

Consultation



Making a positive difference
for energy consumers

Price cap - Statutory consultation on changes to wholesale methodology

Subject	Details
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Response deadline:	14 June 2022
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We are consulting on proposals to change the default tariff cap methodology to deal with the unprecedented increase in wholesale price levels and volatility. Our proposal is to move to quarterly price updates and a shorter notice period of 25 working days between setting the cap level and it taking effect. We are also proposing to change the wholesale methodology to include backwardation costs.

These changes will reduce the risks associated with providing the default price cap tariff in volatile wholesale markets – which in turn reduces costs for customers in the short and longer-term.

We would like views from people with an interest in the retail market. We particularly welcome responses from consumer groups and suppliers. We would also welcome responses from other stakeholders and the public.

This document outlines the scope, purpose and questions of the consultation and how you can get involved. Once the consultation is closed, we will consider all responses. We want to be transparent in our consultations.

We will publish the non-confidential responses we receive alongside a decision on next steps on our website at [Ofgem.gov.uk/consultations](https://www.ofgem.gov.uk/consultations). If you want your response – in whole or in part – to be considered confidential, please tell us in your response and explain why. Please clearly mark the parts of your response that you consider to be confidential and, if possible,

put the confidential material in separate appendices to your response.

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Executive summary

Since summer 2021, the energy markets have seen volatility and price increases unlike anything else in recent history. The volatility is due to post-pandemic economic recovery, some outages and supply disruptions across Europe, with Russia's invasion of Ukraine placing additional pressures on global gas prices in 2022. This, in turn, has placed huge pressure on suppliers – with many having to exit the market as a result. As the prices flow through to customers, they too are facing significant and increasing financial pressure.

The default tariff cap ('the cap') was established to protect customers who did not engage in the retail market and was designed for much more stable market dynamics. The structure of the cap has played a significant role in how this market volatility has been passed through to suppliers and customers.

The cap's methodology has meant it has protected an increasing number of customers – around an extra 7 million since its introduction - from the full extent of the price increases and the costs suppliers face. But this has placed a strain on suppliers – exposing them to hard to manage risks and costs not specifically accounted for in the cap. This pressure will continue unless changes are made to the methodology and suppliers are able to recover the efficient costs they face in providing this tariff to customers.

The most important impacts on suppliers from the cap methodology are volume risk and the cost of backwardation. Volume risk stems from active customers' ability to shelter on the cap, where normally they would have been expected to move onto a new fixed term tariff, so their demand was not hedged in line with the cap index. Backwardation costs are a result of the difference between the formula (or index) used to set the cap level and the way suppliers are able to purchase energy for their cap customers.

We need to address these risks to enable suppliers to recover the efficient costs they incur. Not doing so, creates a risk of supplier failure or potential supplier exits. Customers ultimately pay the costs for supplier exits so it is in customers' interests to avoid systemic supplier failures, particularly now as we see increasing financial pressures on households. This intervention is a better model for customers, reducing their costs in both the short and long-term, but it cannot prevent global wholesale prices ultimately being passed through.

This isn't simply about the costs faced today. An attractive and dynamic market, with participants innovating to provide customers with value in energy products and services, is needed to make effective and efficient progress toward net zero. If the risks of participating

in the market are too high, it is unlikely that there will be the investment needed for the net zero transition, in turn leading to higher costs in the future.

Our proposals

In the February 2022 policy consultation and preceding December 2021 call for input, we sought views on how to address the risks and costs that we identify above. We have considered feedback from stakeholders and conducted further analysis, including consumer research and assessment of the distributional impacts of options. Based on this we consider the following proposals to be the most effective at reducing risks and costs:

- The introduction of quarterly updates
- A reduced notice period of 25 working days
- Inclusion of backwardation costs in the wholesale methodology

Moving to quarterly updates would substantially reduce volume risk and, at current wholesale prices, would be expected to provide all customers with savings versus the status quo. This document also sets out the transitional arrangements that would be required to move to this new index in October 2022.

In our proposal, the lag between the observation window closing and start of the cap would be a total of 30 working days – the first five would be for Ofgem to calculate and publish the new cap level, and the remaining 25 working days would be for suppliers and others to inform customers and make the changes necessary to implement the new price level. This reduction in the lag would further reduce the volume risk.

The final proposal is to change the wholesale methodology to include backwardation costs. Costs above a 'deadband' of £9 would be recovered over 12 months from the start of the corresponding cap period.

The overall effect of these changes would be to reduce volume risk by approximately 60% - a substantial reduction but not full mitigation. Other options were considered and ultimately discounted. Details of this are set out in the body of this consultation and in the Appendices.

Next steps

We are seeking views by 14 June 2022. We intend to take a decision ahead of the next cap update in August 2022. This would take effect from cap period nine, which begins on 01 October 2022.

1. Introduction

What are we consulting on?

1.1. This statutory consultation sets out proposals to change the cap wholesale methodology. We propose to make these changes in response to the recent and ongoing high prices and volatility in the wholesale energy markets.

1.2. We seek stakeholders' views on these proposals. Stakeholders' responses will inform our final decisions, which we intend to publish in early August 2022.

1.3. This consultation is split into five chapters:

- Chapter 1 sets out the context.
- Chapter 2 sets out the current market conditions and the case for change.
- Chapter 3 sets out Ofgem's proposal to introduce quarterly updates to address volume risk. We also provide details of the alternative options we considered and why these were discounted.
- Chapter 4 sets the proposal to shorten the notice period from around 2 months to 1.5 months to further address volume risk.
- Chapter 5 sets out the proposal to change the wholesale methodology to include backwardation costs.

1.4. Alongside this document we are publishing the following:

- Draft licence modification notices that outline changes to the Gas and Electricity Supply Licences to implement our proposals
- Indexation guidance letter for transitional arrangements
- Updated cap overview model, Annex 2 – wholesale cost model and Annex 4 – policy cost model – which incorporate the proposals set out

1.5. The consultation consists of this document and the disclosed models and data. We do not, as a matter of style, ask questions explicitly about each specific aspect of our proposals and methodology. We present our proposals, the reasons and modelling underpinning them, and the issues we have considered. We invite stakeholders to comment on the contents of the consultation, providing their views and evidence as appropriate.

1.6. We recognise several stakeholders voiced concerns on the Market Stabilisation Charge (MSC), in particular around the current effectiveness, risks, calibration and structure. Alongside this consultation we have today published our decision on reviewing the parameters of the MSC¹ in light of ongoing market volatility, including our proposal to consult (in June 2022) on extending the MSC by six-months, to 31 March 2023 in line with SLC 24A. Changes to the design or duration of the MSC are not considered further in this consultation as these issues will be addressed separately.

1.7. In our February consultation², we asked stakeholders to identify any additional concerns. Several stakeholders identified challenges with Bad Debt Allowance and EBIT Margin. We aim to address these issues in separate, ongoing, consultations.

Context and related publications

The cap was introduced to protect customers against a backdrop of relatively stable wholesale prices

1.8. The cap was introduced 01 January 2019 to ensure that less engaged customers would pay a fair price for their energy. At the time the cap was introduced, we estimated that it would save roughly £1bn per year. It has also driven increased efficiency in suppliers, providing additional long-term benefits to customers.

1.9. However, adapting to market changes, we wish to change the cap methodology to better manage volume risk during periods of extreme wholesale market volatility (described in Chapter 2 below). Suppliers also have to manage other costs associated with wholesale market volatility such as shaping and imbalance costs. Ofgem has announced a number of interventions to address these challenges, including an uplift to address high additional costs incurred during the current cap period, and an in-period reopener to enable extreme and unexpected cost changes to be reflected in the cap levels.

¹ Ofgem (2022), Decision on market stabilisation charge
<https://www.ofgem.gov.uk/publications/decision-changes-market-stabilisation-charge>

² Ofgem (2022), Policy consultation on medium term changes to the price cap.
<https://www.ofgem.gov.uk/publications/consultation-medium-term-changes-price-cap-methodology>

1.10. This consultation sets out our proposal to change the cap methodology to reduce the risks suppliers face in high and volatile wholesale markets, thereby enabling a more resilient and lower cost price cap in future.

1.11. We are also taking action to boost financial resilience in the energy retail market. Since we announced our Action Plan³ 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; consulted on 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, changes in senior personnel and trade sales;⁵ and strengthened financial risk controls and fit and proper person testing in our licence entry checks.⁶ In April, we published an Open Letter⁷ outlining our emerging thinking on measures to protect credit balances and Renewable Obligation payments, ahead of a consultation to be published this spring. Alongside that, we also intend to consult on capital adequacy measures.

Related publications

1.12. The main documents relating to the cap are:

- Default Tariff Cap Decision: [Default tariff cap: decision - overview | Ofgem](#)
- February 2022 policy consultation: [Consultation on Medium Term Changes to the Price Cap Methodology | Ofgem](#)

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

⁴ Ofgem (2022), Update to action plan on retail financial resilience: supplier control over material assets.

<https://www.ofgem.gov.uk/publications/update-action-plan-retail-financial-resilience-supplier-control-over-material-assets>

⁵ Ofgem (2022), Decision on strengthening milestone assessments and additional reporting requirements

<https://www.ofgem.gov.uk/publications/decision-strengthening-milestone-assessments-and-additional-reporting-requirements>

⁶ 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>

⁷ Ofgem (2022), Open Letter to domestic energy suppliers.

<https://www.ofgem.gov.uk/publications/open-letter-domestic-energy-suppliers-financial-resilience>

- December 2021 call for input: [Adapting the price cap methodology for resilience in volatile markets | Ofgem](#)
- Decision on market stabilisation charge: [Decision on short-term interventions to address risks to consumers from market volatility | 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](#)

Consultation stages

1.13. This statutory consultation will remain open for four weeks, closing on 14 June 2022. The deadline reflects that our proposals require a decision by early August, to have effect in the next cap period starting 01 October 2022.

How to respond

1.14. We want to hear from anyone interested in this consultation. Please send your response to the person or team named on this document's front page.

1.15. We will publish non-confidential responses on our website at www.ofgem.gov.uk/consultations.

Your response, data and confidentiality

1.16. You can ask us to keep your response, or parts of your response, confidential. We'll respect this, subject to obligations to disclose information, for example, under the Freedom of Information Act 2000, the Environmental Information Regulations 2004, statutory directions, court orders, government regulations or where you give us explicit permission to disclose. If you do want us to keep your response confidential, please clearly mark this on your response and explain why.

1.17. If you wish us to keep part of your response confidential, please clearly mark those parts of your response that you *do* wish to be kept confidential and those that you *do not* wish to be kept confidential. Please put the confidential material in a separate appendix to your response. If necessary, we'll get in touch with you to discuss which parts of the

information in your response should be kept confidential, and which can be published. We might ask for reasons why.

1.18. If the information you give in your response contains personal data under the General Data Protection Regulation (Regulation (EU) 2016/679) as retained in domestic law following the UK's withdrawal from the European Union ("UK GDPR"), the Gas and Electricity Markets Authority will be the data controller for the purposes of GDPR. Ofgem uses the information in responses in performing its statutory functions and in accordance with section 105 of the Utilities Act 2000. Please refer to our Privacy Notice on consultations, see Appendix 4.

1.19. If you wish to respond confidentially, we'll keep your response itself confidential, but we will publish the number (but not the names) of confidential responses we receive. We won't link responses to respondents if we publish a summary of responses, and we will evaluate each response on its own merits without undermining your right to confidentiality.

General feedback

1.20. We consider that consultation is at the heart of good policy development. We welcome any comments about how we've run this consultation. We'd also like to get your answers to these questions:

1. Do you have any comments about the overall process of this consultation?
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. Were its conclusions balanced?
5. Did it make reasoned recommendations for improvement?
6. Any further comments?

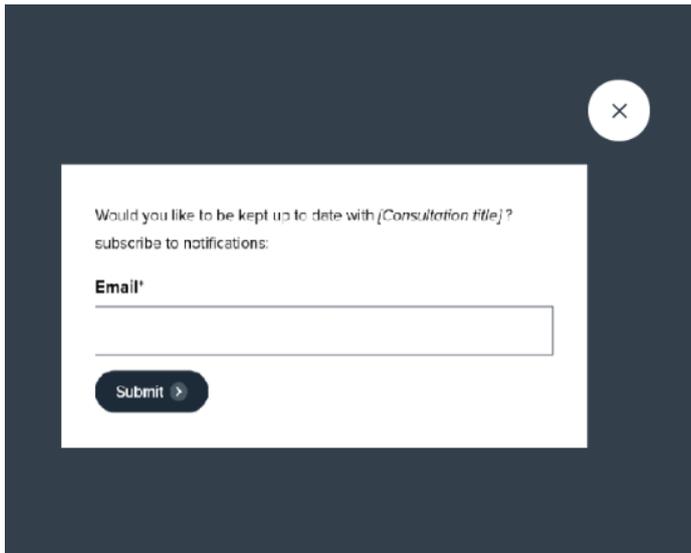
Please send any general feedback comments to stakeholders@ofgem.gov.uk

How to track the progress of the consultation

You can track the progress of a consultation from upcoming to decision status using the 'notify me' function on a consultation page when published on our website.

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Once subscribed to the notifications for a particular consultation, you will receive an email to notify you when it has changed status.

