SINGLE ELECTRICITY MARKET COMMITTEE

Single Electricity Market - Market Power & Liquidity – Consultation (SEM 10-084)

Submission of the Electricity Supply Board

14th March 2011

EXECUTIVE SUMMARY

1. Introduction.

ESB welcomes this consultation by the Single Electricity Market Committee and appreciates the opportunity to comment on the comprehensive report on Market Power and Liquidity in SEM prepared by CEPA. The Market Power and Liquidity Consultation is concerned with a number of matters which are of substantive importance to the continued development of the SEM and which impact greatly on customers and on ESB.

2. The Competitive Landscape has evolved and SEM is working well.

ESB is very supportive of CEPA's conclusion that "the SEM wholesale market appears to be working well".

Although CEPA are cautious to draw conclusions about retail competition from recent levels of customer switching, ESB believes that there is strong evidence that the retail market is working well and this is supported by CER's recent decision on price deregulation highlighting that, over the period February 2010 to end January 2011, the switching rate was approximately 21.34% with over one third of customers switching supplier more than once since early 2009.

The fact that BGE and SSE/Airtricity have built up strong retail market positions together with recent generation investments by BGE, Endesa Ireland, AES, SSE/Airtricity and many other wind generators indicate that concerns about market power and liquidity tend to be overstated. Indeed, CEPA observed that "it is important to recognise that during the three years that the SEM has operated, the market power mitigation strategy appears to have helped to deliver a generation market which currently appears to attract new entry through investment, alongside new entry in the retail market."

3. Market Power

3.1 Market Power in Generation

ESB strongly supports CEPA's conclusions that the existence of the BCOP and the MMU of themselves provide substantial protection against abuse of market power. ESB welcomes CEPA's conclusion that, given the existence of the BCOP," it is unclear what additional risks of exploitation of market power …. horizontal ring fencing would address that are not already addressed…"

Given the BCOP and the MMU, ESB has no capability to exercise power in the generation market.

CEPA rightly identify that DCs are a market power mitigant that support liquidity as a by-product. They highlight that **market participants discount the purpose of DCs and focus on their volume and quality as objects of liquidity**.

It is important to be very clear about DCs as their nature and purpose tends to get confused and discounted. **Once a DC is imposed on ESB, the generation underpinning that DC becomes quarantined**. ESB does not decide whether or not that generation capacity gets sold, when it's sold, to whom, for how long or at what price – all these decisions are made by the RAs. Essentially, ESB no longer owns that generation capacity.

Market analysis that properly takes DCs into account shows very different market share and market power outcomes from analysis that overlooks the presence of DCs.

DCs imposed on ESB have amounted to 8% of the total generation market in each of the past three years, bringing ESB's market share of generation down below 40% for each year.

ESB is agreeable that DCs remain in the market – but it is essential that their impact is recognised and appreciated by market participants and taken into account during the regulatory decision making process.

3.2 Market Power in Retail

CEPA have not considered the matter of market power in the Retail Market, other than flagging caution about drawing conclusions about retail competition from recent levels of customer switching.

The rebranding of ESB's supply business and a very significant reduction of Electric Ireland's retail market shares down to below the thresholds set have led to CER's recent determination on price deregulation. CER acknowledged that "there has been very strong competition in the retail electricity market since early 2009, with **about one million supplier switches** since then across all suppliers…. Put another way, over the last two years or so circa 40% of all Irish electricity customers have switched supplier."

Given its market share and the level of retail market competition, ESB has no capability to exercise market power in the retail market.

3.3 Market Power in the Contracts Market

The CEPA document raises the "potential issue of market power in the market for contracts" but does not come to a conclusion on this matter.

It is very clear that ESB does not have market power in the Contracts Market because firstly the sale of these contracts is not limited to the owners of physical plant capacity in SEM and secondly because the result of the imposition of Directed Contracts upon ESB is such that any such power, even if it had existed, is mitigated.

3.4 Market Power across the Supply Chain.

CEPA explores whether the removal of vertical ring fencing allows market power to be exploited across the supply chain.

ESB takes strong issue with CEPA's comment that "vertical ring fencing could in principle help address the concern about a lack of liquidity in the contract market due to the presence of market power". Firstly, CEPA has provided no evidence or any other basis to support this conclusion. Secondly, CEPA, in its review did not even conclude that power in the contracts market existed. Thirdly, CEPA have acknowledged the importance of ESB's liquidity commitment in addressing any liquidity impact that might arise from the removal of vertical ring-fencing.

Rather, it is clear that, without power in the generation and contracts markets (due to the BCOP, MMU and DCs) and without power in the retail market, it is impossible to leverage some Supply Chain market power form the removal of vertical ring-fencing.

Therefore, ESB strong disagrees with CEPA's conclusion that "it would be prudent not to implement ESB vertical integration in the near term…"

4. Regulatory Obligations

ESB appreciates the fact that CEPA's paper referenced the objectives of the SEM Committee. However, **ESB notes that the paper does not appear to have considered the "interests of the consumers of electricity…", nor has it considered "the need to secure that authorised persons are able to finance the activities"**

4.1 Consumers of Electricity

ESB has provided strong evidence that failure to allow the removal of vertical and horizontal ring fencing will result in the continuation of unnecessary costs and inefficiencies being borne by SEM consumers.

Furthermore, ESB has demonstrated the strong likelihood that failure to allow the removal of ring-fences will result in additional costs arising from the management of risks that would not otherwise exist, being borne by consumers.

ESB contends that the interests of the SEM consumer (not just ESB's customers) are best served by the removal of ring-fencing and is concerned that the CEPA review has not properly considered these matters.

4.2 Financing the Activities

ESB has provided information to demonstrate the unsustainable impact on its business of the continuation of vertical separation.

ESB Customer Supply has posted operational losses of €32m in 2010. This level of loss is unsustainable for any business but is particularly unmanageable for a stand-alone supply business.

ESB is of the view that, absent the removal of vertical ring-fencing, losses in its supply business are likely to continue, raising concerns over the financing of these activities.

CEPA's review and conclusion does not appear to have taken these matters or this objective of the SEM Committee into account.

4.3 Regulatory Objectives

ESB is keen to ensure that the SEM Committee consider both consumer and financing objectives before making a final decision on this matter.

5. Timescale and Uncertainty

Whilst ESB is grateful that the issues associated with its ring-fencing are being given such thorough consideration, the fact remains that already, it has been thirteen months since ESB submitted a request for progressive deregulation.

It is likely that before this consultation has been completed, wholesale contracts for power (CfDs) for the period 2011/2012 will have been bought and sold. Once this happens, the benefits of the removal of vertical ring-fencing, even if granted immediately, are effectively nullified until the end of the contract periods.

During the period of this consultation, ESB has lost over 340,000 customers.

Whilst ESB hopes that the SEMC will grant the removal of vertical ring fencing immediately, it would be unreasonable to refuse this immediate request without setting out the timescale for the removal of vertical ring-fencing in advance of the commissioning of the EWIC.

6. . Liquidity

ESB is pleased that CEPA recognises the impact and importance of ESB's Liquidity Undertaking.

ESB has consistently been at the forefront of developing the quantity and quality of liquidity offerings. However, the design of the market tends to suppress the offering of liquidity and it is noticeable that few if any other market participants have stepped up to the plate in this area.

ESB is concerned about the possibility of the withdrawal of PSO CfDs as this will result in the exposure of our Supply business to even greater risks. In this respect **ESB is particularly concerned that the change to the PSO CFD situation might, in some way, be used as a basis for refusing the removal of the vertical ring fence.**

It would be entirely unacceptable to ESB were a situation to develop in which our supply business remains separate and is put at increased risk by the removal of PSO CfDs whilst the market expects ESB's generation to provide hedges in order to solve the liquidity problem for the market as a whole.

7. Summary.

The market is working well at generation and retail level.

The competitive landscape has changed completely.

ESB does not have generation market power given the existence of the BCOP & MMU and ESB welcomes CEPA's recommendation to remove the unnecessary burden of horizontal ring-fencing.

The imposition of DCs effectively results in ESB having no controlling ownership over the generation capacity underpinning the DC. Market analysis looks very different when this is taken into account, with ESB's share of generation down below 40%.

ESB does not have retail market power given the unprecedented nature of retail market competition.

ESB does not have market power in the contracts market.

The removal of vertical ring-fencing does not give ESB any capability of leveraging market power across the supply chain.

ESB's Liquidity undertaking holds the market neutral to the removal of vertical ring-fencing.

ESB is concerned about the possibility of the withdrawal of PSO CfDs. It would be entirely unacceptable to ESB were a situation to develop in which our supply business remains separate and is put at increased risk by the removal of PSO CfDs whilst the market expects

ESB's generation to provide hedges in order to solve the liquidity problem for the market as a whole.

CEPA does not appear to have considered all of the SEMC obligations in its review.

ESB has provided evidence of the negative impact of continued vertical separation on consumers and requests that this be considered.

ESB has provided evidence of the negative impact of continued vertical ring-fencing on the financial position of its supply business and requests that this be considered.

It has taken an extraordinarily long time to date, to consider ESB's request of February 2010 for progressive deregulation. Already a decision will come too late to be implemented in time for the 2011/2012 year and a decision now is effectively a decision for October 2012. It is essential that a decision is arrived at without further delay.

ESB supports CEPA's view that horizontal ring-fencing be removed.

ESB believes that CEPA has provided no evidence of market power or other basis indicating that vertical ring-fencing should be maintained. Additionally ESB believes that CEPA has not considered significant factors such as consumer impacts which would support the removal of vertical ring fencing. Vertical separation provides no additional market power mitigation.

Given the delay, ESB requests the SEMC to agree to an immediate progressive removal of horizontal and vertical ring fences.

ESB would be very happy to meet with the SEMC to discuss this submission and to provide detailed support for these conclusions.

INTRODUCTION

ESB welcomes the opportunity to provide its views to the Regulatory Authorities (RA) consultation on SEM Market Power and Liquidity. The CEPA analysis has been very thorough and ESB agrees with the findings that:

- That market power mitigation measures in SEM are working very effectively; and
- Removal of horizontal separation across ESB's generation businesses is of no concern to the market and indeed ought to be effected as it gives rise to unnecessary costs.

On the other hand, ESB takes issues with some of CEPA's conclusions.

- ESB disagrees that removal of vertical separation between ESB's generation and supply businesses could cause liquidity levels in the SEM to be reduced which could negatively impact on other Suppliers or act as a barrier to entry for new market participants. CEPA's concern is unfounded because of the existence of ESB's Liquidity Commitment which is acknowledged as a means to correct this reduction for ESB's competitors;
- ESB disagrees that retail competition is not sustainable and evidence of this is provided by external commentators and CER's own review of the market; and
- ESB disagrees that vertical separation should be retained as market power metrics show ESB does not have market power following removal of vertical separation requirements.

ESB's response will provide its perspective on these matters which it is convinced will address CEPA and RA concerns. ESB's response is comprised of a number of sections:

- Section 1 provides commentary on the evolution of competition over the last decade or so in both the wholesale and retail electricity markets. This section also provides ESB's perspective on the material damage being done to ESB's supply business through the continued imposition of separation requirements;
- Section 2 provides commentary on the changes to the form of regulation that ESB has requested, together with the reasoning behind this request;
- Section 3 provides ESB's views on wholesale market power and market power mitigation measures, together with ESB's commitments to ensure that the wholesale and retail power markets will not be destabilised following removal of horizontal and vertical separation. This section also includes ESB's thoughts on how contract market liquidity can be increased; and
- Section 4 provides a summary of ESB's key messages and comments on the CEPA paper;

Appendix 'A' provides answers to the specific questions that are included in the CEPA paper and Attachment '1' is an expert report by Frontier Economics on alternative market power simulations.

ESB would welcome the opportunity to discuss further the points raised by it in this response and has no objection to this response being published in full by the RAs.

EVOLUTION OF COMPETITION IN WHOLESALE AND RETAIL ELECTRICITY MARKETS

Evidence of ESB's Commitment to Market Competition

During the latter years of the 1990s, EU Regulations and Directives required the opening up of wholesale and retail electricity markets to competition. ESB has been supportive of competition from the outset and has, since 1999, implemented all structural and behavioural changes required by the RAs to encourage competition in the upstream and downstream sectors. In addition, ESB has further promoted competition and competitiveness through:

- The development by ESB of the Virtual Independent Power Producer ("VIPP") and Green VIPP arrangements, which provided discounted wholesale market power to independent Suppliers as a successful means of encouraging new entry into generation and the retail market;

- Entering into 10-year Capacity and Differences Agreements ("CADA"), at the request of CER, to enable the provision of new generation capacity in Republic of Ireland; and

- Investing in the systems necessary to support retail market opening in Republic of Ireland;

These changes have contributed significantly to the development of the competitive and effective wholesale and retail markets that exist today and to overall competitiveness.

It is now appropriate for those separation requirements between ESB's generation and supply businesses that were implemented so as to encourage new entry in the upstream and downstream sectors, to be removed as they are no longer necessary. These separation requirements between ESB's generation and supply businesses are now causing material damage to ESB and are negatively impacting on customers.

ESB has always abided by the market rules and never exerted market power, even in times where ESB had 100% of the market share. As its market share has reduced following new entry in both sectors, ESB has maintained integrity in all its market behaviours. ESB's market share has been significantly reduced and any opportunities to exert market power have been completely mitigated. As such the market can have no reasonable concerns from RAs allowing removal of separation between ESB's generation and supply businesses.

Wholesale & Retail Market Share Decline

The wholesale and retail markets have changed substantially over the last 10 years. In Republic of Ireland, ESB's market share which was close to 100% in both wholesale and retail has fallen significantly. The markets have proved attractive to new entrants and critically, there are now a number of market participants (SSE, BGE, VP&E, Vayu and Endesa Ireland) that have established a large market share in the wholesale and retail markets. In Northern Ireland, similar change pressures and new entry have occurred including ESB's entry into the generation and supply sectors there.

Those measures implemented on the island of Ireland over the last decade, with the support of the RAs to promote competition at wholesale and retail level have proved extremely effective. The impact of competition and these new resulting circumstances mean that the business separation restrictions that were appropriate to incentivise market entry in the past

have become obsolete and ought to be removed. Their continued existence now hinders the further development of sustainable competition, to the detriment of customers.

As can be deduced from the following market share figures, intensive competition has emerged over the last 10 years and continues to be vibrant in both the all-island wholesale market and the retail markets of Republic of Ireland and Northern Ireland. As there is no indication that the pace of customer switching is set to fall off significantly, the business separation restrictions, which had a key role in encouraging market entry and emergence of competition, have now become unnecessary and disproportionate.

The following figures show the evolution of ESB's market share in both the retail and wholesale sectors.

Figure 1 below clearly shows that in Republic of Ireland, ESB's share of the overall retail market has dropped from a level of 100% to less than half of that today, with further market share loss projected. On an aggregated all-island level, ESB's share of the retail markets is approaching 40%.

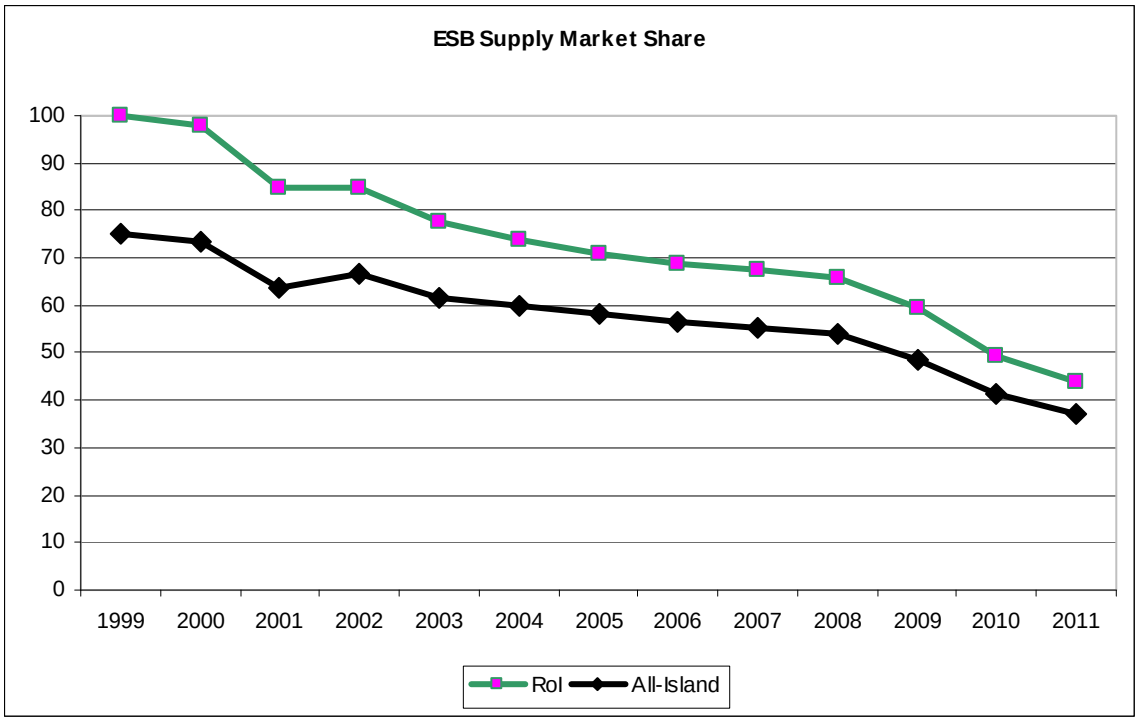

Figure 1– Evolution of ESB's Supply market share

It is clear that ESB's share of the generation sector has reduced significantly over the last 10 years. ESB has previously made a commitment that it will reduce its wholesale market share and remains committed to achieving that through the dynamics of the competitive market. This commitment has already been demonstrated in the asset divestment strategy, which was devised to replace ESB's ownership of price-setting mid-merit plant with non-price-setting baseload, resulting in 1500 MW of generation capacity and sites being sold to Endesa Ireland.

Furthermore, when the impact of the volume of Directed Contracts on ESB is taken into account, which amounted to 8% of the total generation market in each of the past three years, this brings ESB's market share of generation down below 40% for each year, as shown in Figure 2 below.

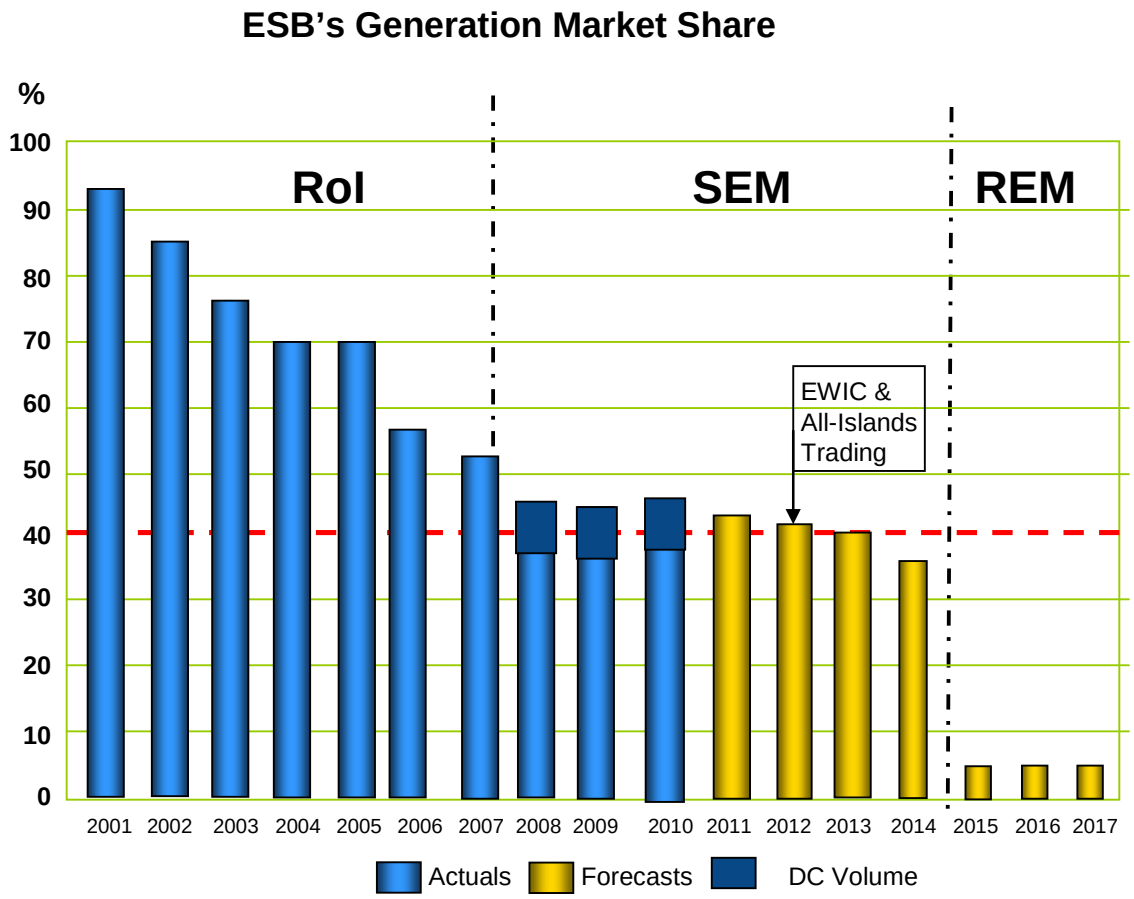

Figure 2 – Evolution and Forecast of ESB's generation market share

EWIC and REM Implications for ESB and other Players

Independent studies[1] have shown that the commissioning of the EWIC will lead to significant power flows from BETTA into SEM. These power flows will introduce a new dimension to competition in the wholesale and retail markets in Republic of Ireland and Northern Ireland and reduce overall production costs. This competition is forecast to reduce ESB's share of generation in the SEM. In the context of an All-Islands market, ESB has estimated that it will have a capacity share of approx. 7%, in comparison to the norm for the "Big 6" of 12% and with the largest player holding circ 16% of total capacity. From this it is obvious that ESB's scale will be significantly less than that of its main competitors.

