



TYNAGH ENERGY
L I M I T E D

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4th April 2014

RE: Integrated Single Electricity Market (I-SEM) High Level Design for Ireland and Northern Ireland from 2016 Consultation Paper (SEM-14-008)

Dear Sirs,

Tynagh Energy Ltd (TEL) welcomes the opportunity to respond to the Integrated Single Electricity Market (I-SEM) High Level Design for Ireland and Northern Ireland from 2016 Consultation Paper. As a member of the Electricity Association of Ireland (EAI), TEL supports the collective response of the association.

TEL hopes that these suggestions prove constructive to the process and look forward to further positive engagement with the RAs and the SEMC.

Yours sincerely

David Vaughan
Commercial Risk and Regulatory Manager

Enc. Integrated Single Electricity Market (I-SEM) Consultation Response Tynagh Energy Ltd



1 CONSULTATION QUESTIONS

1.1 RESPONDENT DETAILS

COMPANY	Tynagh Energy Limited
CONTACT DETAILS	David Vaughan Commercial Risk and Regulatory Manager Tynagh Energy Limited The Crescent Building, Northwood Park, Santry, Dublin 9 Tel: +353 (0)1 857 8700 Email: d.vaughan@tynaghenergy.ie
MAIN INTEREST IN CONSULTATION	Tynagh Energy Ltd is a registered market participant in the SEM with a 400MW Combine Cycle Gas Turbine.

1.2 GENERAL COMMENTS

Forwards Market

There is a requirement for suppliers to be able to hedge prices in the forward time frame to manage risk and offer competitive fixed rate supply contract to customers. The forward market that exists in the SEM is illiquid. Currently ESB has a controlling stake in the Forwards market in the SEM due to the size of its high merit generation fleet. This high merit fleet consists of Moneypoint, Aghada, Dublin Bay Power, Lough Ree and West Offaly totaling 1,919 MW of a conventional fleet of 8,516MW or 22.5%. Even following the sale of Lough Ree and West Offaly ESB's high merit generation will consist of 19.8% of the fleet. ESB is able to extract a premium in the forwards markets which is in excess of €5/MWh compared to the production costs of its CCGT peers.

Volume Risk

Trading of a CfD is predicated on the assumption that the generator who sold the CfD will be included in the Day-Ahead schedule and will have revenue from which to settle the difference payment with respect to the CfD. If this generator is excluded from the market schedule then trading the CfD becomes loss making i.e. the generator will be required to pay out on the CfD whenever the market price exceeds the strike price in the CfD but will have not received any revenue from which to pay these difference payments.

The current market design which involves three part commercial offer data and technical offer data results in significant volume risk for generators. Fierce competition between CCGTs can result in a generator being excluded from the market schedule on very tight margins but the impact of uplift can increase the SMP

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above the cost of generation of the excluded CCGT. Where this SMP is above the strike price of any CfD the excluded CCGT would be exposed to volume risk i.e. they would be required to pay out on the CfD but have not received revenue to back this off against. It would not matter in this instance whether the CfD was a one-way or two-way CfD. Without dealing with the volume risk that is inherent in the SEM CfD market at present then ESB will continue to have a controlling stake in the forwards market and there will be no competition from other generators. This lack of competition is to the detriment of consumers.



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>The RAs' duty is to ensure an adequately remunerated market that is commercially sustainable¹. Recent domestic and EU experience would indicate that in order to ensure a sustainable market with high RES penetration the following revenue streams are required for conventional generators:</p> <ul style="list-style-type: none"> • Energy – increasing RES penetration will result in decreasing energy revenue • Capacity – capacity revenue is required to ensure adequate reliable capacity to support RES and ensure security of supply in both the short and long term. • Ancillary services – revenue may be required to ensure investment in flexibility to support RES. <p>A preferred option for energy trading cannot be definitively determined without knowing the interaction between energy, capacity, ancillary services and RES.</p> <p>However, TEL is able to determine which options would be the least preferred. These are Option 2 and Option 4, both of which retain a mandatory ex-post Pool and enable access to the ex-ante European markets on a voluntary basis. The reasons for the unsuitability of these options are detailed below:</p> <p>Option 2</p> <p>There is in effect competition between these two markets for primacy. If the European market is the most attractive this will reduce liquidity in the pool which will negate the benefit of retaining</p>

¹ Section 9 (4) (c) of the 1999 Act specifies that :

“In carrying out the duty...the Commission shall have regard to the need:

(c) to secure that licence holders are capable of financing the undertaking of the activities which they are licensed to undertake”



the pool. If the ex-post pool is the more attractive market this could reduce the quality of the price in the day ahead market (DAM) and result in inefficient flows on the interconnectors.