2. The case for change

Section summary

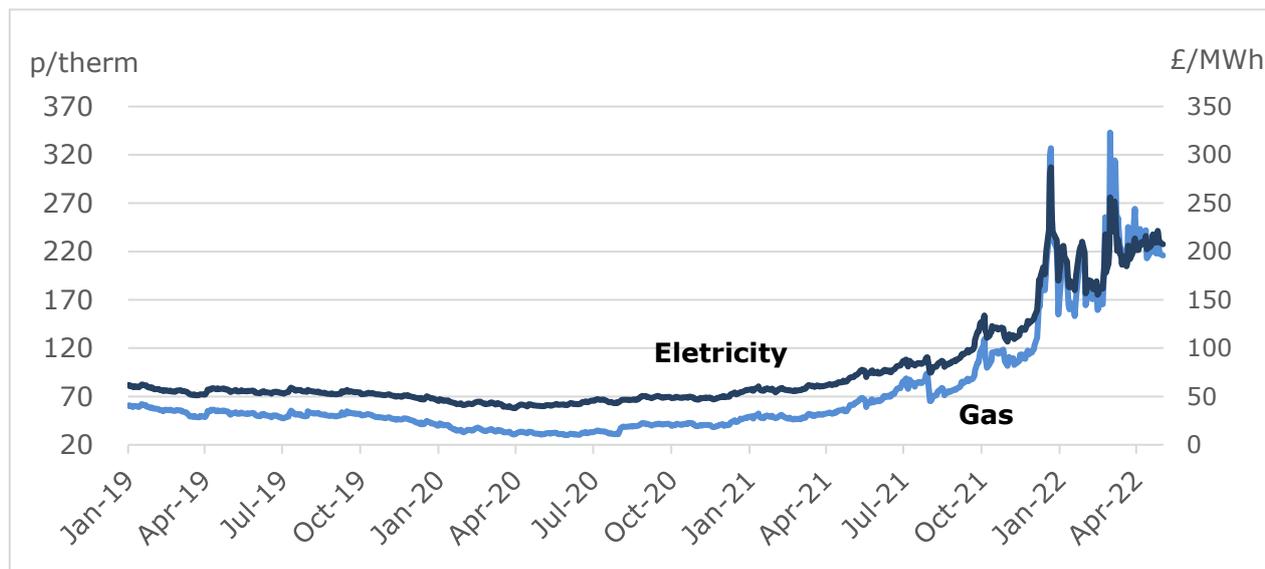
The cap methodology was developed and designed for a less volatile wholesale market than we currently have. The ongoing market dynamics in combination with the current methodology creates risks and costs for suppliers that can be difficult to manage. These risks and costs faced by suppliers are ultimately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

There have been significant changes in the wholesale market leading to increased volume risk for suppliers

2.1. Figure 2.1 illustrates the scale of price changes in the wholesale gas and electricity market in recent months compared to preceding years. For example, forward gas prices remained 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. Then, over 2021, the price increased rapidly, spiking at around 340 p/therm in March 2022.

2.2. After an initial fall in forward prices as a result of the pandemic, the economic recovery increased demand for gas alongside some outages and supply disruptions across Europe. In addition, Russia's invasion of Ukraine has placed additional pressures on global gas prices in 2022 due to concerns that supply may be interrupted or reduced.

Figure 2.1: Electricity and Gas forward prices under the current wholesale indexation approach (2019-2022, p/therm / £/MWh)



Line graph of the showing the forward prices over the past three years. Rising since October 2021 and showing the more recent spikes.

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

2.3. The cap was intended to reflect a fair price for supplying energy for customers less able or willing to engage in the market. It was not intended to become the cheapest tariff in the market and attractive for normally active customers.

2.4. In October 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 window and two-month lag between when the cap is set and when it comes into effect, causing greater discrepancy between the price at the point of indexation (i.e. the date when the cap level is determined) and at delivery (when the cap level comes into effect). While there had been an immediate shock in wholesale market prices, this did not translate through to cap levels until April 2022.

2.5. This made the price cap tariff far more attractive to customers. Customers are freely able to join and leave the cap – therefore many customers who would otherwise have refixed their tariff or moved suppliers, defaulted onto, and remained on the cap. The unexpectedly large price differential created more volume risk for suppliers than they could reasonably have planned for, with future demand becoming uncertain and difficult to hedge for. There

are now around 23 million customers on the cap out of a total of circa 28 million households in the UK⁸, a significant increase on recent years.

Impact on volume risk for suppliers

2.6. 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. During cap period seven (October 2021 to April 2022), as energy prices sharply rose, the cap became the cheapest tariff, bringing an unexpected increase in the number of customers on this tariff. This meant that suppliers had not secured sufficient energy in advance and had to purchase additional supply for those customers at prevailing, very high, prices. As the cap is fixed on a 6-month basis, suppliers were unable to recover the full cost of the energy they brought on the market when prices were higher. This is known as volume risk, which constitutes a fundamental part of operating within the energy market. However, the levels of volume risk suppliers experienced in the autumn were far beyond historical norms. We estimated the cost of this unexpected cap demand to have cost suppliers up to £900 million during cap period seven.⁹

2.7. While twice-yearly changes provide price stability for customers, during periods of market volatility they can result in suppliers being exposed to volume risk for considerable periods of time. More frequent price reviews and changes enable suppliers to adjust prices quicker and in-line with market movements, thus limiting the volume risk they face when there is significant volatility in the wholesale markets.

Suppliers also face volume risks once wholesale prices fall

2.8. To date suppliers have faced the costs of volume risk in a rising market, but when wholesale energy prices fall in future they will be exposed to falling price volume risk. When prices fall many customers are likely to move off the cap tariff onto cheaper tariffs. The supplier they leave will be left with excess supply of energy, which would have been

⁸ ONS (2022), Families and Households in the UK

<https://www.ons.gov.uk/peoplepopulationandcommunity/birthsdeathsandmarriages/families/bulletins/familiesandhouseholds/2021>

⁹Ofgem (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>

purchased at a higher cost (before wholesale prices fell). This is the inverse of the costs incurred in period seven.

2.9. Ofgem set out its decision to implement a MSC in February 2022.¹⁰ The MSC came into effect from 14 April 2022 and sets a requirement for gaining suppliers to pay a charge to losing suppliers when acquiring new customers if wholesale prices fall below a certain threshold. This protects suppliers from significant volume risk in a falling price market. In response to ongoing market volatility, we have today published our decision to amend the parameters of the MSC and have also set out our proposal to consult on extending the MSC beyond October 2022, up to 31 March 2023.¹¹

Customer impact of increased volume risk

2.10. Some of the factors that drive volume risk are difficult for suppliers to control and may even result in a well-managed and well-financed supplier failing. 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.

2.11. Ofgem has provisionally approved, from 01 September 2021 to 31 December 2021, a total of £1.8bn in SoLR costs – costs that customers pay. We need to act quickly to lessen the risks the market is exposed to, risks which could result in failures that customers will ultimately pay for.

The expected scale of backwardation costs is a further challenge

How backwardation costs arise

2.12. The cap is based on an annual price of gas and electricity for 12 months; however, it is updated every six months. The cap level is set based on forward prices, using forward

¹⁰ Ofgem (2022), Decision on market stabilisation charge
<https://www.ofgem.gov.uk/publications/decision-short-term-interventions-address-risks-consumers-market-volatility>

¹¹ Ofgem (2022), Consultation on changes to market stabilisation charge
<https://www.ofgem.gov.uk/publications/consultation-changes-market-stabilisation-charge>

contract prices across the 12-month period. This approach is adopted to protect customers from seasonal fluctuations in price.

2.13. 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 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.

2.14. In 'normal' market conditions, the combination of over-recovery in summer, under-recovery and increased demand over winter typically results in these costs and gains netting out such that suppliers recover their full costs over a reasonable period of time.¹²

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

2.15. When we first set the cap in 2019, 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 of the cap, this was the case - suppliers' costs and benefits broadly netted off. And so, there was no need to include a specific element for backwardation costs in the wholesale methodology.

2.16. However, this changed in winter '21 / '22 (Figure 2.3) – high wholesale prices and volatility means that backwardation costs are unlikely to net off against future contango. Reflecting this, suppliers are receiving an uplift of £8¹³ per consumer across cap periods eight (April 2022 - September 2022) and nine (October 2022 - April 2023) to meet the additional costs they incurred in cap period seven (Oct 2021-Mar 2022).

2.17. Based on current market prices, backwardation costs for winter '22 / '23 are now expected to be significantly higher than the costs previously faced. Additionally, there is low

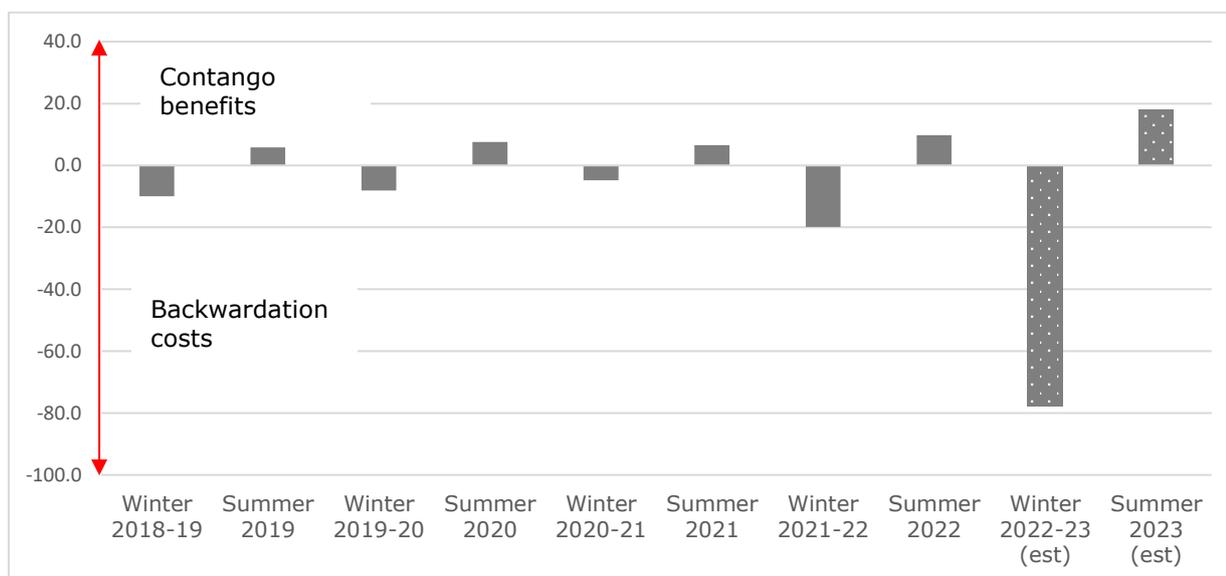
¹² While we tend to see backwardation costs in winter and contango in the summer they are not directly linked to the season. Backwardation costs could happen at any time.

¹³ This is calculated as the difference between the weighted average supplier costs and the deadband

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

2.18. Figure 2.2 illustrates modelled backwardation costs and contango benefits for a theoretical supplier. Backwardation costs per consumer are £20, £15, and £7 for winters '18 / '19, '19 / '20, and '20 / '21 respectively. Contango benefits per consumer are £12, £16, and £13 for summers '19, '20, and '21 respectively. Winter '21 / '22 had a modelled backwardation cost of £35¹⁴, with a summer 2022 contango benefit of £12 (based on prices as of 05 May 2022). To calculate these backwardation and contango figures, we compare the differences between a 6-2-12 index and a 6-2-6 index. The figures are the cost differences for each season and do not reflect the inclusion of a deadband.

Figure 2.2: Modelled backwardation costs and contango benefits for a nominal supplier under the current approach (6-2-12)



Bar graph of the levels of backwardation and contango since 2018 under a seasonal approach. Showing backwardation in winter and contango in summer.

2.19. Given the scale of the expected backwardation costs and that these costs are unlikely to be recovered in a reasonable timeframe, the current approach is no longer sufficient. These

¹⁴ In the decision document published in February, we used the average actual costs incurred by suppliers, weighted by the number of SVT customers. From this number the deadband was later deducted, resulting in the allowance of £8. In comparison, the numbers in figure 2.2 represent a modelled approach based on the seasonal indexation approach.

are legitimate costs and if they are not recovered there could be further and significant financial pressure on an already strained supply market.

A new approach is needed

2.20. In February 2022,¹⁵ we published a policy consultation on options to address volume risks and backwardation costs:

- **Change in methodology:** we consulted on introducing one of three potential options – a six- or 12-month price cap contract (1-1-12 [12]¹⁶), a quarterly update (3-1-12 [3] or 3-1-3), or a strengthened status quo (6-1-12 [6]). Each of these options would provide the potential to reduce risk within the market.
- **Reduced notice period:** we also consulted on the potential to reduce the current notice period to 28 or 14 days to further minimise volume risks for suppliers and customers.
- **Updating the wholesale cost methodology to include a backwardation element:** we consulted on options for enabling suppliers to recover backwardations costs, with a preference for an *ex-post* mechanism.

¹⁵ Ofgem (2022), Consultation on Medium Term Price Cap Changes

<https://www.ofgem.gov.uk/publications/consultation-medium-term-changes-price-cap-methodology>

¹⁶ We express the price cap formula in an index with the format X-Y-Z [A], where X is the price observation period, Y is the lag period between the end of the observation period and the start of the price cap period starting, Z is the length of forward contracts observed and A is the period for which the cap is in place, all in months. So a 3-1.5-12 [3] index for delivery starting 01 October 2023 means a 3 month observation period running from mid-May to mid-August where 12 month forward prices are observed. There is then a lag of 1.5 months from mid-August until the cap starts on the 01 October. And the cap runs for three months from 01 October to 31 December.

3. Wholesale Methodology – Updating the cap

Section summary

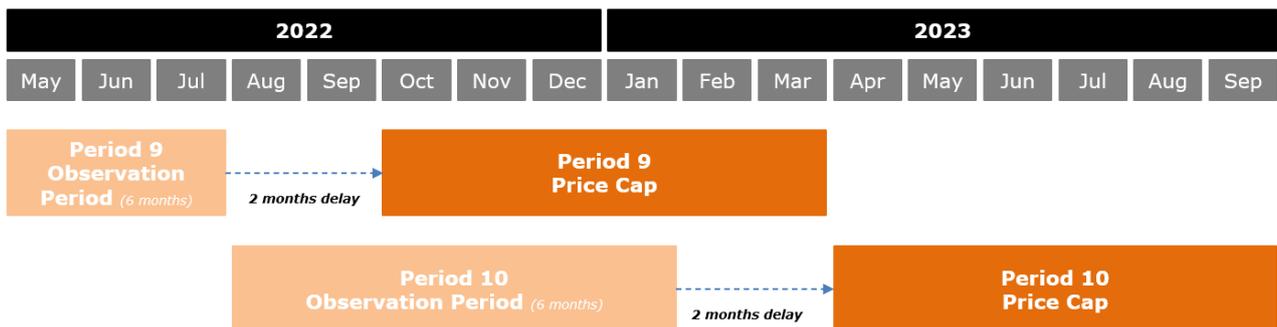
In this chapter, we outline our proposals to update the cap every quarter. We detail our consideration of the stakeholder responses we received regarding this option.

Context

Current Approach

3.1. The current cap operates using a 6-2-12 [6] index: a six-month observation window, two-month difference between the close of observation window and start of the cap period, 12-month hedge and six-month cap period.

Figure 3.1 – Current methodology timing



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

3.2. The cap level is updated on 01 April and 01 October each year, which aligns with the seasonal energy products available in wholesale energy markets.

