

Marzia Zafar
Ofgem
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30 September 2022

Dear Marzia,

CONSULTATION ON AMENDING THE METHODOLOGY FOR SETTING THE EBIT ALLOWANCE

We welcome the opportunity to respond to Ofgem's consultation on its review of the EBIT allowance in the price cap. Our full response to the consultation is in Annex 1 attached and our key points are summarised below.

Context for the review

At the time of the CMA investigation, we argued that its estimates of capital employed ignored the extent of risk capital required by suppliers to survive market volatility. Whilst in the early years of the price cap the market environment was relatively benign, the recent energy crisis has highlighted the significant level of risk in the market, with many suppliers unable to survive even a few months of market volatility and most of the remaining suppliers being backed by a parent company.

We have always considered that the 1.9% EBIT allowance was too low, and the recent increase in wholesale market prices and volatility has not altered our view. The increase in £/customer value of the EBIT allowance has been more than matched by an increase in cost of capital and capital employed. Despite the increased £/customer margin, investors would find the retail supply market even less attractive today than they would have done in 2019. As we set out in our response, recent interventions by Ofgem and Government have mitigated some of the risks faced by suppliers, but the overwhelming trend has been for increased risk since 2014-16 (when the CMA determined the 1.9% value). If shareholders are to continue to support suppliers through turbulent markets, it is vital that they receive some reassurance from the current review.

As such, we welcome Ofgem reviewing the methodology for setting the EBIT allowance, and welcome this initial consultation as a helpful exploration of some of the key issues. Although we have misgivings about the use of a CAPM approach for an asset light business like energy supply, we think Ofgem's proposed approach based on its three categories of capital employed (working, collateral and risk) has the potential to be

workable, particularly if complemented by benchmarking across other asset light industries.

Cost of capital

We have a number of detailed comments on CEPA's approach to estimating the cost of capital, which may have resulted in an underestimate. However, we would broadly agree with its conclusion that the asset beta for a standalone energy retailer under the DTC may need to be as high as 1.0-1.2, broadly equivalent to an investment in an airline. It may be necessary for CEPA to update its assessment in light of recent financial market turbulence.

Capital employed

Robustly estimating the capital employed by a theoretical efficient supplier will undoubtedly be the greatest challenge of this review, and we look forward to engaging with Ofgem on its modelling at a subsequent stage of its work. We have attempted to identify in our response the key components of capital (under Ofgem's three categories) and their associated drivers. It is striking that the vast majority scale with either bill value, wholesale costs or wholesale market volatility (or wholesale costs and volatility).

Design of EBIT allowance

In view of this scaling we consider it remains broadly appropriate to use a fixed percentage EBIT allowance and we see no justification for any of the alternatives suggested by Ofgem. The only design change that might be worth considering is to introduce an additional dependence on wholesale market volatility. For example, the EBIT margin could remain on a fixed percentage basis but with the percentage increasing if a volatility threshold is triggered.

Process and timetable for the review

Whilst we welcome Ofgem moving forward quickly with these reforms, we believe Ofgem's proposed process and timetable is wholly inappropriate for an issue of this complexity and importance. The 28 day consultation period for the current consultation is not proportionate, and nor is the proposal to move straight to statutory consultation. It is essential that stakeholders are given a full opportunity to comment on the detail of Ofgem's model of capital employed for an efficient theoretical supplier, and to do so as part of an open policy consultation (with adequate timescales to respond) rather than a statutory consultation.

If you would like to discuss any aspect of our response, please do not hesitate to contact me.

Yours sincerely,



Richard Sweet
Director of Regulatory Policy

CONSULTATION ON AMENDING THE METHODOLOGY FOR SETTING THE EBIT ALLOWANCE – SCOTTISHPOWER RESPONSE

Ofgem's process for the review

We welcome Ofgem initiating a review of this important and complex issue, but we do not support the speed at which Ofgem is progressing it. As explained below, we believe the time allowed for the current consultation is too short and Ofgem's proposed process for bringing the review to conclusion is too compressed.

Time allowed for this consultation

Ofgem's consultation policy states that the period for consultation will be "a proportionate amount of time relevant to the nature and the impact of the decision being made without unnecessarily [sic] delay to policy developments". Accordingly, ScottishPower has a legitimate expectation that appropriate deadlines for responding to consultations will be set by Ofgem. The consultation on the methodology for setting the EBIT allowance is only 28 days. This is patently an insufficient and disproportionate period of time relative to the nature and the impact of the decision. Indeed, Ofgem's previous consultation policy¹ specified the following timeframes for consultations which would suggest either 8 or 12 weeks should be allowed:

- *"Major issues of wide interest: 12 weeks (this is the maximum)*
- *Issues with narrower impact and of more specific interest: eight weeks*
- *Urgent issues, or minor changes to existing policy, or if we're following another organisation's timetable, licence, or other regulatory or statutory requirement: four weeks"*

Furthermore, given that during this consultation window there have been two public holidays together with a raft of other important announcements from Government on energy bills, 28 days is not sufficient time for stakeholders, such as ScottishPower, to adequately assess and respond to this consultation. This risks the consultation process for stakeholders, such as ScottishPower, being procedurally unfair. Furthermore, requiring a response within this timescale (particularly in the context of Ofgem's intended process referred to above) creates a very high chance of creating unintended consequences or of errors arising in Ofgem's decision making on this topic.