Mandating liquidity in both the DAM and ex-post pool is also problematic as the bidding in the DAM under this option is on a portfolio basis. This would enable a market participant to offer their high merit generation into the European markets and offer their low merit generation into the ex-post pool thereby satisfying regulatory limits imposed while still significantly reducing liquidity in the ex-post pool.

Option 4

The ex-post pool is mandatory and uses the complex three part bids currently employed in the SEM. Participation in the European market is through financial trading using Euphemia compliant bids. The financial trading does not alter the volumes in the ex-post pool of the participants that execute these trades. This will create significant volume risk for generators. If a generator executes a CfD there is significant risk that they will not be scheduled where the SMP from the ex-post pool exceeds the strike price of the CfD. The CfD is therefore of no benefit to the generator and could in fact be a liability. This problem currently exists in the SEM and has resulted in a lack of liquidity in the forward market.

Suppliers on the other hand do not have this risk. If a supplier has entered a CfD they know that they will have a corresponding volume in the ex-post pool. The CfD will effectively hedge their exposure to volatile prices. This option will result in a preference for imports into the SEM over the interconnectors at both day-ahead and intraday. This would be inefficient and would restrict the ability of the SEM in meeting renewable targets.

It could also result in inefficient scheduling as the inefficient interconnector flows from the European markets are an input into the ex-post pool and not a result of the process. There is the potential for adverse flows on the interconnector i.e. energy imports into the SEM where the price

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<p>2. Is there a requirement for a CRM in the revised HLD, and why?</p>	<p>in the SEM is lower than in BETTA.</p> <p>Yes. The Electricity Association of Ireland (EAI) of which TEL is a member commissioned a report from Frontier Economics on the Benefits of a Capacity Remuneration Mechanism in the SEM. They concluded that:</p> <p><i>“relying on an energy only market in small systems may expose investors to significantly greater risk, and result in much higher required rates of return. This in turn implies higher prices for customers and the likelihood of periods of much tighter plant margins.</i></p> <p><i>All of these factors are likely to be made worse by:</i></p> <ol style="list-style-type: none"> <i>1. increasing penetration of renewables, as this reduces the likelihood of conventional plants being able to secure revenue from peak prices; and</i> <i>2. unsignalled changes to the regulatory framework, as this will undermine investor confidence and increase the base level of return they require.”</i> <p>A well-designed capacity remuneration mechanism can address this inherent market failure that exist in small systems and reduce the cost of capital for investors and in so doing reduce the cost for consumers.</p>
<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>A preferred option for capacity remuneration cannot be definitively determined without knowing the interaction between energy, capacity, ancillary services and RES.</p> <p>However TEL is able to determine which options would be the least preferred. These are Option 1, Option 3, Option 4, and Options 5 a & b. The reasons for the unsuitability of these options are detailed below:</p> <p><u>Option 1</u></p>



Capacity that is held as strategic reserves is kept separate from the energy market. All other generation capacity would still be reliant on the energy only market to recover their capacity costs. This would not address the significant increase risk identified in the Frontier Economics report.

Option 3

A short-term price based CRM will introduce price volatility into the capacity price which will increase investor risk. It is also open to potential gaming by portfolio players.

Option 4

High RES penetration has resulted in significantly higher installed capacity than peak demand. Capacity obligations present a benefit for vertically integrated market participants who can secure certificates from within their generation portfolio and significantly reduce the capacity revenue available to other market players

Options 5 a & b

Both centralised and decentralised reliability options result in generators entering one-way a CFD. It is presumed that where the SMP is in excess of the strike price the generator will be generating and therefore will have revenue from which to pay the difference payment. It is not clear under any of the energy options that this will in fact be the case. If the generator is scheduled as a result of a non-energy balancing action the revenue the generator receives will be paid as bid. The generator will therefore not have received the revenue from which to pay the difference payment and the reliability option will be a liability.

