Response to Integrated Single Electricity Market (I-SEM) Consultation on the Energy Trading Arrangements Detailed Design

Building Blocks

SEM-15-011

On behalf of
AES Kilroot Power Ltd and AES Ballylumford Ltd

25th March 2015

Building Blocks

Introduction

AES welcomes the publication of the consultation document on the Energy Trading Arrangements Building Blocks (SEM-15-11) 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. 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.

Summary Key Messages.

This response in submitted with reference to the level of detail that is currently available on the detailed design of the Electricity Trading Arrangements as set out in the I-SEM High Level Design decision documents and presented at the I-SEM Rules Liaison Group Building Blocks Workshops held in the first quarter of 2015. Due to the interactive nature of many of the aspects presented in the consultation paper and as further progress is made on Electricity Trading Arrangements detailed market design, AES believes that it may be necessary to revisit an number of the aspects consulted upon in this paper to review compatibility with the final design.

- Treatment of Losses: - AES believes that the use of TLAFs are not an effective mechanism for calculating within zone losses and creates an unnecessary complication in the generators bidding process. AES believes that the policy for the treatment of transmission losses should be uniform and socialised and that the existing policy should be re-evaluated.

- Constraints: - AES agrees with the fundamental principle that market participants which are the most economical to meet demand should not experience any financial disadvantage due to the existence of system constraints and supports a continuation, where possible, of the current SEM policy. AES has concerns regarding the complex process for distinguishing between energy and non-energy TSO balancing actions and their impact on the balancing market but supports the proposal for non- energy actions to be paid at the associated offer/Bid.

- Firm Access: - AES favours an option whereby generators participate in the DAM and IDM up to the level of their firm access capacity and are held firm financially if constrained by network limitations. Non-firm access running could be achieved through the intraday and Balancing Markets only when the system circumstances

closer to real time allow. Also in the interests of promoting liquidity, non- firm access capacity should be able to participate in the day ahead market if system conditions are such that it can be accommodated by the TSOs and with the same requirements for with financial and balance responsibility.

- Priority Dispatch: - AES is of the view that the option to become price making generation should result in the removal of a generators priority dispatch status in the appropriate market time frame. The option to choose to be price taking or price making in each market time frame represents a change to current policy however, if priority dispatch plant opt to become price making in the balancing market, the concept of must run plant submitting bids to set the price must be avoided and the outcome must be plant being dispatched on an economic basis in competition with other generators.

- Curtailment: - Consistent with the 2018 policy on curtailment AES is of the view that wind generators should be compensated for the energy volumes that they produce i.e. in this case equivalent to their pro rata curtailed volume. Recovery of traded revenues secured in the DAM should be initially by trading in the IDM and then through non energy action decs related to their ex ante trade revenue earned.

- DE Minimis Level: - AES believes it is sensible to have a threshold below which market participation is not mandatory, agrees with this current level and does see any compelling evidence requiring a change. Although set at 10 MWs it also allows generators to participate at lower levels if they wish to.

- Currency: - AES favours a continuation of the current policy and implementation but simplified to allow the currency cost to be shared by a smaller number participants, suppliers as suggested, and recovery and payment of actual currency imbalances as part of the regular billing period process

- Market Information: - AES favours the approach to allow for the publication of the maximum amount of data similar to that currently available, reflecting participant needs and the formation of a bulletin board type arrangement to enable participants to make timely decisions and which would also allow for changes to be made as market rules are defined and the market power work stream progresses.

Treatment of Transmission Losses

- Whilst accepting the intention of the HLD to maintain the current SEM policy in I-SEM where compatible, AES believes there is merit in rethinking the current policy on how transmission losses are calculated and allocated to generators.
- The current requirement that transmission losses, the difference between the amounts of electricity injected into the system and the amounts withdrawn, are allocated based on Transmission Loss Adjustment Factors, calculated annually based on location and applied ex-ante to the outputs of each generators.
- The costs of transmission losses in SEM are accounted for by generators and Interconnector users through adjustment to commercial offer data with the difference

between TLAF predicted losses and actual losses recovered through global aggregation