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

February 2022 Consultation

3.4. The duration of cap periods, frequency of cap updates and the lag between setting the cap and the level coming into effect are drivers of the volume risk facing suppliers. In the February 2022 consultation, we proposed three options to address this:

- **Strengthened status quo:** maintaining the current index approach with a reduced notice (6-1-12 [6]) period and the addition of an in-period re-opener
- **Quarterly updates:** a three-month cap, with a three-month observation window, and with a one-month notice period with two variants for the price reference period – 12 or three months (3-1-12 [3] or 3-1-3 respectively). The three-month hedge removing backwardation costs but increasing volatility
- **Price cap contract:** a six or 12-month cap without exit-fees. We would split customers into 12 cohorts and sequentially update the next cohorts' cap level on an ongoing monthly cycle (1-1-12 [12])

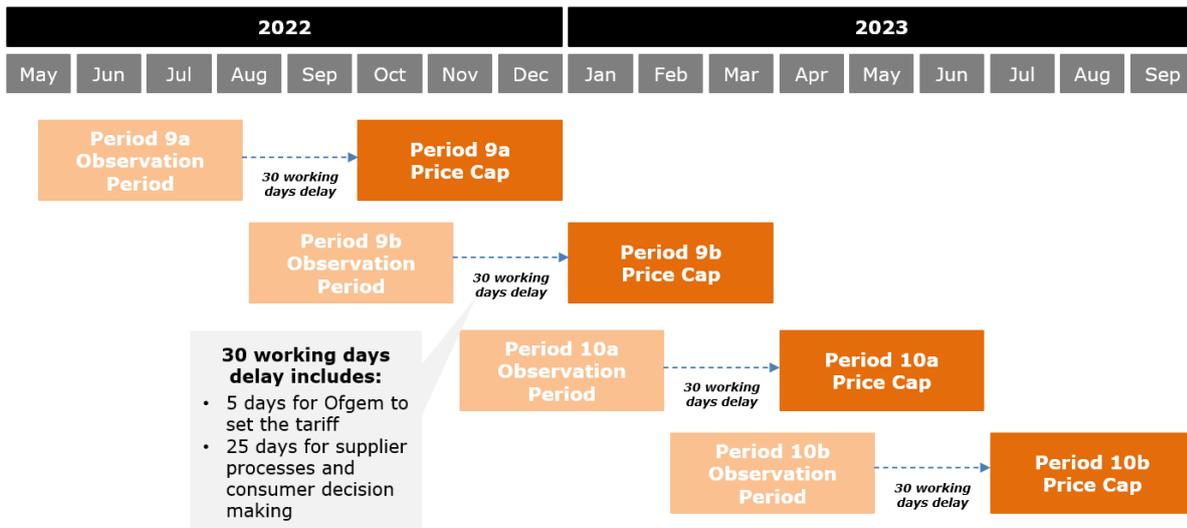
Our Proposals – quarterly updates

Updating the cap quarterly

3.5. We propose to introduce quarterly updates: three-month observation window; 1.5 months (30 working days) lag between the end of the observation window and the start of the cap; 12-month price reference period - indexation of 3-1.5-12 [3].

3.6. Under this approach, there is a total of 30 working days between the end of the observation window and the start of the cap period. The first five working days are allowed for updating the cap and publishing the level. We would 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 customers to consider the change. We illustrate this in Figure 3.2.

Figure 3.2: Proposed quarterly update structure



Graphic showing the proposed 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, and then a three-month price cap.

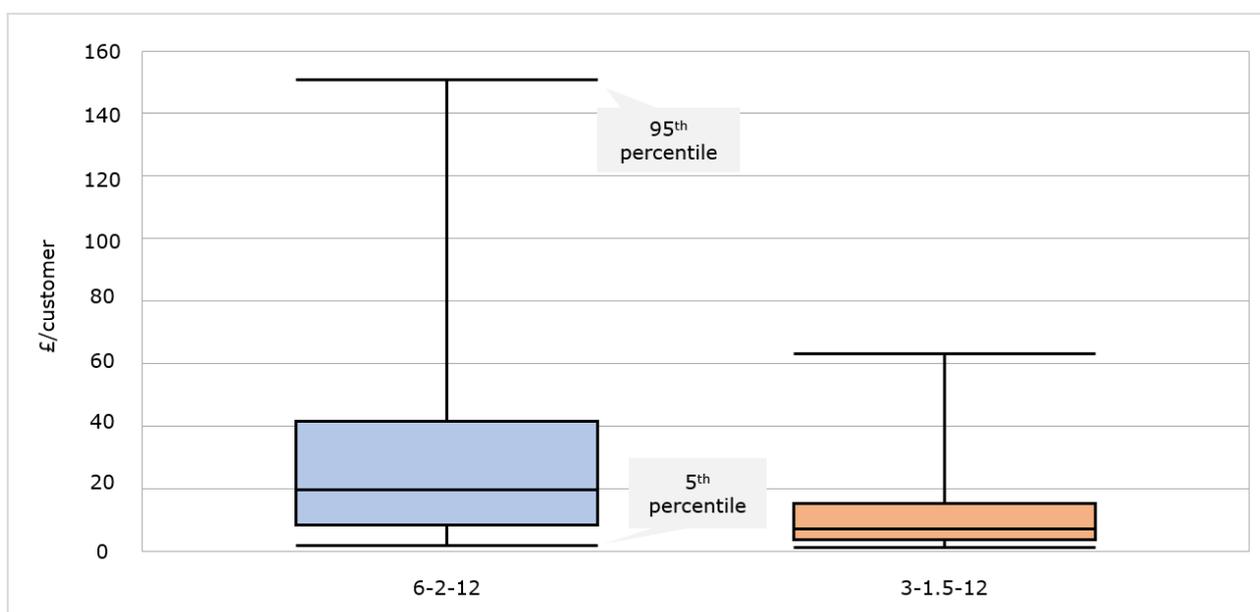
Table 3.1 – Cap period and announcement dates

Price Cap	Period	Cap announcement	Start of observation	End of observation
9a (transitional)	Oct 2022 – December 2022	26 August 2022	01/02/2022 (7-1-12) 06/06/2022 (3-1.5-12)	01/06/2022 (7-1-12) 18/08/2022 (3-1.5-12)
9b (transitional)	Jan 2023 – March 2023	24 November 2022	01/02/2022 (7-1-12) 19/08/2022 (3-1.5-12)	01/06/2022 (7-1-12) 16/11/2022 (3-1.5-12)
10a	April 2023 – June 2023	27 February 2023	17/11/2022	17/02/2023
10b	July 2023 – September 2023	26 May 2023	20/02/2023	18/05/2023
11a	Oct 2023 – December 2023	25 August 2023	19/05/2023	17/08/2023

3.7. Out of the three options we considered for setting the cap, quarterly updates present the fairest balance between reducing volume risk, operational practicality and customer experience. Our initial analysis suggests that moving to a quarterly approach (3-1.5-12) reduces the average volume risk by approximately £27 per customer over a year compared to the status quo (6-2-12).¹⁷ This is equivalent to a 60% decrease.

3.8. Moving to quarterly updates also reduces the spread of potential volume risk. Figure 3.3 shows that the 95th percentile of volume risk significantly decreases moving from the status quo to quarterly updates. While we focus on the quarterly updates compared to the status quo in this section, we consider the alternative options in further detail in Appendix 1.

Figure 3.3 – Distribution of volume risk by index approach



Box plot chart of the distribution of volume risk, showing the much smaller distributional range when a 3-1.5-12 indexation methodology is employed compared to the status quo of 6-2-12.

¹⁷ 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.

3.9. In setting out the approach, we retain seasonal smoothing by using prices for contracts delivering energy over a year. This ensures that customers do not face higher prices over winter months. However, seasonal smoothing does introduce basis risk, which may lead to greater backwardation costs. To account for this, we propose to reflect backwardation costs in the wholesale methodology – we discuss our proposals in Chapter 5.

Transition to the quarterly updates

3.10. We propose to consider the amount of energy a nominal supplier will have purchased if following the current price indexation guidance when transitioning to quarterly updates.

3.11. The observation window to set the wholesale allowance for the cap period starting October 2022 began in February under the current approach. In March 2022, we also provided additional price indexation guidance¹⁸, which set out a move from the current 6-2-12 [6] approach to a non-linear 7-1-12 [6] approach. In line with the second price indexation guidance letter¹⁹ provided alongside this consultation, we will calculate the transitional cap levels based on a nominal supplier which purchases energy under the current approach until 01 June 2022 and transitions to the 3-1-12 [3] approach from 06 June 2022 to fill the remainder of volumes for the quarterly October 2022 and January 2022 cap periods. We provide further detail of our transitional approach in Appendix 2.

Updating other cost components

3.12. Alongside wholesale costs, the cap consists of other components. These can be split between costs we recalculate (e.g. Network costs), costs we index by CPI-H (consumer price index including housing costs) (e.g. Operating costs) and percentage allowances (e.g. headroom).

3.13. We currently update all costs twice-yearly. However, if we move to quarterly updates, we will carry out an update for some components more frequently via an interim update in

¹⁸ 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%20proposals164727779834.pdf>

¹⁹ 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>

July and January. In line with our current approach, we will update all components via a full update in April and October. In Table 3.2, we set out our proposals on which costs will be updated via the interim (quarterly) update and which costs will be updated only in the full update (twice-yearly).

Table 3.2 – Proposals on the full and interim cap updates

Component	Proposal	Rationale
Wholesale costs (Direct fuel and backwardation)	Interim update (Quarterly)	Our overall proposal to move to quarterly updates relates largely to wholesale costs in the cap.
Capacity markets	Full update (Twice-yearly)	Inputs for capacity markets are only updated twice-yearly.
Contracts for difference (CfD)	Interim update (Quarterly)	The input values for CfDs are available quarterly and relate to commodity costs. In line with our treatment of wholesale costs, we propose to update this cost quarterly.
Network costs	Full update (Twice-yearly)	Network and policy costs are set using information published either twice-yearly or annually only.
Policy costs (excluding CfD)	Full update (Twice-yearly)	
Operating costs	Full update (Twice-yearly)	Operating costs are indexed by CPI-H. We propose to 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)	Full update (Twice-yearly)	
Payment method uplift	£ element – Full update (Twice-yearly) Percentage element – Interim update (Quarterly)	There are two components for payment method uplift – a flat component indexed by CPI-H and a percentage. We propose to 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	Interim update (Quarterly)	EBIT and headroom are calculated as percentages of the other cost components. We propose to update the £ value quarterly in line with changing wholesale costs.
Headroom	Interim update (Quarterly)	

3.14. To simplify the update process, we intend to move CfD costs from Annex 4 – Policy cost model, to Annex 2 – wholesale cost model. This will allow us to contain all components for the quarterly update within one annex and limit the number of changes we make to the models. The methodology will remain consistent and in line with our April 2022 consultation on setting the CfD cap allowance.²⁰ However, we will update the inputs quarterly in calculating an annualised expected levy payment.

3.15. We outline the consequential model changes of moving to quarterly updates in Appendix 3.

Summary of stakeholder responses

3.16. Ofgem received 22 responses to the February 2022 consultation²¹, of which 10 expressed a preference for the quarterly update, four expressed a preference for the 12-month price cap contract, whilst three stakeholders expressed a preference for their own bespoke proposed options, two expressed a preference for a Strengthened Status Quo, and the remaining three expressed no clear preference.

3.17. We discuss the reasons for discounting the other wholesale methodology proposals in Appendix 1. We focus on the responses to the quarterly update proposal here.

3.18. A few stakeholders cited a key benefit in introducing a quarterly update being its frequent updates which would make it more reflective of wholesale costs, thereby reducing suppliers' volume risk.

²⁰ Ofgem (2022), Consultation on amending the methodology for setting the Contracts for Difference (CfD) cap allowance
<https://www.ofgem.gov.uk/publications/consultation-amending-methodology-setting-contracts-difference-cfd-cap-allowance>

²¹ Ofgem (2022), Consultation on Medium Term Price Cap Changes
<https://www.ofgem.gov.uk/publications/consultation-medium-term-changes-price-cap-methodology>

3.19. One stakeholder also noted the smaller incremental changes to prices, in a similar structure to the status quo, makes it more readily intelligible for customers, advisors, and comparison groups.

3.20. Several stakeholders cited the increased updates as volatility which could negatively impact customers' ability to forecast and financially budget as well as the status quo or a fixed contract.

3.21. Several stakeholders raised concerns around updates over winter for its impacts on customers' ability to engage, potential impacts on vulnerable customers including rationing of fuel or difficulty budgeting, and the impacts on suppliers of supporting customers through call centres during a difficult resourcing period.

3.22. Two other frequently raised considerations were the need for adjustments for the potential increase in operational costs resulting from further notifications, and support for suppliers in transitioning to new hedging indexations.

3.23. Impacts of the quarterly update on engagement were divided with several stakeholders suggesting it may increase engagement, a few stated that it would spread engagement making it more manageable for suppliers, and a few suggesting that it may lead to engagement fatigue.

3.24. Structurally two points were raised around limitations of quarterly updates – the first being that stakeholders viewed it as maintaining basis risk or exacerbating it, and the second being that stakeholders stressed the difficulty in comparing tariffs and creating personal projections for customers.

Considerations

Customer impacts

Financial impacts

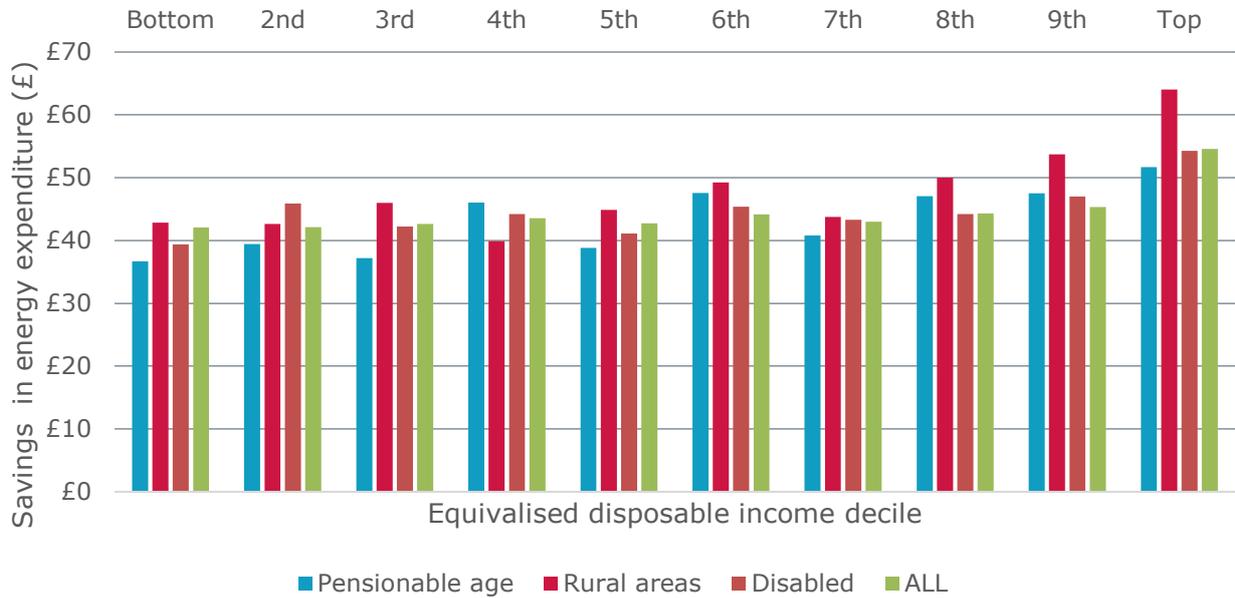
3.25. Customers have consistently told us that price of their energy is important. Our most recent qualitative research has found that concerns about energy costs for most customers is, unsurprisingly, increasing.²²

3.26. Distributional analysis based on stochastic modelling of current energy prices forecasted forward shows that customers are better off under a quarterly update approach compared to the status quo. A 3-1.5-12 [3] cap policy (including backwardation costs) results in around £44 annual energy bill savings on average across all consumer groups, with households in the top income decile saving up to £55 annually reflecting generally higher levels of energy consumption relative to the bottom income decile households that save around £42 annually (Figure 3.4).²³ In stable market conditions, there is no difference in cost to customers of quarterly updates and the status quo.

