



Integrated Single Electricity Market (I-SEM)

**High Level Design for Ireland and Northern
Ireland from 2016**



ESB Consultation Response

4 April 2014

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1 CONSULTATION QUESTIONS

1.1 RESPONDENT DETAILS

COMPANY	ESB
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MAIN INTEREST IN CONSULTATION	Market participant with interests in generation and supply.

1.2 GENERAL COMMENTS

ESB welcomes the opportunity to respond to the High Level Design Consultation (HLD). Our general comments pertaining to the consultation are as follows:

General Market Design Approach

- ESB acknowledges that in an effort to achieve compliance with the Target Model, the thrust of the HLD pertains to trading rules for efficient dispatch of plant in the energy market. However it is now widely accepted within Europe that increased penetration of intermittent renewables has more or less rendered energy only markets (whereby the trading rules are established to ensure efficient dispatch and generators are recompensed on the basis of MWh delivered only) obsolete.
- As a consequence, a market design which will be required to integrate high levels of intermittent RES penetration, must also consider how participants are compensated across a range of factors namely: availability (Capacity), dispatchability (flexibility), deliverability (MWh) and environmental credentials (low carbon).
- It is difficult therefore to conduct a full assessment of the impact each of the HLD options might have, as the analysis is being conducted in a partial vacuum (with significant question marks existing over State Aid on both CRM and FIT as well as uncertainty over DS3).

Discussion on ESBs Preferred Energy Trading HLD Option

- ESB is expressing a clear preference for the Mandatory Centralised Market (Option 3) as a workable solution for I-SEM. The mandatory nature of Option 3 creates an open and transparent market (and so has parallels with the existing SEM), which is important for a small market where the size of any large unit can have disproportionately large repercussions on the system. The transparency created by the Option 3 should lead to a more efficient and liquid outcome with a reduced role

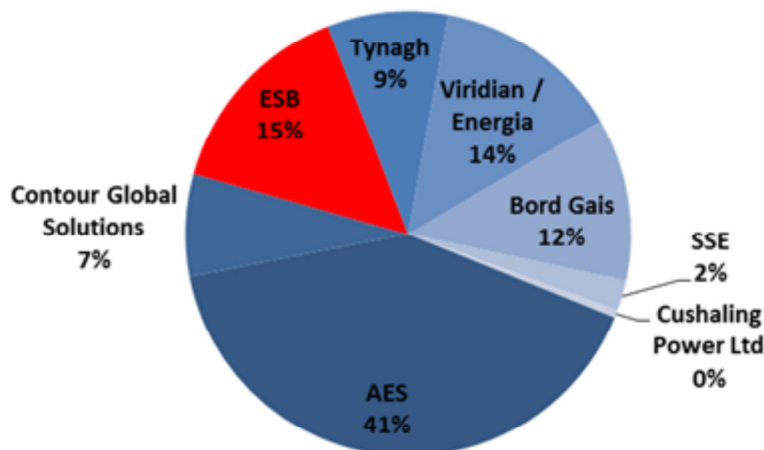
for any regulatory intervention but with the added benefit of the ease of policing by the regulator.

- ESB also believes that the Adapted Decentralised Market (Option 1) has merits, primarily for the reasons that a bilaterally traded market place is typical of how most products and services are traded in open economies and also because the proposed design has similarities with the GB market design, to which I-SEM will be coupled (this could potentially lead to trading synergies and benefits for customers).
- ESB is of course cognisant that Option 1 will raise concerns from regulators with regard to transparency and objectivity as is currently the case in the GB market, which in turn may lead to controls being overlaid on the market rules in order to mitigate such concerns as is observed in GB. Therefore, in the absence of specific and detailed commitment from regulators on this matter, any support ESB would give for Option 1 is conditional on the basis that such controls are applied on an equal basis to all participants. This area is addressed further in the following paragraphs.
- Historically ESB's perceived dominance has given rise to concerns from regulators. However given the nature and much greater scale of new-entrants to SEM from GB - both SSE and Centrica with electricity generation output of c.41TWh and c.34TWh respectively in comparison with ESB's generation output of c. 16TWh¹ - a new approach must be adopted. With the compounding factor of significant closures of commodity trading desks across Europe, ESB is increasingly coming up against its electricity market competitors in fuel procurement. This gives rise to the issue of market definition and what boundaries should be considered when assessing the dominance issue. Furthermore, given the success of the market, as identified by the RAs' own reviews, with increased offerings of OTC/NDC, ESB is of the firm opinion that market power mitigation and liquidity enhancing measures within the HLD can no longer be focussed upon one participant, namely ESB – we believe that it is imperative that the HLD itself is designed to deliver an efficient and liquid outcome.
- Any proposed market power and liquidity measures must only be made in the full recognition and acceptance that the market has changed significantly in recent years; the increased level of interconnection, new entrants (as discussed above) and their plans to build new capacity, the imminent ending of legacy capacity contracts, greater participation from demand side response and the ongoing sale of Lough Ree and West Offaly Power.
- ESB is therefore of the strong opinion that further asymmetric regulation of ESB is unfair and unnecessary. A better approach in terms of mitigating measures would be to ensure that any provisions are expressly defined as applicable to all participants and preferably addressed in the market design as an efficient outcome. As an example, ESB is willing to provide liquidity solutions in conjunction with