The RAs have a responsibility to ensure that ESB is in a position to finance its activities. In ESB's case this includes significant preparation in advance of the scale of competitive challenges that will arise post EWIC. This preparation necessitates the adoption of the industry norm best practice – Generation Trading and Supply (GTS) business model -, identical to the operational practices of other market participants in SEM e.g. VP&E and BGE, in advance of EWIC commissioning. This is essential in order that ESB can compete on a level playing field with all other players in the market. Removal of vertical separation requirements is the critical enabler of this preparation phase. While ESB has commenced a project to meet the challenges of the new reality, business separation means that those resources required to establish the GTS model are currently ring-fenced within its Business Units. It is essential that vertical separation requirements be removed so as to enable early and substantial progression of this business change programme.

[1] EirGrid's Interconnector Economic Feasibility Report – November 2009

Businesses operating an integrated business model have both risk management and product innovation advantages over ESB who operates a separated model. Risk management can be optimised through offering products that most closely match the actual generation portfolio (for example gas tracker products when gas is the predominant generation fuel), and by actively managing the exposure to these products through 'locking out' the risk when customers actually sign up for these tariffs. This can be done for example by buying forward gas and assigning generation capacity in proportion to the number of customers opting for these tariff options, or rolling back such contracts where customer numbers do not materialise.

A non-integrated supply company, which takes only a small supply margin, is comparatively disadvantaged by not having the flexibility to manage its risks and offer products as innovative as those available from those firms that operate in an integrated fashion in the SEM or across a number of markets. Continuation of vertical separation will significantly and unnecessarily disadvantage ESB as against its existing and prospective competitors. The substantially higher costs for market risk management, manifesting in comparatively higher end user prices, will result in a continued high level of market share loss, putting the viability of ESB's supply business at serious risk. Alternatively this could result in the continuation of the situation where ESB's competitors remain satisfied with their market share and continue to leverage substantial margin resulting from these unnecessary costs in ESB's "price to beat". The option of moving to a 'petrol pump' model where tariffs change frequently in line with underlying market prices is not in the interests of suppliers or customers but can not be discounted in the absence of discounted risk management options.

The advent of the Regional Electricity Market (REM) by 2014[2] will introduce further competitive challenges for all market participants in the all-islands market but particularly for those that operate under a separated business model It will be absolutely essential that ESB has become experienced at operating as an integrated Generation, Trading and Supply business significantly in advance of REM, in order that it can be able to compete with those major international utilities that will be ESB's competitors in that wider REM.

The future of the SEM gross pool design in the REM context is uncertain. The REM target model envisages day-ahead price coupling across interconnectors with continuous intra-day trading. While the REM project at EU level does not preference any specific wholesale market design above another, e.g. pool over bilateral contracts market, it is nonetheless difficult to envisage how a market design based on centralised scheduling and dispatch will continue to interact efficiently or economically within a wider REM footprint. Uncertainty over future wholesale market design should not stand in the way of ESB being now permitted to re-orient its business to deal with the significant competitive challenges that will emerge within a market place where competitors enjoy significant economies of scope and scale.

Any delay in commencement of business transition will be particularly damaging to ESB as it will continue to remain uncompetitive with an ever decreasing customer base, increasing costs and unsustainable financial losses.

New Supplier Entrants into SEM

ESB is of the view that any mass market Suppliers that will chose to enter the wholesale and retail markets will be those that operate as integrated generation and supply businesses. It doesn't appear credible to ESB that a mass market Supplier could compete in this market on a stand-alone basis - taking only a small profit margin and at the same time not passing risk management costs to its customers – for any sustained length of time without a market event occurring that would leave it financially exposed. While the opportunity for stand-alone low-

[2] The European Council has set a target date of 2014 for REM

risk niche Suppliers will continue to exist, a non-integrated mass-market Supplier cannot survive in a competitive electricity market.

In ESB's opinion the main reasons for this include that:

- The nature of the SEM holds generators more or less indifferent to the System Marginal Price (as this will be no less than their marginal costs), leaving Suppliers exposed to the majority of wholesale market risk;

- The scale of retail margins are at a level where even with an 80% hedge in place, an adverse movement in SMP of c. 5% will exceed Supplier profit margin;

- Stand-alone Suppliers will be limited in their tariff offerings to those niche customers who will contract for fixed durations or whose tariffs will track SMP; and

- Fixed price tariffs are favoured by mass market customers, which by their design require that wholesale power price risks are mitigated through the procurement of hedges by stand-alone Suppliers. The resulting end user prices will always be greater than those of integrated Suppliers who can optimise their risks across their combined generation and supply businesses thereby making stand-alone Supplier tariffs in the mass market increasingly non-competitive;

The electricity market is different in this regard from for example the telecoms sector where such significant risks are less likely to occur.

In advance of EWIC commissioning, it is ESB's view that new Suppliers are more likely to emerge from among those market participants who already have a generation base or who are currently investing in conventional generation plant.

Post commissioning of EWIC, scale and scope advantages across both the electricity and gas sectors, coupled with the proven success of mainstream media, internet or social media based advertising campaigns, will make the retail markets in Republic of Ireland and Northern Ireland a realistic target domain for those Big 6 Suppliers in Great Britain that are not already active here. Following on from consumer experiences in other market sectors in recent years, e.g. banking and insurance sectors, electricity consumers on the island of Ireland are already accustomed and willing to switch Supplier for best value deals. Subsequent to EWIC commissioning, the scale of the Big 6 will allow them to offer tariff discounts in order to establish significant market share.

Key Messages

The business separation requirements imposed on ESB by the RAs helped to establish the necessary conditions to encourage market entry in the wholesale market and retail markets in Republic of Ireland and Northern Ireland. This separation has been extremely effective as evidenced by the scale of market entry in upstream and downstream sectors over the last decade to encourage market entry.

The Wholesale and Retail Markets are extremely competitive and ESB's former dominance has been removed in both.

When the impact of DCs is taken into account, ESB's share of the generation market for the last three years has been below 40%.

New entrant Suppliers in the SEM are most likely to be those that operate under an integrated business model, as such a structure will position them to best manage market risk exposures and competitive challenges.

Stand-alone supply businesses will not survive in the mass market as their tariffs will be less competitive than those operating under an integrated generation and supply business model.

ESB's competitors can leverage substantial "headroom" from ESB's costs arising from vertical separation. Continuation of this situation is not in customers' interests and neither would a change to a 'petrol pump' model of tariff determination as a means to mitigate market risks.

The advent of the EWIC and REM will increase the challenges faced by all market participants in SEM and retail markets. Those market participants, including ESB will continue to be uncompetitive and their viability will be seriously threatened should they continue to operate under a separated business model.

ESB's customers will continue to be disadvantaged as ESB will be prevented from supplying them at prices that can leverage best practice operations. As a result ESB's end user prices will incorporate significant risk premium which will serve only to keep prices across the market un-naturally high and provide increased profit headroom for ESB's competitors who can operate under best practice integrated Generation and Supply business models.

Retail Market Competition in Republic of Ireland

CEPA concludes that retail competition in the domestic sector is not necessarily effective or sustainable within Republic of Ireland. CEPA is of the view that a combination of circumstances at end 2008/start 2009 afforded new entrants the opportunity to significantly undercut incumbent retail tariffs and attract a large number of customers. CEPA is of the view that this event paints a false picture of the continuing endurance of retail competition.

CER's view with respect to the effectiveness of retail competition in Republic of Ireland is the definitive view. In its submission to the European Commission in September 2010 (2009 Regulators' Annual Report to the European Commission CER/10/163) CER stated that "***During 2009 Ireland saw strong competition among energy suppliers for customers, putting further downward pressure on its energy prices. Building on the competition already seen in the business markets, vigorous competition developed, for the first time, in the domestic (i.e. residential) electricity sector. This led to circa 400,000 domestic electricity customers switching supplier in 2009. In total, about 1 in 5 of all Irish electricity customers switched supplier during the year, among the highest customer switching rates ever seen in***

Europe…… With an effectively regulated market, good levels of supplier choice and an easy supplier switching process, all energy customers can now avail of the opportunity to make significant savings on their energy bills."

In addition, CER regularly produces its own statistics on the volume of customer switching occurring in the retail market in Republic of Ireland. These statistics indicate that not only are customers switching from ESB to the other suppliers, but that a high level of switching between the other suppliers is also continuing. For example in Weekly Change of Supplier Update CER/11/036, the position for Week 06 indicates that of the 8,853 customers that switched supplier, approx 3,600 (circ 40%) of these switched from Suppliers other than ESB. It can be readily seen from these statistics that while the pace of switching has fluctuated from time to time since the start of 2010, the overall trend of a high rate of switching remains very strong throughout the period and shows no sign of abating. Domestic and business customers remain extremely price sensitive due to the prevailing economic climate, and it is to be expected that they will continue to switch suppliers.

At end January 2011, ESB calculated its domestic market share (on an annualised demand basis) to be 59.7%. ESB's domestic market share projections (see Figure 3 below) show its share falling towards 58% during first quarter 2011 and to approximately 56% by end of this calendar year.

This view is consistent with the projections of CER[3] in its Domestic Market Deregulation decision which show ESBCS' share of the domestic market at 59.57% at end January 2011 with projections that its market share will continue to fall to 57.86% at end Q1 2011.

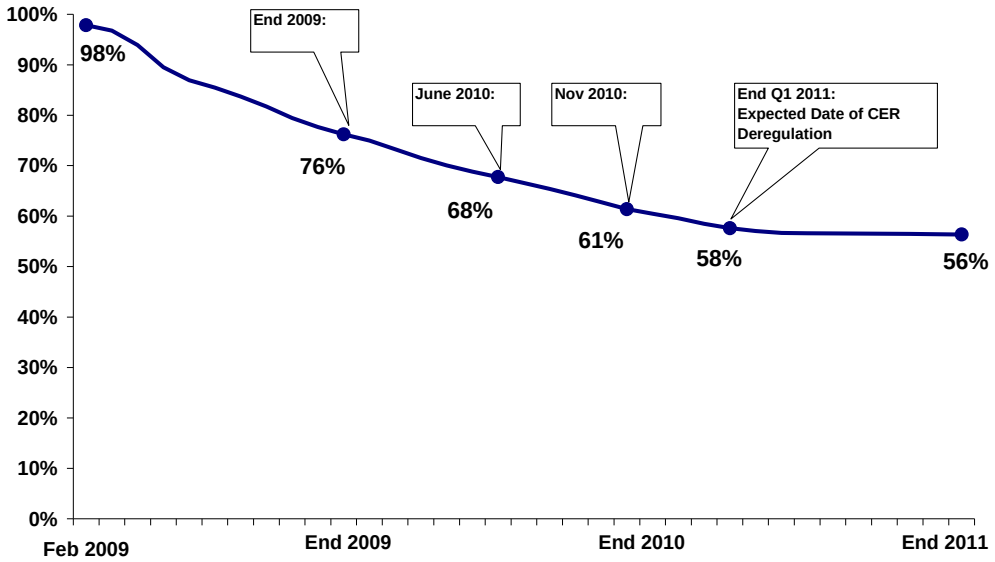

Figure 3 – ESB's Projection of Domestic Market Share in Republic of Ireland.

Retail market commentators outside of Republic of Ireland have similarly noticed and commented on the level of competition that is being experienced there. The Vaasaett World Energy Retail Market Rankings 2010 report states that "For the first time since the start of global electricity market liberalization, Great Britain (still a hot market) was knocked off the top spot in Europe, surprisingly by Ireland, a former laggard in terms of customer switching". This report noted that nearly 21% of all electricity customers switched supplier in Republic of Ireland, a level almost 2% ahead of Great Britain. Vaasaett has included Republic

[3] Review of the Regulatory Framework for the Retail Electricity Market Domestic Market Deregulation (CER/11/041)

of Ireland as one of the "Hot Markets" in terms of the levels of switching activity, placing it in the same category as New Zealand, Queensland and Great Britain[4], widely recognised as being highly competitive markets. This report also notes that only five national markets have ever managed a yearly level of switching above 20% and in the opinion of Vaasaett, "***evidence indicates that once truly active, such markets tend to remain active***". The Vaasaett opinion is a very positive indicator for continuing retail market competition in Republic of Ireland.

In its report Vaasaett also highlights that the CER plans to continue to implement measures to sustain and potentially improve upon the high rate of customer switching, in the Republic of Ireland market. CER's focus, as communicated in its consultation on "Customer Protection in the Deregulated Electricity Market" (CER/10/241) will be in the areas of improving general customer awareness and price transparency as well as encouraging active market participation across all market sectors. For ESB to be able to participate actively across all market sectors, it will require the removal of vertical separation in order to most effectively manage its market risks, reduce its costs and to facilitate the development of innovative tariffs that meet customer requirements.

Vaasaett highlighted the importance of effective marketing campaigns in encouraging customer switching. BGE's marketing campaign was measured as the world's most successful marketing campaign ever, with the emergence of the social media based marketing proving to be very successful. ESB believes that the success of BGE's campaign was aided by its ability to directly target its existing gas market customers, and recognises that the power of such media in terms of targeting particular customers will increase over time. All these facts suggest that these competitive forces will continue well into the future.

It is ESB's view that the retail market in Republic of Ireland is very vibrant in terms of the level of customer switching that is taking place. The entry of BGE and SSE into the domestic sector have transformed the competitive landscape, not only in the domestic market but also in the small and medium enterprise sector where it has had a significant knock-on effect in awareness of supplier switching options.

The emergence of dual-fuel tariff options has also provided added stimulus across the sector. ESB's view is that dual-fuel offerings will emerge as a significantly competitive area of retail energy markets on the island of Ireland. ESB is a small player in the Gas market and does not have the same ability as its competitors to both manage its market positions optimally across both gas and electricity and leverage any comparative economies of scope or scale.

Full tariff deregulation, while still enabling CER to maintain a cap on the maximum market share of ESB in each of the retail sectors, will permit ESB to offer tariffs to customers without such tariffs requiring pre-approval by CER. However, tariff freedom on its own will not enable ESB to actively compete on an even basis with other Suppliers in the retail market so long as it remains encumbered by regulatory proscription which causes unnecessary duplication, higher transaction costs and less effective risk management capabilities across its business compared with its competitors.

These regulatory controls which were implemented for the purpose of incentivising and facilitating market entry are now unnecessary in the context of the level of competition in both the wholesale and retail sectors and are now preventing ESB from making real operational cost reductions and sharing these with customers through innovative tariff development. Without the capability to manage the main tariff exposure (wholesale power costs) in the most efficient manner, ESB will be limited in its ability to offer competitive tariffs to its customers. In a retail market based on a "price to beat" model, ESB's reduced

[4] Ofgem has carried out a number of retail market reviews and has not identified any anti-competitive conduct.

competitiveness arising from these unnecessary costs across its businesses, when reflected in end-user tariffs further raise the tariff benchmark both North and South and are providing additional profit headroom for other Suppliers at customers' expense.

ESB believes that it is in the best interests of customers that it is enabled to take the necessary steps to respond to established competition and compete fully in the market. ESB believes that all customers are not yet being afforded the full benefits of competition and that an additional and sustainable competitive impetus can be brought to both retail markets, North and South, through ESB being facilitated to offer innovative tariffs. ESB will be in a position to offer such tariff products through its generation and supply businesses working together following removal of vertical separation requirements. ESB believes that it would be remiss of the RAs to deprive customers, in particular those customers who remain with ESB, of these substantial benefits any longer.

CEPA expressed concern in its paper over drawing conclusions about the future path of retail competition and retail market shares from those conditions that initiated aggressive retail competition in the domestic market. While those market conditions, circ start 2009, provided the commercial opportunity for other Suppliers to launch highly successful marketing campaigns towards domestic sector customers, significant preparation in advance of that would have been required to develop marketing and pricing strategies and recruit the necessary resources. In addition, the construction or procurement of those generation assets to support their customer acquisition strategies would have involved a number of years of planning in advance of that. In ESB's view it is more appropriate to consider the consistently high level of switching that has occurred since early 2009 as a barometer of the sustainability of competition and market share evolution. Over the period February 2010 to end January 2011, the switching rate was approximately 21.34% with over 1/3 of customers switching supplier more than once since early 2009[5].

ESB's competitors have gained significant market share since start 2009 and there has been a consistently high volume of switching since then. Furthermore, there is no indication that any of ESB's competitors are scaling back in their marketing or customer acquisition campaigns. In addition, CER has plans to enhance awareness of competition and enhance clarity of Supplier offerings for all consumers, which will provide further impetus to sustainable competition. Many other retail markets in Republic of Ireland (e.g. insurance and banking) have become very competitive in recent years and there is no reason to suggest that consumer switching behaviour for price and value reasons in the electricity market will not follow similar trends. As such ESB is of the opinion, as supported by external commentators, that CEPA's concerns regarding the sustainability of retail market competition, albeit where the current form of competition may not be affording its full potential benefits to customers, are misplaced.

However, for ESB to introduce further competitive pressures across the retail markets it needs to be able to develop a pricing strategy that most efficiently manages its main tariff exposure. Removal of separation requirements between ESB's generation and supply businesses will facilitate that.

[5] CER Announces Price Deregulation - Press Release 4th March 2011

Key Messages

The wholesale and retail markets have evolved and are now extremely competitive. ESB's market share in the SEM and Republic of Ireland retail market has been significantly reduced. The current regulatory controls which separate ESB's generation and supply businesses are now disproportionate and need to be removed in the best interests of customers.

The successful marketing campaigns of ESB's competitors coupled with CER proposals to further stimulate retail market competition provide positive signals that competitive behaviour will be sustainable.

ESB supports competition in electricity markets as a means to deliver best value and service to customers. ESB believes that in the retail markets in Republic of Ireland and Northern Ireland competitive pressures can be enhanced by all Suppliers competing on a level playing field.

It is in the best interests of all customers that ESB is enabled to take the necessary steps to respond to established competition and compete fully in the market.

ESB is of the view that new mass market Suppliers entering the markets are most likely to be those with an integrated generation business.

Vertical Separation puts Viability of ESB's Supply Business at Risk

Historically, ESBCS' retail tariff margin had been low at circ 1.3%. That level of margin reflected the relatively low level of risk on ESB's supply business in the mass market which was as a direct consequence of the existence and application of the regulatory K-Factor.