²² Ofgem commissioned two pieces of qualitative research via its Consumer First Panel, to explore customer views on various aspects of the Price Cap. Both pieces will be published in due course.

²³ Analysis of the distributional impact of quarterly updates in comparison to the status quo has been conducted. The analysis considered both current energy levels forecasted forward and an alternative, lower prices more stable market based on historical prices. The distributional impact during the transition was not assessed. The distributional analysis will be published shortly.

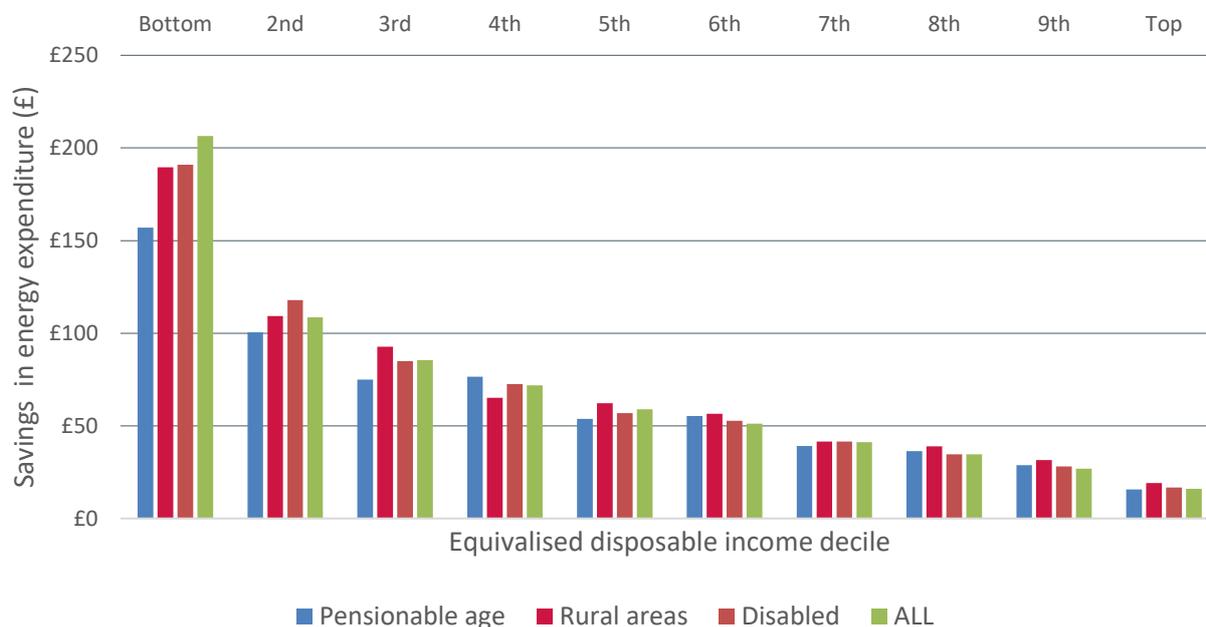
Figure 3.4: Impact of quarterly updates on electricity and gas bills, by categorical group and equivalised income decile, in comparison to the status quo



Bar graph of the impact of quarterly updates across pensionable age, rural area, disabled, and all customers, indicating that those in the equivalised bottom income decile will make savings under the quarterly update methodology

3.27. Furthermore, when the savings are weighted relative to levels of disposable income – which reflects the absolute monetary benefit or cost to lower income households, quarterly updates provide a significant saving for those in the lowest income decile (Figure 3.5).

Figure 3.5: Impact of quarterly updates on electricity and gas bills, by categorical group and equivalised income decile (equity adjusted results)



Equity adjusted bar graph of the impact of quarterly updates on savings in energy expenditure across pensionable age, rural area, disabled, and all customers, indicating that those in the equivalised bottom income decile will make the greatest savings under the quarterly update methodology.

Winter price changes

3.28. Quarterly updates will result in price changes in January and the period from January to the end of March has historically been the highest in terms of household energy consumption. Several stakeholders particularly highlighted the customer impacts of this. There were concerns of self-rationing or difficulty in paying for the greater demand over winter with Christmas just passed. A second concern raised by stakeholders was that notifications issued at this time may go unnoticed, and as a result customers would be less aware and engaged with price changes. Our customer research also highlighted concerns about price changes in January, especially if this was an increase – notably a price increase – over winter.²⁴

²⁴ Ofgem commissioned two pieces of qualitative research via its Consumer First Panel, to explore customer views on various aspects of the Price Cap. Both pieces will be published in due course.

3.29. The proposed quarterly updates approach has a 12-month price reference period which will mean there is seasonal smoothing, which should mitigate against a significant seasonally driven price increase in winter. The combination of a quarterly update and a 12-month price reference would limit the link between demand and price and so customers could benefit from a price reduction at a time of year when energy consumption is at its highest.

3.30. We recognise that this is a very difficult time for many customers. We remind suppliers that in these times there is particular need for attention paid to supply licence condition (SLC) 27²⁵ and the obligations highlighted in our Consumer Vulnerability Strategy²⁶, of ascertaining customers' ability to pay, ensuring payments are set to reasonable levels for the customers, and using structures where possible to support customers with information and payment methods.

3.31. There are a number of SLCs²⁷ 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, SLC31G – Assistance and advice information, and SLC 31I – Contract changes information. We consider these to be sufficient to address the challenge of ensuring that customers are communicated with in the right way at all times of year.

3.32. Should a customer decide that they want to switch tariff or suppliers, in accordance with SLC 23.6 they have up to 20 working days after the price change came into effect to instigate a switch and avoid a change in price.

3.33. The distributional analysis also demonstrates that overall this approach is neutral during periods of lower and more stable prices, but results in savings for all customers during times of high and volatile prices. This is in addition to helping customers to avoid the cost of supplier failures. (See *Financial Impacts*)

²⁵ Gas and Electricity Markets Authority (1989), Standard conditions of electricity supply license <https://epr.ofgem.gov.uk//Content/Documents/Electricity%20Supply%20Standard%20Licence%20Conditions%20Consolidated%20-%20Current%20Version.pdf>

²⁶ Ofgem (2019), Consumer Vulnerability Strategy 2025 <https://www.ofgem.gov.uk/publications/consumer-vulnerability-strategy-2025>

²⁷ Gas and Electricity Markets Authority (1989), Standard conditions of electricity supply license <https://epr.ofgem.gov.uk//Content/Documents/Electricity%20Supply%20Standard%20Licence%20Conditions%20Consolidated%20-%20Current%20Version.pdf>

Increased volatility

3.34. Several stakeholders cited that the more frequent changes in price, and therefore volatility, could lead to difficulty in customers budgeting and forecasting expenditure.

3.35. The observation window and cap period for quarterly updates will be three months, which is shorter than the six-month observation window 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 number of price changes for customers.

3.36. Our customer research found that customers want as much stability and certainty around the number of price changes and the size of these, so they can budget accordingly.²⁸ While we recognise this preference, the frequency and potential volatility of price changes is a consequence of the methodology – of quarterly updates. Quarterly updates are the best option – striking the right balance of risks between customers and suppliers, and meeting customer interests, in terms of price.

3.37. We know that price – in particular, at times where the costs are so high – is key. As we set out in *Financial Impacts* above, the distributional analysis has found it to present savings against the status quo.

Price comparisons

3.38. A few stakeholders raised issues relating to customers comparing the cap tariff to products on the market. They cited that the Personal Projection (PP) which is generated by suppliers and price comparison websites (PCWs) to enable comparisons and cheapest tariff messaging (CTM) would be less accurate as they are based on annual forecasts but the cap tariff would be updated quarterly.

3.39. Also noted was that it may be harder for customers to make informed decisions based on the misalignment between updates and comparison timelines, which may reduce engagement or cause negative perceptions of the industry.

²⁸ Ofgem commissioned two pieces of qualitative research via its Consumer First Panel, to explore customer views on various aspects of the Price Cap. Both pieces will be published in due course.

3.40. Our customer research found that customers would prefer more personalised notifications about how their bills would be changing so that they could plan their budgets. This included information about their usage, the level of the price change and their tariff options.²⁹

3.41. We recognise the potential risk and what the impacts may be – for example, poor switching decisions, reduced confidence or concerns of unfairness in the market. We raised this point in the February policy consultation. No stakeholders were able to provide a suggestion as to how best to address this. We would welcome stakeholder views on this or any alternative approaches.

3.42. However, there are a number of SLCs³⁰ that should mitigate this risk (including those set out above in *Winter Price Changes*). SLC 25 – Informed Choices – Tariff Comparability and marketing required suppliers and their representatives to ensure that there are “information, services and/or tools” in place to enable customers to understand tariff and easily compare them. Further, SLC 31F.4 requires licensees to provide customers with information in a form and frequency that enables them to not only understand they can switch but the benefits from doing so, including financially.

Customer engagement fatigue

3.43. A few stakeholders noted that increasing the number of notifications may reduce customer engagement due to engagement fatigue. However, several stakeholders stated that it may increase or spread engagement across the year.

3.44. There is likely a trade-off between the potential for engagement fatigue and the benefit of spreading and increasing engagement. The impact of quarterly updates on customer engagement will vary depending on each household’s individual circumstances and pressures, however ongoing economic pressures may result in greater levels of engagement than may otherwise have been expected and for smaller savings.

²⁹ Ofgem commissioned two pieces of qualitative research via its Consumer First Panel, to explore customer views on various aspects of the Price Cap. Both pieces will be published in due course.

³⁰ Gas and Electricity Markets Authority (1989), Standard conditions of electricity supply license <https://epr.ofgem.gov.uk//Content/Documents/Electricity%20Supply%20Standard%20Licence%20Conditions%20Consolidated%20-%20Current%20Version.pdf>

3.45. Research cited by one stakeholder set out that there may be a non-linear relationship between prompting engagement and a customer switching.³¹ While this may be true in some circumstances, the increased frequency of communications due to quarterly updates may increase the chance that any one communication happens to fall at the right time for a customer to consider their options.

3.46. There are a number of relevant SLCs – specifically aimed at enabling effective engagement noted above in *Price Comparison*. Of particular relevance are the requirements on licensees set out in SLC 31F.1, that they must

"act in a manner which is designed to promote positive engagement by encouraging each Domestic Customer (as appropriate to the circumstance) to:

(a) consider switching Tariff or Electricity Supplier; and/or

(b) understand and manage the costs associated with that Domestic Customer's Tariff and the electricity that Domestic Customer consumes."

3.47. Reflecting objective of these requirements, we consider that there is sufficient protections to ward against engagement fatigue.

Supplier wholesale impacts

Shaping costs

3.48. Two suppliers expressed concerns about shaping costs in the context of quarterly updates. In particular, one noted that shaping costs could increase if suppliers need to buy season contracts as a proxy for quarters.

3.49. Shaping costs refer to the cost of re-profiling larger granularity contracts to finer granularity contracts e.g. 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 the make the cap more reflective of a

³¹ University of East Anglia (2015), Competition and Markets Authority: Energy Market Investigation – Supplemental Notice of Possible Remedies
https://assets.publishing.service.gov.uk/media/5652fc2440f0b674d600004b/University_of_East_Anglia-Centre_for_Competition_Policy_resp_to_supp_remedies_notice.pdf

realistic hedging process. Suppliers' shaping costs will vary from year to year and from quarter to quarter. Different suppliers will incur slightly different costs; 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.³²

3.50. We do not intend to update the shaping allowance at this stage. We expect, all else being equal, that moving from seasonal to quarterly updates would slightly reduce the shaping cost if there is sufficient liquidity to trade in quarters where required, but 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 estimate that applying a percentage will remain broadly appropriate. We would welcome feedback on whether you consider that a review of the shaping allowances is required.³³

Transaction costs

3.51. While few suppliers raised concerns specific to transaction costs specifically, most raised concerns about liquidity (see *Liquidity* below) which would impact on the bid-offer component of transaction costs.

3.52. Transaction costs are the immediate costs borne by suppliers in hedging their demand. The transaction allowance has been set based on a historic survey of suppliers' costs, applied as a percentage to the direct fuel allowance and so scales with increases and decreases in prices.

3.53. We do not intend to increase the allowance for transaction costs. We do not expect the move from seasonal to quarterly updates to have an impact on brokerage costs or exchange fees. We acknowledge that the difference between seasonal and quarterly product liquidity may result in higher bid-offer costs, however at this stage it is not clear what adjustment, if any, will be necessary for this. Overall, we expect that the benefits of lower volume risk and

³² This percentage adjustment is based on historic price ratios (using price data to the end of March 2018) for electricity and gas between seasons and their component quarters, quarters and their component months, the volatility between monthly and hourly prices and the difference between actual and expected demand profiles.

³³ We have also published a consultation to seek views on whether suppliers are incurring additional efficient wholesale costs, beyond the existing allowances in the default tariff cap. Ofgem (2022) Price cap – Consultation on possible wholesale cost adjustment <https://www.ofgem.gov.uk/publications/consultation-changes-market-stabilisation-charge>

lower collateral requirements for the shorter average hedge compared with seasonal updates will offset higher transaction costs should they occur. However, we may consider updating the transaction cost allowance should we review the shaping cost allowance at any point in future.

