



***Response to Integrated Single Electricity Market (I-SEM)
Consultation on
I-SEM Market Power Mitigation***

SEM-15-094

**On behalf of
AES Kilroot Power Ltd and AES Ballylumford Ltd**

18th January 2016

Market Power Mitigation

Introduction

AES welcomes the publication of the consultation document on I-SEM Market Power Mitigation (SEM-15-094) and the opportunity to provide comments on the issues raised. AES would like to submit the following response to the Regulatory Authorities to their consultation.

AES is a global energy company with assets in the all island market consisting of coal and gas fired conventional and CCGT plant with additional distillate fired peaking gas turbine plant and a Battery Energy Storage Array (BESA). AES is a non-vertically integrated independent generator which owns and operates Kilroot and Ballylumford power stations in Northern Ireland with a combination of merchant and contracted base load, mid merit and peaking plant. The responses to this consultation are therefore conditioned by the nature of our current position and portfolio of assets operating in the SEM.

AES HIGH LEVEL COMMENTS.

This response is submitted with reference to the specific questions raised in the consultation paper and based on our current knowledge on the level of detail that is available on the detailed design of the I-SEM. Identified below are summary high level comments on what AES believes are the key issues identified in the paper. These are addressed in more detail in our response in the answers requested to the questions set out in the relevant sections. The rest of the response is set out as per the relevant sections in the consultation paper.

SRMC Bidding

- Competitive behaviour is defined in the consultation paper as generators providing competitive offers equalling short run marginal cost (SRMC) and therefore offers above or below this would indicate a possible exertion of market power. Defining SRMC bidding is difficult and the adoption of a prescriptive formula would present the problems of practicality and implementation identified in the consultation paper. AES views that there is not a single prescriptive formula that could cover the cost characteristics of every generator under all possible DAM and IDM market and operational conditions and fit within the proposed Euphemia bid structures defined by the PCR algorithm. This would result in frequent deviations from the prescribed SRMC values. AES views that competitive behaviour in all market time frames can only be defined in principle as in the current BCoP and not through prescriptive formulae as would appear to be favoured in the consultation paper.
- Effective market power mitigation should be able to identify market power abuse but should not hinder competitive behaviour, therefore AES favours an options which provides most flexibility in bidding.

Structural Market Power

- The overall structural market power position of ESB in both the day ahead and balancing markets (by capacity) in all of the scenarios developed remains significantly high and especially so in the balancing market indicating that action should be taken to address this.

Vertical Ring Fencing & PPAs

- Vertical ring fencing of incumbents is an essential element of the current market power control mechanisms which prevents jointly owned generation and retail businesses from sharing information and working together. AES has plant that is currently contracted to a vertically integrated competitor and has concerns regarding the viability of that arrangement with regard to confidentiality of AES commercial information within the different sections of the vertically integrated company.
- AES views that allowing vertical integration and the associated internal trading would also reduce the liquidity and transparency of the markets in most time frames due to those internal trades resulting in only net volumes being made available to the wider forwards and day ahead markets for other participants to trade.

Forward Contracting Obligations

- AES favours the retention of a targeted forward contracting obligation (FCO) in the I-SEM as a means of both market power mitigation and enhancing forward market liquidity and targeted as suggested towards participants deemed to have structural market power
- There is a continued need to incentivise liquidity in the forward market and therefore the need to address potential market power abuse in this market timeframe. In the consultation paper this has been left to the Forwards and Liquidity work stream though it is not clear if this aspect has been included in the remit of that work stream.

