



# Integrated Single Electricity Market (I-SEM)

# High Level Design for Ireland and Northern Ireland from 2016

**Consultation Response Template** 

5 February 2014

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### 1 PURPOSE OF THIS DOCUMENT

### 1.1 PURPOSE AND STRUCTURE OF THIS DOCUMENT

- 1.1.1 This supplementary document provides a template for responses to the consultation document on implementing a new High Level Design ('HLD') for the Integrated Single Electricity Market (I-SEM) in Ireland by the end of 2016. We request all responses to the consultation are submitted in this template, and in **Microsoft Word** format.
- 1.1.2 This template contains the questions presented in the consultation document.
- 1.1.3 Responses to the Consultation Paper are requested by 17.00 4th April 2014. Following a review of the responses to this paper the SEM Committee will publish its draft decision on the proposals set out in this paper in June 2014.
- 1.1.4 Responses should be sent to Jean-Pierre Miura (JeanPierre.Miura@uregni.gov.uk) and Philip Newsome (pnewsome@cer.ie). Please note that the SEM Committee intends to publish all responses unless marked confidential<sup>1</sup>.

Jean-Pierre Miura Philip Newsome

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While the SEM Committee does not intend to publish responses marked confidential please note that both Regulatory Authorities are subject to Freedom of Information legislation.

### 2 CONSULTATION QUESTIONS

### 2.1 RESPONDENT DETAILS

COMPANY	PrePayPower
CONTACT DETAILS	Cathal Fay (Cathal.Fay@PrePayPower.ie)
MAIN INTEREST IN	Electricity Supply, non-vertically integrated
CONSULTATION	

### 2.2 GENERAL COMMENTS

PrePayPower (PPP) welcomes the opportunity to respond to the SEM Committee's consultation SEM-14-008 on the Integrated Single Electricity Market (ISEM). PPP is a large supplier to electricity domestic prepayment customers. Unlike many of our competitors, we are not as yet vertically integrated with physical generation assets. We are therefore representative of a "later stage" new entrant supplier, where reliance on liquid availability of hedging arrangements is vital to offer customers fixed price retail tariffs on a competitive basis.

We note that the paper consults on the integration of the market arrangements, rather than delving into the specific detail of the internal market workings. This is a necessary compromise in taking a first step in a project of such complexity. Nevertheless we wish to provide further detail of our expectations for that further detailed market design to provide context for our overall preferred option.

We also note the consultation's emphasis around the Day Ahead Market (DAM) and the Intraday Market (IDM). There is less detail (in our view) around the Forwards Market (FM) and Balancing Market (BM), which are particularly of relevance for supply businesses that are not vertically-integrated. Liquidity in the FM is of vital importance to the independent supplier. Strong consideration must be given to continuance and improvement (in terms of volumes of hedge made available) of the directed contracts concept under the SEM, perhaps along the lines of the "Secure and Promote" concept within BETTA.

Concepts around market power in bidding behaviour will need further consideration. Most – if not all – of the market designs are subject to the potential of predatory commercial behaviour. The source of the market power could arise from the Interconnectors, large utilities, or smaller generation developers with the "right generator with the right characteristics at the right time". All of these will need to be addressed as necessary and appropriate to ensure the appropriate function of the ISEM.

Finally, we flag to the SEM Committee's attention a more detailed issue around the collateralisation of the market in general. We believe that the objective of a "fully collateralised" SEM is unduly punitive on supply businesses, overly focused towards the needs of generation, and an inefficient use of capital for the wider consumer. It provides for an effective barrier to entry for new entrants relative to vertically integrated incumbents and entities with access to cheap working capital.

The market redesign should swing the level of collateralisation in favour of promoting new entrants. The principles of collateralisation of ISEM (and the relative collateralisation of financial or physical trades) are unknown at this time. Collateralisation requirements can act as a barrier to entering into hedges and forward trades, and we recommend that the SEM Committee commit to the principle of reducing collateral requirements for all parties to the greatest extent possible.

### **Requirements of Preferred Option**

We view that the two primary requirements of the new market design are:

- Clear price formation in markets (FM, DAM, IDM, BM); and
- The related matter of liquidity in those markets.

To that end, the concept of the requirement for all physical power to be traded on a public market platform at some stage, be it in the FM, DAM, IDM, or BM, is important. We consider that this principle can be called **exclusivity of trading on approved platforms**.

Exclusivity of trading is linked to **gross generation and gross demand bidding**. Net bidding implies the ability to self-trade away from a platform. We also support **Unit Bidding** for generators. This will facilitate transparency and market power control mechanisms to be put in place.