Liquidity concerns

3.54. Several suppliers flagged that in moving the hedging profile to quarterly products there may be concerns for the liquidity of the products in the market, especially beyond the front quarter in electricity. Some participants noted that it was difficult to comment because at the time, the exact index was not known.

3.55. Ofgem expects that, due to the inclusion of backwardation costs in the wholesale methodology (Chapter 5), suppliers who hedge to a 3-1.5-3 index will minimise their exposure to the combined impact of the 3-1.5-12 index and the backwardation adjustment. Whilst there may still be liquidity constraints, liquidity in 3-1.5-3 is expected to be a significant improvement on 3-1.5-12.

Price availability impacts on modelling quarterly updates

3.56. Calculating the 3-1.5-12 index requires prices for four quarters, at the most covering a period from 1.5 months ahead to 13.5 months ahead. We acknowledge that market-based price quotes will not always be available. In particular, quarterly prices are generally published for 12 months forward, not the required 13.5 months.

3.57. In instances where quarter prices are not available, we intend to substitute prices for the parent season of corresponding quarter. We consider this a necessary simplification to calculate the wholesale cost allowance.

3.58. Given that season / quarter ratios 12 months forward are generally less than 3%, and that the use of season prices is not systematically biasing the index in any direction, we expect this to have a <0.5% impact on the direct fuel allowance.

3.59. To note, we use the same index approach and proxy when calculating backwardation so any small impact will net out against the inclusion of backwardation costs in the wholesale methodology.

Residual volume risk and backwardation costs

3.60. Several stakeholders noted that whilst quarterly updates would help to reduce volume risk, it would not eliminate it and a few stakeholders suggested that further volume risk reducing measures should be implemented to supplement the change in methodology proposal.

3.61. Volume risk has always been a feature of the energy market for suppliers to manage. However, we acknowledge that elevated volume risk during volatile market conditions can be costly for suppliers and customers. We propose to introduce quarterly updates to substantively reduce volume risk for suppliers. However, we do not expect customers to bear the full risk mitigation through increase price volatility. We consider suppliers are better placed to manage 'normal' levels of risk.

3.62. We acknowledge that we need to transition to quarterly updates and in doing so, it will take some time to realise the full benefits of lower volume risk. Therefore, we are also consulting on whether there is a case to extend the MSC up to the end of March 2023.

3.63. Several stakeholders voiced concerns around quarterly updates potentially increasing the basis risk and leading to greater backwardation costs within the market. We propose to reflect backwardation costs in the wholesale methodology as detailed in Chapter 5.

Supplier operational impacts

Impact on operational costs

3.64. Several stakeholders flagged potential increases in operational costs due to the increase in customer notifications across the year. Two stakeholders suggested this could double operational costs related to the cap update (eg sending letters). However, two stakeholders cited a forecasted minimal change in operational process for suppliers, and relative 'ease' of transition in handling customers.

3.65. A few stakeholders stated that customer engagement may be more difficult to manage over the winter update with call centres requiring extra support due to staff taking holidays and potential challenges for suppliers in distributing communications at this time of year.

3.66. We acknowledge quarterly updates will mean more communications between suppliers and customers as prices change more frequently. This may potentially increase suppliers' operational costs in two aspects:

- costs of outbound contact relating to the cap update (eg a doubling in the number of emails or letters across the year) and
- the operational costs impacted by inbound contacts from customers (eg people making contact after receiving their cap notification), directly relating to cap notification increases.

3.67. We have seen limited evidence to suggest that there would be a significant increase in operational costs from moving to quarterly updates. Overall, suppliers would benefit from moving to quarterly updates as it lowers volume risk and the respective costs that arise. Given the reduction in risk and uncertainty, we expect suppliers to manage the operational transition to quarterly updates and consider headroom scaling with commodity costs may provide some relief as suppliers adapt their business practices.

Personalised communications

3.68. Two stakeholders suggested that the operational burden could be reduced by removal of prescriptive elements of customer communication obligations and the introduction of industry-wide notifications delivered by Ofgem. Two other stakeholders requested a relaxing in the licence conditions to reduce the burden on suppliers' notifications including the removal of personal projections (PPs) requirements. A few stakeholders suggested Ofgem should review and amend the requirements on suppliers to communicate with and provide meaningful price and bill information to their customers.

3.69. We do not consider it appropriate to remove the requirement on suppliers to provide personalised information. Rather, given the financial pressures facing households we consider it even more important. We regularly review our rules and whether they are fit for purpose, and welcome input from suppliers in cases where they feel the licence conditions create a barrier to providing appropriate services or messaging to customers. In our qualitative research, many customers felt it was important that their supplier did more to personalise communications and make the information more salient.³⁴

³⁴ Ofgem commissioned two pieces of qualitative research via its Consumer First Panel, to explore customer views on various aspects of the Price Cap. Both pieces will be published in due course.

4. Wholesale Methodology - Reducing notice period

Section summary

Currently there are two months between the end of the observation window and the start of the next cap period. We are proposing to reduce this to 30 working days – five working days will be used for Ofgem to update the cap level, with suppliers then given 25 working days to update systems and notify customers. This will further reduce the volume risk.

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.

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. Based on feedback to our consultation and further discussions with relevant service providers, we consider that our proposed reduction in the notice period requires challenging but achievable increases in speed, but without incurring fundamental changes to systems and processes.

4.4. 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.

4.5. The cap is currently 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 suppliers with approximately two months' notice of the cap level before it comes into effect.

February 2022 consultation

4.6. In our February 2022 consultation,³⁵ we consulted on reducing the notice period to reduce volume risk. We considered reducing the notice period to 28 calendar days. In addition, we asked stakeholders to consider whether a shorter notice period (eg 14 calendar days) would be feasible. We have considered stakeholder comments, industry views and customer research on the notice period and set out our proposals below.

Our proposals

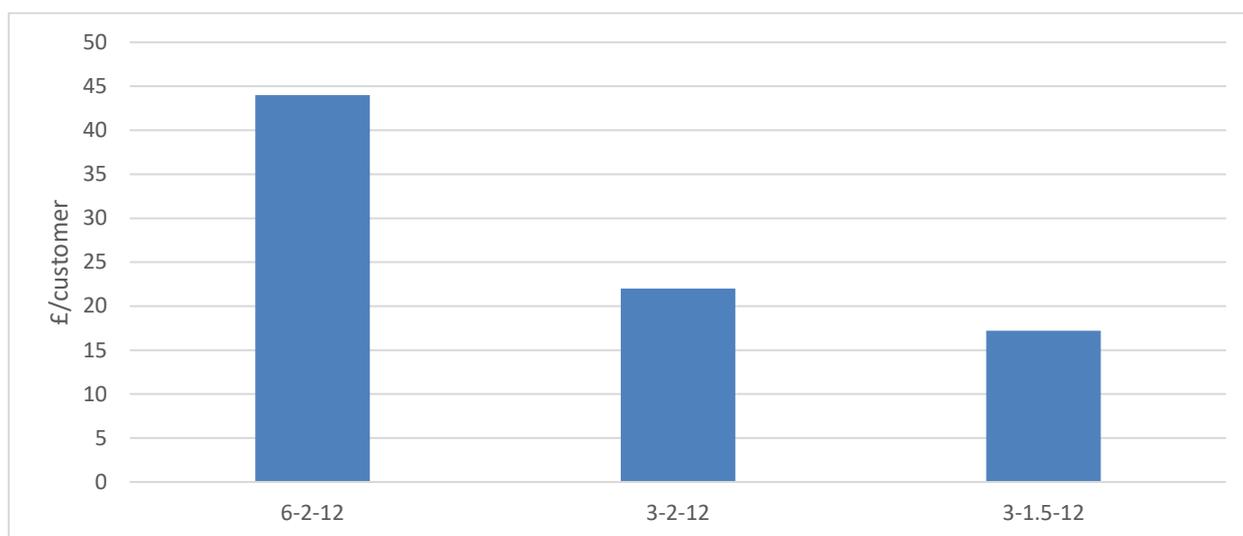
4.7. We propose to shorten the notice period from approximately two months to 25 working days. In addition, we retain five working days to calculate and publish the updated cap level, meaning there is a 30-working day delay between the observation window closing and the cap period coming into effect. Our proposal is solely described in working days and not calendar days. We recognise that activity that suppliers and others will take will not be confined to working days. Other elements of our processes such as the 28-day consultation period and 56-day standstill are expressed in calendar days.

4.8. Based on our discussions with suppliers, shorter notice period will still give enough time for suppliers to update their systems and provide enough notice for customers to consider their options around the price change.

4.9. The reduction in notice period allows us to incorporate more recent 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 initial analysis suggests that moving to quarterly updates (6-2-12 to 3-2-12) reduces average volume risk from approximately £45 per customer over a year to £22, reducing the notice period then further reduces average volume risk to £17 (Figure 4.1). As discussed in Chapter 3, reducing volume risk will reduce the risk of supplier failure and the associated cost to customers.

³⁵ Ofgem (2022), Consultation on Medium Term Price Cap Changes
<https://www.ofgem.gov.uk/publications/consultation-medium-term-changes-price-cap-methodology>

Figure 4.1 – Average volume risk under index approaches



Bar graph of the average volume risk under the current indexation methodology compared with 3-2-12 and 3-1.5-12, indicating that volume risk is lowest (at just under £20 per customer) in the 3-1.5-12 indexation.

Summary of stakeholder responses

4.10. A reduction of the notice period to 28 calendar days (around 20 working days) was supported by 13 of the 14 stakeholders that responded to the notice period section of the February 2022 Consultation. However, there were two concerns raised in relation to moving to quarterly updates:

- The operational challenges of shortening the notice period. This includes the process for updating prices, increased costs associated with less notice and the prescription in rules around notification.
- PPM (prepayment meter) stakeholders were particularly concerned for the operational aspect of delivering the cap updates with a reduced time period. One stakeholder stated the end-to-end process for PPM customers could require up to six weeks to deliver. Within a 28-day notice period, this risks PPM customers receiving their notification after the price change has already been implemented.

4.11. A several stakeholders expressed concern at customers having too little time to act where a notice period shortened too far. Stakeholders said Ofgem should ensure that customers have more than a 'few' days to act. A few stakeholders raised worries at the notification period shortening over winter, where the update would be introduced in

December, with customers pressured to act within a shorter period, at a time where they may not be focused on their energy bills or have as much disposable income.

Considerations

Operational challenges

Reducing the notice period

4.12. In our February consultation, we asked stakeholders to consider a shorter notice period (e.g. 14 calendar days) - no stakeholders were in favour of this. We do not think a 14-calendar day notice period is operationally feasible and it is likely that the entire period would be used for suppliers to update their systems. This would not leave any time for customers to consider the price change. Our customer research also found that customers considered this too short a notice period.³⁶ Therefore, we discount a 14-calendar day notice period.

4.13. We consider 25 working days would be a reasonable amount of time for suppliers to update their systems, notify customers and for customers to then consider their options. Suppliers indicated they would need two to three weeks and consumer groups indicated a similar amount of time would be required for customers – with some activity happening in parallel. However, price updates for prepayment meter (PPM) customers follows a different operational process that increases the required time for an update – we consider this below.

Updating PPM prices

4.14. As raised in response to our consultation, the update process for PPM customers is more complex. PPM Meter Infrastructure Providers (PPMIPs) and PPM vendors (e.g. Paypoint) require additional time to update the infrastructure and meters.

4.15. The PPMIPs and PPM vendors activity is sequential, starting once the PPMIPs have received tariff information from the suppliers. Following discussions with PPM stakeholders and suppliers, we consider setting the notice period at 20 working days (approx. 28 calendar

³⁶ Ofgem commissioned two pieces of qualitative research via its Consumer First Panel, to explore customer views on various aspects of the cap. Both pieces will be published in due course.

days) may introduce risks that PPM customers meters are not updated by the start of a cap period.

4.16. We propose to set the notice period to 25 working days as we consider this allows enough time for all parties to carry out their activities, whilst giving time for customers to consider their options.

Impact of decreased time for notifications

4.17. Two stakeholders said that reducing the notice period means they cannot stagger their outbound communications. They think this will lead to an increase in inbound communications and an increase cost for call centres. We discuss the impact of our proposals on operational costs in the *supplier operational impacts* section of Chapter 3.

Prescribed rules on communications

4.18. A few stakeholders stated the primary obstacle to delivering notifications on shorter timelines were customer notification requirements, particularly around personalised notifications, e.g. CTM.

4.19. We do not consider it appropriate to reduce the level of personalised information for customers. At times of price changes it is critical that customers have the right information to understand the impact on them and the options that they have. It is also clear from our customer research that personalised notifications would be valued by customers. It was also clear that they would welcome and appreciate empathy in terms of the challenges and financial strain they were facing.³⁷

Customer Impacts

The impact of having less notice for decisions

4.20. With a reduction in notice period, customers may have a shorter period of time in which to assess their position and engage with the market to make a decision before the price change is implemented.

³⁷ Ofgem commissioned two pieces of qualitative research via its Consumer First Panel, to explore customer views on various aspects of the Price Cap. Both pieces will be published in due course.

4.21. We consider our proposal of a 25-working day notice period will provide suppliers enough time to give customers an adequate amount of notice. Based on our understanding of suppliers' update processes, we expect there to be at least 10 working days' notice, but ideally closer to 15 working days provided to customers. This leaves three weeks for suppliers to update their systems and send out communications.

4.22. Two suppliers said that printing constraints may mean that customers who receive a paper bill will have less notice time. We consider suppliers will be able to prioritise scheduling of these communications and / or make the necessary arrangements to ensure notifications can be received by all customers regardless of their communication preference with sufficient notice to take action.

4.23. Further, as set out in SLC 0.3(c) licensees are required to have fit for purpose customer service arrangements and processes to support customers at these times.

The interaction with winter updates

4.24. Our proposed approach of quarterly updates means there will be a cap period starting on 01 January. Combined with a shorter notice period in our consultation means customers could have received price change notifications in December, in the run up to Christmas.

4.25. Two stakeholders raised concerns that notifications during December are likely to go unnoticed. Customers have the potential to be less engaged over the Christmas holiday season, therefore there is a risk that customers will not engage with the winter update. This is shown by seasonal trends in switching, in which we usually observe a drop in switching around January.³⁸

4.26. In addition, two stakeholders raised concerns about the potential pressure of dispatching notifications across the Christmas period when postal services may already be seeing high demand.

³⁸ Retail market indicators
<https://www.ofgem.gov.uk/retail-market-indicators>

4.27. Our proposal to set a notice period of 25 working days means that we will announce the cap level in late November (Table 3.1). We expect this will allow suppliers time to manage the notifications being issued in advance of Christmas.

