

ESB Response:

Integrated Single Electricity Market

(I-SEM)

Measures to promote liquidity in the I-SEM forward market consultation paper

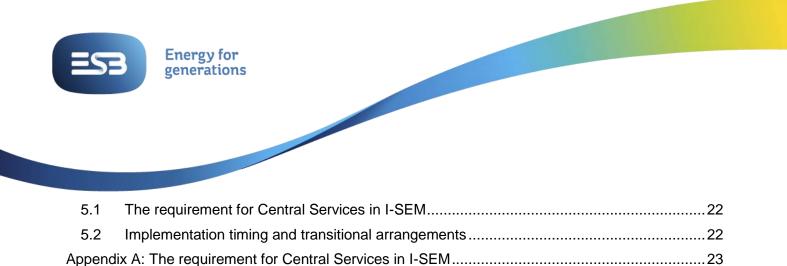
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EXECUTIVE SUMMARY

Whilst ESB has very serious concerns in relation to the proposals outlined in the "Measures to promote liquidity in the I-SEM forward market" (SEM-16-030) (the "**Consultation Paper**"), ESB agrees in principle with the SEM Committee's (SEMC) position, that the issue with liquidity in I-SEM relates to a "potentially chronic shortage of product" which will only increase as more intermittent generation is commissioned. As a consequence, ESB has for some time linked its position on I-SEM liquidity with an understanding that liquidity must be sourced from deeper, correlated markets (such as the GB market), and that larger participants with the knowledge, expertise and resources to access such markets, will be instrumental in providing liquidity to smaller participants that do not have similar capabilities and who otherwise would be reliant on a diminishing level of clean hedges available in I-SEM.

However, ESB is concerned that the above critical understanding is not properly reflected in the SEMC proposals to address liquidity, which incorrectly conflate forward liquidity with market power. Consequently, those proposals fail to meet basic requirements which must as a matter of law be met by any regulatory intervention, i.e. that they should be non-discriminatory and proportionate. ESB has sought independent legal advice in this regard, which will be separately submitted.

In the I-SEM Market Power Mitigation Decision Paper (SEM-16-024) the SEMC:

- makes it clear, in respect of the spot market, that it is satisfied that a suite of measures including a Forward Contracting Obligation (FCO) on ESB is sufficient to mitigate its market power concerns in the I-SEM physical markets (Day Ahead, Intraday and Balancing markets) [SEM-16-024, Para 8.24.6 and Para 8.9.2];
- 2) provides no evidence to ground a finding that the ring-fence is necessary to mitigate spot market power (if anything, it indicates the contrary) [SEM-16-024, Para 8.24.7];
- 3) considers the case for forward market power is not clear. This follows on from the Market Power Consultation Paper that considered the potential for forward market power abuse to be weaker and in any event considers that EU financial regulation is an important instrument to prevent the exercise of forward market power [SEM-16-024, Para 4.1.3 and 4.3.18, SEM-15-094, Para 4.3.8]; and
- 4) draws conclusions in relation to foreclosure that are reached wholly without evidence and, importantly, without assessment according to generally accepted procedures for analysing market foreclosure hypotheses [SEM-16-024, Para 8.24.5], a theme which continues into the Consultation Paper [SEM-16-030, p66]. ESB does not accept the foreclosure contention. ESB's response to the market power consultation comprehensively addressed foreclosure concerns. As this analysis appears to have been ignored, ESB reiterates these arguments in the main body of this document.

Accordingly, ESB respectfully submits, that there is no objective basis for the continued imposition of the vertical ring-fence on ESB. Equally, there is no justification for any proposal which seeks to impose additional volumes and/or restrictions on ESB in exchange for its removal. This is ESB's primary concern in relation to the proposed measures. For the avoidance of doubt, ESB recognises that its obligation in a market wide liquidity solution must as a minimum fulfil the FCO requirements, which should (as recognised by the SEMC) be sufficient to address any market power concern in the spot market.

In the absence of such evidence, it is clear that there is no objective basis for the continued ring-fencing of ESB, and that the ring-fence should be removed under all options (without placing any additional burden on ESB in return for its removal) and that there should be no presumption of forward market power in determining the market wide liquidity obligation.



If, notwithstanding the above, the SEMC has any residual theoretical concerns regarding forward market power or foreclosure, then this could be monitored in I-SEM. If and to the extent that such monitoring were to give rise to any basis for concern, then and only then should further mitigations be considered following standard consultative process. Any other approach is disproportionate and unfairly discriminates against ESB without objective justification. In regulatory terms, the approach being proposed by SEMC is "pancaking", which is of particular concern where costly and burdensome interventions are proposed or retained without justification.

In respect of the five liquidity options proposed, ESB has identified material deficiencies and inaccuracies in both the approach employed and in the design of each delivery mechanism rendering each of them infeasible and unworkable. Proceeding with any of these options in their current state would discriminate against the generator class, imposing greater risk and costs on them, inevitably leading to additional costs for suppliers and ultimately to higher costs for customers. Such inefficient outcomes are not in the interest of market participants or customers. ESB therefore urges the SEMC to reassess and recalibrate their proposals, taking into account the need for the following:

- 1) A clearly stated objective and a monitoring framework to measure progress towards achieving that objective. The absence of a stated aim or objective is evident from the fact that the proposed options (i) attempt to solve different problems; (ii) result in different levels of liquidity; and (iii) place the burden of solving those problems on different groups of generators. Not only does this confuse the policy intent, it makes it almost impossible to objectively compare and evaluate the options. The resulting outcomes (inadvertently) discriminate against an individual or group of generators that have not been deemed or proven to be the cause of the perceived market failure.
- 2) A forward looking assessment of the impact of each option. ESB's assessment found that all options quickly become unsustainable. For example, in 2018 and 2020, options 2 and 3 require generators to sell forward volumes near to or in excess of their forecast dispatchable output. This is clearly an unintended consequence which reinforces the need for thorough testing of the proposed options and corresponding adjustments to the proposed methodology.
- 3) Addressing the imbalance between the needs of suppliers against generators' ability to deliver. The current approach lacks any assessment of generator's ability to deliver risk management products in a market that is structurally short. This results in options that address this issue in the least market centric way possible. Suppliers should share in this burden. They are just as well if not better equipped to put novel hedging strategies in place. The decision paper needs to rebalance the apportionment of risks, where risks are shared by those best placed to manage them. This is a key regulatory principle.
- 4) Only after correcting the above identified deficiencies and inaccuracies is it appropriate to explore the design of the delivery mechanisms to discharge any liquidity obligation. Corrections are required to the various errors with the methodologies employed, in particular to the way volumes are calculated. In respect of this, ESB proposes adjustments to rationalise the delivery mechanisms, correctly account for volumes already committed, balance the burden sharing, treat generation assets consistently between options and target the options to meet the needs of independent suppliers.

ESB's proposed adjustments seek to deliver a proportionate and sustainable I-SEM forward market that works in the interest of all market participants. ESB stands ready to work with the SEMC and industry to realise this ambition. To be clear, ESB supports a Forward Contracting Sell Obligation (FCSO) and a Market Monitoring Obligation (MMO) as liquidity obligation delivery mechanisms, strictly on the basis that the liquidity obligation apportions risk proportionately between all market participants.

The foregoing is without prejudice to ESB's view on the appropriate design of any proposed remedy for identified liquidity issues.



1. INTRODUCTION

ESB welcomes the opportunity to respond to the SEM Committee's (SEMC) consultation paper on measures to promote liquidity in the I-SEM forward market (SEM-16-030) ("Consultation Paper"). This response has the following structure:

- Section 2 outlines relevant duties and obligations of the SEMC;
- Section 3 identifies instances of undue discrimination against ESB relating to market power and the proposed liquidity obligations;
- Section 4 sets out a range of material deficiencies with the approach to establish liquidity obligations and the design of the proposed delivery mechanisms as well as a number of proposed adjustments;
- Appendix A encloses ESB's response to the informal consultation on the requirements for central services in I-SEM;
- Appendix B contains a <u>confidential</u> submission relating to PSO-backed CfDs.

