Decision

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Price cap – Decision on changes to the wholesale methodology

Subject	Details
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We consulted in May 2022 on proposals to change the default tariff cap methodology to deal with the unprecedented increase in wholesale price levels and volatility.

We have decided to proceed with implementing quarterly updates, a reduced notice period and updating the wholesale methodology to include backwardation costs, to be recovered over six months. This document sets out our rationale for the decisions we have made and our consideration of stakeholder responses to our May 2022 consultation.

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Executive summary

As a result of global gas market conditions, including Russia's actions, the volatility in the energy markets that we experienced last winter has lasted much longer, with much higher prices than ever before. The default tariff cap ('cap'), as set out in law and introduced in January 2019, reflects what it costs to supply energy to our homes, by setting a maximum suppliers can charge per unit of energy, and fixes the profit margin a nominal supplier can make by supplying in the GB energy market. By doing so, it protects customers who did not engage in the market, in particular those in vulnerable groups. This document outlines our decisions on changes to the wholesale methodology used to set the price cap, which will take effect from October 2022.

We recognise that customers, particularly those in vulnerable groups, are facing significant and increasing financial pressure. We are doing all we can to support customers through this crisis and build resilience in the market to prevent further supplier failures.
The high prices and volatility have also placed huge pressure on suppliers – with a number of market exits. If a supplier fails, the costs are passed onto customers. Our monitoring shows many of the remaining suppliers are still at risk of failure if we do not act. Alongside measures such as moving to quarterly cap updates, we are also working to reform the market and ensure that suppliers are better capitalised and more resilient and continuing to change the price cap methodology is important to those reforms we are implementing to protect customers.

The cap methodology combined with the high prices and volatility increase volume risk (largely made up of unexpected standard variable tariff (SVT) demand) and the cost of backwardation beyond past levels. Unexpected SVT demand results from active customers unexpectedly moving on the cap meaning their demand had not been fully hedged in line with the cap index. Backwardation costs are a result of the difference between the index used to set the cap level and the way suppliers are able to purchase energy for their cap customers. We seek to address these risks and enable suppliers to recover efficient costs. Not doing so increases the risk of supplier exits, of which the cost is ultimately bourn by customers in the near term and reduces the benefits of competition and innovation in the longer term.

We are acutely aware of the difficulties customers are currently facing. Whilst we have prioritised our short-term response to the gas crisis, we have continued to develop our thinking on longer term reforms. We want a retail market that delivers fair prices for consumers, supports a low-cost transition to net zero, provides good service that meets consumers' needs and is resilient to market shocks. We believe that we can shape a retail sector that is resilient and protects vulnerable consumers through the current crisis, and

bridges to a future market that is far less subject to volatile international energy prices, but instead utilises cleaner, greener, home-grown energy. If the risks of participating in the market are too high, we may not get the investment needed to transition to the future retail market.

Our decision

Over a number of consultation stages, we sought views on how to address the risks and costs related to backwardation and volume risk. We have considered feedback from stakeholders and conducted further analysis, including consumer research and assessment of the distributional impacts. Based on this we consider the following decisions to be the most effective at reducing risks and costs:

- moving from six-monthly cap updates to quarterly cap updates.
- a reduced notice period of 25 working days - Ofgem has five working days to calculate and publish the new cap level followed by 25 working days for suppliers to notify customers and implement the new price level.
- inclusion of backwardation costs into the wholesale methodology, to be recovered over a six-month period.

We have decided to proceed with implementing these decisions, which will take effect from 1 October 2022. We have made these decisions in context of the price volatility the market faces this winter and the need for short term support to secure market stability. We intend to keep the backwardation recovery period under review and review our decisions in the future once we have fully transitioned to quarterly updates and enough time has passed to evaluate the impact.

Our estimate of volume risk shows that moving to quarterly updates will reduce volume risk by 74% compared to a six-monthly index. This reinforces the argument that this change is required now, especially over a winter period where we can expect this level of high and volatile prices to continue. On balance, we consider the reduction in risk and costs of supplier failure and the costs of unexpected SVT demand to be more beneficial for customers than not proceeding or delaying implementation.

The lag between the observation period closing and start of the cap will be a total of 30 working days – the first five working days would be for Ofgem to calculate and publish the new cap level with the remaining 25 working days for suppliers to inform customers and make the changes necessary to implement the new cap level. This shorter notice period also reduces volume risk by allowing us to incorporate more current wholesale price data into our calculation of the wholesale cost allowance.

We have decided to change the wholesale methodology to include backwardation costs. Costs above a deadband of £9 will be recovered over six months from the start of the corresponding cap period. Shortening the recovery period from 12 to six months is a change to our minded to consultation position. This decision balances the interests of market stability and long-term consumer protection, informed by our updated analysis of market price data, the likelihood of supplier failure from our recent stress tests, the associated costs of supplier failure and stakeholder responses.

We are conscious of the impact that these decisions will have on customers already facing severe cost of living pressures, especially those from vulnerable groups such as disadvantaged and low-income backgrounds. Our decision should reduce the risk that customers will have to pay more for the mutualised costs of supplier failures because efficient suppliers are unable to recover their costs. These mutualised costs can be very significant – as an illustration, by December 2021 we had consented to suppliers of last resort (SoLR) making initial levy claims totalling £1.83 billion. Our assessment of the financial risk of supplier failure this winter suggest that costs could be significantly higher than last winter if we did not implement these measures to stabilise the market.

In addition to the decisions outlined in this document, we are taking further measures to help mitigate these risks and protect customers. These include measures where we have:

- required suppliers to provide assurance around their financial risk management frameworks.
- consulted on changes to our Financial Responsibility Principle guidance to ensure suppliers have sufficient control over their material assets.
- strengthened our ability to intervene at milestone assessments, changes in senior personnel and trade sales.
- strengthened financial controls and testing in our licence entry checks.
- consulted on moving the standing charge element of SoLR charges to a volumetric charge and are considering responses.

To support customers, we continue to work closely with Government on providing further support to those in most need. Government have announced several support measures including (but not limited to) a £400 grant towards energy for all households; £650 one-off cost of living payment for around 8 million households on means tested benefits; and £500 million increase and extension of the household support fund available to councils to support vulnerable households.

1. Introduction

Subject of this decision

1.1. This document sets out our decision to change the cap wholesale methodology. We decided to make these changes in response to the recent and ongoing high prices and volatility in the wholesale energy markets combined with our analysis of supplier stability.

1.2. We sought stakeholders' views through two consultations, a policy consultation in February 2022 and a statutory consultation in May 2022. Stakeholders' responses to those consultations have informed our final decision.

Structure of this decision document

1.3. This document is split into five chapters:

- Chapter 1 provides the context for this decision.
- Chapter 2 explains the current market conditions and the case for change.
- Chapter 3 sets out our decision to move to quarterly updates to address volume risk. We also provide details of the alternative options we considered and why these were discounted.
- Chapter 4 sets our decision to shorten the notice period from around two months to 30 working days (five for Ofgem to update the cap and 25 for suppliers to update systems and customers) to further address volume risk.
- Chapter 5 sets out our decision to change the wholesale methodology to include backwardation costs.

1.4. Alongside this document we are publishing the following:

- a final licence modification notice that sets out changes to the Gas and Electricity Supply Licences to implement our decisions.
- the final guidance on treatment of price indexation in future default tariff cap periods.
- updated cap overview model, Annex 2 – wholesale cost model and Annex 4 – policy cost model – which incorporate the decisions we have set out in this document.

The default tariff cap ('the cap')

1.5. The cap was introduced 1 January 2019 to ensure that less engaged customers would pay a fair price for their energy. At the time the cap was introduced, it was estimated that it would save roughly £1 billion per year for energy customers on default

tariffs. It has also driven increased efficiency in suppliers, providing additional long-term benefits to customers.

1.6. However, adapting to market changes, we have decided to change the cap methodology to better manage volume risk during periods of extreme wholesale market volatility (described in chapter 2 below). This decision is part of a series of changes to the default tariff cap, including an uplift to address high additional costs incurred during the current cap period,[1] and an in-period reopener to enable us to update the cap level outside of the regular updates to reflect unexpected cost changes in exceptional circumstances.[2]

1.7. We also have consulted on extending the Market Stabilisation Charge (MSC) to 31 March 2023, and on extending SLC 22B (Requirements to make all tariffs available to new and existing customers), which implements a ban on acquisition-only tariffs (BAT), to the same date. These changes will complement the decisions detailed in this document to reduce the systemic risks suppliers face in volatile markets. When suppliers fail in a volatile market, customers have to be moved over to new suppliers which have to quickly purchase extra gas and electricity for them at a time when prices are at their highest – well above the level of wholesale prices reflected in the cap at the time. Suppliers are allowed to claim the difference in costs back and this significant cost is then spread across all consumers. We have to balance keeping suppliers viable against the needs of customers both in terms of their bills now and in the future.

1.8. We are also taking action to boost financial resilience in the energy retail market. Since we announced our Action Plan[3] in December 2021, we have taken a number of immediate actions which support financial resilience, including:

- commenced stress testing with suppliers to better understand market resilience; required suppliers to provide assurance in relation to their management control frameworks for financial risk.

[1] Ofgem (2022), Price cap - Decision on possible wholesale cost adjustment https://www.ofgem.gov.uk/publications/price-cap-decision-possible-wholesale-cost-adjustment
[2] Ofgem (2022), Price Cap – Decision on the process for updating the Default Tariff Cap methodology and setting maximum charges. https://www.ofgem.gov.uk/publications/price-cap-decision-process-updating-default-tariff-cap-methodology-and-setting-maximum-charges
[3] Ofgem (2021), Action plan on retail financial resilience. https://www.ofgem.gov.uk/sites/default/files/2021-12/Action%20plan%20on%20retail%20financial%20resilience1639491689844_1.pdf

- introduced changes to our Financial Responsibility Principle guidance to ensure suppliers have sufficient control over their material assets. [4]
- strengthened our ability to intervene at milestone assessments, implemented changes in senior personnel and trade sales.
- strengthened financial risk controls and fit and proper person testing in our licence entry checks. [5]

1.9. In April 2022, we published an Open Letter[6] outlining our emerging thinking on measures to protect credit balances and Renewable Obligation payments, ahead of a consultation published this summer.[7] Alongside that, we have published our policy consultation on strengthening financial resilience. [8]

1.10. In addition to these measures to increase market stability and support financial resilience in the energy retail market, we have continued to work closely with HM Treasury on mechanisms to support customers. We have also focused on our compliance activity to ensure customers are being treated fairly (eg our recent work to ensure direct debits are not unfairly increased).[9]

Decision making process

Consultation stages

December 2021 call for input

1.11. On 15 December 2021 we published our call for input on adapting the price cap methodology for resilience in volatile markets. We sought views from stakeholders on

[4] Ofgem (2022), Decision on the proposed guidance on the Operational Capability and Financial Responsibility principles.
https://www.ofgem.gov.uk/publications/decision-proposed-guidance-operational-capability-and-financial-responsibility-principles
[5] Ofgem (2022), Decision on new guidance document for gas or electricity licence applicants
https://www.ofgem.gov.uk/publications/decision-new-guidance-document-gas-or-electricity-licence-applicants
[6] Ofgem (2022), Open Letter to domestic energy suppliers.
https://www.ofgem.gov.uk/publications/open-letter-domestic-energy-suppliers-financial-resilience

[7] Ofgem (2022), Statutory Consultation: Strengthening fixed direct debit rules
https://www.ofgem.gov.uk/publications/statutory-consultation-strengthening-fixed-direct-debit-rules
[8] Ofgem (2022), Policy Consultation: Strengthening Financial Resilience
https://www.ofgem.gov.uk/publications/policy-consultation-strengthening-financial-resilience
[9] Ofgem (2022), Ofgem seeks improvements from 12 suppliers in relation to customer direct debit setting
https://www.ofgem.gov.uk/publications/ofgem-seeks-improvements-12-suppliers-relation-customer-direct-debit-setting

whether change is needed, and if so, on the potential adaptations. On the basis of the responses, market developments and further analysis we decided there was a case for change and issued a policy consultation on changes to the price cap methodology.

February 2022 consultation

1.12. On 4 February 2022, we published our consultation. This consultation set out proposals to change the price cap to structurally reduce risks, thereby enabling a more resilient and lower cost price cap in future: (i) two options for a systematic change to the price cap - quarterly updates and a price cap contract, these are compared to a strengthened status quo; (ii) a reduction in the advance notice Ofgem gives to suppliers of the updated price cap levels; and (iii) a new mechanism for managing backwardation costs that are higher than normal expectations.

May 2022 statutory consultation

1.13. On 16 May 2022, we published our statutory consultation outlining our proposals to change the wholesale methodology to quarterly cap updates. Our proposals focused on addressing volume risk and backwardation costs – we summarise our proposals in the relevant chapters through this document.

1.14. We received 19 responses from stakeholders – 10 from suppliers, six from consumer groups and three from other stakeholders. Non-confidential responses can be found here: https://www.ofgem.gov.uk/publications/price-cap-statutory-consultation-changes-wholesale-methodology . In addition, we received a number of emails directly from customers.

1.15. We have reviewed these responses and used them to inform our decisions. This document sets out our decisions, rationale and consideration of responses.

Related publications

1.16. The main documents relating to the cap are:

- Default Tariff Cap decision: Default tariff cap: decision - overview | Ofgem
- May 2022 statutory consultation: Price cap - Statutory consultation on changes to the wholesale methodology | Ofgem
- February 2022 policy consultation: Consultation on Medium Term Changes to the Price Cap Methodology | Ofgem
- December 2021 call for input: Adapting the price cap methodology for resilience in volatile markets | Ofgem

- Consultation on thresholds for market stabilisation charge: Consultation on changes to market stabilisation charge | Ofgem
- Decision on wholesale risk allowance: Price Cap - Decision on the potential impact of increased wholesale volatility on the default tariff cap | Ofgem

General feedback

1.17. We believe that consultation is at the heart of good policy development. We are keen to receive your comments about this report. We'd also like to get your answers to these questions:

1. Do you have any comments about the overall quality of this document?
2. Do you have any comments about its tone and content?
3. Was it easy to read and understand? Or could it have been better written?
4. Are its conclusions balanced?
5. Any further comments?

Please send any general feedback comments to pricecapchanges@ofgem.gov.uk

2. The case for change

Section summary

The cap methodology was developed and designed in the context of a less volatile wholesale market than we currently have. The ongoing market dynamics in combination with the current methodology creates risks and costs for suppliers that can be difficult to manage. These risks and costs faced by suppliers are ultimately borne by customers, so systematically reducing these is also in the interest of current and future customers.

There have been significant and ongoing changes in the wholesale market

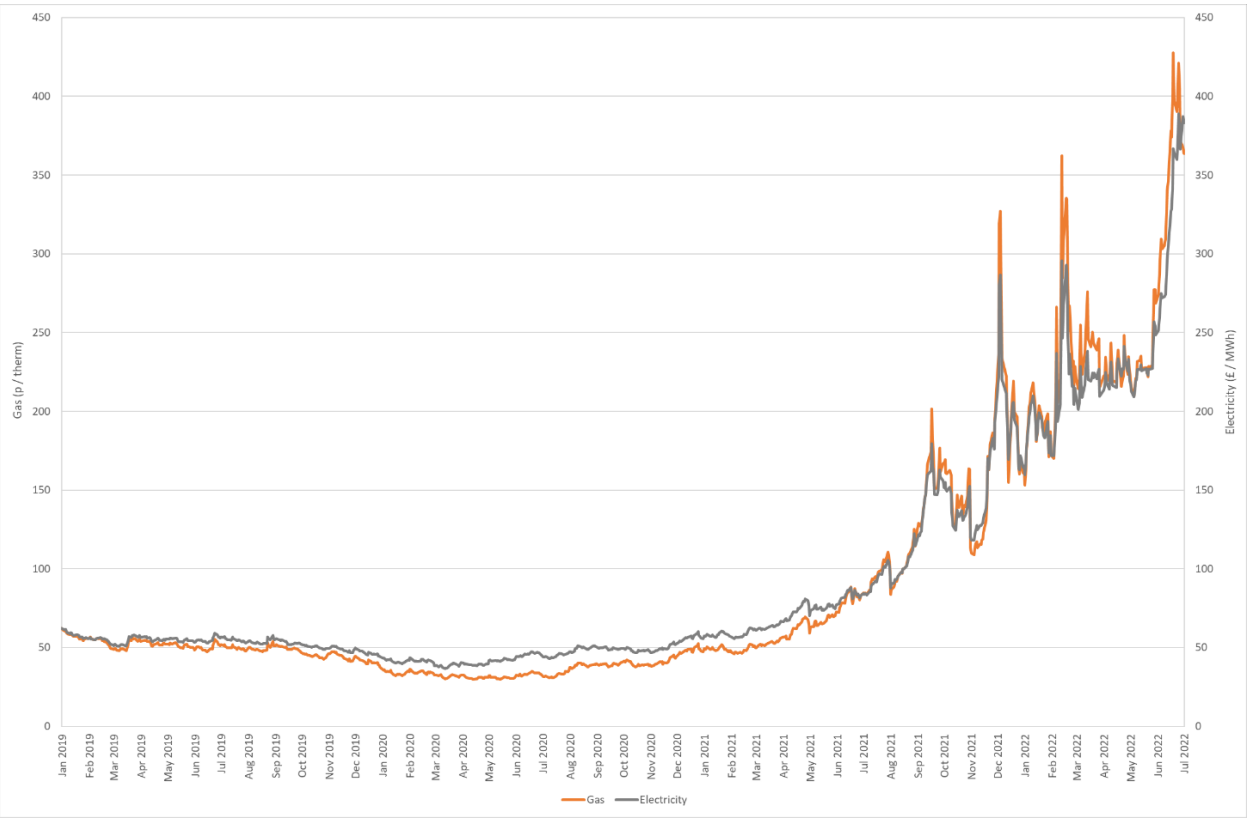
2.1. Figure 2.1 shows the scale of changes in the wholesale gas and electricity prices in recent months compared to preceding years. Forward gas prices were around 50 p/therm between 2009 and 2019, when the cap was introduced. From 2019 to April 2021 the price fell below 50 p/therm as demand reduced due to the COVID pandemic.