2. CONTEXT FOR MARKET POWER POLICY DEVELOPMENT

- *Do you agree with the policy developments and trends identified (above) as potentially impacting on an I-SEM market power mitigation strategy?*
- AES recognises the high level policy developments and market trends identified in the consultation paper likely to impact on the development of I-SEM and the ability of a participant to exert market power such as: the increasing role of intermittent generation, the reducing amount of dispatchable conventional/thermal generation, the impact of increased interconnection and the potential for greater demand side participation leading to more elastic demand.
- AES acknowledges the reporting obligations required by the REMIT, EMIR and other EU regulations with respect to market transaction data and the associated ACER market monitoring function and believes that this will assist in the prevention of the abuse of market power.
- AES accepts the general consensus view that the existing market power control strategy and measures have been largely effective but that Market Power remains an issue going forward into I-SEM due to the concentrated nature of the markets, the continued limited interconnection and ESB's high market share.
- AES particularly recognises the potential for local market power in the balancing market due to local transmission constraints and due to some participants capacity market share as borne out by the relevant metrics
- *Are there other factors not identified here which you consider relevant*
- There is a continued need to incentivise liquidity in the forward market and therefore the need to address potential market power abuse in this market timeframe. In the consultation paper this has been left to the Forwards and Liquidity work stream though it is not clear if this aspect has been included in the remit of that work stream.

3. RELEVANT GEOGRAPHIC MARKET(S) AND TRADING PERIOD(S)

- *Do you agree with the proposed appropriate markets/trading periods for assessing market power in I-SEM's energy and financial markets?*

- AES agrees that in order to determine an effective market power mitigation strategy there is a need to define the relevant markets and to define these by product, geography and time aspects as per the EU dimensions for determining a relevant market in competition cases seems a reasonable approach.
- Based on this structure and the non-storable instant nature of the product AES also agrees with the concept that market areas could be defined by system constraints and not only jurisdictional boundaries which may present the potential for bidding zone and local market power.
- AES Agrees with the product definitions (base load, Mid Merit, Peaking) described for each market time frame as set out in the paper and the granularity (hourly, ½ hourly etc) specified for each.
- AES acknowledges the time aspects to defining the relevant markets and that the potential for market power abuse can increase closer to real time as a consequence of smaller local bidding areas, transmission constraints and the pivotal nature of a market participant in meeting overall demand, particularly in the balancing market where not all plant will be able to start up in the required market time frame.
- *Do you agree with the proposed geographic scope of the proposed markets/trading periods?*
- As the forward market is designed as a financial hedging instrument that involves no physical delivery and is deemed to be more competitive AES agrees with the proposed treatment of I-SEM and Interconnector capacity as a single relevant forward market.
- AES acknowledges the proposed geographic scope of the markets i.e. a single all island bidding zone and the proposed trading periods as set out in the consultation document, i.e. Forward, DA, IDM and BM but has concerns as to the continued jurisdictional constrained nature of the markets and as to how interconnected capacity will participate in the I-SEM physical markets (DAM, IDM & BM) with geography assumed to be all-Island unconstrained and interconnected capacity with hourly trading periods.
- Balancing Market assumed to be all-island only, constrained and ½ hourly trading periods.

4. I-SEM DESIGN, INTERACTIONS AND IMPLICATIONS

- *Do you agree with the proposed definition of competitive behaviour and pricing in I-SEM?* Competitive behaviour is defined in the consultation paper as generators providing competitive offers equalling short run marginal cost (SRMC) where SRMC includes relevant opportunity costs and therefore offers above or below this would indicate a possible exertion of market power. This assumes that fixed costs are recovered through a combination of IMR, scarcity pricing and a CRM payment however with the present uncertainty over the requirement and nature of the scarcity pricing and the generation adequacy level to be used in the CRM procurement auction, SRMC offers will not enable all generators to cover their costs.
- Defining SRMC bidding is difficult and would present problems if a prescriptive formula was used as seems to be a preferred option. AES agrees with the points made in the consultation paper which states that prescriptive bidding controls would be “less practical” and “difficult to implement in practice” because bids would need to reflect different operational conditions, including the “likely running pattern over the following 24 hour period”. AES views that there is not a single prescriptive formula that could cover the cost characteristics of every generator under all possible DAM and IDM market and operational conditions and fit within the proposed Euphemia bid structures

defined by the PCR. This would result in frequent deviations from the prescribed SRMC values.