Option 1 and Option 2, which are designed around themes of flexibility whereby power is traded on a public market platform or not, are not supported by PPP. Note that Option 3 has no requirement for exclusivity of trading on approved platforms for the FM, and Option 4 has no approved platform for the FM, DAM or IDM. Nevertheless, Option 3 and Option 4 both progress around the concept of exclusive/mandated arrangements under a given timeframe, and therefore we have focussed on evaluation of these options in particular.

Given the size of the SEM, the uncertainty liquidity under each timeframe, and the need for appropriate price discovery we recommend that there is only one platform available on which participants can trade under each timeframe. We call this principle the requirement for a single platform for each market for SEM participants (or a single platform for all markets). This is likely to require legislative changes to create these natural SEM trading platform monopolies.

Option 3 and Option 4 under such a scenario have highly similar characteristics:

- Single SEM-approved FM (financial, voluntary, Option 3) (financial, voluntary Option 4)
- Single SEM-approved DAM (physical, mandatory Option 3) (financial, voluntary Option 4)
- Single SEM-approved IDM (physical, voluntary Option 3) (financial, voluntary Option 4)
- Single SEM-approved BM (physical, mandatory Option 3) (financial, mandatory Option 4)

For the avoidance of doubt, both physical and financial trades must be gross unit based for generation.

We believe that a single FM will promote liquidity for suppliers to access longer-term hedging arrangements. If that can be managed under Option 3 or 4 with the principles of exclusivity of

trading on approved platforms, and a single platform for each market for SEM participants, then PPP can support either Option 3 or Option 4 with those principled changes.

PPP sees different benefits to Option 3 and Option 4. Option 3 offers physically firm contracts to avoid an imbalance price, and on the balance of probability will offer better liquidity of trade throughout all forwards timeframes than Option 4. Option 3 is likely, however, to have more difficult imbalance pricing based on INC/DEC energy balancing actions. Option 4 in contrast offers an ex post pool price which on the balance of probability will be less penal for imbalances, but incentives to trade in forwards markets may be equivalent to now, and may suffer from higher MIFID collateralisation requirements than Option 3. It is therefore difficult to pick a final preferred option without greater detail on the pricing arrangements, the required collateralisation, and any market power mitigation in orders to buy and sell electricity that may be implemented.

Finally, it is noted that it may be impossible to restrict purely financial CfD trading to a single platform in each market timeframe, even with stringent licence requirements placed on generation and supply in Ireland. If such licence requirements are impossible or will ultimately fail to deliver the effect of exclusivity of trading on approved platforms, and a single platform for each market for SEM participants for the financial markets (more prevalent under Option 4), then we suggest the below alteration to Option 3, noting the dilution of the otherwise welcome mandatory DAM that arises as a result.

- Single SEM-approved FM (physical, voluntary, Option 3)
- Single SEM-approved DAM (physical, voluntary Option 3)
- Single SEM-approved IDM (physical, voluntary Option 3)
- Single SEM-approved BM (physical, mandatory Option 3)

A single physical market can be mandated and implemented by ensuring only these SEM-approved markets interface with the TSO and BM for dispatch and imbalance settlement.

### **Discussion on Balancing Price is Required**

Option 4 retains the current familiar SEM pricing structure, based on a gross-pool ex-post optimisation algorithm. Option 3 describes a severe INC/DEC based pricing mechanism, where the marginal MW balancing action sets the imbalance price. We believe that substantially **more discussion and consultation is required on the area of imbalance pricing and settlement.** The consultation should include:

- If progressing with Option 3:
  - o Averaging of the INC/DEC energy balancing actions
  - Consideration of potential imbalance thresholds under which imbalance pricing is less penal
  - Consideration of a transitional road-map for the market, adjusting these averaging bands and thresholds during the initial period of market operation
- If progressing with Option 4:
  - o Consideration of uplift.

### **Capacity Remuneration Mechanism**

As mentioned in our introduction, PPP is not currently a vertically integrated utility. Nevertheless, we welcome from a supplier's perspective the concept of a long-term price-based CRM acting to reduce volatility in the current SEM pricing arrangements. Such a CRM would allow for volatility in the imbalance price to continue to be managed within the ISEM design.

All other CRMs imply that certain generators might not be in receipt of a CRM, and thus may recover long-run costs through the energy price, driving potentially very high prices for consumers. Furthermore, those prices may be set in the imbalance market and would therefore manifest in a volatile spike in the ex post price, against which consumers cannot appropriately react.