Recognising that removal of tariff controls would be carried out with the expectation that ESB would compete on price with other Suppliers, ESB has for some time been engaged in a company-wide cost reduction programme in order to best position it to compete on price with existing and new Suppliers.. However, noting that the costs of running ESB's supply business typically accounts for at most 10% of end user price, no matter how internally efficient ESB's supply business becomes the capability for end user tariff reductions based on these internal efficiency improvements is limited.

Excluding network usage charges which are outside the control of a Supplier, the most significant element of end user price is that of wholesale power costs. These costs typically account for 60% of end user tariffs. Without the capability to manage its wholesale power costs and market exposures most effectively, as would be facilitated under an integrated generation and supply business model, ESBCS will continue to be comparatively disadvantaged in the retail market. The level of market risk that ESBCS will be exposed to, should it continue to operate under a stand-alone Supplier model with a mass market supply strategy, will remain significantly increased in comparison to its competitors. Retaining today's risk management costs in future end user prices will further reduce ESBCS' tariff competitiveness and provide continued comparative advantage for other Suppliers. Continuation of the existing business separation requirements will result in a continued reduction in ESBCS' customer numbers, leading to a level that will be no longer viable when compared to its operating costs and its capability to offer competitive end user tariffs.

In order to compete effectively with all other Suppliers in the market, ESBCS requires to manage all of its costs in the most effective manner. To achieve this, ESBCS needs to develop an integrated pricing strategy across the upstream and downstream sectors. This will require optimal management of ESB's market risks across the generation and supply parts of the business which ESB is confident will succeed in reducing costs. These cost saving can be shared with customers through more competitive tariffs. In addition, an integrated generation and supply business will enable ESB to offer more innovative tariffs with recognition of its generation portfolio and more cost effective risk management strategy.

Should vertical separation requirements continue and therefore ESB not be able to compete on price with its competitors, its market share will continue to fall. ESB's projections of market share in the domestic market for 2011 (shown previously in Figure 3) assume that ESB will be capable of competing on price with other Suppliers. In the absence of that capability, ESBCS market share will fall substantially lower.

For 2010, against an anticipated operating profit of €15m based on regulatory allowed margins, ESBCS incurred an operating loss of €32m, with losses of a similar scale projected for the coming years should the business separation requirements remain. Losses of the scale incurred are not sustainable and ESB as a mass market supply company will not survive unless it is permitted to address the overall cost challenges immediately. To do so, ESB needs to be permitted to reorient its generation and supply businesses forthwith and to transition to an integrated generation and supply business model, under which, significant operational cost savings can be made.

Retention of the existing vertical separation requirements will see ESB's supply business continue to be disadvantaged in comparison to its direct competitors today and more so in the face of increased competition following EWIC commissioning. By nature of direct access

to their own generation, and through economies of scope across the wider energy sectors, the risk management costs of ESB's competitors are and will continue to be significantly lower than those of ESB. This provides them a significant pricing advantage which is causing real damage to ESBCS and putting the viability of ESB as a stand-alone Supplier at serious risk.

It doesn't appear credible to ESB that a stand-alone mass market Supplier can compete against Suppliers who operate under an integrated generation and supply business model. The low level of margin in the mass market requires Suppliers to balance their risks across their lower-risk generation business in order to develop competitive pricing strategies. For ESB as a stand alone supply business, the requirement to procure all hedges in the contracts markets and the necessity to pass on these risk management costs to customers through increased end user tariffs, would result in one of two outcomes. Either, increased end user tariffs would reduce the competitiveness of ESB as a supplier, leading to further rapid decline in market share and continued financial losses or, ESB's competitors could leverage any increase in ESB's 'price to beat' to leverage additional gains at customers expense, even without increasing their market share. Under either eventuality, customers and ESB will be disadvantaged. As such a non-integrated Supplier business model for ESB is not a viable strategy in the competitive retail markets.

Key Messages

ESB is cutting costs across its business so that it can be positioned to compete with all other Suppliers. However, vertical separation limits the scale of any cost cutting and therefore its impact on end user pricing.

Vertical separation will continue to reduce ESBCS' ability to compete on an even basis with all other Suppliers as it will not be capable of developing integrated pricing and risk management strategies which are necessary to drive competitive reductions in end user prices.

Continuation of the current regulatory arrangements will lead to unsustainable financial losses by ESB and will have detrimental impact on customers who will not leverage the full benefits of the competitive market, which the RAs have worked so hard to establish. Continuation of vertical separation is seriously undermining the viability of ESB's supply business.

The regulatory controls that were appropriate over 10 years ago to incentivise market entry, have achieved their aims. Continuation of business separation restrictions between ESB's generation and supply businesses is now disproportionate, detrimental to customers and must be removed.

REGULATORY ACTION REQUESTED BY ESB

The previous section in this response clearly demonstrates that the industry and the market have changed significantly since 1999 with further profound changes foreseen over the coming years. The regulatory controls that were implemented at that time, primarily the business separation restrictions, were established so as to encourage market entry. However, in view of the substantial reduction in ESB's market share in both generation and supply, the establishment of the pool market and its widening on an all-island scale, the number of generator connections pending and under application and reflecting the level of new entry and competition in the retail sectors, these separation controls have become obsolete and disproportionate. Continuation of these controls is financially damaging and disadvantaging ESB, preventing more effective and sustainable competition from emerging across the market as whole and harming customers. In addition, these restrictions are significantly impacting on ESB's ability to plan and prepare effectively for forthcoming competitive pressures. If this situation persists, a point will come where the controls will be deemed unduly discriminatory.

Removal of Horizontal Separation

ESB supports CEPA proposal to remove the horizontal separation requirement that exists across ESB's generation business. This separation has resulted in unnecessary duplication e.g. of processes, systems and human resources across ESB. ESB estimates that the cost of this duplication is c. €10m on an annual basis.

ESB supports the findings of CEPA in its report that horizontal separation of ESB in the context where the BCOP, MMU oversight and DCs remain in place has little or no value in promoting competition, while at the same time unnecessarily increasing ESB costs. ESB concurs that these combined market power mitigation mechanisms in combination with inherent safeguards in the overall SEM design mitigate completely any scope to exercise market power in the wholesale market and as such remove the necessity for and perceived benefit of the overlapping and duplicative horizontal separation.

The BCOP ensures that only the short-run marginal costs of generation for any unit can be included in its bid price. Consequently, under the terms of the BCOP, it is not possible for any generator to take account of any portfolio effects in its market bids. Monitoring by the MMU and other market participants ensures that the BCOP is adhered to and any potential departures or anomalies are wholly transparent to the market.

In addition, generator licence conditions, the timing of gate closure in the SEM and the design of the DCs and capacity payments mechanism combine effectively to remove the financial incentive for any generator to withhold capacity. Any systematic or opportunistic withholding of capacity which would be in breach of a generator's licence would almost certainly be observed by the effective monitoring of the MMU and other market participants.

Even recognising that intermittent generation in the SEM may introduce a level of volatility and times of scarcity, prevailing market arrangements ensure that conventional generators will not be in a position to react to foreseen or unforeseen reductions in intermittent generation (primarily wind) outputs by either withholding capacity for short periods of time or increasing bid prices to take advantages of such scenarios. This follows as a consequence of the timing of gate closure, the requirement for bid data to apply to all periods in each day and the inability of any party to withdraw and return capacity to the market in order to target a single period, all of which reinforce BCOP, MMU oversight and DCs applicability.

It would therefore be impossible for a generator to derive a strategy of withdrawal that would profitably target short periods of low intermittent generation. Even if a profitable

strategy could be devised, any such attempts to exert market power would be readily identifiable by the MMU and appropriate action could be taken against the generator in question, including where necessary resetting of market prices by the RAs.

The BCOP, MMU oversight and DCs, in practical terms, remove completely any concerns over the potential of any party to exercise market power and this outcome is reinforced by other market arrangements as described above. Given this, the generator license conditions that provide for horizontal separation of ESB's generation businesses serve no useful purpose in protecting the integrity of the market. ESB requests modification of generator license conditions to enable it to remove the unnecessary administrative costs arising from duplication of personnel, process and systems across ESB's generation business. Such modifications will not affect the operation of the wholesale market due to the behavioural controls that the combined market power mitigation tool set enforces.

There is no value in ESB retaining separate corporate identities for recently constructed generation assets in the SEM, not least because enduring separate identity brings about additional administration and company law compliance costs. Retention of this structural measure is disproportionate under the continued application of the BCOP, MMU and DCs and unnecessary in that it serves no purpose in the furtherance of SEM competitiveness.

Key Messages

Horizontal separation requirements across ESB's generation business no longer serve any purpose in the context of continued application of the BCOP, oversight by the MMU and DCs, and introduce unnecessary costs for ESB.

ESB believes that the BCOP, MMU oversight and DCs are completely effective market power mitigation measures and that their continued application permits the removal of horizontal separation obligations from its generation business.

Retention of separate corporate identities across ESB's generation portfolio gives rise to unnecessary administration and corporate compliance costs and such retention is disproportionate and ineffectual in enhancing market competitiveness.

Removal of horizontal separation requirements from ESB will have no impact on competition in the SEM.

ESB supports CEPA's proposal on removal of horizontal separation requirements.

Removal of Vertical Separation

ESB requests that the Regulatory Authorities remove the vertical separation requirement that exists between ESB's generation and supply businesses. As a consequence of this imposed separation, ESB incurs an unnecessary set of costs arising from the needless duplication of internal operations and processes, compliance oversight, the incurrence of additional market transaction costs and unnecessary risk capital costs. Critical business expertise is fragmented across several business units. Key members of staff are spread across its businesses and these individuals are not permitted to exchange information freely, inhibiting ESB's ability to respond in a fluid and timely manner to developments in the market. ESB also believes that its capacity to take strategic decisions regarding its wholesale and retail market positions is similarly harmed as a result of this dilution of expertise and the inability to consider the needs of the business as a whole on the basis of suitably aggregated and timely information.

The effect of this further set of imposed ring fences is to directly increase ESB's cost by an amount estimated to be of the order of €25m to €35m per annum (circ 2.5% to 3.5% of total

supply costs), with an additional capital at risk exposure of €20m on top of this at any time. When contrasted with the regulatory allowed margin for 2010 of €15m, it is clear that even with the removal of tariff regulation, the scale of these cost inefficiencies which are within the RAs control to remove will inhibit the development of more effective and more sustainable competition.

At the time of their introduction, these ring fencing requirements played an important role in safeguarding competition, providing existing and then prospective market participants with confidence that ESB would be prevented from being able to leverage its position in the wholesale market into the retail market and vice versa. While the detrimental consequences of separation identified above would have also been present in the past, there was a clear public policy rationale for their introduction, i.e. the benefits from fostering competition were considered to outweigh the costs arising from inefficiency.

The proportionality test as followed by the Competition Authority serves as a useful mechanism to ensure that the impact of regulation on the market is commensurate with a policy objective. The Competition Authority considers that a regulation which affects pricing mechanisms in a way that reduces the incentive to compete is disproportionate. Since retention of the business separation requirement between ESB's generation and supply businesses will continue to make ESBCS non-competitive in terms of pricing in the competitive retail electricity market as it will be required to compete for all its wholesale power contracts in market auctions unlike its competitors who can self-contract more cheaply with their own generation, it is surely therefore the case that this regulation is no longer proportionate and ought to be removed.

Given changes in the competitive landscape, as outlined above, it is clear that while the costs of separation remain, there is now no benefit. Given the successful introduction of the SEM and the effectiveness of BCOP, MMU oversight and DCs, there can be no concern whatsoever over the potential for any party to exercise market power in the wholesale market, as CEPA has confirmed in its report. Similarly retail market competition is intense in all market segments and the CER has decided that ex-ante tariff regulation will end on 4th April 2011, therein giving formal regulatory recognition of a competitive retail market. In addition, CER has the powers to re-regulate ESB in the retail market if it believes that to be in the market's best interests. In short, the vertical competition concerns that are addressed by vertical separation have been addressed in full, ensuring that the current regulatory prescription only gives rise to costs with no countervailing benefit to customers.

Even if the RAs are not compelled by ESB's desire to prepare itself for a substantial increase in the intensity of competition following the commissioning of EWIC and the potential entry of the other members of the "Big 6" into the Irish market (described below), it must be concluded that there is no public policy rationale for the continuation of the existing business separation arrangements, given the lack of any substantive competition concern either upstream or downstream. Under these circumstances, unless the RAs can clearly identify the harm that is being addressed, their primary statutory obligation to protect the interests of customers ought to compel the removal of these unnecessary separation requirements.

ESB anticipates that its rivals in the SEM will resist moves by the RAs to remove vertical separation requirements from ESB's licences. This is to be expected, as reintegration will allow ESB to put in place more efficient business processes and structures that will reduce its overheads and allow it to offer more competitive tariffs to customers. Consequently, some of the "headroom" currently provided to other Suppliers will be removed. ESB would argue that since this headroom only arises as a consequence of inefficient operation imposed by regulatory decree, a time will inevitably come when competition needs to move onto a more sustainable basis. To maintain the existing separation arrangements beyond their necessary life will simply have the effect of denying customers the full benefits of competition.

The only remaining concern of which ESB is aware is related to the potential impact of the removal of business separation requirements on liquidity. ESB has already brought forward a proposed undertaking to address completely and comprehensively this concern. The proposed undertaking, described in more detail below, will have the effect of protecting the liquidity currently afforded by ESB to all other existing and prospective market participants, while allowing ESB to secure a significant reduction in business overheads. Consequently ESB believes that, aside from the narrow interests of the shareholders of existing market participants that benefit directly from existing inefficiencies, there is no public policy rationale to continue to impose business separation on ESB.

Unnecessary Costs arising from Vertical Separation

Continued separation of its generation and supply businesses is costly to ESB and the market as a whole.

ESB has calculated that the following unnecessary costs are being borne, and will continue to be borne across its generation and supply businesses directly because of vertical separation requirements:

- Duplication of people, processes and systems: €10m to €15m per annum;
- Additional market transaction costs: €15m to €20m per annum; and
- Increased risk capital costs of €20m at any point in time;

Total avoidable costs are in the range €25m to €35m on an annual basis or the equivalent of twice the regulatory allowed margin for ESBCS for 2010.

Absent removal of separation, it may also be prudent for ESB to procure hedges with sell-back options at an estimated cost of circ €7m[6] per annum in order to manage its market demand and wholesale pricing risks in future years.

The opportunity to remove and avoid unnecessary costs between ESB's generation and supply businesses, enable the sharing of these savings with end customers and as a result create downward pressure on all customers' tariffs ought to be taken up by the RAs at this time. When coupled with increased innovation in tariffs and service offerings, there will be real benefits to all customers from removal of vertical separation requirements. The choice to remove these unnecessary costs from ESB and drive further competitive gains for customers across both retail markets rests with the RAs. The alternative, where regulatory imposed separation is retained will be harmful to ESB, ESB's customers and by extension all customers in the market.

Wider Impacts across the Economy

The Republic of Ireland has seen a significant economic downturn over the last few years with decreases in average household incomes resulting in an increase in fuel poverty over this period. Recent statistics[7] suggest that the number of households experiencing fuel poverty had risen significantly from a level of 340,000 in 2009 to almost 375,000 in 2010, an increase of 10%. Projections suggest that this figure could increase further to 400,000 during 2011, or approximately 20% of all households. An increase in the number of electricity

[6] Calculated at cost of €3.4/MWh for 30% of ESBCS domestic customer demand
[7] Energy Action Conference, February 2011

disconnections and consumers agreeing payment plans for their utility bills further suggest that fuel poverty is increasing.

The provision of affordable energy is an important social and economic priority for ESB. ESB has been active in promoting energy efficiency as a way for customers to improve their health and personal wellbeing and has upgraded over 3,000 homes over the last 2 years. However, retention of regulatory measures that inhibit ESB from sharing with customers, potential cost reductions that can be brought about through adoption of best practice market risk management, is not in customers' best interests. ESB believes that customers' interests will be best served by removal of cost inefficiencies brought about by vertical separation across ESB. ESB believes that such measures will put downward pressure on tariffs, meaning all Suppliers will need to become more competitive on prices, which is both in the interests of all customers and competitiveness in Republic of Ireland and Northern Ireland. ESB believes that removal of headroom from ESB's competitors, particularly that arising from unnecessary risk premiums borne by ESB's supply business, will not detract from retail market competition, but will instead encourage more efficient practices throughout the industry.

Political instability in Africa and the Middle East, coupled with international speculation is putting significant pressure on fuel prices. There is increased risk that wholesale market prices might be adversely affected as a result. The RAs have a duty to protect the interests of customers. Since removal of separation between ESB's generation and supply businesses offers the real perspective of further and more sustainable retail market competition, with ensuing gains for all customers - which would compensate somewhat for any wholesale power price increases driven by international uncertainty in the fuel markets – the required regulatory action to achieve this must be taken forthwith.

Key Messages

Vertical separation between ESB's generation and supply businesses imposes unnecessary costs in the order of €25m to €35m per annum. These costs which are in the order of twice the regulatory allowed margin for ESBCS for 2010, against which losses of €32m were incurred, unnecessary raise ESB's customer tariffs by circ 2.5% to 2.5%.

Vertical separation limits the ability for ESB to compete on price with all other Suppliers.

Retention of inefficient costs across ESB's businesses provides an inefficient level of headroom for all other Suppliers in the market.

With the evidence of intense competition in wholesale and retail markets, there is no public policy rationale for vertical separation to continue.

Removal of this headroom will drive increased competitive practices among all Suppliers which will be in customers' interests and will have a positive impact on competitiveness.

Recent political uncertainty and commodity market speculation has increased the risk of upward movement in wholesale market prices. This risk creates further urgency for a decision by the RAs to remove vertical separation requirements and allow for some compensatory mechanisms for downward pressure on end-user tariffs.

Preparation for Competition from GB Big 6 and the REM

The advent of the East West Interconnector in 2012 will introduce further competitive pressures in the SEM. With gas fired generation plant anticipated to be the marginal generators in both the SEM and BETTA for the foreseeable future, coupled with lower unit production costs in BETTA due to plant scale and lower gas transportation costs, a scenario

where wholesale prices in Great Britain will be higher than in SEM (except for transient periods) is not credible.

ESB has modelled the impact of the EWIC on power flows from GB into SEM. The results of these simulations show that efficient power flows over the EWIC will predominantly be in a GB to SEM direction. Harmonisation of trading arrangements for the Moyle Interconnector in line with EWIC arrangements would further increase power flows into SEM.

It is therefore likely that the advent of the EWIC will provide further opportunities for entry of additional "Big 6" Suppliers into the retail markets of Republic of Ireland and Northern Ireland, as well as increased expansion of business by the existing Big 6 Supplier i.e. SSE in these jurisdictions.

ESB supports interconnection between Great Britain and the island of Ireland and the significant competitive benefits that this will bring for customers. However, ESB with customer demand of 13.9 TWh[8] needs to be allowed to compete on an even basis with these very large Suppliers, some of which have an aggregated customer demand significantly greater than the total system demand of SEM (figure 4 below) and to do this ESB needs to adopt best industry practices in terms of how it performs all aspects of its business. ESB is implementing an aggressive cost cutting programme right across its business. However, business separation is constraining the unnecessary costs that it can remove.

