# Guidance



Market Stabilisation Charge		
Subject	Market Stabilisation Charge Calculation Methodology v4.0	
Publication date:	20 March 2023	
Contact	Dan Norton	
Team:	Retail	
Telephone	020 7901 7295	
Email:	retailpolicyinterventions@ofgem.gov.uk	

The purpose of this document is to help domestic suppliers and other market participants understand the workings of the Market Stabilisation Change (MSC). Ofgem announced this measure on 16 February 2022 as a short-term intervention to address risks to consumers from ongoing wholesale market volatility. This version of the guidance contains changes to the MSC that will take effect from 5 April 2023.

This guidance explains the methodology for calculating this charge and other aspects of its operation, including how often the charge will be updated.

Document	Date of publication	Comments
version		
<u>1.0</u>	16 February 2022	Published with original decision
2.0	16 May 2022	Includes outcome of parameter review,
		amended for latest indexation profile and
		inclusion of electricity losses and Unidentified
		Gas (UIG).
3.0	26 August 2022	Includes amendments for the latest indexation
		profile and to reflect the differing sets of
		algebra required for the remainder of Cap
		period 8 and 9a and 9b.
		Specifically:

		<ul> <li>Updated algebra for the calculation of a, b, c and a', b', c' using the transitional weights set out in the Decision on changes to the wholesale methodology</li> <li>Update to the calculation of gas Pcn, Pcn+1, Pcn+2 values using the transitional weights set out in the Decision on changes to the wholesale methodology.</li> <li>Update to the calculation of electricity Pcn, Pcn+1, Pcn+2 values using the transitional weights and the demand weighting adjustment as set out in the Decision on changes to the wholesale methodology.</li> <li>Updated calculation for the consumption weighting factor t to reflect the transition to quarterly cap updates</li> <li>Introduction of the term Sn+2 reflect the transition to quarterly rather than seasonal prices for the calculation of Wn+1 and Wn+2</li> <li>Continued use of the volume factor v to reflect that the indexation profile remains non-linear until the end of cap period 9b</li> </ul>
4.0	20 March 2023	<ul> <li>Includes amendments for the 3-1.5-3 (Quarterly) indexation profile and to reflect the updated algebra required for the model to function until 31 March 2024.</li> <li>Specifically: <ul> <li>Update for reference to decision to extend the MSC beyond 31 March 2023</li> <li>Removal of algebra and terms relating to the transitional indexation approach and replacing with relevant algebra and terms for Quarterly indexation.</li> <li>Removal of the reference to v, the volume factor, as it is no longer required for Quarterly indexation</li> <li>Update to the definition of t for Quarterly indexation</li> <li>Removal of reference to specific demand weights for Sn, Sn+1, Sn+2 as they are</li> </ul> </li> </ul>

#### © Crown copyright 2022

The text of this document may be reproduced (excluding logos) under and in accordance with the terms of the <a href="Open Government Licence">Open Government Licence</a>.

Without prejudice to the generality of the terms of the Open Government Licence the material that is reproduced must be acknowledged as Crown copyright and the document title of this document must be specified in that acknowledgement.

Any enquiries related to the text of this publication should be sent to Ofgem at: 10 South Colonnade, Canary Wharf, London, E14 4PU.

This publication is available at <a href="www.ofgem.gov.uk">www.ofgem.gov.uk</a>. Any enquiries regarding the use and re-use of this information resource should be sent to: <a href="mailto:psi@nationalarchives.gsi.gov.uk">psi@nationalarchives.gsi.gov.uk</a>

## Contents

Market Stabilisation Charge	1
1. Introduction	5
Your feedback	8
General feedback	8
2. Market Stabilisation Charge Calculation Methodology	9
Section summary	9
How the MSC is calculated	9
When the MSC will be calculated	15
When the MSC will be triggered	15
How long the MSC will apply for	16
Implementing the MSC	16
Appendices	18
Appendix 1 – Wholesale element of the price cap (Wpc) weighting factors	
Appendix 2 – Wholesale cost (Wc) weighting factors	20

