



Integrated Single Electricity Market (I-SEM)

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

**Consultation Response to SEM-14-008
Vayu Limited**

April 2014

Vayu Limited (“Vayu”) welcomes the opportunity to comment on this material consultation paper SEM/14/008 that forms part of the process for implementing a High Level Design (“HLD”) for the Integrated Single Electricity Market (“I-SEM”) by the end of 2016. This consultation is one of the most important for market participants to respond to in recent years and is being issued with the backdrop of a transition to a low-carbon economy with increasing levels of renewable generation.

There are a number of key questions that should be answered when assessing the most suitable HLD option for the Irish electricity market that meets the key criteria set out in the paper:

- How will the new structure ensure that non-integrated retail suppliers can sustainably operate in the I-SEM?
- How confident is the SEM committee that there will be sufficient liquidity in the timeframes of each option to support its HLD decision?
- What specifics will be included in the new structure to ensure that Customers are treated as a key component of the structure and have a voice?

The objective of the internal energy market is to guarantee the free movement of energy between member states in order to reduce prices across Europe and realise potential welfare benefits for European society as a whole.

The EU’s drive towards the creation of a target model for electricity is a bit like a moving super-tanker or steamroller – once it starts to move in a given direction, it is virtually impossible to get them to change direction or turn around. As a non-vertically integrated retail supplier in the all-island electricity market we have to deal with this dynamic, but we also appreciate that structural changes in the SEM are required. Key areas of interest to Vayu in this process include:

- Customer Impacts
- Regulatory Impact Assessment
- Mitigation of market power and enhanced market liquidity
- Support mechanisms
- Transfer of risk
- Pricing of imbalances
- Market design phase – financial security

Customer Impacts

Vayu’s primary focus has been and will always be on an area of the market that seems to have been largely ignored throughout much of this process – Customers, who will ultimately pay for the cost of reconstructing the Single Electricity Market (“SEM”). The paper makes reference to the SEM Committee’s primary objective of consumer protection by promoting effective competition, but we believe this does not permeate throughout the paper. There should be more emphasis and consideration of the impact the chosen option will have on Customers. It should have been included as one of the HLD criteria.

Regulatory Impact Assessment

It is not obvious that a full Regulatory Impact Assessment (“RIA”) has been carried out on the options. This is a well-established imperative and forms part of the Irish Government’s Better Regulation principles. The SEM committee must commit to carrying out this assessment on the chosen option and publish the results of this assessment.

It is also imperative that a thorough Cost Benefit Analysis (“CBA”) accompany any proposed decision (including system costs) referenced against a scenario where compliance is achieved with minimal change to the existing SEM (including systemisation costs of the original SEM, including intraday system changes). Detailed CBAs should have accompanied the four options respectively to facilitate thorough and informed input at this stage of the project.

Mitigation of market power and enhanced market liquidity

Vayu has concerns that the balance of power in the I-SEM would remain with vertically integrated generators and that an unintended consequence of the chosen option would result in discrimination against retail only suppliers. It is vital therefore that the decision must ensure that there is a level playing field for all market participants.

The current SEM allows for a wide range of market participants to be active in the market. Although some participants may be more equal than others, being able to participate in the first instance is a feature that needs to be maintained in order to promote equity and fairness in the transition to a new market. The chosen HLD must not create barriers to entry for new market entrants.

The current structure of the SEM does not provide a real opportunity to create a liquid market with active trading of products across all timeframes. As Ireland moves towards market coupling we must do so in a way that allows a liquid market sensibly evolve and develop. Reference prices should come from a liquid, transparent, cost-reflective market and this is best achieved by properly functioning markets across all timeframes.

Support mechanisms

A number of support schemes are due to finish or will undergo radical structural changes very soon after the effective implementation date. If Ireland is to meet its target of 40% of generated electricity to be from renewable sources, the chosen option must take account of the impact this decision has on the appetite for investing in renewable energy sources.

Transfer of risk

By obliging all participants to become balance responsible parties the Regulatory Authorities (“RAs”) should acknowledge that each option represents a considerable transfer of risk to demand only participants similar to Vayu and an increase in market complexity.

The HLD criteria do not include price volatility as an area that should be examined under each option. Vayu wants to continue offering our Customers a consistent level of price transparency, without being exposed to volatile pricing, particularly with regard to imbalances. The assessment of each option does not give us an assurance that any one option will lead to stable energy prices.