2. SEM COMMITTEE DUTIES

To provide context to ESB's concerns outlined in this response regarding discrimination and disproportionate nature of the proposals it is important to first be clear on certain key duties and responsibilities of the SEMC with respect to decision making.

As a matter of EU and national legislation, the SEMC is subject to a duty to act in a manner that is proportionate and non-discriminatory.

According to the Electricity Directive 2009/72/EC, regulatory intervention to promote competition should be "*necessary and proportionate*" (Article 37(4)(b)); and any measures taken by Member States to ensure a "*level playing field*" must be proportionate, non-discriminatory and transparent (Article 43).

In Case C-17/03 VEMW, the European Court of Justice found that the principle of non-discrimination applied to national energy regulators when implementing the first Energy Directive (96/92/EC) and we consider that this principle extends to implementation of the Third Energy Directive. Equally, the principle of proportionality could be deemed to apply, especially given the explicit references to proportionality in the Directive.

Under national legislation, Section 9BC(6) of the Electricity Regulation Act 1999 as amended provides that in carrying out its functions relating to SEM:

"the SEMC shall not discriminate unfairly as regards terms and conditions-

- (a) between authorised persons, or
- (b) between persons who are applying to become authorised persons."

It is our understanding that this obligation will extend to any decisions and arrangements in respect of I-SEM.

This duty of the SEMC is in addition to the general requirement, pursuant to Section 9(3), for CER to carry out its functions and exercise the powers conferred on it under the Act in a manner which



"(a) in relation to electricity does not discriminate unfairly between holders of licences, authorizations and the Board or between applicants for authorizations or licences,"

In practice, the principle of non-discrimination is that similar situations cannot be treated differently and different situations cannot be treated in the same way without appropriate objective justification being provided for such treatment.

Section 9BD of the Electricity Regulation Act 1999 as amended provides that both the SEMC and the CER must have regard to the objective that the performance of their respective functions in relation to the SEM should, to the extent that the SEMC believes is practical in the circumstances "be transparent, accountable, proportionate, consistent and targeted only at cases where action is needed."

Given that the SEMC has had considerable time to prepare for I-SEM and consider the issues of market power and liquidity, we see no "practical" reason why the measures being proposed by the SEMC for I-SEM should not comply with each of the above criteria. Moreover, the equivalent EU law obligation of proportionality does not have an exception on the basis of "practicality".

The principle of proportionality has been considered in depth in EU case law and in very summary terms has been reduced to the following key principles:

- 1. There must be a legitimate aim for a measure; and
- 2. The measure must be suitable to achieve the aim (potentially with a requirement of evidence to show it will have that effect); and
- 3. The measure must be necessary to achieve the aim, that there cannot be any less onerous way of doing it; and
- 4. The measure must be reasonable, considering the competing interests of different groups at hand.

For the reasons set out in this response, we consider that the SEMC proposals, in particular with regard to the volumes proposed, has failed to meet elements 2, 3 or 4 of this test.

On page 5 of its Market Power Decision Paper, the SEMC has acknowledged that any Forward Contracting Obligation (FCO) "will take into account a range of relevant metrics in a proportional, non-discriminatory and consistent manner." We can see no evidence that these principles are being applied in practice by the SEMC in its Consultation Paper.

In addition to any legislative duties, as an administrative body, making decisions which directly affect energy undertakings and customers, the SEMC must ensure that its decision making is reasonable, and proportionate and must ensure that it observes fair procedures in accordance with the principles of constitutional justice, including by ensuring that it gives reasons for its decisions. In this regard, it will be noted that CER has a statutory duty to give reasons for its decisions (Section 9(6)(b) of the Electricity Regulation Act 1999).

3. DISCRIMINATORY AND DISPROPORTIONATE TREATMENT OF ESB

Given the SEMC's duties and decision making responsibilities, the findings in the Market Power Decision Paper and the proposals in the Consultation Paper lead ESB to conclude that there is no legitimate basis for the continuation of the vertical ring-fence. Equally, there is no justification for any proposal which seeks to impose additional volumes and / or restrictions on ESB / Electric Ireland in exchange for its removal. This is ESB's primary concern.



3.1 The market power decision paper

The Market Power Decision Paper purported to find that ESB has market power in the spot market, that is, the I-SEM day ahead, intraday and balancing market timeframes where physical trading will take place.

ESB contends however, the SEMC, has failed to take into account substantive argumentation and factual evidence presented by ESB in its submission on the Market Power Consultation Paper. This has resulted in findings that are based on a worst case fact scenario with potential impositions on ESB that are greater than would otherwise have been determined under any subjective analysis. Whilst we may refer in the remainder of this paper to the SEMC findings with regard to ESB's market power in the spot market, we wish to note for the record that ESB does not agree with those findings (i.e. the extent or duration of any finding of market power).

3.1.1 Spot market power addressed

The Market Power Decision Paper makes it clear that the SEMC considers the suite of measures including a Forward Contracting Obligation is sufficient to mitigate concerns of spot market power. In assessing the appropriate measures to address market power in the spot market, the Market Power Decision concludes that:

"8.24.6 Considering the spot markets, earlier in this section the SEMC has set out its approach to mitigating market power in the DAM, IDM and BM. In particular, there will be an FCO on ESB Power Generation, the purpose of which is to mitigate their ability to exert market power in any of those spot markets."

And

"8.9.2 FCOs are an effective measure to mitigate exercise of market power in the spot markets"2

And

"8.12.15 The FCO is the key market power mitigation measure in the DAM/IDM and BM"³

3.1.2 Spot market power and the vertical ring-fence

There is no indication in the Market Power Decision Paper that the vertical ring-fencing of ESB is necessary to address any market power issues in the spot market. On the contrary, it would appear that a suite of measures that include a Forward Contracting Obligation is deemed sufficient in this regard.

"8.24.7 The DAM, IDM and BM will all have unit based bidding and these are the exclusive route to physical dispatch of assets. That is to say there is no OTC or bilateral contract nomination process. In that sense all participants in the market will be in a similar position with no player being able to take advantage of their vertical integration in order to affect market outcomes."⁴

With regard to vertical ring-fencing of ESB, we find that there is a lack of consistency or coherence in the commentary in the Market Power Decision Paper. The SEMC has indicated that it is appropriate, in the context of I-SEM to consider whether certain players should continue to have ring-fencing restrictions applied to them (para 8.24.22). However, this analysis is not conducted in any substantive way in either the Market Power Decision Paper.

¹ SEM-16-024, paragraph 8.24.6, p. 83.

² SEM-16-024, p. 54.

³ SEM-16-024, paragraph 8.12.15, p .61.

⁴ SEM-16-024, paragraph 8.24.7, p. 86



The SEMC indicates in several instances in the Market Power Decision Paper that the key question is whether "the argument can be accepted that a competitive spot market will result in competitive forward hedge opportunities." However, if it is the case that imposing forward contracting obligation to address market power in the spot market is not sufficient to deliver a liquid forward market, this then becomes an issue of a lack of liquidity in the forward market which needs to be separately addressed. Once there is a forward contracting obligation on ESB at a level deemed appropriate to address any market power in the spot market, there can be no further linkage between measures to address the issue of liquidity in the forward market power in the spot market on the one hand, and market power in the spot market on the other hand.