## 1. Introduction

- 1.1. Ofgem announced on 16 February 2022 our decision to introduce Licence Condition 24A the Market Stabilisation Charge ("MSC") as a temporary measure to address risks to consumers from market volatility in the short term.¹ This is a wider package of measures announced on 3 and 4 February 2022 to help stabilise the retail market and protect consumers. As part of our decision published 26 August 2022, we decided to extend the MSC licence condition until the end of March 2023. Following a further period of consultation, on 3 February 2023 we decided to extend the MSC again, subject to an earlier or later cessation date being specified, until the end of March 2024.
- 1.2. The MSC, which came into effect on 14 April 2022, will help suppliers to better manage, on behalf of consumers, the risks posed by severe energy price volatility. This will mitigate the risk of consumers facing significant additional costs from further disorderly supplier exits, as well as the associated negative effects on investment, innovation and competition in the retail energy market. The MSC will only be triggered if wholesale prices fall below the level assumed in the price cap. Even then, active consumers will still be able to achieve savings when wholesale prices fall. The full reasoning for introducing the MSC is set out in the decision document published on 16 February 2022 (the "February Decision").
- 1.3. Under this measure, all suppliers acquiring a domestic customer are required to pay the MSC to the losing supplier. This is a volumetric charge and represents a proportion of the economic loss to the losing supplier for the energy purchased on behalf of their customer.
- 1.4. The MSC is comprised of two sub-charges; one for gas and one for electricity. For the purposes of this methodology, references to wholesale prices should be read to mean one reference to the wholesale gas cost and another to the wholesale electricity cost. The MSC is applicable to all domestic customer switches between licensed gas and electricity suppliers.
- 1.5. The MSC will only take effect where wholesale gas and/or electricity prices fall below the implied price cap wholesale element for the relevant period, taken as an average over a 5-day observation window. In the February Decision, we originally set out that the

<sup>&</sup>lt;sup>1</sup> Ofgem 2022, <u>Decision on short-term interventions to address the risks to consumers from market volatility</u>

parameters of the MSC would include a trigger point set at 30% below the implied price cap wholesale element, and a derating factor of 75%.

- 1.6. In our decision of 16 May 2022<sup>2</sup> (the "May Decision") we published updated MSC parameters, reflecting ongoing high levels of market volatility, which have been in effect since 25 May 2022. From this date, the trigger point has been set at 10% below the implied price cap wholesale element. In addition, the May Decision set a derating factor of 85%. This will determine the percentage of nominal hedging losses beyond the trigger point that will be covered by the MSC, while allowing active consumers to continue to benefit from falling prices beyond the trigger point.
- 1.7. The trigger point and derating factor work together as a pair to set the strength of the MSC. Figure 1 below shows how, past the trigger point, the MSC grows to cover a portion of suppliers' incremental losses. This means that active customers continue to benefit from cheaper tariffs as wholesale prices fall; however, the risk of consumer detriment occurring from supplier failures/exits as a result of unsustainable hedging losses is at least partly mitigated.



Figure 1: Illustrative example of the relationship between wholesale price, nominal hedging losses and MSC

1.8. Ofgem will calculate and publish the level of the charge on a weekly basis in line with the methodology set out in this guidance, enabling suppliers to factor this in when setting their retail tariffs.

\_

<sup>&</sup>lt;sup>2</sup> Ofgem 2022, <u>Decision on changes to the market stabilisation charge</u>

1.9. As a novel intervention, we will review the impact of the MSC monthly basis. If it is not having the effect that we intended, perhaps because there are significant and unexpected market developments, such as material changes in supplier hedging positions or the level of customer switching, we may adjust the methodology and its key parameters if necessary. Any future adjustment to the price cap that materially affects the price cap indexation profile may require us to make an adjustment to this guidance to take account of this change in circumstance. Before doing so, we will consult stakeholders as described later in this document.

