

Centrica response to Ofgem's Consultation on the potential impact of increased wholesale volatility on the default tariff cap

This is the non-confidential version of our response

December 2021

1. Centrica welcomes the opportunity to respond to Ofgem's consultation into the interaction between increased wholesale cost volatility borne by suppliers and the default price cap. It is wholly appropriate for Ofgem to investigate whether there has been a material departure between efficient costs and what is accounted for under the price cap. In our response to this consultation, we submit evidence as requested by Ofgem in response to its consultation. The evidence we submit shows that – because of the exceptional circumstances in the wholesale market – that there has been a material under-recovery in efficient costs, which may increase, and is likely to endure without action.
2. Given the magnitude of the unrecovered costs and risks, we agree with Ofgem's intention to act to ensure the cap for periods 8 and beyond is set at a level which is consistent with efficient suppliers' need to finance themselves. In particular, Ofgem should ensure that the cap reflects the currently unrecoverable losses due to exceptional events being incurred efficiently by suppliers at present during cap period 7.
3. Ofgem rightfully has a strong presumption against intervening to correct discrepancies between cost forecasts in the cap and outturn costs, and there should be a high threshold for intervening in this way. However, current unprecedented circumstances and materiality of cost pressures on suppliers demand it. There is currently a fundamental mismatch between the cap and Ofgem's duties under S1.6 of the Act, which require holders of supply licenses who operate efficiently to be able to finance their activities. To not intervene risks suppliers being unable to finance their activities and puts the effective functioning of the competitive retail market – and therefore the overarching consumer protection objective under the Act – in jeopardy.
4. These unrecovered costs relate at least in part to errors in the original formulation of the price cap which could – and should – have been addressed in the price cap earlier. In particular:
 - a. In Centrica's response to Ofgem's original consultation on the price cap, we explained how the costs of backwardation could be high, were not covered by headroom, and could be built into the cap through an explicit variable allowance.¹ Ofgem did not take this into account on the grounds that this would lead to seasonal wholesale pricing.² However, as we explain below, this is an incorrect argument as a correction for backwardation can easily be introduced which does not lead to seasonal pricing.
 - b. Ofgem did not consider the potential for wholesale prices and customer numbers to be correlated. As we describe below, this is the root of the unexpected default tariff³ demand issue, where rising wholesale prices prompt a movement from FTCs towards default tariffs (and the reverse could also happen). On the contrary, Ofgem considered that *"...the impact of this error... is relatively low... because there is not*

¹ Centrica's response to Ofgem's statutory consultation on the Default Tariff Cap Appendix 2 p8; and Centrica's response to Ofgem's policy consultation on the Default Tariff Cap p28

² Ofgem (2008), Default Tariff Cap: Decision – Appendix 4 p36

³ In this response we refer to "default tariffs" rather than SVTs. This is since the issues described by Ofgem apply equally to fixed-term tariffs with no exit fees.

the same relationship between prices and demand".⁴ It is now clear that this reasoning was incorrect: Default tariff customer volumes are correlated with wholesale prices, and the resulting costs can be highly material.

5. These costs relate to exceptional circumstances. The rise in wholesale energy prices that we are currently observing - and which has impacted all energy suppliers - has been of a speed, scale and to a level that is unparalleled. Ofgem's proposal is to increase the wholesale risk allowance. As Ofgem's objective should be to ensure full efficient cost recovery, it would be more appropriate to use the Adjustment Allowance. This cost recovery adjustment should take place over cap period 8 only, with float and subsequent true-up, to minimise the unrecovered costs that suppliers are required to finance, and avoid increasing bills in cap period 9 where they are likely to be even higher.
6. We expect that the exceptional volatility in the wholesale market will lead to efficient costs being incurred above the cap during price cap period 8 itself, and potentially beyond:
 - a. In addition to the risk of further unexpected wholesale price rises, suppliers also face the risk of wholesale prices falling significantly, potentially leading to large scale switching of customers away from the cap and default tariff hedges having to be sold at a substantial loss.
 - b. We estimate that the costs associated with backwardation during cap periods 8 and 9 will be more than double what they have been in periods 6 and 7.
7. Ofgem should ensure the price cap accounts for similar costs in cap period 8 and beyond. We explain in this document how the costs of backwardation could be accounted for in cap period 8 and beyond. Applying a forecast for a further Adjustment Allowance or applying an uplift to the wholesale risk allowance, or both, will also be required to account for the potential for further exceptional costs, such as those relating to unexpected default tariff demand. The Market Stabilisation Charge advanced by Ofgem offers a potential way of mitigating the extent of unrecoverable costs by providing appropriate price signals to suppliers while preserving effective competition, though may not be sufficient on its own.
8. In setting any adjustment, Ofgem will need to give regard to S1.6 of the Act, which requires it to ensure that holders of supply licenses who operate efficiently are able to finance their activities. In doing so, Ofgem must not assume that lower costs are necessarily an indication that a supplier has acted in a more efficient manner than suppliers with higher costs.
 - a. Some suppliers may experience lower costs due to the particular nature of their customer base. For example, a supplier that happened to have a lower proportion of FTC customers rolling off their contracts this winter may appear to have lower costs associated with unexpected default tariff demand. However this does not reflect an "efficient" behaviour.
 - b. Given the high degree of uncertainty in the market, some suppliers may experience lower costs simply because a strategy turned out to be beneficial, but ex-ante could just as easily have turned out more costly. In some cases, there may be a wide range of equally "efficient" strategies and equally reasonable forecasts, each one of which may have the same ex-ante outcomes but different ex-post outcomes.
9. Unless Ofgem can demonstrate conclusively, with reference to clear evidence, that a suppliers' higher costs are due to it acting – given the information available to it at the time – in a less efficient manner, it is inappropriate to remove it from a benchmark (e.g. through using a lower quartile rather than an average).