Therefore, a price-based CRM should be maintained as a core concept with the SEM design, aligned to some form of regulated bidding principles, discussed in the next Section. We question the need for State Aid approval of the CRM, if it is not targeted to particular generators and the energy price is appropriately regulated (as currently) to exclude long-run investment costs.

We do not consider it sensible to include the recovery of the price based CRM into the market bids for energy from suppliers; in any event further recovery of costs will be required under another invoicing stream to pay generators who are not receiving the energy price. A single out-of-market invoicing stream should recover the cost of the CRM. Splitting the recovery of the CRM through two mechanisms seems unduly complex.

The above three sections represent the core response of PPP to the consultation questions. Nevertheless, there are further elements of general market design and market power (that we wish to expand on here.

### **Market Power**

The requirement for exclusivity of trading on approved platforms, and a single platform for each market for SEM participants is related to providing liquidity into markets, and along with gross unit bidding are structural steps towards the mitigation of market power. Market power mitigation necessarily needs to go further. There are two aspects to this:

- Regulation of buy/sell orders through ex post monitoring, with ex ante regulation
  following predatory pricing behaviour or identified market power. Orders should be
  consistent across all markets, and should have some basis in reasonable cost reflectivity.
  Such regulation is supported with a price-based capacity payment mechanism. We go as far
  to say that Balance Service Providers should price their balancing services at cost, given the
  wind-rich portfolio of generation expected for ISEM.
- Market making obligations, particularly in FM. Under Option 3, this would require some market making obligations in the FM, possibly similar in nature to the "Secure and Promote" concept in the UK, whereby suppliers may have access on easily accessible platforms to some of the larger utilities' hedging capability. Under Option 4, this would require market making obligations in the FM and DAM, given the lower incentives to trade in the forwards market. For the avoidance of doubt, PPP request greater volumes of such regulated contracts within the FM than currently available under the Directed Contracts. Given the short nature of the market trial, a market go-live which is likely to land in the middle of a

retail tariff year, it is a clear requirement to regulate the availability of market hedges until a demonstrably liquid and competitive environment emerges.

### **Market Access and Market Entry**

A concern PPP has with other European markets are the punitive entry requirements, both structural in terms of the requirement to develop trading systems, and financial in the requirement to hold collateral.

In relation to the development of trading systems, every market participant will be – to a certain degree – a new market entrant when the ISEM goes live. Current plans indicate a highly compressed market trial period. To that end, PPP requests that **the planned market trial duration be protected and extended** insofar as possible. Furthermore, the **availability of centrally published data from the TSO should be encouraged, both forecasted (wind, load) and outcome market results**.

Finally, a great concern for any participant acting in FM, DAM, IDM and BM are the collateral requirements. Across all markets settlement timeframes should be accelerated to reduce the requirement for collateral (providing for a small fraction of the current collateralisation required in the SEM). Furthermore, given our preferred design has a single SEM market (all on individual platforms or perhaps a shared platform) across all timeframes, consideration of a single collateralisation structure across all markets should be considered. This will avoid the likely inefficiency of posting collateral with several different markets. This could be a function of the NEMO. Finally, under an ISEM design with a single approved FM, we would strongly urge standardisation of forward hedging products to allow for no more than 5% collateralisation. Without tight control of collateral requirements, these requirements will form an effective barrier to trade for most players, impacting on liquidity and I/C flows. In general, collateralisation of trades should be set at the minimum possible level within the market.

### **Summary**

PrePayPower believes the following design items are appropriate for the new market:

- exclusivity of trading on approved platforms
- gross generation and gross demand bidding
- unit bidding
- a single platform for each market for SEM participants (including FM)
- more discussion and consultation is required on the area of imbalance pricing and settlement
- a long-term price-based CRM should be maintained as a core concept with the SEM design
- a single out-of-market invoicing stream should recover the cost of the CRM
- regulation of buy/sell orders through ex post monitoring, with ex ante regulation following predatory pricing behaviour or identified market power
- Balance service providers should price their balancing services at cost
- market making obligations, particularly in FM
- the planned market trial duration be protected and extended
- availability of centrally published data from the TSO should be encouraged, both forecasted (wind, load) and outcome market results

- settlement timeframes should be accelerated to reduce the requirement for collateral
- consideration of a single collateralisation structure across all markets should be considered
- collateralisation of trades should be set to the minimum possible level within the market

This leads to PPP's preferred option being either Option 3 or Option 4, with the two bolded design principles implemented. If financial markets prove difficult to regulate/legislate to only have one platform under each timeframe, then a modified version of Option 3, with physical FM and non-mandatory DAM is PPP's preferred option.