4.28. As we set out above in *The impact of having less notice*, and in *Winter Price Changes and Consumer Engagement Fatigue* of Chapter 3, there are a number of existing requirements on licensees that we consider address this issue by ensuring customers are given information that enables them to consider their options and make an informed choice.

5. Wholesale Methodology - Backwardation

Section summary

This chapter sets out our proposals to update the wholesale cost methodology to include *ex-ante* modelled backwardation costs. We propose to recover backwardation over a 12-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. The current cap is based on an annual price (of gas and electricity for 12 months) but is updated every six months. The cap level is set using forward prices, using forward contract prices covering 12 months. This is done to reduce seasonal fluctuations in the cap price. We assume that a nominal supplier is likely to hedge with a shorter hedge length (ie 6-2-6 rather than 6-2-12 in the current arrangements).³⁹ The mismatch between the hedge length and cap length 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 hedging length index is greater than the cap length index, we refer to this as a backwardation cost, and where the cost of the hedging length index is less than the cap length index, we refer to this as a contango benefit.

5.2. 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.

5.3. 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.

³⁹ This approach is in line with how we calculate the MSC. Ofgem (2022), Market Stabilisation Charge Calculation Methodology, paragraph 2.1 <https://www.ofgem.gov.uk/publications/decision-short-term-interventions-address-risks-consumers-market-volatility>

February 2022 consultation

5.4. In our February 2022 consultation,⁴⁰ we consulted on three options for change:

- *Ex-post* adjustments: an adjustment is made *ex-post* where there is evidence of costs in excess of predetermined levels
- Matching the length of the cap period with the length of the hedge: this approach would eliminate backwardation at the expense of introducing seasonal variations in the cap level
- *Ex-ante* modelled costs: update the wholesale cost methodology to include a modelled cost

5.5. We also considered combining an assessment of backwardation costs with a deadband so the allowance is provided above a threshold of 'normal' backwardation or contango – this is in line with the backwardation adjustment provided for cap period seven.⁴¹

Our proposals

5.6. We propose to update the wholesale methodology to include *ex-ante* modelled backwardation costs, which we will calculate quarterly at each cap update.⁴² This approach provides suppliers with certainty on the allowance compared to an *ex-post* approach.

5.7. We propose to recover backwardation costs over a 12-month period by applying the quarterly backwardation figure to four consecutive (quarterly) cap periods, which are calculated as an annualised figure.⁴³ This approach retains seasonal smoothing for customers, while still allowing suppliers to recover costs in line with an equivalent fixed term contract.

⁴⁰ Ofgem (2022), Consultation on Medium Term Price Cap Changes

<https://www.ofgem.gov.uk/publications/consultation-medium-term-changes-price-cap-methodology>

⁴¹ 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>

⁴² The allowance is calculated symmetrically and could result in a contango discount if the same thresholds are reached.

⁴³ We denote backwardation costs as positive values in line with how costs are represented across the cap.

5.8. We propose to set a £9 deadband (£4 for electricity and £5 for gas) 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.

5.9. We propose to set the deadband at a standard deviation above and below the historical average during cap period 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. We propose the deadband is a fixed level but retain the ability to review and change the value following consultation as we see appropriate.

5.10. 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 decision⁴⁴ and the £9 quarterly deadband, once demand weightings are considered).

Summary of Stakeholder Responses

5.11. Several stakeholders expressed views related to backwardation and its proposed amendments. Whilst two suggested that they did not see adequate materiality for such a change under their proposed medium-term indexation methodologies, several proposed the introduction of *ex-ante* backwardation calculation.

5.12. Several suppliers were averse to an *ex-post* backwardation calculation. The two key points raised: Firstly, basing the calculation on an average of actual costs would require judgement on benchmarking costs and hedging strategies, which would create winners and losers given suppliers hedge in different ways. Secondly, the delay in waiting for data on actual costs would create a cashflow burden on suppliers, particularly given the high backwardation costs expected this winter. A few stakeholders also commented on the burden of further requests for information to calculate an *ex-post* adjustment based on actual costs.

⁴⁴ 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>

5.13. Two stakeholders said that an ex-ante modelled calculations gives more certainty on how backwardation costs are treated in the cap when making their hedging decisions.

5.14. In general, most suppliers were against setting a deadband. Respondents commented on the calculation of the deadband, the prices used to calculate it and the certainty of the value prior to hedging.

Considerations

Customer impacts

5.15. As outlined in Chapter 3, we propose to move to quarterly cap updates but retain using 12-month price delivery to set the index (3-1.5-12 [3] approach). We take this approach to retain seasonal smoothing for customers and to avoid relatively high prices in winter when usage is highest. Therefore, we discount the option to design out backwardation costs when setting the index.

5.16. The position on when suppliers recover backwardation costs presents a cashflow trade-off between suppliers and customers. We seek to balance the impact of large immediate increases in customers' bills against allowing suppliers to recover backwardations costs close to when they are incurred. We also seek to reflect normal industry practice analogous to fixed price contracts, where seasonal differentials would be recovered through the period of the contract.

5.17. Customers' ability to manage the impact of higher energy prices is likely to be reduced by wider cost of living pressures beyond energy. We are also conscious that bill increases will have particular impacts on customers in vulnerable situations.

5.18. Given these pressures and in line with our position to not introduce seasonality to customer bills, we propose to spread the recovery of backwardation costs over 12 months. This will ensure that customers do not pay all the backwardation costs over the winter and ease the immediate burden on bills over a period of high prices.

5.19. Updating the wholesale methodology to include backwardation for this winter could represent a significant cost for customers, with forecasted range at approximately £40-80 (with a £9 deadband) for cap period 9a (October 2022 – December 2022) – this is based on a current view of prices and is subject to change based on price movements between now and

August 2022.⁴⁵ However, these 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 levied costs.

5.20. We do not consider delaying the recovery of backwardation costs further would be preferable as this would increase the cashflow burden on suppliers. We discuss this in the following section.

Supplier impacts

5.21. Several stakeholders did not support an *ex-post* adjustment. They were in favour of an *ex-ante* approach as this provided greater certainty on how the allowance was set and removed judgement on what the average cost/hedging strategy would be. In addition, an *ex-ante* approach allowed for quicker recovery of backwardation costs opposed to the lag to collect actual cost data under the *ex-post* approach.

5.22. We have considered the feedback to our consultation and propose an *ex-ante* calculation of backwardation, to be recovered over 12 months. We consider an *ex-ante* calculation to be beneficial for suppliers given it allows recovery of the costs to start when they are incurred. In comparison, a pure *ex-post* approach would delay recovery and have a greater impact on supplier cashflow.

5.23. Allowing recovery of backwardation costs over 12 months means they will not all be recovered over the period they are incurred. This is in line with general industry practice to offer annualised fixed term contracts, which smooth recovery over a year and include an element of cost deferral for contracts starting in winter.⁴⁶

5.24. One supplier raised concerns around whether the movement of customers would allow them to recover the costs that had been incurred, particularly while there are a greater number of customers on default tariffs because of current market conditions. A few suppliers

⁴⁵ We provide a range based around our linear forecast of current prices and are heavily subject to change (prices observed as of 05 May 2022). The number is the cost of that particular quarter. While the annualised cap level would show a £60 allowance, this cost would be spread over 12 months for customers.

⁴⁶ For contracts starting in summer, suppliers may partially collect the winter cost of backwardation in advance rather than in arrears by smoothing recovery over the 12 month contract.

said that delaying cost recovery would incur a working capital cost. An *ex-post* adjustment may be more costly for smaller suppliers as they have less access to credit.

5.25. We are aware that deferred cost recovery can introduce a risk that the full costs cannot be recovered because of changing customer numbers. However, we do not consider it necessary to make an explicit adjustment for this. On an enduring basis, we would expect there to be low or zero backwardation costs in a stable market and movements in customers will be easier to manage. For the immediate future, if the MSC is extended, we may consider the cost of backwardation under the mechanism.

5.26. We do not think an adjustment for working capital costs is needed. The recovery of costs is in line with general industry practice for fixed term contracts and any costs are included in the benchmarks already established in the cap. In addition, suppliers should already have short-term financing facilities in place as part of their normal business functions to help manage the delay between incurring costs and receiving the allowance. We expect suppliers to have robust financial governance frameworks in place to meet their financial obligations.

5.27. In addition, there are several allowances which are indexed based on other cap components. Increases in wholesale costs have therefore led to increases in these allowances (eg part of payment method uplift, Earnings Before Interest and Tax, and headroom allowances). There is some uncertainty about whether the costs covered by these allowances have increased at the same rate as the allowances themselves. The increase in these allowances may offset any costs incurred from recovering backwardation costs over 12 months.

5.28. One supplier suggested we should recover backwardation costs from all customers via a separate mechanism (e.g. network charges). We consider a modelled *ex-ante* approach to be more proportionate and timelier than a separate mechanism.

Setting a deadband

5.29. A few suppliers did not support including a deadband. One supplier said that a deadband would leave a portion of basis risk on suppliers and this would lead to an increased cost to manage. Another supplier said it did not see the benefit in a deadband given we could pass through the backwardation and contango each period.

5.30. We continue to consider that backwardation and contango broadly net out over time in a stable market. Given we are updating the wholesale methodology to include backwardation costs on an enduring basis, we propose to include a deadband to avoid capturing backwardation costs in stable market conditions. This will reduce the fluctuations in customers' bills caused by adjustments for backwardation / contango costs.

5.31. One supplier stated that if we did use a deadband calculated on historical prices, this should not include the periods covered by the energy crisis. Doing so would capture trends while the market is volatile. However, some suppliers disagreed with our approach to use historical data, stating it does not reflect future prices and is somewhat arbitrary.

5.32. In line with how we propose to calculate backwardation costs (i.e. ex-ante modelled), we propose to calculate the deadband based on historical averages using a modelled indexation approach (calculation of backwardation and contango comparing a 3-1.5-12 [3] approach to a 3-1.5-3 [3] approach). We calculate the average over cap periods 1-6 (January 2019 – March 2021). We do not intend to use the more recent prices covering periods of high volatility. Our calculated standard deviation is £9.40, which we round down to £9 for setting the deadband.

5.33. Two stakeholders said that when calculating the deadband, we should centre standard deviations around zero rather than the average. This would assume that backwardation and contango truly net out in the long-run. In line with responses, we propose to set a deadband of £9 around zero.

5.34. Two stakeholders commented that the deadband should be known and set in advance of carrying out their hedging activities to provide certainty, stating a rolling deadband cannot be justified. Not knowing the deadband would make effective risk mitigation strategies difficult. In line with this, they said that the deadband should be fixed over time rather than changing at each cap update.

5.35. We propose this value is set on an enduring basis rather than being reset each cap period. We consider this will provide suppliers with some certainty around the deadband which will help to manage their risks. However, we retain the ability to review and change the level following consultation should this be necessary in future.

Calculation of backwardation costs

5.36. Backwardation costs are calculated by comparing the direct fuel element of the wholesale allowance under the index approach for a given season or quarter to the cost of a nominal supplier buying the energy for only that season or quarter. For example, we would compare a 3-1.5-12 [3] approach to a 3-1.5-3 [3] approach.

5.37. For a quarterly approach, we start by calculating the £ per MWh level of the index under the 3-1.5-12 approach after applying fuel specific allowances (and regional losses for electricity and Unidentified Gas). We then calculate the allowance per customer for that relevant quarter by multiplying the index value by the benchmark consumption and the quarterly share of the consumption.⁴⁷

5.38. We then calculate what the cost would be for a supplier following a 3-1.5-3 approach using the same process as outlined above. This gives us the cost of the relevant quarter for a supplier purchasing that relevant quarter only.

5.39. The difference between these two values gives us the level of backwardation costs or contango benefits. If the resulting value sits within the deadband, we will set the allowance as zero. If the value is either above or below the deadband, we would set the cost / benefit minus the deadband as the allowance, to be recovered over 12 months (four consecutive cap periods).

5.40. When setting the backwardation element of the wholesale methodology for the transition period, we use a 7-1-6 profile as a comparison to the 7-1-12 approach and a 3-1.5-3 profile as a comparison to the 3-1.5-12 approach.⁴⁸ We then apply the same weights to blend between the approaches as outlined in Appendix 2.

5.41. We have added new tabs to 'Annex 2 – Wholesale costs' for calculating the backwardation costs. We outline these changes in Appendix 3.

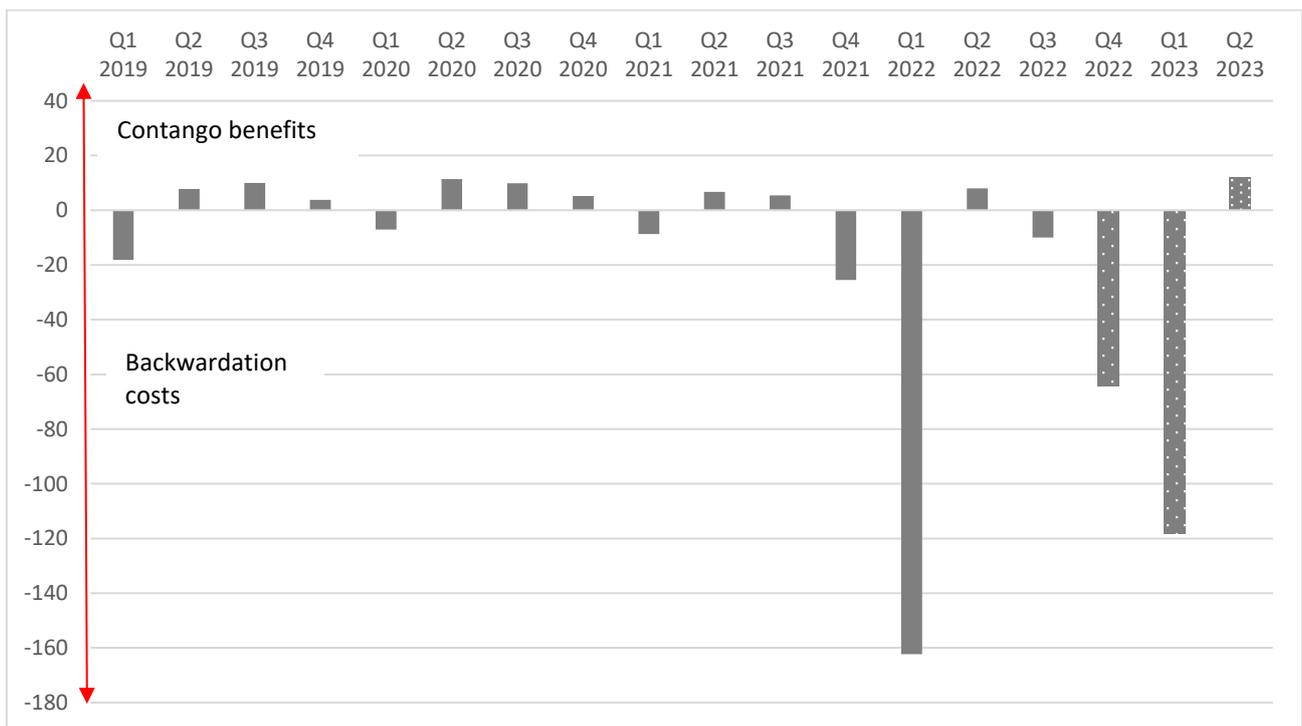
⁴⁷We use benchmark consumption used to calculate the cap reflects the old Typical Domestic Consumption Values that align to when the design of the cap. These are 3,100 kWh for electricity (single-register), 4,200 kWh for electricity (multi-register) and 12,000 kWh for gas.