Although we are responding to the consultation a week after Ofgem's deadline, we do not consider we have been given sufficient time to respond in the level of detail or with the amount of supporting evidence that would be appropriate for a subject of this importance and complexity.

Process for concluding the review

We also believe Ofgem's intended process and timetable for bringing the review to conclusion (statutory consultation 24 November 2022, decision first week of February 2023, effective April 2023)² is inappropriate and will not afford suppliers a meaningful opportunity to respond to the details of Ofgem's calculations and analysis of capital employed. Nor will it afford suppliers (and Ofgem) sufficient time to take account of

¹ [Our consultation policy | Ofgem \(archive.org\)](#)

² Email from Marzia Zafar, Ofgem, 13 September 2022

interactions and inter-dependencies between this consultation and the forthcoming consultation on capital adequacy, a need which Ofgem recognises:

“Over the coming months Ofgem is consulting on two inter-related policies: methodology for setting the EBIT allowance (in this document); and Capital Adequacy requirement. [...] Through the course of these two consultations, we will align them once we have reviewed the stakeholder responses and the details of capital adequacy requirements have been defined.”³

We believe there should be at least one further stage of consultation between the current consultation (which does no more than set out the issues) and the final statutory consultation. Indeed, it would appear from statements in the consultation that Ofgem originally intended to keep a more open mind as to the timescales and process, but has since decided to accelerate the process:

“Following this and future consultations, we will consider whether changes should be made and, if so, in what timescale. However, it is expected that any changes would not come into effect until April 2023 at the earliest.”⁴

In particular, we think it is essential that stakeholders are given a full opportunity to comment on the detail of Ofgem’s model of capital employed for an efficient theoretical supplier, and to do so as part of an open policy consultation (with adequate timescales to respond) rather than a statutory consultation. It appears from Ofgem’s email⁵ that such a model has already been developed by CEPA, in which case, if Ofgem is intent on accelerating timescales, we do not understand why it was not shared as part of this consultation.

Chapter 3: EBIT methodology review: case for review

We offer below some comments in response to Chapter 3 of the consultation on the context and challenges for Ofgem’s review.

Extent to which risks have increased and reduced

Ofgem speculates in setting the scene for its review that a number of the policy interventions it has made in recent years may actually have reduced the risks faced by suppliers (and hence the size of the associated EBIT margin). Although we would agree that some risks have recently been mitigated, these benefits are dwarfed by the increases in risk since the CMA did its analysis in 2014-2016.

Three key areas where risks have increased include:

- **Price cap:** the CMA’s assessment pre-dated the introduction of the default tariff cap in 2019. This has given rise to a huge regulatory risk for suppliers. In the absence of the cap, suppliers can generally pass on unforeseen costs to their customers (provided that those costs are also faced by their competitors) but under the price cap they are dependent on persuading Ofgem to allow such costs, with a presumption in favour of protecting the consumer where there is any uncertainty. (As noted below, the risk has been exacerbated by market volatility and increased competition.) It is symptomatic of this risk that virtually

³ Condoc paragraph 4.13

⁴ Condoc paragraph 2.19

⁵ Email from Marzia Zafar, Ofgem, 13 September 2022

all suppliers have been consistently loss making since 2019. Assuming the current Energy Bill is eventually passed, it is reasonable to assume that the price cap will remain in place for some years to come and that the allowed EBIT margin should reflect it.

- **Market volatility:** Sharply increasing wholesale prices and associated market volatility over the last 12 months have hugely increased supplier costs and risks, particularly in the presence of the price cap. This includes areas such as unexpected SVT, backwardation, shaping and imbalance, BSUoS costs, weather-related demand uncertainty and potentially volume risk in falling markets. Although market prices and volatility can be expected to recede from their current highs at some point in the future, other structural changes in the market (eg higher penetration of renewables) may mean that challenges associated with volatility and unpredictable industry costs persist.
- **Increased competition:** Towards the end of the CMA's investigation (Q1 2016) the 'Big 6' suppliers accounted for 87% of the domestic market. Although there has been some consolidation in the last year or two as a result of supplier failures, and switching has temporarily dwindled, suppliers still face a larger range of strong competitors than in 2014-2016, and will be more vulnerable to market risks when switching is eventually re-established.

Areas where risks have been partially mitigated by Ofgem policy intervention include:

- **Wholesale allowance methodology:** the change to quarterly cap and ex ante backwardation cost recovery has partially mitigated some of the risks identified above, but suppliers are still exposed to significant backwardation risk via the deadband and significant volume risk. Furthermore, the quarterly cap has *increased* liquidity risk.
- **MSC and BAT:** the market stabilisation charge and ban on acquisition-only tariffs have partially mitigated the volume risk in falling markets, but their effectiveness is severely limited (a) by the MSC design, in particular the 10% MSC threshold and the fact that ex post price cap allowances (backwardation etc) are excluded from the calculated losses, and (b) the fact that both are time limited.
- **EPG:** The Government's Energy Price Guarantee has not reduced current levels of risk but has mitigated a potentially serious deterioration in risk. Although the EPG will reduce suppliers' debt levels and bad debt exposure over the coming winter, these costs should otherwise have been recoverable via an increased bad debt and working capital allowance in the price cap, so the reduction in risk against this counterfactual may be modest. The EPG should also mitigate the volume risk associated with falling markets since consumers will have less incentive to switch away from SVT.
- **Tightening rules on entry:** Ofgem's interventions over the last year or two to tighten up rules on entry and discourage unsustainable pricing practices should have mitigated to some extent the increased market risks resulting from new competitors joining the market since 2014-16.