- Equally AES views that prescriptive SRMC formulae in the BM would also not be able to cover all possible operating conditions and that competitive behaviour in the BM can only be defined in principle as in the BCoP and not through prescriptive formulae.
- *Do you think that the suggested examples in which market power can be exercised in I-SEM captures the relevant issues?*
- The I-SEM High Level Design includes Day ahead and Intra-day markets that are exclusive and non-mandatory. Therefore it is difficult to envisage how in these market timeframes physical or quantity withholding could be viewed as abuse of market power if there is no requirement to bid all quantities in these markets.
- The day ahead and intraday markets being European based are, by proposed definition, larger unconstrained but more competitive ex ante markets providing greater pressure to provide competitive offers to secure ex-ante trades. Combined with unit based bidding and restrictions already imposed by the euphemia offer structures, bidding flexibility is required to enable competitive offers to be developed to secure trades in these markets.
- With mandatory participation in the balancing market the above issues could be more relevant in this market although again with unit based bidding the potential impact should be reduced.
- AES accepts that due to the mandatory and constrained nature of the balancing market the potential to adjust incremental and decremental offers based on knowledge of constraints or expectations of dispatch exists but this should not be viewed as a reason to impose a SRMC bidding code of practice as flexibility of bidding is required in this market timeframe also.
- The strength of the SEM BCoP was that it was designed as set of flexible bidding principles encouraging a competitive process without imposing the outcome. Prescriptive rules in any of the market timeframes will not allow the competitive process to develop. Letting competition set prices is preferable to regulating prices therefore AES favours a bidding principles style arrangement for all market time frames.
- *Do you agree that the potential for market power abuse in I-SEM appears to be weaker in the forward financial market compared to the physical markets?*
- As the I-SEM forward market will be purely financial i.e. no obligation for physical delivery and settled against the market price e.g. the day ahead price, AES agrees that its primary purpose is to provide hedging opportunities against volatile spot prices along with FTRs to provide a financial hedge against cross border trades.
- As demand in the forward market is more elastic than in the physical markets i.e. participants can choose to remain unhedged, or choose other methods to hedge. With potentially more and varied participants and wider EU reporting requirements AES agrees the potential for forward market power is limited relative to the other market time frames.

Do you agree with the implications for market power arising from interactions between the physical markets, CRM, FTRs and DS3 System Services as shown above?

- AES accepts that more efficient interconnector flows will exert additional competitive pressure mitigating to some degree the potential for market power abuse. AES does not except the need for prescriptive SRMC bidding in the DAM or IDM due to the non-mandatory nature of these markets and the additional competitive pressure of a larger market. AES does accept that transparency is important in the I-SEM and that Unit

based bidding will increase transparency however the loss of the three part complex bid structure and the uncertain level and clarity of reporting available will counter act this.

- AES agrees that flexibility is needed in the physical market time frames to allow for the inclusion of fixed costs, start-up and no load costs in offers submitted to enable full cost recovery, especially if a plant is not successful in the CRM auction.
- AES agrees the CRM Reliability Option provides an incentive not to bid above the strike price in the reference market. However the choice of a split market as the reference market creates a lack of visibility of the reference price and therefore a lack of transparency surrounding this will also affect the transparency of any potential market power abuse.
- FTRs introduced in the forward market will be referenced against the day ahead price, while CRM reliability options will be referenced against the split market price as decided in the CRM Consultation #1 decision paper, contributing to the potential hole in the hedge.

5. RELEVANT I-SEM METRICS

Do you agree that these are the appropriate metrics to identify market power ex-ante and ex-post in I-SEM?

- AES Accepts that market power can be exhibited in two different time frames short term and long term as identified in the consultation paper and the techniques to detect abuse of market power can be applied ex-ante or ex-post, ex-ante to detect potential abuse of market power before it has occurred and ex-post to detect actual exercise of market power.
- AES accepts that there are a number of metrics that could be used to determine the potential for market power abuse by a participant in a market in the appropriate time frame (i.e. long term and short term) and accepts that the indices identified in the consultation paper are consistent with those used in many other market assessments.
- The paper identifies that there is clear existing structural market power for ESB and Viridian (Energia/PPB) evidenced by Market Share, HHI, RSI, PSI indicators and that this is likely to remain well into I-SEM (2024) with some parameters such as capacity market share increasing.
- The consultation paper does detail and recognise the structural market power issues but presents no evidence on the conduct and performance aspects of the SCP framework and simply states no evidence of behavioural market power issues has been identified.