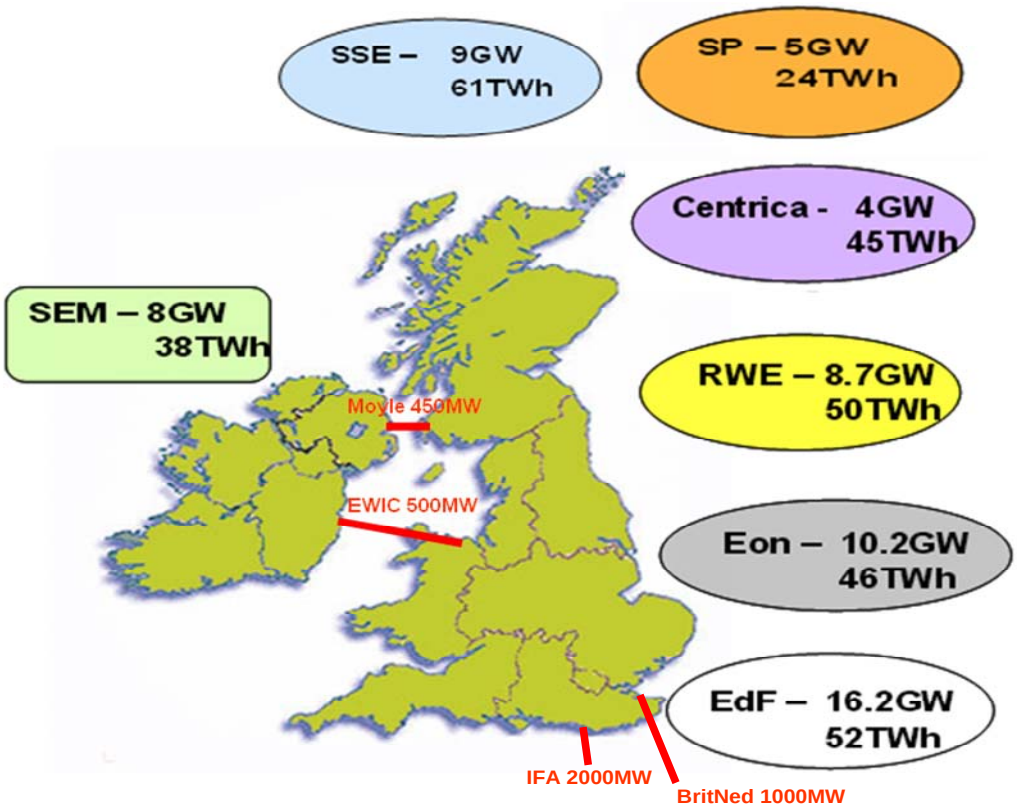

Figure 4– Scale of GB "Big 6" Suppliers in comparison to SEM

[8] RoI and NI

ESBCS has to compete to acquire all its hedges for its customers' demand in the market today, and unlike its competitors (and future competitors) has no access to "own generation". ESBCS' competitors have access to "own generation" in the first instance and thereafter seek to fine tune their position through DCs or other contract products. This puts ESBCS at an unfair structural and cost disadvantage to other Suppliers simply by virtue of regulatory imposition. Such a disadvantage dampens competition and is harmful to customers and is no longer justified by the current circumstances in the market.

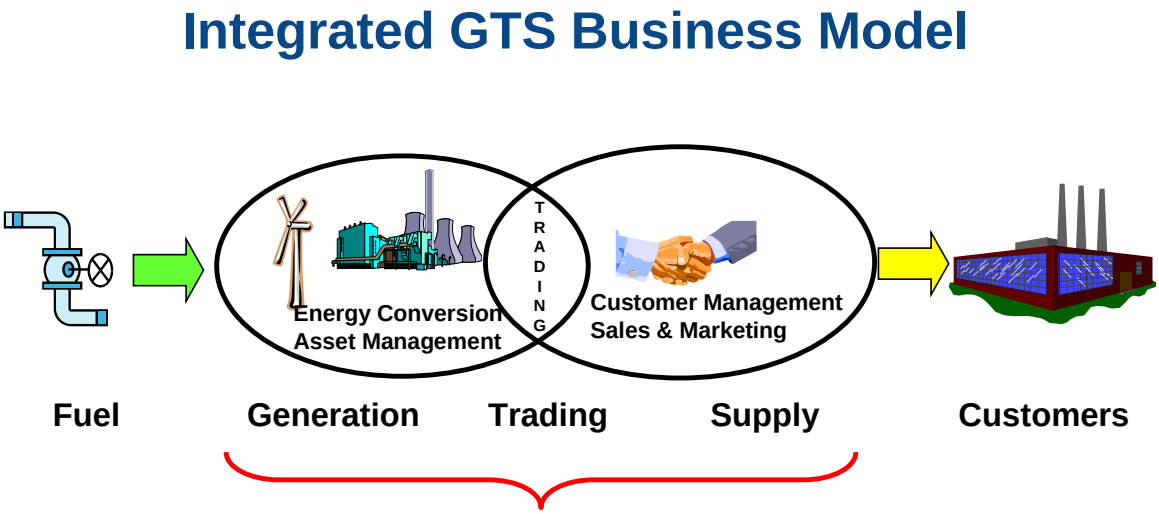

Figure 5 – Overview of GTS Business Model

A key element of best practice as employed by other Suppliers is the operation of a Generation, Trading and Supply (GTS) business model. ESB considers that establishment of a GTS is essential in order for it to be prepared for the level of competition that will arise following commissioning of the EWIC, the evolution of all-islands trading and thereafter from the establishment of the Regional Electricity Market. The view of CEPA is that a decision on removal of vertical separation can wait until the impact of the EWIC on competition in the SEM and retail markets has been considered. Such delay will pose significant risk and put ESB at a very considerable disadvantage in the face of increased competition from Great Britain from 2012 onwards, with such risks undermining the viability of ESB's supply business.

Based on CER's change of supplier statistics, circ 340,000 customers have switched from ESBCS since ESB presented its case for removal of business separation requirements to the SEM Committee in Feb 2010. This represents a reduction of 20% in ESB's customer base over the year. This loss of scale coupled with ESB's inability to compete on price, has seen ESBCS make significant financial losses over that period. ESB requests a prompt decision with certainty on the issue of removal of vertical separation requirements. In ESB's view it would be unfair for the RAs not to provide certainty on this matter now or at a minimum on the conditionality for removal of vertical separation requirements in sufficient time to prepare for the advent of the EWIC. Any delay in RAs reaching a decision or any continued lack of certainty will result in exacerbated market share loss and continued financial losses across ESB. In addition, uncertainty will result in ESB being unable to effectively plan for or

commence reorientation of its business to deal with the existing and future market challenges. A favourable decision on vertical separation is necessary for ESB so as to enable it to compete on an even basis with all its competitors and to safeguard its future.

ESB's best estimates suggest that the establishment of and transition to a GTS business model will be at least comparable in timeframe terms with that required to complete commissioning of the EWIC. Starting preparations for competition after competition has arrived is clearly imprudent when such significant lead time is required.

The objectives of the SEM Committee are set out in the Electricity Regulation (Amendment) (Single Electricity Market) Act 2007 and the Electricity (Single Wholesale Market) (Northern Ireland) Order 2007. These objectives include "***to protect the interests of consumers of electricity in Northern Ireland and Ireland***" and "***to secure that authorised persons are able to finance their activities***". In recognition of the degree of existing competition in the wholesale and retail markets and with reflection on the comparative disadvantage of ESB against its current and future competitors, continued separation of ESB's generation and supply businesses is now contrary to these objectives and needs to be removed. It is already the case that competition in wholesale and retail markets is sufficiently well developed to render the existing business separation requirements entirely unnecessary.

Key Messages

ESB is supportive of the advent of the EWIC and the REM which will significantly increase competition in both the wholesale and retail markets.

The economies of scope and scale that the "Big 6" Suppliers enjoy provide a considerable competitive advantage for them over other market participants in the SEM today, but particularly for ESB that operates under a separated generation and supply business model.

In order for ESB to remain a viable business in such a competitive environment, ESB needs to adopt the same best practice integrated generation and supply business model, as operated by its competitors.

Removal of vertical separation requirements is absolutely essential for ESB to significantly advance its preparation activities so as to enable it compete on an even basis within an increasingly competitive market.

Any delay in the removal of vertical separation requirements will impact severely on the timeline for completion of this preparatory work and as a result will disadvantage ESB in the increasingly competitive markets.

The objectives of the SEM Committee are best achieved through removal of vertical separation requirements.

MARKET POWER, MITIGATION AND LIQUIDITY UNDERTAKING

Market Power and Contract Market Liquidity are separate matters for consideration by the RAs

This consultation deals with two completely separate matters, that of Market Power and that of contract market Liquidity.

ESB's request for removal of vertical separation is appropriate for the RAs to consider on the basis of:

- The wholesale market power assessment performed by CEPA;
- Recognition of the substantial competitive challenges facing ESB subsequent to EWIC commissioning and REM establishment; and
- The fact that business separation between ESB generation units and its supply business have already served their purpose, with continuation of such separation damaging to ESB and limiting the competitive potential of the retail markets;

Liquidity, in ESB's opinion, has been linked with market power in this "Market Power & Liquidity" consultation because of the now secondary benefit of Directed Contracts (one of the key components of the SEM market power mitigation toolset) as a contributor to contract market liquidity for the market.

ESB recognises that there is a shortfall in contract market liquidity, which CEPA acknowledges in its paper, is for all market participants and not just for ESB on its own to solve. ESB is concerned that regulatory concerns over contract market liquidity levels may have become incorrectly linked with ESB's request for removal of vertical separation in the considerations of CEPA and may have therefore incorrectly influenced CEPA's opinion with respect to ESB's request.

While DCs are a source of contract market liquidity and also play an effective part in market power mitigation, vertical separation, while possibly also having had some past role, now no longer appropriate, in market power mitigation, has never had a function in contract market liquidity provision. Therefore, linking the material shortfall in contract market liquidity with the former regulatory rationale behind vertical separation, when forming a decision on ESB's request for removal of this vertical separation would in ESB's opinion be incorrect and unfair on ESB.

No ESB Market Power in SEM post Removal of Vertical Separation

CEPA has carried out detailed simulations of market power under various regulatory arrangements and market conditions and ESB appreciates the extensive analysis that has been performed.

ESB notes that CEPA has concluded that if the existing ring fencing provisions (both vertical and horizontal) were removed then there would be no resulting competition concerns arising. While ESB has some concerns regarding aspects (see below) of the modelling that was performed and the commentary made therein by CEPA, it nevertheless supports and agrees with CEPA's overall conclusion.

The level of competition in the wholesale and retail markets is clear evidence that the business separation requirements that were implemented as a means to establish the market environment for new entry have served their purpose and are no longer necessary. The results of both CEPA's and ESB's market simulations, when considered together with the

evidence of market entry since business separation requirements were implemented, clearly show that ESB does not hold market power in the SEM. ESB notes that CEPA in its analysis has used more stringent thresholds than those used by the European Commission in its Sector enquiry, but nevertheless they demonstrate the competitive nature of our market. When all this simulation and actual evidence of competition is considered, there is no longer any policy rationale for the continuation of these separation requirements on ESB.

ESB's understanding is that there is a structural shortfall in the level of liquidity in the market and in that regard is in agreement with the RAs that contract market liquidity is a matter for all market participants and not something that ESB should be mandated solely to provide and increase. As a secondary consequence of the directed contracts regime, which is primarily a key component of the effective market power mitigation suite of regulatory controls in SEM – the others being BCOP and MMU oversight -, DCs provide a volume of contracts for all Suppliers in the wholesale market. Notwithstanding that contract market liquidity is a matter for the industry as a whole, ESB has given an undertaking to the RAs that it will continue to support the contracts market and will continue to provide a significant volume of contracts following removal of vertical separation requirements from its licences.

CEPA Market Simulations

ESB commissioned Frontier Analysis to undertake a competition analysis on its behalf, and while the general trend of results produced by Frontier is similar to that of CEPA, ESB believes that due to inaccuracies in the assumed "ownership[9] of plant by CEPA, CEPA concludes that the market power situation is worse than it actually is. Given that even this flawed analysis concluded that there were very few market power issues, allowing removal of vertical separation between ESB's generation and supply businesses should in fact be substantially less of a concern.

For example, conventional generation capacity in excess of 300 MW has been incorrectly allocated to ESB Independent Generation (ESBIG), with discrepancies also in the capacity total allocated to ESBPG, and thus the overall scale of ESB's generation is overstated in the CEPA analysis. In any event, CEPA has demonstrated that following removal of vertical separation requirements, ESB's RSI would be compliant with recommended metrics for all credible scenarios.

Such inaccuracies would materially distort the HHI or RSI metrics upon which a decision by the RAs on removal of separation could be based. In combination with the approach that CEPA has taken to modelling of interconnection, which ESB believes is inappropriate (see later in this response) these inaccuracies, which weaken CEPA's recommendations, overstate ESB's position and could influence the RAs into a course of continued vertical separation that would not be in the best interests ESB, the market and customers.

Whether CEPA's analysis is prone to potential misinterpretation as a consequence of these errors in part depends on whether the RAs intend to adopt and implement a strict threshold in considering the RSI evidence. A threshold might be described in two parts, by considering how low it is considered acceptable for the RSI to fall and over what proportion of the year. In its paper CEPA considers two thresholds, which are 1.1 and 1.2, and presents proportions of the year for each scenario against each of these thresholds. ESB recognises that thresholds around this level have been proposed in other jurisdictions, but note that thresholds should only be regarded as a high level guide to the kind of market conditions that might give rise to potential competition concerns. In this regard it is important to consider any modelling within the specific context of the SEM.

[9] Discrepancies between Table 6.2 data and Annex 6 – Modelling Assumption Data

In particular, as we have described earlier, BCOP and the oversight of bidding and market activity by the MMU are in themselves key components of the market power mitigation suite of regulatory controls. BCOP and MMU oversight ensure that market power is not exercised, particularly in the formation of the SEM spot price, while Directed Contracts in addition neutralise any potential impact of any market power that may exist. Given this context it would be illogical to draw strong conclusions over the potential for market power concerns to arise in the SEM as a result of stylised RSI analysis. As a specific example, there is no reason whatever to presume that further steps are necessary to address market power concerns simply because the RSI falls below some given threshold for some proportion of the year. Even if the RSI fell below 1.0, indicating that the relevant party was pivotal in some period, there is no scope for that party to act on the scarcity to drive up short run prices in any event.

The corollary of this is that in the continued presence of BCOP and MMU oversight there is no need for the RAs to continue to impose DCs at all in order to address the potential possession or exercise of market power, although DCs clearly play a secondary but important role in providing contract liquidity at present. Ultimately, it is a decision for the RAs whether to impose DCs on ESB or not. ESB is willing to retain its DC obligation provided the value of DCs in terms of facilitating competition in the markets is recognised by the market. Directed Contracts in real terms remove from ESB the full ownership control of a large proportion of ESB generation capacity.

ESB's Market Power Simulations[10]

ESB commissioned Frontier Economics to carry out further market modelling and perform its own simulation of market power in the SEM. The summary results of this simulation are included in the Attachment to this submission.

ESB's own simulation[11] results indicate that for 2010, in the absence of existing horizontal separation, ESB is pivotal for 6% of hours with this percentage projected to fall to 2% by 2015. However, for ESB to actually create a shortage in the market today (by withholding of capacity), at a minimum approximately 75% of ESB's capacity would require to be withdrawn. In the presence of forward contracts and must-run peat fired generation, such a withholding strategy would not be operationally practical or financially feasible. Furthermore, withdrawal on the scale required to create scarcity would be clearly observed by the MMU and market participants making such a strategy entirely infeasible in any event.

In ESB's simulation where separation has been removed and an assumed level of capacity equivalent to that of the directed contracts cannot be withheld, ESB is pivotal in only 4% of hours out to 2013 and less than 1% of hours out to 2015. Again in such a scenario, any capacity withdrawal strategy would be obvious to the MMU and would not be feasible and as such it is not credible that such a strategy could be executed.

[10] This analysis was conducted by Frontier Economics on ESB's behalf. The report is included as an attachment to this submission.
[11] This simulation was performed on ESB's behalf by Frontier Economics

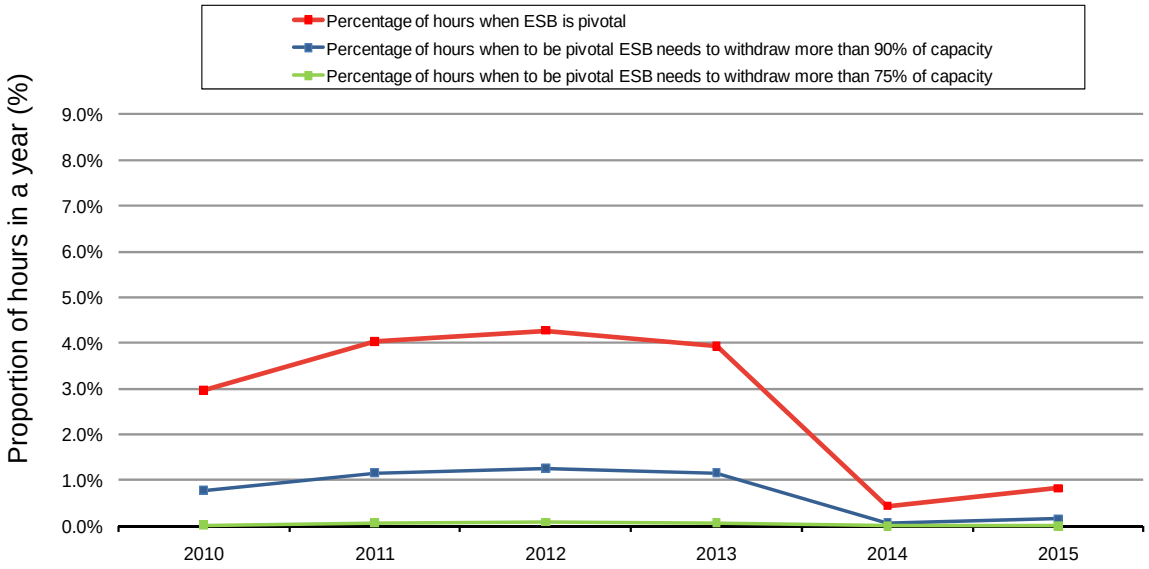

Figure 6– ESB's pivotal metric when Directed Contract volumes are retained

Furthermore, ESB has modelled a scenario where vertical separation has been removed and a level of capacity equivalent to that of the directed and non-directed contracts cannot be withdrawn. Such a scenario suggests that ESB would be pivotal no more than 0.5% of all hours in any year out to 2015.

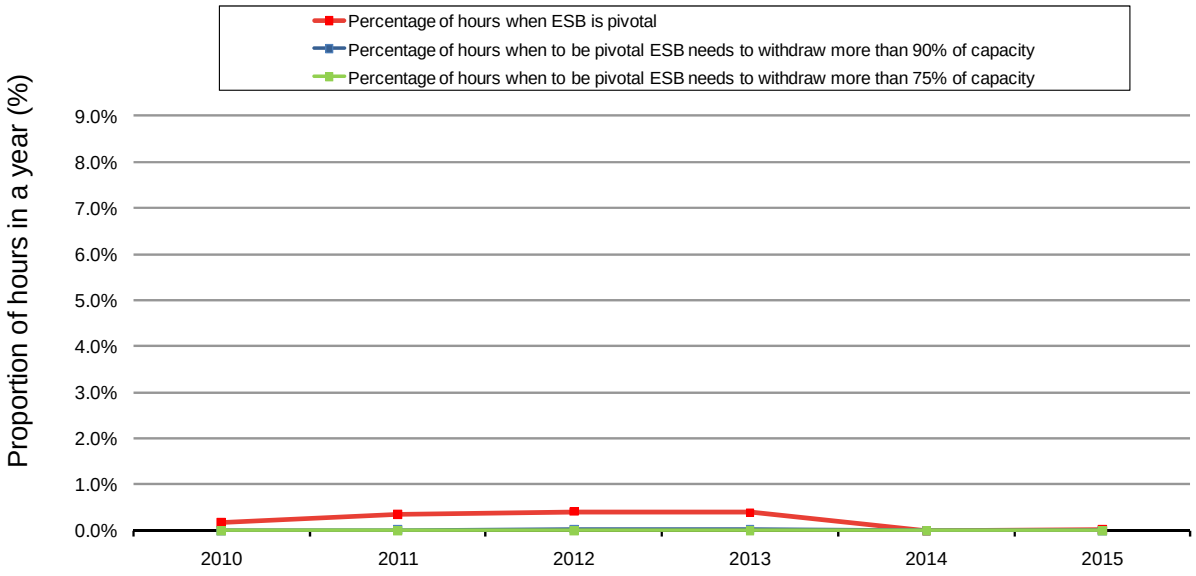

Figure 7– ESB's pivotal metric when DC and NDC volumes are retained

ESB's simulations demonstrate that the imposition of a volume of contracts, equivalent to that obligated under the Directed Contracts regime, will ensure that the percentage of periods in each of the next three years when an integrated ESB is pivotal in meeting market demand is negligible. In a situation where ESB sells a volume of contracts comparable with than proposed under its Liquidity Undertaking, this pivotal metric is less than 0.5% or on average less than one half-hour trading period per day.