#### **Changes to the MSC Guidance**

- 1.10. On 3 February 2023 we consulted<sup>3</sup> on changes to the indexation profile used in the MSC calculation to complete the transition to a quarterly price cap. This would maintain alignment between the indexation profile used in the MSC and the wholesale methodology element of the price cap and reduce the risk of suppliers being incorrectly compensated in the event the MSC is triggered.
- 1.11. **This Guidance document sets out the current methodology used in the MSC calculation.** These changes to the MSC along with this version of the MSC guidance will come into effect from 5 April 2023 and will remain in effect until the MSC expires, or further guidance is published to replace this. You can review the previous (V3) MSC Guidance here<sup>4</sup>, (V2) MSC Guidance here<sup>5</sup> and the original (V1) MSC Guidance here<sup>6</sup>.
- 1.12. Section 2 of this document describes in detail the charging methodology, including how the charge is calculated, when it will come into effect, the frequency of updates, and a description of the role of the Retail Energy Code Company (RECCo) in administering the charge.

<sup>&</sup>lt;sup>3</sup> Ofgem 2023, <u>Consultation on Technical changes to the Market Stabilisation Charge (MSC) model indexation methodology to reflect our decision to extend the MSC beyond 31 March 2023</u>

<sup>&</sup>lt;sup>4</sup> Ofgem 2022, MSC guidance v3.0, MSC Guidance (Version 3)

<sup>&</sup>lt;sup>5</sup> Ofgem 2022, MSC guidance v2.0, MSC Guidance (Version 2)

<sup>&</sup>lt;sup>6</sup> Ofgem 2022, MSC guidance v1.0, MSC Guidance (Version 1)

## Your feedback

#### **General feedback**

- 1.13. We believe that consultation is at the heart of good policy development. We are keen to receive your comments about this guidance. We'd also like to get your answers to these questions:
  - 1. Do you have any comments about the overall quality of this guidance?
  - 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. Do you have any further comments?

Please send any general feedback comments to <a href="mailto:retailpolicyinterventions@ofgem.gov.uk">retailpolicyinterventions@ofgem.gov.uk</a>

### 2. Market Stabilisation Charge Calculation Methodology

#### **Section summary**

This section describes the Charging Methodology for the Market Stabilisation Charge

#### How the MSC is calculated

- 2.1. The MSC is based on the hedging losses incurred by a nominal supplier, hedging the next cap period in line with the relevant indexation approach assumed in the price cap methodology. This means that the hedging strategy of a nominal supplier for the 3-1.5-12 indexation profile is reflected as a nominal hedge on a 3-1.5-3 basis, which implies suppliers hedge progressively an average of 4.5 months ahead. It applies only beyond a trigger point, derated by a derating factor and accounting for the fact that suppliers hold different volumes of gas/electricity at different times of the year.
- 2.2. This guidance relates to the calculation of the MSC using a 3-1.5-3 ("Quarterly") indexation approach which reflects the completion of the transition to quarterly cap updates and gives effect to our decision to extend the MSC beyond 31 March 2023.

The algebra has been developed in such a way to represent an enduring set of terms based on a Quarterly indexation profile to be used for the calculation of the MSC. The model is constructed to function for the year from 1 April 2023 – 31 March 2024, which is the current expiration date of the MSC.

#### The MSC Formula

- 2.3. The MSC is based on a four factor formula to give a £/MWh charge, with two of these factors varying with time and/or wholesale prices. Each factor in the equation has been carefully set to ensure that the MSC delivers the policy as described in the original February 2022 decision document and any subsequent updates. The methodology below describes how each factor works, and why it is set as it is.
- 2.4. The Market Stabilisation Charge (A, £/MWh) is calculated using the formula below:

$$A = x \cdot l \cdot t \cdot c$$
 where:

ie.

 $\boldsymbol{x}$ 

The derating factor (%)

l Qualifying losses (£/MWh)

t Consumption weighting

factor (%)

c Conversion factor

(unitless)

and:

$$w_{\rm c} > w_{\rm t}, x = 0$$

$$w_c \le w_t, x = 85\%$$

and:

$$w_t = 90\% \cdot w_{pc}$$

where:

The Losing Supplier Loss Trigger (as defined below), including elec losses/UIG  $w_t$  (£/MWh)

The wholesale cost of energy (as defined below), including elec losses/UIG

 $w_c$  (£/MWh)

The wholesale element of price cap (as defined below), including elec losses/UIG (£/MWh)

#### Losing Supplier Loss Trigger (w<sub>t</sub>)

- 2.5. The Losing Supplier Loss Trigger is met when the wholesale cost ( $w_c$ , see below) is less than or equal to 90% of the wholesale element of the price cap for the relevant period ( $w_{pc}$ , see below). The MSC is therefore initially triggered when the wholesale cost ( $w_c$ , see below) falls more than 10% lower than the wholesale cost element of the price cap ( $w_{pc}$ ).
- 2.6. This means that the MSC will not apply, and the market will function as normal, unless wholesale prices fall a certain amount below the level assumed in the price cap.