Are there other metrics that you consider should be applied?

- AES has no comment on this section.

6. ESTIMATE OF I-SEM MARKET POWER

- *Do you agree with the approach taken by the RAs to modelling market power in I-SEM?*
- AES acknowledges the modelling for I-SEM market power estimates has been based on a conservative approach for the scenarios identified, with high demand and lower plant closure from participants with high market share for 2016, 2019, and 2024 and including appropriate wind levels and levels of Interconnection. The consultation paper takes the 2015 – 2024 Generation Capacity Statement as the starting point for the scenarios which presents uncertainty due to a number of outstanding and unresolved issues such as the impacts of the EU IED, the outcomes of the DS3 RoCoF compliance

process, the EU HAR and the process for calculation of the level of generation adequacy required for the I-SEM CRM process.

- The process of establishing market shares and determining whether a participant would be pivotal in a given scenario in the day ahead and the balancing markets using the Plexos model seems to be a reasonable approach for the identification of potential exercise of structural market power.
- *Do you agree with the conclusions for I-SEM market power that have been drawn from the modelling results?*
- AES views that the Day ahead market modelling scenario results appear reasonable, though has concerns that, as other plant retires, ESB's market share in both capacity and generation is maintained from 2016 to 2019. In capacity terms it increases to 2024 but AES accepts that their generation market share decreases though this is primarily due to an increase in intermittent generation, chiefly wind. It is clear that in the modelled day ahead market time frame ESB continues to have a significant structural market power.
- The further RSI modelling analysis identifies the pivotal nature of ESBs generation and the impact of the two largest generators combined indicating the potential for collusive structural market power both of which increase in the following scenario years enhanced by retiring conventional plant and increased levels of wind generation. Even in the alternative scenario developed with increased interconnection the dominant position of ESB generation is maintained and this is only changed with the introduction of additional capacity assumed to be from new providers which reduces the pivotal nature of ESB by half but it is still greater than the 2016 (existing) model.
- In the balancing market the application of constraints may create temporary or enduring situations where local market power could be exercised resulting in the pivotal nature of the largest and two largest generators increasing. As mentioned ESB's market share by capacity in the balancing market becomes very dominant by 2024. The only mechanism to ensure that the remaining conventional generation on the system, displaced due to high levels of wind i.e. not dispatched, is able to start up in the time frame available to provide balancing services i.e. in the hour between gate closure and real time, is the DS3 System Services process. The DS3 System Services process is still in development and it is not clear if it will provide the required levels of flexible generation required to ensure short term system security and how this interacts with the capacity remuneration mechanism aimed at providing sufficient capacity to ensure long term system security.
- The overall structural market power position of ESB in both the day ahead and balancing markets (by capacity) in all of the scenarios developed remains significantly high and especially so in the balancing market. AES has concerns that the continued dominance on one participant would have an adverse impact on competition in the market where remaining participants are competing for 50% of the market share.

7. REVIEW OF CURRENT SEM MEASURES

- *Do you agree with the SEM Committee's view on the effectiveness of each of the SEM market power mitigation measures?*
- AES views that the current SEM market power mitigation measures, the Market Monitoring Unit, The Bidding Code of Practice, the Directed Contracts and Vertical Ring Fencing of supply and generation to operate independently, have been largely effective in the mitigation of market power abuse as has been evidenced by the February 2012 review which found no significant market power exercised in the SEM.

- *Are there any particular aspects of the SEM market power mitigation strategy that you think should be applied differently, especially in relation to I-SEM?*
- AES understands that the existence of the potential for market power does not imply the abuse of market power which has been supported by the 2012 review and evidenced by the analysis of SMP which closely follows the gas price.
- AES supports the use of DCs and NDCs and supports the view that excessive collateral requirements by some participants have restricted the development of the forward market by acting as a barrier to entry and trade in a market that requires increased liquidity.
- Vertical ring fencing of incumbents is an essential element of the current market power control mechanisms which prevents generation and retail businesses owned by the same company from sharing commercial information and trading directly with each other. AES has plant that is currently contracted to a vertically integrated competitor and has concerns regarding the viability of that arrangement with regard to confidentiality of AES commercial information within the different sections of the vertically integrated company.

