

RESPONSE BY BORD GÁIS ENERGY

To

**Measures to Promote Liquidity in the I-SEM
Forward Market
(SEM-16-030)**

29th July 2016

Executive Summary

Bord Gáis Energy (BGE) has stated from the outset of the I-SEM Regulatory programme, that the asset test of the success of the market design will be evidenced in the ability of the market to deliver and improve on forward market liquidity. In our view, this is critical to the sustainability of competition and investment in both the wholesale and retail markets on the island.

Whereby the Consultation Paper outlines a number of options to promote liquidity, we believe that there are certain key shortcomings in the consultation's considerations, which undermine the effectiveness of the proposals in addressing the causes of illiquidity. These predominantly relate to the absence of any recognition of market power in the forward market and a failure to consider the wider role that ring-fencing plays in incentivizing the largest generator and supplier in the market to trade in a transparent manner and on equal terms with other third parties.

Market Power

BGE is disappointed that the Consultation Paper does not lead on from the Market Power Decision Paper (SEM-16-024), published in May 2016. In this Decision Paper, the SEM Committee stated that in relation to the forward market; "that the potential for market power abuse in I-SEM is related to the levels of liquidity in this market. By addressing the liquidity issues of the current forward market, any potential for market abuse should also be mitigated".

Yet, in identifying the causes of illiquidity this Consultation Paper does not consider the structural differences between participants in the all-island market, does not consider the effect this has on the ability and incentive for parties to trade in the forward market, and the potential this creates for market power to be abused in the forward market. In overlooking these key features of the forward market, the options proposed to break the barriers to liquidity do not directly address the cause and are not proportionate in how the burden of contribution towards liquidity is allocated across various market participants.

To be specific, all but one of the options propose applying equal obligations on various participants. Although the volumes relating to this obligation will differ between the participants, the scale of the obligation on each is the same. This does not recognize: key asymmetries between parties; the difficulties smaller players will have in managing the operations and costs related to the obligations, and importantly, the competitive advantage the ESB has in managing the risks associated with the obligations proposed.

BGE invested in the development of an efficient power station to help it compete and grow in the retail market. This investment was imperative at the time given the low levels of liquidity in the forward market and the nature of the incumbent that we were competing against. The proposals in this Consultation Paper not only suggest undermining the value of this investment to BGE but also raise BGE's operational costs and risks and increase its cost of hedging. The ESB by virtue of its portfolio is much better positioned to manage these risks and therefore BGE will be placed at a commercial disadvantage to the incumbent. This will inevitably raise prices to customers and have negative implications for competition.

This is not to say that BGE is not willing to contribute to forward market liquidity. However, we can only be expected to do so at a level that is proportionate to our size and scale. This logic applies to ESB equally. Even if the ESB has not been found to abuse its dominant position in the past, in failing to recognize that the ESB has a dominant position by virtue of the size and scale of its portfolio the Consultation Paper also fails to account for the unique advantages the ESB has when it comes to cost-effective forward trading. This cannot be ignored in a bid to appear impartial.

Ring-Fencing

BGE is equally concerned that in a Consultation Paper designed to promote liquidity, 3 of the 5 options proposed provide for the removal of ring-fencing in the company that holds the largest generation and retail portfolios.

Ring-fencing is critical in providing incentives on the ESB's generation and supply business units to trade openly in the market. This in turn provides both liquidity and transparency to the market – which are both critical to the credibility of any functioning market. While we understand that ring-fencing by itself is not sufficient to ensure a liquid market, it is complementary to other remedies. We strongly believe that it is not appropriate at this time to remove the ring-fencing arrangements in place in the ESB, and actually in the interest of promoting liquidity and providing confidence in the terms of forward trading, BGE believes that the ring-fencing arrangements should be strengthened as we transition to I-SEM and implement liquidity obligations on a number of parties across the market.

The introduction to the Consultation Paper recognises interdependencies between liquidity and competition i.e. that liquidity is as key to the development of competition as competition is to the development of liquidity. Removing ring-fencing would significantly impact the competitive landscape, allowing the dominant buyer and seller of power to operate and plan as one business unit. Therefore we cannot see that it would be in the long-term interests of competition.

BGE's Preferred Approach

Bearing in mind the concerns raised above and the significant upheaval in the market as we finalise market rules, systems and arrangements in the transition to I-SEM, BGE cannot advocate any of the options proposed in the Consultation Paper.

Instead, it would be more appropriate in our view to implement a two-part 'Liquidity Promotion Strategy':

- Part 1 would deliver interim measures for I-SEM Go-Live, which recognises the market uncertainty facing parties contracting volumes forward as we transition to I-SEM (we refer to the EUPHEMIA related dispatch risk in detail in our response to questions 3 & 4). This will provide a bridge in the short-term and enable suppliers to hedge and contract with certainty.
- Part 2 would then commence at least 12 months after I-SEM Go-Live and focus on delivering enduring arrangements to promote sustainable liquidity. We believe that until the I-SEM market rules are bedded down, the market has stabilised and therefore participants are able to understand fully and quantify their risks in the market, it would be premature to lock in and commit to an enduring solution at this stage.

In the interim and for Part 1 of this Strategy, BGE believes that an amended Forward Contract Sell Obligation (FCSO) is the most appropriate means of providing forward volumes to the market in the short-term. Our proposed amended FCSO would reduce the volume obligation on all parties in recognition of the dispatch risk inherent in EUPHEMIA and provide for differentiated obligations on parties of different scale. We suggest a 25% obligation on a party like BGE with a single unit and an obligation of between 55% - 65% on portfolio holding parties like the ESB in recognition of their operational and cost advantages in managing forward contracting risk. This would provide between 10.3TWhs – 11.8TWhs of forward contracts based on the 2015 figures provided in the Consultation.

As part of this amended option and interim solution, BGE strongly urges the SEM Committee to strengthen the ring-fencing arrangements in the ESB by: a) enhancing its monitoring of the trading terms and arrangements in place between ESB's generation and supply business units and with other third parties, and b) limiting Electric Ireland's ability to inflate prices in the forward contract auctions through either volume limits or price-taker obligations. This will ensure confidence in the price discovery process and therefore in the market outcomes.

For Part 2 and the enduring arrangements, BGE fully supports the initiative to develop and deliver a centralized platform with central clearing and settlement arrangements. However, we do not believe that the FCSO, which we can support in the short-term, will deliver sustainable liquidity to the market. The FCSO is premised on available dispatchable generation, which in the longer-term will reduce as the levels of wind and small scale generation increases. It may therefore be more appropriate to consider a form of the Market Maker option as an enduring solution for the market (BGE outlines an amended option, building on options 4 & 5 presented in the Consultation Paper, in its answers to questions 3 & 4 below). However, at this stage we do not think it would be practical or fair to implement such a complex and operationally demanding suite of arrangements as we transition into a vastly different and already more dynamic and operationally demanding market.

Question 1: Does the Consultation Paper correctly set out the nature of the problem to be solved? Is it correct that the lack of liquidity characteristic of the SEM will not be satisfactorily rectified through incentives inherent in the I-SEM design?

BGE is concerned that the Consultation Paper does not recognise; the **structural differences** between the various parties within the SEM; the **different execution, credit and operational risks** for parties of different sizes and operational construct (i.e. independent generator, vertically integrated but short, constrained on generator, mid-merit generator etc.), and **the potential for market power abuse** within the forward market. Without recognising this potential, BGE feels that the Consultation Paper overlooks the biggest causes of illiquidity in the market, and therefore the options proposed in our view are not proportionate and targeted to address the real source of the problem.