We discuss some of these risks further below in response to Ofgem's questions, but our key message is that despite these interventions, risks have increased dramatically since 2014-16, and there is no evidence in our view that the 1.9% EBIT margin is too

generous at current price cap levels; indeed we believe a thorough analysis is likely to show that it is significantly too small.

Unresolved policy positions affecting EBIT

One of the most significant challenges for the review will be to set a level for the EBIT margin that is internally consistent with other areas of policy development that have not yet been resolved. These include:

- **CCB and RO protection:** We strongly support Ofgem's proposed interventions in this area, and hope that they will be implemented soon. But absent a final decision, it will be difficult to assess with confidence how much additional capital the 'efficient theoretical supplier' will need to raise in response to these interventions.
- **Capital adequacy:** We also support this proposed intervention, and would encourage Ofgem to closely align policy development on capital adequacy and EBIT margin. In any event, Ofgem must avoid the situation where it sets an EBIT margin that is too low relative to capital adequacy requirements, since suppliers may then be unable to raise the necessary capital from investors to meet the requirement.
- **Bad debt:** Ofgem's approach to quantifying and allowing the additional bad debt costs expected this winter will have a bearing on supplier risk. (Even with the EPG, bills this winter will be double what they were in the previous winter, and compounded by a wider cost of living crisis).
- **MSC:** Ofgem has consulted but not yet decided on key aspects of the MSC, such as whether it will be extended beyond April 2023 and whether the design will be amended to make it more effective. This will have a significant bearing on volume risk, particularly once the EPG has been withdrawn.
- **Shaping and imbalance:** Ofgem said in August 2022 that it intends to carry out a review of the enduring values of the shaping and imbalance allowance and transaction costs allowance,⁶ which may fall substantially short of the costs and risks to which suppliers are exposed in current volatile and illiquid markets.

We welcome the recognition in the consultation document of some of these interdependencies, and the need to progress consultations in parallel, but as noted above, we do not believe that it will be possible for Ofgem to complete this review on the timescales it proposes (ie in time for the April 2023 price cap) without significant risk of poor decision making.

Other methodological challenges

Other important methodological challenges that Ofgem will need to consider in the course of its review include:

- **Interplay of WACC and risk capital:** Ofgem is right to consider separately the cost of capital and capital employed, but must be aware of the potential interplay between them and the need to be internally consistent. The more risk capital a supplier has, the lower the risk (per unit of capital) to the provider of capital and

⁶ 'Price Cap – Decision on possible wholesale costs adjustment', Ofgem, 4 August 2022, paragraph 5.89

hence the lower the expected percentage cost of capital; conversely, the less risk capital, the higher the percentage cost of capital.

- **EBIT margin vs cost allowances:** As a general principle, if suppliers face a risk or uncertainty which has a systematic bias such that the expected value (the mean) is non-zero, this should be dealt with by a cost allowance; only the true riskiness (ie the standard deviation) should be reflected in the EBIT margin, via its contribution to risk capital. So, for example, the risk associated with unusually cold or mild winters has a bias which should be the subject of a dedicated allowance, and a variability which contributes to the need for risk capital.
- **EBIT margin vs other risk allowances:** Since the introduction of the price cap there has been a lack of clarity as to which of the various buckets (headroom, wholesale risk allowance, EBIT margin) are intended to cover the range of miscellaneous costs and risks which fall outside existing allowances.⁷ Ofgem should take the opportunity of this EBIT review to put more rigour into this area.

Chapter 4: Amending the cap methodology and options for consideration

Question 1: What efficient theoretical supplier assumptions should we use?

We comment in response to Question 11 below on the appropriateness of estimating the EBIT allowance using Ofgem's proposed 'efficient theoretical supplier' approach.

If Ofgem is going to use this approach we would suggest the following assumptions:

- **Independence:** the supplier is fully independent and shareholder-owned.
- **Financing:** the supplier is fully equity financed, given the difficulty of raising debt in current (and likely future) market conditions.
- **Trading arrangements:** the supplier conducts its own trades and does not rely on third party arrangements (such as used by a number of suppliers considered by the CMA in its investigation).
- **Customer mix:** the supplier has a mix of domestic customers (by payment method, level of engagement, level of debt propensity) characteristic of industry average rather than newer entrants.
- **Risk capital:** the supplier holds a level of risk capital compatible with Ofgem's capital adequacy proposals and compatible with an appropriate level of financial resilience.
- **Prudence:** the supplier takes a prudent approach to hedging for SVT (eg 3-1.5-3) and for Fixed Term Contracts (FTCs), hedges CfD exposure, and does not offer unsustainable acquisition tariffs (or if it does, this is reflected in higher capital adequacy requirements).

⁷ The comment in paragraph 4.50 of the condoc that weather risk 'is deemed to be covered by the wholesale risk allowance, headroom, and EBIT' is symptomatic of this.

Question 2: Do stakeholders agree the CAPM model is still appropriate to estimate the CoC for supply businesses moving forward? If not, then why?