#### Wholesale element of price cap $(w_{pe})$

- 2.7. The wholesale element of the price cap  $(w_{pc})$  is the cost of the hedge held by a nominal supplier which has hedged in line with the Quarterly indexation approach. It therefore changes throughout the cap period as the composition of the supplier's hedge changes.
- 2.8. The wholesale element of the price cap  $(w_{pc})$  for the purposes of this methodology is a weighted average of the relevant price cap indexation of the current cap period  $(PC_n)$ , next cap period  $(PC_{n+1})$ , and current cap period  $+ 2 (PC_{n+2})$ .

- 2.9. As well as being weighted to account for the number of days of each period nominally held, the relevant price cap indices are further weighted to apply the correct weighting for the months that are nominally held. In order to correctly take the weighted average, the terms by which  $PC_n$ ,  $PC_{n+1}$  and  $PC_{n+2}$  are multiplied therefore add to equal 1, whilst varying with time and reflecting the relative weight of each period's hedges.
- 2.10.  $PC_n$  is a static value as the current period's hedge has already been bought at the current price cap level, whilst  $PC_{n+1}$  and  $PC_{n+2}$  are dynamic values as they are being progressively bought by suppliers whilst future price cap observation windows are open.

$$w_{pc} = \frac{PC_n \cdot (a \cdot S_n) + PC_{n+1} \cdot (b \cdot S_{n+1}) + PC_{n+2} \cdot (c \cdot S_{n+2})}{a \cdot S_n + b \cdot S_{n+1} + c \cdot S_{n+2}}$$

Where:

 $PC_n = relevant \ Price \ Cap \ indexation \ of \ the \ current \ price \ cap \ period \ (£/MWh \ or \ p/therm)$ 

 $PC_{n+1}$  = relevant Price Cap indexation of the next price cap period (£/MWh or p/therm)

 $PC_{n+2}$  = relevant Price Cap indexation of the current cap period + 2 (£/MWh or p/therm)

 $S_n$  = Total fuel type seasonal demand weighting for the current cap period

 $S_{n+1} = \text{Total fuel type seasonal demand weighting } for the next cap period$ 

 $S_{n+2}$  = Total fuel type seasonal demand weighting for the current cap period +2

 $a = The \ volumes \ associated \ with \ the \ current \ cap \ period \ (n)$ 

 $b = The \ volumes \ associated \ with the next \ cap \ period \ (n + 1)$ 

c =The volumes associated with the current cap period + 2 (n + 2)

2.11. The applicable algebra for the calculation for the terms a, b, c are shown in Appendix I.

#### Wholesale cost $(w_c)$

- 2.12. The transition to a quarterly price cap necessitates a change to how we calculate the wholesale cost  $(\underline{w}_c)$ . It was previously defined on a seasonal basis, however, the change to a quarterly price cap means that it is now defined on a quarterly basis.
- 2.13. The wholesale cost  $(w_c)$  is calculated as the weighted average (based on a five-day observation window, see 'when the MSC will be calculated' below) of the forward contracts for the remainder of the period for which a supplier is hedged (assuming they hedge in line with the Quarterly indexation approach).
- 2.14.  $w_n$  is calculated using monthly prices as set out in the table below:

Table 1 – Prices used for the calculation of  $w_n$ 

Length of cap period remaing	Prices used	
<3 months but greater than or equal to 2	Average of M+1 and M+2	
months		
Less than 2 months but greater than or	M+1	
equal to 1 month		
Less than 1 month	M+1 as a proxy for more granular	
	price data	