Participants must therefore have access to real time demand data, especially for larger Quarter Hourly (“QH”) end-users. These structural changes in market complexity would add significant costs to retail suppliers with respect to i) additional resources and ii) development of IT systems to participate in the market.

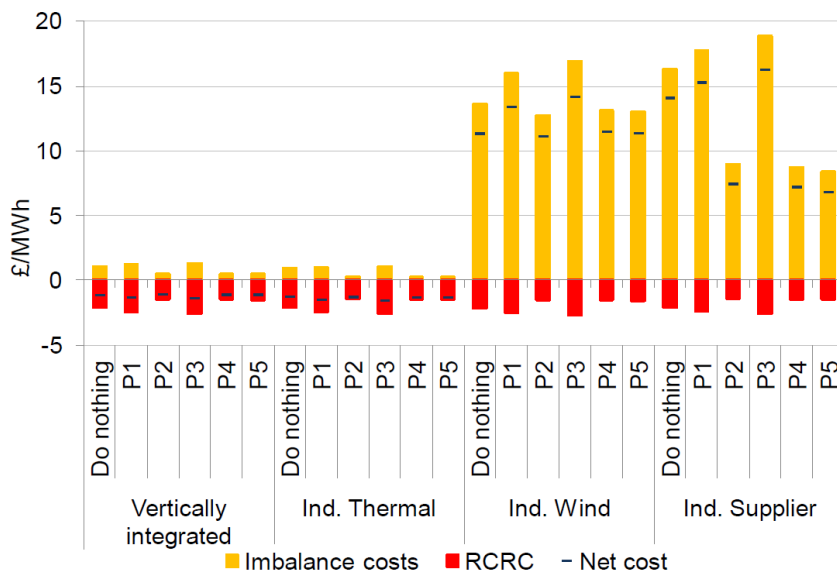
Pricing of imbalances

More consideration should be given to the imbalance pricing mechanism in the proposed market designs. The future generation mix is expected to have large amount of renewable generation in the market. It is therefore important that this is designed in such a way that suits the expected mix throughout the lifetime of the market. In our view, therefore, the balancing mechanism should take into account the variable nature of wind resources and be designed in such a way as to ensure this price is not volatile and not capable of manipulation.

The RAs should recognise the increased risk that suppliers are exposed to from more dynamic, more complex and unpredictable day ahead and intraday trading requirements. Suppliers should not have to deal with more volatile balancing prices that may be expected under some of the options. There will be increased risks due to Customers using electricity they need on any given day regardless of what suppliers may forecast. In this regard the design of the balancing regime and imbalance pricing is critical to allow management of the new risks suppliers will be exposed to. This will require careful consideration and consultation with industry.

The RA’s will be aware of ofgem’s Electricity Balancing Significant Code Review - Draft Policy Decision¹ in GB, which showed that independent wind generators and suppliers are exposed to significant risks on imbalance prices when compared to vertically integrated generators. The graphic below shows under different scenarios the Residual Cashflow Reallocation Cashflow (“RCRC”) (the surplus/deficit from cash-out that is redistributed to market participants according to their size) and “opportunity cost as a proportion of total credited energy in 2030 – positive values represent costs.

¹ <https://www.ofgem.gov.uk/publications-and-updates/electricity-balancing-significant-code-review-draft-policy-decision>



We do not believe that any of the options provides assurances that the future structure will not adversely impact our Customers.

Market design phase – financial security

It is widely accepted that the SEM is over collateralised. Vast sums of monies are tied up in posting collateral to SEMO. In coming to a decision on the chosen HLD the SEM committee should undertake a thorough review of the financial security arrangements for the entire energy market and radically overhaul the rules to allow existing market participants to organically grow their retail supply portfolio.

A primary consideration of the re-design should be to deliver efficient cross border trade. Local market design must not unduly inhibit participation in the various markets. Task forces should be established to allow proper industry participation and expertise input into the detailed market design process.