In response to the CMA Market Investigation we argued that a CAPM approach to benchmarking the EBIT margin was not appropriate for an asset light business such as energy supply, which is characterised by often low and changeable levels of capital employed (before properly taking into account risk and collateral capital). We are encouraged that Ofgem appears to be taking a more sophisticated approach than the CMA in explicitly seeking to quantify risk and collateral capital for a theoretical efficient supplier, but these will be difficult quantities to estimate objectively and robustly. We would encourage Ofgem to complement its CAPM approach with benchmarking against the EBIT margins earned in other asset light industries.

If Ofgem continues to use CAPM, we consider there is good reason for Ofgem to ‘aim up’ on the cost of capital given the detriment to customers and the achievability of net zero of a non-functioning uninvestable retail market. If the EBIT margin is set too low this will impede current and future investors.

Question 3: Do stakeholders agree with CEPA’s approach to estimating beta? Are there other comparators that stakeholders believe should be used to estimate beta?

As both CEPA and Ofgem recognise, the recent high and volatile wholesale prices and spate of supplier failures have led investors to recognise that the energy market is riskier than was assumed when the CMA first assessed the cost of capital (CoC) for energy supply.

One of the reasons is the existence of the cap itself, which, in its current form imposes additional risks (such as volume risk) on suppliers. The impact of these risks materialising and the significant costs that many suppliers are still carrying from the cap’s previous failings, means the default price cap itself is no longer seen as having a neutral impact. Whilst Ofgem may have acted to reduce the risks, it did not eliminate them (see Table 1 below) and therefore, with a default tariff cap in its current form, the market is seen as riskier. Customers, once considered collateral, could now be considered a liability since they expose a supplier to volume risk in a volatile market. This is likely evidenced the government’s inability to sell the energy retailer Bulb. We agree with CEPA’s conclusion that

“it would not be implausible for Ofgem to conclude that the asset beta, for a standalone energy retailer under the DTC, may need to be as high as 1.0-1.2, broadly equivalent to an investment in an airline”⁸

We believe this increased level of perceived risk will persist for some time even if/when the market reverts to being stable. As such, it would be wrong to use the “old” view of beta based on the assumption that the historical level of risk and perception of risk is something that will return. In addition, given that the price cap may not be a long term feature of the energy market, we do not consider that using a long term historical view rather than a more near term future view makes sense. Ofgem should no longer use historical data to set future allowances when the future outlook is so different from the past.

⁸ ‘Default Tariff Cap cost of capital’, Final report for Ofgem, CEPA, 25 August 2022, page 37

Table 1: Examples of risks in the current market that remain after Ofgem action:

Risk	Ofgem change	Residual risk
Volume risk on price increases and decreases	Quarterly cap reduced volume risk. A temporary market stabilisation charge (MSC)	Volume risk on price increases and decreases remains. The MSC is not an enduring feature, does not cover costs and in certain scenarios (eg a price decrease of 9%) would not kick in at all.
Unexpected SVT linked to volume risk	Ofgem calculated the volume weighted average and most recently the lower quartile of costs to allow suppliers to recover costs over 12 months on default price cap tariff only	Winners and losers leaves risk of not recovering costs. Lower quartile approach makes this risk more significant. Recovery over 12 months means risk of customer movement which would leave unrecoverable costs
Backwardation and contango do not net out	Recover backwardation costs above a deadband over 6 months on default price cap tariff only	Deadband leads to significant unrecovered costs in current market conditions, customer movement off SVT within 6 months leave unrecoverable costs

To the extent that Ofgem does not recognise the higher beta in its cost of capital calculation, it must recognise it in a corresponding increase to the risk capital element of the capital employed. Both will lead to a higher EBIT margin.

Question 4: Do stakeholders agree with CEPA's suggested approach to estimating the other components of the CAPM model

The risk free rate (RFR)

CEPA's report produces an estimated range of the real risk-free rate of -1.12% to -0.86% or a range of 1.8% to 2.07% for the nominal risk-free rate. We believe that the use of spot rate evidence (ie single date) and one-month trailing averages of gilt yields is inappropriate if setting a fixed ex-ante RFR estimate – particularly during this current period of gilt yield volatility and the anticipation of rising yields in response to future base rate rises. Spot rate evidence is only appropriate if Ofgem is considering a cost of equity indexation approach (whereby the RFR is updated annually based on outturn data) as applied in RIIO-2. We believe indexation is the best approach in the case of the price cap which might not be in place over the long term and where there is currently no trigger to reassess this element.

We also consider that sovereign bond yields contain a “convenience premium” since these instruments have certain ‘money-like’, safety and liquidity benefits compared with other securities which dampens the price. We believe that this should be addressed when setting the RFR by including yields from AAA-rated corporate bonds in the RFR estimation as they more closely match the key requirements of the RFR.

We would also encourage consideration of the RPI-CPI swap data when estimating the RPI-CPI wedge (used to convert the RPI-based ILG yield into real-CPI terms). This should only be used if there is certainty that RPI will converge to CPIH by 2030.