2.2. Over 2021, the post-pandemic economic recovery increased demand for gas alongside some outages and supply disruptions across Europe. This led to rapid wholesale price increases and volatility ahead of our February cap decision for the April 2022 to September 2022 cap period.

2.3. Russia's invasion of Ukraine has placed even greater pressure on global gas prices in 2022, where indexed prices peaked at 362 p/therm in March 2022 before settling around 230 p/therm at the time of our May consultation. Since then, concerns of further supply disruptions across Europe this winter have seen forward gas prices continue to increase, hitting a record high of 428 p/therm on 7 July 2022.[10]

[10] Correct up to 19 July 2022, noting prices remain high and volatile.

Figure 2.1: Electricity and Gas forward prices under the 3-1.5-12 [3] indexation approach (2019-2022, p/therm / £/MWh)



Line graph showing the indexed gas and electricity forward prices over the past three years. Rising since March 2021 and showing spikes in September 2021, December 2021, March 2022 and July 2022.

The changes in increased level and volatility of wholesale markets have changed the role of the cap tariff in the domestic retail market

2.4. The cap was intended to reflect a fair price for supplying energy for customers less able or willing to engage in the market, including the vulnerable and customers from disadvantaged and low-income backgrounds. It was not intended to become the cheapest tariff in the market and attractive for normally active customers.

2.5. Over the summer 2021, the cap went from being one of the more expensive tariffs on the market to the cheapest. This occurred due to the structure of the cap – with a six-month observation period and two-month lag between when the cap is set and when it comes into effect. This caused a discrepancy between the price at the point of indexation (ie the date when the cap level is determined) and delivery (when the cap level comes into effect). This meant that increases in wholesale prices up to end of July 2021 formed part of the cap period seven (October 2021 to March 2022) levels. Increases in prices after from August 2021 to the end of January 2022 did not translate into cap levels until cap period eight (April 2022 to September 2022).

2.6. As a result, the cap became increasingly attractive to customers over winter 2021-22. Many customers who would otherwise have refixed their tariff or moved suppliers, defaulted onto, and remain on the cap. The cap protected these customers from the immediate impact of rising wholesale prices. The number of customers on the cap has grown to around 24 million customers on the cap out of 28 million households in the UK[11], a significant increase on recent years.

Impact on volume risk for suppliers

Suppliers face volume risks in a rising wholesale price market

2.7. Managing volume risk is a fundamental part of operating within the energy market. Suppliers face volume risk matching their hedges to their customers' demand in every settlement period of every day, where weather conditions and temperature are key determinants of volume risk. Suppliers typically hedge for their cap customers in advance, forecasting the volume of energy they will need based on the number of customers and the time of year.

2.8. As energy prices rose sharply, the capped Standard Variable Tariff (SVT), or default tariff, became the cheapest tariff, bringing an unexpected increase in the number of customers on the cap. This meant that suppliers had to purchase additional energy for those customers at prevailing, very high, prices. As the level of the cap was already fixed (and was fixed for six months), suppliers were unable to recover the full cost of the energy they bought on the market when prices were higher. This is another example of volume risk. The levels of volume risk suppliers experienced in the autumn were far beyond historical norms. We estimated the cost of this unexpected SVT demand to have cost suppliers up to £900 million during cap period seven.[12] Suppliers have incurred further costs from unexpected SVT demand during cap period eight. We have separately decided to implement an adjustment of £40 per dual fuel customer, for typical consumption, to account for these costs, equivalent to approximately £600 million.[13] Updating the wholesale cost allowance will reduce the risks from changing wholesale prices. However, these

[11] ONS (2022), Families and Households in the UK https://www.ons.gov.uk/peoplepopulationandcommunity/birthsdeathsandmarriages/families/bulletins/familiesandhouseholds/2021

[12] Ofgem (2022), Decision on the potential impact of increased wholesale volatility on the default tariff cap https://www.ofgem.gov.uk/publications/price-cap-decision-potential-impact-increased-wholesale-volatility-default-tariff-cap

[13] Ofgem (2022), Decision on possible wholesale cost adjustment https://www.ofgem.gov.uk/publications/price-cap-decision-possible-wholesale-cost-adjustment

changes will not affect cap period eight, and cap period nine will be a transitional period. Customers ultimately bear the costs for exceptionally high-volume risk, on top of the large but uncertain costs of supplier failure.

2.9. While twice-yearly changes provide price stability for customers during periods of market volatility, but they also expose suppliers to volume risk. This is also true of quarterly updates to the cap, however, the shorter time between updates substantially mitigates this risk for suppliers and customers alike by allowing cap to incorporate prices changes in prices sooner. This will benefit customers as and when prices begin to fall.

2.10. As of August 2021, 29 suppliers have exited the market. While several factors have contributed to these exits, for many suppliers the main reason for their failure was inadequate risk management and insufficient capitalisation to deal with these shocks, but volume risk was a contributory factor. To give an illustration of the scale of supplier exit costs, by December 2021 we had consented to Suppliers of Last Resort making initial levy claims totalling £1.83 billion.

Suppliers also face volume risks in a falling wholesale price market

2.11. To date suppliers have faced the costs of volume risk in a rising market. If and when future wholesale prices fall, suppliers will also face volume risk. When prices fall many customers are likely to move off the cap onto cheaper tariffs. The supplier they leave will be left with excess supply of energy, which would have been purchased at a higher cost (before wholesale prices fell). This is the inverse of the unexpected SVT demand costs incurred in cap periods seven and eight.

2.12. We set out our decision to implement a Market Stabilisation Charge (MSC) in February 2022.[14] The MSC came into effect from 14 April 2022 and sets a requirement for a gaining supplier to pay a charge to the losing supplier when acquiring a customer if wholesale prices fall below a certain threshold. This protects against significant volume risk in a falling price market and lowers the risk of supplier failure in this situation, ultimately helping to protect consumers. The MSC is in effect until the end of September 2022. However, in response to ongoing market volatility, we are consulting on extending the MSC

[14] Ofgem (2022), Decision on market stabilisation charge https://www.ofgem.gov.uk/publications/decision-short-term-interventions-address-risks-consumers-market-volatility

to 31 March 2023. From cap period 10a we expect quarterly updates to reduce the risk and cost of volume risk.[15]

Customer impact of increased volume risk

2.13. Some of the factors that drive volume risk are difficult for suppliers to control and may push a supplier already under moderate financial stress to fail. Customers will ultimately pay the cost of failed suppliers going through the Supplier of Last Resort (SoLR) and Special Administration Regime processes. Supplier failures and challenging market conditions also impact competition and investment in the sector.

2.14. As mentioned above, by December 2021 we had consented to Suppliers of Last Resort making initial levy claims totalling £1.83 billion – costs that customers pay. These costs are largely driven by the cost suppliers incur from buying energy at short notice for customers they had not anticipated gaining through the SoLR process. We need to act quickly to lessen the risks the market is exposed to, risks which could result in additional supplier failures that customers will ultimately pay for.

The scale of backwardation costs is a further challenge

How backwardation costs arise

2.15. Currently (until our decisions outlined in this document are implemented in October 2022) the cap is based on an annual price of gas and electricity for 12 months and is updated every six months. The cap level is set based on forward prices, using forward contract prices across the 12-month period. This approach has been adopted to protect customers from seasonal fluctuations in price.[16]

2.16. This creates 'basis risk' whereby the forward period for the price suppliers can charge is different to the forward period a nominal supplier would use for its hedging. When the market is in backwardation, the forward prices in the later six months are lower than in the first six (the actual cap period). It brings the cap level below the cost to suppliers of purchasing that energy for customers (for that cap period). Contango is the opposite of

[15] Ofgem (2022), Consultation on changes to market stabilisation charge https://www.ofgem.gov.uk/publications/consultation-changes-market-stabilisation-charge
[16] This same phenomenon occurs updating the cap quarterly due to the difference between costs in the first quarter and the remaining 12 months of the reference prices.

backwardation, when the forward market prices for near-term contracts are lower than prices further in the future, a situation which delivers equivalent gains to suppliers.

2.17. In 'normal' market conditions, the combination of over-recovery in summer (contango benefits) and under-recovery in winter (backwardation costs) typically results in these costs and gains netting out such that suppliers recover their full costs over a reasonable period.[17]

Historically backwardation and contango have netted out, however recent market dynamics make this less likely

2.18. When we designed the cap in 2018, there was evidence to suggest the costs of backwardation and benefits of contango would net off in the long run. For the first six periods (three years) of the cap, this was the case - suppliers' costs and benefits broadly netted off. This means there was no need to include a specific element for backwardation costs in the wholesale methodology.

2.19. However, this changed in winter 2021-22 (Figure 2.2) – high wholesale prices and volatility means that backwardation costs are unlikely to net off against future contango. Reflecting this, we allowed a cap level increase of £8[18] per customer across cap periods eight (April 2022 - September 2022) and nine (October 2022 - April 2023) to meet the backwardation costs suppliers incurred in cap period seven (October 2021-March 2022).[19] We calculated this allowance subject to a deadband.[20] We have subsequently decided to increase this allowance by £6 per customer for October 2022 – April 2023 to reflect suppliers' submitted information more accurately and to ensure that the cap level reflects the correct weighted average cost level as intended in the February 2022 wholesale decision.

2.20. Based on current market prices, backwardation costs for winter 2022-23 are expected to be significantly higher than the costs previously faced. Additionally, there is a

[17] While we tend to see backwardation costs in winter and contango in the summer they are not directly linked to the season. Backwardation costs could happen at any time.
[18] This is calculated as the difference between the weighted average supplier costs and the deadband.
[19] Ofgem (2022), Price Cap - Decision on the potential impact of increased wholesale volatility on the default tariff cap https://www.ofgem.gov.uk/publications/price-cap-decision-potential-impact-increased-wholesale-volatility-default-tariff-cap
[20] The deadband is the range of backwardation costs or contango benefits, below which, no cost recovery takes place.

low likelihood there will be contango benefits of a sufficient level and/or in a sufficient time-period to net off backwardation costs.

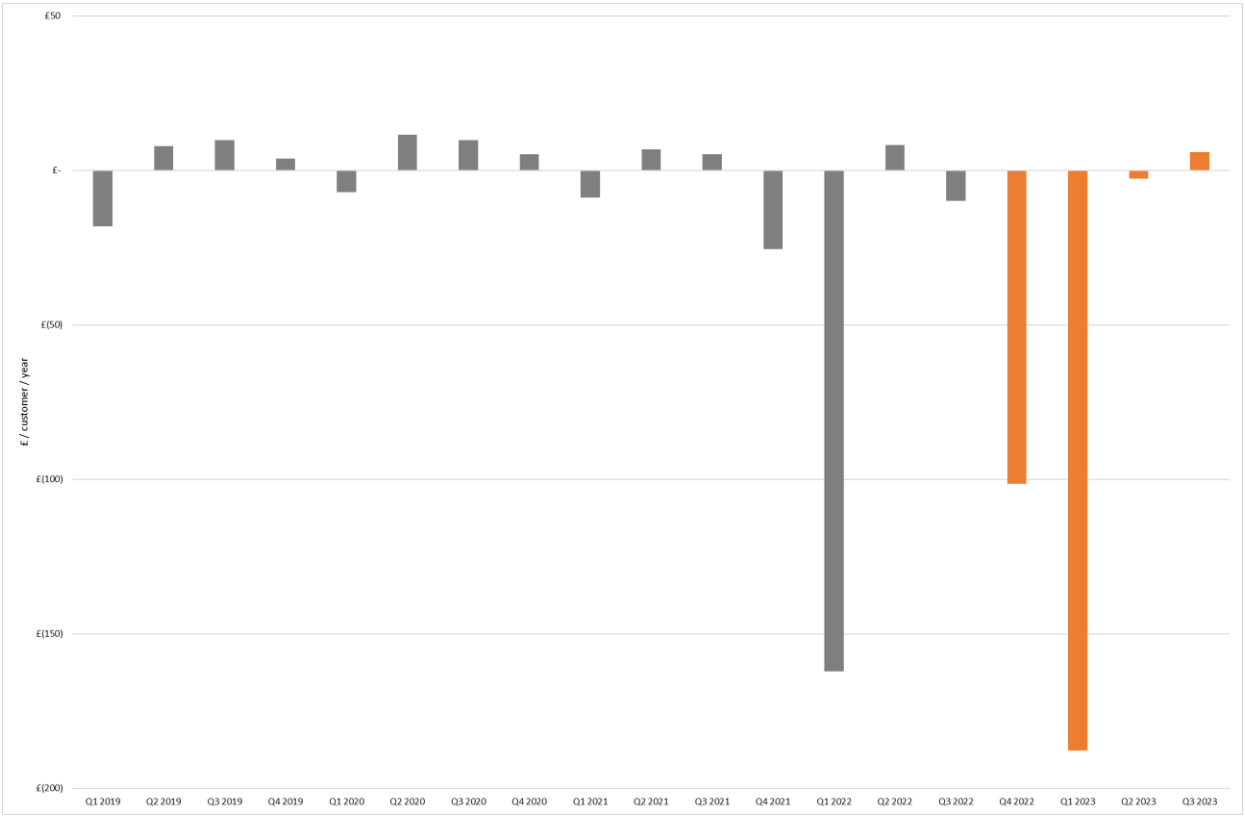
2.21. Table 2.1 and Figure 2.2 illustrate modelled backwardation costs and contango benefits for a notional supplier. To calculate these figures, we compare the differences between a 6-2-12 index and a 6-2-6 index and the 3-1.5-12 index and the 3-1.5-3 index. The figures are the cost differences for each season for the 6-2-12 index or quarterly for the 3-1.5-12 index and do not include a deadband.

Table 2.1: Modelled backwardation costs and contango benefits for a notional supplier over cap periods one through seven (£/customer/year) (prices as of 19 July 2022, benchmark consumption values)

6-2-12 [6]		3-1.5-12 [3]	
Winter 2018-19 (Oct 2018 - Mar 2019)	-20	Q4'18 (Oct - Dec 2018)	N/A
		Q1'19 (Jan - Mar 2019)	-18
Summer 2019 (Apr - Sept 2019)	12	Q2'19 (Apr - Jun 2019)	8
		Q3'19 (Jul - Sept 2019)	10
Winter 2019-20 (Oct 2019 - Mar 2020)	-15	Q4'19 (Oct - Dec 2019)	4
		Q1'20 (Jan - Mar 2020)	-7
Summer 2020 (Apr - Sept 2020)	16	Q2'20 (Apr - Jun 2020)	12
		Q3'20 (Jul - Sept 2020)	10
Winter 2020-21 (Oct 2020 - Mar 2021)	-7	Q4'20 (Oct - Dec 2020)	5
		Q1'21 (Jan - Mar 2021)	-9
Summer 2021 (Apr - Sept 2021)	14	Q2'21 (Apr - Jun 2021)	7
		Q3'21 (Jul - Sept 2021)	5
Winter 2021-22 (Oct 2021 - Mar 2022)	-37	Q4'21 (Oct - Dec 2021)	-25
		Q1'22 (Jan - Mar 2022)	-162
Summer 2022 (Apr - Sept 2022)	12	Q2'22 (Apr - Jun 2022)	8
		Q3'22 (Jul - Sept 2022)	-10

Note: a negative number denotes a backwardation cost and a positive number denotes a contango benefit. Benchmark consumption values are 3,100kWh for electricity and 12,000 kWh for gas.

Figure 2.2: Modelled backwardation costs and contango benefits for a notional supplier over cap periods one through ten under the 3-1.5-12 [3] indexation approach (£/customer/year) (prices as of 19 July 2022, benchmark consumption values)



Bar graph of the quarterly levels of backwardation and contango since 2019. Backwardation costs are shown as negative values and contango benefits are shown as positive values. Orange bars indicate projected values.

2.22. Given the scale of the modelled backwardation costs and that these costs are unlikely to be recovered in a reasonable timeframe, the current approach is no longer sufficient. These are genuine costs faced by suppliers and if they are not recovered there could be further and significant financial pressure on an already strained supply market.[21]

A new approach is needed

2.23. We have considered responses to our May 2022 statutory consultation and other supporting evidence, such as consumer research and analysis of supplier financial stress-

[21] Our assessment of costs and whether they are accounted for in the wholesale methodology has been taken in this particular context and is not an indication of our approach to potentially similar issues in future.

test information. We have decided to make the following changes to the wholesale methodology to address volume risks and backwardation costs:

- **Change in methodology**: we have decided to update the cap every quarter to reduce volume risk within the market.

- **Reduced notice period**: we have decided to reduce the current notice period to 30 working days to further minimise volume risks for suppliers and customers. This is split by five working days for Ofgem to calculate and publish the new cap level and 25 working days for customer notifications and to implement the new price level.