Indeed, in its Market Power Decision, when considering the potential for expanding the vertical ring-fencing obligation to other players in the market, the SEMC has acknowledged that vertical integration does not result in low liquidity:

"In terms of liquidity, the SEMC has not found evidence that vertical integration has resulted in low liquidity and it is therefore unclear whether an expansion of vertical ring-fencing would improve forward market liquidity."⁵

Conversely, we see no basis for retaining a vertical ring-fencing obligation on ESB if the SEMC is not concerned about the impact of vertical integration on forward market liquidity.

Having deferred any decision on vertical ring-fencing to the forward and liquidity work stream, the SEMC has now failed to address this issue in any satisfactory manner in the Consultation Paper.

In the Consultation Paper, the SEMC indicates a concern that:

"a vertically integrated Group could internally hedge against potentially volatile wholesale energy prices and have a natural hedge against balancing risk. Additionally vertical integration would reduce the incentive to trade and help perpetuate barriers to entry that result from an illiquid forward market"⁶

Yet crucially, no evidence or analysis is presented. Section 3.1.4 addresses concerns about foreclosure.

It is not apparent that a natural hedge is a market power concern, as the SEMC also states that this issue:

*"is being considered in this area of I-SEM policy development exclusively from the perspective of the promotion of liquidity."*⁷

There is a lack of consistency here between the SEMC statements in the Market Power Decision Paper that there appears to be no link between vertical integration and low liquidity, and this apparent summary decision that a ring-fence is required to prevent foreclosure and deliver liquidity.

In simple terms, the SEMC has acknowledged that there is a lack of liquidity in the market currently in SEM and that it is caused at least in part by a chronic shortage of (hedging) products.⁸ ESB is subject to vertical ring-fencing in SEM. It is therefore clear that the vertical ring-fencing of ESB is not the "cure" for the lack of liquidity, nor could vertical integration of ESB be the cause. A better solution is a proportionate market wide liquidity obligation in which ESB is willing to play its part.

⁵ SEM-16-024, paragraph 8.25.6, p. 87.

⁶ SEM-16-030, p. 35.

⁷ SEM-16-030, p. 35.

⁸ SEM-16-030, p. 37.

3.1.3 Forward market power is less of a concern

The SEMC has not, in either the Market Power Decision Paper or the Consultation Paper, made any case that ESB has market power in the forward market. In fact, it noted in paragraph 4.3.8 of the Market Power Consultation Paper that:

"the potential for market power abuse in I-SEM appears to be weaker in the forward market compared to the physical markets. In any event EU financial regulation would appear to be the main instrument to prevent the exercise of forward market power."⁹

Additionally, paragraph 4.3.18 of the Market Power Decision Paper states in relation to forward market power:

"The case for market power is not clear" 10

It is apparent that the SEMC is less concerned about the potential for abuse in the forward market.

The fact that the forward market is a financial market, with lower barriers to entry, reduces the potential for market power to be exercised by any participant. The forward market's geographic definition should also be widened as participants will increasing look to more liquid trading hubs to manage their forward exposures. Our response to the Market Power Consultation Paper included a paper by Baringa Partners examining this issue. That paper noted the greater price convergence from market coupling, I-SEM participants are able to hedge their positions in interconnected markets, either 'cleanly' where they are holders of transmission rights on interconnectors, or relying on the high degree of market correlation for proxy hedging. The Single Electricity Market (SEM) System Marginal Price (SMP) and the GB electricity market (which is almost 100 times deeper in terms of trading volumes than the SEM) is very strong at 91%, despite flows frequently in the "wrong" direction to price differentials, an effect that will be eliminated with market coupling. Likewise, the highly liquid and strongly correlated GB gas market (monthly average price correlation of 92% to the SMP, with carbon included, and 2000 times deeper than the SEM) allows for proxy hedging, as well as asset-backed hedged for companies with gas-fired generation. These strong correlations are due to gas-fired generation are currently the most common marginal price setting plant type in both markets. For these reasons we strongly contend that market power is not an issue in the I-SEM forward market.

In any event, the SEMC has itself acknowledged that financial regulations exist which should mitigate any market power concerns in the forward market. Paragraph 4.1.3 of the Market Power Decision Paper states: "EU financial regulation is an important instrument to prevent the exercise of forward market power". This includes the Market Abuse Regulation (MAR) (EU 596/2014), which recently came into effect, and which prohibits market manipulation (a broadly defined term) in financial markets, including markets for commodity derivatives. The accompanying Directive 2014/57/EU requires that such activities must be punishable as criminal offences. Even if market power in the forwards market were to be a concern, which we do not agree is the case, this would act as a strong disincentive to any abusive or manipulative behaviour. This is in addition to EMIR which ensures a high degree of transparency of trading in the forward market for electricity.

3.1.4 The risk of foreclosure

The SEMC has linked the issue of the vertical ring-fence to foreclosure in either the generation or retail markets.¹¹ Notwithstanding the inconsistency and lack of coherency between this issue and the points above, ESB considers that the foreclosure argument has no grounds.

⁹ SEM-15-094, p. 30.

¹⁰ SEM-16-024, p. 27.

¹¹ SEM-16-024, paragraph 8.24.5. p. 83.



Despite the fact that ESB made extensive submissions in respect of foreclosure, drawing heavily on the initial findings of the Competition and Markets Authority (CMA) following its investigation into the GB Energy Market, the SEMC has not made any reference to the arguments presented by ESB in relation to foreclosure in either the Market Power Decision or the Consultation Paper. Since ESB made its submission, the CMA has finalised its report and the findings with regard to vertical integration remain unchanged.¹² We remain of the view that these findings have strong parallels in I-SEM and should be considered by the SEMC.

There is a single statement in the Market Power Decision Paper at paragraph 8.24.5 that:

"Vertical ring fencing of supply and generation is generally necessary to prevent foreclosure from either market. That is, due to ESB's market share in generation, ESB would be in a position to foreclose competition from the retail market because they would be forced to buy forward contracts from it or, due to ESB's market share in retail, it could foreclose non ESB generators from being able to make forward sale transactions."

This statement is entirely unsupported by analysis and we consider it to have no basis for the following reasons. This should be read in conjunction with the section addressing concerns of foreclosure in ESB's Market Power Consultation Response.

- Forward liquidity is a challenge in today's market where ESB has a vertical ring fence and will become more challenging under I-SEM. This challenge is a structural one, reflecting the current and changing nature of the generators on the system and their ability to reliably offer forward contracts. Scheduling risk will continue into I-SEM and an increasingly level of wind generation coming onto the system with no incentive to offer forward contracts means the issue is only going to become more acute.
- As noted in section 3.1.3 the I-SEM forward market is a financial market with lower barriers to entry and ESB submits, a wider market geographic definition should apply than was decided upon
- ESB is being obligated to sell forward contracts to address its market share in generation. Paragraph 8.24.7 and 8.24.8 of the Market Power Decision Paper makes it clear that the SEMC considers the obligation on ESB with regard to FCO as sufficient to mitigate spot market power. This should address any concerns pertaining to generation market share. To then also state that, despite this:

"8.24.5 ESB would be in a position to foreclose competition from the retail market because they [retailers] would be forced to buy forward contracts from it"

This would appear to be a circular argument and cannot be considered reasonable.13

- ESB will be subject to a FCO and along with other generators is likely to be subject to a liquidity obligation. Generators subject to such obligations will be required to sell or offer forward contracts to suppliers. This imposition goes a long way to addressing the concerns about foreclosure.
- It is important to recognise that suppliers are not solely reliant on I-SEM based products. Suppliers
 can purchase alternatives to clean SEM / I-SEM hedges. They are well equipped to put novel
 hedging strategies in place as they know their customer volumes and can use their expertise to
 hedge them in any way they possibly can as they know they have a large portion of their customer
 base under contract. Some suppliers are also capable of accessing a range of risk management
 products in interconnected markets, such as proxy hedges mentioned below. We elaborate on this
 theme in section 4.1.6.

