



Energy for
generations



**Response to:
Forwards and Liquidity Discussion Paper**

SEM-15-010

March 27th 2015

Executive Summary

ESB's submission to SEM-14-045 set out our concerns in relation to I-SEM. We noted that I-SEM represents a fundamental change in philosophy underpinning the operation of the wholesale market in that it signals a move from "regulated competition" to a much more liberal market structure. While we recognize that the driver behind this change is the EU's Target Model we remain concerned that such a change may not be appropriate for a small island system which incorporates significant and increasing volumes of intermittent generation.

In that response we also noted:

- a) The need for a holistic approach to Market Design incorporating DS3.
- b) Our concerns in relation to Market Power Mitigation. Specifically, that the more dynamic market arising from I-SEM will increase the risks facing ESB while at the same time denying vertical integration as a means of managing this risk. ESB is thereby disadvantaged vis-a-vis two of the UK's Big 6 which are competing on a vertically integrated basis in SEM and in GB. We urged the RAs to address this matter upfront in the programme.
- c) Issues related to forward liquidity and the fact that ESB effectively provides 100% of the available forward liquidity in SEM even though ESB Generation accounts for only around 40% of the generation market by volume. We also noted that as a result of vertical separation of ESB Generation and Supply, that Electric Ireland is the largest stand alone mass market supply business in the market and accordingly has the greatest exposure to the additional risks arising in I-SEM.
- d) Our concerns that the Day Ahead Market (DAM) is proposed to be non-mandatory which has the potential to impair liquidity and we proposed that the REFIT reference market be defined as DAM to address this concern.
- e) That the form of Capacity Remuneration Mechanism (CRM) proposed by the RAs is relatively unproven and we urged that the RAs should look in detail at the implementation in other jurisdictions and give consideration to a phased implementation in Ireland.

It is against that backdrop that we welcome the opportunity to comment on this Forwards and Liquidity Discussion Paper. In summary our high level comments are as follows:

Interaction between Market Power Mitigation and Forwards Liquidity

- i. We acknowledge the interactions between Forward Liquidity and Market Power Mitigation. However, it remains our view that Market Power Mitigation should be analysed and considered first, in line with the SEMC's published January 2015 project plan. An analysis of Liquidity and Forwards should follow this. While we recognise the necessity for an early solution on the Forwards issue it is preferable

for the SEMC to advance the Market Power and Liquidity work streams rather than attempting to address Liquidity before Market Power, as appears to be the current course of action. Otherwise a presumption of continuing dominance by ESB under I-SEM, which is evident in this discussion paper (SEM-15-010, page 11 and 15), could result in liquidity proposals being made on the basis of an incorrect foundation, and potentially lead to regulatory measures being imposed on ESB that may be discriminatory and in turn be detrimental for customers.

- ii. I-SEM will be implemented in 2017 and will probably govern trading arrangements for at least a decade out to 2027. ESB anticipates that its generation Market Share by 2017 will be less than 40% by volume and considerably less than 40% by Capacity in 2017 and will reduce further over the course of I-SEM. Regulatory interventions in relation to forwards liquidity, must be made in the full recognition and acceptance of significant changes in the market both in recent years and in the future. Particular attention should be given to the integration of the GB and Ireland markets in gas and electricity, the increased interactions between gas and electricity, the common participation across GB and Ireland of two of the UK's Big 6; both of whom benefit from a single integrated trading activity across Ireland and GB, in both electricity and gas, and across generation and supply.

We therefore ask the RAs for an early and comprehensive analysis of this matter in accordance with the stated programme plan and we note that under Articles 81 and 82 EC Treaty markets are generally defined on an ex-post basis and that the European Commission has said that relevant markets defined for the purposes of sector specific regulation "*will always be assessed on a forward looking basis, as the NRA will include in its assessment an appreciation of the future development of the market*"

Liquidity and Forwards

ESB accepts that forwards liquidity will be an important feature of I-SEM and we are committed to contributing to a solution in this area, particularly in relation to small scale Suppliers that lack the sophisticated trading capability of larger players. We do not accept that ESB's share of the generation market is a *cause* of this potential liquidity problem as we believe it arises from a combination of the following:

- i. Scale - the Irish wholesale electricity market is small in size and the number of participants and volume of trades are/will be correspondingly low as the market is unlikely to attract financial traders and is therefore likely to be limited to physical trading. In addition, we note that increased regulation in financial markets (i.e. EMIR) is resulting in fewer financial counterparties interested in trading commodity type products.
- ii. Incentive - under SEM c.33% of the generation market (rising to c.50% by 2017/18) is underwritten by support contracts and as such has therefore

has no incentive (or ability in the case of the majority of wind) to provide additional hedges. In addition, access to proxy hedges in the Gas market substitutes for CfD hedges in the electricity market enabling Supply companies to work out the most appropriate alternative hedging strategy. While this latter point is a cause of low liquidity in physical power hedges in SEM, it must also be considered as a solution to the hedging needs of Supply companies.

- iii. Structure - under I-SEM Suppliers are likely to require increased Forward hedges if the risk inherent within the market increases. However, in 2020 the Generation side will be made up of c.40% RES by volume, which cannot provide hedging. Moreover the remaining 60% (of which ESB is less than 40%) may be required to provide hedging for 100% on the supply side. Consequently, while conventional generation is supplying 60% of the demand, due to scheduling and despatch risk arising from the intermittency of RES, it will make it impossible to offer all of this volume as hedges without additional risk premium. This could have the effect of reducing the 60% of generation capable of offering hedges to 45%. This may be further exacerbated by the potential decoupling of the gas and electricity markets which may make proxy hedges more difficult to construct and probably put them beyond the reach of small participants who do not have sophisticated trading capability or collateral available to them.
- iv. Structure - for RES to reach its 40% annual target, it will have to be much greater than 40% on an hour by hour basis. Indications are that up to 70% instantaneous wind generation will be required at different times of the day to achieve a 40% average – with evidence that over 60% has been provided in January 2015.

Other Comments

In relation to some of the specified options in the paper, we comment on the following:

- We agree that the Market Maker option should be considered further and we note and agree with the SEMC comment that it would require vertical integration of generation and supply to underpin it. We are also of the view that a Market Maker obligation could only be considered if it applies on a non discriminatory basis to all those parties with sophisticated trading capability and VI presence across GB and Ireland.
- ESB was instrumental in the establishment of the Tullet Prebon OTC platform in SEM and we are supportive of the continuation/further development of a centralised trading medium under I-SEM. We are supportive therefore of the development of a Power Exchange although we do not believe that the volume of transactions will make the provision of a Power Exchange commercially viable and therefore believe that such an endeavour will need to be incentivised and supported by the RAs if it is to happen.

- Special consideration should be given to ensuring that small Suppliers, who are generally new to the market, are not fatally impacted by the I-SEM proposals. We would be open to special conditions applying to those with sophisticated trading capability on the Islands, so long as it was done on a non discriminatory basis and that the conditions were proportionate and commercially grounded.
- We would also point out that multiple or piece meal solutions to drive forward liquidity have the potential to counteract each other, where for example a liquidity provision of one type draws liquidity away from another. We would therefore urge the SEMC to focus on a holistic solution to the issue.

1. Consultation Questions

Lessons learned from SEM

Q: Are there other issues which have affected forward liquidity in SEM or any comments on the applicability of the issued identified above?

Q: Which issues are expected to persist in I-SEM?

Q: What are the priority issues to address under I-SEM? And what solutions should be considered?

