Integrated Single Electricity Market (I-SEM)

Energy Trading Arrangements (ETA) Markets Consultation Paper

Consultation Response Template

SEM-15-038

22 May 2015

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PURPOSE OF THIS DOCUMENT

1.1 PURPOSE AND STRUCTURE OF THIS DOCUMENT

1.1.1 This supplementary document provides a template for responses to the ETA Markets Consultation Paper (SEM-15-026). We request all responses to the consultation are submitted in this template, and in **Microsoft Word** format.

1.1.2 This template contains the questions presented in the consultation document.

1.1.3 Responses to the Consultation Paper are requested by 17:00 on 5 June 2015. Following a review of the responses to this paper the SEM Committee will publish its decision on the proposals set out in this paper in September 2015.

1.1.4 Responses should be sent to Kenny Dane (kenny.dane@uregni.gov.uk) and Kevin Hagan (khagan@cer.ie). Please note that the SEM Committee intends to publish all responses unless marked confidential[1].

Kenny Dane
Utility Regulator
Queens House
14 Queen Street
Belfast
BT1 6ED

Kevin Hagan
Commission for Energy Regulation
The Exchange
Belgard Square North
Tallaght
Dublin 24

[1] While the SEM Committee does not intend to publish responses marked confidential please note that both Regulatory Authorities are subject to Freedom of Information legislation.

2 CONSULTATION QUESTIONS

2.1 RESPONDENT DETAILS

COMPANY	AES
CONTACT DETAILS	Denis McBride Trading and Settlement Manager AES Kilroot Power Station Larne Road, Carrickfergus County Antrim BT38 7LX Office No – 02893356200 Ext 3518 Mobile No – 07740 741968 Email denis.mcbride@aes.com
MAIN INTEREST IN 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.

2.2 GENERAL COMMENTS

AES welcomes the publication of the consultation document on the Energy Trading Arrangements (ETA) (SEM-15-38) and the opportunity to provide comments on the process for determining the structure of the trading arrangements. AES would like to submit the following response to the Regulatory Authorities to their consultation.

- In general AES believes that the significant number of interacting options provided has given rise to high levels of complexity and uncertainty regarding the impacts of the market design options on participants. We strongly suggest that it would be beneficial to reduce complexity by narrowing down and if possible removing conflicting options.

- The current complexity provides a lack of clarity as to how the interaction of the various options would deliver solutions to the problems identified by the high level design. For example, there is a lack of clarity with respect to how the options afforded to the TSO to operate the system (such as the need for early balancing actions) impact on the various market timeframes.

- AES proposes that the RAs progress the design process with options grouped such that they offer coherent solutions to the problems identified in the HLD. These coherent options should then be accompanied by substantial quantitative and qualitative analysis demonstrating how the proposed design options provide the solutions. This would allow participants to develop a good understanding of the options and provide an informed and meaningful evaluation.

- AES also proposes that the RAs should publish a minded to decision specifying their preferred detailed option setting out clearly how the various elements align to form the optimum solution. This final option should then be published for consultation and participants given the opportunity to provide responses to a coherent final design.

Design Topics - High Level Comments.

- System Operation – AES is of the view that early actions by the TSO are inevitable given the I-SEM relative plant size and system size. However due to the potential for loss of opportunity for participants called early, the frequency and reasoning determining the requirement for early actions should be set down in a balancing principles document.

- Ex-Ante Markets - AES is participating in the SEMO led Euphemia trials to establish which of the various bid formats would be most appropriate for I-SEM. The objective of this process is to keep as many bid format options as can be accommodated such that market participants have significant variety of options. AES will await the outcome of the trial process to assess the viable options.

- Ex Ante Markets – AES believes it as essential to develop arrangements that provide as liquid an IDM as possible and proposes an evolutionary process starting with having an I-SEM - GB coupled continuous IDM until a regional then EU wide arrangement is possible. However, we recognise that to get there it may be necessary to start with I-SEM – GB regional auctions.

- Physical Notifications – AES is of the view that a fair consistent approach needs to be adopted to the issue of balance responsibility. All participants should be required to submit PNs which are delinked, but to a "best estimate" reflecting the accuracy required to account for the technical characteristics of the plant (allowing for a reasonable tolerance), to reflect as close as possible the actual trade. AES does not support the inclusion of an information imbalance charge as this would not sit with delinked PN notification and a central dispatch system.