⁴ Ofgem (2008), Default Tariff Cap: Decision – Appendix 4 p35. From the context, we presume that the "same relationship between prices and demand" relates to the way in which weather events can lead to demand and prices being correlated.

10. Related to this, it is important that Ofgem considers possible survivor bias in its calculations. Many suppliers have recently exited the market, and in some cases this exit may have been prompted by strategies which were justifiable ex-ante but resulted in a heavy loss.
11. Ofgem cannot seek to offset any adjustment for gains it assumes that suppliers have benefitted from in the past, or will benefit from in the future (such as gains made from CfDs, or surpluses in other areas of the cap). As described in this response, no such surpluses exist. Suppliers hedge their CfD costs, so unexpectedly high wholesale prices do not reduce CfD costs, and there is no surplus within the wholesale allowance, headroom, or price cap as a whole. Furthermore, the legal annex attached to this response describes how such an off-set would be unlawful, since:
 - a. there is a legal presumption against retrospection, as any clawback would go against and severely interfere with regulatory certainty, which in turn would cause a significant threat to business and investment confidence;
 - b. any attempted clawback would represent an error of fact because, as set out in this response, in practice there is no over-recovery;
 - c. such a decision would be contrary to suppliers' legitimate expectations; and
 - d. any clawback/offsetting would be contrary to Ofgem's primary duty to protect existing and future customers, which cannot be guaranteed unless suppliers are able to recover their efficiently incurred costs.
12. Where a regulator seeks to claw back a supposed over-recovery, it faces a high legal and evidential burden. That burden is, as further explained in the legal annex, not met in this case. Even if the materiality threshold were crossed, then the only approach that Ofgem should adopt is to change the design prospectively.
13. The rest of this response is structured as follows:
 - a. First, we provide a summary table showing – further to Ofgem's asking - our current assessment of the departure between efficient costs and what is accounted for under the price cap. Where there is such a departure, we say what the appropriate method of recovery would be.
 - b. We then describe each of these costs in more detail. For each one, we estimate our own costs. We then describe how Ofgem could calculate market-wide costs (including what, if anything, it would need to do to account for an "efficient" supplier). Finally, we describe the appropriate method of recovery.
 - c. Next, we describe the appropriate application of the Adjustment Allowance, including how it will need to be applied in a way that ensures suppliers can recover their efficiently incurred costs, even accounting for lower consumption in summer, and the possibility of a subsequent fall in wholesale prices that causes the number of customers on default tariffs to fall.
 - d. Finally, Ofgem has suggested that it may consider how any increases in allowance may be off-set against surpluses in the cap that may have accrued historically, or may exist in the future. Any such "netting" off would be impermissible in these circumstances, including because there is a fundamental mismatch between the cap and the financeability duty under the Act, and the risks of further supplier failure and knock-on effects are so acute. In any case we show that there are no such surpluses to "claw back".

Overview of unrecovered costs and appropriate method for recovery in the price cap

14. The table below summarises each category of cost identified by Ofgem, as well as a further one (bad debt costs). For each cost, we quantify the extent to which our own costs have exceeded the allowance in the cap during cap period 7, and explain qualitatively whether the exceptional increase in costs may be expected to continue in cap period 8 and beyond. For each type of cost, we describe the appropriate recovery method in cap period 8 to account for the costs currently being incurred. Adjustments will also need to be made in cap period 9 to account for any costs that are not recovered in cap period 8.

Cost	Centrica's shortfall in cap period 7 (annualised for a DF customer at latest TDCV)	Potential for continued exceptional costs	Appropriate method for recovery
Unexpected default tariff demand	Currently \times (costs incurred during cap period 7, annualised).	Unknown but could be extremely high – particularly if prices unexpectedly fall and hedged default tariff customers leave.	Use suppliers' average costs (with consideration of survivor bias) to quantify costs incurred in period 7, and allow recovery in period 8 (with a float and subsequent true up). Similar costs incurred in cap period 8 and onwards should also be recoverable, whether through another Adjustment Allowance, an uplift to the wholesale risk allowance, and/or via the Market Stabilisation Charge that Ofgem is consulting on or some combination of these mechanisms.
Backwardation costs	\times (total for periods 6 and 7, to avoid a seasonal impact).	Will increase in magnitude. We estimate \times across both periods 8 and 9.	An adjustment allowance to enable the costs incurred in cap period 7 to be recovered in cap period 8, as well as an ex-ante mechanical adjustment which ensures backwardation costs or benefits are appropriately reflected in the cap going forward.
Shaping and imbalance costs	Highly uncertain at this point in the cap period. Outturn costs are driven by weather. High wholesale prices will increase the volatility of these costs.	Highly uncertain. Outturn costs are driven by weather. High wholesale prices will increase the volatility of these costs.	Closely monitor whether these costs materially depart from the cap, and make an adjustment if this is the case.
CfD costs	N/A	N/A	There is no basis for making any adjustment. An efficient supplier will hedge these costs, and so unexpectedly higher wholesale costs will make no difference on their total costs.
Bad debt costs	Not quantified, but unlikely to be exceptional at current cap level.	Greatly increased bills in periods 8 and 9 could lead to bad debt costs exceeding the cap allowance, as caused by COVID-19.	It is unlikely for there to be an exceptional cost from period 7 that requires recovery. If bill rises lead to rising bad debt costs, these should be recovered using the same float and true-up mechanism used for COVID.

