



## **Gaelectric Holdings Plc.**

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Response Paper to:

### **SEM Committee Consultation on Trading and Settlement Code Amendments**

Gaelectric Holdings Plc

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**Public**

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## 1 GAELECTRIC BACKGROUND AND INTRODUCTION

Gaelectric Holdings plc (“Gaelectric”) welcome this opportunity to provide feedback to the SEM Committee consultation on the I-SEM Trading and Settlement Code Amendments. Gaelectric are one of the largest independent energy businesses in Ireland. Our company consists of Wind, Energy Storage, Solar & Biomass development divisions, each of which are highly active in the development of large scale projects in Ireland and Northern Ireland. Gaelectric’s wind development division (Gaelectric Developments Ltd) is amongst the most successful in Ireland having completed the development of over 200MW of onshore wind assets. Gaelectric recently sold our interest in the operational and near operational wind projects to China General Nuclear Europe Energy. We continue to develop a significant portfolio of wind projects and remain heavily focused on the efficient operation of the operational fleet via our continuing relationship with CGNEE via our Trading & Markets division and Asset Management Division who are charged with operating the CGNEE fleet in the SEM and I-SEM.

Gaelectric’s Energy Storage team (Gaelectric Energy Storage Ltd) are currently developing a 330MW Compressed Air Energy Storage project in Northern Ireland. The project progressing through detailed design, with a planning application having been submitted in December 2015. The project has been designated as a Project of Common Interest (PCI) by the European Commission, highlighting the strategic importance of the project to the island of Ireland and indeed the European Union. In addition, this division is responsible for the development of battery projects throughout Ireland, and has recently been awarded planning permission for a 1MW project based in Portlaoise.

Gaelectric also operate a Trading and Markets division (Gaelectric Trading and Market Services Ltd), the focus of which is to provide route to market services for all technologies on the island. Gaelectric Trading and Market Services Ltd have successfully developed their offering to 3<sup>rd</sup> parties and now hold contracts of approximately 330MW including supplier lite services and PPAs in both Northern Ireland. The trading team are actively trading both East West and Moyle interconnectors in addition to the Day Ahead, Intraday and Balancing markets in Great Britain. The trading and markets division are now highly focused on providing a route to market and balancing service for our numerous partners in I-SEM, and in that regard, this consultation process is an integral element.

## 2 EXECUTIVE SUMMARY

The introduction of the I-SEM will result in vastly different trading arrangements for market participants. The single largest change will be the shift of balancing responsibility and the associated risk onto market participants. In order to appropriately manage this risk, participants (themselves or via trading houses) will need to actively manage their asset(s) through trading them in the market in consideration of both their operational characteristics and both the prevailing and anticipated future market conditions. This process places a premium on an effective two-way communication structure between the market operator and participants. It is vital that the market is fully transparent and designed in a manner which allows market participants to appropriately forecast outturn pricing (to the extent possible), which will result in more efficient market for participants.

Market participants are currently undertaking considerable review process of their systems and processes which will culminate in significant financial outlay and enhanced resource requirements to ensure participants systems and processes cooperate with the I-SEM market systems and the overall market design. It is important that the benefit of this can be realised through a clear and efficient market to trade.

Some key points raised by Gaelectric throughout our response are outlined below;

### **Portfolio Bidding**

Gaelectric acknowledge and understand the reasons why portfolio bidding was ruled out as standard by the joint Regulatory Authorities during the High Level Design, however it was clear in parallel that the intention was to support portfolio bidding for renewables. It seems that that this design structure has since been revoked with no apparent consideration of reinstating it. It must be understood by the SEM Committee that there will be a very significant cost and lean on resources as a result of this decision.

Mandating a unit based bidding market will result in additional complexity with systems and enhances risk for trading entities and market participants given the day to day operating challenges which will result from unit based bidding. This is particularly apparent in supplier lite contracts on the island. We encourage the SEM Committee to give due consideration to portfolio bidding for renewables to be approved. We welcome an opportunity to discuss this with the SEM Committee in person.

### **Changes to Commercial and Technical Offer Data**

Market participants also must be given the flexibility to updated Technical and Commercial Offer Data up to one hour before delivery. This will increase the flexibility of generators to operate in different modes to meet TSO requirements (E.g. CCGT operating in open cycle mode) and also reflect these differences in their pricing.

### **System Data Releases**

Gaelectric believe that system and pricing data must be released published as soon as possible to allow participants effectively manage their position, reduce distortive early TSO actions and ultimately balance the system more efficiently.

We also strongly object to any change in the metering arrangements for supplier capacity charge calculation. This scheme has rewarded small scale distribution connected projects that reduce demand while cutting down on network costs. Furthermore, Recent European Commission winter package publications have indicated that Curtailed volumes should receive compensation<sup>1</sup>.