¹ European Commission - "A Roadmap for moving to a competitive low carbon economy in 2050"

liquidity provisions from all participants. This is the approach that is currently being taken in the GB market. Furthermore we would point to three key areas to highlight the competitiveness of the All-Island Market:

- Size of the largest player versus the market - as noted in the RAs' own consultation (Figures 5 and 6), in comparison with other European markets the All-Island Market is placed in a median position on the basis of both the market share of the largest generator vis a vis the market and the number of main competitors. This is a notable result, given the size of the market and is set to improve further as the divestment of ESBs peat stations will result in its generation market share reducing to c.40%.
- Customer Switching Rates – as noted in the ACER/CEER Annual Report on the Results of Monitoring the Internal Electricity and Natural Gas Markets in 2012², the All-Island Market is noted among the markets with the highest switching rates in the EU 27 (alongside Belgium, Portugal, Norway, GB and the Netherlands).
- Price Setting Capability – the below charts depicts which operator within the All-Islands Market set peak period prices for 2013. As is clearly evident, the largest player is not the dominant price setter during peak periods.



Source: ESB

- It is important that there is a full understanding of any proposed market power mitigation and liquidity enhancing measures by all market participants before a preferred HLD is chosen. ESB believes that all market participants would benefit from this issue being addressed by regulators as early as possible before the conclusion to this stage of the HLD process.
- The HLD must also recognize the increased risk that will be inevitable in Option 3 and Option 1, as suppliers are exposed to more dynamic, more complex and

² http://www.acer.europa.eu/Official_documents/Publications/Pages/Publication.aspx (ACER Market Monitoring Report 2013)

unpredictable day ahead and intraday trading requirements. Suppliers will need to respond to expected more volatile balancing prices and will seek to mitigate this increased risk by developing processes and systems aligned to the new design, in particular to accommodate a more extensive and accurate short term forecasting capability. However there will continue to be increased risks purely by virtue of the fact that customers will take what electricity they need on any given day regardless of what suppliers may forecast. A balancing mechanism needs to be found therefore which recognizes the lack of control suppliers have over what their average customers consume and thus minimizes or makes predictable the new risks suppliers will be exposed to under the new regime. ESB believes that the balancing mechanism has a key role to play under both Option 3 and 1. Careful consideration and consultation must be given to the design of the balancing mechanism during the detailed design phase.

Discussion on ESBs Preferred CRM Design

- ESB strongly believes not only that a CRM is a necessity in a small market, but that the current CRM design should largely prevail in the I-SEM. While it acknowledges that some changes may be required, the principles and ethos of the current CRM should continue. At a time when such radical change is being undertaken to the market design, and such regulatory uncertainty exists as a result, the retention of the current CRM will ease the transition to the I-SEM by maintaining at least some stability. Furthermore SEM is one of the few markets in Europe where generators are not closing and mothballing stations when they are essential to meet demand, and so choosing a CRM design that potentially leads us into such a scenario is wholly counterproductive. Any assessment of the costs of supporting slight overcapacity in a system should be weighed against the costs/risks to society and the economy as a whole of managing the potential of security of supply risks in the absence of a CRM. A well working CRM not only affects the confidence of investors in the energy sector but also the confidence of investors in manufacturing and industry as a whole.
- ESB also believes that energy Option 3 (its preferred option) has synergies with a universally applied centralized price based CRM. In this regard ESB has a clear preference for retaining the existing price based CRM. Furthermore s a market wide mechanism, designed as an integral piece of the overall electricity market design the I-SEM CRM should not be considered as State Aid.
- Should change to the CRM be deemed necessary for whatever reasons then ESB considers that a market wide, centralized, price based mechanism is the best solution for I-SEM.
- ESB believes that for a small market, any quantity based mechanism could lead to volatile capacity prices placing supply companies in a position where they are either unable to hedge or are exposed to significant losses as a result of their hedging strategy with the resulting negative impact on consumers.
- With regard to cross border participation in the CRM, ESB believes that this should only be facilitated when reciprocal arrangements in neighbouring/interconnected market CRMs exist. The CRM price should not be included in market coupling until such common and mutual arrangements are in place. If/when reciprocal arrangements do exist, regulators can then decide whether to include/exclude the CRM price in market coupling arrangements on the basis of minimising trade distortion across borders. This would require further developments in the CRM price setting mechanism in order to establish the capacity price at the ex-ante timeframe.
- Finally, any locational or temporary issues on the system should be resolved through System Support Contracts with the TSO rather than taking the form of a CRM. The perceived security of supply situation in Northern Ireland is an example of this. Incentives and reward for flexible generation should be covered in the DS3 framework.