The Market Power Decision Paper (SEM-16-024) notes that the market power metrics determined for the physical market should also be used with respect to the forward market to monitor market power. Although by its own admission, the Decision Paper focusses primarily on the physical market, where it does consider the forward market, it notes that although it can produce no evidence of market power abuse, the concentration in generation ownership, the potential existence of barriers to entry, and the risk aversion of suppliers all potentially contribute to the existence of market power:

- *“Given the concentration of generation ownership, such potential for forward market power in the I-SEM may exist, but the RAs have not seen evidence to suggest that ESB or other participants have behaved (or will behave) in this manner.” (p.70)¹*
- *“[c]ompetitive physical spot markets mitigate only the component of forward prices that is based on spot market expectations. Risk averse buyers, typically electricity suppliers, value forward contracts also because they provide a hedge against spot market volatility; in other words, they are willing to pay for price certainty. Thus, if some providers of forward contracts have market power in the forward market, for example, because there are certain barriers to entry, they may extract above-normal profits in the forward market from risk-averse buyers.” (p.30)*
- *“Forward CfDs/hedges in the SEM have been offered by a limited number of firms, with ESB having a large market share.” (p.70)*
- *“Some market participants have noted that there is an up to 15% collateral requirement in the forward market, and that may act as a barrier to entry.. Even if the level of collateral were that which could be expected in a competitive market, credit risk arrangements may make it difficult for poorly capitalized players to enter the market. [...This] would prevent the entry of some potential players.” (p.70)*

Adding to these comments and applying the traditional market power metrics to the forward market undoubtedly, in BGE’s view, indicates that there is a high risk of market power in the forward market:

Market Shares

The ESB produces the majority of ISEM’s generation and supplies a third of the market – alone. No other business comes remotely close. This pervasiveness in energy transactions means that it is uniquely positioned to estimate and anticipate the price of forwards. Even if ESB were found not to have abused its dominant position in the past, the size and nature of its portfolio today grants it unique advantages when it comes to cost-effective forward trading that cannot be ignored.

Concentrated market

Although neither the Market Power Decision Paper nor this Liquidity Consultation Paper has provided market share or concentration measures for the forward markets, the SEM Committee has stated that there are only three firms that regularly supply into this market. From our experience, ESB has

¹ It could be argued that the lack of forward market liquidity, which BGE has demonstrated in the past, could itself be seen as evidence of a detriment due to market power.

accounted for the majority of sales in the SEM and across all product types. This suggests that the forward market in SEM is highly concentrated. Absent regulatory intervention, it could be expected that such high levels of concentration would persist in I-SEM.

Conditions of entry and expansion

For entry to constrain market power, it must be sufficiently likely, of sufficient extent and occur in a timely fashion. The forward market has historically remained concentrated and we do not see that this will change as we transition into I-SEM. The likelihood of entry, and its ability to constrain market power, is inhibited in the all-island market for a number of reasons:

- **Lack of liquidity:** It is recognised that a lack of market liquidity can act as a barrier to entry and expansion (in just the same way as liquidity itself can lead to further liquidity). In forward electricity markets, entrants would face a risk if the market is perceived to be ‘thin’, as it may be difficult for them to readily unwind open positions without the risk of a significant price movement. The risk associated with a lack of liquidity is amplified by the below three factors.
- **Level of dispatch risk:** Even in a thin market, players with physical assets may be willing to expand their offers of forward hedges (to the level of their physical capacity) if they can predict readily when they will be dispatched. This is because their physical position will offset their forward sales. However, dispatch risk is greater in small, centrally dispatched markets such as the SEM, where parties frequently hold single plants, and in markets where there is a party with a dominant position in spot markets.
- **Information asymmetry:** It is widely recognised that market power can be exercised through informational advantages that a large incumbent may possess. In this case, an incumbent such as ESB would be likely to have an informational advantage over an entrant (particularly a non-physical player) in the forward market in relation to the formation of prices in the physical market (on which forward prices depend). This would increase an entrant’s risk and cost, thereby making entry less likely.

Exclusionary response: The ability of an incumbent to respond strategically to an entrant can be a decisive factor in relation to the likelihood of entry. The fact that ESB maintains such a large generation and retail portfolio would increase the risk (perceived and actual) to an entrant that ESB could strategically respond, for example by manipulating the reference price to which forward contracts are set, thereby exacerbating the risk an entrant may face from any long or short position.

Even if active abuse is not evidenced, the potential for abuse given the market structure, the absence of liquidity and the barriers to entry act as a significant barrier to liquidity. In this context, it is entirely reasonable for the Regulatory Authorities to intervene and to take measures to break this vicious cycle and allow the market to transition to a more balanced and competitive structure. Without regulatory intervention, BGE does not think that liquidity will materialise organically in the market as it is currently structured.

When considering the necessary and proportionate interventions for the market, BGE urges the SEM Committee to give due consideration and account to:

- **ESB’s size and portfolio position:** Given that ESB’s size is an important contributing factor to the problem of liquidity, it is entirely reasonable for the ESB to be treated differently to other market participants.
- **The structural differences between participants:** In designing interventions to mitigate the traditional barriers to liquidity in the all-island market, the SEM Committee must recognise the different risks – operational and trading – for different parties with different portfolios. This is not just a factor of size but a factor also of the number of generation units a party holds, the size of its trading operation and its financial structure (i.e. its credit rating).
- **Due discrimination:** Recognising the two points above relating to size and structural differences, as well as the potential for market power abuse, the SEM Committee must apply due discrimination in its treatment of market participants when deciding on the most effective

measure to promote liquidity in the all-island market. The SEM Committee cannot ignore these differences and the unique advantages held by ESB in an attempt to appear impartial.

Question 2: Does the scope of the Consultation Paper set out the full range of potential liquidity promotion measures that should be considered for implementation? If other regulatory interventions are considered appropriate please set out the nature, rationale and parameters of such intervention.

BGE is concerned that 3 of the 5 options considered within the Consultation Paper provide for the removal of ring-fencing within the ESB Group. In our view, vertical separation of the largest generator and supplier in the market will be a fundamental driver of liquidity in what is an already illiquid market. Ring-fencing **should** alter ESB's incentive to trade and provide liquidity to the market. As the largest buyer and seller of forward contracts, it is imperative that the ESB is incentivised to trade with third parties openly in the market. While ring-fencing will not in itself ensure a liquid market, it is complementary to other solutions.