- 2.15.  $w_{n+1}$  and  $w_{n+2}$  are based on quarter +1 and quarter +2 ahead prices respectively.
- 2.16. The terms are then adjusted to account for the relevant seasonal weighting in a similar manner to  $w_{pc}$ , see above. This methodology is analogous to that used to set the price cap.
- 2.17. As with  $w_{pc}$ ,  $w_c$  is bounded by the equivalent values for the current and next two periods ( $w_n$ ,  $w_{n+1}$  and  $w_{n+2}$ ). Where  $w_{n+1}$  is the cost of energy for the next price cap period and  $w_{n+2}$  is the cost of energy for the current price cap period +2.

$$w_{c} = \frac{w_{n} \cdot (a' \cdot S_{n}) + w_{n+1} \cdot (b' \cdot S_{n+1}) + w_{n+2} \cdot (c' \cdot S_{n+2})}{a' \cdot S_{n} + b' \cdot S_{n+1} + c' \cdot S_{n+2}}$$

and:

 $w_n = Weighted$  average cost energy for the remainder of the current cap period (£/MWh or p/therm)

 $w_{n+1}$  = Period ahead cost of energy for the next cap period (£/MWh or p/therm)

 $w_{n+2} = Period \ ahead \ cost \ of \ energy \ for \ the \ current \ cap \ period + 2 \ (£/MWh \ or \ p/therm)$ 

 $S_n = as \ above$ 

 $S_{n+1} = as \ above$ 

 $S_{n+2} = as \ above$ 

 $a' = The \ volumes \ associated \ with the \ current \ cap \ period \ (n)$ 

 $b' = The \ volumes \ associated \ with \ the \ next \ cap \ period \ (n+2)$ 

c' = The volumes associated with the current cap period + 2(n + 2)

2.18. The applicable algebra for the calculation for the terms a', b', c' are shown in *Appendix II*.

#### Derating factor (x)

- 2.19. The derating factor derates the level of the charge that the acquiring supplier would pay, once the charge has been triggered. When the wholesale price is greater than  $w_t$  the derating factor is 0. From  $w_t \ge w_c$  the derating factor is set to 85%, meaning that suppliers and consumers effectively share further losses.
- 2.20. The definition of the derating factor is:

$$w_{\rm c} > \mathrm{w_t}$$
 ,  $x = 0$ 

$$w_{\rm c} \le w_{\rm t}$$
,  $x = 85\%$ 

Where  $w_c$  and  $w_t$  are as defined above.

#### Qualifying losses (1)

2.21. The qualifying losses (l) to which the derating factor applies are the difference between the wholesale price ( $w_c$ ) and the Losing Supplier Loss Trigger ( $w_t$ ). This means that the losses that the MSC covers are the incremental losses below the trigger point. Even if the MSC is triggered, the MSC does not apply to losses above  $w_t$ , so wholesale savings between the wholesale element of the price cap ( $w_{pc}$ ) and  $w_t$  could be passed directly on to active customers in full; only savings beyond  $w_t$  will be dampened by the MSC.

*l* is calculated using the formulae below:

$$\begin{aligned} & w_c > w_t, \ l = 0 \\ & w_c \le w_t, \ l = v. \left( w_t - w_c \right) \end{aligned}$$

Where  $w_c$  and  $w_t$  are as defined above.

#### Consumption weighting factor (t)

2.22. The MSC billed to gaining suppliers uses each customer's estimated annual consumption of gas and/or electricity (Estimated Annual Consumption (EAC) / Annual Quantity (AQ) volumes). The consumption weighting factor is therefore applied to the MSC value to account for the fact that a nominal supplier hedging in line with a Quarterly indexation approach will only have purchased energy to cover a proportion (approx. 4.5 months) of the lost customer's annual consumption.

- 2.23. As suppliers' total hedge value varies with how electricity and gas demand fluctuates throughout the year, the MSC tracks the volumes throughout the year in to reflect the fact that suppliers are holding the largest volume of energy when the demand associated with the hedge held is higher. Therefore, the MSC factors in higher losses for customers lost when the consumption weighting factor is higher.
- 2.24. The term *t* tracks the seasonality and should reflect the value of the hedge held. It is calculated monthly and is the sum of the next 4.5 months demand weights (%) for the relevant fuel; determined according to the formulae:

$$t = \sum_{n=0}^{n+3.5} Consumption weight$$

where n = month in which the switch occurs

2.25. The consumption weight for each month is applied following the principles outlined in Annex 2 of the Price  $Cap^7$ .