¹² CMA, Energy Market Investigation, Final Report, paragraph 7.129-7.137, p. 340-341. ¹³ SEM-16-024, p. 83.



In the future, if foreclosure is subsequently found to be a legitimate concern there is a range of possible remedies at the SEMC's disposal. Maintaining the vertical ring fence in the interim would be an extremely heavy-handed option which cannot be objectively justified.

3.1.5 Market power is addressed

It is ESB's view that the SEMC has failed to demonstrate consistent reasoning through its consultation and decision papers, or to demonstrate that the measures being proposed are proportionate. Further, it appears to us for the reasons set out in this submission that the SEMC has failed to make out any case for the vertical ring-fencing of ESB, yet is proposing either to maintain this in place, or, if it is removed, to place onerous obligations on ESB in return for its removal. This is entirely inconsistent with the objective of taking action targeted "only at cases where action is needed."

Furthermore, there is no evidence of foreclosure or analysis of the risk of foreclosure put forward by the SEMC in either the Market Power Decision Paper or the Consultation Paper.

In light of this, ESB's vertical ring fence should therefore be removed in any liquidity solution from the outset. Once a market wide liquidity solution is determined any residual market power concerns should be continuously monitored and then and only then, should further mitigations be considered. To presume otherwise is pancaking. We address this point in further detail in section 4.

3.2 Electric Ireland must be allowed to compete for FCO volumes in all options

In return for the ending of vertical ring-fencing in options 3-5, it is proposed that Electric Ireland would not be eligible to compete for FCO volumes and those volumes would only be made available to other suppliers. Section 9.1 of the Consultation Paper states:

"To offset the potential foreclosure of volumes available for trading caused by potential internalisation of hedging within the ESB group, this option proposes that ESB Generation should sell 90% of their forecasted dispatchable volume compared to the 70% approximately under option 2 ... In addition, DCs volumes that are currently allocated to Electric Ireland would be made available for other suppliers. The additional FCSO on ESB plus the re-allocation of DCs would increase substantially the volumes of hedging available to suppliers other than EI/ESB."¹⁴

The intention is clearly to increase the volume of CfDs available to the market but no justification is given for why this should only apply to ESB / Electric Ireland and not also to other VIUs. Potentially the same logic would apply to other VIUs that they offered fewer CfDs to the market because of their VIU status and so increased obligations on them would support greater forward market liquidity.

In the context of serious concerns about forward market liquidity in the I-SEM, restricting Electric Ireland's access to these clean hedges would impose a cost on Electric Ireland and, more importantly, on its customers.

Like the increased onerous contracting obligations on ESB, no justification is offered for this intervention in the retail market where Electric Ireland would be placed at a cost disadvantage to other suppliers. It appears to be simply part of the 'price' for ending ring-fencing arrangements demonstrated by a comparison of options 2 and 3.

ESB considers that this measure is opportunistic, wholly unjustified and that it amounts to unfair discrimination against Electric Ireland and its customers.

¹⁴ SEM-16-030, p. 66-67.

3.3 There is no objective reasoning for the continuation of ESB's vertical ring fence

Given the arguments presented above, ESB contends that by any reasonable assessment of the issue that there is no objective reasoning for the continuation of the vertical ring-fence nor is the imposition of additional measures on ESB in return for its removal.

Such measures are considered unjustified because the key claims – of a market failure, ESB market power, and risks of foreclosure – are either wholly addressed via the Market Power Decision Paper, considered not a concern or unproven and unsubstantiated or, at best, corroborated with inaccurate and unsupported conjecture.

It is ESB's strong contention that if the SEMC is proposing measures to address a lack of liquidity in the forward market, then such measures should be clearly justified by reference to market conditions in the forward market, and must be non-discriminatory and proportionate. It cannot simply use the "cover" of ESB's perceived market power in the spot market to impose asymmetric obligations on ESB with the intention of delivering liquidity in the forwards market.

In EU and national law, SEMC market interventions must be objectively justified, proportionate, and nondiscriminatory (Case C-17/03 VEMW). Accordingly, ESB respectfully submits that the Consultation Paper's proposed remedies, in respect of the vertical ring-fence are legally unsound and cannot be justified.

4. ESTABLISHING I-SEM LIQUIDITY OBLIGATIONS

ESB acknowledges promotion of forward liquidity is a legitimate aim in the All Island market. We alluded to the nature of this challenge in our response to the Market Power Consultation Paper.¹⁵ Forward liquidity is a challenge in today's market where ESB has a vertical ring fence and will become more challenging under I-SEM. This challenge is a structural one, reflecting the current and changing nature of the generators on the system and their ability to reliably offer forward contracts. Scheduling risk will continue into I-SEM and an increasing level of wind generation coming onto the system with no incentive to offer forward contracts means the issue is only going to become more acute.

This requires a holistic and innovative liquidity solution that evolves alongside the market, and eventually becomes self-sustaining. The challenge we collectively face is to develop that solution while being careful to balance the risks between suppliers and generators. A well-functioning forward market will play a part in the long term success of I-SEM. ESB stands ready to work with the SEMC and industry to design that solution.

That solution could potentially, if justified, take the form of a liquidity obligation on appropriate electricity undertakings where the burden is shared proportionately.

However, in this section we set out why we think that none of the options, as proposed, are suitable to implement in I-SEM. This is due to a range of material deficiencies in the approach taken to establish liquidity obligations and in the design of the proposed delivery mechanisms. We identify a number of instances where these deficiencies result in discriminatory outcomes and suggest a number adjustments to correct them.

4.1 Deficiencies in the approach to establish I-SEM liquidity obligations

After a thorough examination of the Consultation Paper we believe that none of the options, as proposed, is suitable to implement in I-SEM. Each option suffers from one or more deficiencies that materially impact

¹⁵ ESB Group Response, Market Power Mitigation Consultation Paper, 18 January 2016, section 4.2, p. 17-18.



their viability. We have identified numerous problems with the proposed approach and proposed options that fall into four categories.

- The proposals lack a clear objective, future vision and pathway to success for the I-SEM forward market. It is fundamentally important that market participants understand and have confidence in the outcomes the SEMC want the I-SEM forward market to achieve over the short, medium and long term.
- There is a disconnect between the SEMC's underlying theory and its application. This is evident whereby the nature of the problem to solve varies between the proposed options and the options shift the burden between parties to solve those problems. Not only does this make it impossible to objectively compare the options with one another, it is hard to follow the logic behind the proposals.
- A forward looking assessment of the proposed options is fundamentally important to test long term viability and sustainability of the proposed options.
- The methodology to calculate liquidity obligations for each option contains errors that require correction.

These deficiencies are carried into the proposed delivery mechanisms, namely the FCSO and MMO, and lead to disproportionate outcomes that discriminate against one or more parties, including ESB. It is imperative that these flaws are corrected. The consequences of implementing any of the options as proposed are extremely serious, and we would urge the SEMC to take on board our comments.

4.1.1 The presumption of market power should be removed

The SEMC have already reviewed the potential for market power in I-SEM and chosen a suite of measures to address these concerns including a Forward Contracting Obligation on ESB to address spot market power. The SEMC also stated that the "case for (forward) market power is not clear".¹⁶ And the SEMC provide no further evidence that ESB has forward market power.

ESB is willing to participate in a market wide liquidity solution. At a minimum ESB acknowledges this must address that spot market concern. The liquidity obligation should be done with the presumption that there is no market power in the forward market. To presume otherwise is pancaking.

Once a market wide liquidity solution is determined any residual forward market power concerns should be continuously monitored and then and only then, should further mitigations be considered.