Total market returns (TMR)

CEPA has aligned its real-CPI TMR to the 6.25-6.75% range as applied by Ofgem in the RIIO-2 network controls. CEPA says it sees no strong grounds to use an alternative approach. However, we believe that Ofgem has relied on an outdated and incorrect measure of historical inflation to deflate historical nominal returns, leading to an underestimation of the real TMR of circa 7bps compared to deflating historical returns using the more robust and reliable new historical series for the CPI (and the CPIH) for the period 1950–88 as published by ONS. We support deflating nominal historical UK realised returns using the historical RPI series as it contains relevant and available evidence on historical inflation: it is based on actual outturn data for the majority of the historical period compared to the CPI series which is based on ‘backcast’ estimates of historical CPI.

In addition, we are unsure why and if there is an impact relating to the fact that CEPA does not match the use of a *nominal* TMR in its estimation of the *nominal* cost of equity. CEPA says that it captures the inflation risk premium through its use of a *nominal* RFR in the CAPM estimation and not through the use of a nominal TMR. The telecoms regulator, Ofcom, which sets a nominal return in its controls, used a nominal estimate of both the RFR and TMR parameters in its estimation of the nominal cost of equity for its Wholesale Fixed Telecoms Market Review 2021-26. Ofgem uses both real estimates of RFR and TMR parameters. We do not see a rationale here for using a *nominal* RFR and a *real* TMR to derive the *nominal* CAPM-cost of equity.

Adjustment

CEPA recognises that there exist negative asymmetries in the balance of risk and returns in the current energy retail market, ie the likelihood of underperformance outweighs that of outperformance, meaning investors cannot reasonably expect a fair opportunity to earn their required return. Ofgem’s response to this asymmetry should be to make an upwards adjustment to the allowed cost of capital. However, CEPA has considered not doing this, stating that, in principle,

“it may be more appropriate to “price in” these asymmetries within the price cap, either via:

- changes to the headroom allowance (or a separate uplift in the allowed EBIT margin – e.g., over and above what might be implied by a WACC x capital base calculation); and/or*
- changes to the design of the price cap regime itself (e.g., as Ofgem has adopted for backwardation, or via changes to the price cap reset process (e.g., more regular updates)).”*

As Table 1 above shows, the changes to the design have only partially mitigated the risk and Ofgem is also pursuing its changes to EBIT independently of looking at the other allowances. We urge Ofgem to take the bigger picture into account when considering the EBIT margin, including the implications for market investment, achievement of net zero and ultimately the benefit of customers.

Finally, we would note that it may be necessary for CEPA to update its assessment of TMR and RFR in light of recent financial market turbulence.

Question 5: What are stakeholder views on the appropriate balance between using long-term or short-term market evidence in our estimation of the CoC?

CEPA recognised that investing in energy retail supply at present can be considered riskier than in normal market conditions, with the likelihood that higher returns are required by investors. This is indeed the case, and we believe that this will persist for some time even if/when the market reverts to being stable. As noted above, it would be wrong to use the “old” view of beta based on the assumption that the historical level of risk and perception of risk is something that will return. In addition, given that the price cap may not be a long term feature of the energy market, we do not consider that using a long term historical view rather than a more near term future view makes sense. Ofgem should no longer use historical data to set future allowances when the future outlook is so different from the past.

We believe that longer term historical market information is likely to be less relevant when looking at the future cap. However, we support Ofgem triggering updates to the EBIT margin or cost of capital with appropriate triggers if the level of risk perceived by investors does not persist.

Question 6: How often should we update the CoC, and what might the trigger(s) be? Should there be a periodic review?

Ofgem must consider the different areas of risk in the market, the long term stability implications relating to how often the CoC is reviewed and the ability of Ofgem to empirically judge the level of risk. Automatically updating certain elements within the RFR as noted above is appropriate but there may still be a need to also update the CoC.

If a regular scheduled update to the CoC is carried out every two years we think this could be appropriate. (Updating the cap on a quarterly basis for anything on non automatic approach is too onerous and uncertain.) However, a trigger-based update might be a better approach. This could be designed to be based on when there is a significant change to one of the elements that make up the CoC and should be able to be reasonably objective for example by linking it in some way to an objective assessment of the market.

Question 7: Do you agree with the above components of capital employed? If not, what other components should we consider?

Ofgem has proposed three main components of the capital employed by an efficient theoretical supplier:

- working capital
- collateral capital
- risk capital

We agree that these are broadly appropriate categories under which to estimate and analyse capital employed and welcome this approach.

We note that fixed assets (buildings, billing and IT systems) are excluded from this list. We think this is probably acceptable, given that these will typically account for a very small proportion of the total capital employed.

Question 8: Do you agree with our view on the potential drivers of capital employed by a market representative efficient theoretical supplier?

Working capital

Unlike other categories of capital, working capital has components which are both positive and negative. This makes it harder to estimate the overall value of working capital for the theoretical efficient supplier, as it will depend on the balance between the two, and on factors such as the mix of payment methods. As explained below (Question 9) we would broadly expect working capital to scale with overall bill value.