- The primary issues affecting forward liquidity in SEM are two fold:
 - The small size of the market and consequently the small number of participants within it, most of which hold static and predictable interests (i.e. generators wishing to sell and retailers needing to buy). This issue is compounded by a lack of financial players to take buy and sell positions based on price arbitrage opportunities rather than long or short physical power positions.
 - The fact that only c.33% of generation volumes (due to PSO and Wind support) within SEM are exposed to spot prices, whereas 100% of retail volumes are exposed to spot prices is another significant contributory factor to low liquidity levels. Notwithstanding the fact that some of the PSO contracts are due to expire, this issue will continue under I-SEM given the significant volume of wind expected on the system in line with 2020 RES targets. This will result in only 60% of installed capacity being capable of providing a physical hedge, which in turn will be further reduced by scheduling and despatch risk continuing under I-SEM, making it impossible to offer hedges without significant risk premium.
- ESB disputes the applicability of the market concentration issue raised in the paper and ESB's "dominant market share" as a cause of low liquidity levels, as it ignores the fact that ESB's generation and retail businesses are currently ring-fenced. We are also not convinced that the issue of capacity payments is a disincentive to contract forward or that better forecasting of wind output will assist as a liquidity solution (certainly in the forward time frame) or that extra trading events every business day or a 24/7 trading desk will necessarily assist as a liquidity solution. Furthermore the ability to hedge physical power with fuel (gas), cited in the paper as a possible cause of low liquidity levels in SEM, should actually be seen as a potential solution to the liquidity issue/hedging requirements of suppliers, particularly given the structural issues outlined above.
- The introduction of I-SEM will not change the primary issue affecting forward liquidity, i.e. the size of the market, and it is unlikely that financial participants will enter a market of I-SEM scale in market making or non-asset backed roles without significant incentive. Indeed financial counterparties in general have been exiting commodity trading due to falling returns and increasingly stringent compliance and financial regulations, (i.e. EMIR). For example, Barclays, JP

Morgan Chase, Morgan Stanley and Deutsche Bank, among others, have all exited commodities trading in recent years.

- As discussed in the introduction, the need for market power mitigation must be analysed in advance of any debate on forward liquidity. Once addressed, ESB believes the SEMC should then focus on the following areas in terms of liquidity:
 1. Define and agree success criteria with market participants
 2. Assess the ability to hedge I-SEM physical power using correlated commodities
 - a. Sophistication of trading operations required
 - b. Facilitation of smaller participants
 - c. The nature of regulation (energy versus financial regulation)
 3. Assess Power Exchange feasibility
 - a. Collateral issues (in particular daily margining and cash collateral requirements)
 - b. Facilitation of smaller participants
 4. Assess Market Making feasibility (risks and risk mitigation)
 5. Define volume and product characteristics to meet supplier needs
 6. Consider a holistic liquidity solution (as opposed to piece meal solutions that counteract each other)
 7. Assess how transitional arrangements will be implemented

Within Zone Forward Liquidity

Q: What forward products are expected to be needed under I-SEM?

Q: Should development of appropriate products be left to the market or is specification from the RAs required?

- Ideally the development of appropriate products should be left to the market with the appropriate guidance provided by RAs. This will be greatly aided through the definition of clear forwards liquidity success criteria.
- Given the increased level of volatility expected under I-SEM, coupled with potential imbalance price exposure for suppliers, it is likely that more granular products offered more frequently and in greater volumes would be beneficial to suppliers. However the specific product requirements of suppliers must be balanced against the ability of generators to meet the need, given that scheduling risk will still exist under I-SEM, which may simply result in higher risk premium on the additional product required, with the consequent impact on consumers.

Q: Is there a requirement for market maker arrangements? If so, what options should be considered?

Q: Is there a requirement for arrangements to facilitate small party access? If so, what options should be considered?

- Market Makers can provide a key role in creating liquidity provided traded volumes are relatively large and bid/offer spreads relatively narrow.
- However the risks for market makers must not be under stated, particularly in markets where price discovery may be difficult (such as SEM/I-SEM) or the potential exists for prices to move very fast (of particular concern in electricity and gas markets given their regional nature and their linkage with physical events).
- In practice careful consideration would have to be given to the following options:
 - The benefits of having multiple market makers
 - The volume of product to be offered
 - The requirement for specific risk mitigation controls such as
 - Cap on net open positions
 - Wider spreads
 - Restricted products
 - The need for vertical integration to underpin market making activity of non-speculative participants
- Facilitation of small party access akin to the Supplier Market Access rules in GB should be considered as part of any liquidity promoting measures.

Q: What role should DCs play under I-SEM? What form should they take?