- **Updating the wholesale cost methodology to include a backwardation element**: we have decided to enable suppliers to recover backwardation costs through an ex-ante mechanism. We have set a six-month recovery period for backwardation costs.

2.24. We are taking these decisions in context of the current market situation and shouldn't be considered to set precedent or mean that we'll necessarily consider similar interventions in consumer interests in the future.

3. Wholesale methodology – Updating the cap

Section summary

In this chapter, we outline our decision to update the cap every quarter. We detail our consideration of the stakeholder responses we received regarding this option.

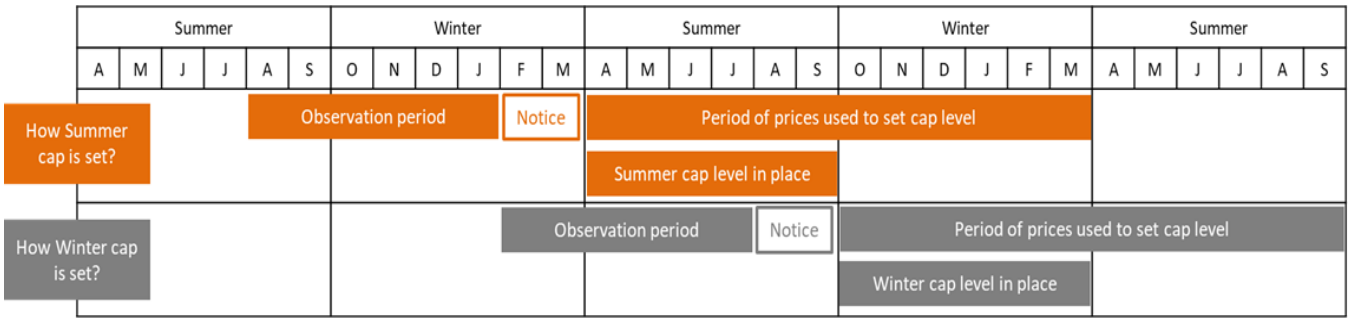
Context

Current Approach

3.1. Prior to this update, the cap wholesale methodology operated using a 6-2-12 [6] index (we show this approach in Figure 3.1):

- a *6* month "observation period": the wholesale allowance is calculated as the average of daily wholesale prices for each trading day in the observation period (for forward contracts for the "forward view period").
- a *2* month "notice period": the lag between the end of the observation period and start of the cap period.
- a *12* month "forward view period": the wholesale allowance observes contracts for delivery in the period from the start to the end of the cap period.
- a *[6]* month cap period, the frequency the cap is updated.

Figure 3.1 – Cap methodology and timing prior to decision to update



Graphic showing the six-month observation period, followed by two-month delay for setting the next price cap and notifying customers, followed by a six-month price cap period.

3.2. To date the cap level has been updated on 1 April and 1 October each year, which aligns with the seasonal energy products available in wholesale energy markets. We

announced the cap levels by the fifth working day of February and August for the April and October cap periods respectively.

3.3. At each update point, the cap level was increased or decreased to reflect changes in the underlying costs of supplying energy. Twice-yearly changes reflect how suppliers generally updated default tariffs in the years before the cap was in place and provided customers with more stable prices than the day-to-day market movements.

May 2022 Consultation

3.4. In the May 2022 consultation, we put forward a number of related proposals with regards to updating the cap:

- **Quarterly updates**: a three-month cap, with a three-month observation period, a 1.5-month (30 working day) notice period, and a 12-month forward view period (3-1.5-12 [3]).

- **Transition to quarterly updates**: To consider the amount of energy a nominal supplier will have purchased if following the current price indexation guidance when transitioning to quarterly updates, we proposed to calculate the transitional cap levels based on a nominal supplier which purchased energy under the current approach until 1 June 2022. They then transitioned to the 3-1.5-12 [3] approach from 6 June 2022.[22]

- **Updating other cost components**: Alongside wholesale costs, the cap consists of other components. We currently update all costs twice-yearly but propose to carry out an update for some components quarterly with the move to quarterly price cap updates.

Our decision – quarterly updates

Updating the cap quarterly

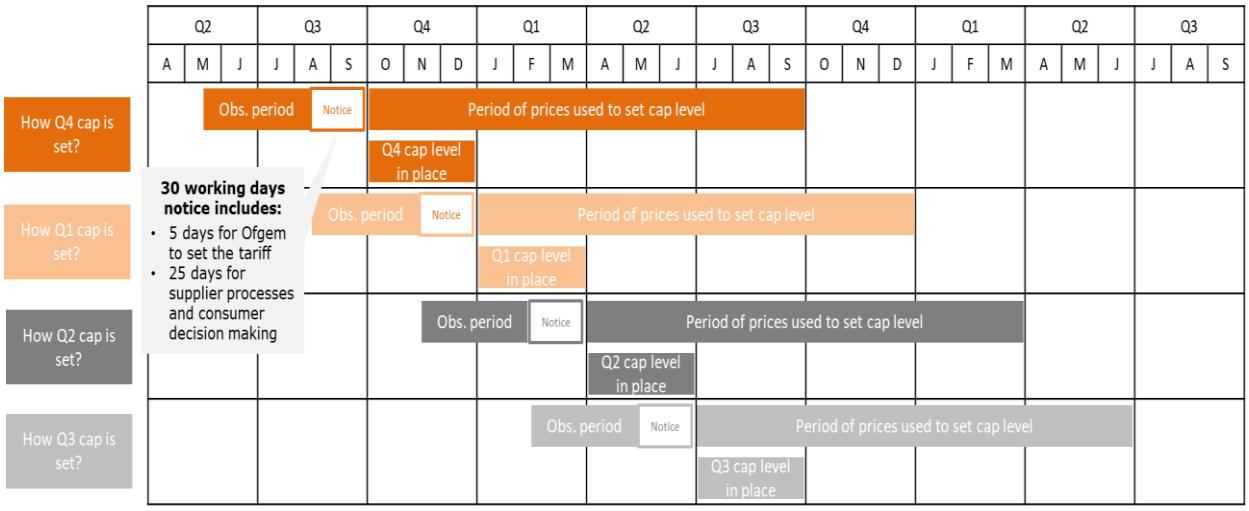
3.5. We have decided to introduce quarterly updates using a 3-1.5-12 [3] index: a three-month observation period; 30 working days (1.5 months) lag between the end of the

[22] Note the days 01 June 2022 and 06 2022 June are non-trading days because of the weekend and bank holidays. This drives the pause in observing prices.

observation period and the start of the cap period; twelve-month forward view period and a three-month cap period.

3.6. Under this approach, there is a total of 30 working days between the end of the observation period and the start of the cap period. The first five working days are used for Ofgem to update the cap and publishing the level. We will announce the new cap level 25 working days before the start of the relevant cap period to allow time for suppliers to update systems and for customers to consider the change. We illustrate this in Figure 3.2 In addition, we set out the future cap period and cap announcement dates in Table 3.1.

Figure 3.2: Quarterly update structure



Graphic showing the quarterly update structure with a three-month observation period, followed by five working days for Ofgem to set the tariff, 25 working days for customer notifications, a 12-month price reference period and then a three-month price cap period.

Table 3.1 – Cap period and announcement dates

Price Cap	Period	Cap announcement	Start of observation	End of observation
9a (transitional)	01/10/2022 – 31/12/2022	26/08/2022	01/02/2022 (7-1-12 [6]) 06/06/2022 (3-1.5-12 [3])	01/06/2022 (7-1-12 [6]) 18/08/2022 (3-1.5-12 [3])
9b (transitional)	01/01/2023 – 31/03/2023	24/11/2022	01/02/2022 (7-1-12 [6]) 19/08/2022 (3-1.5-12 [3])	01/06/2022 (7-1-12 [6]) 16/11/2022 (3-1.5-12 [3])

10a	01/04/2023 – 30/06/2023	27/02/2023	17/11/2022	17/02/2023
10b	01/07/2023 – 30/09/2023	26/05/2023	20/02/2023	18/05/2023
11a	01/10/2023 – 31/12/2023	25/08/2023	19/05/2023	17/08/2023

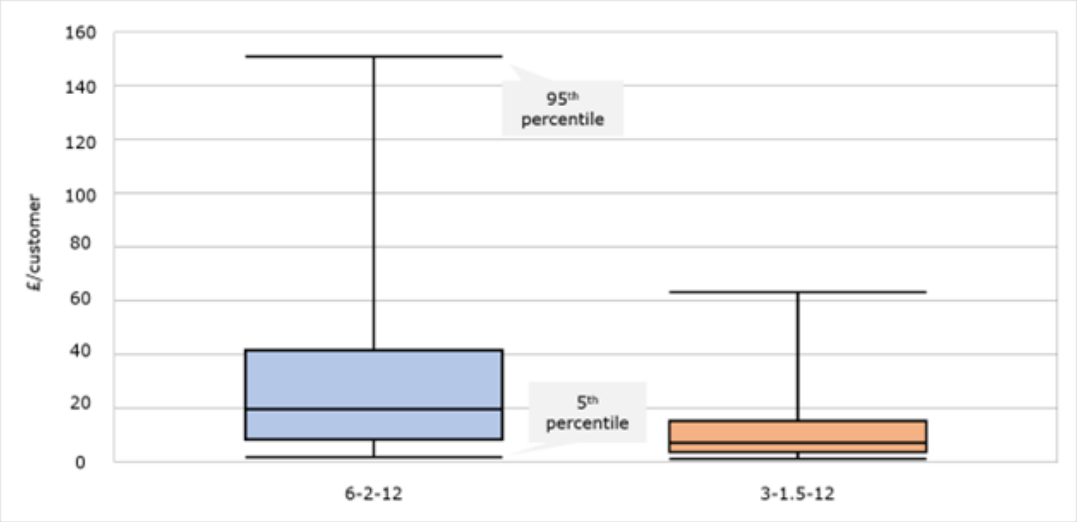
3.7. The decision to increase the frequency of cap updates presents challenges – we seek a balance between increasing market stability (reducing the risk and cost of supplier failure) and increasing volatility for customers. We consider quarterly updates provides this balance as it reduces the risk of supplier exit and associated costs to customers while allowing reductions in wholesale prices to flow through to customers sooner. Furthermore, once the transition to quarterly cap updates is complete (at the start of cap period 10a, which runs from April to July 2023), we consider that the risk for further adjustments for unexpected standard variable tariff demand (such as the one we have announced alongside this decision) will greatly reduce. However, we acknowledge it is likely that customers will face an increase in price this winter. Customers would face even higher costs as a result of additional supplier failures which are more likely without these changes.

3.8. Out of the options we consulted on, quarterly updates present the best overarching outcome between reducing volume risk, operational practicality and customer experience.

3.9. Moving to quarterly updates reduces the cost and range of potential volume risk. Based on our initial analysis presented in our May 2022 consultation and shown in Figure 3.3, the 95th percentile of volume risk significantly decreases when moving from the status quo to quarterly updates and a shorter notice period. Average volume risk is reduced by 60% when compared to a six-monthly approach.[23]

[23] Using historic gas and electricity forward curves, we applied stochastic modelling to forecast a wide range of potential price paths (we ran 5,000 simulations). This gives us a distribution of forward curves starting from the current wholesale prices. To calculate volume risk, we modelled the cap level and the market price. Where these differ, we applied price elasticities to make assumptions on the number of customers who switch and calculate the impact of hedging unexpected demand from gaining customers and revenue losses from losing customers. Volume risk is captured as a cost so does not go below zero.

Figure 3.3 – Distribution of volume risk by index approach (May 2022)

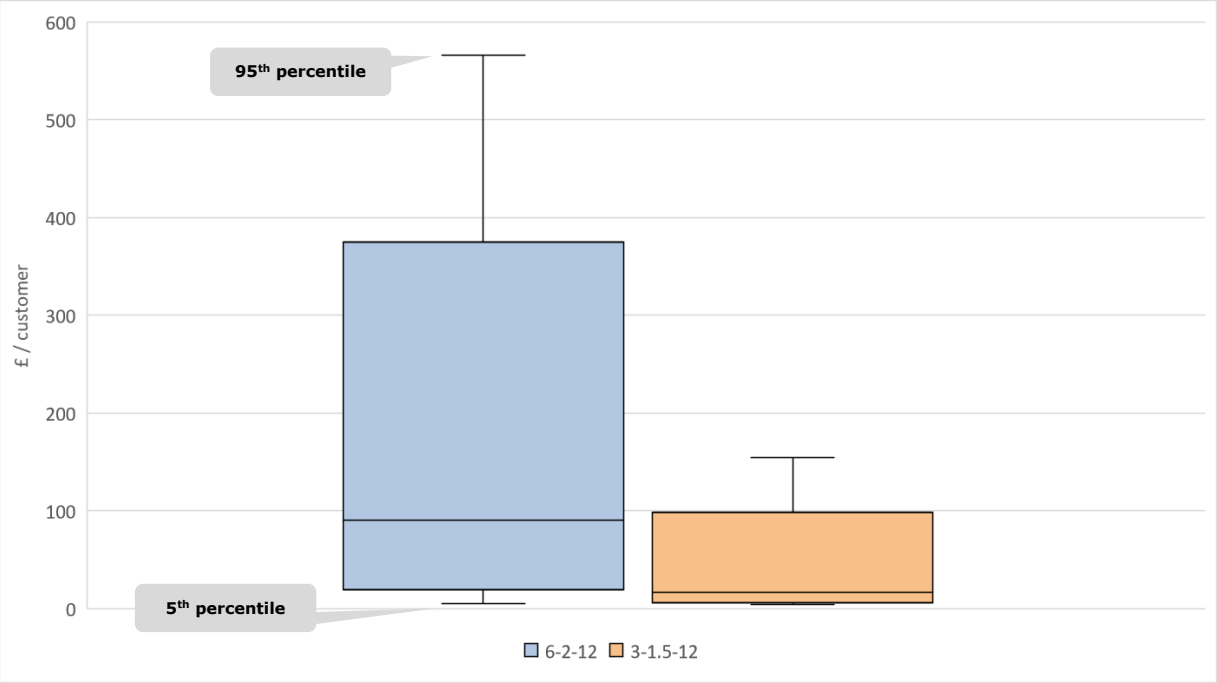


Box plot chart of the distribution of volume risk, showing the much smaller volume risk than in Figure 3.4. Figure 3.3 shows a smaller distributional range when a 3-1.5-12 [3] indexation methodology is employed compared to the status quo of 6-2-12 [6]. Boxes indicate the interquartile range and median, with the lines above and below the boxes representing the 95th and 5th percentile respectively.

3.10. Figure 3.4 shows that updating this analysis in July 2022, volume risk is much larger as a £/customer figure under both a 6-2-12 [6] and 3-1.5-12 [3] indexation approach as wholesale prices and volatility have continued to increase since our May consultation. There is also a larger average percentage decrease in volume risk, 74%, from moving to quarterly updates and a shorter notice period compared to our previous findings. This reinforces the argument that this change is required now, especially over a winter period where we can expect this level of high and volatile prices to be maintained.[24]

[24] Note, our modelling calculates the cost of volume risk in a rising or falling market for each price simulation. The percentiles shown in Figures 3.3 and 3.4 are calculated using the 5000 simulations in each model run. The model is agnostic to the number of customers on the cap. It calculates an implied switching rate (% of customer that switch) given the price elasticity assumption.

Figure 3.4 – Distribution of volume risk by index approach (July 2022)



Box plot chart of the distribution of volume risk, showing the much larger volume risk than in Figure 3.3. Like Figure 3.3, Figure 3.4 shows a smaller distributional range when a 3-1.5-12 indexation methodology is employed compared to the status quo of 6-2-12.

3.11. We set the cap index using a twelve-month forward view period to retain seasonal smoothing in the index calculation. As outlined in chapter 5, we have reduced the recovery period of backwardation from twelve to six months. We acknowledge this introduces more seasonality into the cap by increasing prices over winter from higher backwardation costs and lowers the level of cost spread over summer. However, this was a decision informed by our analysis of the wholesale market and supplier financial stability, to support the transition to a more resilient financial framework. Market resilience reduces the risk of supplier exit and the cost of supplier failure on customers in future.

3.12. In future, should the market return to historical prices and volatility, we would expect any costs to be much lower and the deadband will still work to apply seasonal smoothing. We have retained a seasonally smoothed index should we decide to change our approach to backwardation cost recovery in future.

Transition to the quarterly updates

3.13. We consider the amount of energy a nominal supplier will have purchased if they follow the price indexation guidance letters on transitioning to quarterly updates. We recognise that each supplier makes its own commercial hedging decisions, but we consider a nominal supplier here.

3.14. The observation period to set the wholesale allowance for the cap period starting October 2022 began in February 2022 under the current approach. In March 2022, we also provided additional price indexation guidance letter[25], which set out a move from the current 6-2-12 [6] approach to a non-linear 7-1-12 [6] approach. We then published an updated price indexation guidance letter[26] alongside our statutory consultation in May 2022.

3.15. The May price indexation guidance letter set out how we proposed to calculate the index for quarterly updates and when we would expect a nominal supplier to change its purchasing behaviour. We set out our intention to calculate the transitional cap levels based on a nominal supplier which purchases energy under the 7-1-12 [6] approach until 1 June 2022 and transitions to the 3-1-12 [3] approach from 6 June 2022 to fill the remainder of volumes (50% of volumes remaining) for the quarterly October 2022 and January 2023 cap periods (as per Table 3.1).