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<sup>1</sup> [http://ec.europa.eu/energy/sites/ener/files/documents/1\\_en\\_act\\_part1\\_v9.pdf](http://ec.europa.eu/energy/sites/ener/files/documents/1_en_act_part1_v9.pdf)

### 3 COMMENTS

#### 1. Portfolio bidding of wind

Gaelectric consider that an appropriately designed market would include portfolio bidding of wind within the market design. The I-SEM high-level design explicitly allows for portfolio bidding of variable renewable<sup>2</sup> and it is in all parties interest for it to be included in order to improve efficiency of the market.

Should every windfarm be required to trade individually in the ex-ante markets, an onboarding process with the European Commodity Clearinghouse for each PPA provider/unit and a trilateral arrangement will be required to be put in place. This is a considerable challenge given the volume of supplier lite entities on the island which we estimate to near 1GW in scale. Considering this number of supplier lite projects in development or already operational, we anticipate an unprecedented number of applications to ECC and as a result, we foresee very significant administrative burden for all involved. We do not believe this to be in any party’s interest and we askt the SEM Committee to consider the administrative and considerable cost burden that is potentially being placed on supplier lite entities.

Unit based bidding will also significantly increase the trading requirements for participants. Participants will be forced to execute a large number of small trades on behalf of each individual windfarm. The trend in certain market conditions will be for the majority of trades to be on the one side of the transaction (buy or sell depending of forecast updates). Executing a large number of small trade will be more difficult that executing one larger trade of the net portfolio position. This increases the exposure of windfarms to volatile imbalance prices and increases the requirement for TSO actions to balance the system. This serves to further distort the market should the TSOs be forced to take early actions before gate closure which they will likely be forced to do.

Given the inability of wind and other variable renewable generation to control their energy supply and the increased difficulty of executing numerous smaller trade under the unit-based approach, Gaelectric believe that exemptions must be given to variable renewable generation. Specifically, during the parameter setting process when calculating the Premium for Under Generation (PUG) and the Discount for Over Generation (DOG) the engineering tolerance for variable renewables should set to the installed capacity and/or the PUG/DOG factor should be set to zero. The information imbalance charge should also be set to zero.

In areas such as this, we request early clarification to support the ongoing development of I-SEM business strategies.

#### 2. Treatment of Negative Demand

I-SEM TSC Reference	Short Title
F.19.2	Calculation of Capacity Charges

<sup>2</sup> <https://www.semcommittee.com/sites/semcommittee.com/files/media-files/SEM-14-085a%20I-SEM%20SEMC%20Decision%20on%20HLD.pdf>

While this section is left blank, as one of the few market participants to have initially raised an escalation in the Market Rules Working Group we would like to re-affirm our position that the calculation of Capacity Charges should remain as it currently is. Per our response to the consultation process, we believe that due process was not followed in progressing this away from net metering. Furthermore, we believe that there was a lack of understanding of the proposed benefits and the impacts of this position. A move away from net-metering, in part or in full, will have the impact of these projects re-registering as participating generation (in an effort to *potentially* avail of the reliability option revenue), further stressing resources involved in I-SEM development (particularly on the registration side) with no clear benefit to the end consumer. Gaelectric are of the opinion, that end consumers will in fact see no benefit of removing the current regime, instead placing pressure on the PSO and other elements, and hence enhancing the pressure on the renewables industry.

De-minimis generation provides a clear value to the system through reduced network costs and there is precedent for embedded benefits regimes in other countries. Also, the elimination of negative demand charging for projects financed on this basis will raise considerable challenges regarding their continued viability in the face of an ever-increasing cost industry. This in turn will jeopardise Ireland’s ability to sustain development towards reaching European targets, either in this decade or the next.

Changing to net metering will mandate a profound overhaul of metering arrangements that will be expensive and with uncertain benefits. Therefore Gaelectric strongly oppose any changes that will impact on both Suppliers and Generators in such a sudden way.

### 3. Curtailment Cash-Out

I-SEM TSC Reference	Short Title
F.8.2 & 8.3	Calculation of Curtailment Prices

The draft recast Electricity Regulation arising from the Winter Package <sup>3</sup>provides that curtailment of renewables should be compensated. With this in mind, we reiterate our long standing position that the joint Regulatory Authorities should consult on removing algebra from the TSC which removes payment for curtailed volumes. Below is an excerpt from the recent winter package;

*“Where non-market based curtailment or redispatching is used, it shall be subject to financial compensation by the system operator requesting the curtailment or redispatching to the owner of the curtailed or redispatched generation or demand facility. Financial compensation shall at least be equal to the highest of the following elements:*