Whereby the SEM Committee has designed the I-SEM spot markets in such a way as to limit the ability of vertically integrated parties to foreclose the market, the proposals for the forward market seem to ignore the role of ring-fencing as a market power mitigation measure. This is particularly concerning given that the forward market is a financial market and the ESB is financially integrated with a single set of accounts across the generation and supply business units. Although the proposals to allow ring-fencing require the ESB to offer more volumes under a Forward Contract Sell Obligation (FCSO) and a Market Maker Obligation (MMO), these overlook 3 important factors in addressing market power, enhancing liquidity and promoting competition:

- The market has not changed for the better since the SEM Committee issued its latest decision on the retention of ring-fencing arrangements in the all-island market:
 - Competition has not sufficiently strengthened since the 2010 review, when the RAs concluded that a structural ring-fence was still necessary;
 - Changes to the suite of other mitigation measures currently in place (in particular the removal of BCOP) is already likely to grant greater flexibility to ESB in I-SEM;
 - There is considerable uncertainty regarding the effectiveness of the suite of liquidity measures the RAs may choose to implement for I-SEM, and
 - The benefits from removing ring-fencing (€27 million as proposed by ESB) while not immaterial are very small when set in the context of supporting competition.
- The benefits of ring-fencing are not being materialised under the current arrangements as the lines of delineation have been blurred since the 2010 decision to allow partial reintegration of the generation and supply businesses with the Independent Generation and Supply businesses respectively. Given that the Independent Generation and Supply businesses are still contractually integrated within this 'separated'/'ring-fenced' structure, it is unclear how ring-fenced the businesses actually are in real terms.

BGE is concerned that the current ring-fencing arrangements and the movement away from NDC auctions to predominantly OTC bilateral trading do not deliver effective price discovery and transparency to the market – which in turn has negative implications for liquidity.

- In the longer-term, as dispatchable generation reduces and the corresponding level of traditional forward contracts also reduce while at the same time ESB increases its wind and solar generation portfolio, we are concerned that the problems of transparency, liquidity, and their corresponding impact on competition, will be further worsened if ring-fencing is removed.

With these points in mind, BGE is firmly of the view that any option to promote long-term liquidity within the all-island market must consider **strengthening both the role of and monitoring of ring-fencing**. Replacing ring-fencing with a higher volume obligation on ESB (be it under the FCSO or MMO) fails to recognise the incentives and ability of an integrated and dominant player to price up

contracts (and essentially foreclose the market) and the importance of transparency and competition in the price discovery process.

There is no effective monitoring of the forward market and although REMIT mandates the reporting of trades to a central authority, there is no effective monitoring of the conditions under which trades are made and/or the trades that do not materialise. We therefore suggest that in addition to retaining the current ring-fencing arrangements:

- i. The RAs enhance their monitoring of 3rd party trading in the forward market – both in terms of who is trading with who and under what arrangements;
- ii. That restrictions are placed on how ESB’s power generation business unit and Electric Ireland trade with each other. In particular, where auctions are held, Electric Ireland should be limited either in its ability to set the price or the volumes that it can purchase, and
- iii. In the allocation of DCs as a market power mitigation tool in the spot market, the RAs must recognise that where ESB’s power generation business unit and Electric Ireland are part of the same financial Group, the disincentive to price up in the spot market is reduced by the volume of DCs that are sold to Electric Ireland. On that basis, we believe the allocation of DCs to 3rd parties must be increased greatly to offset the perverse incentive. In practical terms, this would imply that all DCs currently allocated to Electric Ireland are allocated to 3rd parties.

On that basis, and as we discuss in more detail in answer to questions 3 & 4 below, BGE believes that each of the options must be reviewed to bear in mind the role of ring-fencing as a liquidity promotion measure and in ensuring competition in auctions/contracts and the important role it plays in providing a platform for enduring liquidity. Without the largest buyer and seller of power being appropriately incentivised to trade efficiently, the market will fail to deliver competitive trading outcomes.

Question 3: Respondents are asked to provide their views on the rationale, parameters and potential effectiveness of each of the regulatory interventions described and explained in the Consultation Paper.

Question 4: What are the important issues to be considered in each of the options? In what way might the options be made more effective? Please set out your views on the rationale for, and value of the parameters employed to determine, the quantity of the obligation in each option.

BGE will answer questions 3 & 4 concurrently.

Although we believe that the Regulatory Authorities have considered all of the relevant measures to promote liquidity in the all-island market, BGE does not believe that any of the options as proposed within the Consultation Paper are viable for I-SEM Go-Live². The options proposed are not proportionate to the level of risk the market is facing with I-SEM Go-Live in October 2017 and they do not recognise the relative structural differences between the participants in the market.

Given the level of uncertainty all players in the market are dealing with in the face of I-SEM, as well as the breadth of market and system changes that have to be implemented in a very compressed timescale, at this stage BGE suggests that it may be more appropriate to implement a Liquidity Promotion Strategy in two-parts. The first part could focus on delivering an interim process which will provide a reasonable level of forward contracts in the short term as a bridge to I-SEM Go-Live, while the second part will focus on enduring arrangements to promote long-term liquidity and should be kicked-off at least 12 months after I-SEM Go-Live, at which stage the market should have stabilised and parties have better clarity of their respective risks.

²When referring to I-SEM Go-Live, BGE recognises that forward contract auctioning would occur before the official market Go-Live date of October 2017 and it therefore relates to contracts sold forward with an effective date from I-SEM Go-Live, as currently expected on 1st October 2017.

With this in mind; BGE has considered each of the proposed options on; a) its merits of delivering long-term sustainable liquidity for the all-island market; b) how they may be tweaked to work more effectively and proportionately, and c) whether the options are practically implementable for I-SEM Go-Live.

Option 1: Removal of Trading Barriers

a) Its Merits

The provision of a central exchange with a central counterparty and the netting of collateral would be a significant step forward for the all-island market. Noting that similar arrangements underpin the spot market currently in the SEM and allow for parties of all sizes to trade on a level-playing field it could only help promote and facilitate forward trading on an enduring basis.

The current bi-lateral OTC trading is not effective in delivering trading arrangements on a transparent and equal basis. An exchange where more parties can trade on equal terms (assuming sufficient collateral is available and in place) will ensure that parties trade based on price alone. Relative to the current arrangements it would provide confidence in prices and the level of trading/liquidity in the market. This in turn may attract more liquidity and competition to the market.

We believe this option should be pursued irrespective of what direct intervention is applied across the market, i.e. whether a Forward Contract Sell Obligation, a Market Maker Obligation or a hybrid of the two is implemented.

b) Tweaks

In addition to the provision of an exchange, we would also propose that all of the options include changes to the current methodology of calculating the volume of Directed Contracts (DCs) provided to the market and how Electric Ireland is allocated these DCs.

As the SEM Committee recognized in its Consultation and Decision on Market Power, ESB's market power is likely to increase in the future given the rising levels of wind, ESB's peaker portfolio and ESB's own rising share of wind generation. We therefore do not believe that the current approach of estimating ESB's market power by reference to the Herfindahl-Hirschman Index (HHI) will be appropriate going forward given the changing dynamics of the market. The Residual Supplier Index (RSI) will likely be a better metric.

In terms of **determining the actual volume of DCs** to be offered, on the basis that the objective of DCs is to reduce the incentive on the ESB to increase prices in the spot market, the volume may be more appropriately determined by reference to the expected level of scheduled generation of ESB. The ESB should be obliged to sell forward a proportion of contracts that would make it unprofitable for them to increase prices as the payback under DCs would be greater than the profits earned for the remainder of its generation. Looking at the figures for 2015 in the Consultation Paper, ESB's market scheduled volume in 2015 was circa. 14.6TWh (noting this excludes generation from its wind and hydro units) and its DC obligation was circa. 3.6TWh – i.e. a 26% obligation as a proportion of its overall scheduled generation. This does not in our view provide adequate incentives on the ESB to mitigate market power concerns in the spot market.