1 CONSULTATION QUESTIONS

1.1 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>Vayu does not agree with the options presented. However, if we had to choose, Option 4 would be more acceptable than others given our position in the market and the fact that it is closest to the existing SEM structure. We recognise that there are genuine concerns over its adaptability to changes in the EU energy market and whether it would be acceptable as a solution that is in keeping with the EU target electricity market.</p> <p>A variant of Option 3 may be more acceptable if changes are made to certain aspects of its structure. For example, market participants do not have access to real time demand which will impact on how they can trade positions in the day-ahead, but more especially in the intra-day market. The market design phase should assess how this could be achieved.</p> <p>Without this functionality the transfer of risk to balance responsible parties is simply too high. If mandatory participation only applied to generation it would be more acceptable. Also, it would be an absolute must that:</p> <ul style="list-style-type: none"> • All physical market trades should be based on a gross import or export position; trading the net position of a generation and demand portfolio should not be possible. • Strong market power mitigation measures should be very evident in the design; gaming of market behaviour in each timeframe should not be possible and these measures should not restrict flows over the interconnectors.
<p>2. Is there a requirement for a CRM in the revised HLD, and why?</p>	<p>Given Ireland’s generation mix and aspirations to further increase the level of renewable generation, it is clear that there must be arrangements in place to support this. A Capacity Remuneration Mechanism (“CRM”) will be an integral feature and requirement for the market.</p> <p>The chosen mechanism should help smooth price volatility and also address security of supply concerns. Compliance with state aid guidelines is a requirement, but without a well thought out, feasible CRM in place security of supply concerns do arise.</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>The preferred option should be robust, sustainable and one that will give investors' confidence that their investments will generate positive acceptable returns for their shareholders.</p> <p>It must also be one that they can assess as having a high degree of regulatory certainty. Investors will not put their money in a regime that is subject to materially change at short notice.</p>
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1.2 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 believe the main areas that needs further development are:</p> <ul style="list-style-type: none"> • Price volatility and • Market power mitigation measures • Recent changes in the Bidding Code of Practice (“BCOP”) will result in higher wholesale electricity prices until the end of 2016. At certain times in the year this increase could be as much as 25%. It is vital that the current BCOP be radically reviewed to avoid unwarranted price increases.
<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>We noted earlier that the impact on Customers features very little in the paper, even though they are the ones who ultimately will pay the price of implantation.</p> <p>The Agency for Co-operation of Energy Regulators (“ACER”) recognises this and is currently undertaking a consultation to identify, in a more holistic way, the key challenges and regulatory responses in its ‘Bridge to 2025’ initiative. A key workstream examines the effect that these changes are likely to have on consumers and the way in which ACER anticipate consumers will interact with the gas and electricity markets.</p> <p>Overall, these impacts seem likely to have the effect that consumers will play a much more active role in the daily operation of the energy markets and in the electricity market in particular. Customers and market players will become more interdependent. More Customer engagement is required.</p> <p>Given the SEM has cost Customers almost €125 million to implement, between the initial design and subsequent structural amendments and we have not yet been informed of the budgeted implementation cost of the I-SEM, Customers must therefore feature far more in the RAs analysis of options.</p>

1.3 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>It is universally accepted that security of supply is a key pillar of EU energy policy. Given that the TSO's have stated they can operate the system under any of the options and that some form of CRM will be required to accommodate a generation mix that, in Ireland, is more intermittent in nature, we would contend that efficiency (i.e. least cost dispatch) should rank above the security of supply and adaptability criteria.</p> <p>We believe options 1 and 2 give integrated generation advantages over other market participants on the basis that they can make decisions outside of the requirements of each of these options. Option 4 may give incorrect signals to interconnector flows.</p> <p>All other things being equal, a system based on central dispatch will provide least cost / efficient pricing.</p>

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1.4 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 agree with this Adapted Centralised Market option given the numerous possibilities for integrated generators to remove their generation capabilities from market trading.</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></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></p>

1.5 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 do not agree with this Mandatory Ex-Post Pool for Net Volumes option given the numerous possibilities for integrated generators to remove their generation capabilities from market trading.</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>	