We would make the following observations in response to Ofgem's discussion of working capital:

- **Peak vs mean:** There is significant seasonal variation in working capital, driven by direct debit payment profiles, the annual October RO payment deadline and weather-related demand shocks. Ofgem will need to consider whether to size working capital requirements based on the peak or the mean, which in turn will depend on its ability to access short term loans; we think the more prudent approach would be to be guided by the peak.
- **Deferred allowances:** Ofgem is right to highlight the impact of deferred allowances within the price cap methodology (such as bad debt and backwardation) on working capital requirements. However, we disagree with Ofgem's suggestion that the increased capital requirements do not automatically necessitate a higher EBIT margin, on the grounds that *'while it may increase the amount of capital suppliers need for a period of time, the recovery of costs through subsequent periods will also increase supplier revenues.'*⁹ This ignores the point that these are deferred revenues, which means that the recovery of costs in the subsequent period is merely in lieu of recovering the costs in an earlier period when the costs arose.
- **CCB and RO interventions:** as noted above, Ofgem's proposed interventions to require suppliers to protect customer credit balances and RO payments will likely mean that these sums are not available to the theoretical efficient supplier as working capital and will need to be replaced by fresh capital.
- **Customer debt:** Working capital associated with customer debt is likely to scale faster than linearly with overall bill value. This is because the level of debt depends on the average bill value and also on customers' propensity to default, which also increases with bill value. Even if the EPG limits the typical bill to £2,500, this will be twice the level of the previous winter, and exacerbated by wider cost of living pressures.

Collateral capital

Collateral capital will be a significant proportion of the overall capital requirements for a theoretical efficient supplier. We have set out below some of the main collateral requirements for ScottishPower, but would note that an independent supplier (not part of a larger group and not having a large parent company) would be likely to have

⁹ Condoc paragraph 3.35

proportionately higher requirements. We agree with Ofgem's suggestion¹⁰ that in light of recent supplier failures, providers of third-party trading arrangements are unlikely to accept a supplier's customer book as collateral as they did in the past, and would instead require an efficient theoretical supplier to post more collateral to access wholesale markets.

Table 2: Key components of collateral capital

Component	Comment
Wholesale energy trades and CfD hedge	ScottishPower's energy trading arm currently has circa £[<] to cover initial margin calls, reflecting the much higher market price volatility than at the time of the CMA investigation. This collateral would need to be provided as cash in the case of the efficient theoretical supplier. Indeed, the theoretical supplier would be likely to carry out exchange trading or require collateral to a greater extent than ScottishPower, since we can enter bi-lateral trades with similar investment grade counterparties which does not require collateral as the risk of default for either party is low.
Variation margin	The variation margin [<] can be positive or negative depending on whether the market is falling or rising. In ScottishPower's case the variation margin has been as high as £[<]
Capacity market	Credit cover is provided in the form of a letter of credit or cash collateral.
LCCC Total Reserve Amount (TRA)	The TRA is reviewed quarterly by the LCCC varies with market price movements which drive the CfD rates. A further collateral payment may be required to guarantee payment if a supplier does not meet its obligation to fund the scheme.
Network charges – gas transportation	Monthly collateral must be paid for gas transportation, which varies when rates change, eg for additional SoLR charges. Credit cover and collateral must also be paid to electricity network operators
Elexon credit cover (energy imbalance)	This is to cover imbalance payments. These are settled monthly in arrears therefore we provide 28 days cover. This is based on our accuracy of forecasting demand and also moves with market prices which drives the value of imbalance costs we pay. This is currently (22 September 2022) £[<]. It is based on imbalance costs which increases with volatility and wholesale prices.
Gas balancing	This is a percentage of energy costs to cover gas balancing
Green Gas Levy	Collateral paid

As explained below (Question 9) we would expect collateral requirements to be driven by the level of wholesale prices and by their volatility.

Risk capital

Risk capital (if correctly allowed for) is likely to be one of the biggest components of overall capital employed. Coming up with a robust and objective model of risk capital required by the theoretical efficient supplier will be the most challenging aspect of Ofgem's review.

We would encourage Ofgem to review the outputs of the recent financial stress testing exercises to get a view of the magnitude of the losses that suppliers might have to absorb under plausible market scenarios. However, we would caution that the stress testing exercises only captured a relatively narrow subset of the risks facing suppliers, and the scenarios specified by Ofgem do not adequately capture important risks such as volume risks in a falling wholesale market.

¹⁰ Condoc paragraph 4.49

We list below some of the key risks that should be reflected in the assessment of risk capital requirements. As noted above, where these risks involve a systematic bias such that the expected (mean) value is non-zero, this should be reflected in a discrete allowance in addition to reflecting the variability (standard deviation) in risk capital.

- **Churn/volume/demand risk:** In the early years of the price cap this risk was much less material and a 6 month price cap was chosen over a quarterly one. Since then, increased wholesale market volatility has dramatically increased the risks. Although the move to a quarterly cap has reduced some of these risks, they remain well above the risk assumed in the early years of the cap. One of the drivers of this risk is the 'free option' granted by suppliers to consumers which means that they can switch from SVT to FTC without penalty when the market falls, and from FTC to SVT with limited penalty when the market rises. This free option comes at considerable cost to suppliers in volatile markets and could in principle be quantified (and tracked over time), as part of Ofgem's review. With current press speculation about possible falls in gas prices this winter,¹¹ the volume risk in a falling market is particularly relevant.
- **Weather including the impact of climate change:** Suppliers face a significant market price exposure in both unexpectedly cold and unexpectedly mild weather. In general this is a lose-lose risk: assuming all market participants have hedged, then in unexpectedly cold weather prices would be expected to rise, making additional volumes more expensive, whilst in unexpectedly mild weather, participants would need to sell back excess energy, causing spot prices to drop. As Ofgem points out¹², the recent sharp rise in gas prices has altered the normal balance, so there is less downside from unexpectedly warm weather (potentially a windfall gain) but even greater downside from unexpectedly cold weather: overall the expected risk is still highly negative. Because of the lose-lose dynamic explained above, there is a clear systematic bias towards costs and this should be dealt with by means of a dedicated allowance based on the expected (mean) cost, in addition to the variation around that (standard deviation) being reflected in the risk capital.