- AES believes that the use of TLAFs are not an effective mechanism for calculating within zone losses and creates an unnecessary complication in the generators bidding process. This complication could result in possible confusion due to the difference in trading volumes at the traded boundary (net of losses) and physical nomination (gross of losses) at the station gate.
- The carry on impact of having to account for losses in the balancing market and imbalance again adds unnecessary complexity when each market could be traded at the station gate.
- The influence of TLAFS on generation siting is negligible as location is more dependent factors such as availability of sites, proximity to hubs (- gas and electricity), fuel access, environmental and public factors etc. TLAFs do not hold any significant influence in the decision making process, especially following compression, and do not fulfil the purpose for which they were intended.
- As TLAFs have little bearing on where generators locate and add unnecessary complexity, AES believes that the policy for the treatment of transmission losses should be uniform and socialised and that the existing policy should be re-evaluated.

Treatment of Interconnector Losses:

- As stated in the consultation paper, loss factors on DC interconnectors will be factored into the DAM and XBID algorithms.
- Of the two options presented AES believes that to avoid any potential dead band and maximise the efficiency of the available interconnection, the two interconnectors should be treated separately i.e. represented as two individual lines in Euphemia or by virtual areas, enabling each to flow when their associated loss factors have been addressed.
- Following the approval of the CACM Guideline AES understands there is a requirement for the RAs/TSOs to complete a bidding zone review within a 2 year period which could as a possibility, identify the requirement for two or more bidding zones and might then require the separation of any combined interconnector approach.

Treatment of Difference between Ex-Ante TLAF and Outturn Loss

- Although AES favours the abolition of TLAFs but should TLAFs be retained in the market design, AES agrees with the view that the difference between ex-ante TLAF loss and actual outturn loss should be smeared across all suppliers.

Treatment of Constraints

- AES acknowledges that the transmission system constraints will have a significant impact on the difference between the day ahead market schedule and the actual TSO dispatch. AES agrees with the fundamental principle that market participants that are the most economical to meet demand should not experience any financial disadvantage due to the existence of system constraints and supports a continuation, where possible, of the current SEM policy.
- Acknowledging the difference in I-SEM due to the ex-ante market time frames, and recognising the intention that constraints will be solved as part of the balancing

market, AES supports the position that Units constrained on or up relative to their day ahead nominations should receive their offer price, at least, for their dispatched quantity and Units that are constrained down should retain their infra-marginal rent.

- AES understands that deviations away from nominations will be initiated through the balancing market with energy actions taken based on incremental and decremental offers provided by each participant. AES has concerns regarding the complex process for distinguishing between energy and non-energy TSO balancing actions and their impact on the balancing market but supports the proposal for non- energy actions to be paid at the associated offer/Bid price and energy actions to be resolved at the balance market price.
- AES views that any decision on the complex application of tagging and flagging should be should be taken in consideration of the detailed design of the balancing market which I still evolving.
- AES also believes that non-energy actions taken by the TSO should not preclude market participants from opportunities to trade intraday i.e. in the case of early balancing actions where they could potentially achieve a more favourable position.
- For non- energy actions, it would appear possible that due to differences in participant offer prices, non-energy balancing actions may not be financially balanced i.e. insufficient revenue collected from those constrained down to meet the cost of those constrained up – a potential money imbalance. AES would like to understand how this potential imbalance could be resolved?

Treatment of Firm Access

- AES acknowledges that the current SEM policy of ex post actual dispatch allocation of availabilities cannot be facilitated in the I-SEM due to the ex-ante nature of the I-SEM markets.
- For I-SEM, AES favours an option whereby generators can participate in the DAM and IDM up to the level of their firm access capacity and held firm financially if constrained by network limitations. All firm access capacity should be in the DAM to set as robust a day ahead reference price as can be achieved.
- All non-firm access running could be achieved through the intraday and Balancing Markets including priority dispatch units. In this way non-firm access capacity is accommodated in the intraday and balancing markets only when the system circumstances closer to real time allow. Given that the amount of non-firm capacity that becomes available only becomes clear close to real time, this may not be easy to implement.
- However with no knowledge of the quantity of non-firm access involved, the impact on day ahead liquidity if non-firm access capacity was to be excluded from this market needs to be considered. AES favours an approach whereby non- firm access capacity should be able to participate in the day ahead market if system conditions are such that it can be accommodated by the TSOs and with the same requirements for with financial and balance responsibility
- Constrained down non-firm access – Of the 3 options for treatment of this situation AES agrees that advance notice of the constraint affords the opportunity for more than one option to be adopted. If a generator with non-firm capacity has secured a position in the day ahead market, with sufficient notice option (c) can be used in any