3.16. Following feedback from stakeholders and our review process, we have made minor technical changes to the transitional weights. We make these changes on a forward-looking basis, to allow suppliers to change their hedging approach if required. However, given the transitional weights are based on average demand profiles, we do not think the change will impact any supplier purchasing decisions as we expect them to purchase to their own demand profiles. We provide further detail of our transitional approach and these updates in Appendix 1.

Updating the other cost components

3.17. Alongside wholesale costs, the cap consists of other components. These can be split between costs we recalculate (eg network costs), costs we index by CPIH (consumer price index including housing costs) (eg operating costs) and percentage allowances (eg headroom).

[25] Ofgem (2022), Updated guidance on treatment of price indexation in future default tariff cap proposals https://www.ofgem.gov.uk/sites/default/files/2022-03/Updated%20guidance%20on%20treatment%20of%20price%20indexation%20in%20future%20cap%20proposals1647277779834.pdf

[26] Ofgem (2022), Updated Guidance Treatment for Price Indexation in the Future Default Tariff Cap https://www.ofgem.gov.uk/publications/price-cap-may-2022-updated-guidance-treatment-price-indexation-future-default-tariff-cap

3.18. We currently update all costs twice-yearly in April and October. However, when we move to quarterly updates, we will update for some components more frequently in July and January. In Table 3.2, we set out our decisions on which costs will be updated quarterly and which costs will be updated twice-yearly.

Table 3.2 - Decision on the full and interim cap updates

Component	Decision on update frequency	Rationale
Wholesale costs (Direct fuel and backwardation)	Jan, Apr, Jul, Oct	Our decision to move to quarterly updates relates largely to wholesale costs in the cap.
Capacity markets	Apr, Oct	Inputs for capacity markets are only updated twice-yearly.
Contracts for difference (CfD)	Jan, Apr, Jul, Oct	The input values for CfDs are available quarterly and relate to commodity costs. In line with our treatment of wholesale costs, we will update this cost quarterly.
Network costs	Apr, Oct	Network and policy costs are set using information published either twice-yearly or annually only.
Policy costs (excluding CfD)	Apr, Oct	
Operating costs	Apr, Oct	Operating costs are indexed by CPIH. We will maintain a twice-yearly update as any differences between quarterly and twice yearly would average out over time. This aligns with our methodology for updating smart meter costs in the SMNCC.
Smart meter net cost change (SMNCC)	Apr, Oct	
Payment method uplift	Flat element – Apr, Oct Percentage element – Jan, Apr, Jul, Oct	There are two components for payment method uplift – a flat component indexed by CPIH and a percentage. We will update the flat component twice-yearly in line with operating costs and update the percentage allowance quarterly as it mostly covers debt-related costs which scale with the cap level.

EBIT (earnings before interest and tax)	Jan, Apr, Jul, Oct	EBIT and headroom are calculated as percentages of the other cost components. We will update the £ value quarterly in line with changing wholesale costs.
Headroom	Jan, Apr, Jul, Oct	

3.19. To simplify the update process, we have decided to move CfD costs from Annex 4 – Policy cost model, to Annex 2 – wholesale cost model[27]. This will allow us to contain the wholesale costs and CfD costs that are updated quarterly within one annex and limit the number of changes we make to the models.

3.20. On 23 June 2022, we set out our decision on the CfD allowance methodology in the default tariff cap.[28] We have decided to update the input data quarterly to calculate the annualised expected levy payment. This decision does not affect the methodology published in our 23 June 2022 decision (the process for calculating and setting the CfD allowance). Rather, this decision determines how frequently the CfD allowance will be updated (quarterly).

3.21. We outline the consequential model changes of moving to quarterly updates in Appendix 2. This includes an overview of changes we have made to address errors identified by stakeholders.

Summary of stakeholder responses

3.22. 19 stakeholders responded to our consultation. Of these, 11 commented on the move to quarterly updates. In addition, we received around 20 emails directly from customers.

3.23. Six stakeholders agreed with our proposals to move to quarterly updates, noting the benefit in reducing volume risk, as the cap would better reflect wholesale costs, and the reduced cost to customers in the medium term. However, several suppliers, including those

[27] The Annex 2 and Annex 4 models are named such because they are annexes to the SLC28AD of the Gas and Electricity supply licence conditions.
[28] Ofgem (2022), Decision on amending the methodology for setting the Contracts for Difference (CfD) cap allowance https://www.ofgem.gov.uk/publications/decision-amending-methodology-setting-contracts-difference-cfd-cap-allowance

that generally supported the approach, raised concerns around the liquidity of quarterly contracts and the impact this may have on hedging behaviour and costs.

3.24. Four stakeholders disagreed with our proposals. Several consumer groups raised concerns around price volatility for customers and in particular the possibility of price increases in January, both in general and specifically for January 2023. There were also concerns around the impact that the uncertainty of the direction and scale of the winter cap update has on budgeting, the risk of self-rationing and disconnection for prepayment meter (PPM) customers, and particular impacts on vulnerable customers.

3.25. One supplier and several consumer groups requested we delay implementation of quarterly updates until April 2023, to provide price certainty to customers over the winter period.

3.26. Several stakeholders said they were in favour of alternative approaches that we had considered but discounted in our May 2022 statutory consultation. We provided our reasons for discounting these options in Appendix 1 of our May 2022 consultation.[29] For example, a tri-annual update (set using 4-1-12 index approach) was suggested as a method to reduce volume risk, while subjecting customers to fewer price changes than a quarterly approach. We did not pursue this option on the basis that less frequent cap updates means this option provides less mitigation for volume risk. In addition to this, the tri-annual indexation approach does not align with traded wholesale products and so could be more costly for customers.

Considerations

Customer impacts

Financial impacts

3.27. The requirement for a cap is set out in legislation. The Domestic Gas and Electricity (Tariff Cap) Act 2018 ('Act') requires us to put in place and maintain the licence conditions which give effect to the cap. In setting the cap, the objective is to protect existing and future customers who pay default rates and in doing so, we must have regard to a number of matters, including the ability for an efficient licence holder to finance its activities. When

[29] Ofgem (2022), Statutory consultation on changes to the wholesale methodology https://www.ofgem.gov.uk/publications/price-cap-statutory-consultation-changes-wholesale-methodology

setting the cap, we are limited to setting one cap across all suppliers (although we can make different provisions for different areas or different cases – eg a separate cap level for direct debit and PPM customers).

3.28. In setting out our policy decisions and applying our discretion, we have been particularly mindful of the trade-offs between customers' interests in minimising the impact of increased wholesale prices and their interests in reducing the risk of further supplier failures and the significant cost that generates. While we are not specifically required to carry out an impact assessment under the Act (in contrast to the requirements in the Electricity Act 1989 and Gas Act 1986), we conducted an extensive impact and equalities assessment when the cap was originally established.[30]

3.29. For this decision, we have gathered evidence on experiences and impacts of customers, including vulnerable and protected groups. We have done this through several methods including detailed engagement with consumer groups, consumer research via our consumer panel and the general public consultations we published in February 2022 and May 2022 (which sought input on our proposals and covered our analysis of distributional impacts).

3.30. In our May 2022 statutory consultation and distributional impacts publication, we set out the bill impacts on customers when comparing the current six-monthly approach (6-2-12 [6]) to the quarterly approach (3-1.5-12 [3]), based on wholesale forward prices at the time. Our analysis at the time suggested that the move to quarterly updates would generate a cost saving for customers over the year (approximately £44 on average). The benefit was greater for those in lower income deciles when considering the equity weighted savings.

3.31. Since we ran our analysis in May 2022, energy prices have continued to increase. The quarterly approach reflects the higher commodity costs we are currently observing compared to the current six-monthly approach (6-2-12 [6]). For Q4 2022, this means the cap will include more recent wholesale prices given the shorter notice period than would be the case under the current approach. For Q1 2023, the cap will reflect prevailing market

[30]Ofgem (2018), Default tariff cap: decision – overview, Appendix 11
https://www.ofgem.gov.uk/publications/default-tariff-cap-decision-overview

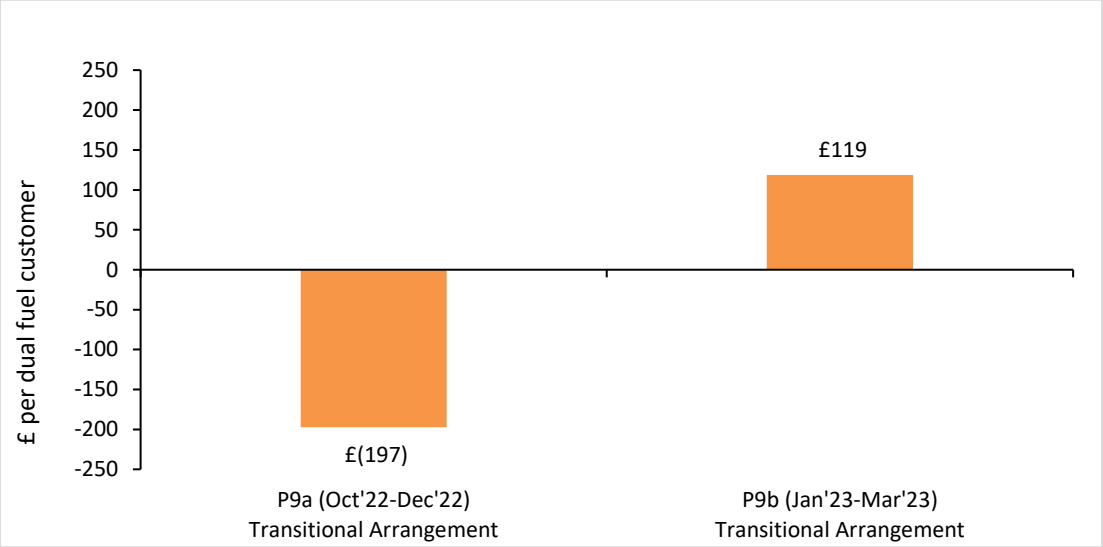
wholesale prices, which reduces volume risk – the primary aim of the move to quarterly updates.

3.32. Our previous analysis compared the new 3-1.5-12 [3] to the 6-2-12 [6] approach that is being replaced. We are currently in a transitional phase in anticipation of the policy we are confirming in this document. We have provided price indexation guidance to suppliers setting out how we will calculate the wholesale cost index. Therefore, we'd expect a nominal supplier following the cap index to have already changed their hedging behaviour. We do not think it would be reasonable in these circumstances to simply return to the current six-monthly approach (6-2-12 [6]) but would instead have to set a transition path back to six-monthly updates.[31] We consider the transition approach would be more akin to a 7-1-12 [6] approach. We do not consider 6-2-12 [6] index is a valid counter-factual to our policy given the current position of the market.

3.33. Our analysis of current forward wholesale prices (as of 19 July 2022) suggests that proceeding with the quarterly approach is on average similar, if not slightly cheaper than transitioning back to a six-monthly approach over the coming winter. Figure 3.5 shows that compared to the counter-factual of 7-1-12 [6], the quarterly approach (with transitional arrangements) is similar in cap level (averaged over winter), if not cheaper than the alternative six-monthly approach. The cap level for October 2022 – December 2023 is £197 lower under the quarterly approach and £119 higher over January 2023 – March 2023 compared to the counter-factual six-month approach (7-1-12 [6]). This means customers are not disadvantaged by the move to quarterly updates based on current prices.[32] The cost still reflects the underlying commodity cost a notional supplier would face given the indexation guidance we have provided and will continue to change until the end of the indexation period.

[31] We would have to consider a nominal supplier's energy purchases against our index guidance if we retained a six-monthly approach.
[32] The relative level between the 7-1-12 and 3-1.5-12 approaches is subject to changes in wholesale prices. The values presented here are prices as of 19 July 2022.

Figure 3.5 – Comparison of the quarterly index (with transitional arrangements) against a six-monthly transitional index (7-1-12 [6]). Prices as of 19 July 2022, benchmark consumption values.



Bar chart showing the projected difference in the level of the price cap for quarterly cap periods over winter 2022-23, with transitional arrangements and including backwardation cost recovery, compared to a six-monthly counter-factual index. Figure 3.5 shows that the first October-December 2022 quarterly cap price will be lower than the six-monthly alternative, while the January-March 2023 cap will be higher for a benchmark dual fuel customer.

3.34. As mentioned above, we do not consider the historical 6-2-12 [6] index to be a good counter-factual for a six-monthly approach. However, for completeness we consider the impact of our policy to move away from current index on bills. The 7-1-12 [6] transitional six-monthly index is £305 more expensive than the current 6-2-12 [6] index. This means that the quarterly transition index is also higher than the current approach over winter.

3.35. Overall, under stable market conditions, we do not expect the quarterly approach to be structurally higher or lower in cap level than the six-monthly approach. On balance, we consider proceeding with quarterly updates is the correct approach to provide market stability and reduce the risk of further supplier exit and the significant cost to customers it would bring. These mutualised costs can be significant – as an illustration, by December 2021 we had consented to Suppliers of Last Resort making initial levy claims totalling £1.83 billion.

3.36. We must set a single price cap to cover all suppliers. Although as a whole we are concerned about the financial stability of suppliers, we recognise there is a risk that the price cap at this level could result in some suppliers being in a relatively healthy cash

position. We will continue to monitor supplier finances closely, particularly as we are considering our financial resilience reforms and the timescales for their introduction. When reflecting on their cash position, suppliers should consider the potential impact of those future reforms, and their need to maintain cash surpluses before making any disbursements.

3.37. We are acutely aware of the negative effects which increasingly high energy prices have on all customers, particularly those less able to afford it and often also those from disadvantaged groups in society. We outline the measures we are currently working on and protections that are in place to assist customers over the coming winter.

Prices over winter

3.38. Quarterly updates will result in price changes in January each year. The period from January to the end of March is usually the quarter where household energy consumption is at its highest.

3.39. Most consumer group respondents and two energy suppliers raised concerns around potential price increases in winter and the impact this would have on customers.[33] They noted this would be a difficult time for customers as it follows the Christmas period, when finances are challenged. Our consumer research also highlighted this potential issue.[34]

3.40. In particular, there was concern for customers in vulnerable groups. One stakeholder suggested creating a separate price cap for vulnerable households.

3.41. One supplier and two consumer groups suggested that we should consider delaying the implementation of this decision until April 2023, to provide certainty in prices over the coming winter and reduce the possibility of an increase in January 2023.

3.42. We recognise that price increases over winter would be challenging for many customers, especially those in vulnerable situations. We outline the potential magnitude of these changes in the above section.

[33] This was echoed in the emails we received from customers.
[34] Ofgem (2022), Consumer attitudes towards price cap changes https://www.ofgem.gov.uk//publications/consumer-attitudes-towards-price-cap-changes

3.43. Government has announced several support measures including a £400 grant towards households' energy bills this autumn. All households with a domestic electricity connection will be automatically eligible. Additionally, a £150 non-repayable council tax rebate paid to households living in council tax bands A – D has been announced, with £144 million of discretionary funding for local authorities to support households who need it but are not eligible for the council tax reduction. Further support is available for those most in need,[35] this includes a:

- £650 one-off cost of living payment for around 8 million households on means tested benefits.
- £300 one-off pensioner cost of living payment for over 8 million pensioner households to be paid alongside the Winter Fuel Payment.
- £150 one-off disability cost of living payment for around six million people across the UK who receive certain disability benefits.
- £500 million increase and extension of the household support fund available to councils to support vulnerable households with the cost of essentials such as food, utilities and clothing.

3.44. We will continue working closely with our counterparts at the Department for Business, Energy and Industrial Strategy (BEIS) and HM Treasury (HMT) to input into these types of measures with updated cap level forecasts and to represent stakeholders' feedback received through our consultation process. Furthermore, we have consulted on the merits of moving the standing charge element of SoLR charges to a volumetric charge and are considering responses. This policy would reduce bills for lower-consuming customers and increase bills for users that consume more electricity. We are carefully considering the case for each approach, and in particular the impacts on vulnerable consumers.

3.45. Regarding protection of vulnerable customers, we remind suppliers that there is need for attention to be paid to standard licence condition (SLC) 27 of the supply licences - payments, security deposits, disconnections and final bills. Additionally, our Consumer Vulnerability Strategy highlights obligations of ascertaining customers' ability to pay,

[35] GOV.UK (2022), £400 energy bills discount to support households this winter https://www.gov.uk/government/news/400-energy-bills-discount-to-support-households-this-winter

ensuring payments are set to reasonable levels for the customers and using structures where possible to support customers with information and payment methods.

3.46. There are also SLCs that address and relate to ensuring that customers are aware of changes, and that they are appropriately encouraged and enabled to understand the impact of the changes and the options they have. These include the SLC 0 – Treating Domestic Customers Fairly; SLC 31F - Encouraging and enabling engagement, SLC 31G – Assistance and advice information, and SLC 31I – Contract changes information.

3.47. We have decided to implement quarterly updates from October 2022. We do not consider it beneficial for customers to delay implementation. Recent further increased volatility reinforces the need to move to quarterly updates as quickly as possible, as volume risk, and the costs associated with it, continue to rise. Without intervention, average volume risk has increased from £45 to £243 (between May and July 2022) following our statutory consultation, and intervention reduces this to £64. Delaying our decisions may result in further supplier failure over winter, creating a significant cost increase for customers, through the costs driven by SoLR and special administration regime processes. This would potentially add further stress to customers, and particularly vulnerable customers, over the period as they are moved supplier.

Increased volatility

3.48. Several stakeholders cited that there will be more frequent changes in price, and therefore greater volatility for customers. This could lead to difficulties for customers in terms of budgeting and forecasting expenditure.