We are surprised that Ofgem says the impact of unexpected weather events is deemed to be covered by the wholesale risk allowance, headroom, and EBIT. It has always been our understanding that the systematic element of these impacts was intended to be covered within the 'variability' element of the shaping and imbalance allowance, albeit the current allowances do not adequately reflect current levels of volatility. We have previously suggested to Ofgem an approach based on option theory by which these associated systematic costs can be quantified (see Annex 2) and we would urge Ofgem to either update the shaping/imbalance allowance or create a new allowance.

- **Counterparty credit risk:** In ScottishPower's case, we tend to enter bilateral trades with A-rated counterparties (eg [X]) which means there is very little on our balance sheet to reflect counterparty credit risk. There would however be a serious impact in the unlikely event that one of our counterparts was to fail and leave us exposed. This is a risk that has become significantly greater since markets became volatile. We have credit exposure of around £[X] through bilateral trades and [X] cleared trades. This counterparty credit risk has materially increased since the CMA investigation

¹¹ www.telegraph.co.uk/business/2022/09/25/tumbling-gas-prices-track-slash-60bn-cost-energy-bailout/

¹² Condoc paragraph 4.50, page 38

- **Political/regulatory risk:** Political and regulatory risk is always present in a highly regulated essential utility such as energy, and increases significantly when prices are high and Government and regulator come under pressure to alleviate bills for consumers. The recent resignation of a GEMA non-executive over adjustments to the price cap methodology highlights the pressure the regulator can face to take the side of consumers rather than suppliers.¹³ The introduction of the EPG means that Government itself may put increased pressure on Ofgem to reduce the level of the cap.
- **Shaping and balancing:** as with weather-related demand variability, the *expected* value of shaping and imbalance costs will increase with increased wholesale prices and volatility (and may not therefore be covered by the shaping/imbalance allowance), but in addition to that, the increased uncertainty around the outturn (standard deviation) will contribute to increased risk capital.
- **Liquidity relating to the quarterly cap:** A lack of wholesale market liquidity may expose suppliers to greater energy costs than implied by price cap indexation; this risk has increased with the quarterly cap.
- **Bad debt risk:** This is the risk that the price cap allowance for bad debt costs fails to cover actual costs. It is difficult to quantify given the uncertainty as to what approach Ofgem may adopt for ex post cost recovery.

Question 9: What are your views on what components and drivers are fixed and variable?

We consider that the vast majority of the components of capital employed are likely to be variable, and scale with one or more of the following drivers:

- overall bill value
- wholesale prices (or the wholesale allowance in the price cap)
- wholesale market volatility (some appropriate measure thereof)

Table 3 provides an initial (non-exhaustive) breakdown of some of the key components of the three categories of capital employed, and assessment of which drivers they scale with.

Table 3: Categories of capital employed and key drivers

Capital employed	Fixed or variable	Scales with			
		Overall bill	Wholesale price	Volatility	Other
Working capital					
Customer Debt	Variable	✓✓			
Customer Credit Balances	Variable	✓			
Direct debit lag in recovery	Variable	✓			
Lagged cost recovery (eg backwardation)	Variable		✓	✓	
Energy Settlement	Variable		✓	✓	✓
Network Costs	Variable				✓
ROCs	Fixed				

¹³ [Ofgem board director Christine Farnish quits over energy price cap | Ofgem | The Guardian](#)

Capital employed	Fixed or variable	Scales with			
		Overall bill	Wholesale price	Volatility	Other
CfD	Variable		✓		
Collateral capital					
Wholesale energy trades	Variable		✓		
Variation margin	Variable		✓	✓	
CfD hedges	Variable		✓		
LCCC Total Reserve Amount	Variable		✓		
Network charges	Variable				✓
Energy Imbalance charges	Variable		✓	✓	
Risk capital					
Churn/volume/demand risk	Variable		✓	✓	
Weather-related demand	Variable		✓		
Counterparty credit risk	Variable		✓	✓	
Political/regulatory risk	Variable	✓			✓
Shaping and balancing	Variable		✓	✓	
Liquidity (quarterly cap)	Variable		✓		✓
Bad debt risk	Variable	✓			✓

Clearly the above components will have very different weightings, and a more rigorous assessment of drivers would need to take these weights into account. However, to first order, we would expect:

- Working capital to scale with overall bill value
- Collateral capital to scale with wholesale prices and volatility
- Risk capital to scale with wholesale prices and volatility

Question 10: What are the appropriate business metrics to measure capital employed

In ScottishPower's case we do not employ specific business metrics to measure return on capital employed in the supply business for any management reporting. This is consistent with our view that return on capital employed is an inappropriate measure for asset light businesses like energy retail.

Any traditional accounting metrics to assess capital employed for an asset light supply business will significantly understate the levels of risk capital facing the business as this will not reflect the risk capital in respect of demand and wholesale price volatility, and short term liquidity capital which is required to be available to respond to collateral calls or demand shocks.