Q: Are market power mitigation measures needed in the forward market? If so, what options are available and how could they be applied?

- As noted above, there are interactions between market power mitigation and forward liquidity; however they are distinct issues, as evident by the separate work streams under the I-SEM project plan, and should be addressed separately. DCs were implemented within SEM as a market power mitigation measure and should therefore be addressed through the market power work stream.
- Any presumption of ESB's market share constituting market power under I-SEM is a potentially flawed assumption and should be rigorously tested before market power mitigation measures (and indeed liquidity measures) are considered.

Q: is an I-SEM specific exchange or I-SEM screen on an existing exchange preferable?

Q: What conditions are needed to support effective functioning of an I-SEM exchange?

Q: Should development of an exchange be left to the market or is specification from the RAs required?

- ESB believes that a power exchange could be a useful addition to the I-SEM market arrangements; however it cannot in itself create liquidity, the key drivers of which, as noted above are the number of participants and volumes traded.

- ESB believes that for scale and cost reasons an I-SEM specific exchange would not develop organically (i.e. without regulatory support) by a commercial enterprise for a market of this size. Consequently an I-SEM screen on an already existing platform is likely to be more a prudent solution. Alternatively, a model that might be considered is where I-SEM market participants come together under a mutual ownership structure to develop an exchange based on the specific needs of the market. This is the model under which the Irish stock exchange was developed.
- Conditions needed
 - An understanding of the costs to establish and operate such an exchange and the likely costs to participants/consumers
 - An understanding of potentially onerous impositions that financial regulations from exchange based trading may exact
 - Sufficient trading volumes to reveal an acceptable reference price
 - An adequate means of managing collateral requirements (particularly for smaller players, where daily margining and cash collateral requirements may be prohibitively restrictive)
- ESB believes that, given the small scale of the market here, it is unlikely that a power exchange(s) will develop under I-SEM on a purely competitive basis. As such it would be imperative for regulatory intervention for such a platform to develop.

Within Zone Spot Market Liquidity

Q: Are there any other issues which will affect liquidity in the near-term markets?

In addition to the factors outlined in the discussion paper, ESB also consider that the following issues will impact liquidity in the near- term markets:

- The overlapping timeframes of Intraday Market (IDM) with the Balancing Market (BM), and also the TSO ability to take pre BM actions, may impact liquidity in the near-term markets. If the TSO does not allow the market time to reach a balanced solution before it takes action then liquidity in the IDM in particular will be suppressed. The rules and incentives for the TSO need to be carefully considered in this context
- Regular publication of TSO forecasts (wind, demand, system long/short position) at pre-defined intervals during the day will help promote liquidity in the IDM, as the market gains an understanding of whether the system is forecast to be short or long. These updates may also help to create artificial deadlines and concentrate liquidity at points in time.
- The potential cost to operate a 24/7 trading desk may discourage participation in the near term market

- The nature of the output from Euphemia (i.e. more blocked than shaped output) could drive liquidity in the intraday timeframe. The results from Euphemia testing should determine the likelihood of this occurrence.

CROSS BORDER FINANCIAL INSTRUMENTS

Q: What are the advantages/disadvantages of FTR Options or FTR Obligations? What is your preferred approach?

Q: What measures need to be implemented to comply with financial regulation requirements?

Q: How should transmission losses be factored into FTR design?

- FTR options have the advantage of being more similar to PTRs with UIOLI and therefore more familiar to market participants. At a time when there will be substantial change across many areas, this might be an advantage in terms of the overall transition from SEM to I-SEM. Since FTR obligations carry downside risk for holders this might deter participation in auctions as potentially there is an unlimited risk. However, if there are suitably granular FTR Obligation products available, then this should allow participants manage this risk better. Without granular products being available and if current market conditions prevail, it is likely that an export obligation product would clear at zero price. Obligations do have the advantage of potentially allowing more volume to be sold, once the net position does not exceed the ATC, however we would question whether such significantly opposing views would be prevalent among market participants to make the additional volume significant.

For both FTR Options and Obligations, ESB consider that the availability of granular products will be important for refining hedged positions. Ideally products offered should match GB products including four hourly blocks.

