



# **Integrated Single Electricity Market (I-SEM)**

## **High Level Design for Ireland and Northern Ireland from 2016 Consultation Response**



**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>.

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<sup>1</sup> 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	Indaver Ireland
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MAIN INTEREST IN CONSULTATION	Indaver owns and operates a hybrid biomass generator unit in Duleek, Co. Meath with registered capacity of 16MW. We also operate a “light” supply company.

### 2.2 GENERAL COMMENTS

Indaver Ireland welcomes the opportunity to respond to the Consultation on the High Level Design for Ireland and Northern Ireland from 2016. As members of the Electricity Association of Ireland (EAI) we generally support the EAI submission.

Specifically, we support the view that the primary consideration of the re-design should be to deliver efficient cross border trade. We also support the EAI view that renewable generation must be central to market design and that it will be important in considering the interaction with DS3 that generators do receive remuneration for services demanded (in particular flexibility services) i.e. non-remuneration is avoided.

In addition to this we would like to emphasise the importance of the HLD addressing the following key areas:

- Supporting the priority dispatch of renewable plant. Currently it is not clear how each HLD would facilitate priority dispatch.
- Providing a clear REFIT reference price,
- Providing a balancing market arrangement where pricing is not excessively punitive,
- Facilitating transparent pricing and non-portfolio player trading,
- Providing sufficient certainty and clarity regarding non energy balancing.

Indaver Ireland operates a centrally dispatched 16MW thermal waste-to-energy plant in Duleek, Co. Meath. Although we may develop further facilities in the future (one to two on the island) Indaver could not be described as a portfolio player in the future market.

The Meath waste-to-energy facility generates over 50% renewable electricity, which receives the REFIT subsidy, while the remainder is exposed to market pricing in the current SEM.

Waste-to-energy plants are both controllable and predictable in a similar fashion to a typical thermal generator. However, where they differ is that their primary objective is to treat waste. As waste is the main revenue source, and the plants are subject to stringent environmental controls, the furnace

and boiler is designed to operate continuously. If for any reason it is not possible to export power to the grid, a turbine bypass diverts steam to air cooled condensers which dissipate the energy to atmosphere. This ensures that waste treatment can continue (as this is the priority) at the same throughput regardless of the level of electrical output. The bypass enables the plant to be highly flexible. However, a regular requirement to bypass the turbine impacts on the overall efficiency and viability of the plant. The viability of these facilities is critical for meeting waste policy objectives (e.g. diverting waste – or the “fuel” – from landfill) and they are an important part of the Irish waste management strategy.

The typical operating capacity factor for such a facility is over 93% including planned outages. Although the plants are predictable there is some variation in real time generation due to variability in the calorific content of our fuel (waste). This can lead to up to 10% variation on the output from the plant compared with day ahead / intra day forecast.

### 2.3 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>Of the designs proposed, we believe that Option 3 is the most likely to provide the correct signals to encourage the efficient use of the interconnectors. We also favour the price transparency and opportunity to participate in price formation available in this option (by the mandatory nature and with unit based bidding). However, we would have reservations about the possibility of punitive pricing in the balancing market where bidding of INC &amp; DEC is not regulated.</p>
<p>2. Is there a requirement for a CRM in the revised HLD, and why?</p>	<p><b>Yes</b></p> <p>We support the EAI view that energy only markets do not adequately remunerate all necessary market components in systems with high renewable penetration.</p> <p>In a market where generators are called upon to provide significant flexibility as is the current situation in Ireland, the capacity mechanism is important in covering volume risk both for existing capacity (to ensure continuity of supply) and to encourage long term investment (to ensure adequacy).</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>We support the quantity based CPM of capacity auctions (Option 3). In our view, quantity based CPMs reward predictable and reliable plant on the system while providing sufficient incentive to invest in new, flexible capacity. The fit of a quantity based mechanism within the new HLD is clearer than the fit of a price based mechanism, where there is no longer any bidding code of practice.</p> <p>We do not support reliability options (Options 5a and 5b) as they have potential to be a liability in the current system with high wind</p>

	<p>variability.</p> <p>It is very important that any CPM must not provide perverse incentives to import over the interconnector due to price differential as is currently the case. The ability to include capacity payments in ex ante bidding appears to address this.</p>
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**2.4 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>We would also seek further clarity on arrangements for non energy balancing.</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>	

**2.5 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>We support the EAI assertion that there is sufficient evidence from Europe indicating that long-term security of supply is not delivered by any of the trading arrangements ergo the CPM. Furthermore, as noted by EAI, there is an increasing trend indicating that short-term availability may also become an issue as existing plant are no longer being adequately remunerated and will be forced to close / be decommissioned / be moth-balled.</p>

2.6 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>We do not support Option 1 as it lacks liquidity and there is too much uncertainty regarding regulatory measures required to promote this.</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>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>	

2.7 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>We support the EAI assertion that Option 2 is not a workable, practical design</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>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>	



2.8 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>We support Option 3 as it</p> <ul style="list-style-type: none"> <li>- Is likely to provide for efficient trading on the interconnector</li> <li>- Provides full price transparency and the best opportunity for generation to participate in price formation</li> <li>- Provides a clear REFIT reference price in the DAM</li> <li>- Facilitates unit based trading</li> </ul> <p>We would have reservations about the lack of clarity on bidding principles relating to the INC &amp; DEC price formation in the balancing market. In the current proposal it may be possible, for example, for marginal generation to submit punitive pricing into the balancing market where it is known to be short. A two tier balancing price may help support renewables participating in this market in managing the cost of forecast error.</p> <p>Clarity is also sought regarding how the REFIT reference price would be determined. Generators trading in the DAM may achieve a very different clearance price to those participating in the balancing market, which could have an important effect on the PSO pot.</p> <p>Finally, we would seek further detail regarding non energy balancing. The only cause for curtailment at present of the Meath WtE is excess generator capacity (high wind &amp; import on the interconnector).</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>15. How does the Mandatory Centralised Market measure against the SEM Committee’s primary duty to</p>	

<p>protect the long and short term interests of consumers on the island of Ireland?</p>	
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**2.9 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>We agree with the EAI submission that Option 4 is not a workable, practical design because it;</p> <ul style="list-style-type: none"> <li>- Is unlikely to produce sufficient incentives for participants to actively engage in ex-ante timeframes</li> <li>- Could result in inefficient interconnector flows</li> <li>- Could create volume risk for generators if not scheduled where the SMP from the ex-post pool exceeds the strike price of a CfD the generator has entered into.</li> </ul>
<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>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?</p>	

**2.10 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>As noted above, we support the EAI view that energy only markets do not adequately remunerate all necessary market components in systems with high renewable penetration.</p>
<p>20. Are these the most important topics for describing the high level design of any future CRM for the I-SEM?</p>	

**2.11 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>We do not support the strategic reserve option for CPM. As noted by the EAI, this option is not appropriate for a small, relatively isolated system with exceptional levels of variable generation.</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</p>	

option relative to the others)?	
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?	

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

Question	Answer
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?)	
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)?	
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?	
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**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 price-based CRM effective for the I-SEM (for instance a different choice for one or more of the topic)?	
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)?	
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?	

2.14 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>We support the quantity based capacity auction mechanism as we feel this would most effectively incentivise existing and future capacity to be available and reliable.</p> <p>As noted by the EAI, however, this must be combined with robust market power mitigation measures and tailored to accommodate wind.</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>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>As noted above, we feel that a quantity based CPM is a clearer fit in the various HLD options than a price based CPM in the absence of a bidding code of practice.</p>