#### Conversion factor (c)

- 2.26. The conversion factor (c) converts the qualifying losses from a p/therm value for gas and £/MWh for electricity into a £/MWh value.
- 2.27. The conversion factor for gas ( $c_{gas}$ ) is equal to 0.3412.

$$c_{gas} = 0.3412$$

2.28. The conversion factor for electricity ( $c_{elec}$ ) is 1 as qualifying losses are expressed in £/MWh.

$$c_{elec} = 1$$

<sup>7</sup> Ofgem 2018, Default Tariff Cap: Decision; Appendix 2 – Cap level analysis and headroom, available at: Appendix 2 - Cap level analysis and headroom (ofgem.gov.uk)

#### Quarterly demand weighting

2.29. The fuel type quarterly demand weightings  $(S_n, S_{n+1}, S_{n+2})$  capture the relative importance of the hedge held for each cap period and are aligned with those used in the Annex 2, the wholesale cost model of the price cap.

#### When the MSC will be calculated

2.30. Ofgem will calculate and publish the level of the charge on a weekly basis in line with a transparent methodology, enabling suppliers to factor this in when setting their retail tariffs. The MSC is denominated in terms of  $\pounds/MWh$ , and as such is a volumetric charge. RECCo will use this charge and switching data containing net EAC and AQ volumes gained/lost by suppliers to calculate a  $\pounds$  denominated cost/payment due to each supplier over the course of a billing period.

#### Charge value period and updates

- 2.31. Ofgem will publish the gas and electricity charge values ex-ante, on a weekly basis, based on the average of the previous five trading days' values for  $w_c$  and  $w_t$  (or for a shorter period if any of the weekdays are public holidays).
- 2.32. Ofgem will publish the charge value at the end of the working day each Monday (or the following working day if the Monday/Tuesday is a public holiday). The updated charge value will take effect from 00.00am on the Wednesday after publication (or Thursday/Friday if the Monday/Tuesday is a public holiday). The charge will then remain in place until the next scheduled weekly charge takes effect.

#### When the MSC will be triggered

- 2.33. The Market Stabilisation Charge is triggered when the average wholesale price in a weekly (Monday Friday) observation window ( $w_c$ ) is 10% or more below the weighted rolling average of the price cap index ( $w_{pc}$ ) for the relevant fuel.
- 2.34. As the MSC comprises two sub-charges, it is possible that only one of these charges may be triggered at any given time. However, as gas and electricity prices tend to closely

<sup>&</sup>lt;sup>8</sup> Ofgem 2022, Market stabilisation charge dashboard, Market Stabilisation Charge dashboard

track one another this is unlikely and, even if this were the case, it would not be a problem the sub-charge that is triggered would simply be relatively small.

2.35. If the wholesale cost rises above the trigger point, the MSC becomes inactive again as the value becomes 0, and Licence Condition 24A only creates an obligation to pay the MSC if the Losing Supplier Loss Trigger is met.

#### How long the MSC will apply for

2.36. The MSC will be a temporary measure, having come into effect on 14 April 2022. Subject to an earlier or later cessation date being specified, it is due to expire on 31 March 2024.

#### **Guidance updates**

- 2.37. The Authority may, following consultation, revise this guidance from time-to-time if it believes a revision is necessary to achieve the policy objective of the MSC. As this is a novel intervention, we will review the impact of the MSC monthly. If it is not having the effect that we intended, perhaps because there are significant and unexpected market developments, such as material changes in supplier hedging positions or the level of customer switching, then we retain the right to adjust the methodology and its key parameters if needed.
- 2.38. Before making changes to the guidance, we commit to consult stakeholders on our proposed changes for 14 days. We shall consider any representations that are duly made and not withdrawn during this consultation period before announcing our decision on any necessary amendment. Any changes would come into effect no earlier than when we publish the second weekly update to the charge after the consultation period closes.