The capability of secondary trading of FTRs also needs to be considered.

- It is not clear yet if the interconnector losses are to be treated separately on each of EWIC and Moyle or if an aggregated loss will be applied to both. If there are separate losses then this will necessitate separate FTR products on each of the interconnectors (as currently for PTRs). The losses should be factored into the terms of the FTR pay-out. If losses are for example 2% then there should be no pay-out until the price differential between the two zones exceeds this.

Q: What are the I-SEM specific issues that need to be considered in development of a Single Allocation Platform?

Q: Should development of allocation arrangements be left to the market or is specification from the RAs required?

- The I-SEM specific issues that need to be considered include:
 - Capability to facilitate FTRs, since cross-zonal capacity in other markets is focusing on PTRs only, including settlement and credit cover issues
 - Any features particular to HVDC interconnectors
 - Interconnector ramp rates
 - Any requirement for granular and short term products

It is important as well that whatever allocation platform is introduced endures and does not have to be replaced prematurely. There are substantial costs for participants when changes are made to third party systems, in terms of the interface with the systems, and then the knock on changes to internal processes and systems. Any change should be limited to minimise disruption to participants.

- Consideration needs to be given to settlement for difference payments on FTRs, as well as how credit cover issues will be addressed particularly where FTR obligations are concerned. Consideration should also be given as to the coincidence of settlement timeframes for FTRs and other CfDs.
- ESB believe there is a role for the RAs in the development of allocation arrangements.

Q: What are the I-SEM specific issues that need to be considered in consideration of firmness?

Q: Should treatment of firmness be left to the market or is input from the RAs required?

- FTRs may play an important role for I-SEM market participants hedging their position. Since I-SEM is only interconnected with one other zone there may not be as many options to hedge as there would be for participants in other markets. Early firmness of FTRs would assist in giving participants certainty. Firmness of FTRs will also incentivise Interconnector Owners to keep the full capacity of the interconnector available and not curtail volumes without due cause. This will ensure the most efficient market coupling outcome. Since it is the Interconnector Owners, and not market participants that can manage and mitigate the risk of interconnector availability, it is appropriate that this risk is borne by them.
- ESB believe there is a role for the RAs in ensuring the treatment of firmness as envisaged under the FCA network code

Q: What are the issues relating to revenue adequacy that need to be considered?

- In many ways the issue of revenue adequacy is a moot point, as the I-SEM consumer underwrites both EWIC and Moyle. However, rules around firmness

should not be created with the sole purpose of ensuring revenue adequacy for interconnector owners. The revenue earned by interconnector owners should reflect the value they are bringing to the market and should not be inflated beyond this.

Q: What potential market power issues are linked to FTRs? How can they be dealt with?

- Market power issues have not been an issue in relation to PTRs in SEM. It is not evident then that the introduction of FTRs will create issues.

Q: What interactions with other CfDs need to be considered in development of FTRs? What potential implications does FTR design have on these areas on interaction?

- As with any of the forward contracts for differences that will operate under I-SEM (both within zone and cross border), the choice of reference market (against which the difference payments will be settled) will be important. This is particularly so given the choice of Reliability Options as the CRM High Level Design. The choice of reference market for both Reliability Options and Forward contracts for difference should be aligned, given the potential for an unmanageable basis risk between forwards difference payments and RO difference payments were contracts to be struck against different reference markets. This in turn raises questions about how the RO will operate with a DA reference market, given that this may not be the best measure of scarcity against which the RO should be exercised.
- It is unclear how ROC and LEC certificates can be traded across the interconnector under FTRs given the link necessary between these certificates and the physical flow. Clarification is required on this matter.

Q: How should transition to FTRs be managed? What requirements are there during the transition phase?

Transition to FTRs should be managed as part of the general “Participant Engagement and Readiness” work stream.

However we have a wider concern about the transition phase for the forwards market in general, given that it will have to be in place before the I-SEM energy trading arrangements, CRM and DS3 are grounded (or even operational). This area should warrant specific attention in the project plan.