4.1.2 Forward market objective, future vision and monitoring framework

The development of a well-functioning forward market is a legitimate aim, and key success factor for I-SEM.

It is not clear to us what the stated aim or aims of the SEMC proposed liquidity interventions are. We think this has contributed to a disconnect between theory and the SEMC's application. There are three essential components which we feel are absent or insufficiently clear in the Consultation Paper.

- 1. A clearly stated objective for the I-SEM forward market
- 2. A future vision of what success looks like
- 3. A proposed framework to monitor progress towards achieving this success.

¹⁶ SEM-16-024, paragraph 4.3.18, p. 27.



The Consultation Paper does not clearly say what the objective of the I-SEM forward market is. The general thrust of the Consultation Paper states that liquidity will be a challenge in I-SEM as a result of the increasing penetration of intermittent plant under support contracts that have no incentive to offer forward contracts and a belief in the existence of trading barriers. No effort is made or ideas are put forward to address why REFIT supported generators cannot offer hedges, instead the proposals mandate existing non-REFIT generators to provide liquidity. The Consultation Paper pursues central services in parallel to address perceived trading barriers. At a high level, the objective of a forward market is to enable participants to manage risk at a reasonable cost. It is not clear to us how this is achieved under the proposals.

A long term vision is essential. The SEMC appear to impose liquidity obligations in perpetuity. There is no consideration of the circumstances where they would no longer be required. Further, the proposals do not allow any scope for natural growth or innovation in the forwards market, for example, into longer dated or non-standard products or innovation into swaps or wind indexed instruments. Rather, the proposals seek to prescribe for perceived supplier requirements including self-hedging, which is unnecessary and overly restrictive. This addresses the challenge in the least market centric way possible and casts serious doubts on the long term viability of the proposals.

ESB's response to the Market Power Consultation Paper set out our view of the long term vision for the I-SEM forward market.¹⁷

In a well-functioning forward market participants' at any time can access the risk management products they need at a forward price that can be relied on. This is particularly important in the context of I-SEM, as the new market design will significantly increase the volumetric and balancing risk for market participants, which introduces a new set of questions relative to SEM (where these risks are more socialised through the market design) in terms of risk management products that the market may need. This is also vitally important to promote competition.

The forward market will need to evolve, as I-SEM evolves, as the composition of generation become increasing intermittent, as support contracts expire and potentially as new interconnectors are built and commissioned. We offer this view as one possible direction the I-SEM forward market could take in the medium to long term.

A framework to measure progress and success of the overall policy intent is an important complementary tool. In GB, monitoring is a key facet of the Secure and Promote reforms. Wholesale and retail market monitoring and performance reporting has become a more prominent priority for the regulator. Ofgem takes a holistic approach to monitoring and now publishes a range of wholesale and retail market performance indicators, which includes forward liquidity and market making. A similar initiative would be a useful addition in I-SEM.

These three components are essential to underpin the overall policy intent before considering the appropriate mechanisms to deliver this vision.

4.1.3 An assessment based on underlying principles

The Consultation Paper puts forward five options to solve the liquidity challenge in the I-SEM forward market. In table 1 we set out five simple tests to assess these options against underlying regulatory principles. This analysis shows there are fundamental flaws with how these options have been constructed, which renders them all untenable without adjustment.

The tests reflect underlying regulatory principles and are set out below. These are designed to assess if the proposals discriminate against one or more market participants and if the proposals are proportionate. This

¹⁷ ESB Group Response, Market Power Mitigation Consultation Paper, 18 January 2016, p. 17.



looks at the conceptual design of each option not the detailed methodologies that determine the actual obligations.

- 1. Are all market participants who are not subject to price control regulation permitted to vertically integrate their generation and supply businesses?¹⁸
- 2. Is the burden of forward market risk fairly apportioned between generators and suppliers?
- 3. Is the burden to provide liquidity shared without discriminating between parties with generation assets?
- 4. Is the level of the obligation applied proportionately?
- 5. Do all suppliers have access to FCO volumes?

In section 3 we set out reasons why we believe there is no objective reasoning for the continued imposition of a vertical ring fence on ESB. We firmly believe ESB should be allowed vertical integration in all the proposed options. Accordingly, restricting ESB from vertically integrating its generation and supply businesses without justification is discriminatory. Options 1 and 2 fail this first test.

The second test assesses if forward market risk is fairly apportioned between generators and suppliers. The Consultation Paper establishes liquidity obligations using a supplier centric approach crucially absent is any feasibility study of generators' ability or suitability to deliver the obligation. The absence of this analysis risks placing an unfair burden of addressing the liquidity challenge on generators. All options apart from option 1 fail this test. In section 4.1.6 we set out the reasons why it's important to balance risk between generators and suppliers.

The third test checks the burden to provide liquidity is shared without discriminating against generators. The burden to solve the liquidity challenge shifts between different groups of generators across the different options. In option 1 ESB is asked to shoulder the entire burden while vertically integrated businesses are responsible in option 4. This is an unclear proposition given the SEMC do not deem an individual generator, a sub-group of generators or generators collectively to be the cause of the perceived failure in the I-SEM forward market. This is a clear disconnect between the SEMC's theory and placing the burden on market participants to solve it. Option 1 and 4 fail the SEMC targeted assessment criteria. Without any justification linking the perceived regulatory failure to the liquidity obligation this can only be viewed as disproportionate and discriminatory against those generators.

ESB believes that all generators have a role to play in providing liquidity in the I-SEM forward market. Only option 2, 3 and 5 embody this principle. These remaining options are not without faults but from a principled perspective share the burden on all generators. ESB considers option 4 is a credible delivery mechanism if VIUs were found to be the cause of the perceived forward market failure, however, that has not been demonstrated.

The fourth test examines whether one or more parties is asked to shoulder a disproportionate share of the collective burden. Option 3 requires ESB to make a disproportionately high contribution. This additional premium consists of two parts; first the requirement to sell up to 90% of forecast dispatchable output forward and secondly Electric Ireland is prohibited from competing for FCO volumes. There is absolutely no basis for this. As set out in section 3 above, we strongly believe the SEMC have sufficiently addressed all market power concerns in the I-SEM physical markets and forward market. No evidence is presented to substantiate the presence of market power in the I-SEM forward market. In the absence of such evidence, for option 3 to seek a premium from ESB in the form of additional liquidity volumes in return for the removal of the vertical

¹⁸ Note, the Consultation Paper rules out the vertical integration relating to Viridian Group.



ring fence is completely without merit. This is also wholly inconsistent with the I-SEM design principles of evidence based decision making. For that reason we believe option 3 should be disregarded.

Option 5 is a combination of options 3 and 4, and therefore it also suffers from this failure. We would suggest altering option 5 to combine options 2 and 4 instead.

Due to this premium and the restrictions imposed on ESB, option 3 goes beyond its stated requirement in providing the hedge ratio to suppliers as no corresponding deduction is made to remove Electric Ireland's volume requirements when it is no longer able to compete for FCO volumes.

The fifth and final test is whether suppliers are treated equitably in the proposed options. Options 3, 4 and 5 restrict Electric Ireland's ability to compete for FCO volumes. As mentioned in section 3 and in relation to the first test we think this is baseless, since the restriction are imposed for market power reasons. We therefore consider that options 3, 4 and 5 fail this test.

The last row of table 1 shows that overall each option fails at least two tests.