*(a) additional operating cost caused by the curtailment or redispatching, such as additional fuel costs in case of upward redispatching, or backup heat provision in case of downward redispatching or curtailment of generating installations using highefficiency cogeneration;*

*(b) 90 % of the net revenues from the sale of electricity on the day-ahead market that the generating or demand facility would have generated without the curtailment or redispatching request. Where financial support is granted to generating or demand facilities based on the*

<sup>3</sup> [http://ec.europa.eu/energy/sites/ener/files/documents/1\\_en\\_act\\_part1\\_v9.pdf](http://ec.europa.eu/energy/sites/ener/files/documents/1_en_act_part1_v9.pdf)

*electricity volume generated or consumed, lost financial support shall be deemed part of the net revenues”*

It was noticeable, and raised by numerous participants during the Rules Liaison Group for I-SEM that the only system constraint (of which curtailment falls into the category of) which was not to be remunerated was curtailment. Gaelectric believe the incentive should be on the Transmission System Operator to continue to develop structures such as DS3, and to continue to be incentivised beyond that to reduce curtailment. This is achieved by continuing the remuneration of curtailment for renewable generators.

#### **4. Imbalance Pricing – Calculation Accuracy**

<b>I-SEM TSC Reference</b>	<b>Short Title</b>
E.2.	Imbalance Price Calculation

Gaelectric welcome the addendums that have been added to the imbalance pricing algebra during the market rules working group process, particularly residual tagging. The initial proposals for an exclusive SO flagging would have led to prices that did not reflect system conditions and made it extremely difficult for participants to trade to forecasted system imbalances. Residual tagging ensures actions in the direction of the NIV will set the price so while a large number of actions will still be flagged as “non-Energy actions”, actions in the direction of the NIV will set the price which gives traders a clearer signal to trade to.

Gaelectric wish to emphasise the importance of extensive and robust market testing before I-SEM go-live. The November 2015 introduction of the Single Imbalance Price in GB brought with it significant technical difficulties. Incorrect prices were calculated and charges and the bugs in the system causing these errors were only noticed after a number of weeks<sup>45</sup>. A similar situation should be avoided in I-SEM, particularly given the financial pressure which may be on participants during the early stages of I-SEM.

For the avoidance of doubt, we accept that there will be challenges during the Go-Live process, however this must be mitigated to the extent possible by robust testing.

#### **5. Imbalance Pricing – Flagging and Tagging**

<b>I-SEM TSC Reference</b>	<b>Short Title</b>
Part B: Appendix N	System Operator and Non-Marginal Flagging

Gaelectric believe that a clear definition of Non-Marginal actions should be given in this Appendix; specifically we believe non-marginal should not include ramping rates. We believe non-marginal should be limited to Minimum Stable Generation and Maximum Generation. The inclusion of ramping rates and pricing breakpoints will introduce considerable difficulties in the calculation an imbalance

<sup>4</sup> [https://www.elexon.co.uk/wp-content/uploads/2015/12/Newscast\\_Issue580\\_2015\\_12\\_7.pdf](https://www.elexon.co.uk/wp-content/uploads/2015/12/Newscast_Issue580_2015_12_7.pdf)

<sup>5</sup> <https://www.elexon.co.uk/elexon-circulars/el02344-erroneous-system-price-of-3000mwh-today/>

price in a timely fashion. It will increase the number of flagged actions and make it more difficult for traders to predict the outturn price with any accuracy. Instruction profiling and settlement will also become extremely difficult. Units will only ramp up and down depending on EDIL instructions and therefore these actions are reflective of system conditions and therefore should be included in the imbalance price calculation

## 6. Administered Scarcity Pricing

I-SEM TSC Reference	Short Title
E.4.5.1(b)(i&ii)	ASP Triggers

Gaelectric have significant concerns surrounding the ASP triggers as detailed in this section, particularly local voltage reduction. Generators that cannot alleviate a local issue should not be penalised for its occurrence. Given the shortage of supply in Northern Ireland coupled with the delays in building the North South Interconnector, the timelines for completion of same being under considerable pressure, local voltage issues in Northern Ireland are a real concern in the upcoming years.

Triggering ASP after such events will have system wide implications and potentially expose assets to volatile and penal BM prices which they cannot avoid (such as intermittent renewables). For this reason, only system wide issues should trigger ASP, rather than local issues, for as long as the market remains a single price zone.

## 7. Suspension

I-SEM TSC Reference	Short Title
B.18.3.1(o)	BM Suspension

Gaelectric believe that suspending a participant from the balancing market due to a suspension for the ex-ante markets or capacity market is an overly heavy handed approach. Registration in the ex-ante markets are not mandatory as part of the I-SEM design – participants are allowed to participate solely in the balancing market. Should a participant be suspended from the NEMO market, they should still be allowed to participate in the balancing market so long as they comply with all balancing market requirements.