3.49. The observation period and cap period for quarterly updates will be three months, which is shorter than the six-month observation period and cap period under the current approach. This has two impacts for customers: firstly, there are fewer data points to smooth changes in prices over, which could lead to more volatility in the price movements. Secondly, there will be a greater frequency of price cap updates for customers. The introduction of backwardation cost recovery will also have an impact on price cap volatility: this is discussed further in chapter 5.

3.50. Our consumer research found that customers want as much stability and certainty around the number of price changes and the impact of these, so they can budget accordingly.[36]

3.51. We recognise this concern expressed by stakeholders that the potential volatility of price changes is a consequence of the move to quarterly updates. However, quarterly updates are, in our opinion, the best option for customers, supporting customer interests in the near- and long-term by reducing the likelihood of supplier failure, the costs of which are passed on to customers. We will monitor customer experiences under the more frequently updated cap and take this into account in our future evaluation of the policy change.

Customer engagement fatigue

3.52. One supplier said that the increased notifications from the move to quarterly updates may result in customer engagement fatigue.

3.53. While we acknowledge the potential trade-off between increased notifications and customer engagement fatigue, we do not consider this to currently be an issue given the market conditions and the impacts it is having on customers. When the market stabilises, we note that only those on default tariffs (who tend to be disengaged) would receive more notifications. Quarterly notifications may in fact help to prompt engagement for these customers, in part by increasing the chance that any one communication falls at the right time for customers to consider their options.

Supplier wholesale impacts

Liquidity concerns

3.54. The change to quarterly updates will lead to changes in the electricity index component contracts required ie the use of quarterly products for electricity. Several suppliers and one other stakeholder raised concerns around the liquidity of quarterly products for electricity. They said that, with low quarterly hedging product liquidity, suppliers may be forced to adopt riskier hedging strategies to mitigate the cost impacts. One stakeholder mentioned the difference in impact for suppliers who are vertically integrated and have better access to the wholesale market as compared to those who are not. It said that up to 40% of consumers could be affected by their suppliers being unable

[36] Ofgem (2022), Consumer attitudes towards price cap changes https://www.ofgem.gov.uk//publications/consumer-attitudes-towards-price-cap-changes

to hedge appropriately for a quarterly cap. The same supplier also suggested that potential solutions could include revisiting a market making obligation (MMO) or alternatives such as auctioning out MMO.

3.55. Liquidity has been lower in recent months due to the global pressures on energy supplies caused by the pandemic bounce-back and the geopolitical situation. We understand this presents some challenges for suppliers.

3.56. The use of quarterly products is necessary in order for the cap to reflect more recent forward prices (reducing the difference between the cap index and market prices) and reduce volume risk. We are still in a transitional stage of moving to quarterly updates - based on our price indexation guidance, a nominal supplier following this guidance will have only begun purchasing quarterly products since 6 June 2022. Changes in the market to reflect an increased demand for quarterly products will take time – we intend to monitor the situation.

3.57. We expect, following our decision to include backwardation costs in the wholesale methodology, suppliers who hedge to a 3-1.5-3 [3] index will minimise exposure to the combined impact of the 3-1.5-12 [3] index and backwardation. Liquidity is typically higher in the front two quarters. Additionally, suppliers will be best placed to use their own judgement as to how best to value and manage their risk exposure against the price cap index. We note that the shaping allowance currently reflects shaping from seasonal contracts to quarterly contracts for electricity, which may provide some relief to suppliers. We discuss shaping in the next section.

Shaping costs

3.58. Shaping costs refer to the cost of re-profiling contracts over longer time periods to shorter time periods, eg from seasons to quarters or from quarters to months. This process and the associated costs are a routine aspect of the hedging process, and as such an allowance for shaping costs needs to be applied to make the cap more reflective of a realistic hedging process.

3.59. Suppliers' shaping costs will vary from year to year and from quarter to quarter. Different suppliers will incur slightly different costs and the allowance attempts to produce a reasonable allowance for a reasonable shaping process. The allowance is set as a percentage adjustment to the direct fuel allowance.

3.60. As mentioned above, four stakeholders believe the cost of shaping will increase as suppliers may buy seasonal products to hedge the quarterly cap as a proxy, then seek to exchange the seasons for more granular products closer to delivery.

3.61. We do not intend to update the shaping allowance at this stage. We expect, all else being equal, that moving from six monthly to quarterly updates will slightly reduce the shaping cost for electricity if there is sufficient liquidity to trade in quarters where required. However, we acknowledge that the absolute magnitude of prices has dramatically increased since the data was last updated. Given that shaping is a second order effect in comparison with absolute price levels, we consider that applying a percentage will remain broadly appropriate.

3.62. We also expect that margin requirements, both initial and variation, will be greatly reduced by the move to quarterly products.[37] Hedging on a 3-1.5-3 [3] basis requires only holding approximately half the energy position as hedging on a 6-2-6 [6] basis. Even after accounting for the fact that nearer-term products tend to have greater volatility than longer-term products, we expect this to significantly reduce margin requirements. Without the anticipated liquidity impact, we would expect shaping costs to be reduced with quarterly updates.

3.63. We do not expect shaping allowances to exactly match the costs incurred in any period – there will be an element of under and over-recovery as it is a volatile element of the cap. We made an adjustment in respect of the winter 2021 costs as there was an unexpected and material change in circumstances. We do not have evidence of an ongoing over- or under-recovery, although an update of the 2018 model did suggest a divergence between gas (over-recovery) and electricity (under-recovery) which broadly balanced out.

3.64. We acknowledge that the shaping and imbalance allowance relied on data from 2018, which no longer reflects the current market conditions.[38] We will continue to monitor costs and welcome representations, but we will consider shaping costs in the round rather

[37] Initial margin is a type of collateral required to protect a party to a contract in the event of default by the other counterparty. Variation margin, another type of collateral, is paid daily from one side of the trade to the other, to reflect the current market value of the trade. This is a general description of these types of margins – margining requirements may differ where trades are bilateral.
[38] Ofgem (2018) Default tariff cap: decision – overview, Appendix 4 – Wholesale costs https://www.ofgem.gov.uk/publications/default-tariff-cap-decision-overview

than just in one period. We intend to consult on our forward work programme for the cap, which will cover our proposal on when we plan to review the wholesale allowances.

Transaction costs

3.65. We uplift the direct fuel allowance by an additional set percentage to reflect transaction costs, 0.4% for electricity and 0.3% for gas. We will not update this allowance as part of the transition to quarterly updates as we believe it is not yet clear what, if any, adjustment is required.

3.66. Two supplier stakeholders highlighted potential impacts on transaction costs, but both noted the challenge of predicting how transaction costs will evolve over time. One supplier noted there could be an increase in transaction costs given the need to buy the quarterly front products if the current bid offer spreads remain at historical levels. It is possible that these spreads will fall given a market-wide uptake of quarterly products following the change in cap methodology.

3.67. Both stakeholders suggested that Ofgem should monitor the transaction costs incurred by suppliers. One supplier proposed that, if costs materially exceed the allowance in the cap, an ex-post adjustment should be implemented. For subsequent cap periods, Ofgem should have sufficient information to determine whether the ex-ante allowance in the cap should be adjusted.

3.68. It is possible that transaction costs will be offset by the benefits of lower volume risk and collateral requirements. One stakeholder thought that the reduction in collateral costs would be low compared to the higher transaction as collateral requirements depend on price and volatility.

3.69. In line with our position on shaping costs, we will continue to monitor costs and welcome any representations. We will consider an update of the allowance for transaction costs alongside any updates to the shaping cost allowance.

Supplier operational impacts

Impact on operational costs

3.70. Four suppliers raised concerns about the impact of quarterly updates on operational costs. Three expect costs associated with customer communications will rise due to the increase in frequency of cap updates, with two stressing that there is uncertainty on the exact impact. Three mentioned that Ofgem should consider adjusting the operational cost

allowance to reflect the cost increase. Two suppliers disagreed that the headroom allowance and reduction in risk will provide relief to increasing operational costs. Their view was that headroom is already used to absorb other costs, may fall in line with commodity costs, and that the reduction in risk from our proposals is uncertain.

3.71. Implementing quarterly updates may increase operational costs due to rising communications between suppliers and customers. However, it is difficult to disentangle the impacts of the increase in frequency of cap updates from broader operational costs. This is particularly the case while we transition to quarterly cap updates and suppliers make changes to their processes. Making an adjustment for increased operational costs at this stage would risk disadvantaging customers where suppliers make cost savings in other areas of their operating costs and are not considered in the round. Therefore, once we have transitioned to quarterly updates and there is more certainty on the impact, we will consider whether any adjustment is appropriate as part of a comprehensive review of operating costs. We intend to consult on our forward work program for the cap which will set out our timings for this review.

Implications for compliance assessment and tariff & customer account RFI

3.72. For the purposes of assessing compliance with the price cap, suppliers are required to submit a response to the tariff and customer account RFI (request for information). This RFI includes two datasets that provide a detailed breakdown of customer account information by payment, fuel, types and tariff prices. Currently this information is requested every six months, in line with the price cap update frequency.

3.73. One supplier raised concerns that collecting this information on a quarterly basis, as opposed to the current six-monthly basis, would put a burden on suppliers and increase operating costs. It suggested that if Ofgem decides to implement quarterly RFI requests, the scope and requirements should be revised.

3.74. It is of paramount importance we continue to have sufficient information to allow us to assess compliance with the price cap. However, we are mindful of the need to reduce the unnecessary regulatory burden placed on suppliers where possible. We have decided to limit the information we request from suppliers on a quarterly basis. For the tariff and customer account RFI, we expect suppliers to only submit the tariff dataset on a quarterly basis. Suppliers will no longer be required to submit the customer match dataset through this RFI. The customer match dataset was primarily used to determine the number of dual fuel customers for wider retail monitoring purposes. The number of dual fuel customers is now being requested as part of the Financial Responsibility Principle RFI. To note, this does

not result in a reduction of information required to carry out analysis when making changes to the cap.

3.75. The tariff and customer account RFI will be sent on the usual six-monthly basis (mid-March and mid-September) and include two submission deadlines (for charge restriction periods A and B). As per the current process, the quarterly RFI responses will be due approximately one month after each charge restriction period starts. For example, the tariff and customer account RFI for cap period nine will be issued in mid-September requesting both 1) a response due late October 2022 with respect to cap period 9a (for prices as at 1 October 2022) and 2) a response due late January 2023 with respect to cap period 9b (for prices as at 1 January 2023).

3.76. To enable us to assess compliance, suppliers are also required to routinely engage with Ofgem where a multi-register metering arrangement tariff other than Economy 7 is offered. Suppliers must advise of the associated changes to the assumed consumption split[39] (ACS) between each rate to enable us to assess compliance for that tariff as per SLC 28AD.36. Suppliers are required to provide this information no less than three months before the relevant charge restriction period as per SLC 28AD.37 (separate to the tariff and customer account RFI).

3.77. To reduce the regulatory burden on suppliers, we no longer expect suppliers to continue providing their ACS as per SLC 28AD.36 and SLC 28AD.37 no less than three months before the relevant charge restriction period. We will continue to request information regarding ACS through the tariff and customer account RFI (requested under SLC 5).

3.78. As we did not explicitly consult on the change to remove the requirements set out above (with respect to SLC 28AD.36 – 37) we have not reflected this change in the revised licence condition wording but will do so in the future. However, we would like to remind all suppliers that they must include all relevant ACS information for multi-register metering arrangement tariffs in their tariff and customer account RFI submission, where applicable.

[39] Assumed Consumption Splits are estimates of the proportion of the consumption of customers with different meter types that will take place in peak and off-peak periods.

Other considerations

Policy decision review

3.79. One supplier said that Ofgem should commit to a formal review of the quarterly price cap policy in a holistic way. It said Ofgem should complete a further review of the most appropriate enduring price cap design within 12 months of introducing the policy.

3.80. We intend to review the decisions outlined in this document once we have fully transitioned to quarterly updates and enough time has passed to assess the impacts the policy has had on customers and the market. We expect a review of the policy would include considerations of the impact of moving to quarterly updates and reducing the notice period on customers, liquidity in the market and recovering backwardation over six months on customers and suppliers.

3.81. We will consult on the timings for this review as part of our upcoming consultation on our forward work plan for the cap.

Licence condition changes

3.82. Alongside our May 2022 consultation, we also published a draft licence modification notice that outlined the changes we proposed to SLC 28AD of the gas and electricity supplier licences to implement our policy proposals. One supplier commented on our proposed licence changes. It outlined that we had not captured the new definitions of charge restriction periods in SLC 28AD.11 of the electricity licence and SLC 28AD.10 of the gas licence, which set out the update procedure for CPIH in the cap.

3.83. We have published an updated licence modification notice in which we have aligned all uses of charge restriction periods to the new set of definitions, including for the text captured in the supplier comment above.

Annex 2 model changes

3.84. Following our publication of the draft Annex 2 – wholesale methodology model in May 2022 alongside our consultation,[40] several stakeholders raised issues regarding the model to us. These included issues such as reference errors and labelling issues, as well as

[40] Ofgem (2022), Price cap - Statutory consultation on changes to the wholesale methodology https://www.ofgem.gov.uk/publications/price-cap-statutory-consultation-changes-wholesale-methodology

a methodological change to the transitional arrangement weights. Following a round of changes, we republished the model on 26 May 2022.

3.85. Alongside this decision, we have published an updated Annex 2 model. This model reflects our policy decisions and addresses any remaining modelling issues. The model has been through our modelling QA framework for business-critical models, this is in line with the Macpherson Report.[41]

3.86. It is worth noting that industry input data is still subject to change up until we announce cap level for period 9a on 26 August 2022.

[41] HM Treasury (2013), Review of Quality Assurance of Government analytical models https://www.gov.uk/government/publications/review-of-quality-assurance-of-government-models

4. Wholesale methodology – Reducing the notice period

Section summary

In this chapter, we outline our decision to reduce the notice period. We have decided to reduce the notice period from two months to 25 working days (30 working days from the end of the observation period: five working days for Ofgem to update the cap and 25 working days for to update systems and inform customers). We detail our consideration of the stakeholder responses we received regarding this option.

Context

4.1. The notice period has two purposes: firstly, it gives suppliers and industry time to operationalise the new cap level. In this time, they update their systems and send notifications to customers. Secondly, it gives customers time to consider their options based on any price changes they face and take any potential action.

4.2. When setting the notice period, there is a trade-off between including more recent wholesale prices in the allowance and providing more notice to suppliers and customers. It is essentially a trade-off between the process of implementing the changes and reducing the volume risk.

4.3. Using wholesale prices with a greater lag increases the chance that they will be less reflective of the wholesale price at the time of delivery. Reducing the notice period, reduces the potential likelihood and extent to which wholesale market prices can diverge from the price used to set the cap level.

4.4. To date the cap has been set every six months, in February and August. The supply licences set out that Ofgem must determine the cap level no later than the fifth working day of February and August for the caps beginning in April and October respectively. This provides approximately two months' notice of the cap level before it comes into effect.

May 2022 Consultation

4.5. In our May 2022 consultation[42], we proposed to shorten the notice period from approximately two months to 25 working days. In addition, we proposed to retain five working days to calculate and publish the updated cap level, meaning there is a 30-working day delay between the observation period closing and the cap period coming into effect. This was an increase on our February 2022 consultation proposal of 28 calendar days (after ruling out 21 and 14 calendar days).

Our decision

4.6. We have decided to shorten the notice period from approximately two months to 25 working days. In addition, we retain five working days to calculate and publish the updated cap level, meaning there is a 30-working day delay between the observation period closing and the cap period coming into effect. Our decision is solely described in working days and not calendar days. We recognise that while we express the notice period in working days, activity that suppliers and others will take will not be confined to working days.[43]

4.7. We consider that the reduction in the notice period requires challenging but achievable increases in speed for implementing the changes and notifying customers, without requiring fundamental changes to systems and processes. Based on our discussions with suppliers and industry - specifically those involved in updating prepayment meter (PPM) infrastructure, a 25-working day notice period will give enough time for suppliers to update their systems and provide enough notice for customers to consider their options around the price change (with the go-live of faster switching making the process for customers easier).

4.8. The reduction in notice period allows us to incorporate more current price data into our calculation of the wholesale cost allowance. This in aggregate with the move to quarterly updates reduces the volume risk suppliers face by better aligning the wholesale allowance with energy prices at the time of delivery compared to the current approach. Our analysis (outlined in our May 2022 consultation) suggested that moving to quarterly updates reduces average volume risk from approximately £45 per customer over a year to

[42] Ofgem (2022), Statutory consultation on changes to the wholesale methodology. https://www.ofgem.gov.uk/publications/price-cap-statutory-consultation-changes-wholesale-methodology

[43] To note, other elements of our process are expressed in calendar days (eg the 28-day consultation period and 56-day standstill).

£22, reducing the notice period then further reduces average volume risk to £17. Our updated analysis in July 2022 (based on recent wholesale prices) suggests moving to quarterly updates reduces average volume risk from approximately £243 per customer over a year to £82, reducing the notice period reduces average volume risk to £64. As discussed in chapter 3, reducing volume risk will reduce the risk of supplier failure and the associated cost to customers.

Summary of stakeholder responses

4.9. Out of the 19 responses we received to our consultation, there were 13 responses from stakeholders on shortening the notice period. Of those respondents, seven were in favour of our proposal and three either disagreed or agreed with the premise of shortening the notice period but suggested a different length. The remaining three only raised concerns or suggestions.