#### **Implementing the MSC**

#### Retail Energy Code

2.39. To give effect to the MSC, Ofgem introduced two Change Proposals to the Retail Energy Code (REC). The first of these REC0034 was approved by Ofgem on 14 April 20229. This REC change allows for the effective discharge of the new licence obligation on energy

<sup>&</sup>lt;sup>9</sup> Ofgem 2022, <u>Decision to approve rec change proposal REC0034</u>

suppliers to pay the MSC. R0034 will allow the REC to operate the MSC, by introducing the new REC MSC Schedule. A subsequent Change Proposal (R0035: "Market Stabilisation Charge – Administration") was approved on 27 June 2022. It introduces the necessary governance and charging arrangements to operationalise the MSC scheme and allow these MSC payments to be administered. RECCo has developed an invoicing and billing mechanism that delivers a value for money solution for suppliers (and ultimately consumers) to give suppliers entitled to payments under the MSC confidence that funds will be transferred in a reasonable timeframe.

## **Appendices**

## Index

Appendix	Name of appendix	Page no.
1	Wholesale element of the price cap $(W_{pc})$ weighting factors	19
2	Wholesale cost $(W_c)$ weighting factors	20

# Appendix 1 – Wholesale element of the price cap $(W_{pc})$ weighting factors

2.40. The terms and definitions used in determining the wholesale element of the price cap  $(W_{nc})$  weighting factors (a, b, c), in delivery days, are presented below:

$$a = \frac{D_{rem}}{D_h}$$

$$b = \frac{D_{acc} + (D_{M1} - D_{sw})}{D_h}$$

$$c = \frac{D_{sw}}{D_h}$$

Where:

 $D_{rem}$  = Number of delivery days remaining in the current cap period period (n) (calendar days)

Commencing at a value equal to the number of delivery days in the current cap period (n), subtracted by 1, thus ensuring it reduces to zero on the final day of the current cap period (n)

 $D_h = Maximum cumulative number of days hedge held (calendar days)$ 

A value equal to the number of days between the closure of the observation window for current cap period (n) during the previous cap period (n-1) and the end of the current cap period (n) ~4.5 months, which corresponds to the sum of  $D_{rem} + D_{acc} + D_{m1}$ 

 $D_{acc} = Number of delivery days of the current cap period (n) hedged during the previous cap period (n - 1) (calendar days)$ 

A value representing the volume of hedge already accumulated for the current cap period n during the previous cap period (n-1).

 $D_{sw} = A$  term growing by 1 from the first day of the observation window for the following cap period (n + 2) during cap period (n) (calendar days)

This value facilitates the switch between the accumulation of hedges for the next cap period (n+1) and following cap period (n+2) at the point one observation window closes and the next opens.

 $D_{M1}$  = Number of delivery days since the first delivery day of the current cap period (n) (calendar days)

## Appendix 2 – Wholesale cost $(W_c)$ weighting factors

2.41. The terms and definitions used in determining the wholesale element of the price cap  $(W_c)$  weighting factors (a', b', c'), in trading days, are presented below:

$$a' = \frac{T_{rem}}{T_h}$$

$$b' = \frac{T_{acc} + (T_{M1} - T_{sw})}{T_h}$$

$$c' = \frac{T_{sw}}{T_h}$$

Where:

 $T_{rem}$  = Number of trading days remaining in the current cap period period (n) (working days)

Commencing at a value equal to the number of delivery days in the current cap period (n), subtracted by 1, thus ensuring it reduces to zero on the final day of the current cap period (n)

 $T_h = Maximum cumulative number of days of hedge held ~4.5 months (working days)$ 

A value equal to the number of days between the closure of the observation window for the current cap period (n) during the previous cap period (n-1) and the end of the current cap period  $(n) \sim 4.5$  months, which corresponds to the sum of  $T_{rem} + T_{acc} + T_{m1}$ 

 $T_{acc} = Number of trading days of the current cap period (n) hedged during the previous cap period (n-1) (working days)$ 

A value representing the volume of hedge already accumulated for the current cap period *(n)* during the previous cap period *(n-1)*, this value is always 30 as it corresponds the price cap notice period

 $T_{sw} = A$  term growing by 1 from the first day of the observation window for the following cap period (n + 2) during cap period (n) (working days)

This value facilitates the switch between the accumulation of hedges for the next cap period (n+1) and following cap period (n+2) at the point one observation window closes and the next opens.

 $T_{M1}$  = Number of trading days since the first delivery day of the current cap period (n) (working days)