Unexpected default tariff demand

15. The nature of default tariffs (which do not have an exit fee, and are always available to customers moving home or rolling off FTCs) provides customers on a default tariff with an option:
 - a. If wholesale prices increase above the wholesale cost allowance in the cap, then customers moving home or rolling off FTCs can stay on a default tariff, which will have “locked in” lower prices than FTC tariffs.
 - b. If wholesale prices decrease below the wholesale allowance, then customers rolling off FTCs can leave the default tariff (without any exit fee) and sign up to cheaper FTCs with the same supplier or another supplier.
16. This “free” option provided to customers represents a real cost borne by suppliers, which face adverse margin exposure in both directions:
 - a. If wholesale prices increase, then customer retention will also likely be higher, requiring additional commodity to be bought at a higher price than the wholesale cap allowance.
 - b. If wholesale prices decrease, then customer retention will also likely be lower and commodity bought in advance using the cap methodology will be sold back at a loss (given lower wholesale prices).
17. Suppliers will minimise these costs by hedging their commodity based on a churn forecast, predicting whether the number of customers on default tariffs is likely to increase or decrease.
18. However, there will always be a significant uncertainty about these forecasts, especially when wholesale prices are volatile.
 - a. In order to meet the hedging strategy implied by the price cap, suppliers must begin purchasing energy 8 months before delivery. Wholesale prices at the time of delivery will be uncertain at this point.
 - b. Suppliers will be unsure as to the extent to which higher or lower wholesale prices would be passed through to FTC tariffs. While this may be known for a supplier’s own tariffs, the hedging strategy of other suppliers will be unknown.
 - c. Suppliers will be unsure of the extent to which higher FTC tariff prices will lead to greater numbers of default tariff customers (or vice versa).
 - d. Suppliers will also be unsure of the extent to which customers on expired FTC tariffs will move onto their current supplier’s default tariff, as opposed to carrying out a price comparison and moving on to another supplier. The current market conditions, where a large number of suppliers that had offered previously attractive FTCs have left the market, illustrates the extent of this uncertainty.
19. Moreover, in practice there will be a time lag between when the wholesale prices increase/decrease and when the supplier is able to make a transaction. As a consequence, suppliers may find themselves temporarily under/over hedged, which increases their costs.
20. This cost is also increased by the way in which the default tariff cap prevents suppliers from charging cohorts of unexpected default tariff customers a higher amount, consistent with the costs of serving them.

21. The option value enjoyed by customers therefore manifests itself as a cost for suppliers offering default tariffs. The price cap has never allowed for this extra cost.
22. Specifically, in its original Decision, Ofgem noted how “several suppliers told us volatility in customer numbers created risk for them under the default tariff cap”.⁵ For example, one supplier explained that “...more customers may be drawn to default tariffs following the implementation of the cap depending on the price difference between default tariffs and DTs. This change in default tariff customer numbers may be difficult to anticipate as it relates to customer behaviour when they come to the end of a FT”.
23. However, while Ofgem stated that it had “...given regard to this issue in our decision to set the wholesale uncertainty allowance and headroom” it is clear that it did not consider the potential for wholesale prices and customer numbers to be correlated (which is the root of the issue). Instead, Ofgem considered that “...the impact of this error... is relatively low... because there is not the same relationship between prices and demand”.⁶
24. It is now clear that this reasoning was incorrect, and the resulting costs can be highly material. Even during cap period 7 (which will not reflect the recent increase in wholesale prices), wholesale costs accounted for approximately 40% of the ex-VAT bill. Left unhedged, these costs are extremely uncertain: currently, the cost of an unhedged customer is over three times the allowance made in the cap. We describe below how our costs of unexpected SVT demand for cap period 7 alone have been approximately £ per customer – greater than the entire EBIT allowance in the cap. Given the scale of these costs, it is therefore critical for suppliers to be able to recover their efficient costs.
25. It must be stressed that an unexpected decrease in wholesale prices could incur just as much of a cost for suppliers (as they are forced to unwind hedges in a falling market) as the unexpected increase that we have currently seen. In its consultation document, Ofgem states that, when determining any upward revision, it will have regard to “...the risk of setting an adjustment level informed by exceptional market conditions and the likelihood that this may lead to overcompensation in future (when prices and volatility return to normal levels)”.⁷ However it is precisely the risk of prices returning to their normal level – in a way which cannot be perfectly forecast – which heightens the potential costs faced by suppliers.

Centrica's costs

26. Ofgem states that it expects an efficient supplier would regularly update its forecast and adjust how it procures energy accordingly. This is what we have done. From September 2021, we have updated our forecast of default tariff accounts on a fortnightly basis. We have then adjusted our hedging strategy accordingly by purchasing additional volumes consistent with our best forecasts of customer numbers. Therefore, we have met Ofgem's expectations for an efficient supplier.
27. The table below shows the five forecasts of additional default tariff customers that we produced between the end of September and beginning of December. As can be seen from the chart, our forecasts have changed considerably every two weeks: at the end of September we expected about £ additional default tariff accounts over the current cap period; by early December we expected about £ additional default tariff accounts over the same cap period.

⁵ Ofgem (2008), Default Tariff Cap: Decision – Appendix 4 p35

⁶ Ofgem (2008), Default Tariff Cap: Decision – Appendix 4 p35. From the context, we presume that the “same relationship between prices and demand” relates to the way in which weather events can lead to demand and prices being correlated.