Summary Comments on the Mandatory Ex-Post Pool for Net Volumes (Option 2) and the Gross Pool – Net Settlement Market (Option 4)

- ESB has serious concerns with regard to both Option 2 and 4 and consider that neither are workable solutions for I-SEM
 - Option 2 lacks any specific design/trading philosophy and appears to be a combination of market design philosophies without a coherent rationale or purpose.
 - Option 2 and 4 add unnecessary complexity given the requirement for two market algorithms, resulting in sub-optimal and unpredictable outcomes. They would also require duplication of systems bids/offers management, as well as substantial integration measures to deal with settlement processes. The cost of developing and maintaining such a regime is a significant negative weighting on both these options.
 - Both options effectively split the market between the ex-ante and ex-post timeframes and so undermine price discovery.
 - The CfD – Ex-Post Pool combination in Option 4 will create volume risk for participants, reducing the likelihood of liquid ex-ante trading and will ultimately mean that the current sub-optimal use of the interconnector will prevail, thus undermining the entire purpose of the Target Model, the Network Codes and the primary reason for undertaking this re-design of SEM.
 - Both options, but particularly Option 4, seem to be moving a step away from the European norm for electricity market design. This creates a risk that both these HLDs would not be adaptable as future changes are required by Europe and so further significant change to market design would be required.
 - There may be compliance issues with both options. For Option 2 the mandating of trade in two different timeframes could be problematic. In both options compliance with the Balancing Network Code might also cause challenges.

Process

- It is important that industry involvement is maintained during the next stage of this design process (including reconvening the HLD Review Group in advance of the proposed decision) and also the establishment of technical expert groups for the various detail design strands.
- The impact on market participants systems and processes is likely to be significant and this should be taken into account in the impact assessment being conducted by the RAs. The lead time associated with IT changes are significant so it is imperative that decisions in the detailed design stage are taken in a timely manner to achieve the 2016 deadline.

1.3 PURPOSE OF THE DOCUMENT (SECTION 1)

Question	Answer
<p>1. Which option for energy trading arrangements would be your preferred choice for the I-SEM market, and why?</p>	<p>ESB considers both Options 1 and 3 to be workable solutions for ESB. However in the absence of specific knowledge on market power and liquidity provisions which may be required for Option 1, ESB’s clear preference is for Option 3.</p>
<p>2. Is there a requirement for a CRM in the revised HLD, and why?</p>	<p>Yes. ESB support the arguments presented in the Frontier report submitted by EAI in relation to the rationale for a CRM in the I-SEM.</p> <p>In a small market, lumpy generation investments can cause prices to fall to low levels for a prolonged period of time, implying that new investors may need a long time horizon in order to be able to justify new developments. This may increase the risks associated with an energy only market; and</p> <ul style="list-style-type: none"> - The trend across Europe is a move to CRMs: As the level of intermittent renewable generation increases, incomes for conventional generators from the energy market is not sufficient. It does not make sense for SEM to get rid of a CRM particularly since the level of renewables expected on the system by 2020 will be 40% - Investor certainty: A stable CRM reduces volatility of cash flows and so reduces the cost of capital. This leads to more efficient entry to the benefit of consumers.
<p>3. If there is a requirement for a CRM in the revised HLD, what form would be your preferred choice for the I-SEM, and why?</p>	<p>The current CRM design should prevail in the I-SEM. This continuity will help to reduce regulatory uncertainty for market participants at a time when radical change is being undertaken in the market design. This design will work with either Option 1 or Option 3</p> <p>If substantial change is required to the CRM then ESB’s preference would be for a market wide, price based, centralised CRM (Option 2a).</p>

1.4 TOPICS FOR THE HIGH LEVEL DESIGN OF ENERGY TRADING ARRANGEMENTS (SECTION 4)

Question	Answer
<p>4. Are these the most important topics to consider in the description of the HLD for the revised energy trading arrangements for the single electricity market on the island of Ireland?</p>	<p>ESB believes that many of the relevant areas are addressed.</p> <p>However, while the topics addressed touch on areas that may/may not alleviate market power and liquidity issues, the options themselves lack concrete proposals to address liquidity in certain time frames (other than where mandatory provisions are inherent to the design). There is as a consequence a distinct lack of clarity around whether some of the options could be assessed to be sufficient to address market power concerns and whether the mitigation measures alluded to may/may not be employed as a result. This makes it difficult to assess each option in its entirety.</p>
<p>5. Are there other aspects of the European Internal Electricity Market that should form part of the process of the High Level Design of energy trading arrangements in the I-SEM?</p>	<p>The issue of price zones is an integral part of the Target Model that has not been addressed in the consultation. We believe the HLD should undertake that the detailed design phase will be conducted with a view to the I-SEM market consisting of a single price zone.</p>