Also relating to DCs, BGE strongly believes that **the methodology of allocating DCs should also change** going forward. The current approach, whereby Electric Ireland is offered a large proportion of the ESB's DCs and Electric Ireland is part of the same integrated financial Group as the provider of the DCs, undermines the effectiveness of the DCs as a market power mitigation tool.

The fundamental logic behind the provision of DCs was that by forcing the ESB to sell DCs, the ESB's financial incentive to increase wholesale market prices would be reduced, since any increase in wholesale prices would also increase the payments the ESB had to make in relation to DCs. Provided that the implied increase in these DC payments is equal to or greater than the increase in revenues

associated with increasing wholesale prices, the ESB should not have an incentive to increase prices. DCs sold from the ESB to Electric Ireland have no effect on the management's assessment of the benefits of pricing up in the wholesale market, since any payments under Electric Ireland's DC contracts are essentially internal between 2 financially integrated business units of the same Group and therefore are exactly offsetting. These internal DCs do not in any way offset the financial incentives for the ESB to exploit its generation position.

As a result, and in order to preserve the same financial incentives on the ESB to forgo pricing up in the wholesale market, it is critical that ESB continue to hold the same volume of DCs with third parties. In practice, this implies the need for DCs currently allocated to Electric Ireland to be allocated or auctioned to third parties if ring-fencing is removed.

c) Is it Implementable for I-SEM Go-Live?

The 'tweaks' proposed above to the DC methodology and process could and should be implemented for I-SEM Go-Live as part of the Market Power work-stream.

Given the difficulties in attracting parties to the market to provide a centralised exchange, as well as the level of detail required to set up a platform and the necessary legal and financial arrangements, we do not think that it will be feasible to set-up in the short term. On that basis, we believe that this option should be pursued as an enduring option and objective for the market but that interim plans and provisions are made for 2017 to facilitate forward trading in the near-term.

Lastly, although we see merit in progressing a centralised exchange along with a central counterparty and centralised collateral, this in and of itself is unlikely to be sufficient to deliver sustainable liquidity to the market. As outlined in our responses to questions 1 and 2 above, given the structural differences in the market and the dominance of a single player in both the generation and retail markets, we do not believe that a platform alone will deliver the required level of volumes and churn to the market on a sustainable basis. We therefore believe that this option should be progressed in tandem with other options that focus on delivering volumes to the market.

Option 2: Forward Contract Sell Obligation (FCSO)

a) Its Merits

BGE has 2 principle concerns with this option as it is proposed. Firstly, as the obligation relates to a participants forecasted dispatchable generation in the market, this option will become less effective in delivering volumes of liquidity to the market in time as the level of wind generation increases. Secondly, in placing a single obligation of 70% on all dispatchable generators, this option does not recognize the difference in structure and risk profiles of the various participants. For instance a 70% obligation on a single unit entity (even if it was a 2GW nuclear plant) is very different to a 70% obligation on a multi-unit portfolio entity. A single unit entity is reliant on the dispatch of this unit to underwrite its contract obligation and an outage of that single unit puts its entire contracted volume at risk. Conversely a multi-unit entity can better manage outages between its units and therefore manage the extent of its risk under a FCSO.

b) Tweaks

In terms of implementing a FCSO across the wholesale market for I-SEM Go-Live, consideration must be given to the **dispatch risk** that generators are facing with EUPHEMIA as the new algorithm to determine Day-Ahead scheduling in the I-SEM. At this stage, BGE is genuinely concerned as to how EUPHEMIA will solve for complex and block bids in the all-island market. It would therefore in our view be unreasonable to oblige dispatchable generators to offer 70% of its generation in forward contracts at this stage. For that reason, we would suggest a significantly reduced volume obligation from the 70% obligation proposed in the consultation.

Coupled with the initial EUPHEMIA dispatch risk, we also believe that the obligation placed on parties should be **proportionate to their ability to manage the operational risk** of any contract obligation. As noted above in BGE's top level concerns with this option, single unit entities should be apportioned an obligation that is proportionate to their scale. Similarly, the greater ability of portfolio players to manage operational risk should be reflected in a **differentiated obligation**.

Recognising these two points above, BGE would suggest that a 25% FCSO on single unit entities may be reasonable and manageable for I-SEM Go-Live.

In terms of the ESB as the largest portfolio player, we believe there should be a number of elements to its obligation:

Firstly, its volume obligation should reflect its unique position and portfolio, while also reflecting the dispatch risk that it too will face at I-SEM Go-Live. We believe that an obligation between 55% - 65% would be reasonable.

Although we recognize that reducing ESB's obligation below 70% will reduce its total volume of forward contracts to the market when compared to the level of NDCs, DCs and PSOs currently traded, this may still deliver more liquidity if Electric Ireland's participation and ability to set prices is limited. As outlined in our response to question 2 above, we believe that where Electric Ireland and the ESB's generation business are part of the same financial Group, there is a perverse incentive on the 2 entities to foreclose the forward market by inflating prices in auctions. This is not resolved by the current form of ring-fencing and monitoring of the forward market.

We therefore suggest that in addition to a reduced FCSO volume, the auction rules for contracts under the FCSO should either limit Electric Ireland's allowed volumes in any given trading window or alternatively, they only be allowed participate as a price taker within a given auction. This would force both parties to trade more frequently with 3rd parties and contribute to delivering competitively determined prices.

Lastly, we also believe that the changes proposed above in Option 1 relating to the DC volume and allocation methodology should be included in this option to ensure the right incentives are in place to effectively mitigate market power in a more dynamic market with changing portfolios and relationships between renewable generators and suppliers.

c) Is it Implementable for I-SEM Go-Live

This option, with the proposed changes to the volume obligation and auction rules, would in our view be implementable for I-SEM Go-Live. The auctions could be facilitated on the existing platform and it would deliver a guaranteed level of volume for I-SEM Go-Live to help suppliers hedge their supply and therefore contract with customers. From a generator perspective, BGE is nervous about its ability to manage its dispatch risk under EUPHEMIA and any unplanned outages given that it only has a single unit. However, with a reduced volume obligation and in the interest of improving and contributing to overall liquidity in the wholesale market, we see merit in progressing this option for I-SEM Go-Live.

Notwithstanding that, BGE believes that this should and can only be an interim solution. As mentioned above, on its own, we do not believe that a FCSO will provide enduring volumes of liquidity to the market as the levels of wind, solar and other forms of deminimus generation come into the market.

Option 3: Forward Contract Sell Obligation and the Removal of the ESB's Ring-Fencing Arrangements

a) Its Merits

As outlined in our views on Option 2 above, we can see merit in progressing with a FCSO for I-SEM Go-Live, however, we cannot support an option that provides for the removal of ring-fencing within ESB at the same time. You will note that we have raised serious concerns with respect to the current ring-

fencing arrangements, and rather than removing them, we believe they should be strengthened as we transition to I-SEM. That is we believe that in the interest of transparency and liquidity:

- i. The RAs should enhance their monitoring of 3rd party trading in the forward market – both in terms of who is trading with who and under what arrangements;
- ii. That restrictions should be placed on how the ESB’s generation business unit and Electric Ireland trade with each other – either by limiting their trading with each other or, where auctions are held, limiting Electric Ireland’s ability to set the price, and
- iii. In the allocation of DCs as a market power mitigation tool in the spot market, the RAs must recognise that where ESB generation and Electric Ireland are part of the same financial Group, the disincentive to price up in the spot market is reduced by the volume of DCs that are sold to Electric Ireland. On that basis, we believe the allocation of DCs to 3rd parties must be increased greatly to offset the perverse incentive.

