suffer particular detriment.

¹³⁹ *Consumer Vulnerability Strategy* (October 2019) Ofgem, p.7.