⁷ Condoc, para 4.4

Forecasts of additional default tariff accounts over the current cap period between 30 September and 1 December

Date of forecast	Average additional default tariff accounts over current cap period ('000)	Change in forecast (%)
30-Sep	✂	
14-Oct	✂	✂
04-Nov	✂	✂
25-Nov	✂	✂
01-Dec	✂	✂

28. In the consultation document, Ofgem has also stated that when estimating costs due to unexpected default tariff demand, it is considering whether the additional demand is genuinely unhedged and unexpected.⁸ Our additional demand due to the additional default tariff accounts satisfies both conditions.

- a. It is genuinely unhedged. The additional demand corresponding to the additional default tariff accounts is already net of our hedged FTC demand for the current cap period.
- b. It is genuinely unexpected. As can be seen from the table above, we have revised our forecast substantially and frequently since September 2021 due to the high uncertainty in demand driven by wholesale prices.

29. Given that we behaved as an efficient supplier, and our unexpected default tariff demand is both unhedged and unexpected, the costs that we have incurred in relation to this unexpected demand are efficient (although, as noted in the following section, other strategies may have been equally efficient from an ex-ante perspective, but led to different ex-post costs).

30. Ofgem has provisionally estimated that the impact of unexpected and unhedged default tariff demand on the current cap period is between £20 and £25 per customer. However the basis upon which it has made these estimates is unclear. In particular, Ofgem suggests a reduction of these costs of 70%, based on “engagement with industry”. There is no indication of how this figure has been arrived at, or whether it is representative of the wider market. As we describe below, if Ofgem is using suppliers’ data to estimate these costs, then it is essential that it uses a transparent methodology and a representative set of suppliers.

31. To demonstrate our own costs, we have estimated the impact that the unexpected and unhedged demand from the customers switching to a default tariff will have on our wholesale costs for the previous and current cap period.⁹

32. We have done so by following these steps:

- a. First, for each of the five major events mentioned above, we have calculated the volume of electricity and gas required for the additional default tariff customers. We have done so by multiplying the number of additional monthly accounts by the TDCV.
- b. Second, we have estimated the additional costs that we have incurred at that time to purchase the additional volume by multiplying the additional volume estimated at the

⁸ Condoc, para 3.37.

⁹ The impact over the previous cap period was nil.

previous step by the difference between assumed prices on those days¹⁰ and the wholesale allowance.

- c. Third, we have aggregated these estimates over the months of the current cap period and across the five major events to obtain a total estimate of additional costs of £.
 - d. Finally, we have divided this estimate of additional costs by the expected number of British Gas's customers on a default tariff (about £) to determine the cost per customer.
33. We estimated that our costs will increase by about £ at TDCV. On an annualised basis, these costs are approximately £. £

34. This estimate relates to our unexpected default tariff customer costs to date. As described above, we remain exposed to additional cost, and may provide further data to Ofgem in due course.

35. Overall, given the current circumstances, we have acted in line with Ofgem's expectation of an efficient supplier. In doing so, we incurred substantial costs that are not covered by the wholesale allowance for the current cap period and which are due to a default tariff demand which is genuinely unexpected and unhedged.

Calculating market-wide costs

36. The costs incurred by suppliers will differ:

- a. First, as explained above, there have been considerable uncertainties regarding the level of wholesale prices and its eventual effect on customer churn. There is therefore an extremely wide range of "reasonable" estimates that could be made, given this uncertainty.
- b. Second, each supplier's customer base and customer behaviour is different, and therefore the impact of customer churn will also differ.

37. If Ofgem were to benchmark these costs (for example using a lower quartile) then it would risk setting an allowance based on either:

- a. a strategy which simply happened to perform better (potentially just a "lucky guess" which could have led to an excess purchase of energy which had to be sold at a significant loss had the market not moved in the way that it has); or
- b. a supplier with a customer base that happens to have lower unexpected default tariff demand.

38. Given this, when Ofgem calculates these costs, it will need to calculate a weighted average across all suppliers. To calculate these costs Ofgem should ask suppliers to adopt the methodology that we have outlined in the previous section.

39. Ofgem should also consider possible survivor bias. Many suppliers have recently exited the market, and in some cases these suppliers may have faced unexpected and unhedged SVT demand that may be relevant for Ofgem's understanding of the departure between efficient costs and the level of the cap.

Cost recovery

40. We have described above how the average costs incurred by efficient suppliers during cap period 7 could be estimated. Ofgem should allow suppliers to recover these costs through

¹⁰ Based on NBP prices, these are used as an approximation. We have not used the cost of trades.

the Adjustment Allowance in cap period 8. Given the cap will need to be set before all costs from period 7 are known, this adjustment should be made through a “float and true-up” mechanism. As discussed in the penultimate section of this response, the adjustment would need to be made in such a way that ensures that suppliers’ costs can be recovered despite the lower consumption of energy during the summer, and the possible fall in default tariff numbers if wholesale prices begin to fall.