- Forms of Offers, Bids and Acceptances - AES is of the view that participants should have the opportunity to change bids depending on the circumstances and costs required to increase or decrease output from the pre-existing output. AES favours Relative Price bands which allow the generator the opportunity to declare different costs depending on how far the unit is deviated away from its PN, including start-up and no load costs, with the opportunity to submit undo bids to recover any sunk costs from cancelled or reversed actions.

- Interaction between the Balancing Market and the Intraday Market - AES favours a Substitutive PN Changes approach where market participants can seek to get the best price from either the intraday market or the balancing market with their PN updated by any intraday trades.

- Treatment of System Services - AES proposes that a unit deployed for reserves should be constrained as little as possible in the IDM leaving it free to trade in the IDM as per the substitutive approach in section 6

- Imbalance Pricing - AES is of the view that some combination of the cause and price options could be considered for the flagging and tagging methodology in I-SEM with "cause" used to remove constraint and short timeframe actions and "price" to assess actions which should contribute to the imbalance price. The two step process similar to that used in GB but recognises that a fall-back process may be required should they be insufficient energy action to set the imbalance price.

- Imbalance Settlement - For settlement of non-energy actions AES agrees with the principle that units should not be financially worse off for having followed a dispatch instruction and having solved a constraint. Also with using the "in merit" approach to all balancing actions i.e. incremental actions are paid at the maximum of the offer price and the imbalance price and detrimental prices are paid back at the minimum of imbalance price and the bid price. Of the 3 options identified for accounting for potential imbalances e.g. during plant start up or ramping, AES favours an option of reducing the potential for significant cash flow deviations by allocating ex-ante contract volumes as they wish between the ISPs but such that the overall imbalance volume over the hour should be zero.

- Instruction Profiling - AES agrees with the instruction profiling approach proposed in the consultation document which accommodates the technical characteristics of the units into dispatch instructions by use of the T.O.D.

2.3 SYSTEM OPERATION IN THE I-SEM (CHAPTER 2)

Question	Answer
1. What are the impacts of early action by the TSOs on the Intraday Market?	• Early actions by the TSO may (depending on which option is chosen) preclude or limit the ability of the MP to trade in the IDM or BM e.g. dispatched on for reserve. • There is a potential loss of revenue if IDM or BM price is better than pay as bid for non-energy action. May lead to a loss of opportunity premium being included in bid prices, increasing constraint costs. • If the TSO looks to in merit plant first to provide non-energy services this may lead to a lack of liquidity in the intraday market if TSO acts early rather than leave the market to resolve. • May lead to local market power issues if MPs are aware of constraints and can factor lost opportunity into balancing market bids. • Due to the levels of constraints on the system it is difficult to see how early action would not be required with the size and nature of existing plant with significant run up times. • Concern that early TSO interaction distorts the prices and volumes in the other market timeframes reducing incentives to trade in the IDM and BM to resolve out of balance positions.
2. What measures can be taken to minimise early actions by the TSOs?	• The nature, timing and frequency of the proposed TSO early actions give cause for concern – initially proposed to be the exception rather than the norm. • Accurate forecasting – the requirement to be balance responsible should drive the necessity for improved forecasting by both renewable generators and demand. Recent concerns due to metering timeframes and ability for forecast renewable generation accurately have led to the suggestion of TSO forecasts being used, distancing suppliers and renewable generators from the balance responsibility requirement. • Option 1 – a Balancing principles document detailing the type and when i.e. agreed time frame that TSO early balancing actions can be taken – i.e. post DAM or Post IDM or outside PN tolerance should be developed, increasing transparency of requirement for early action. The Balancing Principles document should be subject to consultation which should address the concurrent running of the IDM and BM. • Option 2 – contingency reserve monitoring is a requirement under the European Network code for Load Frequency and reserves i.e. early action taken would be to increase level of reserves. • Option 3 - reporting is required regardless of which option is adopted. • AES views that all 3 options are a requirement with options 1 & 2 forming part of the Balancing principles document • AES acknowledges that the task of system balancing is more acute in the I-SEM due to levels of constraints however the incentive on the TSO on Dispatched Balancing Costs could lead to an increase in early action being taken on known costs rather than allowing the

	market to resolve the potential imbalance problem. This should captured in the Balancing Principles document. • Respecting system security the market should be left to resolve the imbalance problem.