8 SEM MITIGATION STRATEGY AND MEASURES

- *Do you agree with the five key principles for assessing market power mitigation policies as outlined in this section 8.3? If you think there should be alternatives, please state the reasoning.*
- AES has reviewed the proposed principles for assessing the market power mitigation policies and would make the following comments. AES acknowledges the SEM Committee's desire to protect the end consumers from the exercise of market power and enable efficient and transparent price formation and largely agrees with the key principles for assessing the various market power mitigation policies.
- AES acknowledges the existing ex-post measures for monitoring and enforcement of participant behaviour already available to the SEM Committee and the stated intention to enhance and retain these powers following the transition to I-SEM.

For the Forward Contracting Obligation:

- *What should be the measure and threshold that results in a market participant being included or excluded in the FCO, i.e. what is its applicability?*
- AES favours the retention of a targeted forward contracting obligation (FCO) in the I-SEM as a means of both market power mitigation and enhancing forward market liquidity and targeted as suggested towards participants deemed to have structural market power.
- As the make-up of the largest market participants could change in future years AES favours a prescriptive method of determining the measure and threshold for who should have to offer contracts rather than focussing on legacy incumbents. The method should be based on a measure of their structural market power either by capacity market share or by the pivotal nature of their capacity such as: %25 market share and a forecast RSI below 1.2 for above 10% of the time across the year.
- *What should be the volume and product definition of forward contracting required from a market participant who falls under the FCO?*
- AES is comfortable with the NDC products available currently in the forward market time frame i.e. the Base Load, Mid Merit and Peaking plant products that are currently accessed by auction and which sets a market based price, benchmarked against the administratively set price for the DCs.
- Targeted companies should be required to make available significant volumes for forward contracting based on their level of structural market power for example up to 50% of their volume by level of market share.

- AES is comfortable with the current options for contract durations available in the forward market such as monthly, quarterly but would like to see an increase in participants and liquidity.
- *How should the price be set for the volume contracted under the FCO?*
- Given the stated intention to continue with some element of directed contracts AES views that the DCs price should be set by the RAs using a similar process to the existing formula and if sufficient liquidity exists in the forward time frame, NDC prices should be set by the participants via a competitive auction process similar to that currently used.
- *What type of access should buyers have to FCO volumes?*
- AES favours a market based auction platform for all forward trading volumes with access to the Directed Contracts open to those with the required market share as per the current arrangements.
- *Which of the balancing market mitigation options do you consider most appropriate, i.e. MMU-triggered intervention, automated intervention via a PST or via the “flagging and tagging” approach, or prescriptive bidding controls? Where feasible please relate the preferred approach the five key principles for this work stream of effective, targeted, flexible, practical and transparent.*
- AES views that an explicit ex-ante bid mitigation measure for the balancing market would not be the best solution. Effective market power mitigation should be able to identify market power abuse but should not hinder competitive behaviour, therefore AES favours an option which provides the most flexibility in bidding.
- AES has concerns relating to the requirement to provide SRMC bids in all physical markets. Market revenue from all streams remains unpredictable at this point due to the current progress in development of this and the other processes of CRM and DS3 System Services.
- These concerns are best illustrated using the example of a peaking plant unsuccessful in securing a reliability option in the CRM auction process, which also has uncertainty over system services revenue due to the status of the development of that process and would therefore be depending on an unpredictable number of scarcity events to cover its fixed costs. If required to submit a bid reflecting its short run marginal costs only, this could result in under recovery of costs and present a real problem for its ongoing operation. For example the OCGT peaking plant in Northern Ireland which are unlikely to be in merit would face this problem.
- SRMC prescriptive bidding controls, if implemented, may prevent peaking plant from recovering their full fixed and incremental costs, potentially forcing exit and leaving the TSO without a significant amount of balancing market flexibility.
- For this reason AES favours a more flexible principles based approach to bidding in the balancing market and as such a less prescriptive approach to intervention such as the RA/MMU triggered intervention which, if required, may replace bids with formulaic SRMC manually and ex-post, if abuse is proven.
- AES notes the omission of a principles based bidding option in the list of balancing market options from the consultation paper, which was stated as a drafting oversight and is concerned that a prescriptive mechanism will not allow innovation of bidding i.e. lower than SRMC bids.
- *Which ex-ante bidding/offer market power mitigation options for the DA and ID markets do you favour – bidding principles and ex-post assessment, or ex-post assessment only? Where feasible please relate the preferred approach to the five key principles for this work stream of effective, targeted, flexible, practical and transparent.*
- AES agrees that the day-ahead and intra-day markets have a greater potential for competitive outcomes and believes there is less need for prescriptive bidding controls. The day-ahead market is conducted on the European Euphemia platform and there is