41. These costs may continue if there are further unexpected changes in wholesale prices (whether these are increase or decreases). These risks are particularly acute for suppliers who have taken on customers from failed suppliers via SoLR, like British Gas which has taken on over 500k customers which we expect to be more likely to switch than existing British Gas customers. Ofgem will therefore need to assess whether a further adjustment to the cap needs to be made to account for unexpected default tariff demand costs in periods 8 and beyond. There are a number of options – which are not mutually exclusive – regarding how this could be done.
- a. Ofgem could make another change to the Adjustment Allowance, in period 9, to account for unexpected default tariff demand costs in period 8. Again, this could be done through a “float and true-up” mechanism.
 - b. Ofgem could apply an uplift to the wholesale risk allowance akin to a risk premium. For example, Ofgem could determine the cost of an option strategy which removes this risk, and allow for the cost of this strategy in the cap – based on internal pricing we estimate this cost might be \pounds per customer. However, given the illiquidity of the options market, it is unlikely that a strategy could be mandated which entirely eliminates this risk, and so any exceptional change in wholesale prices and customer numbers which cannot be managed in this way may still require an additional adjustment in order to be recovered.
 - c. Ofgem could implement the Market Stabilisation Charge that is currently subject to Ofgem statutory consultation..¹¹ The Market Stabilisation Charge offers a way of mitigating the extent of unrecoverable costs by providing appropriate price signals to suppliers while preserving effective competition, though may not be sufficient on its own.

Backwardation costs

42. Ofgem has stated¹² that it is “...open in principle to the prospect that backwardation costs have departed from the efficient cost level”, and recognises that the market is currently in backwardation. Ofgem also re-states the assumption it made when it designed the price cap that costs and benefits of backwardation would net out over time.
43. The cost of backwardation arises from the way in which:
- a. the wholesale cost allowance set by the cap, based on a 6-2-12 pricing in methodology, incorporates the cost for energy delivered over both the period in question, and the following cap period; while
 - b. suppliers’ costs actually incurred in a given period depend only upon the costs of delivery for the period in question;
 - c. in a market which is exhibiting backwardation, wholesale costs are systematically lower the further into the future purchases are made, and so the costs actually

¹¹ [Statutory consultation on potential short-term interventions to address risks to consumers from market volatility | Ofgem](#)

¹² “Reviewing the potential impact of increased wholesale volatility on the default tariff cap: November 2021 policy consultation”, Ofgem (2021), paragraph 3.20.

incurred for energy delivered in a period will necessarily be higher than the price allowance; and

- d. the market is currently in backwardation,¹³ and so future lower prices will reduce the wholesale allowance such that current wholesale costs are not covered by the cap.

Centrica's costs

44. We have calculated the costs associated with backwardation by:

- a. calculating the wholesale cost allowance set by the cap, based on the 6-2-12 methodology, for a dual fuel customer at TDCV levels of consumption; and
- b. subtracting the wholesale costs incurred for such a customer for the delivery season only (6-2-6 hedging).

45. This is shown in the attached spreadsheet. For the current cap period (period 7), this shows that there is an additional cost, compared to the cap allowance, of £ per dual fuel customer at TDCV.

46. Ofgem's rationale for using the 6-2-12 method is to avoid a seasonal variation in bills. By design, the cost of energy delivered during winter will therefore exceed the allowance, and so the calculation described above will always tend to show a loss for every winter. To remove this seasonal element, we have subtracted from the figure above an estimate of the benefit compared to the cap for cap period 6, which is £. We therefore estimate an overall cost above the cap of £ for the full year.

47. Based on the latest forecasts of market prices we expect that the costs of backwardation will be even higher in winter 2023. We estimate the total costs associated with backwardation for cap periods 8 and 9 will be £ per TDCV customer.

48. Ofgem has asked for evidence that these costs present a clear, material and systematic departure from the assumption that the net costs of backwardation approximate to zero over time.

49. Looking over the entire 21-year period back to 2000, the annual net gain from contango (had the cap been in place) has only exceeded £ in two years (summer/winter 2009 and summer/winter 2010). In order for suppliers to recoup a loss of £, nearly £ years of such exceptional circumstances would be required, which is not credible - particularly given the number of years where backwardation resulted in a net loss (e.g. summer/winter 2005). Excluding 2021, the average impact for Summer/Winter over the last five years is a cost of £ per year. This demonstrates that the costs of backwardation can be quantified, are high, and there is no realistic prospect of them being recovered under the present price cap methodology in any reasonable timeframe.

Calculating market-wide costs

50. The costs associated with backwardation represent an unavoidable basis risk which will be faced by all suppliers. It is not possible for an "efficient" supplier to systematically reduce its exposure to these costs.

51. Although suppliers with different hedging strategies may face different costs ex-post, the ex-ante costs can be calculated as described above.

Cost recovery

52. As described above, the costs associated with backwardation (and any benefits associated with the market subsequently being in contango) can be calculated in advance of any cap

¹³ The GB energy wholesale market has in recent years tended to be in backwardation more often than contango (the reverse of backwardation) and so, over the duration of the price cap, this has led to an unrecoverable cost. The rise in wholesale prices has greatly increased this impact.

period. These are known, quantifiable costs (or benefits), and should therefore be passed through to customers.

53. To avoid imparting a seasonal structure to prices, an average could be taken of the difference between the 6-2-6 and 6-2-12 index, as shown in the attached spreadsheet, for the forthcoming and previous cap period. For example, for period 8, the difference between the two indices would be calculated for period 8 itself. ✂
54. We suggest that Ofgem makes such a forward-looking correction to the cap methodology as soon as possible.¹⁴ However, even if this were implemented from cap period 8 it would not enable suppliers to recover half of the cost of backwardation already incurred in period 7. ✂
55. ✂

Shaping and imbalance costs

56. As noted by Ofgem in its consultation, suppliers face costs of shaping and imbalance which depend on wholesale prices at or near the time of consumption. The rapid increase in wholesale prices will mean that – all else equal – these costs will have increased more than the shaping and imbalance allowances within the price cap, which are linked to the cost of energy purchased ahead according to the 6-2-12 methodology.