Key Messages

Market Power and 'contract market' Liquidity are two separate matters and ought to be considered separately by the RAs.

CEPA has concluded that if the existing ring fencing provisions (both vertical and horizontal) were removed then there would be no resulting competition concerns. ESB's simulation results support this same conclusion.

Collectively, these findings provide the basis upon which a decision by the RAs to remove vertical separation can be made.

ESB is willing to retain its DC obligation provided the value of DCs in terms of facilitating competition in the markets is recognised by the RAs. However, ESB cannot accept the imposition of vertical separation on its business when such separation has no role in Market Power mitigation, is no longer required to encourage market entry, is financially damaging to ESB and limits the competitive potential of the retail markets for customers.

Analysis of ESBPG's NDC Premiums & Contract Market Power

The CEPA paper in section 5.7 draws the conclusion that suppliers of NDC contracts are able to achieve significant premiums above those DC prices determined by the RAs. ESBPG has reviewed those market events that occurred over the period as highlighted in Figure 5.10 of the CEPA report to clarify the reasonableness of the NDC prices.

CEPA's conclusions only relate to one round of the annual auctions in 2008/2009. DCs and NDCs are sold over different time periods and ESBPG's analysis identifies that between these auction periods there was significant movement in fuel commodity prices. In particular gas prices had increased by 18% over this period and this was the reason why significantly higher NDC prices were observed. When this upward fuel price distortion is removed, the premium that was achieved is between -5% and +5% on DC prices.

As such there are no grounds for any concerns that may have been suggested with respect to NDC premiums in the CEPA paper.

Furthermore, there are no barriers to any entity offering a contract for differences in the wholesale market. An entity offering a cfd does not require to hold a generation position in the SEM or in any other market. As such the opportunity continues to exist for all market participants or others, such as financial institutions, to offer contracts on a commercial basis. It is therefore unreasonable for any conclusion to be drawn, from the fact that other market participants choose not to offer contracts while ESB offers the majority of NDCs in the SEM, irrespective that its premiums have always been reasonable, that ESB therefore has market power in the contracts market.

Modelling of Interconnectors and Future Horizon Scenarios

As mentioned earlier in this response, ESB has concerns over the treatment of interconnectors in CEPA's simulations. CEPA's RSI modelling results are sensitive to the assumed GB power price and the assumed coal price. This sensitivity implies that CEPA has chosen to treat interconnectors as either importing or exporting depending on modelled price spreads between the two regions. Consequently, if the GB price is assumed to be "high", the interconnector will export power from the SEM to GB. The effect of this is to increase demand to be served by the SEM generation plant, i.e. demand to be served is equal to domestic demand, plus export flows over the Moyle and EWIC. It is under these conditions that CEPA identifies the most material potential concerns over ESB's pivotality. ESB suggests that such treatment of interconnectors is inappropriate, particularly in the context of a competition assessment, for the reasons set out below.

Most importantly, within the context of a market power assessment, the task at hand is to consider the set of assets that potentially competes with ESB. Given the set of competing assets, consideration needs to be given to whether the threat of competition is sufficient to restrain the conduct of ESB. It is and will continue to be the case that the interconnectors will always be available to act as a constraint on ESB's conduct, since if market power was being exercised the interconnectors could import power into the SEM and therefore act as a potential competitor. Given this, ESB suggests that any assessment of the market power of ESB needs to be undertaken using the more realistic assumption that the interconnectors acts as a potential competitor to ESB in hours where market power might be exercised.

Similarly, it is unreasonable to assume simultaneously that the interconnectors can be exporting and that ESB could be exercising market power. If ESB were to exercise market power, prices in the SEM would rise above levels justified by cost alone. As a consequence, it would be more logical to anticipate that power would flow into the SEM under those circumstances.

Should the role of interconnectors as outlined above not be considered realistic, then in considering the situation that would arise under the CEPA scenario where GB price is assumed to be "high", efficient power flows would be from SEM to BETTA, ESB suggests that since these 'exports' would be serving BETTA demand, that either they would be set aside for the purpose of market power assessment or if included, that the market definition would be extended on an All-Islands footprint over these time periods. ESB believes that it is inappropriate to consider physical power produced by ESB for export purposes when determining ESB's pivotality to meet SEM demand.

Furthermore, ESB considers that with gas fired generation plant anticipated to be the marginal generators in both SEM and BETTA for the foreseeable future, and with lower unit production costs in BETTA due to plant scale and lower gas transportation costs, that it is extremely difficult to envisage realistic scenarios where interconnector power flows will tend to be from the SEM to GB, other than at transient times. In addition, ESB considers that the cheaper short run marginal costs of GB nuclear, coal or combined cycle gas turbine plant need to be considered when assessing which power flow scenarios are likely to be more realistic. Even in times of cheaper coal, nuclear plant will have lower SRMC, both of which will combine to mean that proportionally less market demand in BETTA will be met by CCGTs. As a result those more efficient CCGTs in BETTA will set the marginal price across SEM and BETTA, further emphasising the price differential between the markets. It is ESB's informed opinion based on modelling that it has performed, that power flows over the EWIC will be predominantly into SEM i.e. a continuation of the trend in direction of flows evidenced to date over the Moyle Interconnector. ESB's simulations reach conclusions consistent with recent EirGrid studies on interconnector economic feasibility.

The results of the CEPA analysis demonstrate that assumptions related to the interconnector have a large material effect on the level of the RSI metric for ESB. This is unsurprising as the 'swing' could be as large 2 x 950MW = 1,900 MW depending on the pricing and load assumptions. For example in Table 3.4 the proportion of the year in which ESB exceeds the selected RSI threshold changes by upwards of 25 percentage points depending on the direction of presumed interconnector flows. ESB suggests that those scenarios where CEPA has modelled the interconnectors as exporting to GB are not relevant in the context of this Market Power & Liquidity assessment and, in particular, the results of those scenarios ought not to be used as a basis from which to draw conclusions.

There are at present clear and immediate risks to be addressed in good time in advance of commissioning of EWIC in 2012 which ESB believes are more pertinent in the regulatory decision than any consideration of the 2020 modelling horizon. The advent of the EWIC in particular in 2012 and the REM in 2014 are more relevant critical events in the evolution of SEM which will also introduce significant competitive pressures and impacts across the retail sectors. ESB requests a regulatory decision to be made now based on the challenges that will materialise by 2012, rather than on the longer term outlooks for the sector. Failure to take the necessary regulatory decisions now to enable ESB to prepare for the significant challenges that it is currently facing and which will increase, when all conclusions are that ESB neither has market power to any substantial effect or has the ability to leverage any such power, will be detrimental to ESB and consequently to customers in Republic of Ireland and Northern Ireland.

Key Messages

ESB is of the opinion that interconnection has not been modelled appropriately in the CEPA analysis.

Interconnectors will continue to act as a constraint on ESB's and all other participants' ability to exercise any market power in the SEM.

Prevailing cost and scale efficiencies will result in generation plant in GB setting the marginal price across BETTA and SEM. As a result, power flows will be predominantly into SEM over interconnectors, thereby further reducing ESB's market share and enabling further retail competition.

Liquidity Undertaking Benefits Market Competition

ESB has made a good faith commitment to the RAs and industry that it will, subsequent to removal of vertical separation requirements, provide a volume of contracts to 3rd party market participants on market terms.

This commitment has been made with recognition that at present ESB is the main provider of contract volumes in the SEM. ESB's Undertaking demonstrates its intention that removal of vertical separation will have a neutral impact on its competitors by facilitating their continued access to a significant volume of hedges offered by ESB's generation business.

Wholesale market liquidity, or any perceived shortage, is not a matter wholly for ESB to resolve. While ESB is committing to provide significant volume of hedges, the extent to which a liquid contract market can be established will depend on the level of interest by other market participants or other parties in offering contracts. In this regard, ESB agrees with the view of CEPA expressed in its paper when obligations to provide DCs are considered. CEPA paper notes that it is "***important to ensure that the requirements are place*****[d]** ***on market participants in a fair and proportional way, recognising not only the special responsibility incumbent on a market participant with market power in a market, but also that a liquid contract market is of interest to all market participants in the SEM***". As we have described above, given the present package of wholesale market arrangements and regulation, it is not reasonable to presume that any party in the SEM holds a position from which it could exercise any market power.

Many commentators have complained about the lack of liquidity in the SEM. However, it is worth noting that over this same period, the wholesale and retail market shares of these integrated Suppliers have increased considerably, indicating that the integrated nature of their business enables them to balance their risks effectively between their generation and supply business, without reliance on significant contract volumes. The very recent evidence of successful entry and expansion in both wholesale and retail markets does not suggest that prevailing levels of liquidity are insufficient to support benign market outcomes.

Evolution of Contract Market Liquidity

ESB believes that DCs play a key part in market power mitigation in the SEM. At a secondary level, their value in providing contract market liquidity is recognised by the RAs as becoming ever more important. DCs are priced by the RAs without any risk premium which would ordinarily be included in commercial negotiations of comparable instruments (e.g. the NDCs) by willing 'buyers' and 'sellers'. Viewed in this way, the DCs are underpriced to a degree that ignores their real value to the market – in market risk management terms. This undervaluation of DCs, in ESB's opinion has contributed to the slow pace of liquidity evolution in the SEM. ESB suggests that as a potential way of developing contract market liquidity in the medium term, that rather than determining a DC volume and a price that ignores the risk management value which DCs have now assumed in the market, that either the DC pricing mechanism incorporates this risk management value or DCs be replaced completely by NDCs under ESB's Liquidity Undertaking, whereby the value could be factored into reserve price.

ESB agrees with the RAs to the extent that the development of a mechanism to make the contracts market more liquid is the responsibility of the industry itself and not the RAs. It is therefore disappointing that ESB and at times PPB are the only parties that have tried to improve liquidity through provision of NDC volumes. In particular, not alone has ESB offered a significant proportion of its power to the market through the non-directed contracts process since SEM was established, but it has tailored the set of products that it has offered over time to better meet the needs of the market. Other market participants have not been active in offering contract volumes on the open market since SEM was established.

CEPA has commented on the risk that removal of vertical separation could result in the drying up of contract market liquidity. ESB has proactively developed its Liquidity Undertaking to address completely this concern, which will commit ESB to making a volume of contracts available to its competitors. No such binding commitment exists today and as such this undertaking is a significant benefit and improvement to the market. The available volume of contracts will be offered in a manner that aligns with market participant needs and that also supports new Supplier entry into the retail market. ESB has discussed with market participants the potential for a brokered service to be offered, for example by Tullet Prebon, to the market and is willing to make its hedge products available through this channel should this be seen as helpful. ESB has circulated a draft Master Agreement to other parties in the industry as a means towards advancing this service.

In previous discussions with the RAs, ESB understands the benefit and necessity for transparency of NDC prices. In this regard, ESB believes that a code of practice for the contracts market similar in concept to the BCOP, a "Wholesale Contracts Code of Practice" may be necessary for the SEM. While pricing responsibility remains with the seller, this code of practice would include agreed principles under which contracts are priced, in support of ESB's Liquidity Undertaking. In this way, the RAs will be able to assess the reasonableness of ESB's reserve prices.

ESB considers that since its Liquidity Undertaking will be transparent, easily monitored and enforceable, that it will add value to the operation of and competition within the wholesale and retail markets. The intent of ESB's undertaking is to provide significant volume of hedges to external market participants and new entrants and thereby support and enhance competition across both the wholesale and retail markets.

Both CEPA's and ESB's simulations have concluded that ESB will not have any market power in the SEM in a situation where vertical separation requirements are removed. In addition, the extent of competition and number of existing and applicant market participants are compelling reasons for the removal of separation obligations. In this regard, ESB's Liquidity

Undertaking will be a positive outcome for ESB's competitors in that it will provide a significant volume of contracts that will leave these market participants in a more certain position with respect to access to contract market liquidity than they are today.

Should the RAs have an overriding concern that contract liquidity levels are not evolving at the pace that they would desire, it is within the RAs control to mandate the provision of contracts by all SEM market participants. ESB would support such an approach provided that any such obligation is linked to a quantifiable metric on a per generator basis.

Key Messages

ESB has to date taken a leading role in providing contract volume and in improving the quality of products available in the SEM. Apart from PPB, other market participants have not made any contribution to contract market liquidity.

The perceived lack of liquidity in the SEM has not acted as a barrier to Supplier entry or to the significant expansion of other Suppliers' retail market shares. This suggests that external Suppliers already very effectively manage their market risks across their integrated generation and supply businesses.

ESB has given an undertaking to the RAs that it will continue to provide a volume of hedges to the market following removal of vertical separation requirements.

ESB suggests that replacing DCs with an obligation on ESB to provide a volume of contracts to the level indicated in its Liquidity Undertaking, when coupled with transparency of NDC pricing under a new Wholesale Contracts Code of Practice, will stimulate contract liquidity in the SEM.

Should the RAs consider that contract market liquidity is not evolving at an acceptable pace, then they have the power to impose a liquidity commitment on all generators as a means to increase this level.

Behavioural rather than Structural Changes can Further Promote Competition

ESB concurs with MMU, CER and external commentator views that competition in the SEM and in the retail market in Republic of Ireland is very effective. Furthermore, with the completion of the Enduring Solution in May 2012, any remaining system or process barriers to large scale customer switching in the residential and small business sectors in Northern Ireland will have been removed. This will enable a higher volume of switching transactions than can be accommodated today. Nevertheless, notwithstanding the facts that the wholesale and retail markets are obviously highly competitive, CEPA still suggests a number of structural changes that it believes will promote competition in the wholesale market.

CEPA's report concludes that horizontal separation of generation provides no benefit to competition and/or mitigation of market power, in the context of continued application of the BCOP, MMU oversight and DCs. Nonetheless, CEPA suggests the retention of separate corporate identities for elements of ESB's generation fleet. ESB sees little value in retaining separate corporate identity for recently constructed generation assets in the SEM, not least because enduring separate identity brings about additional administration and company law compliance costs, which are ultimately borne by customers. CEPA's consideration of the retention of this structural measure as a condition for removal of horizontal separation in generation is disproportionate under the continued application of the BCOP, MMU monitoring and DCs, and illogical in that it appears to address a potential concern that CEPA is confident does not actually exist.

CEPA has also considered in its paper potential structural remedies which would promote competition in the SEM while allowing removal of vertical separation. Again, CEPA's ideas here overlook the fact that the SEM is deriving market outcomes as intended and is very competitive. The number of generators seeking connection agreements under the Gate processes is further evidence of this level of competition, as is the recent successful entry of Suppliers into the retail markets and their rapid expansion. ESB has no plans at this time to construct conventional generation plant within the SEM and has committed to reducing its generation market share.

CEPA has suggested the creation of an independent generator holding low merit gas, coal and mid merit generation. Under such a hypothetical scenario, should this new entity remain part of the ESB Group, this would result in a scenario similar to today where ESB's generation business is horizontally separated. Such separation would not change outcomes in the wholesale market for the reasons already outlined previously, principally the existence of BCOP and the oversight of the MMU. In addition, such separation would not necessarily increase contract market liquidity as overall market concentration (using the HHI metric) would be lowered.

ESB considers that CEPA's structural proposals to increase competition in the SEM, while facilitating removal of vertical separation to be disproportionate, unnecessary and likely to be ineffective. Indeed, ownership of ESB's generation assets is a matter for its owner, the Irish Government and consideration of same in the CEPA paper is inappropriate.

ESB is of the view that there are no competition concerns in either the wholesale or retail markets that are not adequately addressed and that behavioural remedies under its Liquidity Undertaking will be as effective in developing liquidity.

The behavioural changes contained under ESB's Liquidity Undertaking would be in addition to ESB's commitment to reduce its generation market share over time and the maximum allowable retail market share caps as defined in the Roadmap to Deregulation for the Retail Electricity Market. These new behavioural changes which can be made binding on ESB could be supplemented by additional transparency enablers across the market that would ensure

equal access to key market and power system information and events for all market participants, thereby enhancing competition.

Key Messages

The wholesale and retail markets are highly competitive.

CEPA has hypothesised on structural remedies to promote further competition while allowing for removal of vertical separation requirements. These proposals address a potential concern of which CEPA is confident does not actually exist. As such these proposals are disproportionate and ESB suggests they be set aside.

ESB has proposed to the RAs a number of binding behavioural changes that will enhance wholesale market liquidity and competition, thereby removing the necessity for any new structural measures to coincide with removal of vertical separation requirements.

SUMMARY

ESB supports level playing field competition as the means to provide best value to customers. In relation to the matters discussed in this consultation, ESB is of the view that:

1. The SEM is a highly competitive wholesale electricity spot market which is operating as intended. This opinion is backed up by the MMU and additionally as evidenced by the number of generators that have already invested in SEM and those currently seeking connection agreements for new plant;

2. The application of the BCOP, with MMU oversight, together with the Directed Contracts regime completely mitigates market power across the wholesale market for all generators. Furthermore, the inherent design features of the SEM (Gate Closure timelines with single irrevocable day-ahead bid, centralised Market Scheduling by the TSOs and the Capacity Payment Mechanism) all further serve to remove any incentive on or ability of ESB or any other market participant to exercise any market power that it might be deemed to hold;

3. Competition across all sectors of the Retail Market in Republic of Ireland, as the recent successful entry of Suppliers and their rapid expansion demonstrates, is very active and will be sustainable in its current form, an opinion also supported by CER and international commentators;

4. Retail Market monitoring and the powers of the CER to re-regulate ESB should it believe that anti-competitive behaviour is emerging, will mitigate any market power in the retail markets, following full tariff deregulation;

5. Competition in the domestic sector in Northern Ireland will be substantially boosted when the Enduring Solution to support customer switching is completed in May 2012. The other sectors of the market are competitive;

6. Horizontal and vertical separation between ESB's various businesses is obsolete, disproportionate, counter-productive and ought to be removed. Absent the removal of separation requirements, ESB's supply business will continue to be comparatively disadvantaged in its ability to compete on price with other suppliers, thereby further undermining its viability and exacerbating its financial difficulties.