These proposals in our view are not disproportionate to the incumbent. They recognize the inherent market power that the ESB holds both in the generation and retail markets. They recognize that without real divestment of the generation and supply arms, a financially integrated, even if operationally ring-fenced, business has the incentives and the ability to foreclose the market. This is recognised and addressed in the spot market and should be equally provided for in the forward market. Finally, they recognise that if liquidity is to actually be delivered into the market, the largest generator and largest supplier in the market must be forced to trade openly with 3rd parties rather than seeking to trade unilaterally. The ESB propose that there is up to €27 million in savings to be earned if ring-fencing was to be removed, circa. €14 million of which relate to ongoing annual cost savings. To put this in perspective, as a single supplier with a circa. 8% market share of the retail market, BGE estimates that its **annual costs** are between €3 - €4 million higher as a result of the lack of liquidity in the Irish market and the higher premia associated with an illiquid market. Back-solving this across other non-ESB suppliers would indicate that the overall annual cost to the market would be significantly higher than the savings ESB purport to make if ring-fencing was to be removed. A rough estimation indicates that the total cost to the market is approximately €27 million per annum compared to the €14 million per annum saving estimated to the ESB.

For the reasons outlined above and in the previous sections of this response, BGE cannot support any option that allows for the re-integration of ESB at this time and therefore we cannot support this Option 3.

b) Tweaks

BGE could support a FCSO option where it is provided in line with our proposed changes under Option 2 above, such that the ring-fencing arrangements in ESB were actually strengthened as opposed to removed, and the volume obligations placed on parties recognise the structural differences between players.

As outlined in our suggested ‘tweaks’ to Option 1, we believe that the changes proposed both to the calculation of DC volumes and the allocation of DC volumes should also be implemented as part of this ‘tweaked’ option to ensure that they act as an effective market power mitigation tool in line with the objective of the measure.

c) Is it Implementable for I-SEM Go-Live

Implementing Option 3 as proposed in the Consultation Paper would in our view be incomprehensible for I-SEM Go-Live. At this stage: where there is such uncertainty in the market; where the energy market rules are actually being relaxed, and where the effectiveness of the entire package of market measures are so uncertain, it would be inconceivable to allow for the removal of ring-fencing at this time. In our view, without confidence in the level of transparency and liquidity in the forward and underlying spot markets, allowing for the removal of ring-fencing would be a backward step. Obliging ESB to offer 90% of its dispatchable generation forward would not in our view compensate for the potential risks.

Option 4: Market Maker Obligation (MMO)

a) Its Merits

BGE has a number of concerns relating to this proposed option:

1) Structural Differences between Market Makers

The proposal outlined in the Consultation Paper does not recognize the structural differences between the proposed Market Makers (being ESB, SSE, Energia and BGE). Where Market Makers are in operation in other markets, such as GB and New Zealand, the parties are all structurally similar. Comparing the size and scale of the Market Makers proposed under Option 4 is comparably stark. For instance, the ESB's combined balance sheet is larger than the balance sheet of the 3 other Market Makers collectively. In fact, the balance sheet of ESB's generation arm alone is greater than the combined balance sheet of BGE and Energia (generation + supply). For the reasons outlined below, we believe that to place a MMO on all 4 parties with the same bid/ask spread would be unreasonable:

The risks for Market Makers relate to their ability to manage their positions cost-effectively. In particular, if a Market Maker fails to set prices in line with the market clearing price, they can be left with unwanted open positions. Market Makers differ with respect to the size of these risks and the costs of managing them. In particular:

- Companies that already trade large volumes are likely to have superior and more timely market information. This both reduces the likelihood that they'll price out of line with the market and increases the speed with which an unwanted position can be closed.
- Companies with a large portfolio of flexible generation will generally have a limit to their potential exposure, since their generation assets provide a physical hedge. For example, imagine that ESB sells more forward contracts than it wants and is therefore exposed to high day-ahead market prices. A smaller player might have to close out this position financially, which could be costly. However, the ESB also has the option of just generating more in the DAM with its marginal plant and can choose to do so whenever this looks less costly than closing the position financially. Access to these options should ensure that such companies are able to manage the same absolute risks at lower cost.

Given these differences in firm's underlying capabilities, applying uniform bid/offer spreads on all market makers would be disproportionately costly for smaller companies. These companies would find unwanted positions more difficult to manage, given their smaller generation capacity. Smaller firms would also be disproportionately burdened by the fixed costs associated with running a market maker desk.

The cap arrangements proposed in Option 4 don't address the key asymmetries noted above. Below the cap, smaller market makers will still be more likely to end up holding unwanted positions for an extended period due to the trading volume asymmetry and still be less able to cheaply manage these risks through a large generation portfolio.

The levels used to set the caps also fail to account for the fact that firms will have a natural net position different from zero depending on whether they're structurally long or short. ESB, being long in generation, would naturally hedge this position and therefore open up a net short position in forwards. This doesn't reflect an unwanted exposure due to market making, but simply implementing a commercial hedging strategy. The caps fail to account for the difference.

One way to deal with these asymmetries in both risks and the costs of market making would be to recognise them in the regulated bid/offer spread. Under this approach, there could be different classes of Market Maker with larger market makers required to provide a tighter bid/offer spread and smaller Market Makers receiving wider bid/offer spreads.

2) The Re-Integration of ESB

Option 4 also proposes that the ESB must be re-integrated in order to provide a Market Maker function in the market. Related to the points above and also the Consultation Papers' own admission that the ability to undertake the role of a Market Maker relates more to an entities Balance Sheet as opposed to its integrated position, this conclusion seems rushed and inconsistent with the reality of the market.

As noted above, ESB's generation Balance Sheet is larger than the combined balance sheet of the integrated Energia and BGE. Therefore, by the Consultation Papers' own data, ESB's generation business has a better financial standing than BGE and/or Energia to take on the risk of a Market Maker. Combined with its larger trading function, ESB's generation business has both the financial strength and operational capability to meet a Market Maker Obligation and therefore BGE cannot understand why this option quickly moved to conclude that ESB must be re-integrated if it is to be a Market Maker.

As noted numerous times in response to the previous questions and sections, in the interest of liquidity and transparency, BGE believes that the ring-fencing arrangements in the ESB should be strengthened as we transition to I-SEM as opposed to removed.

3) The operational capabilities of participants given scale of market change

The proposal suggests the implementation of daily trading windows (during normal business days) where each Market Maker will be obliged to post bids and offers. On top of the operational and system changes that are being implemented as part of the Energy and Capacity Market redesigns, we believe that such an obligation would be a bridge too far for smaller market players with limited trading operations.

b) Tweaks

Although BGE does not think it will be feasible to implement a MMO for I-SEM Go-Live, we do see merit in the role of a MMO in providing enduring liquidity to the market. As outlined in detailing our views on Options 2 & 3 above, we do not believe that a FCSO will be sustainable as wind volumes increase and dispatchable generation decreases, however, a MMO overrides this issue by basing obligations on Balance Sheet capability as opposed to dispatchable generation.