Centrica's costs

57. Shaping and imbalance costs are volatile, and highly dependent on weather conditions and wholesale costs. Within price cap period 7 so far, the unusually warm Autumn has meant that these costs are likely to have been relatively low. However, with extremely high wholesale prices, a severe winter could easily lead to a substantial costs, far in excess of the allowance.
58. Given this uncertainty, it is impossible for us to say at this point what our outturn imbalance and shaping costs will be.

Calculating market-wide costs

59. The *expected* effect of rising wholesale prices on shaping and imbalance costs can be estimated and are presented in the table below. This table shows the actual shaping and imbalance allowances, which are based on the 6-2-12 index. We have calculated the difference between these and an estimate of shaping and imbalance costs based on average day-ahead prices,¹⁵ which will more closely reflect the prices paid for shaping and balancing. This shows that, were the allowances for shaping and imbalance to reflect current wholesale prices rather than the 6-2-12 index in the cap, the value of these allowances during cap period 7 (expressed as an annual bill for a dual fuel customer at the latest TDCV) ✂.

¹⁴ If necessary via a bespoke adjustment allowance.

¹⁵ We have used a simple (non-weighted) average of day-ahead prices to date, as well as current forward prices for the rest of price cap period 7.

	Gas	Electricity	Total
(a) Total shaping and imbalance allowances (%)	✂	✂	
(b) Direct fuel costs (£/customer)	✂	✂	✂
(c) Shaping and imbalance allowance (£/customer, a x b)	✂	✂	✂
(d) Estimated day-ahead prices (£/customer)	✂	✂	✂
(e) Shaping and imbalance costs (£/customer, a x d)	✂	✂	✂
(f) Shortfall (e – c)	✂	✂	✂

60. However, as noted above, the outturn costs will be highly dependent on weather and demand conditions.

Cost recovery

61. It is as yet unclear what the impact of wholesale price volatility will be on shaping and balancing costs and the extent to which these costs will materially depart from the cap during period 7 (or beyond). What is certain is that the increased level and volatility of wholesale prices has led to an increase in the risks associated with these costs.

62. Given this, Ofgem should keep a watching brief on these costs, and be prepared to implement an Adjustment Allowance to allow recovery if they are exceptionally high.

CfD costs

63. Ofgem has incorrectly assumed a benefit to suppliers associated with the CfD levy. As Ofgem points out, CfD rates are negatively correlated with wholesale prices, and so a supplier that did nothing to manage the risk associated with CfD levies would be incurring lower costs.

64. However, in practice, any responsible and efficient supplier will manage this risk by hedging these costs. The logic is the same as for wholesale costs where a supplier, facing a fixed allowance (set by the price cap) and uncertain spot prices, would be expected to hedge its exposure. As a result, an unexpected¹⁶ increase in wholesale prices will not result in any material savings in CfD levies.

65. It should be noted that the way in which the LCCC forecast is set does expose even a hedged supplier to a risk, albeit one that is not correlated with the wholesale price. In order to hedge this risk, suppliers need to sell power on the day LCCC calculates the forecast cost (in June and December, which are the snapshots used for the cap allowance). However, this exact date is only known when LCCC publishes its forecast, approximately one week later.

✂

¹⁶ An expected increase would feed through the allowance in the cap.

Centrica's costs

66. Based on the assumption of no hedging, Ofgem estimates that suppliers will have recovered £16.66 above the allowance, per customer, for the cap periods 6 and 7.
67. We have carried out a similar calculation, shown in the attached spreadsheet, which takes our hedge into account. We calculate that the total CfD allowance for a typical customer for these two cap periods is £X. CfD costs, without accounting for hedging, are estimated at £X (this is based on actual levy rates for summer 2021, and forecast levy rates from the LCCC for winter 2021). However, over this period (and assuming levy rates forecast as above) our hedge position will lead to a loss of £X per customer. Therefore, taking into account our hedging position, we estimate that we will have made a loss of £X per customer compared to the allowance for the same period. However this loss is almost exactly counteracted by costs below the allowance since April 2019: Over this three-year period, our CfD cost per customer was on average £X per year above the allowance. **This demonstrates that movements in the wholesale price do not lead to a material under- or over-recovery of CfD costs.**
68. Separately, we note that Ofgem's calculation appears to include the operational cost levy within the allowance. This component of CfD costs will not be impacted by market prices or volume, and so we have not included it in our calculated CfD allowance or costs.

Calculating market-wide costs and cost recovery

69. As noted above, any efficient supplier would be expected to hedge its CfD costs. There is therefore no systematic relationship between unexpected movements in the cost of wholesale energy and the cost of CfDs. The allowance is therefore already appropriate, and there are no additional costs to recover (or benefits to claw back).

Bad debt and related costs

70. So far, suppliers' hedging has somewhat limited the extent to which the increase in wholesale costs has been passed through to customers. However these costs will result in considerably higher bills in cap periods 8 and 9 – and potentially beyond. For example, assuming no change in the price cap methodology, we currently forecast a dual fuel bill (for a direct debit customer at the latest TDCV including VAT) of £X in cap period 8, an increase of £X on today's bills. By cap period 9, we forecast a bill of £X, an increase on the current cap of £X.
71. These are unprecedentedly high bills. There is a risk that these could lead to an exceptional increase in rates of customer default, and therefore associated bad debt and credit/collection costs. Should this occur, these costs would not be recoverable under the cap, where bad debt costs are included as part of the fixed operating costs component, and therefore based on historic levels of bad debt.
72. It is too early to tell whether bad debt costs will increase in such a way. Ofgem should therefore monitor the levels of default in the market and, if necessary, introduce a means by which these costs can be recovered. The "float and true-up" mechanism used for the exceptional increases in bad debt due to COVID-19 would be suitable for this.