7. ESB will accept the continuation of a proportionate level of Directed Contracts as part of the market power mitigation measures of the SEM, but is unwilling to accept in addition to that, continued vertical separation of its business when such separation has no role in Market Power mitigation, is no longer required to encourage market entry, is financially damaging to ESB and limits the competitive potential of the retail markets for customers;

8. Business separation gives rise to unnecessary costs in the order of €25m to €35m on an annual basis for ESB. By comparison, these unnecessary costs are twice the supply margin for 2010 that ESBCS was allowed to include in its tariff revenues, albeit against which an operating loss of €32m for the year was incurred. This situation is not sustainable for ESB and a regulatory decision to remove the causal factors of these unnecessary costs is urgently required;

9. CER, following its intense research and consultation into retail market deregulation, has already decided on the removal of tariff regulation and will allow ESB full tariff freedom in Republic of Ireland from April 2011. Without removal of vertical separation, ESB cannot compete on an even basis with other Suppliers. Removal of

tariff controls by CER was made partly in expectation that ESB would and could compete on price. Absent removal of separation, ESB's ability to compete on price will be limited;

10. Given the effectiveness of the BCOP, oversight by the MMU and the Directed Contracts regime, there are no grounds for concern on market power. Accordingly, horizontal separation of generation is a redundant overlapping regulatory control that has no additional benefit. On the other hand this separation results in unnecessary costs which are borne by ESB;

11. The vertical competition concerns that are addressed by separation, namely the establishment of market conditions that encourage new entry have been addressed in full as evidenced by the number of new entrants and the evolution of their market shares. Vertical separation serves no purpose in market power mitigation and the net result of this regulatory prescription is to create unnecessary duplicative costs in ESB's supply business and to reduce the competitive potential of the Republic of Ireland retail market without any countervailing benefit for customers;

12. In addition to the additional costs for ESB resulting from vertical separation which limit ESB's ability to offer more competitively priced tariffs, it also hinders innovation in tariff design based on an integrated upstream and downstream pricing strategy. Removal of vertical separation requirements will as a consequence further stimulate competition to a new sustainable form: one based on real comparative advantage rather than one based on simple price discounts against an inflated price to beat. Such an outcome will significantly enhance competition and benefit customers;

13. Regrettably, ESB's competitors are leveraging the existence of these unnecessary costs (duplication, transaction and market risk management) which naturally materialise in ESB's tariff pricing structure to create substantial profit headroom to the detriment of competition and customers both North and South;

14. There is no longer any public policy rationale for the continuation of the existing business separation requirements, given the lack of any substantive competition concern either upstream or downstream;

15. Commissioning of the East West Interconnector by late 2012 will add a significant new dimension to competition within both the wholesale and retail electricity markets. In order to prepare for such competition, now is the time to advance significantly preparations to meet this more intense competition: if ESB is to have a fully functioning best practice Generation Trading and Supply (GTS) business model by 2012. It is not acceptable to adopt a 'wait-and-see' approach. In its stead, a precautionary approach is prudent and necessary. Any delay to such preparation will leave ESB at a significant competitive disadvantage, playing catch-up while not being able to compete on an even basis;

16. This is especially true as the Regional Electricity Market (REM), set to come into place by 2014, will further increase the competition challenges faced by ESB. A significant period of operations and experience operating under an integrated generation and supply business model will be necessary in advance of that;

17. ESB's Liquidity Undertaking offers real benefits for competition in both the SEM and the Retail Markets. This Undertaking, which will be transparent, easily monitored and enforceable will provide benefits to both existing Suppliers and potential new entrants in terms of its surety of access to contract volume and pricing transparency

under a "Wholesale Contracts Code of Practice" now suggested by ESB, both of which will further enhance competition;

18. ESB considers that all market participants have a role to play in developing wholesale market liquidity, but is nonetheless willing to take a leadership role in this for the benefit of the industry as a whole. Should levels of contract market liquidity not evolve at a pace desired by the RAs then they have the ability to mandate the provision of contracts on all generators;

19. A Regulatory decision on ESB's request for removal of horizontal and vertical separation needs to be made in the context of the status of competition in the wholesale and retail market today, coupled with recognition of the competitive challenges that will occur following EWIC commissioning;

20. Structural changes, which are exclusively a shareholder matter, are unnecessary to further promote market competition. Indeed the most significant remedies proposed by CEPA appear focused on the wholesale market, despite no potential concerns being expressed here. ESB agrees to its commitments on the provision of contract volumes in conjunction with removal of vertical separation requirements, being made binding and believes that competition can be effectively delivered and enhanced in this regard without the necessity for structural changes;

ESB is of the view that the time is now appropriate for the removal of all separation obligations across and between its generation and supply businesses. These essential changes will allow ESB to drive substantial duplication, transaction and market risk management costs from its business, enable it to operate a best practice integrated generation and supply business model, allow it offer innovative tariffs to customers and thereby compete on a more even basis with all other Suppliers. The market will not be harmed by this structural re-alignment given the regulatory measures already in place, the Liquidity Undertaking ESB has offered and the ever increasing competitive pressures being experienced today and which will increase following EWIC commissioning and REM establishment.

ESB is of the view that removal of vertical separation requirements will enhance competition with consequential benefits for all customers. ESB believes that this enhanced competition, arising from the stimulus of ESB led initiatives in the supply sector, will have a much needed positive impact in terms of overall competitiveness in Republic of Ireland and Northern Ireland in the short and longer terms, at a time when such stimulus is urgently needed.

ESB is willing to work through any concerns that the Regulatory Authorities may have, with respect to removal of separation requirements from ESB's licences, in order to ensure this can occur in a timely and market neutral manner.

In the same way that vertical separation requirements on ESB successfully contributed to the establishment of the environment that encouraged new entrants in the wholesale and retail markets, such separation requirements need now to be removed in order to enable ESB to both compete effectively in today's markets and to prepare itself to compete in the markets that will evolve post 2012 and 2014.

ESB is of the view that continuation of separation requirements is damaging to ESB, ESB's customers and will hinder the further development of competition across the wholesale and retail markets with consequential loss of benefits to all customers. ESB calls for removal of horizontal and vertical separation requirements as a matter of urgency.

ELECTRICTY SUPPLY BOARD

Fergal McNamara
GROUP REGULATION MANAGER
14th March 2011

ANSWERS TO SPECIFIC CONSULTATION QUESTIONS

Question 1: Do the objectives and criteria for the Market Power Mitigation Strategy remain appropriate today and for the foreseeable future?

The objectives of the market power mitigation strategy are to:

- Prevent market participants from abusing their market power;
- Maintain efficient incentives for new entry and exit; and
- Ensure no unfair treatment between new entrants and existing market participants;

The market power mitigation strategy was also intended to drive increased efficiencies within incumbents through exposure to competitive pressures.

ESB considers that these objectives are appropriate today and for the foreseeable future. These objectives in combination can support "level playing field" competition among all market participants, provided they coincide with removal of vertical separation requirements from ESB's licences and will also maintain opportunities for new entry into the wholesale market. ESB believes that equal treatment of market participants in terms of their ability to choose to operate as an integrated generation and supply business, or as separate businesses is essential in establishing this level playing field. Competition in the wholesale market will best act as a driver for efficiencies across all players, so as to develop comparative advantage which will drive a renewed and sustainable level of competition. As such all market participants need to have the ability to structure their business operations using best practice models.

The criteria that were chosen during SEM establishment, against which the market power mitigation strategy was designed, were that the measures implemented at that time:

- Should be effective, feasible, efficient and transparent:
- Should maintain a market participant's profit incentive and enable strategies that deliver benefits to consumers through competition;
- Should be capable of being removed if conditions warrant this; and
- Should reflect the method of PES regulation.

The package of market power mitigation measures that exist in the SEM today includes BCOP, MMU, DCs, EPO and business separation, in addition to the inherent design features of the pool.

Effectiveness, Feasibility, Efficiency and Transparency

ESB believes that the BCOP and MMU monitoring, together with the Directed Contracts regime are effective mitigation measures for wholesale market power, when considered in addition to the inherent design features of the SEM. The BCOP requires all generators to bid their plant into the SEM on a per unit basis at that unit's SRMC. Any changes to SRMC are wholly transparent to the market and are capable of being closely monitored by the MMU and by other Market Participants (who can notify MMU of any concerns of their own regarding their competitors' bidding behaviour). Directed Contracts on top of these mechanisms remove, in financial terms, the incentive for any market power than somehow might exist from being exercised. The MMU has indicated in its market report that the SEM

is efficient to the extent that it has been producing wholesale market prices at levels anticipated. The BCOP essentially ring-fences each generation unit in the market from a price-setting perspective, in that only the short run marginal costs of that unit can be included in its bid price. Under the terms of the BCOP, it is not possible for any generator to leverage any portfolio effects into its market bids. Similarly, any attempt by a market participant to withhold capacity in the SEM would be easily identified by the MMU and the financial implication of any withdrawal of capacity would materialise under the associated Directed Contracts. As such the BCOP, oversight by the MMU and the Directed Contracts meet the criteria as set by the RA.

The CER in its Roadmap to Deregulation for the Retail Electricity Market (CER/10/058) has stated that the Economic Procurement Obligation will be removed in tandem with full tariff deregulation.

Horizontal separation in the context of continued application of the BCOP, MMU oversight and DCs has no additional benefit in terms of market power mitigation and serves to impose additional costs arising from duplication of systems, processes and human resources across the business, with such costs being borne by ESB.

ESB considers that DCs are a key market power mitigation control in conjunction with the application of the BCOP and MMU monitoring. DCs were primarily intended as a market power mitigation tool that would remove the incentive for generators to withhold capacity through the financial obligations associated with the sale of the underpinning wholesale power volumes. DCs have now a secondary benefit for the market in terms of contract market liquidity. ESB is willing to accept the necessity for a proportionate volume of DCs in their primary and now secondary functions, provided the value of DCs in terms of market risk management is recognised by the RAs. However, **ESB can no longer accept in addition to DCs, the continuation of separation between its generation and supply businesses when such separation has no role in Market Power mitigation, is no longer required to encourage market entry, is financially damaging to ESB and limits the competitive potential of the retail markets for customers.**

Maintaining a Profit Incentive for Market Participants and a Driver of benefits for Consumers

As highlighted in the previous section, vertical separation has additional disadvantages on top of the same duplicative inefficiencies arising from horizontal integration.

- Vertical separation inhibits ESB from employing best practice for market risk management. Managing overall market risks in the generation and supply business on an integrated basis, is recognised internationally as being more effective and economical than doing so in a separated manner;

- Vertical separation removes the ability for ESB to share any benefits arising from optimising its market risk management across its generation and supply businesses with customers; and

- Furthermore, vertical separation significantly reduces ESB's product innovation capability as well as increasing customer costs arising from unnecessary duplication.

While business separation requirements had a key role to play at the early stages of market competition, it is now abundantly clear that their continued existence no longer satisfies the "driver of competitive benefits for consumers" criteria. In the context of competitive markets

where other more effective market power mitigation measures will continue, removal of vertical separation requirements is a clear necessity.

In addition, ESB has projected that continued separation of its generation and supply businesses will see the supply business continue to make substantial commercial losses over the next 3 years. A significant contributor to these losses will be the hindrances arising from vertical separation which will mean that ESB will be unable to compete on the same basis as all other Suppliers in the market.

The existence of vertical separation, the administered costs of same and the removal of real product innovation capability puts ESB's supply business at a comparable disadvantage to other Suppliers. Should these unnecessary and no longer justified measures continue, ESB's supply business will continue to lose significant numbers of customers to its competitors without any comparative capability to stem such losses. Continuing customer losses will increase ESB's cost to serve on a per customer basis which will exacerbate the issue. ESB is gravely concerned regarding the viability of its supply business in the context of continued vertical separation.

ESB has calculated that vertical separation gives rise to costs in the range of €25m to €35m on an annual basis together with increased risk capital requirement of €20m at any particular time. When considered in the context of the level of margin (€15m) that the RAs had allowed for inclusion in ESBCS' revenue requirements for 2010, these unnecessary costs are extremely significant and account for 2.5% to 3.5% of end user tariff costs. Furthermore, the scale and relevance of these unnecessary costs when compared with the operational losses of €32m incurred by ESBCS during 2010 makes the necessity for removal of vertical separation requirements from ESB all the more pressing.

The proportionality test as followed by the Competition Authority serves as a useful mechanism to ensure that the impact of regulation on the market is commensurate with a policy objective. The Competition Authority considers that a regulation which affects pricing mechanisms in a way that reduces the incentive to compete is disproportionate. Since retention of the business separation requirement between ESB's generation and supply businesses will continue to make ESBCS non-competitive in terms of pricing in the competitive retail electricity market, for example since it will be required to compete for all its wholesale power contracts in market auctions unlike its competitors who can self-contract more cheaply with their own generation, it is therefore surely the case that this regulation is no longer proportionate and ought to be removed.

Market Power Mitigation measures should be capable of being removed

ESB's is of the same view as CEPA that the BCOP together with MMU monitoring and the Directed Contracts regime are the essential market power mitigation measures for SEM and ESB recognises the need for their continued application and enforcement. The inherent design features of the SEM also play a key role in market power mitigation.

ESB by contrast believes that vertical separation between its generation and supply businesses:

1. No longer has a role in Market Power mitigation;
2. Is no longer required to encourage market entry;
3. Is financially damaging to ESB;
4. Limits the competitive potential of the retail markets for customers; and
5. Is fundamentally bad for all consumers;

Therefore, even though ESB anticipates that its rivals in the SEM will resist moves by the RAs to remove vertical separation requirements from ESB's licences, ESB believes that in the

context of continued application of the BCOP by the MMU and continued DCs that these vertical separation requirements should and must be removed forthwith.

This resistance by ESB's competitors is to be expected, as reintegration will allow ESB to put in place more efficient business processes and structures that will reduce its overheads and allow it to offer more competitive tariffs to customers. Consequently, some of the "headroom" currently provided to other Suppliers will be removed. ESB would argue that since this headroom only arises as a consequence of inefficient operation imposed by regulatory decree, a time will inevitably come when competition needs to move onto a more sustainable basis. To maintain the existing separation arrangements beyond their necessary life will simply have the effect of denying customers the full benefits of competition.

Reflective of PES Regulation

The CER in its decision on the Roadmap to Deregulation for the Retail Electricity Market had defined specific criteria, the achievement of which would allow full tariff deregulation for ESB. In its decision paper on Domestic Market Deregulation (CER/11/041) the CER determined that all of the criteria had been met for deregulation of the domestic market from 4th April 2011.

Concurrent removal of the EPO with full tariff freedom will still not enable ESB to compete on an even basis with all other Suppliers. To do so, the vertical separation requirements between ESB's generation and supply businesses need to be removed. This existing separation removes the ability for ESB to optimise its market risk position, removes the ability to develop innovative tariff products and gives rise to unnecessary costs within and between both businesses, many of which by necessity are passed through to and borne by ESB's customers. This by consequence has a knock on effect across all customers both north and south, as under the existing price-to-beat model in the market, these unnecessary costs are providing additional comparative tariff "headroom" for all other suppliers when compared against the unnecessarily high ESBCS tariffs.

With the removal of tariff regulation and reflecting the RAs objective to protect the interests of customers, vertical separation must be removed.

Ensuring no Unfair Treatment

For these reasons outlined above and earlier in this response, ESB believes that continued vertical separation of ESB's generation and supply businesses is no longer necessary. Furthermore, since this regulatory control affects ESB's pricing mechanisms in a way that reduces the competitiveness of this pricing, it is therefore disproportionate and must be removed.

When one considers that the business separation requirement between ESB's generation and supply businesses is driving such a high level of unnecessary costs and removing such opportunities for efficiencies which is directly making ESB Customer Supply ("ESBCS") non-competitive in terms of pricing in the competitive retail electricity market, the only conclusion can be that this regulation is no longer proportionate and should and must be removed.

ESB considers that any further continuation of vertical separation where such separation has no longer any effective market power mitigation role in the context of continued application of the BCOP by the MMU and DCs to be unfair on ESB and by consequence of the associated financial costs of same as reflected in ESB's end user tariffs, unfair on customers.

In conjunction with removal of vertical separation, ESB has proposed to provide a volume of hedges in the contracts' market that it believes is reasonable and will support ESB's competitors in their market risk management activities. Increasing the commitment above the volume proposed would not be commercially prudent for ESB and any regulatory requirement to do so would similarly be unfair.

Question 2: Will the new interconnector facilitate more competition from Great Britain? If so, what will be the impact on the appropriate market power mitigation strategy?

The new interconnector will increase physical flows to and from the BETTA market, with exports from the SEM most likely to occur in those periods when surplus intermittent generation exists in the SEM. Based on prevailing cost structures alone, ESB would expect power flows on the interconnectors to predominantly flow from BETTA to the SEM in most trading periods.

ESB considers that with gas fired generation plant anticipated to be the marginal generators in both SEM and BETTA for the foreseeable future, and with lower unit production costs in BETTA due to plant scale and lower gas transportation costs, that it is extremely difficult to envisage realistic scenarios where interconnector power flows will tend to be from the SEM to GB, other than at transient times. In addition, ESB considers that the cheaper short run marginal costs of GB nuclear, coal or combined cycle gas turbine plant ought to be considered when assessing which power flow scenarios are likely to be more realistic. Even in times of cheaper coal, nuclear plant will have lower SRMC, both of which will combine to mean that proportionally less market demand in BETTA will be met by CCGTs. As a result those more efficient CCGTs in BETTA will set the marginal price across SEM and BETTA, further emphasising the price differential between the markets.

ESB has modelled the impact of the EWIC on overall power flows between GB and SEM. ESB has compared BETTA pricing, GB wheeling costs and losses against those in SEM within its simulations. The results of these simulations show that efficient power flows over the EWIC will predominantly be from a GB to SEM direction. Harmonisation of trading arrangements for the Moyle Interconnector in line with EWIC arrangements would further increase power flows into SEM. ESB is of the view that a continuation of the trend in direction of flows experienced to date over the Moyle Interconnector will continue post commissioning of the EWIC.

It is expected that the forthcoming rules for trading over the EWIC will lead to a situation where at times there will be a potential 950 MW additional 'generation' available within SEM. It is reasonable to expect that the advent of the EWIC and the revised trading rules for both interconnectors will see existing generation plant, which is currently within merit in SEM, displaced by imports. This will lead to a further reduction in ESB's generation market share within the wholesale market.

ESB believes that commissioning of the EWIC and the development of effective interconnector trading rules will also enable further market competition. This view has previously been supported by EirGrid and the ESRI as referenced by the RAs in their consultation on SEM Regional Integration (SEM-09-096). ESB believes that opportunities will exist for the "Big 6" Suppliers in Great Britain to further develop retail market share positions based on power transmitted across the interconnectors into SEM. These Suppliers will be able to optimise their market risk positions across both the SEM and BETTA markets and will leverage overall scale in both generation and supply to provide competitive advantage over existing Suppliers in Republic of Ireland and Northern Ireland. One of these "Big 6" Suppliers is SSE which has already developed a significant presence in the supply sector in both jurisdictions.

ESB has concerns with the modelling performed by CEPA in relation to its treatment of interconnectors. CEPA RSI modelling results are sensitive to the assumed GB power price and the assumed coal price. This sensitivity implies that CEPA has chosen to treat interconnectors as either importing or exporting depending on modelled price spreads between the two regions. Consequently, if the GB price is presumed to be "high", the interconnector will export power from the SEM to GB. The effect of this is to increase

demand to be served by the SEM generation plant, i.e. demand to be served is equal to domestic demand, plus export flows over the Moyle and EWIC. It is under these conditions that CEPA identifies the most material potential concerns over ESB's pivotality. ESB is of the view that since these 'exports' would be serving BETTA demand that either they be set aside for the purpose of market power and impact on competition assessment or if included, that the market definition be extended on an All-Islands footprint over these time periods. ESB suggests that such treatment of interconnectors in CEPA modelling is most unlikely and inappropriate, particularly if considered in the context of market power assessment, for the reasons set out below. ESB's own modelling suggests that the commissioning of the EWIC will lead to a reduction in ESB's market share in the SEM, which can be extrapolated to suggest further market share pressure in the retail markets.

It is surely the case that the interconnectors will always be available to act as a constraint on ESB's conduct, since if market power was capable of being exercised – thereby increasing SEM wholesale prices - the interconnectors would import power into the SEM (from BETTA where prices will be lower) and therefore act as a potential competitor. Given this, ESB suggests that any assessment of the market power of ESB ought to be undertaken using an assumption that the interconnectors will act as a competitor to ESB in hours where market power might be exercised, thereby introducing further competitive pressures.

Similarly, it is unreasonable to assume simultaneously that the interconnectors can be exporting and that ESB could be exercising market power. If ESB were to exercise market power, prices in the SEM would rise above levels justified by cost alone. As a consequence, it would be more logical to anticipate that power would flow into the SEM under those circumstances.

Interconnector power has to be traded through the gross mandatory pool the same as all other SEM generators. An importing interconnector has all the characteristics and SEM status as any other generator with respect to the SEM pool. This CEPA paper doesn't appear to take account of this fact in its analysis of market share. In its RSI analysis, CEPA ought to have included the full import capacity of the interconnectors. ESB believes (as apparent from CEPA modelling results) the effect of the chosen treatment of interconnectors on results to be substantial. For example in Table 3.4, the proportion of the year in which ESB breaches the selected RSI threshold changes by upwards of 25 percentage points depending on the direction of presumed interconnector flow. The impact of this assumption on results is to be expected, as switching from import to export creates a 2 x 950MW = 1,900 MW swing in the demand-supply balance (equivalent to approximately 25% of expected peak demand in 2015). ESB suggests that scenarios where CEPA has modelled the interconnectors as exporting to GB ought not be considered relevant in the context of this Market Power & Liquidity assessment and, in particular, the results of those scenarios not be used as a basis from which to draw conclusions.