If the strike price in the centralised option is set too low it will act as a price cap and if it is set too high it will reduce the capacity revenue. The decentralised option would allow reliability obligations to trade at different strike prices but this will lead to added complexity and there is no market experience of this option being deployed.

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As the reliability options are financial contracts it is difficult to see how they will ensure the delivery of adequate capacity.

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

Question	Answer
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?	No. There has been no assessment of whether revenue adequacy for generators will be achieved across energy, capacity and ancillary services.
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?	No.

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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><u>Security of supply</u> Security of supply must be measured both over the short and long term. Market participants that deliver services across all these timeframes must be remunerated to ensure that security of supply exists. Security of supply will only be delivered through a sustainable market design that adequately remunerates investments across energy, capacity and ancillary service revenue streams. TEL is not able at this point to make a complete assessment of security of supply without understanding the interaction between energy, capacity and ancillary service revenues.</p> <p>However, TEL can make the following observations on each of the revenue streams. A well-designed CRM can both contribute towards long term security of supply as well as ensure that capacity is made available at times of high demand. Adequate and predictable ancillary service revenue under DS3 project will assist in ensuring that the existing generation fleet is incentivised to make investments that enable the provision of flexible services. The energy market also needs to value flexibility in order for security of supply to be delivered over market timeframes. The only HLD options that will value flexibility are Option 1 and Option 3. Under Option 2 and Options 4 the value of flexibility will not be realised as an ex-post pool will socialise the cost imposed by inflexible generation.</p> <p><u>Efficiency</u> The definition of the efficiency criteria is that the market design should, so far as it is practical to do so, result in the most economic (i.e. least cost) dispatch of available plant. TEL contend that it is not possible to consider efficiency of plant on the island of Ireland in isolation but the efficiency must also consider the efficient use of interconnection i.e. the flows on the interconnector must be in the direction of the underlying prices across the interconnector.</p>

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High efficiency of interconnector flows, and thereby efficient dispatch of the available plant, can only occur where there is a high volume of generation being offered by SEM market participants at day ahead and intraday timeframes. Using this measure of efficiency Option 3 would be the most efficient as participation in the European markets at day ahead is mandatory and participation intraday is exclusive. Option 1 and Option 2 would deliver less efficiency.

Under Option 1 there are no specific measures to ensure that there is a high level of participation in the European markets. Participation day ahead is voluntary and participation intraday is non-exclusive. Under Option 2 the level of trading at day ahead and intraday will be intentionally limited in order to ensure that there is liquidity in the ex-post pool. There is a significant risk that a large portion of the wind generation will only turn up in the ex-post pool. This will mean that the market determined interconnector flows will be inefficient and will need to be countertraded by the TSO.

Option 4 would deliver the least efficiency. This is because, as explained earlier, participation in the European market will favour imports into SEM. These resulting inefficient interconnector schedules will then be imported into the ex-post pool so it is unlikely that the generation fleet will be dispatched efficiently either.

Adaptability

In assessing adaptability it is first necessary to determine what the market design may need to adapt to. TEL can identify two key areas which the market design will need to adapt to in the medium term.

The first being further development to the European market rules. It would appear that implementing energy trading options that more closely reflect that of neighbouring markets would enable adoption of rules changes more straight forward for the SEM. Option 1 and Option 3 would score most highly on this measure. Option 2 would be less adaptable to changes in European



market rules and Option 4 would be the least adaptive.

The second area that the market will need to adapt to is the changing mix of generation technology that will be required in order to meet the renewable targets. None of the energy trading options in and of themselves will ensure that the market can adapt to higher RES penetration. The interaction of energy capacity and ancillary service revenues will determine how adaptable the SEM is to this changing generation mix. TEL would contend that energy trading options which create a value for flexibility that will support this transition. Both Option 1 and Option 3 have the potential to value flexibility. Option 2 and Option 4 socialise the cost of inflexible generation and so may not be as adaptive.