4.10. Several stakeholders acknowledged the combined benefit of a shorter notice period and a quarterly update for customers and suppliers. However, both those who agreed and disagreed with our proposal raised concerns in respect of the challenges suppliers and customers would face with a shorter notice period.

4.11. Three stakeholders expressed concern regarding the time that would be available for customers, especially those that are more vulnerable, to respond to an increase in their costs and to get assistance.

4.12. Several stakeholders were concerned about the impact a shorter notice period would have on suppliers' processes and operational costs. These concerns included the interactions of the prescriptive rules around notification and customers' protection.

Considerations

Customer impacts

The impact of having less notice for decisions

4.13. Several stakeholders were concerned about the short period that customers, particularly those in vulnerable groups, would have to assess their position and engage with the market to decide before the price change is implemented.

4.14. One consumer group highlighted that vulnerable people often have less flexibility in their finances to manage increases in costs and the period proposed makes it difficult for

those in this demographic to balance their budgets or seek assistance such as benefit claims. Two consumer groups suggested that more should be done to identify vulnerable customers, so groups of vulnerable customers are better informed of the support available for them and are not overlooked.

4.15. The two suppliers mentioned above indicated that customers could end up receiving as little as two weeks' notice of a price change due to the time needed by suppliers to implement price changes after Ofgem's announcement and then issue a notification to customers. Both suppliers were concerned two weeks may not be enough for consumers to react to those changes.

4.16. Our consumer research found that consumers prefer to know about any changes to the price cap as soon as the information is available. A general announcement a month or more in advance was received as a positive option by participants. Participants also suggested the announcement should contain as much detail as possible[44].

4.17. We recognise the reduction in notice potentially gives customers less time than the current approach to act following a price change. We have sought to balance using current wholesale prices when setting the cap to reduce volume risk (and the risk of supplier failure) and the amount of notice provided to suppliers and customers. Following our engagement with industry, we consider our decision gives enough time for suppliers to update systems and notify customers.

4.18. To note, the number of working days is fewer than the number of calendar days. This means that after we announce the cap, 25 working days in advance of the cap level taking effect, consumers will have over a month's notice for foresight and response (eg we will announce the October cap in late-August). Additionally, we are considering whether we can provide forecasts of the cap on a regular basis to keep stakeholders and customers informed of the direction of upcoming cap updates. However, to note, a forecast would be inherently uncertain and would only show the average effect rather than be specific to a particular customer.

4.19. With regards to the treatment of vulnerable customers, we remind licence holders than the standards of conduct set out in the supplier licence conditions require licence

[44] Ofgem (2022), Consumer attitudes towards price cap changes https://www.ofgem.gov.uk//publications/consumer-attitudes-towards-price-cap-changes

holders to ensure vulnerable customers' needs are taken into account and they are communicated to in a way that suits their needs. An example of this may be to prioritise notifications for vulnerable customers to ensure they receive the maximum notice possible. Methods of identifying vulnerable customers is not in scope of this particular decision. However, we welcome any views from stakeholders to feed into relevant policy teams.

4.20. We will continue to review and monitor the impacts of wholesale methodology on suppliers and customers after the implementation of the decision set out in this document. As mentioned earlier in the document, we intend to review the policy in future once we have fully transitioned to quarterly updates and when enough time has passed to consider its impacts.

Supplier operational challenges

Length of notice period

4.21. Two suppliers raised concerns on the amount of time it takes to process cap updates for PPM customers, stating 25 working days was not enough time to affect a price change for PPMs, particularly legacy prepayment customers. One of those suppliers suggested Ofgem either engage with PPM infrastructure providers to improve the speed with which they can make these changes or implementing a six-week notice period.

4.22. We have engaged with suppliers and other industry participants, including PPM stakeholders, to confirm that 25 working days provides enough time to operationalise a cap update. Through this engagement most stakeholders have told us that this period is a reasonable amount of time for suppliers to update their systems and notify customers, and for customers to then consider their options. Regarding PPM customers, based on industry feedback it was clear that for customers with smart PPMs this is more than adequate time to update the system and notify the customers. We have also considered the extra process requirements for non-smart PPMs and customers who have these, which is the main reason we moved to 30 working days for the overall notice period from our initial proposal in our May 2022 consultation.

4.23. A few suppliers mentioned the impact on operational costs in combination with the move to quarterly updates. We have discussed our considerations of these points in chapter 3.

Balance of notice period

4.24. Two suppliers said that we should reduce the time allowed for Ofgem to calculate the new price cap given that a lot of its price setting can be calculated in advance. One of those suppliers suggested reducing this time down from five to three days, leaving an additional two days for suppliers for operations.

4.25. We consider that five days is a reasonable time for Ofgem's teams to check the calculations, prepare communications and respond to any unforeseen circumstances that may arise. Reducing the time available to Ofgem may increase the risk of error in setting the cap level and lead to a material impact on suppliers and customers.

Prescribed rules and CTM

4.26. Two stakeholders expressed concerns about the interactions a shorter notice period and a quarterly update would have with the disadvantageous unilateral variations obligations under SLC 23, which gives customers up to 20 working days after the effective date of a price increase to instigate a switch and avoid a change in price. They observed that as a result of actioning this protection, customers could still be in the process of leaving a supplier for one price cap period when they are being notified of new prices for the subsequent price cap period, adding complexity and confusion for customers. One of them added that with quarterly updates, this obligation would require suppliers to keep historical lower prices available to customers for at least a third of the full price cap period, exposing suppliers to costs which they cannot recover. Finally, this respondent questioned the relevance of the requirements given the new implementation of faster switching.

4.27. The requirements set out in SLC 23 are important for ensuring that customers have a fair opportunity to switch supplier once they are notified of a price change. We understand stakeholders concerns that it means that a supplier may need to offer a historic price. However, this condition provides further flexibility for customers to take action, particularly over the coming winter. We note that the decisions outlined through this document have been aimed at providing market stability and reducing the risks for suppliers, which provides some balance to the risks outlined here and ultimately protects consumers by avoiding supplier failures which add to everyone's bills.

4.28. It is possible that the need for this requirement reduces as we move to faster switching, however this is something that would need to be consulted on to understand the

broader impacts.[45] We have decided to not make any consequential changes as part of this package of changes to the cap methodology. However, we will keep this area under review and welcome further engagement from stakeholders. We would assess compliance to this condition on a case-by-case basis.

4.29. Two suppliers also raised concerns about the amount of resource necessary to provide customers with particular types of personalised information under the cheapest tariff messaging (CTM). One of these suppliers suggested Ofgem should remove the prescriptive requirement of CTM and rely on principles-based regulation. They raised concerns regarding the requirement to provide details of a maximum of two alternative tariffs, which run the risk of being out of date when the customer receives the communication.

4.30. We understand suppliers' responsibility here and trust the requirements as outlined in the licence conditions can still be met under a shorter notice period. We consider that personal projections and CTM is an important piece of communication to customers. We will continue to keep this area under review as it does not fall into the scope of this change to the price cap methodology. We welcome further input from stakeholders.

Interaction with winter updates

4.31. Two suppliers said that customers may not be able to receive sufficient notification of the price changes through the post due to both the time required by suppliers to implement the changes and the time constraints affecting the postal service in the pre-Christmas period.

4.32. We will announce the January cap on 24 November. This will provide customers with over a month's notice to respond to the update. We consider this to be a reasonable amount of time for suppliers to manage the individual notifications being issued in advance of Christmas.

[45] To note the Guaranteed Standard of Protection still reflect 15 days, however Ofgem is looking at the process to align these to the five-day switching regulatory backstop. It is unlikely that we would review any change to SLC 23 until after any consequential changes to the GSOP have been implemented.

5. Wholesale methodology – Backwardation

Section summary

This chapter sets out our decision to update the wholesale cost methodology to include *ex-ante* modelled backwardation costs. We have decided to recover backwardation over a six-month period and include a deadband so we only capture costs arising when the market is more volatile than observed in the first six cap periods.

Context

5.1. As set out in chapter 3, the current cap wholesale methodology operates using a 6-2-12 [6] index, updated every six months. Following the introduction of quarterly updates, a 3-1.5-12 [3] index will be used. Both of these indices are set using forward prices for a 12-month reference period (eg from October to the following September). This reduces seasonal fluctuations in the cap price because the index is always based on a combination of winter and summer prices.

5.2. However, when purchasing energy for delivery, the reference period needs to match the delivery period ie quarterly updates require a reference period of three months or less. For this reason, we assume that a nominal supplier is likely to hedge with a shorter reference period. Specifically, under the new methodology, we assume that a nominal supplier would follow a 3-1.5-3 approach rather than 3-1.5-12[46].

5.3. The mismatch between the reference period assumed to be used in hedging and that used in the cap calculation causes basis risk, where the purchase price achieved by a nominal supplier does not match the index used in the cap calculation. Where the cost of the assumed hedging index is greater than the cap index, we refer to this as a backwardation cost, and where the cost of the hedging index is less than the cap length index, we refer to this as a contango benefit.

[46] This approach is in line with how we calculate the MSC.
Ofgem (2022), Market Stabilisation Charge Calculation Methodology
https://www.ofgem.gov.uk/publications/decision-short-term-interventions-address-risks-consumers-market-volatility

5.4. Normally, when the market is stable, the differences between the prices paid by suppliers and the prices used to set the cap index nets out over time – ie suppliers can recover the full costs in a reasonable period. For this reason, the current wholesale methodology does not include a backwardation or contango element.

5.5. In periods of high volatility, it is possible that the over and under recovery do not net out over time and that suppliers are left with the cost of backwardation. We continue to observe this under the current market conditions.

May 2022 consultation

5.6. In our May 2022 consultation,[47] we proposed to update the wholesale methodology to include backwardation costs. We proposed to model backwardation costs ex-ante and to recover them over a twelve-month period.

5.7. We also proposed to include a deadband of £9, calculated as a standard deviation above and below the mean backwardation/contango. We proposed to centre this around zero. In setting out our proposals, we ruled out setting backwardation using an ex-post approach and designing out backwardation by way of matching the hedge length to the cap period.

Our decision

5.8. We have decided to update the wholesale methodology to include *ex-ante* modelled backwardation costs, which we will calculate quarterly at each cap update.[48] This approach provides suppliers with certainty on the allowance compared to an *ex-post* approach.

5.9. We have decided to recover backwardation costs over a six-month period. We spread backwardation costs over six months relative to the gas and electricity demand in each quarter. The published version of the Annex 2 model sets out this calculation.

5.10. We have decided to shorten the recovery period to six months relative to our May 2022 proposal of 12 months following analysis on market stability, potential supplier financial resilience and our proposals on ringfencing and capital adequacy. We have made

[47] Ofgem (2022), Consultation on Medium Term Price Cap Changes https://www.ofgem.gov.uk/publications/consultation-medium-term-changes-price-cap-methodology
[48] The allowance is calculated symmetrically and could result in a contango discount if the same thresholds are reached.

this decision in the context of the high wholesale prices and market volatility along with the results of the supplier stress test exercise. We consider this approach significantly reduces the risk of supplier exit over the coming winter that would lead to high costs for customers. It does not guarantee that any individual supplier will not fail. This approach retains some seasonal smoothing for customers by spreading some of the January 2023 to March 2023 backwardation costs over the April 2023 to June 2023 cap period. We intend to review this approach in future to determine whether a six-month recovery period is the best approach for customers on an enduring basis.

5.11. We have decided to set a £9 deadband (£4 for electricity and £5 for gas £/customer/year) to ensure the wholesale methodology does not capture backwardation costs when the market is broadly stable, and backwardation is largely offset by contango. This approach also provides further seasonal smoothing of backwardation, recovered during periods of contango. We consider this to be beneficial for customers particularly given our decision to recover backwardation costs over a six-month period.

5.12. We have decided to set the deadband at a standard deviation above and below the historical average during cap periods one to six (January 2019 – September 2021) that would have applied under a 3-1.5-12 [3] approach. The standard deviation is centred around zero as opposed to the mean. The deadband will be a fixed level, but we retain the ability to review and change the value following consultation as we see appropriate.

5.13. For simplicity, we also use the quarterly deadband (£9) for the transitional approach rather than calculating a weighted deadband across quarterly and seasonal approaches. We do not think there is a material difference (approx. £0.50 based on a £16 seasonal deadband in our February decision[49] and the £9 quarterly deadband once demand weightings are considered).

[49] Ofgem (2022), Price Cap - Decision on the potential impact of increased wholesale volatility on the default tariff cap https://www.ofgem.gov.uk/publications/price-cap-decision-potential-impact-increased-wholesale-volatility-default-tariff-cap

Summary of stakeholder responses

5.14. Eleven stakeholders (the majority of which were suppliers) mentioned backwardation in their response. They all supported updating the cap methodology to include backwardation.

5.15. One supplier supported a 12-month backwardation recovery period. The rest highlighted the risk that, in a falling price environment, customers may leave standard variable tariff (SVT) contracts before the 12-month period is over, preventing full cost recovery. Two suppliers stated that a 6-month recovery period would reduce under-recovery and cash flow shortfalls. Other solutions mentioned include using the market stabilisation charge (MSC); introducing a market-wide levy; introducing a true up mechanism; or, keeping a twelve-month recovery while recalculating allowance ahead of and after each quarter.

5.16. Four supplier stakeholders mentioned that the delay between backwardation costs being incurred and recovered will expose them to unrecovered costs of financing. Two highlighted that rising capital will come at a material cost and that the proposals around protecting RO and credit balances could exacerbate the problem.

5.17. Several stakeholders expressed opposition to the deadband while one supported it. There were general concerns that the deadband increases the risk of under-recovery and it is not a necessary part of the methodology.

Considerations

Customer impacts

5.18. Updating the wholesale methodology to include backwardation for this winter could represent a significant cost for customers. We estimate the overall cost of backwardation is £271 (with a £9 deadband) over cap periods 9a (October 2022–December 2022) and period 9b (January 2023 to March 2023) – this is based on a current view of prices and is subject to change based on price movements between now and 18 August 2022.[50] These

[50]We provide a range based around our linear forecast of current prices and are heavily subject to change (prices observed as of 19 July 2022). The £271 backwardation over winter is calculated as the backwardation cost a nominal supplier following our methodology would incur per dual fuel customer (at benchmark consumption values). This value is the cash amount, and we don't make any assumptions on the recovery period, so it is not in cap level terms.

are genuine costs that suppliers incur in delivering energy to customers over the coming winter. We consider allowing suppliers to recover their costs will reduce the risk of supplier failure and the associated costs that would be borne by customers through the supplier of last resort (SoLR) regime.

5.19. The position on when suppliers recover backwardation costs presents a cashflow trade-off of when customers see the impact on their bill. The total cost of backwardation is not determined by the recovery period. A shorter recovery period means a greater immediate impact on customers' bills but a quicker fall when prices allow. A longer recovery period would see a greater impact on future customers as the costs are spread over more cap periods. In addition, the immediate bill impact is counterbalanced by the lower likelihood current and future customers would have to pay substantial mutualised costs in the event of suppliers failing.

5.20. In our May 2022 consultation, we proposed to spread backwardation costs over a twelve-month period. We have decided to shorten that recovery period to six months. The change in our position is informed by our analysis of recent market developments, updated data on market information, supplier financial information and the potential cost of supplier exit. A six-month recovery period provides greater market resilience and stability over the coming winter, whilst still ensuring customers do not see the full immediate increase in bills that would be the case under a three-month recovery period.

5.21. Figure 2.2 projects significant backwardation costs in the 9a and 9b cap periods (October 2022 to December 2022 and January 2023 to March 2023 respectively). Based on 19 July prices, moving from twelve-month recovery to six-month recovery increases the backwardation costs in the cap by approximately 60% in cap period 9a and 75% in cap period 9b. Our analysis suggests that this shorter recovery period reduces the risk of supplier failure and the potential irrecoverable supplier exit costs that customers would pay if we saw further exit over winter. Whilst the change in position doesn't eliminate the risk of supplier exit, it does reduce it (and therefore the associated costs of supplier failure that would be added to bills).

Supplier impacts

Backwardation recovery spread over 12 months

5.22. A number of stakeholders suggested we should recover backwardation costs over a shorter period – either six months or three months. This would help address concerns they had on cost under recovery from customers switching and the cost of financing the cash flow shortfall. We cover these issues below.

5.23. We have decided to shorten the recovery period to six months relative to our May 2022 consultation proposals. To note, this position differs from our decision to recover unexpected SVT demand costs incurred in cap period eight over 12 months in our decision on additional wholesale costs. There are two main reasons to take a different approach:

- first, the unexpected SVT demand costs are significantly smaller than the backwardation costs. The size of the costs affects the impact of the recovery period chosen, particularly on suppliers' financial situations.

- second, at the point we implement the adjustment, suppliers will already have incurred the unexpected SVT demand costs for cap period eight. The recovery will therefore improve their financial situations, regardless of the recovery period. In contrast, the August 2022 wholesale methodology decision relates to a cost that suppliers are still incurring, as suppliers will incur further backwardation costs in cap period nine. The impact of backwardation costs on suppliers' financial situations therefore depends on both future costs and future recovery, and the net impact depends on the speed of recovery in cases where the costs are large.

Customer churn and cost recovery

5.24. Several suppliers raised concerns around our proposal of a twelve-month recovery period. They stated that if customers switched away following a fall in prices, there would be a risk that they would not be able to recover backwardation costs in full. A few stakeholders suggested that we recalculate the £/customer backwardation allowance ahead and after each quarter to adjust for changes in SVT customers. Two stakeholders suggested that the backwardation recovery could incentivise customers to switch away where backwardation is not priced into fixed tariff offerings.