Designing an appropriate recovery mechanism

73. As described above, the price cap will need to ensure that the exceptional costs incurred during cap period 7 (relating to unexpected default tariff demand, backwardation, and

potentially shaping/imbalance) can be recovered. Ofgem's proposal is to increase the wholesale risk allowance. As Ofgem's objective should be to ensure full efficient cost recovery, it would be more appropriate to use the Adjustment Allowance in cap period 8. As the unrecovered costs involved are of a sufficient magnitude to impact suppliers' ability to finance themselves, these costs should be recovered as expediently as possible. In practice this means doing so over a single period (i.e. over cap period 8), accepting that there will need to be a float and true up.

74. When the Adjustment Allowance is implemented, it will be necessary to make a seasonal adjustment to account for lower consumption in the summer period, and ensure that the total shortfall can be recovered.
75. A further issue that may prevent full recovery of costs is if wholesale prices subsequently begin to fall and customers who moved to default tariffs to take advantage of the lower prices under the cap move back to FTCs. Ofgem should therefore ensure that a "true-up" mechanism is in place, which ensures that should the volume of customers or energy consumed change over the course of the cost recovery, the balance is recovered in cap period 9.
76. The adjustment factor introduced by Ofgem to account for the incorrect wholesale allowance during the first cap period did not include a mechanism to account for changes in customer volumes during the recovery period (although it did include a "customer attrition factor" accounting for the change in the number of default tariff customers between the first cap period, and the period when recovery took place). However the current volatility in the wholesale market – combined with the fact that a large number of customers who have historically been on FTCs have turned to the default tariff, presumably temporarily – means that the potential for under-recovery is likely to be much more material.
77. As described in the summary of this response, Ofgem should ensure that an allowance is made within cap period 8 to ensure that the expected costs of the period can be recovered during the period itself. Any such adjustments would need to be "trued-up" in a similar way to ensure that suppliers are able to recover their efficiently incurred costs.

There is no available surplus in the cap

78. Ofgem describes in para 4.4 its intention to "claw back" allowances made in the past or the future which have exceeded suppliers' efficiently incurred costs:
 - a. Ofgem states that it will have regard to "*any surplus against the 1% wholesale risk allowance that has accumulated over previous cap periods*"; and
 - b. that it will have regard to "*the likelihood that the indexed allowances (eg the wholesale risk allowance, headroom, EBIT, operating costs) will in any case increase considerably from 1 April 2022...*".
79. The legal annex attached to this response describes how such an off-set would be unlawful, since:
 - a. there is a legal presumption against retrospection, as any clawback would go against and severely interfere with regulatory certainty, which in turn would cause a significant threat to business and investment confidence;
 - b. such a decision would be contrary to suppliers' legitimate expectations; and
 - c. any clawback/offsetting would be contrary to Ofgem's primary duty to protect existing and future customers, which cannot be guaranteed unless suppliers are able to recover their efficiently incurred costs.
80. Where a regulator seeks to claw back a supposed over-recovery, it faces a high legal and evidential burden. That burden is, as further explained in the legal annex, not met in this

case. Even if the materiality threshold were crossed, then the only approach that Ofgem should adopt is to change the design prospectively

81. Any attempted clawback would also be based on a series of factual errors. As we describe below, it is clear that there has been no “surplus” available in the cap to claw back from. The cap is already too low to ensure that the financeability requirement is met (as evidenced by recent supplier failures).

Wholesale allowance has been insufficient

82. Ofgem’s wholesale allowance does not cover the wholesale costs of an efficient supplier.
83. The difference between our wholesale costs for customers on a default tariff and the allowance is significant. We have under-recovered our wholesale costs in each year of the past three years by £ on average, or £/year. The size of the under-recovery is particularly significant over the last two cap periods, at £ of total wholesale costs or £.
84. This calculation requires an allocation to be made between default tariff products and other products. To demonstrate that this allocation has not materially driven the results, we have re-calculated the difference between our wholesale costs and the wholesale allowance for all of our customers, including those not on a default tariff. We found that even if we were able to recover the wholesale allowance across all of our customers, we would have still under-recovered our wholesale costs over the past three years by £ on average, or £/year.
85. The table below shows the difference between our wholesale costs and the wholesale allowance over the past three years. We show the difference both in absolute terms and in percentage terms with respect to the wholesale costs we have incurred.

	Under-recovery (£m)		Under-recovery (%)	
	Products on a default tariff	All products	Products on a default tariff	All products
W18-S19	£	£	%	%
W19-S20	£	£	%	%
W20-S21	£	£	%	%
Average per year	£	£	%	%

Headroom has been insufficient

86. In its original decision on the level of the cap, Ofgem justified the use of a percentage (rather than an absolute) headroom allowance on the grounds that it can scale with consumption, and that, “...to the extent that headroom plays a role to capture any uncertainty in costs, then it makes sense for it to increase when costs rise and decrease when costs fall”.¹⁷
87. This logic still applies. An increase in the absolute level of costs will increase the absolute uncertainties that headroom was expressly designed by Ofgem, when it first introduced the cap, to cover (for example, uncertainties regarding the appropriate EBIT margin, or wholesale costs that may not be captured in the explicit allowances). It is therefore inconsistent for Ofgem to seek to “claw back” absolute increases in headroom, which will act – as intended – to cover these increased uncertainties.