The introduction, by end 2012, of market rules for access to and sale of interconnector capacity in the Intra-Day trading arrangements, leading to more closely aligned BETTA and SEM for cross border trading purposes, will enable the full benefits of interconnection to be realised. ESB believes that subsequent to this, EWIC and Moyle will act as constraints on the behaviour of all SEM market participants, including ESB, in exercising any market power, and will further boost wholesale and retail market competition.

In addition, interconnectors diversify the sources of power available to participants in the SEM and as such will reduce the requirements for directed contracts. It is likely that this increased ability to export from\import to the SEM will support further development of liquidity in both shorter and longer term hedge contracts within the SEM.

In summary:

- Interconnector power flows will be predominantly into SEM from GB, thereby reducing ESB's market share and facilitating increased competition in the SEM and retail markets;
- EWIC commissioning will facilitate further entry by the "Big 6" Suppliers in GB into the retail markets on the island of Ireland;
- Interconnectors will always act as a constraint on ESB's market behaviour;
- The inaccuracies that ESB believes exist in CEPA's modelling of the interconnectors overstate ESB's market power metrics;
- As a result of these overstated metrics, the concerns expressed by CEPA regarding removal of vertical separation are significantly lessened;
- The advent of the EWIC will further support development of liquidity in the SEM; and
- Since interconnection will have significant positive competitive benefits and will always act as a constraint on the exercise by ESB of any market power that may exist, the advent of EWIC further strengthens the rationale for and diminishes the concerns that the RAs may have concerning the removal of vertical separation requirements between ESB's businesses.

Question 3: It would be helpful if market participants could explain why they believe demand for hedging products in the SEM exists, and how this demand is not addressed by alternative hedging options, such as through fuel markets.

ESB concurs with the consultation paper view that the demand for hedges in the SEM is primarily driven by the needs of Suppliers.

A standalone generator within the SEM receives a capacity payment by making its capacity available to the market, plus an additional energy payment (SMP), if that capacity is scheduled by the market. Given the SEM trading and settlement code design, in particular the effectiveness of the BCOP and Capacity Payment Mechanism in reducing the volatility of the pool, the SMP will at the very least cover the variable costs of generation, thereby mitigating a large degree of the price risk faced by a generator. Therefore, within the SEM, standalone generators do not require hedges to protect against price risk to the same extent as suppliers, however generators may nevertheless opt to undertake hedges to 'lock-in' tranches of gross margin and remove pool volatility risk (although this is only sensible if these generators lock out their fuel at the same time).

A standalone Supplier within the SEM offers fixed price products to customers which are physically sourced from the pool. As the pool price is subject to high levels of volatility, a Supplier takes on large levels of price risk by offering fixed price products to its customers. In particular, a Supplier is directly exposed to subsequent increases in the pool price above 'expected' levels.

In addition, Suppliers are faced with significant volumetric risk through subsequent changes in customer numbers and demand from retail market competition. Volumetric risk creates additional price risk, as Suppliers can find themselves out of balance financially, i.e.

- Over-hedged through falling customer levels; exposed to downward movements in underlying market price; and

- Under-hedged through increasing customer levels; exposed to upward movements in underlying market price;

Given consumer preferences are for longer term offerings, and the significant level of competition for customers in the supply market, standalone Suppliers within the SEM remain exposed to substantial price risk. It is ESB's view that variable volume exposures, such as those outlined above are best managed through an integrated generation and supply business model.

It is ESB's view that hedging a Supplier's price risks through fuels or through shorter term products, as outlined within the consultation paper, represent ineffective hedging strategies, which will ultimately represent an additional cost to end users. Over short periods of time, the correlation between SMP and fuel (primarily gas) prices can be low and therefore such a hedging approach on its own would not be a viable strategy. Suppliers look to protect against or subsequently recover financial losses through the addition of risk premiums to their tariffs.

Specifically, the consultation paper refers to fuel hedges as an alternative. ESB notes that for the fuel hedge proposed, the consultation finding was there was virtually no correlation between the hedge and the underlying exposure. This finding is consistent with previous analysis performed by ESB between fuel indices and SMP. While such a hedging strategy may have delivered a net positive payoff for the data set chosen, in the absence of any discernable correlation, the strategy could be considered less of a hedge and more of a speculative position leaving the Supplier with significant financial exposure.

It is suggested that the lack of a strong correlation between these indices can be explained by the uplift component of the SMP, which introduces a strong non fuel component to the price. It is also suggested that factors such as the generation fleet make-up and unpredictability of wind generation has, and will in the future, support high levels of uplift.

Question 4: In what way could DCs be reformed in order to promote contract liquidity while also mitigating market power?

At a fundamental level, DCs were designed in a manner to mitigate market power, for whose purpose they have been and continue to be hugely effective.

The ability of DC's, to provide contract market liquidity, has always been ancillary to their original intention to mitigate market power however, recognising the structural issues that exist in the SEM regarding contract market liquidity, DCs have now assumed a critical value in that respect also. ESB believes that if promoting contract market liquidity is the sole objective, then DC's will only contribute to a limited degree.

The objective of creating a financial marketplace to provide liquidity to Suppliers requires the involvement of the entire market and all generators. ESB has committed in its Liquidity Undertaking to be part of the solution, consistent with ESB's market position. ESB agrees with CEPA's view that "*it will not be reasonable to require ESB to support the market with contract offerings that are out of proportion to its market position*".

The requirements of the contract market are dependent on limitations that exist to procure alternate supply. If ESB is limited in its ability to operate on an integrated generation and supply business basis, a stand-alone ESBCS would require the ability to:

- Contract in the market in a manner that does not indicate its commercial hedging strategy or outcomes to competitors;
- Contract 12-36 months forward;
- Access greater volume in each of peak, mid merit and non-peak power products;
- Sell back volumes if required to match customer movements; and
- Solicit fixed price supply based on potentially unique requirements, as opposed to responding to generator-led offerings.

Further, the risk implied in generators providing the level of contracts and liquidity required would necessitate a risk premium to be recovered by the seller. **Even with a highly liquid contracts market, ESBCS would be at a competitive disadvantage given that it would be the only supply company without a generation position, and thereby absorbing a level of generator risk premia not borne by competitors. In the context of very low margins of 1-2% or lower, this would still render the financial position of ESBCS unsustainable.**

ESB's competitors can blend DC, NDC and other products together with their internal risk optimisation outcomes in order to provide them with the necessary shape to manage their risks. A standalone ESB supply company would be disadvantaged by only having access to those products that are common across the market.

If the goal of any future reform of DCs is to create a more liquid market, then all market participants ought to be required to offer hedges in a transparent manner so as to generate a forward curve. Concerns over commercial information could be alleviated by the masking of counterparty information for all resulting transactions. Volume and pricing information would suffice for the generation of a forward curve.

Do you see merits in replacing the HHI with the RSI in determining DC volumes?

CEPA argues that the RSI is a better measure then the HHI for setting the quantity of DCs for three reasons:

- The RSI is better suited to electricity markets than the HHI, because HHI can be incapable of detecting market power as it focuses on market shares and not the indispensability of a generator to meeting load;

- The RSI measure can be calculated for any time period, not just peak times – although peak periods alone are the only times of scarcity. An RSI for baseload, shoulder and peak times is possible and more applicable and informative than HHI measures over similar periods, due to the electricity market specificity of the measure and the characteristics of electricity markets;

- The RSI can be calculated for several players in the market which means that it is not limited to just assessing the potential market power of the biggest player;

ESB agrees with CEPA that the RSI is more appropriate as a measure to determine the existence or otherwise of market power in the SEM.

The SEM price is determined with recognition of the marginal generator scheduled to meet system demand. Since RSI aims to determine which generator is pivotal/marginal in meeting demand in any period, and hence which generator might be able to utilise market power at that period, there appears to be a logical consistency in RSI being applied in the SEM.

CEPA analysis has considered the application of an RSI threshold of 1.2 with a tolerance of 5% on the number of half-hours when the calculated metric is outside (below) this threshold as being acceptable. For the most realistic price and load scenarios in CEPA's analysis, an ESB where vertical separation requirements have been removed meets the required standard to demonstrate that ESB hasn't market power. While there is no consensus view in electricity markets as to which threshold ought to be used, any decision needs to consider local wholesale market conditions. As such for the SEM, ESB believes that with recognition of the contribution of the BCOP, MMU and overall market design in removing the incentive and ability of any market participant to exercise market power in the first instance, an RSI threshold of 1.1 is appropriate for determining the volume of DCs to complement these previously mentioned measures. In the CEPA analysis, the number of half-hours where the calculated metric exceeds the 1.1 threshold is only 1%. As a consequence of the calculated market power metrics, ESB is of the view that the imposition of Directed Contract is not in fact justified. However, reflecting the structural issues with contract market liquidity in the SEM overall, and recognising that none of its competitors have made any substantial efforts previously to develop such liquidity, ESB is willing to take a leadership role in the SEM in this regard and accept a proportionate level of DCs, provided other regulatory conditions are not imposed.

As such, with recognition that market power is not an issue in the SEM in the context of continued application of the BCOP, MMU oversight and the continuation of DCs, the question regarding the merits of HHI or RSI in determining those DC volumes may be irrelevant. Irrespective of whether the RAs chose to use RSI or HHI, any resulting DC volume determined for ESB needs to be fair and proportionate. In the context of an integrated generation and supply business, the increased DC obligation that has been imposed to date upon ESBPG to offset risk of market collusion between it and ESBIG in today's horizontally separated regime, will no longer be required and needs to be reflected in the mandated DC volume.

Furthermore, it is ESB's view that DCs are priced at a level that ignores their real value in the market – that of a market risk mitigation product. This undervaluation of DC, in ESB's

opinion has contributed to the evolution of liquidity being hindered in the SEM. ESB suggests that rather than determining a DC volume and a price that ignores the risk management value that DCs have now assumed in the market, that either the DC pricing mechanism incorporates this risk management value or the DC volume is replaced by an NDC volume under ESB's Liquidity Undertaking which is no lower than the DC volume that would otherwise have been determined.

By removing the obligation on ESB for provision of DCs, a market need can be generated for the provision of risk mitigation products whose premium reflects the actual risk management value that they will be designed to provide. This market need will attract offerings from additional parties beyond ESB and PPB and will allow for the evolution of the hedge products and volumes through normal market dynamics.

In summary:

- The calculated market metrics indicate that the imposition of Directed Contracts on ESB is no longer appropriate or necessary;
- ESB is willing to accept a proportionate volume of DCs provided business separation requirements, which in any case are no longer required for market power mitigation or market entry purposes, are not imposed;
- Directed Contract pricing must reflect the value that DCs provide in market risk management; and
- Contract market liquidity can be enhanced over time by establishing a new contract pricing principle which allows for the inclusion of the risk management value of hedges within either the DC or NDC prices;

Question 5: Does the recent removal of the EPO condition from ESBCS for business customers and the earlier EPO removal from NIEES for customers with an annual demand above 150 MWh, together with the removal of ring-fencing between ESBCS and ESBIE, negatively impact on the SEM spot or contract markets? If you consider that it does, are there any replacement conditions required in the SEM and what should they be?

The CER, in its decision paper on the Roadmap to Deregulation for the Retail Electricity Market (CER/10/058), argues that '*The EPO is a supplementary remedy to the price control to ensure ESB PES purchases its energy in a prudent, economic fashion*'. The need for an EPO was originally driven by the lack of competitive pressure in terms of commercial decision making on ESBCS as PES. The effective competition that exists in the market today, and the commercial pressures it brings, renders the EPO unnecessary. Competition, in association with removal of vertical separation, will drive ESB CS to behave prudently, in the spirit of the EPO, without the associated regulatory and administrative burden.

The SEM Committee has determined that the EPO can cease to apply with the removal of retail price controls. ESB is in agreement with this decision. In a fully de-regulated marketplace where level playing field competition is setting the price, the EPO will have no role. It is entirely a commercial decision when and how much to hedge and at what price. If a supply company hedges on an uneconomic basis, then it will be unable to pass these costs on to customers who otherwise could easily move to other Suppliers. This applies to wholesale purchases on the spot and contract market, since a mix of both will ultimately define the retail market price of electricity.

ESB believes that the removal of the EPO can have a positive impact on the development of the contracts market. In practice, implementation of the EPO to date has forced ESBCS to buy a high level of hedges in a mechanistic fashion. This has prevented Suppliers from influencing the development of a contracts market through creation of products that more naturally fit the market's quantity, duration, shape and direction (sell as well as buy) requirements. To date the contracts market has been driven by Suppliers with complete knowledge of the buying requirement of the PES due to the EPO.

The removal of separation between ESBCS and ESBIE will have a very marginal impact on the contracts market. ESBIE has historically managed its market exposure using an integrated generation and supply business model where its risks are optimised with ESB Independent Generation. The ESBCS requirement for hedging products for its customer demand is largely unchanged. The primary benefits flowing from the removal of this separation, i.e. a consistent customer offering from ESB's supply companies and elimination of duplication, have no impact on contract market liquidity. As such no replacement conditions are necessary.

Question 6: Do you consider that the planned forthcoming removal of the EPO for domestic customers in Ireland will have an adverse effect on competition and liquidity in the SEM spot or contracts market? If so, what replacement would you recommend for the SEM? Would the removal of the EPO from NIEES for customers below 150 MWh per annum in NI have a similar impact – and if so, what replacement would you recommend?

In general, the same arguments made for the non-domestic sector of the market are also applicable to the domestic sector.

There is no evidence that the removal of the EPO in the business market has resulted in inefficient costs flowing to customers. The same competitive tension in the domestic market can be made to exist in order to obviate the requirement of an EPO.

A key point for the RA to consider relates to how this competitive tension can be sustained in the domestic sector. While ESB supports the view expressed by Vaasaett in relation to retail markets once active, remaining so, a continuation of the current retail pricing approach where the price-to-beat is known to contain unnecessary costs, will not result in all the benefits of competition being passed to customers, with some benefits instead being retained unnecessarily as profit margin by Suppliers.

In a context of continued vertical separation between ESB generation and supply, inefficient duplication and market risk management costs will be incurred by ESB's supply business which will be greater than its margin. ESB will require to pass such costs to customers. This situation will not be in the best interests of ESB customers or customers overall and will not add any new dynamic to competition in the market. Continuation of the current regulatory arrangements will significantly undermine the viability of ESB's supply business and appropriate changes are urgently required.

ESB believes that there will be no negative effect arising from the removal of the EPO obligation on ESB. As such there will be no requirement to replace it with any other measure.

ESB believes that NIEES will face exactly the same competitive pressures in Northern Ireland subsequent to completion of the Enduring Solution in May 2012. Competitive pressures will make the EPO redundant for NIEES. However, NIEES' viability as a stand-alone Supplier will be at risk as it will have substantial comparative disadvantage as against any integrated generation and supply utility companies that operate in that market. ESB is of the opinion that all Suppliers, including NIEES ought to be permitted to compete on an even basis in the Northern Ireland retail electricity market following full-tariff deregulation of NIEES.

Question 7: What if any, implications for competition / end customer do you see arising from ESB's proposed reintegration:

- **Horizontally,**
- **Vertically,**
- **Horizontally & Vertically**

What, if any, new measures would you recommend be put in place for each of the above forms of integration?

Removal of Horizontal Separation

Removal of horizontal separation across ESB generation business will drive cost reductions in the order of €10m or more on an annual basis for ESB. At present, these costs relate to duplication of systems, processes and human resources. However, continued vertical separation will remove the possibility of these cost savings being shared with customers.

ESB supports the assertion of CEPA in its report, that horizontal separation of ESB in the context where the BCOP and MMU monitoring remain in place has little value in promoting competition, while directly increasing ESB costs. The BCOP in essence, ring-fences each generation unit in the market, in terms of price setting ability. Removal of horizontal separation will not in any way change this situation – each generation unit will still be required to only bid its same short run marginal costs into the SEM. In addition, under the BCOP, it is not possible for any generator to leverage any portfolio effects into its market bids. As a result, subsequent to removal of horizontal separation, the market operator will still continue to calculate SMP based on the same bid prices as would otherwise have been submitted. The MMU will continue to observe any attempt to mark-up bids above SRMC and similarly any capacity withholding attempts, thereby continuing to render either strategy infeasible.

Removal of horizontal separation requirements without complementary removal of vertical separation will not have any positive impact for customers.

Removal of Vertical Separation

Vertical separation between the generation and supply businesses has also resulted in duplication of processes, systems and human resources across ESB. ESB estimates that the cost of duplication is in the order of €10m - €15m per annum, or the equivalent of 1% to 1.5% of end user prices.

In addition, this separation has restricted ESB from adopting those best practice market risk management strategies and behaviours that are followed by other SEM participants. Vertical separation disallows ESB the ability to minimise its combined risk exposure across the upstream and downstream sectors and removes from ESB the ability to share the resulting benefits with customers. ESB's advice is that its annual risk capital – to mitigate market risks – is unnecessarily high €20m across its businesses at any particular time, with associated cost implications for the business.

Removal of vertical separation will enable ESB's supply business to manage its market risks in an optimal manner. It is expected that over time this will reduce the total market risk management costs for ESB, which will further reduce ESB's total supply costs. As an example, it has been calculated that ESBCS has paid €56m above the reserve price to acquire power, over the past three years. Again when this premium is translated into end user prices, this equates to an unnecessary cost of 1.5% to 2% per annum on consumers.

Removal of vertical separation requirements will also reduce the likelihood of additional, yet prudent, risk management costs being passed to customers. Inability to compete on an even basis and the continued cost implications of this to ESB will see continued reduction of ESB's customer base. In order to manage its demand reduction risks effectively in the market, ESB has assessed the cost of appropriate hedge contracts at €3.4/MWh. Were ESB to hedge for example 30% of its customer demand in this manner, the cost when spread over all its domestic customers would be the equivalent of a 1% increase in prices. This cost to ESB in turn would provide further headroom for other suppliers to inflate their tariffs in line with any necessary ESB increases. Such an outcome would not be in the best interests of customers across the market.

ESB believes that customers' interests will be best served by removal of all cost inefficiencies brought about by vertical separation across ESB. ESB believes that such measures will put downward pressure on tariffs, meaning all Suppliers will need to be more competitive on prices, which is both in the interests of all customers and overall competitiveness. ESB believes that increased competitive pressures across the market led by ESB will support a new level of sustainable competition for all customers in the retail market.

Removal of vertical separation will allow for product (tariff) innovation which is not possible for ESB under the current arrangements. Enabling ESB's generation and supply businesses to work together will facilitate ESB in devising an integrated risk management and associated pricing strategy across it whole value chain. Such tariff innovation could include the development of products that most closely match the actual generation portfolio (for example gas tracker products when gas is the predominant generation fuel), and by actively managing the exposure to these products by 'locking out' the risk when customers actually sign up for these tariffs. This can be done for example by buying forward gas and assigning generation capacity in proportion to the number of customers opting for these tariff options, or rolling back such contracts where customer numbers do not materialise.

Opportunities also exist to lock out fuel or carbon price implications as customers sign up for related tariffs without the need to incorporate risk premiums. Enabling ESB's generation and supply businesses to jointly develop a pricing strategy with recognition of customer load will facilitate development of products that can leverage any advantages that have arisen across the value chain. Such opportunities for competition and competitiveness will be missed under a model of continued vertical separation.

ESB realises that there are some regulatory concerns that the removal of vertical separation requirements might result in the level of liquidity available to external market participants drying up. The Liquidity Undertaking in effect, by consequence of the fact that it will be binding on ESB, will provide a level of certainty to other market participants on the availability of contract market hedges, a situation which does not exist today. Such commitment will assist these Suppliers in managing their risks across the wholesale and retail markets as well as assisting any new entrant Suppliers in managing their market exposures.

The CER Roadmap to Deregulation for the Retail Electricity Market decision was made with the expectation that ESB would compete on price across all sectors in Republic of Ireland, up to defined market share thresholds, subsequent to prescribed market share targets having been achieved. However, the continued existence of vertical separation subsequent to full tariff freedom will limit ESB's ability to compete on price with other Suppliers, thereby disadvantaging not only ESB, ESB's customers but as a consequence all customers in the market.