1.5 SUMMARY OF THE OPTIONS FOR ENERGY TRADING ARRANGEMENTS (SECTION 5)

Question	Answer
<p>6. What evidence can you provide for the assessment of the HLD options with respect to security of supply, efficiency, and adaptability?</p>	<p style="text-align: center;">Security of Supply:</p> <ul style="list-style-type: none"> - There is insufficient information provided regarding the reliability CRM options proposed, to assess their capability to deliver security of supply. It would appear that they bring complexity with limited additional benefit. - The best evidence that can be provided for delivery of security of supply is the existing long-term price based CRM present in SEM. While it is not perfect and could be improved in certain areas, it has delivered the requisite generation adequacy that it has been designed to deliver. - Certainly the energy only market design has proven to not deliver on security of supply – hence markets moving towards CRM in Europe. Ergo I-SEM should not move to an energy only market design. <p>Efficiency</p> <ul style="list-style-type: none"> - Option 2 and 4 are less efficient in terms of the cross border coupling of markets than options 1 and 3. - In terms of interconnector trading neither of the ex-post pool options is likely to encourage efficiency across the IC as there is no real incentive to trade in these timeframes where an ex-post pool exists – unless mandatory obligations are made. - The potential for the CFDs envisaged under Option 4 to fall under EMIR requirements could result in greater costs for market participants just to trade. <p>Adaptability</p> <ul style="list-style-type: none"> - The most adaptable market will be the one with the most simple and least over engineered design - A market which is similar in design to the European model norm that the Target Model is based on will also have advantages in terms of adaptability. Since any future market design changes proposed at a European level will be gauged in consideration of the impact on this norm, synergies between I-SEM and other European market designs will mean that I-SEM is not left at a disadvantage. Both Options 1 and 3 are close to this standard design. - However options 2 and 4 would leave SEM with a markedly different design to the European model and therefore retain the basis risk between our market design and the rest of Europe that exists today. It also creates regulatory uncertainty that future change could be imposed rather than evolve naturally and incrementally over time.

1.6 ADAPTED DECENTRALISED MARKET (SECTION 6)

Question	Answer
<p>7. Are there any changes you would suggest to make the Adapted Decentralised Market more effective for the I-SEM (for instance, a different choice for one or more of the topics or a different topic altogether)?</p>	<p>Option 1 contains unspecified measures to encourage liquidity in the DAM (and IDM) as key forums under the EU Target Model. However, it is not clear whether or why such measures would actually be necessary since the price coupling itself (driven by price differentials between I-SEM and GB) is likely to be the main determinant of liquidity in the DAM and IDM.</p> <p>The consultation also states that measures may include market maker obligations on some or all participants. As noted under the General Comments section, ESB is of the strong view that any measures imposed should be applied equally across all participants. Further details on any proposals are necessary for market participants to be in a position to assess this option fully. However ESB is of the express view that a mandatory market maker responsibility is unacceptable.</p> <p>Related to the preceding point, is the fact that under Option 1, a participant is afforded the freedom to trade and mitigate their own risk in a manner that is optimal for that participant. The natural hedge that a vertically integrated structure provides is therefore likely to be a key vehicle that will be used by a number of participants under this model. It is important that all participants are given the opportunity to avail of such a strategy should they so wish. Where or if such a strategy is not permitted by regulators then this should be the case for all participants.</p> <p>This option will drive aggregation (given the need for balance responsibility) of wind generation so it may be beneficial that wind is permitted to balance on a portfolio basis.</p>
<p>8. Do you agree with the qualitative assessment of the Adapted Decentralised Market against the HLD criteria? If not, what changes to the assessment would you suggest (including the relative strengths and weaknesses of an option)?</p>	<p>An energy market design alone (i.e. without a CRM) to which Option 1 could easily become has been shown in GB, Germany and other markets not to be sufficient to deliver SoS. As with all options, ESB believes a CRM is a requirement for I-SEM. In this regard we would reference the Frontier Economics study included within the submission of the EAI.</p> <p>Since this design is similar to other European market designs it is likely to be more stable and require less change in the future, and at least only in line with movements from the European norm</p> <p>ESB believes Option 1 could deliver an efficient dispatch (when participants can optimise against their own portfolio) than a centralised approach due to the inherent imperfections in any centralised market.</p>