While we accept that SEMO must take steps to protect these selves from participants defaulting on their payments, as long as participants comply with the rules of their market, they should be allowed participate in the balancing market.

## 8. Data Submission

I-SEM TSC Reference	Short Title
D.3.2.2	Timing of Data Submission



According to this passage, a Technical Offer Data set number must be submitted by Gate Closure 1 (13:30 D-1). Original iterations of the material through the Market Rules Working Group process included functionality to adjust submit TOD up to GC2 (1 hour before real time). Gaelectric strongly believe that this should be re-instated. As has been demonstrated in GB, this will allow participants to inform the TSO of their actual operational capabilities near real-time which will significantly increase market flexibility and make it easier for the TSO to balance the system.

## 9. Currency Risk

I-SEM TSC Reference	Short Title
F.17 & G.1.3.5	Long Term Capacity Contract Currency Risk

While this query relates to the capacity market code, areas of it are also relevant for the trading and settlement code. According to G.1.3.5, the exchange rate applied to capacity payments are calculated using the Capacity Duration Exchange Rate. For long-term contract holders this could represent 14 years currency risk. We believe that this is a completely inappropriate apportion of currency risk onto contract holders and therefore this Capacity Duration Exchange Rate should be reduced to, at least, an annual exchange rate if not monthly.

We are generally concerned at the lack of consideration for longer term contract holders (i.e. new entrants) given decisions such as the above. Whilst we have no concern with the concept of risk on new entrants, any risks placed on parties should not impact the competitiveness of that party. It is clear that such a structure as this will place undue risks on new entrants which are not placed on incumbents and is therefore clearly discriminatory.

## 10. Data Publication

I-SEM TSC Reference	Short Title
Part B: Appendix E	Data Publication

The importance of timely publication of data in I-SEM cannot be underestimated in I-SEM. In GB imbalance prices are released approximately 25-30mins after an Imbalance Settlement Period and similar timelines should be implemented in I-SEM. In addition to the timely reporting of ex-post data Gaelectric believe that the following data sets, which are currently due to be released after Gate Closure should be released before Gate Closure:

- Unit by Unit Physical Notifications
- Unit by Unit Forecast Availabilities
- Any early TSO action volumes and offer price acceptance

In the GB market, all of these data sets are published well in advance of Gate Closure on the BM reports website<sup>6</sup> and contribute to the efficient operation of the market.

<sup>6</sup> <https://www.bmreports.com/bmrs/?q=balancing/>

Any fears surrounding Market power are best alleviated through transparency rather than keeping market data from participants. Keeping all of this data from market participants reduces visibility of market conditions and a participant's ability to trade effectively. This will reduce the overall market efficiency.

During the market rules working groups, it was proposed that some data relating to participants' COD may not be released for up to a week. This sort of delay (presumably as a result of market power concerns) is completely irresponsible and does not contribute towards a design that incentivises efficient and competitive bidding practices, nor does it allow traders to consider the changing price dynamics in their strategies.

## **11. General Comments**

### **11.1. Ensuring no doubling up of Energy and Non-Energy Actions**

If a generator is offered on to satisfy a constraint and in-so doing balances a short system, this action will be flagged out when it is solving an energy imbalance. Gaelectric have concerns about the number of non-energy actions that will be taken to ensure system security and their potential to serve as both "energy" and "non-energy" actions. To ensure that "non-energy" actions are separated from "energy" actions, clear instructions must be given to the system operator that non-energy actions must be taken in separation to energy actions for balancing the system.

### **11.2. Prioritise DS3 contract holders for non-energy actions**

When taking non-energy actions, the TSO must prioritise DS3 contract holders. Considering that DS3 contract holders are paid to provide the system service while non-contract holders may not be paid, there is an incentive for the TSO's not to select contract holders, as they may be more expensive. Therefore it should be explicitly stated that DS3 contract holders should be prioritised when non-energy actions are taken.

### **11.3. Cross Collateralisation**

The introduction of both NEMO and CRM collateral requirements coupled with existing collateral requirements for the BM will increase the financial burden on market participants. This is further compounded for Generators near the margin that are dispatched up and down on a regular basis which will increase their BM cashflows and hence the BM collateral requirements as per the undefined exposure component of the collateral calculation. For this reason, we urge the SEM Committee to take every step possible to reduce this collateral burden on market participants.

## **4 CONCLUSION**

Gaelectric would like to thank the SEM Committee for consulting with Industry on this issue. The details and provisions set out in trading and settlement code will be fundamental to the efficient running of our market place. It is with this in mind that we have provided the feedback above and welcome all opportunities to engage with the regulators and market operators. Should you have any further question on the issues above, please do not hesitate to contact us.