Test	Option 1	Option 2	Option 3	Option 4	Option 5
1. Are market participants permitted to vertically integrate?	×	×	~	~	~
2. Is the burden of forward market risk fairly apportioned between generators and suppliers?	~	×	×	×	×
3. Is the burden to provide liquidity shared without discriminating between parties with generation assets?	×	~	×	×	~
4. Is the level of the obligation applied proportionately?	×	~	×	~	×
5. Do all suppliers have access to FCO volumes?	~	~	×	×	×
Is the option proportionate, non- discriminatory and objectively justified overall?	×	×	×	×	×

Table 1: Testing the proposed options against underlying regulatory principles

4.1.4 The proposed options attempt to solve different problems

We observe from the Consultation Paper that suppliers' apparent need for hedging products changes between the proposed options as set out in table 2. It is clear the implied requirement varies substantially between the options. This makes it difficult to objectively compare the options. This confusion is compounded further by the lack of a clearly stated overarching objective.

This can be interpreted in many ways, either suppliers' needs change depending on the chosen delivery mechanism or the options attempt to solve different problems or indeed that some options do not completely solve the stated problems.



Clearly suppliers' needs do not change in this sense. We can only assume this is an unintended consequence. This highlights why it is vitally important there is a clear objective for the I-SEM forward market. This indicates a disconnection between the theory and its application and makes it difficult to objectively compare the options.

Option	Suppliers target hedging level		
Option 1	Doesn't target a specific level of hedging		
Option 2	Entitles suppliers to be 90% hedged from a combination of sources (FCOs, PSOs, FCSO and proxy hedges)		
Option 3	Entitles suppliers to be greater than 90% hedged from a combination of sources (FCOs, PSOs, FCSO and proxy hedges)		
Option 4	Entitles suppliers to be fully hedged to the level of their forecast shortness, that is, the difference between their forecast generation output and consumption		
Option 5	Entitles suppliers to be fully hedged to the level of their forecast shortness through a combination of an FCSO and MMO		

4.1.5 A forward looking assessment of the proposed options

The Consultation Paper sets out the SEMC's proposals using data for a single year (2015). While this is helpful to illustrate the options, it does little to test or demonstrate the proposals are fit for purpose to implement on an enduring basis. Without such analysis the SEMC may have set unrealistic expectations of forward liquidity that ignores the impact of future market changes.

Suppliers will likely want increased hedging given the increased level of risk in I-SEM. We note that there is no thorough analysis of suppliers' needs. We think this would be a valuable piece of analysis for the SEMC to undertake to inform the calibration and risk sharing of the chosen delivery mechanism.

Crucially, generators will be less able to supply these hedges given the increased penetration of REFIT supported wind which is incapable of providing hedges. It is credible to assume that in 2020 40% of the generation volume will be intermittent and incapable of providing hedges while only two thirds of the remaining 60% will be capable of providing hedges given the scheduling risk inherent in I-SEM. This will materially impact generators' abilities to comply with any obligation. In this evolving environment a forward looking analysis is essential to test the long term sustainability of the proposals.

Table 3 shows the impact of our forward looking analysis on options 2 and 3 as proposed by the SEMC. Clearly, the percentage of dispatchable output generators are required to sell under both options quickly becomes unsustainable. Option 3 also results in a perverse outcome. The formula in option 3 uses a maximum function to determine ESB's contribution. Other generators are not subject to such a cap, and as the target supplier volume does not change those generators have to make up the difference between ESB's contribution and the suppliers' hedgeable volume. This pushes up the contribution of the non-ESB generators above the level ESB must offer and above 100% of their forecast dispatchable output in 2020.

The outcome in 2018 and 2020 indicates the need to reassess the apportionment of risk between generators and suppliers. At present the options, as proposed, are skewed in favour of suppliers. A more balanced sharing of risk is necessary. Clearly there is a case to introduce measures to manage the risk faced by generators in these options. A universal cap may be one possible solution worth exploring in more detail. ESB proposes that a cap of 50% of dispatchable generation is appropriate.



Table 3: ESB's forward looking evaluation of option 2 and 3	
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	2015	2018	2020
Percentage of dispatchable plant to sell forward under FCSO option 2	69.6%	82.7%	98.2%
Percentage of dispatchable plant non-ESB generators must sell forward under FCSO option 3	84.8%	94.5%	102.0%

4.1.6 Appropriate risk sharing

The Consultation Paper proposes a supplier centric approach to establish liquidity obligations. This is not necessarily a problem in itself, but crucially absent is any feasibility study from the opposite perspective on generators' ability or suitability to deliver the obligation. The absence of this analysis risks placing an unfair burden of addressing the liquidity challenge on generators. As evidenced in our forward looking analysis set out in section 4.1.5 we are therefore seeking a more balanced apportionment of risk between generators and suppliers.

Placing the burden solely on generators to deliver this is a major concern of ours. Suppliers should share in this burden as they are well equipped to put novel hedging strategies in place. Suppliers know their customer volumes and can use their expertise to hedge them in any way they possibly can as they know they have a large portion of their customer base under contract.

The Consultation Paper overlooks this and instead attempts to prescribe suppliers' hedging requirements, including self-hedging.¹⁹ This approach is not supported by any evidence or analysis of suppliers' actual needs. An individual supplier's needs will depend on many factors. The composition of its customer base is perhaps the standout. Suppliers contract with residential and industrial and commercial (I&C) customers on a different basis, where I&C customers typically sign long term fixed price contracts. Suppliers hedging needs will reflect this and this is an important consideration in determining the target volume of a liquidity obligation, the types and tenure of products and to balance forward market risk between generators and suppliers.

Generators face scheduling risk due to wind output not being known until close to real time, which can push thermal generators out of merit. Generators also face the risk of unplanned plant outages where a plant may go offline. Both risks impact the volume they can sell forward. If the volumes exceeds a certain level of a generator's output that generator will need to put in place sophisticated non-asset backed hedging solutions. These are imperfect hedges in correlated market and are likely to be more costly. The generator would be taking on this risk to offer lower risk products to suppliers. Suppliers may or may not purchase these products. This indicates that placing the risk solely on generators risks delivering a much less efficient solution.

To illustrate this point further we draw attention to two examples, which we elaborate on further in section 4.2 below:

 To calculate the applicable volumes in the FCSO, the SEMC has identified a level of hedging for suppliers which it deems to be the optimal level of hedging, i.e. for suppliers to be 90% hedged against their demand. Having identified what level of hedging suppliers might realistically expect to receive from other sources, the SEMC is then proposing to impose a burden on generators to make up the difference to keep suppliers optimally hedged.

¹⁹ SEM-16-030, p. 48-49.



 To calculate the applicable volumes under the MMO, the methodology establishes the net supplier exposure in the market as an input. This approach fails to take account of the possibility that suppliers might realistically expect to receive hedges from other sources (as was the case for the FCSO), and imposes the entire burden on the 4 VIUs, whilst also ignoring the structural shortness of the market and the fact that, from a hedgeable generation perspective some of the VIUs are themselves net short, and are expected to remain so into I-SEM.

In both options, ESB queries the basis on which the SEMC purports to place this level of burden on generators and/or VIUs, while requiring suppliers to accept only a minimal level of risk. If there is a structural issue within the market meaning that liquidity does not deliver the level of hedging optimally required for suppliers, then this should be addressed in a non-discriminatory manner that fairly distributes the responsibility for the liquidity obligation between all generators and suppliers. This is currently not the case, noting the liquidity challenge is driven by a structural issue and not a market power issue.

Any future Forwards and Liquidity Decision Paper needs to rebalance the apportionment of risks where risks are taken on by those best placed to manage them. This is a key principle of regulation and an important aspect to make sure the solutions are sustainable in an enduring market and work towards achieving the objective of the I-SEM forward market.

In addition, the Consultation Paper does not make any link between the presence of a Capacity Remuneration Mechanism (CRM) and a supplier's desire for forward hedges. The CRM hedges scarcity rents for suppliers by turning them into a monthly charge levied at the same rate on all suppliers. This derisks the hedging requirement for suppliers. This should also be part of the wider assessment of suppliers' needs.