2.4 EX-ANTE MARKETS (SECTION 3)

Question	Answer
1. Which of the three options put forward for interim IDM arrangements is most appropriate?	• Pending the development of the XBID project 3 options have been proposed, I-SEM only, I-SEM + GB and Regional (presumed to be FIUN) • As the IDM is exclusive the variability of forecasts within day and the degree of incentive to be balance responsible provided by the balancing market and imbalance price will be important factors in determining liquidity in the IDM. • Until XBID is available it would make sense to develop arrangements that provide as liquid an IDM as possible as this is the general requirement in progressing towards XBID. • Recognising that this will take some time AES proposes an evolutionary process starting with having an I-SEM - GB coupled continuous IDM until a regional then EU wide arrangement is possible. However recognising that to get there it may be necessary to start with I-SEM – GB regional auctions.
2. Should intraday auctions be implemented in I-SEM? Are there any advantages to those auctions not described in this paper?	• With the ex-ante trading intentions of renewable and demand uncertain in the DAM, the liquidity of the IDM may be limited and therefore intraday auctions may be useful to concentrate liquidity. • ID auctions would also facilitate interconnector trading and develop robust pricing at least as part of an interim solution in the development of the continuous regional IDM and eventually XBID.

2.5 PHYSICAL NOTIFICATIONS (SECTION 4)

Question	Answer
1. What are your views on the timing of PN submissions to the TSO	• AES agrees in principle with the proposed timing to the submission of participant PNs identified in the paper as 14:00 for the DAM trades providing that the results from Euphemia algorithm are known by the time envisaged and acknowledges the requirement for immediate resubmission in the event of forced outages etc. • With respect to intraday trades, AES views that the PN should be updated as soon as possible after the trade is confirmed but only if the volume of the trade adjusts the PN by more than a defined tolerance and should cover hour x to the end of the trading day. • AES agrees that Final PNs (FPNs) should be submitted covering 60 – 90 minutes ahead of real time with a default position of the last submitted PN if there has been no change to the IDM trade.
2. What are your views on the removal of the requirement on wind generation and non-dispatchable demand to submit PNs	• Whist accepting the difficulties with forecasting demand and wind generation AES views that both non-dispatchable demand and wind generation should be required to submit PNs. • In the absence of a mandatory DAM and the consequent reduction in the incentive to provide accurate forecasts for wind generation and demand, AES views that the submission of PNs and the associated balance responsibility will incentivise improved forecasting leading to increased liquidity in the intraday and balancing timeframes • Reliance on the TSO forecasts for supplier and wind generation volumes creates issues for assignment of balance responsibilities to those suppliers and wind generators. • AES believes that wind should submit PNs up to the level of their availability with no priority dispatch for generation levels above this.
3. What are your views on how PNs from participants should be linked to their ex-ante trades and what are your opinions on which of the three options outlined in this chapter is optimal for I-SEM.	• AES believes that to form a feasible starting point for dispatch PNs should be delinked and should be a best estimate reflecting the amount required to account for the technical characteristics of the plant (allowing a reasonable tolerance applied) to reflect as close as possible the actual trade. • This would allow plant to reflect their technical characteristics, start-up times, ramp rates etc. be technically feasible and allow sufficient flexibility. • The benefit of this arrangement would be the provision of more accurate and useful information to the TSO re intended generation incorporating feasibility thought the inclusion of plant technical characteristics • At gate closure i.e. FPNs can be linked to ex-ante trades to provide accurate information for the TSO.
4. What are your views on the	• AES does not support the inclusion of an information imbalance charge as this would not sit with delinked PN notification and a

	potential for the inclusion of an information imbalance charge. In addition, comment is sought as to whether this issue is best addressed under the generator performance incentives.	central dispatch system. • It is noted that the proposed information imbalance charge in GB has been set to '0' and never used. • All units under grid code are required to operate in frequency sensitive mode and there will be movement away from dispatch position as the load/demand balance moves. On a small system this occurs frequently and if not redispatched will results in variances from PNs. This creates an overlap with uninstructed imbalance and the associated charges for this.