Notwithstanding that, because of the structural differences between the various market participants and the proposed Market Makers, BGE could only support a MMO where the ESB was directed to act as the single Market Maker (with others participating on a voluntary basis if they so choose). This in our view would be proportionate to the ESB's size and unique position in the wholesale and retail markets, and it could deliver considerable benefits to the market in terms of enduring liquidity, transparency and efficient price discovery:

1) Proportionality

ESB is uniquely positioned to undertake market making at low cost:

- It produces the majority of ISEM's generation and supplies a third of the market – alone.
- The scale of its generation and supply base, as well as its trading operations, means that it can relatively rapidly close out open positions or physically hedge those positions to cost-effectively manage the risk.

No other participant has a portfolio remotely similar to ESB and therefore it would be disproportionate and unfair to place an obligation on others as they do not have the capability to manage the associated risks with a MMO. To add this obligation and cost onto others would put them at an even greater disadvantage to the ESB within the market and would likely have a detrimental impact on their ability to compete in the wholesale and retail markets.

This is not to say that other market participants do not have a role in providing liquidity to the market, however, this may be best achieved through alternative means, such as through a FCSO, which would be more manageable for other players with smaller scale assets and trading operations.

2) Efficient Price Discovery

The consultation document concludes that a single market maker “will effectively set prices” and therefore does not deliver efficient price discovery for the market. Critically, (i) any Market Maker will be incentivised to post prices that reflect the market clearing price, even if there is only one, and (ii) the prices posted by a Market Maker will come to reflect the price expectations of all firms in the market through trading, even if these firms aren’t formally Market Makers.

To understand why this must be the case, consider what a trading desk operating as a lone Market Maker would be doing in practice. The Market Maker would be required to post both offers and bids for the relevant product(s), obliging it to act as a counterparty to any potential buyer or seller willing to trade at these prices. The rest of the market is therefore still present and will effectively be expressing its views on appropriate prices through its buy and sell decisions with the Market Maker.

Now consider what would happen if the Market Maker posted prices that were higher or lower than the market clearing price.

Diagram 1. Implication of posting prices above the market clearing price

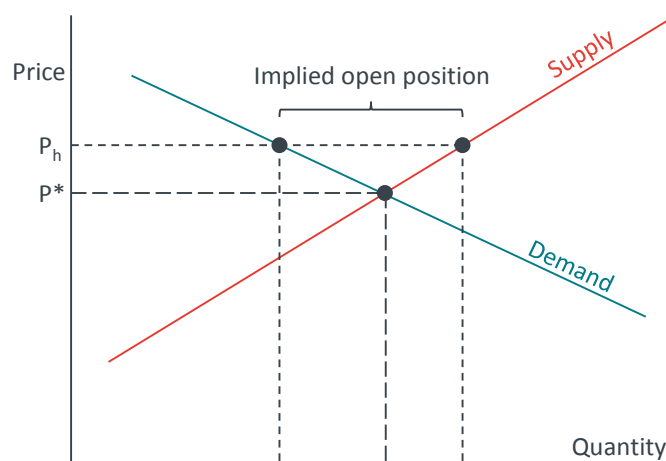


Diagram 1 above shows the aggregate supply and demand for a forward product at various prices. We assume that the Market Maker’s own supply and demand positions, if it has commercial hedging needs, are included within the demand and supply lines drawn, but this doesn’t affect the ultimate conclusion. If the Market Maker posts prices that are at the market clearing price, then total supply matches total demand for the product. Some parties will be buyers at this price, others will be sellers, and these parties may choose to buy and sell with the market maker or with one another. Crucially however, for those trades that are conducted with the Market Maker, there will be no systematic bias to buy or sell. Consequently, trades with the Market Maker will be broadly offsetting such that the Market Maker is unlikely to be left with a large open position. It will therefore have no significant unwanted exposure to the DAM price that it needs to manage as a result of its market making activity. It may even have profited from the margin between its bid and offer spreads.

Now consider what would happen if the Market Maker instead posted prices above the market price (P_h as opposed to P^*). In this case it would, by definition, find that supply for the product exceeded demand. Greater volumes would be sold to the Market Maker, and smaller volumes would be purchased. In effect, the Market Maker would have bought forwards at an inflated price and be left with an open position. It will either have to hold this position, exposing it to DAM price risk that it will need to manage, or else try to sell back the forwards by lowering the price back to or below the market clearing level, closing out the position but realising a loss due to the change in price.

Conversely, if the Market Maker prices below the market clearing price, demand will outstrip supply. It will effectively be forced to sell forwards at below the market price and again will have left itself with an open position that it has to manage.

Because having these unwanted open positions is costly, the Market Maker will want to avoid landing in this position. Instead it will be incentivised to make sure that its sales and purchases are always offsetting, which can only be the case if it is posting prices in line with the market clearing price. In practice, it will likely estimate this price at first, given its own trading experience, and then iterate to the clearing price by working to clear any open position. Note that this is true regardless of the number of Market Makers operating.

Were the Market Maker function undertaken by a business that wanted an open position in the forwards market for commercial reasons, for example to hedge its physical assets, exactly the same logic will apply. At the market clearing price, this business will be able to achieve the open position it desires, i.e. its own demand or supply requirements will be satisfied at the relevant price, and the same will be true of all other market participants. By posting prices away from the market clearing price, the business will find that it is being asked to take on a position that is either too large or too small for it at the given prices, with an associated commercial cost.

In short, the Market Maker must reflect the price expectations of the rest of the market and, as a result, even a single Market Maker will be influenced by their price expectations. These dynamics aren't dependent on the number of market makers.

Whereby the presence of multiple Market Makers may mean that each individual Market Maker has greater scope to offload an open position and its associated risks onto other Market Makers, this risk could be reduced by other mechanisms that don't involve putting onerous obligations across the market. For example, the trading limits of the Market Maker could be reviewed; or a process could be established to socialise the risk of any extraordinary losses, or parties could provide liquidity through other mechanisms such as through a FCSO.

c) Is it Implementable for I-SEM Go-Live

BGE does not believe that Option 4 could be implemented for I-SEM Go-Live. There is far too much change being developed and expected to be implemented in the coming 12 months. Expecting a number of parties to further consider the operational and commercial implications of a Market Maker Obligation is overly ambitious and in our view unreasonable at this stage.

BGE outlined a proposed tweak to Option 4 where ESB would act as a single Market Maker, however, given that this option would likely require the re-integration of ESB and given our previous reservations about the re-integration of ESB at the point of I-SEM Go-Live, we would suggest that this option is best re-assessed as part of a later review of Enduring Liquidity Arrangements 12 – 18 months post I-SEM Go-Live.

Option 5: Market Maker Obligation and Forward Contract Sell Obligation

a) Its Merits

Recognising the benefits of each of the FCSO and the MMO, BGE can see merits in how a combination of each would provide set levels of contract volumes as well as a liquid price benchmark for the market. However, and again, BGE does not believe that the option as proposed reflects the structural differences between participants and therefore we do not believe that it is proportionate in its allocation of responsibility and risk across the market.