1.6 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>A variant of this Mandatory Centralised Market option may be more acceptable if changes are made to certain aspects of its structure.</p> <p>Market participants on the supply side of the market do not have access to real time demand for their larger Customers (smaller Customers will be on standard industry profiles), which will impact on how they can trade positions in the day-ahead, but more especially in the intra-day market. The market design phase must assess how this could be achieved. Without this functionality the transfer of risk to balance responsible parties is simply too high.</p> <p>If mandatory participation only applied to generation only, it would be more acceptable.</p> <p>Also, it would be an absolute must that:</p> <ul style="list-style-type: none"> • All physical market trades should be based on a gross import or export position; trading the net position of a generation and demand portfolio should not be possible. • Strong market power mitigation measures should be very evident in the design; gaming of market behaviour in each timeframe should not be possible and these measures should not restrict flows over the interconnectors.
<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>For the most part, we agree with the qualitative assessment of this option against the HLD criteria. However, we would like to make a couple of specific points as they impact demand only market participants.</p> <p>We would see the Practicality / Cost criterion as an area of weakness as this option imposes a much higher level of responsibility on demand participants with respect to mandatory participation in DAM, IDM and balancing. This new market complexity will add significantly to the cost base and would in our view create a barrier to entry.</p> <p>In relation to Equity, we are concerned that the RAs believe this to be a possible strength. We see this somewhat differently as demand only participants have no visibility of real time demand for larger QH Customers, which could have serious financial implications in the IDM and consequent imbalance prices. This must be addressed in the decision making process.</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>Customers are very interested in a market that will provide stable pricing and a high degree of transparency. We believe the chosen criteria would give a reasonable indication if this option protects the interests of Customers, but we would also contend that price volatility should have been included in the criteria.</p> <p>Of the criteria used to assess what is in the best interests of consumers we believe an emphasis should be placed on Efficiency (least cost dispatch of available plant) and Competition (between participants on an equitable, non-discriminatory basis).</p>
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1.7 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>The paper notes that this option has concerns that liquidity would not be evident in the ex-ante market. The RAs should therefore consider including the choices already noted in the paper to amend this option to improve liquidity i.e. market maker obligations and gross portfolio bidding. We support this option as it retains the ex-post gross mandatory pool and central dispatch features of the current SEM, which have been very positive in facilitating market entry by non-integrated suppliers.</p> <p>As this option is non-mandatory for suppliers it gives additional flexibility and could provide them with an effective hedging mechanism. However, to be more effective, access to real-time data is a priority. We also believe it would improve transparency and liquidity.</p> <p>We appreciate that this option may result in perverse flows over the I/Cs but market forces should, over time, correct these anomalies.</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>For the most part, we agree with the qualitative assessment of this option against the HLD criteria. However, We would like to make a couple of specific points as they impact demand only market participants.</p> <p>We would see the Practicality / Cost criterion as an area of weakness as this option asks if there will be additional costs on participants with respect to financial regulations, specifically MIFID II. The paper merely raises this as potential issue that would need to be clarified. In the decision making process, the RAs should clarify if this is the case, not merely pose the question.</p> <p>On Competition we would have concerns that liquidity in the DAM and IDM could be impacted by this option, which could curtail opportunities for Customers to actively engage with the ex-ante market.</p> <p>There is also a question mark over whether this option is fully compliant with the target model requirements. The paper recognises this by noting it may be harder to co-ordinate changes to this structure that would be in line with developments across the EU.</p>
<p>18. How does the Gross Pool – Net Settlement Market measure against the SEM Committee’s</p>	<p>Customers are very interested in a market that will provide stable pricing and a high degree of transparency. We believe the chosen criteria would give a reasonable indication if this option protects the interests of Customers, but we would also contend that price volatility should have been included in the criteria.</p>

<p>primary duty to protect the long and short term interests of consumers on the island of Ireland?</p>	<p>Of the criteria used to assess what is in the best interests of consumers, we believe an emphasis should be placed on Efficiency (least cost dispatch of available plant) and Competition (between participants on an equitable, non-discriminatory basis).</p>
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1.8 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>We refer to our response to question 2. In any market with a high level of intermittent renewable generation, a CRM must feature prominently. This also holds true if the EU is to encourage i) increased use of Demand Side Management response measures and ii) the development of ancillary services to improve the wider energy market.</p> <p>The basic assumption of the energy only model is no longer valid (increasing SMP with increasing demand). Effectively valuing capacity at zero once constructed undermines the motivation for investment. Price volatility (and consequential “boom and bust” investment cycles) is not acceptable politically, nor will the investment community be attracted to such a market. There are no reasonable arguments that support the removal of a CRM.</p> <p>The proposed requirements for state aid, should they be deemed to apply, are suitably adaptable and flexible that most CRM designs for the particular characteristics of the SEM should be acceptable.</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>For the most part the topics addressed cover the main areas of interest, but the list should also consider the interaction of CRMs with other system elements e.g. operation of I/Cs and interaction with developments on the electricity networks in RoI and NI.</p>