2.6 FORM OF OFFERS, BIDS AND ACCEPTANCES (SECTION 5)

Question	Answer
1. Which of the proposed formats should be used for bids and offers for deviating from PNs? • Simple MWh • Relative MWh • Absolute MWh	• Balancing Market bids and offers – instructions to deviate from FPN – of the 3 options proposed AES views that participant should have the opportunity to change bids depending on the circumstances and costs required to increase or decrease output from the pre-existing output. • AES favours Relative Price bands which allow the generator the opportunity to declare different costs depending on how far the unit is deviated away from its PN. • AES notes that this is the convention adopted in BETTA • AES is of the view that the relative method affords greater opportunity to revise bids and offers based on actual costs incurred in deviating from its PN and following Intraday trades which amend a generators PNs. • The absolute method, whilst less complex, may not provide the flexibility to deal effectively with short term changes in costs such as fuel prices etc.
2. How should fixed costs be represented within bids and offers? • Explicit start up contracts • Block bids • Explicit start-up (and no load) costs	• AES agrees that it could be difficult to recover start up and no load costs in Balancing Market incremental prices due to the uncertainty of dispatch. • AES sees merit in the option of submitting explicit start-up and no load costs in addition to its incremental price offer but would point out that to reflect costs accurately more than one start cost option would be required to reflect the various warmth conditions of the plant. • The question remains as to how these start costs would be reflected in the balancing market and their impact on the merit order of balancing offers. • Alternatively AES favours submitting a series of alternative block bids to enable fixed costs for start-up and no load to be recovered in the time frame of operation required by the TSO, if a closed instruction were given, although AES accepts that this leads to additional complexity due to the high number of options that may be required. The benefit is that all costs would be reflected in the offer stack.
3. Should it be possible to rebid offer and bid prices following an acceptance? Three options are proposed: • Fixing prices of accepted bids and offers • Undo prices	• With expected increasing flexibility required from all generators AES is of the view that Participants should be allowed to reflect costs that change throughout the day in their offers. • As the owner of a CCGT AES will be susceptible to changes in gas prices within day and should be able to reflect this in revised offers. • If after acceptance costs change significantly such that the generator is in danger of not recovering its costs AES believes that there should be the opportunity to revise or undo the accepted offer to reverse the effect of the previously accepted offer. • Undo prices enable participants to recover the sunk costs of a

• Freezing all prices	balancing action once it has been instructed. In the past equivalent start-up instructions in SEM have been cancelled by the TSO with no recovery of sunk costs already incurred such as gas purchased and consumed in time between instruction and cancellation. • AES does not favour the "freezing of all prices" option.
4. Should open or closed instructions be used to move participants away from their PN?	• AES views that closed instructions should be used by the TSO in I-SEM to move participants away from their PNs. • Closed instructions will afford greater accountability and transparency for dispatch instructions given by the TSO to generators enabling clear identification of initial and follow on instructions extending deviations from their original PN. • These instructions will be essential in energy and non-energy actions taken, determining the marginal balancing action, the imbalance price and for settlement of trades in the balancing market.

2.7 INTERACTIONS BETWEEN THE BALANCING MARKET AND INTRADAY MARKET (SECTION 6)

Question	Answer
1. Which of the options put forward should apply to participation in the IDM in the event that the TSOs take a balancing action pre-gate closure: • Freeze PNs • Additive PN Changes • Substitutive PN Changes	• It is clear that early actions taken by the TSO could affect the liquidity of the intraday market and distort incentives in other market timeframes. • If the reason for these early actions is nervousness that the market will not be able to resolve any potential short or long condition, i.e. system security AES views that participants should be allowed to trade any arbitrage between the BM and the IDM as the same amount of energy will still be available with IDM trades affecting PNs and BM trades not. • Therefore AES is not in favour of freezing the PNs of accepted offer generators due to the restrictive and trade limiting affect identified in the consultation paper • AES favours a Substitutive PN Changes approach where market participants can seek to get the best price from either the intraday market or the balancing market with their PN updated by any intraday trades. • This option appears to work for both energy and non-energy actions as if the participant sells more in the IDM then less is required by the TSO in the BM.
2. If the substitutive PN Changes option is taken, there are two further options for swapping out or netting IDM trades against bid-offer acceptances: • If the participant wishes to trade in the IDM and substitute the bid-offer acceptance they will need to achieve a more advantageous price in the IDM than the bid-offer acceptance price • Implement a methodology which sees the unit lock in the premium above or below the imbalance price	• Market participants with Bid/offer acceptances for non-energy actions will only trade in the IDM if they can achieve a more advantageous price than their accepted offer price. This is dependent on the having the ability to revise offer prices after acceptance and the method decided on for determining energy and non-energy actions e.g. flagging and tagging. • Thus the number of potentially interacting options available and whether the participant is comparing the IDM price with offer price or Imbalance price make it difficult to identify the most effective option. • Depending on the other design options taken AES favours both options for the different scenarios i.e. option 1 when comparing BM offer with IDM price and Option 2 when comparing IDM to BM offer and Imbalance price i.e. locking in the premium.