	<p>The decentralised market design is established and understood and should facilitate competition as it has done in other European markets.</p>
<p>9. How does the Adapted Decentralised Market measure against the SEM Committee’s primary duty to protect the long and short term interests of consumers on the island of Ireland?</p>	<p>This option could lead to an efficient outcome in terms of short term optimisation and so consumers could potentially benefit from this.</p> <p>ESB believes the long terms interests of consumers are best served via the introduction of a viable CRM.</p> <p>This option could also provide for minimal change as we move towards a more unified All Islands Market given the synergies with the GB market (as it stands currently). Inclusion of I-SEM in a larger market would be very beneficial for consumers allowing the efficiencies generated from a larger market to be passed through to customers.</p>

1.7 MANDATORY EX-POST POOL FOR NET VOLUMES (SECTION 7)

Question	Answer
<p>10. Are there any changes you would suggest to make the Mandatory Ex-post Pool for Net Volumes more effective for the I-SEM (for instance, a different choice for one or more of the topics or a different topic altogether)?</p>	<p>As noted above ESB believes that this option lacks a coherent philosophy for operation and should be discounted from the decision.</p> <p>Any changes that ESB would propose would revert it to options resembling either of the HLD options 1 or 3.</p>
<p>11. Do you agree with the qualitative assessment of Mandatory Ex-post Pool for Net Volumes against the HLD criteria? If not, what changes to the assessment would you suggest (including the relative strengths and weaknesses of an option)?</p>	<p>This option scores low in many areas.</p> <p>A complex hybrid solution that tags on the European target model to an ex-post SEM, might make it difficult to adapt to future target model changes and therefore makes the market design unstable as the regulatory risk of change is great.</p> <p>By promoting liquidity in the pool price discovery in the ex-ante markets is undermined. Limiting trade in the DAM also creates concerns in terms of the compliance of this option.</p> <p>This design is not very efficient in terms of having to maintain parallel systems to trade in pool and European markets, both for market/system operators as well as regulators.</p> <p>Furthermore this option would require the development of a bespoke algorithm thus creating a high level of implementation risk as it has never been employed before.</p>
<p>12. How does the Mandatory Ex-post Pool for Net Volumes measure against the SEM Committee’s primary duty to protect the long and short term interests of consumers on the island of Ireland?</p>	<p>Complexity and duplication is not a good match for consumer interests.</p>

1.8 MANDATORY CENTRALISED MARKET (SECTION 8)

Question	Answer
<p>13. Are there any changes you would suggest to make the Mandatory Centralised Market more effective for the I-SEM (for instance, a different choice for one or more of the topics or a different topic altogether)?</p>	<p>This option will drive aggregation (given the need for balance responsibility) of wind generation so it may be beneficial that wind is permitted to balance on a portfolio basis.</p>
<p>14. Do you agree with the qualitative assessment of Mandatory Centralised Market against the HLD criteria? If not, what changes to the assessment would you suggest (including the relative strengths and weaknesses of an option)?</p>	<p>This option is IEM Compliant and Adaptable in that it is similar to NW European markets and so effectively insuring I-SEM against future design changes (by minimising basis risk of market design changes in Europe).</p> <p>It will deliver efficient trading across the interconnectors particularly given that liquidity is centred on the DAM - this option is the only one that provides clarity on how price discovery will be achieved in a specific timeframe, so therefore has inherently less risks for participants when assessing the HLD options i.e. it allows an actual assessment to take place in the full knowledge of the potential outcome.</p> <p>Due to the mandatory nature of the day ahead auction this market is very transparent and therefore will not require excessive regulatory interventions and is consequently likely to be more stable.</p>
<p>15. How does the Mandatory Centralised Market measure against the SEM Committee's primary duty to protect the long and short term interests of consumers on the island of Ireland?</p>	<p>ESB believes that this option will ensure efficient flow across the interconnector which should serve to lower wholesale prices and with an overall welfare gain for consumers.</p> <p>The option is transparent and therefore likely to be less prone to accusations of abuse/gaming by participants. A transparent market leads to better information disclosure which should benefit consumers.</p> <p>This option could also provide for less change as we move towards a more unified All Islands Market given the synergies with the European Target Model (as it stands currently).</p> <p>The long term interests of consumers are better served via the retention of a viable CRM such as the existing price based mechanism, than the short term trading arrangements.</p>