event for participants to adjust their positions in-day and is no different to any other generator being out of balance. The generator should be able to trade out any residual non-firm capacity position in the Balancing market at the imbalance price. AES would prefer this simpler option to Option B which, as it stands, provides no exposure to the balancing market price risk as any non-firm volumes are bought back at the day ahead price.

- Again AES believes that the design of the balancing market will impact on the treatment of firm access and any firm/non-firm access design decisions taken at this stage would have to be reviewed in light of the final balancing market design.

Priority Dispatch

- Currently Priority Dispatch (PD) is facilitated by allowing, but not requiring, qualifying participants to register as price takers with a hierarchy of priority dispatch of renewable over CHP/Peat etc.
- With no change to current policy signalled by the I-SEM HLD and a non-mandatory day ahead market, AES agrees that it is likely that the balancing market and imbalance settlement will be the areas most affected by priority dispatch.
- However if day ahead participation of priority dispatch is to be encouraged with the proxy price taking facility available in the day ahead algorithm and the proposed levels of wind generation in 2020 (5800 MWs), price taking (but effectively all bidding at a price of –€500) in an unconstrained day ahead market, it is conceivable that the day ahead market price could clear at extremely low, if not negative, prices. It may be an option to limit the quantity of intermittent priority dispatch in the day ahead market to the SNSP level based on wind and demand forecasts.
- To remove the perverse possibility of priority dispatch self-determining the day ahead market price, and to facilitate the possibility that some priority dispatch generation may not wish to generate at any price, opting to become price making generation, AES is of the view that the option to become price making generation should result in the removal of a generators priority dispatch status. This would avoid the situation of a must run unit is setting the price in the market.
- The proposal to allow priority dispatch to participate in the day ahead and intraday markets as price takers, nominating a level of generation for which they are prepared to accept the prevailing market price but also then as price makers, to submit bids and offers in the balancing market for generation below or over that nominated quantity represents a change to the current SEM policy. In the absence of the detailed design of the balancing market the impact of this requires further consideration.
- As above a priority dispatch generator wishing to avail of the opportunity to submit incs and decs in the balancing market should forego its priority dispatch status and be dispatched on an economic basis in competition with other generators.

Curtailment

- From the HLD it is the intention of the SEM Committee to treat actions taken for curtailment i.e. the dispatch down of wind generation for system wide reasons (including system stability requirements – inertia, dynamic stability, operating reserve requirements and system non synchronous penetration (SNSP) limit) in the same manner as actions taken for constraints in the I-SEM.

- As the day ahead market is unconstrained it is possible that the levels of wind generation traded could exceed the allowable SNSP level displacing conventional plant that would otherwise have been scheduled. As this level of wind generation is curtailed closer to real time options to call conventional plant are reduced to quick start peaking plant only, disadvantaging many forms of conventional generation.
- Assuming that curtailment is treated as a non-energy action in the balancing market and bearing in mind the 2018 decision on curtailment compensation of the 2 options suggested:
- Mandated bidding behaviour - If wind generators have secured trades in the day ahead market, and are then curtailed from these positions the revenue already secured through the day ahead trade should be returned either through first trading in the intraday market and in the balancing market at a decremental price, based on its day ahead trades, to provide some balance responsibility incentive in a curtailment situation.
- Cash Out and Post Processing – the difference between the day ahead, intraday volumes and metered generation of curtailed wind is treated as an energy action and cashed out at the imbalance price. This presents a more transparent process, encourages participation in the day ahead markets and removes the need for special rules to track curtailment. If no ex ante volumes are secured, generators would be cashed out at the imbalance price for their metered generation which is already net of curtailment.
- Option 2 appears to be the easier solution but could expose wind generators to potentially punitive imbalance prices which could be more than ex-ante secured revenue. It also seems to absolve wind generators of all forecasting and balancing responsibilities if they have no ex-ante positions to balance against and simply show up in the balancing market taking the imbalance price.
- Pro-rata versus exclusion for last generator causing curtailment. AES has no particular strong view on this aspect but favours a continuation of the existing policy of pro-rata curtailment.
- TSO-TSO trading – has been necessary in SEM to reduce curtailment and is stated as being required in I-SEM. Although wind could sell in the IDM the cross border arrangements are implicit and the mechanism will not be able to distinguish between the matching of excess wind with export and with local demand. If the excess wind is purchased by an I-SEM participant the export may not increase.
- Consistent with the 2018 policy on curtailment wind generators should be compensated for the energy that they produce i.e. equivalent to their curtailed volume.