5.25. We have decided to not introduce an adjustment for customer switching. It is uncertain when prices will fall and how quickly this may take place. Making an upfront adjustment to the backwardation methodology to account for changes in customers numbers introduces unnecessary complexity. While we acknowledge customer switching risks are heightened due to the current high wholesale prices, these are risks suppliers should manage as part of their business activities. Furthermore, recovering backwardation costs over six months means suppliers will recover their backwardation costs sooner and the impact on bills is less long lived, thus reducing the risk and impact of suppliers being unable to recover backwardation costs if prices fell and customers started to switch away.

5.26. Where there are high backwardation costs, we expect suppliers to price these into their fixed tariff offerings to ensure the costs are recovered. This should be viewed in the context of our wider interventions to support suppliers and the long-term interests of customers. Among the key interventions, we have:

- introduced the MSC, and consulted on extending this for a further six months
- introduced the ban on acquisition-only tariffs, and consulted on extending this for a further six months
- paused assessment of new supply licences, while we updated our guidance and assessments to reflect the increasingly volatile conditions, and introduced milestone assessments
- consulted on a range of measures to improve suppliers' financial resilience

5.27. These interventions make it less likely that, in the short term, customers will switch away from SVTs, even in a falling wholesale market (either by switching tariff or supplier). This is because they reduce the risk of suppliers pricing fixed term contracts (FTC) at a particularly low level to attract customers away from SVTs. Under these interventions, future FTCs are more likely to reflect some of the costs incurred by suppliers who have hedged for SVT customers. We recognise that competition may still impose constraints on suppliers' ability to price in historical costs in the competitive FTC segment, especially where suppliers would have incurred different levels of these costs – but our interventions should improve suppliers' ability to price in such costs by reducing the risk of having to compete against particularly low-priced FTCs. Therefore, once implemented, suppliers should have taken these interventions into account in their risk management decisions.

5.28. We have also made further interventions which support market stability by allowing suppliers to recover efficient costs. We have:

- made an adjustment to the cap through our February 2022 wholesale decision to allow recovery of backwardation, unexpected SVT demand costs and shaping and imbalance costs relating to cap period seven.

- made an adjustment to the cap for non-prepayment meter (PPM) customers to account for unexpected SVT demand costs incurred by suppliers over cap period eight.

5.29. On an enduring basis, once the wholesale prices stabilise, we would expect there to be low or zero (ie within the deadband) backwardation costs in a stable market and movements in customers will be easier to manage than in the current situation.

Alternative mechanisms for backwardation

5.30. Two stakeholders said that backwardation costs should be paid for by all customers currently on SVTs and not just those who may remain on SVTs after the crisis. They suggest recovering backwardation costs through the MSC or a whole-of-market levy.

5.31. We have decided not to develop a levy-based approach to make allowance for the additional costs to suppliers. We consider that it is preferable and more coherent to adjust the cap for that purpose, taking account of our statutory objectives and all relevant factors.

5.32. Although we have taken steps in relation to the SoLR levy to support supplier financial stability, we do not consider that broader levy mechanisms are appropriate or necessary at this time. Any levy mechanism would have to fit with the wider regulatory framework, and we have made various reforms to the current framework, including this decision on wholesale allowances, to recognise the additional costs which suppliers are now facing. Whilst levy mechanisms can, in the right circumstances, be a useful part of an overall framework, they are not inherently more beneficial for customers. Even where they provide flexibility to defer costs, that would likely increase costs to consumers overall as greater interest or other financing costs were to be recovered.

5.33. We have considered carefully how to give effect to our primary objective of protecting the interests of current and future consumers whilst having regard to the other relevant considerations, including the need to make sure that suppliers are able to finance their activities. We have concluded that a six-month period is the appropriate means for suppliers to recover backwardation costs. We consider that modifying the cap in the way we propose in this decision serves our primary objective while balancing the various other matters to which we should have regard. Furthermore, to date we have used the cap as an important, coherent and transparent means of providing price protection for consumers, while making due allowance for developments in the market and wider economy. It is inevitable that some suppliers may lose or gain from adjustments to the cap, but in setting the cap level we have had careful regard to the consideration of allowing efficient suppliers to finance their activities. Developing a levy alongside the cap at this time would risk creating inconsistency or incoherence in the means by which suppliers are compensated for wholesale costs. It would also present significant practical challenges. However, in our continuing work we are keeping under review the means by which we address all the effects of fluctuations in wholesale prices.

5.34. We do not consider the MSC to be the appropriate mechanism to address backwardation under-recovery risks. The MSC is a short-term intervention and is limited to

the end of March 2023 without a full licence modification. At the time of receiving consultation responses, the MSC was due to expire end of September, before the price cap changes come into effect. Though we have consulted on extending the MSC,[51] the extension consulted on was for six months – the maximum extension allowed for under current licence conditions.

5.35. One stakeholder recommended that we should ensure all backwardation costs are recovered from default tariff customers before the cap ends by bringing forward cost recovery when we know the end date. The adoption of a six-month cost recovery period this issue is not an immediate concern. We will consider this point further in future once there is greater certainty of when the cap may be lifted.

Cost of financing capital

5.36. Four stakeholders raised concerns that a 12-month backwardation recovery period would increase the capital requirements as there would be a greater length of time between incurring a cost and receiving the revenue. They suggested we should include an adjustment for the cost of financing the additional capital required, particularly since the cost of raising capital has increased for reasons that include the recent number of supplier failures.

5.37. We have decided to not adjust for working capital costs. The move to six-month backwardation recovery reduces the delay in cost recovery relative to our May 2022 consultation proposal of a 12-month recovery period and we consider suppliers are able to manage this cashflow delay within existing additional risk allowances. This treatment is in line with the recovery of other deferred costs across the cap. Additionally, the backwardation cost in the cap will be uplifted by EBIT and headroom providing additional relief for uncertainty. We will consider how the deferred backwardation recovery increases capital requirements holistically across other pieces of policy work we are carrying out as part of our work to strengthen financial resilience.[52]

[51]Ofgem (2022), Consultation on extending short-term interventions and adjusting MSC calculation https://www.ofgem.gov.uk/publications/consultation-extending-short-term-interventions-and-adjusting-msc-calculation
[52]Ofgem (2022), Policy Consultation: Strengthening Financial Resilience https://www.ofgem.gov.uk/publications/policy-consultation-strengthening-financial-resilience

5.38. We also note that our approach allows faster recovery than general industry practice to offer annualised fixed term contracts, which smooths recovery over a year and includes an element of cost deferral for contracts starting in winter.

Setting a deadband

5.39. Six suppliers did not support including a deadband since it exposes them to cost under-recovery risks. They reject the claim that backwardation and contango net out in normal market conditions, and that normal market conditions will return. They said that ongoing backwardation within the deadband would therefore result in a net cost to suppliers.

5.40. Four suppliers claimed that the deadband is not a necessary part of the methodology. They said that under normal market conditions, backwardation and contango fluctuations in customers' bills are small and already levelised through the 12-month recovery mechanism and that removing it would not lead to windfall losses or gains.

5.41. We consider that a deadband is proportionate to protect customers and that a 'perfect' recovery for suppliers would come at a high cost for customers. Our analysis over the first six cap periods shows that under 'normal' market conditions, backwardation and contango broadly net out under the 6-2-12 [6] indexation while a 3-1.5-12 [3] indexation results in a small contango across the same period. This is set out Table 2.1. The deadband guarantees that customers only bear *additional* backwardation costs to what we would expect in normal market conditions.

5.42. The deadband can also aid seasonal smoothing, bringing some of the contango over summer into winter and vice versa. Historically, the indices have typically shown backwardation when pricing winter products and contango when pricing summer products. Currently the indices show significantly higher levels of backwardation for winter and relatively low levels of backwardation for Q2 and contango for Q3. By applying a deadband, customers will not be exposed to seasonal variations to the extent that backwardation and contango offset each other over a 12-month period. We consider this important given that the move to six-monthly backwardation recovery, which introduces some seasonality to the cap when compared with 12-monthly recovery.

5.43. Two stakeholders questioned the size of the deadband, with one saying it has been set at an arbitrary level. We do not consider the size of the deadband to be arbitrary. Our approach to calculate it is in line with the approach to calculate backwardation (ex-ante modelled) and, importantly, it is based on historical data. As explained above, the

deadband is calculated on historical backwardation and contango in 'normal' market conditions, set as a standard deviation above and below zero. This is in line with our approach to calculating the deadband for the cap period 7 backwardation adjustment.[53]

[53] Ofgem (2022), Price Cap - Decision on the potential impact of increased wholesale volatility on the default tariff cap
https://www.ofgem.gov.uk/publications/price-cap-decision-potential-impact-increased-wholesale-volatility-default-tariff-cap

Appendices

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Appendix 1 – Transitional arrangement

1.1. Under quarterly price cap updates, the wholesale cost allowance is set using a 3-1.5-12 [3] approach. This approach replaces the historical 6-2-12 [6] approach that was used until price cap period eight (April 2022 – September 2022), and the 7-1-12 [6] approach that was introduced via our first price indexation guidance letter.54 As described in this appendix, the transitional arrangement is in practice a hybrid of the 7-1-12 [6] and 3-1.5-12 [3] approaches. Following this, we will move to a full 3-1.5-12 [3] approach from cap period 10a (April 2023 – June 2023) onwards.

1.2. Conceptually, a nominal supplier would have bought 50% of its volumes for cap periods 9a and 9b via purchase of seasonal products between 1 February 2022 and 1 June 2022 (inclusive). Following our second price indexation guidance,55 a nominal supplier having hedged in line with this guidance is expected to purchase the remaining 50% of volume, via quarterly products, between 6 June 2022 and 18 August 2022 (inclusive) for cap period 9a, and between 19 August 2022 and 16 November 2022 (inclusive) for cap period 9b.

1.3. Given the difference in trading days between the cap period over which the first 50% of volume is purchased (February – June) and the second period (June – August for 9a and August to November for 9b), we adjust the weighting on the second cap period.

1.4. There are also some adjustments to reflect the shift from using seasonal to quarterly electricity products. We have made two changes to those adjustments since we published the statutory consultation: one methodological and one to reflect new input data. We detail those transitional arrangement weightings in this appendix. We summarise the observation periods and weights in Table A1.2.

1.5. Note the transitional arrangement applies to both calculating the wholesale index based on the 7-1-12 and 3-1.5-12 approaches and the calculation of backwardation by comparing the 7-1-12 to a 7-1-6 index and 3-1.5-12 to a 3-1.5-3 index.

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[54] Ofgem (2022), Updated guidance on treatment of price indexation in future default tariff cap proposals
https://www.ofgem.gov.uk/publications/updated-guidance-treatment-price-indexation-future-default-tariff-cap-proposals
[55] Ofgem (2022), Updated Guidance Treatment for Price Indexation in the Future Default Tariff Cap
https://www.ofgem.gov.uk/publications/price-cap-may-2022-updated-guidance-treatment-price-indexation-future-default-tariff-cap

Transition to quarterly approach

1.6. Alongside our May 2022 statutory consultation[56], we provided a second price indexation guidance letter to suppliers. The final day of observed prices under the 7-1-12 [6] was 1 June 2022. At this point, we were exactly half-way through the 124 weighted trading day observation period. We expect a nominal supplier would have purchased 50% of its volumes for delivery over the winter season (October 2022 – March 2023). This means we expect a nominal supplier to purchase the remaining 50% of volume under a quarterly approach for the transition periods. We discuss this in the following sections.

Observation period for cap period 9a

1.7. As set out in chapter 3, the observation period closes 30 working days prior to the start of the cap period. This means the last trading day of prices we observe takes place on 18 August 2022. The period for suppliers to purchase the remaining 50% of demand for cap period 9a runs from 6 June 2022 to 18 August 2022 (dates inclusive of purchasing).[57] [58]

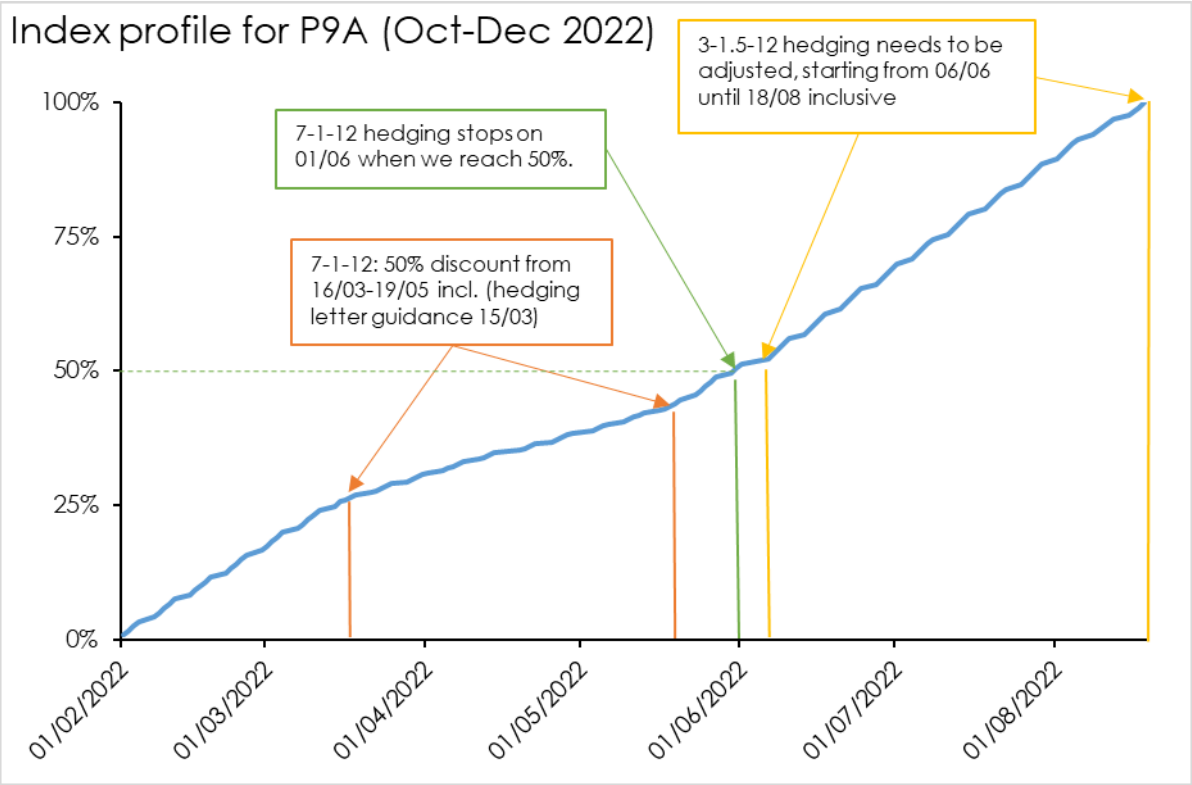
1.8. To ensure the total number of weighted trading days between the two approaches remains the same (62 each, 124 in total) and a nominal supplier recover for the full volumes purchased, we uplift the weighting on the 3-1.5-12 [3] observed prices. The level of uplift is 14.81%, calculated as (50%*124)/54 - 1 (where 124 is the total number of trading days and 54 is the number of trading days under the 3-1.5-12 [3] approach for the cap period). We illustrate this transition in Figure A1.1.

[56] Ofgem (2022), Statutory consultation on changes to the wholesale methodology. https://www.ofgem.gov.uk/publications/price-cap-statutory-consultation-changes-wholesale-methodology

[57] The next trading day after 1 June 2022 was 6 June 2022 because of the Jubilee bank holidays and the weekend.

[58] This equates to approximately a 2.5-1.5-12 [3] approach because of the slightly short observation period under the transition arrangement for cap period 9a. However, we continue to refer to this as 3-1.5-12 [3] for consistency of terminology.

Figure A1.1 – Transition approach for cap period 9a



Line graph showing the transitional hedging approach for cap period 9a, with 7-1-12: 50% discount from 16/03-19/05 inclusive, then 7-1-12 index stops on 01/06 when we reach 50% volumes, 3-1.5-12 index needs to be adjusted, starting from 06/06 until 18/08 inclusive

Note: there are four non-working days following 01/06/2022, hence the 3-1.5-12 approach began from 06/06/2022.