Question 11: Do stakeholders agree that using an alternative efficient theoretical supplier-based approach is reasonable?

Ofgem proposes to model its view of the appropriate level of capital that should be employed for an efficient theoretical supplier, that is representative of the market, and reference this against the CMA analysis. It claims that:

*"This approach ensures we are not starting our analysis from square one, but are able to test this new approach against the current status quo – helping us assess what, if any, change is required."*¹⁴

¹⁴ Condoc paragraph 4.54

We are not sure we understand Ofgem's point about not starting from square one. As we have noted above, use of a CAPM approach for asset light businesses is unusual and challenging, and we are not convinced that the CMA's approach serves as a particularly robust starting point. Although we welcome Ofgem's commitment to quantifying risk and collateral capital, this is a relatively novel exercise which is likely to involve a degree of subjectivity, and which will require careful and thorough consultation with stakeholders.

We understand that Ofgem is not planning to use market benchmarks due to atypical market conditions and the onerous nature of such an assessment. Given the significant impact that setting the EBIT margin incorrectly may have on current suppliers and future investment in the retail market, including the delivery of net zero, we do not consider that Ofgem should dismiss the use of market benchmarks so quickly. Given the novelty and subjectivity involved, a benchmarking exercise (eg against other asset light industrial sectors) could provide a valuable cross check for Ofgem.

Chapter 5: Implementation of EBIT

Question 12: Do stakeholders consider the existing approach to be the most appropriate in calculating the EBIT allowance in the cap?

Yes, we consider that a fixed percentage EBIT margin is likely to be the most appropriate approach to setting an allowance in the price cap. Based on our initial assessment set out in this response, we consider that the majority of the capital employed, whether risk, collateral or working capital will broadly scale with bill value. If we were to suggest an alternative approach, it would be to introduce an additional scaling factor relating to market volatility (see response to Question 15 below).

Question 13: Do stakeholders consider it is appropriate to undertake periodic reviews for the EBIT allowance or not? If not, what might be grounds for reviewing EBIT allowance in future? If so, how often should it be reviewed and why?

We believe it may be appropriate to review the EBIT allowance when there has been a material change in the cost of capital or when there is reason to believe that the level of capital employed implied by the EBIT allowance may no longer be correct. This could be triggered, for example, by significant changes in the structure of the market or the regulatory framework. Beyond that, it may be appropriate to timetable a periodic review every three to five years.

Question 14: Which of our suggested alternative approaches is the most appropriate for setting the EBIT allowance going forward?

Ofgem has suggested three possible alternative approaches:

- a) a fixed approach that sets an absolute term, such as pounds per customer;
- b) a hybrid approach that sets an absolute (£ per customer) term and a variable term or terms that relate to costs such as the underlying cost of energy;

- c) a hybrid approach with an allowance which varies as required to best reflect market conditions between an upper limit (cap) and a lower limit (collar).

We do not believe any of the above approaches would be preferable to the current fixed percentage of bill value. As we have set out above, the vast majority of the components of capital employed scale with one or more of:

- total bill value;
- wholesale costs (which currently represent a high proportion of total bill value);
- wholesale market volatility.

We can see no objective rationale for either a fixed approach (£ per customer), a hybrid approach or a cap and collar approach. Investors have a choice over where to invest capital and a market that meant reduced returns as risks became greater would not be an attractive prospect.

Question 15: If the proposed approaches are not appropriate what alternative approaches not proposed in this policy consultation would be appropriate for setting the EBIT allowance going forward

We believe the current fixed percentage margin is likely to be the best solution as it is simple and approximates reasonably well the scaling of capital employed. However, as we have highlighted in our review of the various components of capital employed, a significant number scale with market volatility (often in addition to wholesale prices).

Once a clearer picture has emerged of the relative weights attached to different components of capital employed, it may be appropriate to consider whether an additional link to volatility could be introduced (assuming a suitable measure of volatility can be defined). One possible approach would be for the percentage model to be retained, with the fixed percentage taking different values for different tiers of volatility.

**APPROACH TO ESTIMATING THE IMPACT OF WEATHER-RELATED DEMAND
VARIABILITY PREMIUM**

This annex provides details of an approach developed by ScottishPower for estimating the costs of weather-related demand variability, previously provided to Ofgem in response to an RFI.¹⁵ We believe the insights from this approach could have application in setting an allowance for the expected systematic costs (or updating the current shaping/imbalance allowance) and also in quantifying the contribution of the variability in these costs to risk capital.

Weather-related demand variability is systematically biased towards costs because of the positive correlation between variations in demand relative to seasonal normal (eg due to warm or cold weather) and wholesale prices. In other words:

- In months where demand is above the seasonal norm, eg due to cold weather, this is typically associated with an increase in wholesale prices, meaning that the shortfall in energy has to be purchased at a higher price than energy was originally purchased for.
- In months where demand is below the seasonal norm, eg due to warm weather, this is typically associated with a decrease in wholesale prices, meaning that surplus energy has to be sold back at a lower price than was originally paid for it.

[✂]

ScottishPower
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¹⁵ ScottishPower response to RFI on 'specific wholesale cost components' dated 19 April 2022, and letter in response to follow-up questions dated 22 April 2022.