1.9 GROSS POOL – NET SETTLEMENT MARKET (SECTION 9)

Question	Answer
<p>16. Are there any changes you would suggest to make the Gross Pool – Net Settlement Market more effective for the all I-SEM (for instance, a different choice for one or more of the topics or a different topic altogether)?</p>	<p>As noted above ESB does not consider this option a workable solution for I-SEM. Any suggested changes we could propose would revert it to options resembling either of Options 1 or 3</p>
<p>17. Do you agree with the qualitative assessment of Gross Pool – Net Settlement Market against the HLD criteria? If not, what changes to the assessment would you suggest (including the relative strengths and weaknesses of an option)?</p>	<p>Due to the use of CfDs and the associated volume risk this market design is unlikely to lead to efficient use of the interconnector and greater coupling with GB.</p> <p>ESB has a concern that this market design would be unstable. The fact that there would be two different algorithms operating is sub-optimal and also negates the comparisons drawn with markets in the US.</p> <p>This design could also lead to implications under financial regulations for participants, for example there is a risk that the increased volumes of financial derivatives trading might result in some participants moving from an NFC- status to a NFC+ status, with the follow on implications for centralised clearing and collateral. In addition the fact that the CfDs are not backed by physical delivery by the holder (unlike the CfDs being introduced in GB) could lead to breaches of the MIFID II exemptions for energy trading. While the above is not a fait accompli it would require further scrutiny from the RAs than has been given to date.</p> <p>ESB agrees with the assessment that compliance with the Target Model (including Balancing Network Code) under this option could be questionable.</p> <p>This option could also have issues on adaptability for future designs</p>
<p>18. How does the Gross Pool – Net Settlement Market measure against the SEM Committee’s primary duty to protect the long and short term interests</p>	<p>Since this option will not result in efficient use of the interconnector, consumers in Ireland will not benefit from efficient market coupling.</p> <p>The long term interests of consumers are protected by ensuring market stability. Since this option does not move in the direction of other European market designs, there is a risk under this option further redesign will be required further in the future.</p>

of consumers on the island of Ireland?	The long term interests of consumers are best served via the retention of a viable CRM.
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1.10 CAPACITY REMUNERATION MECHANISMS (CHAPTER 10)

Question	Answer
<p>19. What are the rationales for and against the continuation of some form of CRM as part of the revised trading arrangements for the I- SEM?</p>	<p>ESB support the arguments presented in the Frontier report submitted by EAI in relation to the rationale for the continuation of a CRM in the I-SEM. In a small market like the SEM the implementation of a CRM will reduce the dependency of investment decisions on price spikes in the energy market. The CRM will therefore help to address market and/or regulatory failures as well as helping to reduce the otherwise potentially high cost of capital to investors. This will lead to reduced costs to customers and reduce the risks associated with tight capacity margins.</p> <p>A well designed CRM, considered and planned as part of an integral part of an overall wholesale electricity market design should not be considered as State Aid, and therefore not be bound by the associated rules.</p> <p>Many European countries are currently planning the introduction of CRMs in their electricity markets. It would seem counterintuitive and counterproductive for the I-SEM to move to an energy only market when it seems to be accepted broadly now in industry that such a market design is no longer appropriate when there are large amounts of intermittent generation. It would be illogical for the I-SEM to remove an existing well functioning CRM that has met and is meeting its objectives.</p> <p>Although there is a cost associated with CRMs ESB consider that the benefits far outweigh this.</p> <p>Other criticisms of CRMs can be removed through careful and considered design. For example CRMs can be criticised for distorting exit signals in the market. However the inclusion of performance incentives within the payments so unreliable generation receive lower CRM incomes should resolve this issue.</p> <p>CRMs can also be criticised for making coupling with neighbouring markets more difficult. However, this issue could be addressed through coordinated design between markets in terms of designed reciprocal arrangements, ex-ante capacity pricing and cross border participation possibilities within the mechanisms.</p>
<p>20. Are these the most important topics for describing the high level design of any future CRM for the I-SEM?</p>	<p>Yes</p>

1.11 STRATEGIC RESERVE (CHAPTER 10.7)

Question	Answer
<p>21. Are there any changes you would suggest to make the design of a Strategic Reserve mechanism more effective for the I-SEM (for instance a different choice for one or more of the topic?)</p>	<p>ESB does not believe that a Strategic Reserve would be a sufficient CRM for the I-SEM. Location specific or temporary issues are best addressed via the use of limited duration System Support Contracts with the TSO. ESB supports a universally applied CRM for I-SEM.</p>
<p>22. Do you agree with the initial assessment of the strengths and weaknesses of a Strategic Reserve Mechanism? If not, what changes to the assessment would you suggest (including the strengths and weaknesses of an option relative to the others)?</p>	
<p>23. Would a Strategic Reserve Mechanism work or fit more effectively with a particular option for the energy trading arrangements. If so, which one and why?</p>	