⁴⁸The approach may not completely match the observation window and delay – for example, the 7-1-12 is closer to a 4-4-12 for cap period 9a given we stop observing prices at the start of June and then there is a four month delay until the start of cap period 9a. We refer to these approaches taking into account what the full observation window would be for simplicity and terminology consistency.

5.42. Figure 5.1 shows the levels of backwardation costs and contango benefits we would expect to have observed since 2019 if quarterly updates had been in place over that period, and what current prices imply for future backwardation costs and contango benefits (we do not include transitional arrangements in the graph). It is analogous to Figure 2.2 showing backwardation costs under the 6-2-12 [6] index. The absolute magnitude of backwardation costs for quarterly updates is greater than that for seasonal updates. The quarterly indices are calculated over shorter time periods and are therefore more variable. We would expect contango benefits to also be greater for quarterly updates in a contango market.

5.43. To note, a nominal supplier will not have incurred the costs and benefits set out in Figure 5.1, as over the non-forecast period, our methodology is based on a 6-2-12 [6] approach.

Figure 5.1 – Modelled backwardation costs and contango benefits for a nominal supplier under quarterly updates (3-1.5-12 [3])



Bar graph of the levels of backwardation and contango since 2018 under a quarterly approach. Showing backwardation in winter and contango in summer. Spikes in Contango over Q1 2022 and estimated for Q4 2022 and Q1 2023.

Notes: Prices updated as of 05 May 2022. The bars with a dotted pattern denote forecast values in Q4 2022, Q1 2023 and Q2 2023. This figure does not include the transitional approach of moving from the status quo to quarterly updates in Q4 2022 and Q1 2023.

Appendices

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Appendix 1 – Considering other methodology options

Context

1.1. In our February 2022 consultation,⁴⁹ alongside quarterly updates, we consulted on two additional approaches:

- Strengthened status quo – The current wholesale methodology with a reduced notice period and the cap in-period adjustment
- Price cap contract – a six or twelve-month contract, without exit fees. We considered there would be six or twelve cohorts running in parallel which were updated sequentially.

1.2. In addition, stakeholders also raised two further approaches for consideration:

- Off-season twice-yearly approach (H1/H2) – twice-yearly updates that run from January – June and July – December. There would be a six-month price reference to design out backwardation, while running the periods off-season would reduce seasonality.
- Tri-annual updates – moving to four-month cap periods, updated tri-annually with a reduced notice period.

1.3. In this appendix, we discuss why we are not pursuing these four options further.

Price cap contract

Customer experience

1.4. None of the consumer groups who responded to our consultation supported this option. They raised concerns around the complexity of this option creating customers confusion. We agree this option may present significant challenges for customers to understand their tariff,

⁴⁹ Ofgem (2022), Consultation on Medium Term Price Cap Changes
<https://www.ofgem.gov.uk/publications/consultation-medium-term-changes-price-cap-methodology>

posing a significant challenge to both advice organisations and suppliers to effectively explain it to customers.

1.5. From our customer research, customers expressed that the price cap contracts were seen as a worse version of the default tariff. There were worries that prices wouldn't be able to fall within the contract in comparison with other options and mistrust in suppliers that they would charge as much as they could.⁵⁰

1.6. Many customers in our research didn't know whether the Price Cap applied to them. Increasing the number of cap levels will exacerbate the issue. A customer would need to know which cohort they are part of to compare their current tariff with other possible options when making an informed choice to switch.

Other costs in the cap

1.7. This approach causes an inconsistency with how the other costs in the cap are updated. Currently we update all costs in the cap every six months. Of these costs, some change on an annual basis and we set the cost for two cap periods (e.g. network costs) and others change every six months (e.g. elements of policy costs). If we continue to update costs on a similar basis, this causes a disconnect between the cohort cap levels and the updated costs.

1.8. For example, we update network costs every February for the April cap period and they run for a full charging year. For a cohort cap level starting in March 2023, this would not include the updated network costs for the charging year starting April 2023. This means that for that cohort, a supplier will not be able to recover the network costs in respect of that cohort until the level is set again in March 2024. By this time, the supplier would have incurred the full network costs. The issue is further problematic for costs that update every six months.

1.9. This shows that cost recovery would be delayed under this approach, which may create a working capital cost. There is not a clear simple solution to avoid this issue when setting cohorts of caps and fixing their prices for 12-month periods.

⁵⁰ Ofgem commissioned two pieces of qualitative research via its Consumer First Panel, to explore customer views on various aspects of the Price Cap. Both pieces will be published in due course.

Fairness

1.10. We have concerns about the perceived fairness of this option. Customers would be allocated into cohorts, and the fairest way of doing this would be by random allocation. However, there would still be a significant risk that a customer in one cohort would pay significantly more or less than a similar customer in another cohort (for example, a customer may be at a given time pay £100s more than their neighbour).

1.11. While allowing customers to switch out of their cohort and onto new cohorts, without exit fees, would improve the fairness of this option, it would not help those who are deeply disengaged or face barriers to engagement. This has the risk to undermine policy if there is confusion on the differences between prices and cohorts in the wider public.

Strengthened Status Quo

1.12. The strengthened status quo would not be significantly different from the current methodology. A sole reduction in the notice period, for which we are proposing to reduce to 1.5 months due to practical constraints would not decrease volume risk to the desired level.

1.13. We have already introduced the ability to make in-period adjustments to the cap in in exceptional circumstances.⁵¹ This mechanism provides flexibility to respond to exceptional events and reduces the risk. However, the mechanism is not suited to manage ongoing risk compared to a change in methodology.

Triannual Update

1.14. 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.

1.15. We do not consider the tri-annual approach is a preferable option compared to the quarterly approach. Firstly, the cap updates would be less frequent meaning that this option provides less mitigation for volume risk. There would be a greater lag between the prices that

⁵¹ 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>

set the allowance and the current forward curve of prices in the last month of each cap period, meaning the cap would react slower to market changes.

1.16. Secondly, the tri-annual indexation approach does not align with traded wholesale products. Currently, the twice-yearly approach aligns with the traded seasonal products and the proposed quarterly updates align with traded quarterly products. There are no products that would fit the four-month blocks that would be used under this approach. Where two quarters align to seasonal products, four-month products would span two seasons. This would introduce complexity in any attempt to proxy hedges using seasonal products and would make it difficult for suppliers to follow the index.

Off-season Semi-annual (H1/H2)

1.17. Whilst this approach does align the price reference period length with the cap period length and thus removes backwardation, it does not reduce volume risk. We would still update the cap every six months, meaning there would be a similar lag for changes in wholesale prices to feed into the cap. This means the market price at delivery could diverge from the prices used to set the index in the cap.

1.18. The volume risk under this option could be reduced by weighting the observation window closer to delivery. However, this would not make it equivalent to the quarterly approach. Therefore, we do not consider we should pursue this option further.

Appendix 2 – Transitional Arrangement

1.20. As outlined in Chapter 3, we propose to move to quarterly updates. To set the wholesale cost methodology under quarterly updates, we propose a 3-1.5-12 [3] approach. This approach would replace the 6-2-12 [6] approach in the current cap methodology.

1.21. In moving from the current index approach to the new index approach, we propose to consider the volumes a nominal supplier would have already bought and how it would affect the transition. Our aim is to ensure that a nominal supplier can recover its legitimate wholesale costs from a move to the quarterly index approach.

1.22. In this appendix, we outline how we will set the index during the transition, particularly considering the Price Indexation Guidance letter published in March 2022.⁵² There will be a transitional approach for cap periods 9a (October 2022 – December 2022) and 9b (January 2023 – March 2023). Following this, we will move to a complete 3-1.5-12 [3] approach for cap period 10a (April 2023 – June 2023) onwards.

1.23. Overall, we expect a nominal supplier to have bought half of its volumes for cap period 9a and 9b via purchase of a winter seasonal product between 01 February 2022 and 01 June 2022 (inclusive). In line with our second price indexation guidance,⁵³ we expect suppliers to purchase the remaining 50% of volume between 06 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. Given the difference in trading days between the 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 uplift the weighting on the second period. We explain this process in more detail in this appendix.

Transition from 6-2-12 [6] to 7-1-12 [6]

1.24. Ordinarily, under the 6-2-12 [6] approach, the observation window for cap period nine (October 2022 – March 2023) would run from 1 February 2022 to 31 July 2022. This is a total

⁵²Ofgem (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>

⁵³Ofgem (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>

of 124 trading days over which the daily price would be an average to calculate the index cost. As mentioned in Chapter 5, while we use a 6-2-12 approach to set the index, we assume that a nominal supplier is likely to follow a 6-2-6 approach when purchasing energy.

1.25. On 15 March 2022, we published updated price indexation guidance for suppliers. In our letter we outlined that we would apply a 50% weighting to prices observed between 16 March 2022 and 19 May 2022 inclusive. Additionally, we said that from 20 May 2022, we would apply full weighting to observed prices and to maintain the same number of total trading days, extending the observation window to 31 August 2022 (inclusive).

1.26. This guidance transitioned the index from the 6-2-12 [6] to a non-linear 7-1-12 [6] approach. This is the index we expect a nominal supplier to be following.

Transitioning to a quarterly approach

1.27. Alongside this consultation, we have provided a second price indexation guidance letter to suppliers. For transitioning to quarterly updates, the final day of observed prices under the 7-1-12 [6] will be 01 June 2022. At this point, we will be exactly half-way through the 124 weighted trading day observation window. We expect a nominal supplier will 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.

1.28. To note, a 7-1-12 [6] index denotes a 7-month observation window, 1-month delay between the end of observing and the cap period, 12-month price delivery and 6-month cap period. As we stop the 7-1-12 [6] index short of completing in the transition, it's technically closer to a 4-4-12 [6] approach for cap periods 9a and 9b. This reflects that:

- We only observe prices for 4 months (1 February 2022 – 01 June 2022);
- There is a 4-month delay between the end of the observation period and the start of the cap period for 9a (2 June 2022 – 30 September 2022);
- 12-month forward prices observed over the window;
- The respective cap delivery period for this 50% covers 9a and 9b i.e. is 6 months in length.

1.10 For simplicity and consistency of terminology, we continue to refer to the approach as 7-1-12 [6].

Observation window for cap period 9a

1.29. When setting the index for cap period 9a (October 2022 – December 2022), we consider a nominal supplier will have bought half of its volumes for the period under the 7-1-12 [6] approach and therefore it will have to purchase the remaining 50%.

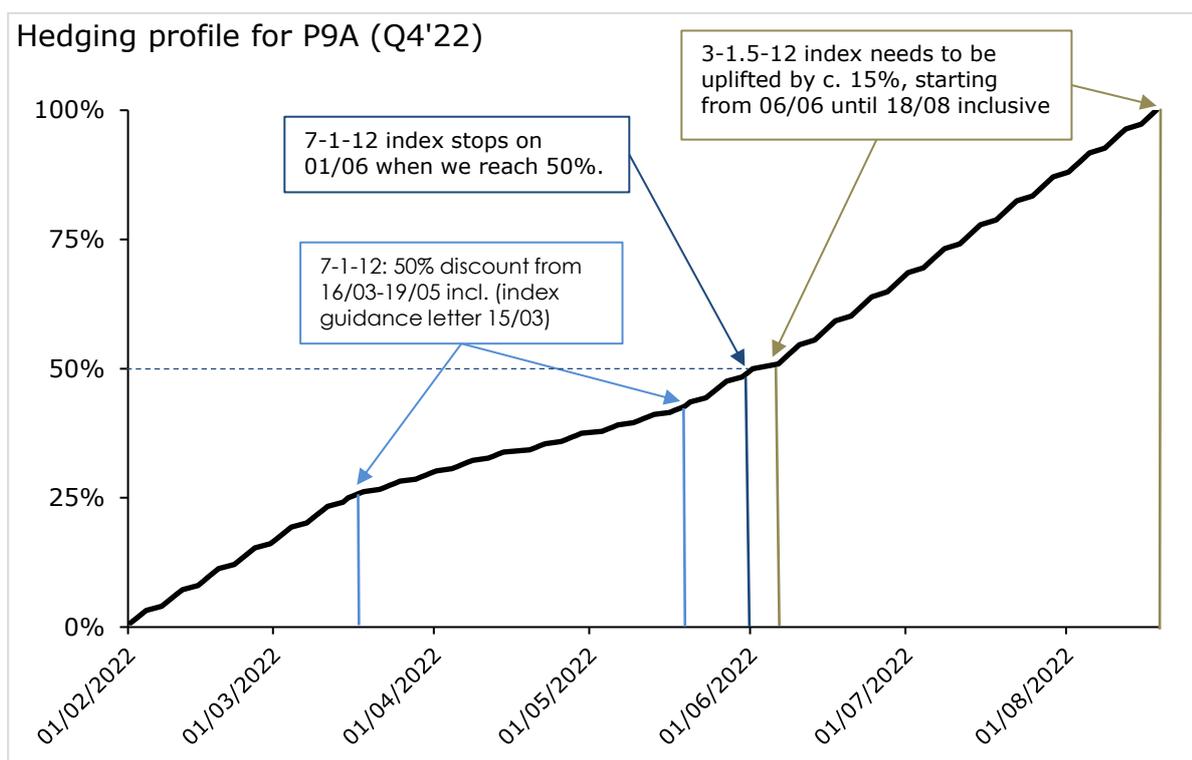
1.30. As set out in Chapter 3, the observation window closes 30 working days prior to the start of the cap period. This means the last trading day of prices we observe takes place on 18 August 2022. The period for suppliers to purchase the remaining 50% of demand for cap period 9a runs from 06 June 2022 to 18 August 2022 (dates inclusive of purchasing).^{54 55}

1.31. 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 $50\% * 124 / 54$ (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 period). We illustrate this transition in figure A2.1.