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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>The strengths of this option are that it has the potential to deliver a liquid forward market for suppliers. Supplier will be able to hedge their exposure to spot price through either physical or financial forward trading. Volumes traded physically forward can be nominated by the generator at the day head stage. This will remove volume risk for generators. It is questionable whether financial forward trading will develop alongside physical forward trading under this option due to the potential for generators to be exposed to volume risk in the DAM. There is also the potential for flexibility to be valued through both the Intraday and Balancing Mechanism. This should be supportive of RES.</p> <p>The weaknesses of this option are that the choice of timeframes over which to trade physically may lead to a lack of liquidity. There is not mandatory participation in any of the markets and the potential for bilateral trading outside and organised market and portfolio balancing could severely limit the volume or energy available to trade for non-portfolio players. This could potentially lead to a lack of transparency and the potential for any portfolio players to exercise market power due to asymmetric information. It is vital that any market power mitigation measures are applied to all market participants so as to ensure that liquidity exists across the entire market.</p> <p>Physical trading in the forwards market would be a riskier proposition for a company with a single generation asset than the current SEM. This risk is as a result of the introduction of balance responsibility that is inherent in the European network codes. Under the current SEM market design with an ex-post market schedule if a generator becomes unavailable they will be excluded from the market schedule. While the generator does not receive any income there is no penalty exposure.</p> <p>Under this option a generator would be required to either purchase back the volume of energy</p>

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	<p>sold forward or be exposed to imbalance prices. As there is no obligation on any market participants to trade in any of the market timeframes the prices that the generator will be required to pay to unwind these positions could be determined in an illiquid market. This could result in significant losses for a single generation asset company. It was these exact circumstances that contributed to the financial difficulties of British Energy following the introduction of the NETTA in the UK in 2001.</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>Yes</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>The introduction of the option would enable suppliers the opportunity to fully hedge against electricity price volatility. The ability to employ a greater choice in trading strategies would enable greater competition which would be beneficial to consumers. There is a potential lack of transparency under this option due to the ability of participants to trade bilaterally outside of organised exchanges. This has the potential to enable portfolio players to exercise market power through asymmetrical information which would be to the detriment of consumers.</p>



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

Question	Answer
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)?	Not a preferred option.
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)?	No comment.
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?	No comment.

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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>The strengths of this option are that it has the potential to deliver a liquid forward market for suppliers. Supplier will be able to hedge their exposure to spot price through financial forward trading. Participation in the Day Ahead, Intraday and Balancing markets is mandatory which will ensure liquidity and ensure that market participants are not adversely impacted by the obligation to be balance responsible. There is also the potential for flexibility to be valued through both the Intraday and Balancing Mechanism. This should be supportive of RES. There is also the potential for a lower cost to trade for generators as it will be possible to choose to trade exclusively with a central counterparty.</p> <p>The weaknesses of this option are that volumes traded financially forward cannot be nominated by the generator at the day head stage and so there is volume risk inherent in this market design which may restrict the liquidity in the forward timeframe. With unit specific bidding required under this options the impact of this volume risk could be significant depending strategy employed by market participant in converting their current complex SEM bids into Euphemia compliant bids.</p> <p>Generators cost of generation per unit of output reduces as their load increases. In the SEM generators are required to submit monotonically increasing PQ pairs. This can be achieved through separating out the no-load cost from the incremental energy cost. Euphemia bids do not allow this structure and it has been suggested that the cost structure of SEM generators could be approximated through the use of a minimum income condition. The use of minimum income conditions could lead to significant uplift on the shadow price and expose generators that are not scheduled to significant exposure of forward traded CFDs.</p> <p>To illustrate the point TEL has analysed the impact on shadow price and SMP from the PCR algorithm on the 22nd Feb where generators in SEM employ the strategy of replicating their</p>

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complex bids through a minimum income condition (MIC). It has been assumed that in order to continue to submit monotonically increasing bids generator will:

1. Submit P1 excluding no-load costs
2. Submit Q1 at Minimum Stable Generation (MSG)
3. Submit P2 including no-load costs
4. Submit Q2 at Baseload
5. As cost recovery is not guaranteed, MIC is set at 50% of fuel only start cost plus no-load cost.

It was assumed that as suppliers had the ability to hedge in the forward time frame demand was inelastic. GB order book was derived from N2Ex auction results for the same day. The results of this analysis indicate that under the above bidding strategy SEM generators would be scheduled at MSG as this price will be cheaper than the all in price bid by GB generators resulting in almost 100% exports to the UK as the shadow price in SEM is lower than the UK.