1.12 LONG-TERM PRICE-BASED CRM (CHAPTER 10.9)

Question	Answer
<p>24. Are there any changes you would suggest to make the design of a Long-term price-based CRM effective for the I-SEM (for instance a different choice for one or more of the topic?)</p>	<p>Since the current long-term price based CRM in the SEM is functioning well, substantial further change to the proposed design would not be required. However adaptations could be made to address issues such as; better alignment of payments to contribution to capacity adequacy, reflection of scarcity in hourly prices, moving from an ex-post capacity price to a ex-ante DA capacity price. The analysis conducted during the CPM Medium Term Review could be used to assist in the design of any changes.</p> <p>Cross border participation in this scheme should only be allowed when reciprocal arrangements are in place with neighbouring markets. Therefore the CRM price should not be included in market coupling until this happens.</p>
<p>25. Do you agree with the initial assessment of the strengths and weaknesses of a Long-term price-based CRM? If not, what changes to the assessment would you suggest (including the strengths and weaknesses of an option relative to the others)?</p>	<p>A further strength of this option is that it would be the most similar to the existing scheme. At a time when there will be significant change in the market there would at least be consistency with the CRM.</p> <p>Another strength of a price based market wide CRMs is the ability of such a mechanism to complement/interact with DS3 system services framework. Since incomes from this CRM will be more predictable it will allow for more efficient price discovery for provision of the DS3 system services.</p> <p>Furthermore this option could more readily allows cross border participation for when such time as reciprocal arrangements are available in neighbouring markets. The CRM price could be readily included in market coupling if these reciprocal arrangements were in place.</p> <p>From a suppliers perspective the predictable costs associated with a long term price based CRM are preferential compared with other CRMs where supplier exposure could vary greatly year on year.</p>
<p>26. Would a Long-term price-based CRM work or fit more effectively with a particular option for the energy trading arrangements. If so, which one and why?</p>	<p>ESB believes that this CRM option would work with either Option 1 or 3. However a price based CRM may work better with a more centralised energy market design, and so complements the Mandatory Centralised Market (Option 3) best.</p> <p>It seems likely that a market wide price based CRM would have to be accompanied by some sort of bidding principles in the energy market. Compliance and transparency with such principles may be more achievable with a market where there is mandatory participation and bidding is on a unit by unit basis. Notwithstanding these comments, a price based CRM can also work with Option 1.</p>

1.13 SHORT-TERM PRICE-BASED CRM (CHAPTER 10.10)

Question	Answer
27. Are there any changes you would suggest to make the design of a Short-term price-based CRM effective for the I-SEM (for instance a different choice for one or more of the topic)?	Cross border participation in this scheme should only be allowed when reciprocal arrangements are in place with neighbouring markets. Therefore the CRM price should not be included in market coupling until this happens.
28. Do you agree with the initial assessment of the strengths and weaknesses of a Short-term price-based CRM? If not, what changes to the assessment would you suggest (including the strengths and weaknesses of an option relative to the others)?	<p>The assessment says that this option is more favourable for flexible resources (including interconnection) than base load providers. It is not clear why this is the case since payments would be based on availability at time of scarcity not ability to ramp etc. In any case the most appropriate mechanism to incentivise and reward flexible resources is via the DS3 System Services Framework. ESB believes the CRMs should be used for the sole purpose of remuneration towards generation adequacy.</p> <p>Since this CRM is similar in design to the existing CRM in the SEM there are advantages to it in that it would reduce the amount of overall change in the market place. And as for the long-term option above, this design would allow for straightforward inclusion of the CRM price in market coupling (at such time as reciprocal arrangements are in place).</p> <p>However since generators revenues under this option are less predictable, it does not complement price discovery in the DS3 System Services Framework as well.</p>
29. Would a Short-term price-based CRM work or fit more effectively with a particular option for the energy trading arrangements. If so, which one and why?	<p>ESB believes that this CRM option could work with either Option 1 or 3. However a price based CRM may work better with more centralised energy market designs, so may complement the Mandatory Centralised Market (Option 3) best.</p> <p>It seems likely that a market wide price based CRM would have to be accompanied by some sort of bidding principles in the energy market. Compliance and transparency with such principles may be more achievable with a market where there is mandatory participation and bidding is on a unit by unit basis. Notwithstanding these comments, a price based CRM can also work with Option 1.</p>

1.14 QUANTITY-BASED CAPACITY AUCTION (CHAPTER 10.11)

Question	Answer
<p>30. Are there any changes you would suggest to make the design of a Quantity-based Capacity Auction CRM effective for the I-SEM (for instance a different choice for one or more of the topic)?</p>	<p>To limit the volatility of the auction result the use of max and min limits or other measures should be carefully considered. Without this there will be huge volatility in the revenues earned by generators year on year. This will also have a negative impact for suppliers as their ability to hedge this unpredictable exposure will be impacted.</p>
<p>31. Do you agree with the initial assessment of the strengths and weaknesses of a Quantity-based Capacity Auction CRM? If not, what changes to the assessment would you suggest (including the strengths and weaknesses of an option relative to the others)?</p>	<p>The consultation mentions that market power mitigation measures may be needed with this option. Without detail on these it is difficult to assess this option accurately. Also, the details on the penalty arrangements are also crucial for a full appraisal.</p> <p>Notwithstanding this lack of detail, ESB believes this type of CRM could lead to massive volatility in CRM prices year on year. Such swings would not be beneficial for generators or the ability for suppliers to hedge.</p> <p>However a strength of this CRM design is that since this is the CRM being implemented in GB it should allow for reciprocal arrangements / cross border participation more readily than other options. In the long term with further interconnection in place ideally an “all islands market” between I-SEM and BETTA will emerge. Steps in this direction are therefore considered useful.</p>
<p>32. Would a Quantity-based Capacity Auction CRM work or fit more effectively with a particular option for the energy trading arrangements. If so, which one and why?</p>	<p>ESB is not in favour of this CRM option.</p> <p>However if implemented a capacity auction CRM would possibly fit best with the “Adapted Decentralised Market” (Option 1).</p>