Continued vertical separation will leave ESB's supply business non-competitive, will see it continue to lose market share and incur significant financial losses, putting its future viability at risk, something which will not be in the best interests of customers and the competitiveness

of both macros economies. The opportunity, that the forthcoming regulatory decision on ESB's request for removal of vertical separation requirements provides, to resolve the significant issues facing ESB and as a result create further competitive pressures in the retail markets needs to be taken up by the RAs.

Removal of Horizontal and Vertical Separation

Removal of vertical separation between generation and supply without removal of horizontal separation across generation would lead to the continuation of unnecessary duplication costs in systems, processes and people. It would also limit the ability of ESB to optimally manage its market risks across its combined generation and supply businesses.

Removal of horizontal and vertical separation will enable ESB to drive efficiency savings across both the upstream and downstream businesses through removal of duplication and adoption of best practice market risk management. Removal of separation will also enable ESB to offer innovative tariffs, capable of being designed through communication between generation and supply matching customer demand with optimally structured power contracts.

Continuation of any or all separation will deprive ESB of the ability to maximise efficiencies, best practice and innovation opportunities. Similarly separation will remove the impetus for ESB-led competitive initiatives to drive increased competition across the market by other Suppliers.

Increased competition will be welcomed by all customers and also help improve the competitiveness of businesses in the economy.

Additional Measures

The CEPA paper recognises that horizontal integration of generation is ineffective and serves only to increase costs unnecessarily. As such no measures need to be put in place to offset its removal.

Removal of horizontal and vertical separation will not increase the ability of ESB to exercise market power in either the wholesale or retail markets. The retail markets are very competitive and ESB's market share is capped at levels prescribed in the Roadmap to Deregulation for the Retail Electricity Market. The BCOP, MMU, DCs and SEM design mitigate market power in the wholesale market. The RAs powers provide it with the capability to intervene in the retail markets in the best interests of customers. CER has the ability to re-regulate ESB within the supply sector if it considers that ESB is engaging in anti-competitive practices. As such sufficient controls and powers already exist for the RAs to allow removal of vertical separation without the need for any other measures in its place.

ESB considers that its binding Liquidity Undertaking will take away Market Participant and RAs concerns in relation to ESB's ongoing incentive to offer hedges to the wider market, following removal of vertical separation. In addition, ESB is now suggesting the development of a Wholesale Contracts Code of Practice incorporating pricing principles for NDCs being offered to the market.

Directing changes to asset ownership are at the top of the scale in relation to the most intrusive nature of regulatory interventions. Given how the wholesale and retail markets have evolved, even since the commencement of SEM in 2007, and reflecting on the competitive evolution of the markets that will follow EWIC commissioning in 2012 and REM establishment in 2014, it is fundamentally unnecessary and completely disproportionate to

consider any further structural changes including further divestment of ESB generation assets.

Question 8: Would further divestment by ESB encourage deeper competition in the wholesale market?

The SEM wholesale market is very competitive. The MMU in its Public Report 2009 stated that "***It is the view of the MMU that the SEM has produced outcomes in the study period that broadly align with expectation***". Since the SEM commenced operation in November 2007, there has been significant entry both from renewable generators and from conventional generators. Over the same period, a number of generation units have also exited the SEM.

The design of the SEM which enables technically proficient generation plant to displace less efficient plant in the merit order stack and earn infra-marginal rents, together with the capacity payment mechanism act as incentives for new generation entry.

The BCOP has a key role in ensuring that the derived wholesale market price (SMP) is set at the short run marginal costs of the marginal generator on the system. The BCOP also prohibits any generator, with a multi technology or multi fuel based generation portfolio, from leverage any portfolio benefits when determining the short run marginal cost of its plant. In this way, the technical capability of each generation unit is the key determinant as to whether that plant will be high in the merit order stack and thus be scheduled to generate in SEM. Change of ownership of the plant will not alter its SRMC and as such further divestment of generation capacity by ESB will not alter the BCOP boundaries that will drive SMP determination.

The fact that EirGrid manages the connection process ensures that ESB has no ability to foreclose generator entry into SEM. As such, commercial opportunities exist within the SEM for entry of increasingly technically efficient price-setting generators who can displace less efficient plant in the merit order stack.

ESB has successfully completed the asset divestment strategy. This strategy, devised by the CER to replace ESB's ownership of price-setting mid-merit plant with non-price-setting baseload, resulted in 1500 MW of generation capacity and sites being sold to Endesa Ireland, with plans now advanced for the construction of a CCGT plant near Great Island in Co Wexford with a commissioning date set for 2013.

ESB does not believe that further divestment of its generation capacity will encourage deeper competition in the wholesale market. Further divestment in ESB's opinion will not bring benefits in terms of wholesale competition and could be detrimental to retail competition. Fragmentation of ESB's generation portfolio into two ESB generation companies would result in a similar situation (albeit with a potentially different portfolio of plant) to that existing today for ESBIG and ESBPG generation assets. This fragmentation would reduce the concentration metric for the market in comparison to a situation where removal of separation requirements across the full generation asset base of ESB will increase HHI concentration and likely lead to an increase in DC obligations on ESB. A reduction in mandated hedges through the DC process, in the absence of ESB's Liquidity Undertaking will have an impact on competition at a supply level. Any such eventualities ought to be avoided.

Fragmentation of ESB's generation portfolio, in the context of an integrated supply business would also introduce additional market risk management complications and disadvantages for ESB's supply business. Generation plant that was previously used to optimise market risks for its customer base could potentially be unavailable for that purpose.

Forced divestment of existing plant would not make the wholesale market any more competitive in terms of reducing System Marginal Price and therefore, such structural measures are disproportionate, particularly where market power in the wholesale market is not an issue. The BCOP requires all plant to be bid on an individual unit basis into the SEM

at SRMC. Divestment of plant would not in any way change the technical efficiency of plant or the SRMC and as such would not affect the price setting outcomes in the SEM. Forced divestment would reduce market concentration and similarly the level of DCs imposed on ESB that would be available to Suppliers, thereby impacting competition in the retail market by reducing Supplier access to contracts.

Behavioural remedies can be made to be as effective as structural remedies in enhancing competition. By making ESB's Liquidity Undertaking binding within the wholesale market this will enable increased Supplier activity (through access to wholesale market power at fixed prices) than would arise from any divestment or separation of ESB generation plant portfolio. ESB's Liquidity Undertaking can be strengthened further by a Wholesale Contracts Code of Practice which ESB is now suggesting, which will provide assurances to the market on the reasonableness of contract prices.

Question 9: What are the current incentives on generators and suppliers to offer and purchase contracts?

Incentives on generators to sell fixed price power contracts are minimal. As we have shown earlier in this submission, the presence of a capacity payment, coupled with the SMP mechanism that under the Bidding Code of Practice compensates variable costs to all in-merit generators, means that generators can be expected to attain only marginal incremental benefit from sales of fixed price power. However, generators may choose to fix fuel prices and sell power contracts to lock in some portion of margin from expected in-merit running.

On the other hand suppliers have strong incentives to purchase fixed price contracts since the majority of retail market sales are on an annual fixed tariff basis. Any fixed price sales that are sourced from the pool are therefore exposed to increasing SMP.

Likewise, Suppliers have a strong incentive to have a mechanism to enable them sell fixed price power in situations where power contracts exceed expected demand. In this case today, the Supplier sells back to the pool and is exposed to falling pool prices. To date no mechanism has been established to enable suppliers to sell fixed price power back to generators.

The basic discrepancy in the accumulation of market risk with Suppliers, while generators are relatively immune, is a key reason why ESB believes that stand-alone Suppliers cannot be viable in the long run in the SEM. Suppliers bear an inordinate amount of market risk, while existing hedging mechanisms are insufficient to provide an appropriate degree of risk protection.

Are there any impediments to trading contracts?

Under the existing market structure impediments to trading contracts include:

- Power auction timing is determined by generators, meaning that hedging opportunities for Suppliers without native generation are in effect determined by the timing of generator sales. Under this arrangement non-integrated suppliers may not have their desired flexibility in new product design and tariff-setting;
- There is currently no mechanism for Suppliers to sell back fixed price power.
- Power auctions may not offer the products or granularities desired by Suppliers;
- NDC contracts are currently not standardised between the two generators offering them;
- There is no clearing mechanism in the SEM and DC/NDC credit terms are not standardised among generators; and
- The auction process may result in higher prices being paid for hedges, therefore potentially making the Supplier buying the hedge comparatively less competitive.

Do you agree with mandating all generators to offer contracts and/or to become market makers?

ESB believes that maintaining market liquidity is the responsibility of all market participants.

The term 'market maker' is not defined in the consultation, but in ESB's view a market maker is a participant that offers quotes for both purchases and sales to other participants. The market maker therefore serves as a counterparty of last resort. In ESB's view, being a designated 'market maker' would constitute an undue burden on any one market participant, since this would mean that the capital of that participant would in effect be held at risk to maintain liquidity for other participants. In markets with insufficient liquidity, market makers are at risk of ending up with large un-hedgeable risk positions. This does not however preclude a party from providing a market making service at its own volition.

The risk of being a market maker would be somewhat mitigated in a scenario where all participants were mandated to do so. However, ESB notes that being required to both buy and sell in a market can still be expected to leave individual participants with illiquid, un-hedgeable or unwanted risk positions. If a market making requirement were to be imposed on participants there would need to be clear caps on the volumes that each would be required to offer.

ESB's preference is that external contracting not be made mandatory. However ESB accepts that some degree of mandatory participation may be deemed necessary to maintain market liquidity, especially in a market with a limited number of participants such as the SEM. The assessment of whether generator participation should be mandatory would be best taken at the point that ESB's Liquidity Undertaking is in operation so that contract market activity by other SEM participants could be assessed.

In a scenario with mandated generator contract market participation, for the reasons outlined above ESB believes that rather than a market maker a better solution would be to facilitate a brokered market. In other words, external firms would provide a broking service, evaluating outstanding offers to buy and sell and matching orders. In addition to risk benefits a brokered contract market would have the additional benefit of transparency of brokerage commissions.

If not all generators, what criteria would you use for mandating generators to offer contracts or to become a market maker?

Again, ESB would not support mandated market making because it would exacerbate the risk positions of participants.

New thermal plant entrants to the SEM since 2002, range in size from 100MW to 590 MW. Requiring some degree of contract market participation from all thermal generators in excess of 250MW, and for ESB as a whole, would mean that up to approximately 65% of SEM capacity would be potential participants in the contract market. However, given the complexity of the issue, differences in running and hedge requirements etc, ESB feels that a separate study, to better delineate what the terms of mandatory contract market participation need to be, would be necessary.

ESB is aware that issues concerning the legality of PSO contracts have arisen which may mean that these contracts might no longer be offered for sale to the market. Issues regarding these PSO contracts and any consequential impact on contract market liquidity must be kept separate from the RAs consideration of the necessity to remove the now redundant and damaging vertical separation requirement between ESB's generation and supply businesses, from ESB's licences.

Question 10: What product types and in what proportions should a minimum specification market maker offer?

There is an obvious trade-off between the potential suite of contract products offered and the amount of any one product that might be available. ESB believes that given the size and composition of the SEM, there would be insufficient demand and liquidity to support trading in GB market equivalent EFA blocks. ESB would suggest that contract market products be initially restricted to existing SEM defined baseload, mid-merit, mid-merit 2, and peak products, with proportions to be determined by individual generators.

With respect to tenor, a standardised one-month contract would appear reasonable, which could then be assembled into quarterly and annual strips as demand warrants. ESB understands that some market participants have expressed interest in a week-ahead product. ESB would be supportive of such a product in allowing greater flexibility in hedging over intra-month horizons.

What eligibility restrictions should there be to trading with market makers?

A critical issue for a liquid contract market is the underlying credit arrangements. In the long term ESB believes that for an SEM contract market to be viable it will be necessary to have an underlying clearing mechanism. Centralised counterparty clearing effectively eliminates bilateral counterparty credit exposure. With a clearing function in place eligibility restrictions would be limited to those imposed by the clearinghouse. These would likely relate to the ability to meet collateral requirements on a daily basis.

It is likely that any clearing mechanism that might be established for SEM would be achieved through extension of services and systems by one of the major clearing houses, with the levying of a transaction charge for all services to cover these costs. As such, implementation costs of a clearing function wouldn't necessarily be prohibitive for SEM. Transaction costs for market participants would be based on a number of factors including their type of membership, their opening exposures and historical trading patterns. Other costs for participants would be those associated with holding collateral for credit purposes.

If a contract market is implemented without clearing, the market will in effect be bilateral in nature. In this case eligibility restrictions would therefore be expected to relate to the credit requirements of individual participants. It is ESB's view that a non-cleared market would likely be materially less liquid in that it would not be expected to attract players outside existing SEM participants, such as firms in the BETTA power market or financial institutions.

Question 11: Do you agree with the CEPA analysis of the ability of structural remedies to address the competition problems presented by the hypothetical structural scenarios outlined in section 6 of the accompanying paper?

The CEPA report suggests a number of structural changes that it believes could promote competition in the SEM. ESB has clearly demonstrated that competition in the retail market in Republic of Ireland is very effective. The MMU has concurred with ESB's view that competition in the SEM is equally effective. Competition in the residential and small business sectors in Northern Ireland is emerging and with the completion of the Enduring Solution in May 2012, any remaining system or process barriers to large scale customer switching will have been removed.

Since it is very clear and accepted by the RAs that competition is very active in both the SEM and retail market in Republic of Ireland, and with retail competition ever increasing in the domestic sector in Northern Ireland, ESB does not agree with the overriding rationale behind this question. CEPA's hypothetical analysis appears to be aimed at solving a problem which clearly doesn't exist.

CEPA's report concludes that horizontal separation of generation provides no benefit to competition and/or mitigation of market power, in the context of continued application of the BCOP and the MMU, which are further strengthened by the imposition of DCs. Nonetheless, CEPA suggests the retention of separate corporate identities for elements of ESB's generation fleet. ESB sees little value in retaining separate corporate identity for recently constructed generation assets in the SEM, not least because enduring separate identity brings about additional administration and company law compliance costs. CEPA's consideration of retention of this structural measure as a condition for removal of horizontal separation in generation is disproportionate under the continued application of the BCOP with MMU oversight and DCs and illogical in that it appears to address a potential concern of which CEPA is confident does not actually exist.

CEPA has also considered in its paper potential structural remedies which would promote competition in the SEM while allowing removal of vertical separation. Again, CEPA's ideas here overlook the fact that the SEM is deriving market outcomes as intended and is very competitive. The number of generators seeking connection agreements under the Gate processes is further evidence of this level of competition. ESB has no plans at this time to construct conventional generation plant within the SEM and is committed to reducing its market share.

CEPA has suggested the creation of an independent generator holding low merit gas, coal and mid merit generation. Under such a hypothetical scenario, should this new entity remain part of the ESB Group, this would result in a scenario similar to today where ESB's generation business is horizontally separated. Such separation would not change SMP outcomes in the wholesale market for the reasons already outlined previously, principally the existence of BCOP and the oversight of the MMU. In addition, such separation would not necessarily increase contract market liquidity as overall market concentration (using the HHI metric) would be lowered.

ESB considers that CEPA's structural proposals to increase competition in the SEM while facilitating removal of vertical separation, to be disproportionate, unnecessary and likely to be ineffective. Indeed, ownership of ESB's generation assets is a matter for its owner the Irish Government and ESB is of the view that this is not an appropriate matter for consideration by CEPA in its paper.

ESB is of the view that there are no competition concerns in either the wholesale or retail markets that are not adequately addressed and that behavioural remedies under its Liquidity Undertaking will be effective in developing contract market liquidity.

The behavioural changes that ESB envisages could be incorporated in a Wholesale Contracts Code of Practice, that it is now proposing to sit alongside ESB's Liquidity Undertaking, would be in addition to ESB's commitment to reduce its generation market share over time and the maximum allowable retail market share caps as defined in the Roadmap to Deregulation for the Retail Electricity Market. These new behavioural changes which can be made binding on ESB could be supplemented by additional transparency enablers across the market that would ensure equal access to information by all market participants.

Question 12: Will ESB's liquidity proposal be effective in assisting contract liquidity in the market if it is allowed to vertically and horizontally integrate?

ESB's Liquidity Undertaking will be effective in assisting contract liquidity in the market. Under its proposal, ESB will provide baseload, mid-merit and peak product for monthly, quarterly and annual terms for a volume up to 25% of ESBPG generation (subject to various exclusions and constraints) and with a minimal clip size. Furthermore, the proposal includes an undertaking to purchase power up to a level of 10% of ESB forecast demand (again subject to various constraints). ESB believes that this will be a significant contributor to SEM market liquidity subsequent to removal of ESB vertical and horizontal separation.

ESB considers that since its Liquidity Undertaking will be transparent, easily monitored and enforceable, that it will add value to the operation of and competition within the wholesale and retail markets. This binding commitment does not exist today. With some uncertainty surrounding the future existence of hedge contracts backed off against the PSO generators, any such commitment would be beneficial to the market.

ESB is now proposing the establishment of a Wholesale Contracts Code of Practice, similar in principle to the BCOP which would underpin NDC reserve prices. This would provide further clarity on the operation of ESB's Liquidity Undertaking to the RAs.

While the CEPA market power metrics clearly show that the imposition of a volume of DCs on ESB is no longer required, ESB is nonetheless willing to accept a volume obligation that is fair and proportional provided the vertical separation requirements between its generation and supply businesses is removed. ESB also suggests that rather than determining a DC volume and a price that ignores the risk management value that DCs have now assumed in the market, that either the DC pricing mechanism incorporates this risk management value or DCs should be replaced completely by an NDC volume of no less quantity under ESB's Liquidity Undertaking, which would incorporate this risk management value in its price.

By removing the obligation on ESB for provision of DCs, a market need can be generated for the provision of risk mitigation products whose premium reflects the actual risk management value that they will be designed to provide. This market need will attract offerings from additional parties beyond ESB and PPB and will allow for the evolution of hedge products and contract volumes through normal market dynamics.

Will this proposal facilitate competition in the wholesale and retail market?

ESB's Liquidity Undertaking is intended to provide a source of ongoing hedges to the wholesale market. While this proposal will undoubtedly assist Suppliers in managing their market exposures in conjunction with their internal optimisation of generation and supply positions, the extent to which it will on its own facilitate competition, particularly in terms of new retail market entry, is uncertain. Because of the SEM market structure issues discussed previously in this response, in which Suppliers bear the majority of market risk, ESB does not believe that additional fixed price power contract offerings on their own will be sufficient to encourage market entry or guarantee the viability of stand-alone Suppliers.

Likewise, ESB does not envisage that the Liquidity Undertaking can in itself provide an enhanced level of wholesale competition. The majority of market participants are not constrained by separation between their generation and supply businesses and are able to enjoy the benefits of an integrated business model. The provision of fixed price power by ESB cannot be expected to offset the risk management benefits that integrated operation affords, and therefore ESB is not convinced that its Liquidity Undertaking while obviously supporting new supplier entry to a degree can necessarily bring about increased wholesale competition on its own.

Question 13: Will increased wind penetration affect demand for contracts and the need for market liquidity?

The impact of increased wind penetration is best considered in terms of its likely impact on SMP volatility – if increased wind was to result in decreased SMP volatility then it is likely that the demand for hedge contracts and market liquidity would also decrease.

The RA's own published study SEM-09-002 (*Impact of High Levels of Wind Penetration in 2020 on the Single Electricity Market (SEM)*), suggests that increased penetration of wind will tend to flatten the price duration curve. An increase of wind generation on the power system will coincide with an increase in the number of price-takers within the SEM. An increase in wind generators will correspondingly lead to a smaller number of dispatchable price setters and hence the number of conventional generators setting the price will be less. The RA's study indicates the dampening effect of increasing price-taker generation (wind) on SMP. The volatility of prices tends to fall with increased capacities of wind in the unconstrained model run however, the assumed type of thermal stations that make up the rest of the portfolio can offset that tendency.

While the impact of increased wind penetration on SMP is not certain and depends on the makeup of future thermal generation investments chosen, it is likely that the overall effect will be to reduce SMP volatility. Reduced SMP volatility would reduce the need for contracts and market liquidity.