Observation period for cap period 9b

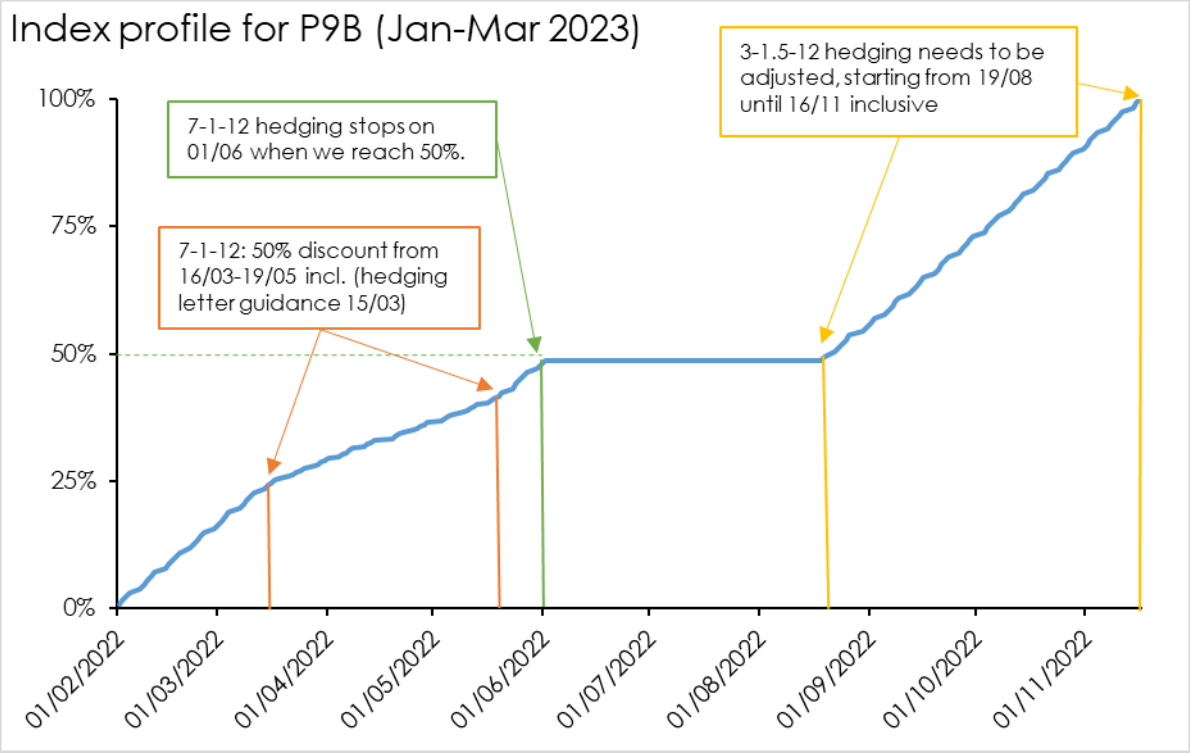
1.9. A similar approach applies for the transition to cap period 9b (January 2023 – March 2023). A nominal supplier will have bought half of its volumes for this quarter under the 7-1-12 [6] approach.

1.10. The observation period for cap period 9b under the 3-1.5-12 [3] approach will begin on 19 August 2022 and end on 16 November 2022 (inclusive). This is a total of 63 trading days over which we would expect a nominal supplier to buy the remaining 50% of their volumes for the first quarter of 2023.

1.11. Similar to the transition for cap period 9a, we aim to keep the weighted total trading days equal (62 for each approach, 124 in total) and therefore we adjust the weighting for

the 3-1.5-12 [3] approach downwards by 1.59%. This is calculated as (50%*124)/63 - 1. Figure A1.2 illustrates the transition approach for cap period 9b.

Figure A1.2 – Transition for cap period 9b



Line graph showing the transitional hedging approach for cap period 9b, with 7-1-12: 50% discount from 16/03-19/05 inclusive, then 7-1-12 index stops on 01/06 when we reach 50% volumes, 3-1.5-12 index needs to be adjusted, starting from 19/08 until 16/11 inclusive

Moving from seasonal to quarterly electricity demand weights

1.12. Under the 7-1-12 [6] approach, we calculate the electricity index using the winter and summer seasonal products to make up 12 months of energy delivery. The quantity of the winter and summer products are determined using seasonal demand weights.

1.13. In transitioning to quarterly updates, there is a miss-match between the use of seasonal demand weights for 7-1-12 [6] and quarterly demand weights for 3-1.5-12 [3]. Half of the winter demand does not equal the respective quarterly demand. Buying 50% of the seasonal demand for winter means buying too much for Q4 (cap period 9a) and too little for Q1 (cap period 9b). Separate adjustments are required for Profile Class 1 and Profile Class 2 customers.

1.14. We make an adjustment to the weights on the 3-1.5-12 [3] component of the transitional arrangement to reflect this. We show the calculations in Table A1.1 below.

1.15. Following our May 2022 statutory consultation publication, one supplier provided an alternative approach to calculating the transitional weights. We considered the suggestion and changed our approach when we re-published the Annex 2 model on 26 May 2022. Since then and following our quality assurance process, we have identified further changes to refine our approach. While we don't expect a change in the transitional weights to impact suppliers' purchasing strategies, we still take a prudent approach to calculate and apply the new weights from 08 August 2022 to allow suppliers to make any changes based on the new information. Note this change does not affect cap period 9b yet as its observation period restarts on 19 August 2022.

1.16. Compared to our May 2022 publication, two changes have been made:

- methodological change to reflect the true target weights for cap periods 9a and 9b, based on quarter positions achieved using seasonal products instead of using quarterly demand shares themselves; and

- input data change: we are now using refreshed seasonal and quarterly electricity demand shares to reflect latest demand by settlement period dataset from Elexon.

1.17. Consequently, the Transitional Arrangement weights are split as follows:

- from 06 June to 05 August inclusive (for P9a only): using the 'old' methodology and Elexon demand data April 2020–March 2021; and

- from 08 August onwards (for P9a and P9b): using the revised methodology and Elexon demand data covering April 2021-March 2022.

1.18. To ensure these adjustments for moving from seasonal to quarter demand are calculated correctly, we apply the same weightings outlined above (c. 15% uplift for 9a and 2% discount for 9b). This ensures that this adjustment is symmetrically distributed between the two cap periods, taking into account the differences in (unweighted) trading days so that the weighted trading days are equal between the cap periods.

1.19. To note, this does not affect gas demand as we already use quarterly demand and products to set the index.

Table A1.1 – Calculation of electricity demand weighting adjustment

		Quarter 4 2022 (Oct – Dec)	Quarter 1 2023 (Jan – Mar)
Profile class 1: 'Old' methodology and Elexon demand data FY2021			
A	Elexon winter demand share	57.1%	57.1%
B	Time weights of quarters (ratio of winter hours in each quarter)	50.6%	49.4%
C = A * B	Implied quarterly demand hedged under 7-1-12 [6]	28.9%	28.2%
D (quarterly version of A)	Elexon quarterly demand share	28.3%	28.8%
E = 1 - C/D	Initial adjustment	-1.92%	+1.89%
F = E * original weight	Adjustment to reflect difference in volume weights between quarters and seasons	-2.20%	+1.86%
G = 1 + original weight + F	Final adjustment	**1.1262**	1.0027
Profile class 1: Revised methodology and Elexon demand data FY2022			
A'	Elexon winter demand share	56.4%	56.4%
B'	Time weights of quarters	50.6%	49.4%
C' = B' / 2	Implied quarterly demand hedged under 7-1-12 [6]	25.3%	24.7%
D' (quarterly version of A)	Elexon quarterly demand share	27.8%	28.6%
E' = D' / A'	Target hedge	49.3%	50.7%
F' = E' – C'	Remaining hedge requirement under 3-1.5-12 [3]	24.0%	26.0%
G' = 1 – F'/C'	Initial adjustment	-5.13%	+5.25%
H' = G' * original weight	Adjustment to reflect difference in volume weights between quarters and seasons	-5.89%	+5.17%
I' = 1 + original weight + G'	For cap period 9a: what the adjustment would have been if it was in place since 06/06 For cap period 9b: final adjustment	1.0892	**1.0358**
J' = 54 * I'	54 trading days (06/06-18/08) * revised weight	58.8188	
K' = 45 * G	45 trading days (06/06-05/08) * old weight	50.6771	
L' = (J' – K')/9	Final adjustment for cap period 9a (08/08-18/08 only)	**0.9046**	

		Quarter 4 2022 (Oct – Dec)	Quarter 1 2023 (Jan – Mar)
Profile class 2: 'Old' methodology and Elexon demand data FY2021			
A	Elexon winter demand share	61%	61%
B	Time weights of quarters	50.6%	49.4%
C = A * B	Implied quarterly demand hedged under 7-1-12 [6]	30.8%	30.1%
D (quarterly version of A)	Elexon quarterly demand share	29.2%	31.7%
E = 1 – C/D	Initial adjustment	-5.46%	+5.03%
F = E * original weight	Adjustment to reflect difference in volume weights between quarters and seasons	-6.27%	+4.95%
G = 1 + original weight + F	Final adjustment	**1.0855**	1.0336
Profile class 2: Revised methodology and Elexon demand data FY2022			
A'	Elexon winter demand share	60.7%	60.7%
B'	Time weights of quarters	50.6%	49.4%
C' = B' / 2	Implied quarterly demand hedged under 7-1-12 [6]	25.3%	24.7%
D' (quarterly version of A)	Elexon quarterly demand share	28.7%	32.1%
E' = D' / A'	Target hedge	47.2%	52.8%
F' = E' – C'	Remaining hedge requirement under 3-1.5-12 [3]	21.9%	28.1%
G' = 1 – F'/C'	Initial adjustment	-13.41%	+13.72%
H' = G' * original weight	Adjustment to reflect difference in volume weights between quarters and seasons	-15.39%	+13.50%
I' = 1 + original weight + G'	For cap period 9a: what the adjustment would have been if it was in place since 06/06 For cap period 9b: final adjustment	0.9942	**1.1191**
J' = 54 * I'	54 trading days (06/06-18/08) * revised weight	53.6884	
K' = 45 * G	45 trading days (06/06-05/08) * old weight	48.8456	
L' = (J' – K')/9	Final adjustment for cap period 9a (08/08-18/08 only)	**0.5381**	

Note: Numbers may not sum because of rounding

Table A1.2 – Observation period dates

Cap period	Index approach	Delivery product observed	Observation period start	Observation period end	Trading days	Final adjustment (Profile Class 1)
9a & 9b	6-2-12 [6] (identical to 7-1-12 [6] at this point)	Winter 22	01/02/2022	15/03/2022	31	1.00
9a & 9b	7-1-12 [6]	Winter 22	16/03/2022	19/05/2022	44 (22 weighted)	0.50
9a & 9b	7-1-12 [6]	Winter 22	20/05/2022	01/06/2022	9	1.00
9a	3-1.5-12 [3]	Q4	06/06/2022	05/08/2022	45 (~52 adjusted)	1.13
9a	3-1.5-12 [3]	Q4	08/08/2022	18/08/2022	9 (~10 adjusted)	0.90
9b	3-1.5-12 [3]	Q1	19/08/2022	16/11/2022	63 (62 adjusted)	1.04
10a	3-1.5-12 [3]	Q2	17/11/2022	17/02/2023	64	N/A
10b	3-1.5-12 [3]	Q3	20/02/2023	18/05/2023	61	N/A

Note: Descriptions of the cap period dates are included in Table 3.1 in chapter 3.

Appendix 2 – Model changes

1.1. Moving to quarterly updates in the cap requires changes to the models that underpin the cap level calculation. In this appendix, we outline the consequential changes to the various models, split by model. These models have been published alongside this decision.

1.2. We make consequential changes to three models:

- Annex 2 – Wholesale cost model;
- Annex 4 – Policy cost model; and
- Default tariff cap overview model

1.3. The Annex 2 and Annex 4 models are named such because they are annexes to the SLC 28AD of the Gas and Electricity supply licence conditions.

Annex 2 – Wholesale cost model

1.4. Annex 2 calculates the wholesale cost allowance in the cap. Moving to a quarterly update approach (using a 3-1.5-12 index) and introducing a backwardation cost element requires us to make consequential changes. As outlined in Chapter 3 and Appendix 1, we have a transitional approach to move between indexes. The transitional approach is built into Annex 2 alongside the enduring quarterly approach. The transition only applies for the cap periods 9a (Q4 2022) and 9b (Q1 2023).

1.5. Table A2.1 below outlines the changes we made to the Annex 2 model, which include:

- adding additional indexes to calculate different index approaches when calculating the wholesale costs, including backwardation
- a backwardation cost element
- introducing contracts for difference (CfD) costs to the model
- a combined output pulling all the different values together

Table A2.1 – Changes to Annex 2 – Wholesale costs

Type	Change	Description
Input	Added an additional input tab for quarterly electricity prices. Please refer to: *3d(ii) Price data, elec Q+n*	Introduced an additional pricing data tab to allow quarterly electricity pricing data to be capture, along with seasonal contract prices. This is to facilitate the transition over to the 3-1.5-12 index.
Input	Addition of relevant input and losses tabs relating to CfD costs. Please refer to: *7c CfD input* *7d losses*	This brings in the CfD input from the Annex 4 – Policy costs model. The calculation reflects the decision on setting the CfD cost allowance published on 23 June 2022.
Input	Added quarterly demand shares for electricity. Please refer to: *3b Demand*	Added quarterly demand shares as the approach to date only relied on seasonal demand.
Input	Addition of gas and electricity transitional demand weightings. Please refer to: *3b Demand*	Addition and calculation of transitional weightings for the transitional arrangement (cap period 9a and cap period 9a), based on number of trading days and demand shares.
Input	Addition of deadband inputs section. Please refer to: *8a(ii) Deadband*	Allows deadband inputs to be accounted for within backwardation calculations.
Calculation	Added index calculation tabs for 7-1-12 and 3-1.5-12: Please refer to: *2a(ii) Elec 7-1-12* *2a(iii) Elec 3-1.5-12* *2b(ii) Non-PPM gas 7-1-12* *2b(iii) Non-PPM gas 3-1.5-12* *2c(ii) PPM gas 7-1-12* *2c(iii) PPM gas 3-1.5-12*	Additional index value calculations added to calculate the Direct Fuel allowance across transitional period, and into 3-1.5-12 index.
Calculation	Additional index calculation tabs for backwardation covering 3-1.5-12, 3-1.5-3, 7-1-12, 7-1-6 index scenarios. Please refer to: *8b(i) Elec 7-1-12* onwards	Additional index calculations are required to calculate backwardation for the quarterly approach and transitional period.

Calculation	Added a tab for the backwardation calculation. Please refer to: *8a(iii) Backwardation calc*	The tab calculates backwardation by taking the difference between the direct fuel allowance and the equivalent front index approach, eg 3-1.5-12 compared to 3-1.5-3. We calculate the transitional approach and enduring quarterly approach separately.
Calculation	Added a tab for CfD cost calculation. Please refer to: *7b CfD calculation*	This covers the calculation of CfD costs. It aggregates cost estimates for CfD, along with applying loss uplifts for CfD. This reflects the decision on setting the CfD cost allowance in the cap published on 23 June 2022.
Output	Added CfD output tab Please refer to: *7a CfD allowance*	This tab converts the £/MWh to £ per customer.
Output	Added backwardation output tab. Please refer to: *8a(i) Backwardation*	This tab compiles tabs 8a(iii) Backwardation calc along with 8a(ii) Deadband and outputs recovery of the backwardation costs over 6 months of cap periods.
Output	Added a combined output that incorporates Direct Fuel allowance, Backwardation and CfD. Please refer to: *1a Wholesale allowance*	This tab combines the Direct Fuel Cost Component, CfD, and Backwardation values for each Benchmark Metering Arrangement, Charge Restriction Region and 28AD Charge Restriction Period to be used as input into the default tariff cap overview model.

1.6. In addition to the changes outlined in the table above, a number of suppliers reported issues with the draft model we published alongside our May 2022 statutory consultation:

- some range errors corrected in tabs 1b Direct Fuel Cost Component, 8a(iii) Backwardation calc and 8c(iv) Non-PPM gas 3-1.5-3; and
- formula for Expected levy payments adjusted in tab 7c CfD input

1.7. Other modelling changes to Annex 2 include (but are not limited to) backwardation recovery over six months of cap periods, as described in Chapter 5, and a new set of transitional arrangement weights, as described in Appendix 1. All changes are described in the front sheet of the model.

Annex 4 – Policy cost model

1.8. Following our proposal to update the contracts for difference (CfD) costs quarterly and therefore move them into Annex 2, we consequentially removed them from the Annex 4 – policy cost model, to ensure we do not capture them twice. Table A2.2 outlines the change we have made to the model.

Table A2.2 – Changes to Annex 4 – Policy costs

Type	Change	Description
Input	Removed the input tab for CfD costs.	Changes required to remove CfD costs from the policy cost calculations and output.
Calculation	Removed calculation cost lines for CfDs and the table applying losses.	Changes required to remove CfD costs from the policy cost calculations and output.
Output	Removed the CfD element of the calculation that sums all policy cost and calculates a £ per customer.	Changes required to remove CfD costs from the policy cost calculations and output.

Default tariff cap overview model

1.9. We have made consequential updates to the default tariff cap overview model to reflect setting the cap on a quarterly basis. Table A2.3 outlines these changes to the model. To note, we also provide a list of changes in the front page tab of the model.

Table A2.3 - Changes to the overview model

Type	Change	Description
Input	DF input tab aligned with Annex 2 changes	Aligned the input tab for the wholesale cost allowance to include direct fuel, backwardation and CfDs in line with changes to the output tab from Annex 2.
Input	Added columns for quarterly periods	We added additional columns to relevant input tabs so that quarterly updates will flow easily to the calculation tab. Where a cost is updated semi-annually (eg network costs), we will use the same value for the two quarters that make up the season.

		There may be a slight mismatch in the structure of the input tabs and the Annex output tabs to simply the structural changes – this does not affect the values.
Calculation	Added columns for quarterly periods	For each cap variant calculation tab, we added additional columns to cover up to the current cap end point (31 December 2023).
Output	Amended formula for the regional cap levels. Amended breakdown tables.	Amended the formulas in the first output tab to ensure the model outputs the regional cap levels for each quarterly cap period. Adjusted the tables in the second output tab to capture quarterly cap levels in the summary tables broken down by cost component. To note, numbers may not align to previous versions due to CfDs being reallocated between buckets of costs.