Placing both a FCSO and a MMO on BGE would not only undo the investment it made in Whitegate as part of its strategy to grow its retail market customer base given that there was no liquidity in the market at the time, but it would also add considerable operational and commercial risk to the business. This will inevitably add costs to the business and have negative implications for BGE's competitiveness in the wider market. This in our view can only lead to higher customer prices in the long-run.

b) Tweaks

Notwithstanding the concerns relating to this option and reflecting back on BGE's proposal under Option 4, this option could be viable where ESB was to act as the single MMO and where other generators provide liquidity in the form of a FCSO relating to their dispatchable generation. This in our view may be a more proportionate long-term solution to liquidity in the all-island market, recognising the unique position of the ESB within the market but also recognising the role that all parties have in contributing to a sustainable and liquid market.

c) Is it Implementable for I-SEM Go-Live

BGE would not support the implementation of Option 5 for I-SEM Go-Live – operationally we do not think it would be possible given the breadth of market change already underway and commercially we do not think it is feasible for BGE to take on both a FCSO and a MMO.

BGE would support further consideration of its proposed tweak to Option 5 where ESB acts as a single MMO and other dispatchable generators provide liquidity in the form of a FCSO. However, we do not believe that this is achievable for I-SEM Go-Live and would instead support a further review of this option following I-SEM Go-Live and as part of a review of enduring liquidity arrangements once the market arrangements and systems are bedded down and any Day 1 issues resolved as a matter of priority.

Question 5: What is the preferred option and why do you consider it preferable?

As proposed, BGE is not in favour of any of the five options detailed in the Consultation Paper. However, we believe there are some viable and liquidity enhancing alternatives within the proposed options presented by the Regulatory Authorities.

While recognising the SEM Committee's criteria of; Effective; Targeted; Flexible; Practical, and Transparent, BGE suggests that the best way forward at this stage is to progress in the immediate term for I-SEM Go-Live with a reduced and amended FCSO (to that outlined in Option 2) on generators as outlined below.

In order for this option to be sufficiently 'targeted' it must be proportionate to the risk and capabilities of the relevant generators and as such, the volume obligation must reflect the operational and commercial differences between single unit and portfolio unit participants³.

To be 'practical' for I-SEM Go-Live, the FCSO should also be significantly reduced for I-SEM Go-Live to reflect the dispatch risk facing parties bidding into EUPHEMIA for the first time. There is considerable uncertainty and concern as to how EUPHEMIA will process complex and block bids and in particular how it will dispatch non-baseload units. Recognising the differences between single-unit and portfolio-unit parties as well as the dispatch risk with EUPHEMIA, BGE suggests that an appropriate volume obligation for I-SEM Go-Live would be 25% of dispatchable generation for single-unit parties and between 55% - 65% of dispatchable generation for parties with generation portfolios.

To ensure 'transparency' and effective price discovery, any auction for FCSO volumes must recognise the Group structure of the ESB, and even with the current ring-fencing arrangements in place, the financial ability and incentive for Electric Ireland to price up auction results and essentially foreclose the market to its competitors. As Electric Ireland is part of the same financial Group as the power generation business (and is integrated with part of it through legacy contracts with Synergen and Coolkeeragh), any contracts between Electric Ireland and the power generation business are essentially internal and offsetting payments between business units.

³ In differentiating between single-unit and portfolio-units, this must consider the running merit of the portfolio, i.e. holding 2 units that do not run does not infer that a party holds a portfolio. A portfolio is where a party owns a number of units that are scheduled to be dispatched given best modelling forecasts.

On that basis, BGE urges the SEM Committee to strengthen the ring-fencing arrangements in place for I-SEM Go-Live and limit Electric Ireland's ability to inflate auction prices by either capping their volumes in any given trading window or mandating it to be a price-taker in the FCSO auctions. This will ensure that the largest buyer and seller of forward contracts are appropriately incentivised to trade and contract on a level playing field with all other players and therefore ensure integrity and confidence in the market outcome. This in turn will better support competition and efficient pricing to customers.

In addition to the 'tweaked' FCSO proposal above, BGE also believes that the methodology to determine DC volumes and their allocation across the market should be changed for I-SEM Go-Live. As outlined in our views on Option 1, we believe that the objective of DCs as a market power mitigation tool is undermined where the ESB sells circa. 50% of DCs to Electric Ireland. The disincentive to price up in the spot market is eroded since payments to Electric Ireland under the DCs are essentially internal payments between 2 financially integrated business units. Therefore to preserve the integrity of DCs as a market power mitigation tool we believe that the proportion allocated to non-ESB entities must be greatly increased. Also, as the level of predictable, dispatchable generation decreases in the market and the form of market power held by ESB changes, it may be more appropriate to use a RSI metric as a means of determining where market power exists and as a basis to set the volume of DCs to be sold.

Whereby we support the amended FCSO as outlined in the paragraphs above as an 'effective' means of providing a level of liquidity for I-SEM Go-Live, we do not believe that this will be an 'effective' or sustainable option for the market in the long-term. The FCSO relies on dispatchable generation being scheduled to provide volumes to the market. As the level of wind and small scale generation increases in the market, the levels of dispatchable generation captured by the FCSO will decrease, and therefore the volumes provided under the FCSO will reduce over time.

Coupled with the level of market uncertainty ahead of I-SEM Go-Live, BGE believes that the market will need a different long-term solution. We would be hopeful that a centralised exchange with centralised collateral and settlement would be at the hearth of an enduring solution for the market. However, we suggest that rather than adding further and unquantifiable risk to market participants at this stage, that any option to re-integrate ESB and/or to place Market Maker obligations on market participants be reviewed at least 12 months after I-SEM Go-Live, at which point parties can undergo detailed assessments of the options within the context of the underlying market.

Question 6: What parameters of the regulatory intervention option should be determined by the Regulatory Authorities and which should be left to market participants to determine?

As you will have noted from BGE's response to questions 1 & 2 above, we are quite concerned about the structural differences between participants in the market, and in particular the legacy structure of the ESB, where the largest buyer and seller of forward contracts and power are part of the same Group.

These structural differences have implications on the incentives of parties to trade forward. They also have implications on the volumes and prices of forward contracts that different parties can offer given the consequent differences in operational, execution and credit risks.

On that basis, we believe there is the potential for market power to be abused in the forward market and therefore consider there is a need for regulatory intervention in the establishment of a liquid forward market. Regulatory intervention was pivotal in the creation of a level playing field when the spot market first moved from a bi-lateral to a pooled all-island market in 2007, and we believe intervention in the form of auction rules & regulatory monitoring will again be required in the establishment of a pooled forward market.

Given the importance of liquid forward markets in the creation and sustainability of competition in the wholesale and retail markets, we are strongly of the view that this effort is warranted and justified to develop confidence in the market and its prices. Similar to the SEM, we would be confident that this would in turn attract new entry and increase competition in the market in the longer-term. Given the

structural differences we outlined earlier, we do not believe that a liquid market will materialise without regulatory intervention.

The types of regulatory intervention we are calling for, and believe are appropriate and proportionate are:

- Enhancing the monitoring of the ring-fencing arrangements in place within ESB Group; reviewing the terms of contracts, the volumes of contracts and ensuring that the trading arrangements between ESB's supply and generation business units are on comparable terms with those of other 3rd parties;
- Placing limits on the ability of Electric Ireland to inflate forward contract prices either by limiting its trading with ESB's power generation business unit or mandating Electric Ireland to trade as a price taker in forward contract auctions;
- Calculating obligations⁴ on each participant that are proportionate to their size, scale and commercial capabilities, and
- Facilitating the creation of a centralised exchange for forward trading in the expectation that it will deliver long-term benefits by pooling forward contracts and providing maximum transparency to the market.