1.15 QUANTITY-BASED CAPACITY OBLIGATION (CHAPTER 10.12)

Question	Answer
<p>33. Are there any changes you would suggest to make the design of a Quantity-based Capacity Obligation CRM effective for the I-SEM (for instance a different choice for one or more of the topic)?</p>	
<p>34. Do you agree with the initial assessment of the strengths and weaknesses of a Quantity-based Capacity Obligation CRM? If not, what changes to the assessment would you suggest (including the strengths and weaknesses of an option relative to the others)?</p>	<p>A decentralised approach such as this CRM option adds additional administrative complexity into the sector.</p> <p>It imposes more requirements on suppliers who will already be implementing massive change to operate in the new I-SEM environment.</p>
<p>35. Would a Quantity-based Capacity Obligation CRM work or fit more effectively with a particular option for the energy trading arrangements. If so, which one and why?</p>	<p>ESB is not in favour of this CRM option.</p> <p>If implemented a capacity obligation CRM would possibly fit best with the “Adapted Decentralised Market” (Option 1).</p>

1.16 CENTRALISED RELIABILITY OPTIONS (CHAPTER 10.14)

Question	Answer
<p>36. Are there any changes you would suggest to make the design of a Centralised Reliability Option CRM effective for the I-SEM (for instance a different choice for one or more of the topic)?</p>	<p>If at all, the capacity price should only be included in market coupling if reciprocal arrangements are in place with neighbouring markets.</p>
<p>37. Do you agree with the initial assessment of the strengths and weaknesses of a Centralised Reliability Option? If not, what changes to the assessment would you suggest (including the strengths and weaknesses of an option relative to the others)?</p>	<p>This option is described as a market wide CRM but ESB believes it could potentially end up being a more targeted scheme where options are just put in place with a few generators. As a worst case scenario, it could end up more like a strategic reserve option which ESB believes is not appropriate for a market like that on the island of Ireland.</p> <p>Although reliability options exist in American markets, there are no similar mechanisms in place in Europe. By introducing a new and largely unproven mechanism in I-SEM a further implementation risk has been added. ESB does not consider that reliability options bring any additional benefit as compared with other CRM options, that would justify the implementation risks.</p> <p>Furthermore, by introducing a “new” mechanism the I-SEM would be moving further away from the Target Model norm which could lead to repercussions further into the future when further change / integration is required.</p>
<p>38. Would a Centralised Reliability Option work or fit more effectively with a particular option for the energy trading arrangements. If so, which one and why?</p>	<p>ESB is not in favour of this CRM option. If implemented it would possibly fit best with the “Adapted Decentralised Market” (Option 1)</p>

1.17 DECENTRALISED RELIABILITY OPTIONS (CHAPTER 10.15)

Question	Answer
<p>39. Are there any changes you would suggest to make the design of a Decentralised Reliability Option CRM effective for the I-SEM (for instance a different choice for one or more of the topic)?</p>	<p>If at all, the capacity price should only be included in market coupling if reciprocal arrangements are in place with neighbouring markets.</p>
<p>40. Do you agree with the initial assessment of the strengths and weaknesses of a Decentralised Reliability Option? If not, what changes to the assessment would you suggest (including the strengths and weaknesses of an option relative to the others)?</p>	<p>This CRM option is effectively trying to create another market. This would add to the already significant change happening in the market,</p> <p>It is not clear if this type of CRM is operating anywhere and has a proven track record in delivery. ESB believes that it is better to go with a scheme that is fully understood and tried and tested rather than experimenting.</p> <p>A decentralised option such as this adds additional administrative complexity into the sector. A platform / exchange would have to be created. This is an unnecessarily complexity that would not add value.</p>
<p>41. Would a Decentralised Reliability Option work or fit more effectively with a particular option for the energy trading arrangements. If so, which one and why?</p>	<p>ESB is not in favour of this CRM option.</p> <p>If implemented it would possibly fit best with the “Adapted Decentralised Market” (Option 1)</p>