PPP prefers a price-based capacity payment mechanism, integral with energy bidding controls, and we question whether such a design does indeed meet the criteria for state aid approval.

### 2.3 PURPOSE OF THE DOCUMENT (SECTION 1)

Question		Answer
1.	Which option for energy trading arrangements would be your preferred choice for the I-SEM market, and why?	<ul> <li>Either Option 3 or Option 4, with the following principles:         <ul> <li>exclusivity of trading on approved platforms</li> <li>a single platform for each market for SEM participants (including FM)</li> <li>gross unit-based bidding</li> </ul> </li> <li>This aids price discovery and liquidity. Unit based bidding promotes later market power mitigation measures. If it is not possible to mandate financial markets to meet the first two criteria, PPP's preference is for Option 3, with a physical FM and non-mandatory DAM.</li> <li>exclusivity of trading on approved platforms</li> <li>a single platform for each market for SEM participants</li> <li>including FM</li> </ul> <li>exclusivity of trading on approved platforms</li>
2.	Is there a requirement for a CRM in the revised HLD, and why?	Yes. There is a requirement for a price-based CRM within the overall market design, to protect consumers against unnecessary and unpredictable price volatility in the balancing market.  This should be accompanied by regulation of market energy prices to exclude long-run costs, similar to currently.
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?	Price-based CRM, so all generation can receive payment. All other CRM mechanism may leave some participant generators being forced to recover their own long-run costs in the energy market, driving occasional spikes.

# 2.4 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?	These are important, and are complete, but we would prefer greater emphasis on the items listed under question 5.
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?	We believe that there should have been further development of the Forwards Market within the high level design. We advocate a single platform for forwards trading in the ISEM.  We believe further consideration (or future flexibility/commitment to further consult) should be given to the balancing mechanism pricing with the High Level Design.  We believe that principled statements regarding maintaining manageable collateral requirements and publication of supporting market information (forecasts, outcome results) should form part of the high-level design.  We believe that further detail on market power mitigations and market maker obligations should be given within the high level design.

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

Question	Answer
6. What evidence can you provide for the assessment of the HLD options with respect to security of supply, efficiency, and adaptability?	No comment.

# 2.6 ADAPTED DECENTRALISED MARKET (SECTION 6)

Question		Answer
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)?	Option 1 and Option 2, which are designed around themes of flexibility in whether power is traded on a public market platform or not, are not supported by PPP.
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)?	Option 1 and Option 2, which are designed around themes of flexibility in whether power is traded on a public market platform or not, are not supported by PPP.
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?	Option 1 and Option 2, which are designed around themes of flexibility in whether power is traded on a public market platform or not, are not supported by PPP.

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

Question	Answer
10. Are there any changes you would suggest to make the Mandatory Expost 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	Option 1 and Option 2, which are designed around themes of flexibility in whether power is traded on a public market platform or not, are not supported by PPP.
altogether)?  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)?	Option 1 and Option 2, which are designed around themes of flexibility in whether power is traded on a public market platform or not, are not supported by PPP.
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?	Option 1 and Option 2, which are designed around themes of flexibility in whether power is traded on a public market platform or not, are not supported by PPP.

# 2.8 MANDATORY CENTRALISED MARKET (SECTION 8)

Question	Answer
13. Are there any changes you would suggest to make the Mandatory Centralised Marke more effective for the I-SEM (for instance, a different choice fo one or more of the topics or a different topic altogether)?	a single platform for each market for SEM participants (including FM)  If a single financial market in the FM cannot be implemented, then we propose a physical voluntary FM, noting that this necessarily undermines the benefit of the mandatory DAM, i.e. it makes the DAM voluntary.
14. Do you agree with the qualitative assessment of Mandatory Centralised Marke against the HLD criteria? If not, what changes to the assessment would you suggest (including the relative strengths and weaknesses of an option)?	Yes, but note the improvement to the FM suggested above, which further improve the forwards market arrangements.
15. How does the Mandatory Centralised Marke measure against the SEM Committee's primary duty to protect the long and short term interests of consumers on the island of Ireland?	We believe it best serves this requirement – particularly with the proposed changes to the FM – to deliver strong price formation and liquidity in the market.