¹⁷ Ofgem (2018), Default Tariff Cap: Decision – Appendix 2 p11

88. The original purpose of headroom was to allow for “residual net uncertainty”¹⁸ – for example, this could include inaccuracies in its benchmarking of suppliers’ efficient operating costs, or the methodology used to set the various wholesale energy allowances. However, in our response to Ofgem’s original statutory consultation,¹⁹ we identified specific, quantifiable issues with the design of the price cap which would lead to under-recovery *even if there were no other uncertainties that headroom was required to cover*.
89. We have updated this analysis, which confirms that headroom has continued to be insufficient to even cover these costs. As shown in the table below, we have identified a total of £ of costs which are unrecovered under the price cap, per dual fuel customer at TDCV.²⁰ In the current price cap period of October 2021 to March 2022 there is a headroom allowance of £, as well as a wholesale cost risk allowance of £. The sum of these £ is therefore insufficient to cover even the costs identified below. This demonstrates how the headroom allowance has been persistently set at a level that does not allow an efficient supplier to recover its cost.
90. Moreover, the costs below exclude the costs associated with the rise in wholesale prices (relating to backwardation, and unexpected SVT demand, and potentially balancing and shaping costs). The total level of under-recovery during cap period 7 is therefore considerably greater than indicated in this table: Should Ofgem not permit these costs to be recovered in full, there will be a much greater shortfall.

¹⁸ Ofgem (2018), Default Tariff Cap: Decision – Appendix 2 p9

¹⁹ Centrica (2018) *Central summary of required changes to Ofgem’s proposed Default Tariff Cap methodology*, submitted on 12th October 2018.

²⁰ To enable a comparison with the cap model, we have used the older TDCV of 3,100kWh for electricity.

Issue	Shortall (per dual fuel customer at TDCV)
Insufficient allowance for cost uncertainty Drawing on an analysis of how suppliers' operating costs have changed over time above CPI-H we originally identified at least ⓧ of additional cost uncertainty. We have applied 4 years of inflation to this figure.	ⓧ
£5 "efficiency factor" is unjustified As explained in our response to Ofgem's original statutory consultation on the cap, we do not consider that the £5 "efficiency factor" that was subtracted from the value of the cap was justified. We have added 4 years of inflation to this figure, which was originally applied to the 2017 benchmark.	£5.35
RO mutualisation We estimate that British Gas will incur ⓧ of the ⓧ of RO costs that are mutualised across the industry. We have divided this by the average ⓧ electricity accounts we had from Apr-20 to Mar-21.	ⓧ
Allowance for Unidentified Gas (UIG) The cap includes a 2.0% UIG allowance. Based on the latest AUGE closed-out volume assumption but keeping factors and consumption assumptions as per the AUGE statement in each year, we estimate that the UIG percentage for 2020/21 was actually ⓧ	ⓧ
Warm Home Discount (WHD) customers on SC are on the DD cap We originally calculated that if the resulting deficit were socialised it would result in an increase of ⓧ, to which we have applied four years of inflation.	ⓧ
No adjustment made for customer vulnerability or single-fuel customers We originally calculated ⓧ would need to be added to headroom for the worst affected supplier to cover efficiently incurred costs, based on the 2017 benchmark. We have applied inflation to this.	ⓧ
Suppliers with a higher proportion of standard credit customers than assumed in the socialisation of the payment method cannot finance their efficient costs of supply We have applied four years of inflation to our original estimate.	ⓧ
FIT deemed exports As set out in our response to the November 2020 FiT consultation, we consider that the value of deemed export should not offset the amounts paid in levelisation by suppliers. We estimate that these costs have been approximately ⓧ per year, which is approximately ⓧ per GB electricity account.	ⓧ
Regulatory changes Costs of regulatory changes (notably the Faster Switching Programme) which the cap does not account for.	ⓧ
No adjustment made for effect of lagged capacity market (CM) obligation As described in our response to Ofgem's original statutory consultation, this is a cost for suppliers with a reducing customer base.	ⓧ
SC uplift is socialised more than occurred in the market prior to the cap This leads to DD costs (presented here) being higher than they otherwise would be. We have applied four years of inflation to our original estimate.	ⓧ
Total	At least ⓧ

Increases in the absolute value of the EBIT allowance do not reflect a “surplus”

91. The price cap includes an EBIT margin of 1.9%. This was originally intended by Ofgem to provide suppliers with what it considered a normal rate of return on capital employed (notwithstanding that Centrica and other suppliers have disagreed with the method used to calculate this figure).
92. As a supplier's costs rise, its required working capital (including risk capital and collateral) will also have to increase. The use of a percentage EBIT margin means that the cash value of the EBIT allowance increases when these requirements increase, to reflect the opportunity cost.
93. To seek to “claw back” such an increase would effectively reduce the EBIT allowance below what Ofgem has considered is required for a supplier to make this normal rate of return.
94. Indeed, the amount of collateral that suppliers have to hold will have increased faster than the commodity index, due to both the increase in wholesale prices at the point of delivery, but also the increase in price volatility. The existing EBIT allowance is therefore, if anything, likely to understate a reasonable return on this capital.

There is no excessive profitability in the industry

95. If the price cap had been systematically allowing suppliers an amount in excess of their costs, then we would expect to see this reflected in a higher level of profitability. However this is not the case: Ofgem's consolidated segmental statements show that, on average, the suppliers for which it has data made losses in both 2019 and 2020.
96. The supplier with any degree of profitability is Centrica; however our supply EBIT of 1.75% still falls below the 1.9% that Ofgem itself has publicly declared to be reasonable under the price cap. There is therefore no evidence that the cap has led to any surplus which could be “clawed back”.