De-Minimis Level

- AES believes it is sensible to have a threshold below which market participation is not mandatory, agrees with this current level and does see any compelling evidence requiring a change. Although set at 10 MWs it also allows generators to participate at lower levels if they wish to.
- Increasing the de-minis level could increase the quantity of already a growing wind generation operation outside of the market and netted off demand, reducing liquidity in the day ahead and in the intraday markets.

- AES favours a continuation of the existing level including application to aggregators although would not wish preclude aggregators with an aggregated lesser amount participating if qualified to do so. It is important that consideration is given to the requirements of the EU Network Codes before any decision to vary the de-minimis level is taken.

Currency

- Although the European markets are settled in euro, GB has demonstrated that trading in more than one currency should still be possible in the I-SEM. Although it is possible to hedge against exchange rate changes AES agrees that it is not practicable in the ex-ante time frames and also accepts that the exchange rate cost risk is also significantly reduced as both the day ahead and intraday markets will be traded and settled in relatively short time frames with no revision of these markets.
- AES favours a continuation of the current policy and implementation but simplified to allow the currency cost to be shared by a smaller number participants, i.e. suppliers as suggested, and recovery and payment of actual currency imbalances as part of the regular billing period process.
- It is understandable that the proposal of creating an ex ante tariff would be of interest to suppliers as it could allow the market to provide suppliers with a form of exchange rate hedge mechanism. However if applied it is likely that NI generators would seek to include any tariff requirement in bid prices to cover their currency cost risk.
- The responsibility and methodology to forecast the future exchange rate and to set the proposed tariff is an area that is not addressed by the consultation paper and further information on this aspect would be useful.

Market Information

- Transparency is a key concern for most market participants and AES has been appreciative of the significant level of information published in the existing market. AES would encourage Market Operator to continue with this approach to market information with the prospect of increased transparency with I-SEM and under REMIT requirements.
- Currently there is an acknowledged high level of transparency in SEM and the publication of timely information close to real time will be of even greater importance in enabling effective decision making by market participants. AES also favours a continuation of the concepts of public and private reports for public and confidential information and the data query request facility.
- REMIT already requires the provision of some information and there are some additional jurisdictional level arrangements for data publication that can be put in place. AES understand that bids in cross border markets may not be available to I-SEM market operators but all other information submitted to the local NEMO should be available for high levels of reporting to continue in defined timescales.
- With regard to REMIT, AES would welcome market information being made available on a central repository along the lines of the bulletin board that is currently present in Nordpool which facilitates the responsibility of market participants to post outage information immediately. The RAs note the interaction with the market power work stream.

- As discretion for what information is made available in the Balancing Market rests with the member state AES is of the view that it should simpler to replicate the current SEM levels of data and in particular the information required to support participants in being balance responsible; such as aggregate nominations, demand, long or short position of the market and wind forecasts.
- AES favours the approach to allow for the publication of the maximum amount of data to enable participants to make timely decisions but would also allow for changes to be made as market rules are defined and the market power work stream progresses. AES believes making high levels of information publicly available is reflective of participant needs however it is difficult to take view on the level of transparency required for market power mitigation until the detailed market rules have been developed.