⁵⁴ The next trading day after 01 June 2022 is 06 June 2022 because of the Jubilee bank holidays and the weekend.

⁵⁵ This equates to approximately a 2.5-1.5-12 [3] approach because of the slightly short observation window under the transition for cap period 9a. However, we continue to refer to this as 3-1.5-12 [3] for consistency of terminology.

Figure A2.1 – 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 uplifted by c. 15%, 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 begins from 06/06/2022.

Moving from seasonal to quarterly electricity demand weights

- 1.11 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. The delivery of energy is uniform across the season.
- 1.12 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. This means that the winter product delivered uniformly across Q4 2022 and Q1 2023, is too high (a nominal supplier would be long) for cap period 9a and too low (a nominal supplier would be short) for cap period 9b. An adjustments is needed for Profile Class 1 and Profile Class 2 customers.

- 1.13 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 A2.1 below. The amount purchased under the seasonal demand weight is 0.2 percentage points more than required under the quarterly weight for Q4, therefore we adjust the quarterly component of the index down by 0.2% for cap period 9a. The opposite is true for cap period 9b.
- 1.14 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 periods.
- 1.15 To note, this does not affect gas demand as we already use quarterly demand and products to set the index.

Table A2.1 – Calculation of electricity demand weighting adjustment

	Quarter 4 2022 (Oct – Dec)	Quarter 1 2023 (Jan – Mar)
Profile class 1		
Season winter weight	57.1%	57.1%
Implied quarterly weight	28.5%	28.5%
Quarterly model weight	28.3%	28.8%
Initial adjustment	-0.22%	+0.22%
Final adjustment (15% uplift for Q4 and 2% discount for Q1)	-0.25%	+0.21%
Profile Class 2		
Season winter weight	61%	61%
Implied quarterly weight	30.5%	30.5%
Quarterly model weight	29.2%	31.7%
Initial adjustment	-1.25%	+1.25%
Final adjustment (15% uplift for Q4 and 2% discount for Q1)	-1.43%	+1.23%

Note: Numbers may not sum because of rounding

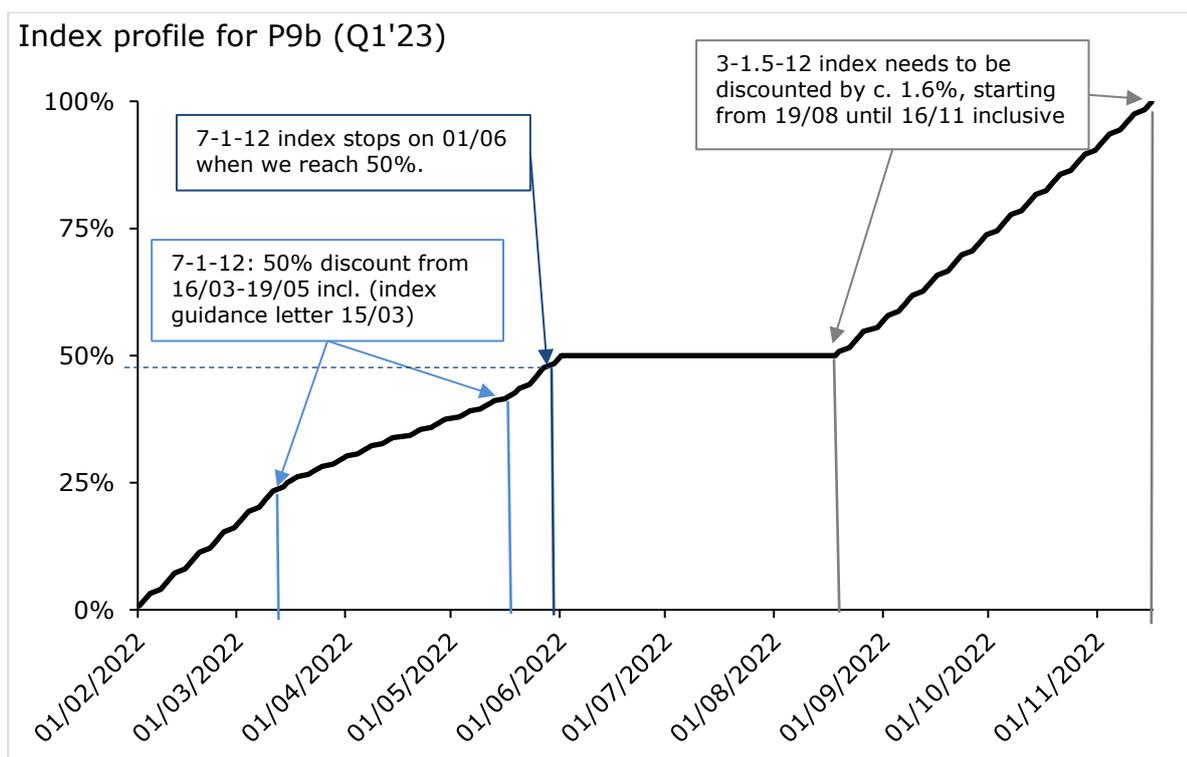
Observation window for cap period 9b

1.32. A similar approach applies for the transition to cap period 9b (January 2022 – March 2023). A nominal supplier will have bought half of its volumes for this quarter under the 7-1-12 [6] approach.

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

1.34. 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 $[50\% * 124] / 63$. Figure A2.2 illustrates the transition approach for cap period 9b.

Figure A2.2 – 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 discounted by c. 1.6%, starting from 19/08 until 16/11 inclusive

1.16 For cap period 9b, we make an adjustment for moving from seasonal to quarterly demand weights for electricity. This is outlined in the above section.

Table A2.2 – Observation window dates

Cap period	Index approach	Delivery product observed	Observation window start	Observation window end	Trading days	Weighting/ adjustment
9a & 9b	6-2-12 [6] (identical to 7-1-12 at this point)	Winter 22	01/02/2022	15/03/2022	31	Full weight
9a & 9b	7-1-12 [6]	Winter 22	16/03/2022	19/05/2022	44 (22 weighted)	Half weight
9a & 9b	7-1-12 [6]	Winter 22	20/05/2022	01/06/2022	9	Full weight
9a	3-1.5-12 [3]	Q4	06/06/2022	18/08/2022	54 (62 adjusted)	c.15% increase
9b	3-1.5-12 [3]	Q1	19/08/2022	16/11/2022	63 (62 adjusted)	c. 1% decrease
10a	3-1.5-12 [3]	Q2	17/11/2022	17/02/2023	64	NA
10b	3-1.5-12 [3]	Q3	20/02/2023	18/05/2023	61	NA

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

Calculating backwardation in the transition

1.17 We also calculate the backwardation element of the wholesale cost methodology across the transition period. To do this, we follow a similar approach to calculating a transitional wholesale (direct fuel) allowance and comparing it to a transitional cost profile based on the cost of the delivery season or quarter.

1.18 To calculate the allowance that suppliers receive in cap period 9a and 9b, we use the approach outlined above to calculate the combined index of 7-1-12 and 3-1.5-12. We apply allowances to this, including fuel specific allowances (e.g. losses for electricity and Unidentified Gas for gas). We then apply demand weightings to calculate what the revenue a nominal supplier would receive under the allowance for the relevant quarterly cap period.

1.19 To calculate the cost a nominal supplier would incur, we calculate the transitional approach using a 7-1-6 and a 3-1.5-3 approach. The methodology to calculate this index is in line with the rest of this appendix. However, in this case, there is a mismatch between the energy delivery period (six months for seasonal and three

months for quarterly). Therefore, alongside the adjustments outlined above, we also apply demand weights to the seasonal element of the transition approach to calculate what the cost would be for the two respective quarters.

- 1.20 Once we have calculated the index under the transitional approach and the costs a supplier would face if purchasing the front season/quarter only, we take the difference between the two and this gives the backwardation costs for cap period 9a and 9b. We would then compare the cost against the £9 deadband we proposed in Chapter 5, if the cost was higher, we would set the difference as the backwardation element of the wholesale methodology to be recovered over 12 months.

Appendix 3 - 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, these are split by model. We have also published these models alongside this consultation.
- 1.2 We make consequential changes to three models:
- Annex 2 – wholesale cost model
 - Annex 3 – policy cost model
 - Default tariff cap overview model
- 1.3 The annex 2 and 3 models are named such because they are annexes to the SLC28AD 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 2, 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 covering Q4 2022 and Q1 2023.
- 1.5 Table A3.1 below outlines the changes we made to the annex model, which include:
- Adding additional indexes to calculate different index approaches when calculating the wholesale costs, including backwardation
 - A backwardation cost element
 - Introducing CfD costs to the model
 - A combined output pulling all the different values together

Table A3.1 – Changes to Annex 2 – Wholesale costs

Type	Change	Description
Input	Added an additional input tab for quarterly electricity prices. Please refer to: <i>3d(ii) Price data, elec Q+n</i>	Introduced 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 proposed 3-1.5-12 index.
Input	Addition of relevant input and losses tabs relating to CfD costs. Please refer to: <i>7c CFD input</i> <i>7d losses</i>	This brings in the CfD input that from Annex 4 – Policy costs. The calculation reflects the most recent consultation on setting the CfD cost allowance in the cap as published on 14 April 2022.
Input	Added quarterly demand shares for electricity. Please refer to: <i>3b Demand</i>	Added quarterly demand shares as the previous approach only relied on seasonal demand.
Input	Addition of gas and electricity transitional demand weightings. refer to: <i>3b Demand</i>	Addition and calculation of transitional weightings based on number of trading days within transitional arrangement.
Input	Addition of deadband inputs section. Please refer to: <i>8a(ii) Deadband</i>	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: <i>2a(ii) Elec 7-1-12</i> <i>2a(iii) Elec 3-1.5-12</i> <i>2b(ii) Non-PPM gas 7-1-12</i> <i>2b(iii) Non-PPM gas 3-1.5-12</i> <i>2c(ii) PPM gas 7-1-12</i> <i>2c(iii) PPM gas 3-1.5-12</i>	Additional index value calculations added in order to calculate Direct Fuel allowance across transitional period, and into proposed 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:	additional index calculations are required to calculate backwardation for the quarterly approach and transitional period.

	<i>8b(i)Elec 7-1-12 onwards</i>	
Calculation	Added a tab for the backwardation calculation. Please refer to: <i>8a(iii) Backwardation calc</i>	The tab calculates backwardation by taking the difference between the direct fuel allowance 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: <i>7b CFD calculation</i>	This covers the calculation of CfD costs. Aggregates cost estimates for CFD, along with applying loss uplifts for CfDs. This reflects the most recent consultation on setting the CfD cost allowance in the cap as published on 14 th April 2022.
Output	Added CfD output tab Please refer to: <i>7a CFD allowance</i>	This tab converts the £/MWh to £ per customer.
Output	Added backwardation output tab. Please refer to: <i>8a(i) Backwardation summary</i>	This tab compiles Backwardation calculations along with Deadband input tab and outputs recovery of the backwardation costs over 12 months of cap periods.
Output	Added a combined output that incorporates Direct Fuel allowance, Backwardation and CFD. Please refer to: <i>1a Wholesale allowance</i>	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. for input into the default tariff cap overview model.

Annex 4 – Policy cost model

1.6 Following our proposal to update 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.

1.7 Table 3.2 below outlines the changes we have made to the model.

Table A3.2 – 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

1.8 We have made consequential updates to the default tariff cap overview model to reflect setting the cap on a quarterly basis. Table A3.3 outlines these changes to the model. To note, we also provide a list of changes in the front page tab of the model.

Table A3.3 – 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	<p>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.</p> <p>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.</p>
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 (December 2023).

Output	Amended formula for the regional cap levels. Amended breakdown tables.	<p>Amended the formulas in the first output tab to ensure the model outputs the regional cap levels for each quarterly cap period.</p> <p>Adjusted the tables in the second output tab to capture quarterly cap levels in the summary tables broken down by cost component.</p> <p>To note, numbers may not align to previous versions due to CfDs being reallocated between buckets of costs.</p>
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Appendix 4 – Privacy notice on consultations

Personal data

The following explains your rights and gives you the information you are entitled to under the General Data Protection Regulation (GDPR).

Note that this section only refers to your personal data (your name address and anything that could be used to identify you personally) not the content of your response to the consultation.

1. The identity of the controller and contact details of our Data Protection Officer

The Gas and Electricity Markets Authority is the controller, (for ease of reference, "Ofgem").

The Data Protection Officer can be contacted at dpo@ofgem.gov.uk

2. Why we are collecting your personal data

Your personal data is being collected as an essential part of the consultation process, so that we can contact you regarding your response and for statistical purposes. We may also use it to contact you about related matters.

3. Our legal basis for processing your personal data

As a public authority, the GDPR makes provision for Ofgem to process personal data as necessary for the effective performance of a task carried out in the public interest. ie a consultation.

3. With whom we will be sharing your personal data

We may share consultation responses with Department for Business, Energy and Industrial Strategy and the HM Treasury officials

4. For how long we will keep your personal data, or criteria used to determine the retention period.

Your personal data will be held for six months after the project, including subsequent projects or legal proceedings regarding a decision based on this consultation, is closed.

5. Your rights

The data we are collecting is your personal data, and you have considerable say over what happens to it. You have the right to:

- know how we use your personal data

- access your personal data
- have personal data corrected if it is inaccurate or incomplete
- ask us to delete personal data when we no longer need it
- ask us to restrict how we process your data
- get your data from us and re-use it across other services
- object to certain ways we use your data
- be safeguarded against risks where decisions based on your data are taken entirely automatically
- tell us if we can share your information with 3rd parties
- tell us your preferred frequency, content and format of our communications with you
- to lodge a complaint with the independent Information Commissioner (ICO) if you think we are not handling your data fairly or in accordance with the law. You can contact the ICO at <https://ico.org.uk/>, or telephone 0303 123 1113.

6. Your personal data will not be sent overseas (Note that this cannot be claimed if using Survey Monkey for the consultation as their servers are in the US. In that case use “the Data you provide directly will be stored by Survey Monkey on their servers in the United States. We have taken all necessary precautions to ensure that your rights in term of data protection will not be compromised by this”.

7. Your personal data will not be used for any automated decision making.

8. Your personal data will be stored in a secure government IT system.

9. More information

For more information on how Ofgem processes your data, click on the link to our “[Ofgem privacy promise](#)”.