4.2 Deficiencies in the design of the delivery mechanisms

ESB supports a Forward Contracting Sell Obligation (FCSO) and a Market Monitoring Obligation (MMO) as liquidity obligation delivery mechanisms, strictly on the basis that the liquidity obligation apportions risk proportionately between all market participants.

It is of particular concern that the proposed delivery mechanisms contain a number of material errors and ESB recommends the following adjustments are made to rectify this.

4.2.1 No continuation of ESB's ring-fence in all options

ESB firmly believes there is no objective reason for the continuation of the vertical ring fence for the reasons set out in section 3 and 4.1.1. We firmly believe ESB should be allowed vertical integration in all the proposed options. Accordingly, restricting ESB from vertically integrating its generation and supply businesses without justification is discriminatory. Options 1 and 2 therefore require amendment.

4.2.2 Electric Ireland must be allowed to compete for FCO volumes in all options

ESB considers it wholly unjustified that options 3, 4 and 5 prohibit Electric Ireland from competing for FCO volumes. For the reasons set out in section 3.2 we believe this is discriminatory and should be corrected.

4.2.3 Rationalising liquidity obligation delivery mechanisms

The Market Power Decision Paper purported to find that ESB has market power in the spot market, that is, the I-SEM day ahead, intraday and balancing market timeframes where physical trading will take place. As part of the suite of measures to address this concern a FCO is to be imposed on ESB to mitigate this concern, and the design of that obligation was to be taken forward in the Forward and Liquidity consultation.²⁰

²⁰ SEM-16-024, p. 5.



The subsequent Consultation Paper specifies DCs or the FCSO as the delivery mechanism for ESB to discharge its FCO, and these form part of the five proposed options.

The Consultation Paper also proposes to impose a further liquidity obligation on ESB, and in some options other groups of generators or all generators, which is explained above in section 4.1.3. The proposed delivery mechanisms for satisfying these obligations is a FCSO, MMO or a combination of a FCSO and MMO. Table 4 sets out the proposed delivery mechanism(s) for each of the proposed options.

	Option 1	Option 2	Option 3	Option 4	Option 5
Proposed liquidity obligation delivery mechanisms	FCO as DCs	FCO as DCs FCSO	FCO as FCSO FCSO	FCO as FCSO MMO	FCO as FCSO FCSO MMO

ESB remains of the view that a wider holistic solution for liquidity would be a far more effective means for promoting a competitive forward market. A better approach is to combine the FCO delivery mechanism with the chosen liquidity obligation delivery mechanism. This is a simple rationalisation of liquidity obligations that aims to promote liquidity and the development of a robust forward curve. There are three strong reasons to consider this, which we address in turn.

Discharging separate market power and liquidity obligations potentially hampers the development of a liquid forward market or places an unnecessary burden on market participants in a number of ways.

- If the FCO volumes are not allocated competitively it may reduce the incentives suppliers' have to invest in the means to participate in the forward market. We made this point in more detail in our response to the informal consultation on central services. ESB considers that any sale of forward contracts should be through a competitive procurement process.
- There is a risk of fragmenting liquidity between delivery mechanisms. This may have an adverse
 impact on the development of a robust forward curve in I-SEM, which is after all a relatively small
 market where a decreasing percentage of dispatchable generators may be able to provide hedging
 products. This indicates that concentrating liquidity could deliver benefits to all market participants.
- There are potentially cost efficiencies for all market participants by minimising credit, collateral and transaction costs through using fewer platforms or providers. This also reduces barriers to entry into the retail market.

4.2.4 Discharging the FCO through a liquidity obligation delivery mechanism

There is a strong argument for rationalising the liquidity obligation delivery mechanisms as discussed in section 4.2.3. A further refinement to this relates to the treatment of ESB's FCO. The Consultation Paper indicates ESB could discharge its FCO through a competitive process.²¹ We support this proposal and think it should apply across all proposed options.

²¹ SEM-16-030, p. 73 and 76.



As described above, ESB acknowledges its role in a market wide liquidity obligation must address FCO at a minimum. The liquidity obligation volumes should be determined with the presumption that there is no market power in the forward market and to presume otherwise is pancaking.

These two requirements necessitate that ESB discharges its full liquidity obligation through the same delivery mechanism. ESB's obligation should be the higher of the market based volume or the FCO volume. This ensures that at a minimum ESB fulfils the FCO volume obligation every year.

In practice, this would involve:

- A market based liquidity obligation would be determined for all generators based on forecast dispatchable output after first removing any generators PSO volumes (section 4.2.5). This would be necessary under the proposed options.
- Separately the SEMC would determine the volume of ESB's FCO, using an approach similar that currently employed in the SEM. This would also occur under the proposed approach.
- A max function would then determine the volume of ESB's obligation as the higher of the market based volume or the FCO volume ensuring ESB fulfils the FCO volume obligation every year.

4.2.5 Deducting PSO volumes up front in FCSO and MMO

Adjustments to the FCSO and MMO are necessary to remove volumes that are already subject to obligations to offer forward contracts. For the FCSO this is already considered in the methodology for determining suppliers requirements but requires adjustments to the generation side. For the MMO this requires adjustments on both the generation and supply side. This should be undertaken at the input stage as set out below.

The proposed methodology includes volumes of dispatchable generation as an input which are already subject to hedging arrangements, i.e. the PSO-backed CfDs (PSOs), within the MSQ for the purposes of determining the FCSO and in the forecast generation volumes for the purposes of determining the MMO.²²

Determining the size of a mandatory obligation using, as an input, generation volumes that are already subject to hedging obligations is incorrect. The fact that for the FCSO, these volumes are then deducted from the "gross FCSO" figure (see for example table 11 of the Consultation Paper) to calculate the "net FCSO" highlights an inconsistency in approach both within and across the options. The fact that FCO and PSO volumes are netted from a smaller pool of "hedgeable" electricity is inconsistent with the approach of, for example, excluding the de minimis generation from the input figure, whilst also having a distorting effect on the outcome. It also inconsistent with the approach taken for the MMO whereby no netting of FCO or PSO volumes takes place.

The correct approach is to discount the FCO and PSO volumes from any input figure when determining the obligation. This correction shows that once the FCO and PSO are recognised the FCSO are unsustainable. In the 2015 example, the percentage of dispatchable generation under contract rises from 70% per generator to 92% and well beyond 100% in subsequent years. This reinforces the need to thoroughly test the proposed options are sustainable using forward looking data as we mention in section 4.1.5 and that an appropriate apportionment of risk generators and suppliers is made.

The MMO is a dual sided obligation to quote bids and offers. In the proposed methodology, a deduction is made to remove FCO and PSO volumes from the volume requirement ESB must offer yet no corresponding

²² ESB does not consider MSQ is a suitable measure to use on an enduring basis as it will cease to exist under I-SEM. We assume this was not the SEMC intent and that 2015 MSQ data was used to illustrate their proposed options.



deductions are made to the suppliers hedging needs. Clearly, in a two sided obligation such as an MMO this is necessary. This corresponding adjustment would reduce suppliers hedging needs by the volume of the FCO and PSOs they receive. Otherwise the MMO is seeking to solve for a greater volume than is required by suppliers.

4.2.6 PSO plants are not solely attributable to ESB

Each of the proposed options in the Consultation Paper allocates all the PSO volumes to ESB.²³ This is erroneous as ESB is not the owner of all the generation assets that are subject to PSO. This is a relatively simple oversight that requires correcting.

However, ESB has highlighted concerns relating to the PSO-backed CfDs, which the SEMC includes in its analysis.

4.2.7 Inconsistent treatment of wind volumes

The proposed methodology to calculate the volume obligations under the FCSO and MMO treats wind volumes inconsistently. This lacks coherent logic and requires correction.