If these structures are put in place as a starting point (recognising that some of these initiatives will take time), the market will be in a good position to deliver efficient market outcomes through a competitive process.

Ancillary Comments: Other specific points not captured within our answers to the specific Consultation questions

Page 10: In discussing the scope of the consultation, the Consultation Paper outlines a number of questions that are to be reviewed as part of the process. In assessing the experience of liquidity in the SEM, the Consultation Paper proposes to examine whether “measures to address market power (ring-fencing and Directed Contracts) have been successful in addressing shortfall in liquidity and market power mitigation in the forward market.”

In our view, and related to our concern expressed in answer to question 1 above, we do not believe that this consultation has fully considered this question. Furthermore, Page 20 of the Consultation Paper notes that NDC trading has moved from auctions to OTC bilateral trading but states that it is not know what the impact this may have on volumes and liquidity in the forward market. This question also needs to be examined in detail as part of the more general assessment of market power and liquidity in the SEM. In particular, consideration needs to be given to whether the current ring-fencing arrangements are effective in providing the right incentives, sufficient transparency and price discovery to ensure that market power is not being exercised within the forward market.

Page 14: When examining the incentives on market participants to provide liquidity and specifically when referring to the incentives on gas-fired generators, the Consultation Paper states that “the main hedge that the generator requires is a gas-price hedge” and then goes on to state that “no premium should be required” for hedges of gas-fired generators.

This seems to assume that gas-fired generators have no risks when entering into a hedge and therefore need no rent to cover other related costs. Gas-fired generators, particularly mid-merit units, face dispatch risk and must account for this when entering into forward contracts. This dispatch risk is actually expected to increase as we transition to I-SEM by virtue of how EUPHEMIA schedules plant using complex and block bids. This relates to the point we were making in our responses to questions 3 and 4 on the proportionality of risks and the ability of parties to manage operational risk and the difference in costs to manage these risks.

⁴ i.e. recognising the differences between entities through differentiated volume obligations in the case of a FCSO, or volumes and bid/offer spreads in the case of a MMO.

Gas-fired generators also face unplanned outage risk and related to this added costs during outages given that replacement costs will be higher when a plant is on outage (assuming that it will be replaced in the merit order by a more expensive substitute).

Page 16: When outlining the potential dispatchable generation that can contribute to forward liquidity, the Consultation Paper excludes hydro units. Hydro units have a dispatch that is as frequent and predictable as any other mid-merit unit on the system. Reviewing the SEM Committees own market report from Q1 2016 (SEM-16-037), it shows that hydro units have consistency not just in dispatch across a year but also in infra-marginal rent. Actually, the rent they earn is greater than that of peat units, which are being included in the calculation of dispatchable units.

In our view, hydro units should be included in the mix of dispatchable generation and therefore included in the calculation of the quantum of any obligation.

Page 25: In its discussion on the role of the GB market and FTRs in providing liquidity to the market, the Consultation Paper estimates that the Moyle and East-West interconnectors will contribute approximately 6.34TWh of forward liquidity to the market. This conclusion in our view overlooks two important factors; 1) the fact that exports from the SEM to GB are growing given increasing GB prices and decreasing SEM prices, and 2) the availability of the interconnectors are affected by the Network Code on the ‘Harmonisation of Allocation Rules’, which outline the conditions under which the interconnectors may not be available and therefore fail to provide a hedge.

As the volume of exports from the all-island market to GB increase, this will actually decrease the contribution of GB forwards to liquidity and may actually increase the demand for forward contracts in the all-island market as parties look to lock in the spread with FTR exports.

Also, the latest drafting of the Network Codes on Forward Capacity Allocation (FCA) and the associated Harmonised Allocation Rules (HAR) provide for the curtailment of payments under FTRs under certain events such as; Force Majeure, an Emergency Situation and/or when there is insufficient physical capacity available in a given settlement period (referred to as “Capacity Shortages” in Annex 12 of the HAR). The curtailment rules, coupled with the cap on pay-outs within a given month, reduce the reliability of FTRs for participants. This in turn reduces their contribution to forward market liquidity.

For the reasons outlined above, we believe that the actual contribution of the interconnectors will be less than 6.34TWh but at this stage have not quantified what would be a more realistic figure. This will require detailed modelling of I-SEM day-ahead prices, GB day-ahead prices and clarity from the interconnector owners as to what will drive “Capacity Shortages” on the interconnectors.

Page 32: In section 4.1, where the Consultation Paper discusses Directed Contracts (DCs) and Ring-Fencing, it is recognised that the mechanism of allocating DCs hampers new entrants from accessing them. It also questions Electric Ireland’s participation in DC auctions if they were to occur.

This relates to a point BGE makes in its response to question 2 above and the effectiveness of the current ring-fencing arrangements in mitigating market power and contributing to liquidity.

The ESB as a Group has aggregated financial accounts, even though it has separated business units for generation and supply. As the finances of the Group are integrated, we question whether the current form of DC allocation actually works as a means of dis-incentivising ESB’s generation business unit from pricing up in the spot market and therefore meeting its market power objectives. To the extent that almost 50% of the DCs are allocated to Electric Ireland, where the power generation business has pay out under DCs, 50% of the payback goes to Electric Ireland and is essentially an internal transfer of revenues.

This anomaly seems to be recognised to an extent on page 32 when the Consultation Paper questions whether Electric Ireland should be permitted to participate in DC auctions (if they were to be implemented), but is not further explored within the Consultation Paper. However, we do not believe it is considered in any of the options discussed later in the Consultation Paper.

We believe that in order for DCs to contribute effectively to market power mitigation and to contribute to competition effectively, a greater allocation must be made available to third parties outside of the

ESB Group. This does not rely on a decision to re-integrate the ESB's generation and supply businesses as we believe the issue currently exists given the existing ring-fencing arrangements.

Page 53: Section 8 of the Consultation Paper outlines the proposed concept of a Market Maker. It suggests a design whereby: there will be a minimum of 3 Market Makers; each posting trades with a bid/offer cap of 5%; during 1 hour trading windows; during each business day of the year. The proposal goes on to provide for limits for each Market Maker relative to the size of each of the Market Makers.

As a concept, this proposal is similar to the design in GB. Bearing in mind our specific views on the merits of a Market Maker and on other means of recognising the differences between Market Makers (and their ability to manage risks relating to a Market Making function), as presented in our answers to question 3 & 4 above, we would also suggest some changes to the specific operational detail of the proposal.

Given that the all-island market is a relatively small market when compared to GB, we would suggest that it may be better, for both operational and liquidity reasons, to reduce the number of trading windows from 1 per business day to 2 per week. This would concentrate the relatively small volumes of forward contracts, helping the price discovery process and the overall levels of liquidity during designated trading windows. While reducing the opportunities to trade within a given week, we believe that having 2 trading windows each week provides enough predictability for players to manage their risks. It will also reduce the operational burden and cost of providing the obligation.

We would also suggest that the market stop limit should be reduced from 4% to 2%. Experience from the GB market indicates that the 4% benchmark is seldom hit and is too high to capture volatility in the market. This leaves Market Makers exposed to arbitrage trading, increases the risks of trading as a Market Maker and does not in reality contribute to the real form of liquidity that is trying to be achieved - i.e. to enable electricity market participants to manage risks associated with the market, thereby encouraging investments and competition.