The MIC problem is only run for the bidding zone of SEM. As demand is inelastic no generator orders would be rejected. The uplift that is applied to the shadow price in the SEM would result in an average €15/MWh increase across the day due to the MIC not being met from the shadow price that was returned from Euphemia. The SMP in the SEM would then be higher than GB resulting in adverse flows. As Moyle and EWIC are ATC base market coupling these adverse flows will not be rejected. A generator who was correctly excluded from the market schedule due to bidding in higher than the shadow price could have a significant exposure on a CfD due to this uplift.

14. Do you agree with the qualitative assessment of Mandatory Centralised Market against the HLD criteria? If not, what changes to the assessment would

Yes.



<p>you suggest (including the relative strengths and weaknesses of an option)?</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>The introduction of the option may enable suppliers the opportunity to fully hedge against electricity price volatility. The mandatory nature of participation will ensure liquidity and reduce the costs imposed by balance responsibility. This should aid transparency which would be of benefit to the consumer both in the short and long term.</p>

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1.9 GROSS POOL – NET SETTLEMENT MARKET (SECTION 9)

Question	Answer
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)?	Not a preferred option.
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)?	No comment.
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 of consumers on the island of Ireland?	No comment.

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1.10 CAPACITY REMUNERATION MECHANISMS (CHAPTER 10)

Question	Answer
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>The basic assumption of the energy only market is that SMP increases with demand. This assumption is no longer valid in a market with significant levels of renewables which have zero marginal cost. Valuing capacity at zero once constructed undermines the motivation for investment. Price volatility is not acceptable politically.</p> <p>There are no reasonable arguments that support the removal of a CRM. A CRM is needed for small market with (increasingly) high wind penetration. The CRM must be designed for the all-island context which is small highly concentrated market that already has a capacity mechanism.</p> <p>Either of the preferred CRM designs could work with either of the preferred energy market designs.</p>
20. Are these the most important topics for describing the high level design of any future CRM for the I-SEM?	The objective of the CRM must be explicitly defined (this is not clearly addressed).



1.11 STRATEGIC RESERVE (CHAPTER 10.7)

Question	Answer
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?)	Not a preferred option.
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)?	No comment.
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?	No comment.



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>The strengths of this option are that it would represent the minimum change from the current arrangements. It would reduce risk for investors and thereby the rate of return sought by investors. This would be beneficial for consumers.</p> <p>The weaknesses are that the price for capacity is not market driven. Wind generation receives more capacity revenue than the capacity credit that is assigned to it on the calculation of required capacity. There is no exit signal nor is there a requirement to deliver this capacity at time of system stress. This model is different from that which is being introduced in the UK which may cause difficulty for market coupling.</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>Yes.</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>No.</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)?	Not a preferred option.
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)?	No comment.
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?	No comment.



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>The strengths of this option are that it would value reliable capacity. There would be an obligation to deliver the capacity at times of system stress and strong exit signals would exist for non-reliable generation. The market price for capacity would be discovered through an auction. It would reduce risk for investors and thereby the rate of return sought by investors. This would be beneficial for consumers. This would be compatible with the auction process being developed in the UK.</p> <p>The weaknesses are that the auction could result in significant fluctuation from year to year. There is the possibility for market power to be exerted in an auction and this would require appropriate measures to mitigate such as a price cap and price floor in the auctions. Setting an appropriate level for the penalty and facilitating secondary trading to mitigate the risk of penalty would be required to ensure the right incentives are set for capacity providers. This would be a significant change from the existing mechanism. It would be difficult for wind generators to participate in an auction with an obligation for delivery.</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>Yes.</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>No.</p>

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1.15 QUANTITY-BASED CAPACITY OBLIGATION (CHAPTER 10.12)

Question	Answer
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)?	Not a preferred option.
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)?	No comment.
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?	No comment.



1.16 CENTRALISED RELIABILITY OPTIONS (CHAPTER 10.14)

Question	Answer
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)?	Not a preferred option.
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)?	No comment.
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?	No comment.

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1.17 DECENTRALISED RELIABILITY OPTIONS (CHAPTER 10.15)

Question	Answer
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)?	Not a preferred option.
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)?	No comment.
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?	No comment.