# 2.9 GROSS POOL – NET SETTLEMENT MARKET (SECTION 9)

Question	Answer
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)?	<ul> <li>We would suggest:         <ul> <li>exclusivity of trading on approved platforms</li> <li>a single platform for each market for SEM participants (including FM)</li> </ul> </li> <li>If a single financial market in the FM, DAM and IDM cannot be implemented, then we propose an Option 3 with a physical voluntary FM and non-mandatory DAM as our preferred option.</li> <li>Market maker obligations (similar to Secure and Promote) may be required under FM, and other market maker requirements under DAM and IDM.</li> </ul>
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)?	Yes, but note the improvement to the FM, DAM and IDM suggested above, which improve the forwards market arrangements.
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?	We believe it best serves this requirement – particularly with the proposed changes to the FM, DAM, and IDM – to deliver strong price formation and liquidity in the market.

# 2.10 CAPACITY REMUNERATION MECHANISMS (CHAPTER 10)

Question	Answer
19. What are the	The rationale for continuance of the CRM is to avoid volatile pricing in
rationales for and	the balancing market for consumers.
against the	
continuation of	We see no rationale for the discontinuance of the CRM, as under a
some form of CRM	price-based mechanism with regulation of energy prices, it is merely a
as part of the	part of the total cost of production of energy, allocated via a different
revised trading	mechanism.
arrangements for	
the I- SEM?	
20. Are these the most	Yes, but the recovery of the CRM is another design option, the two
important topics	options being recovery being split through energy and another
for describing the	invoicing stream, or through just a single invoicing stream separate to
high level design of	energy.
any future CRM for	
the I-SEM?	

# 2.11 STRATEGIC RESERVE (CHAPTER 10.7)

Question		Answer
21. Are th	nere any	No. We do not support any CPM which is not an integral part of the
chang	ges you would	determination of the total cost of production of energy for all players,
sugge	est to make	and prefer the price-based CRM that does not require inclusion in
the d	esign of a	energy bids.
Strate	egic Reserve	
	anism more	
	tive for the I-	
	for instance	
a diffe	erent choice	
for or	ne or more of	
the to	opic?)	
22. Do yo	ou agree with	No comment.
the in	itial	
	sment of the	
	gths and	
	nesses of a	
	egic Reserve	
	anism? If	
	vhat changes	
	e assessment	
	d you suggest	
	ding the	
	gths and	
	nesses of an	
•	n relative to	
	thers)?	
	d a Strategic	No comment.
Reser		
	anism work	
or fit		
	tively with a	
	cular option	
	e energy	
tradir	_	
	gements. If	
•	hich one and	
why?		

# 2.12 LONG-TERM PRICE-BASED CRM (CHAPTER 10.9)

Question		Answer
24. Are th	ere any	Yes – recovery of the CRM through a separate invoicing stream levied
_	es you would	on SEM licensed suppliers only.
	st to make	
	esign of a	
	erm price-	
based		
	ive for the I-	
-	for instance	
	rent choice	
for on	e or more of	
the to	pic?)	
•	u agree with	No comment.
the in		
	ment of the	
-	ths and	
	nesses of a	
	erm price-	
	CRM? If	
	hat changes	
	assessment	
	you suggest	
	ding the	
-	ths and	
	nesses of an	
•	relative to	
the ot		
26. Would		No comment.
	orice-based	
	vork or fit	
	effectively	
	particular	
•	for the	
_	y trading	
	gements. If	
•	ich one and	
why?		

# 2.13 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 pricebased CRM effective for the I-SEM (for instance a different choice for one or more of the topic)?	No. We do not support any CPM which is not an integral part of the determination of the total cost of production of energy for all players, and prefer the price-based CRM that does not require inclusion in energy bids.
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.

# 2.14 QUANTITY-BASED CAPACITY AUCTION (CHAPTER 10.11)

Question	Answer
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)?	No. We do not support any CPM which is not an integral part of the determination of the total cost of production of energy for all players, and prefer the price-based CRM that does not require inclusion in energy bids.
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)?	No comment.
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?	No comment.

# 2.15 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)?	No. We do not support any CPM which is not an integral part of the determination of the total cost of production of energy for all players, and prefer the price-based CRM that does not require inclusion in energy bids.
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.

# 2.16 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)?	No. We do not support any CPM which is not an integral part of the determination of the total cost of production of energy for all players, and prefer the price-based CRM that does not require inclusion in energy bids.
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.

# 2.17 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)?	No. We do not support any CPM which is not an integral part of the determination of the total cost of production of energy for all players, and prefer the price-based CRM that does not require inclusion in energy bids.
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.