an ongoing bid trialling process aimed at identifying which order formats would be most suited to the I-SEM. Therefore AES believes there is less need for any market power mitigation measure to be adopted in this time frame as there is already pressure to bid competitively to ensure trades are accepted. The existing bid formats in euphemia are already limiting in what can be included and it is important that any potential market power mitigation measure decided through this process does not place additional restrictions on the bidding formats.

- Although SRMC bidding is proposed for all physical markets with deviation from SRMC viewed as exercising market power, AES views that a more flexible approach is needed and therefore favours option 4 “the market abuse condition” due to the relatively reduced vulnerability to the abuse of market power and the targeting of potential actual abuse.
- *If ex-ante bidding principles were to be adopted, how flexible should they be and how would this be facilitated/enshrined in their wording?*
- AES views that ex-ante bidding principles if required would need to include considerable flexibility to accommodate the bidding options required for the euphemia day ahead algorithm which include for example complex bids with minimum income conditions and may include negative bids at minimum generation to avoid unnecessary start costs.
- It is important that plant that is unsuccessful in securing a Reliability option in the CRM should be allowed to bid to recover some of its fixed costs in scarcity periods such that if required to run either constrained or scheduled in the market full costs can be recovered. Also plant that has been unsuccessful in the RO should be able to reflect some of these costs in their incremental bid in the balancing market again to allow full cost recovery. As mentioned previously it is unlikely that a single prescriptive formula could cover the cost characteristics of every generator under all possible DAM and IDM market and operational conditions and fit within the proposed Euphemia bid structures defined by the PCR.
- *Under what structural conditions or in combination with other market power mitigation measures should vertical ring-fencing of the incumbents be relaxed?*
- AES agrees that the vertical ring fencing of former incumbents has been an effective measure in ensuring that those companies did not gain an advantage in the broader market.
- AES believes that allowing vertical integration of some large companies in a market with a significant number of smaller non-vertically integrated participants could harm competition. This may be less of an issue in the GB market where a larger number of the main participants are vertically integrated and therefore competing on a more equal footing than would be the case in I-SEM.
- AES views that allowing vertical integration and the associated internal trading would also reduce the liquidity and transparency of the markets in most time frames due to internal trades resulting in only net volumes being made available to the wider forwards and day ahead markets for other participants to trade. The associated lack of transparency would also present difficulties for the monitoring and identification of market power abuse and potentially result in the need for further market power mitigation measures.
- If the decision to relax the SEM Committee’s position on vertical integration is dependent on a cost benefit analysis then analysis of the benefits and costs should be carried out and the benefits clearly demonstrated before any decision is taken.
- *Under what circumstances and criteria (or metrics) should the application of ring-fencing to other market participants be considered?*

- Based on analysis presented in the consultation paper regarding identification of a threshold for potential structural market power abuse by a company and the requirement for a forward contracting obligation i.e. based on its market share or pivotal nature in satisfying demand, this analysis could also be used to trigger the requirement for a review of a non-incumbent company's position with regard to vertical integration.
- If, given the potential for entry, exit, mergers and divestments, a non incumbent company position changes such that the identified metrics are triggered then this company could have a dominance equivalent to that of the incumbents and therefore should be treated in the same manner.