- Table 7 of the Consultation Paper discounts wind volumes as an input into the FCSO's volume obligation calculation²⁴
- Table 9 of the Consultation Paper includes wind volumes as an input for the MMO²⁵

The SEMC acknowledges throughout the Consultation Paper that wind (particularly REFIT supported wind) will not offer hedges. For example, section 3.6 states that:

*"All in all, the increase in wind penetration in the generation mix is likely to increase the demand for hedging products rather than the supply."*²⁶

While section 5.1 states that:

"wind farms do not benefit from forward trading – they are hedged by the guaranteed price in their contract – and so a significant part of the spot market is outside the forward market, distorting the availability of hedging products from one side of the market."²⁷

Accordingly, wind volumes should be excluded in calculating both (i) the volume of electricity subject to an FCSO and, (ii) the volumes subject to a MMO. We suspect this is likely an oversight as the SEMC has not provided any reason for treating wind differently in these delivery mechanisms and we would strongly contend there is no basis for this.

4.2.8 Treatment of VIUs with a net short position

The level of the MMO is based on the net supplier short position (see Table 9, Company shares of combined generation plus supply MSQ, 2015). As drafted, this includes the net short position of all vertically integrated undertakings (VIU) on whom it is proposed the MMO would be placed. This means that each VIU is being burdened with addressing not only the short position of small and independent suppliers in the market, but also their own short position and that of other VIUs.

²³ SEM-16-030, p. 5, 24 and 68.

²⁴ SEM-16-030, p. 49.

²⁵ SEM-16-030, p. 59.

²⁶ SEM-16-030, p. 25-26.

²⁷ SEM-16-030, p. 36.



It does not appear reasonable that a VIU should be placed under a mandatory obligation, the purposes of which is in part to address its own net short position. This is in essence forcing an unnecessary asymmetric risk on one set of market participants. The level of the MMO as determined under this methodology suggests that VIU players should seek to solve their own shortness within I-SEM. All market participants have the capability to seek hedges from outside of I-SEM e.g. through proxy hedges and will most likely consider these options.

4.2.9 Focusing option 5 to specific generators and suppliers

As proposed in the Consultation Paper option 5 combines the FCSO in option 3 with the MMO in option 4. Option 5 could become a workable solution in the I-SEM forward market if the following adjustments are made to the generation side and the supply side.

On the generation side, for the reasons set out in section 4.1.3 we think an appropriate adjustment to option 5 is to combine the features of the FCSO set out in option 2 instead of option 3.

We suggest a further refinement to the design of option 5. Option 5 makes a simple yet arbitrary choice to seek 50% of the required volume to meet suppliers' needs from the FCSO and the other 50% from the MMO. There are two adverse impacts result from this choice.

First, it introduces the potential for liquidity to be fragmented. This has a number of possible negative consequences on the development of a reliable forward curve in I-SEM. Our views are set out in section 4.2.3 where we state the benefits of rationalising delivery mechanism. We urge the SEMC to consider this issue and the real potential for outcomes that are counterproductive to the overall aims of the I-SEM forward market.

Should those concerns be deemed manageable the second difficulty is the proposal places more onerous obligation on VIUs by requiring them to participate in two delivery mechanisms, the FCSO and the MMO. All suppliers and ESB would potentially need to be active in separate delivery mechanisms when the FCO is also taken into account. This will almost certainly impose inefficient credit and collateral requirements and transaction costs on market participants from being active in these delivery mechanisms.

A straight forward solution to avoid such inefficient costs is to oblige independent generators to discharge their obligation in the FCSO and VIUs to discharge their obligation in the MMO. This would involve determining the proportion of the generation to be provided equitably across the FCSO and MMO, taking account of all the adjustments we propose, including the universal cap on FCSO volumes. Generators whose forecast dispatchable output is above the de minimis threshold would then discharge their obligation. This would sharpen the focus of the design and remove the potential for inefficient costs, thus reducing the burden on VIUs who would otherwise need to be active in multiple delivery mechanisms.

On the supply side, as proposed, the problem to solve in option 5 is to provide hedging products up the aggregate volume of suppliers' short positions. We do not consider this to be the correct solving function. The MMO is a two sided obligation to quote bids and offers. A number of the VIUs' portfolios who have an obligation to be part of this mechanism are short. That is, the volume of their supply positions is greater than their forecast generation output. This introduces a circular problem. The obligation is asking VIUs who are short to solve independent suppliers' shortness and their own shortness when they lack the generation to do this cleanly. VIUs have far more sophisticated trading capabilities and have greater access to risk management products outside of I-SEM. It is in these markets that VIUs will likely find these risk management products. The obligation to solve their own shortness in I-SEM through the MMO is an unnecessary requirement.

We would reiterate two points made previously, the first is the need for a forward looking assessment to test the sustainability of the proposals and secondly for a robust evaluation of the apportionment of risk between generators and suppliers.

5. CENTRAL SERVICES AND IMPLEMENTATION TIMING IN I-SEM

This section sets out ESB's views on the requirement for central services in I-SEM forward market and point out a number of implementation challenges that make transitional arrangement worth considering.

5.1 The requirement for Central Services in I-SEM

We support the pursuit of central services in I-SEM as we believe this has potential to bring benefits to generators, suppliers and customers. ESB's response to E-Bridge's questionnaire contains our detailed views on a number of issues relating to the requirements for central services in I-SEM, including trading barriers.²⁸ This submission is set out in full in Appendix B. We would like to highlight two key points:

- We would, however, challenge the SEMC's assertion in the Consultation Paper that central services will definitely be more cost effective than those currently in place in SEM. We request that any central services are subject to a thorough cost benefit analysis to make sure it deliver benefits to all market participants rather than additional costs.
- It is important to maintain the freedom and flexibility that market participants currently have to manage risk within and outside of the All Island market. This is current practice by many market participants, including ESB. To this end, we favour a non-exclusive platform.

Lastly, ESB considers that any specific proposal for central services in I-SEM should be subject to consultation with market participants prior to its implementation to make sure they are fit for purpose.

5.2 Implementation timing and transitional arrangements

The implementation roadmap put forward by the SEMC in the Consultation Paper is ambitious, especially considering the acknowledgement that the provision of central services will be contingent on a provider coming forward on a voluntary basis.²⁹ The SEMC also specify that a provider would generally need 6 months to set up the required services and at least another 6 months for market trials of these services.³⁰ This puts the implementation timeline under significant pressure.

Further, this will only likely happen once there is sufficient clarity from the overall design of the I-SEM forward market. We are some way away from achieving that. This is evident in section 11.3 of the Consultation Paper, which sets out the various FCSO and MMO design parameters that are currently out of scope.

With that in mind, we think it is prudent to consider interim measures and indeed consider it provides a number of advantages in this situation:

- Allows suppliers to re-ladder ahead of I-SEM go live
- A thorough analysis of the costs and benefits of any central services
- Time for the requisite agreements to be drafted or amendment, considered by industry, and agreed prior to their implementation.

ESB would welcome the opportunity to work further with the SEMC on this matter.

²⁸ ESB Group Response, Forward Market: Requirements for Central Services, 31 May 2016.

²⁹ SEM-16-030, p. 87-89.

³⁰ SEM-16-030, p. 46.



APPENDIX A: THE REQUIREMENT FOR CENTRAL SERVICES IN I-SEM

This appendix encloses ESB's response to E-Bridge's questionnaire that we provided in advance of the Consultation Paper. This response contains ESB Group's detailed views on a number of issues relating to the requirements for central services in I-SEM, including trading barriers.



APPENDIX B: PSO-BACKED CFDS

This appendix was submitted separately as it contains confidential / commercially sensitive information.