through the bid-offer acceptance	
3. Which of the three options put forward for dealing with "Trading in the Opposite Direction" should be implemented: • No specific consideration of this would be reflected in the market design • Implementing a rule that would prohibit PN changes that increase the quantity of any offer or bid acceptances • Permit PN changes in either direction but, in the settlement of the offer or bid acceptances, to limit the quantity on which the premium is payable, such that a change in PN cannot increase this quantity	• The issues in this section appear as a consequence of the HLD decision to operate the IDM and balancing market simultaneously and impact on some of the earlier questions in this consultation, such as regarding the freezing of PNs. • AES is not in favour of the freezing of PNs and agrees that the second option would be difficult to implement. Although option 3 is preferred in the consultation more information is required on how any "offer price – imbalance price" premium would be limited.

2.8 TREATMENT OF SYSTEM SERVICES (SECTION 7)

Question	Answer
1. What are your views on the proposal whereby a unit that is deployed for reserves should be constrained to the minimum extent possible in the IDM	• Due to the characteristics of the SEM system (unit size versus system size, high SNSP) AES understands it is essential to run with significant levels of reserve. • AES agrees that a unit deployed for reserves should be constrained as little as possible in the IDM leaving it free to trade in the IDM as per the substitutive approach in section 6. • The ability to trade units deployed for reserves in the BM, in the IDM, on receipt of an improved price could therefore reduce the quantity of balancing energy required by the TSO leaving other potentially cheaper options available.
2. Are there any market power issues that need to be specifically addressed in relation to System Services?	• The consultation paper identifies potential circumstances where participant could exert local market power i.e. if aware of local constraints with the facility to adjust offers into the BM. • There is an interaction with DS3 System Services procurement methodology which is currently in development where services will either be procured based on a competitive auction or by regulated tariff. • At present there is not enough detail on the bidding structure for the auction but it is likely to be cost reflective with penalties for non-delivery.
3. Which of the two approaches should be utilised where the TSOs have to schedule a plant before the opening of the Balancing Market: • A system services framework would be used to contract with those generators that need to be scheduled prior to the BM opening. • The TSOs would use incremental offers and decremental bids from previous trading day to call a plant pre-BM.	• AES accepts with the nature of some conventional plant on the system the will be a requirement for early balancing actions, however these should be minimised. • AES views either option, warming contracts or use of previous day offers as being a feasible solution however an accommodation should be made to facilitate any short term change in generator costs either detailed in the contract structure or through amendment of offers after acceptance.

2.9 IMBALANCE PRICING (SECTION 8)

Question	Answer
1. What are your views on the Tagging and Flagging Approach. A "cause" based method for identifying energy and non-energy actions with the imbalance price being set only on energy actions.	• AES recognises the potential need to distinguish between energy and non-energy actions in determining the pure imbalance price with the cost of system constraints removed. • AES also shares the concerns expressed in the consultation paper that the significant number of system constraints and the potential for early balancing actions, will result in a high number of non-energy balancing actions being excluded from the imbalance price calculation and may make it difficult to arrive at a robust imbalance price or even have settlement periods where there are no energy type actions to set the price. • AES views that some combination of the cause and price options could be considered for the flagging and tagging methodology in I-SEM with "cause" used to remove constraint and short timeframe actions and "price" to assess actions which should contribute to the imbalance price. The two step process similar to that used in GB. • AES proposes that the rules for flagging and tagging should be detailed in a methodology statement and be subject to consultation. This could include features such as, deminimis, CADL and transmission constraint rules.
2. What are your views on the Simple Stack? With this approach there would be a simple stack of the available bids and offers and the price would be set based on the net imbalance volume.	• AES agrees that due to the envisaged significant number of non-energy balancing actions and the potential that the flagging and tagging option may not produce a price, a back-up approach should be identified. • The NIV = FPNs – Demand (real time) approach based against the simple stack of bids allows for consideration of the full stack of offers and bids but does not take actual plant characteristic into account and could result in bids setting the price that could not have delivered the balancing energy. • As this removes the need to identify every TSO action the unit that sets the price may not have a volume or receive revenue.
3. What are your views on the unconstrained stack with plant dynamics included. These are two additions that this option would have over the simple stack: • Plant Dynamics • An optimisation time horizon	• AES agrees that the inclusion of plant dynamics, T.O.D. and an optimisation time horizon make this option an improvement over the simple stack in that only options which could actually respond in the time identified can be considered. • AES agrees this option should be a more robust option than the simple stack by not allocating volumes to plant not capable of delivery in the trading period. • The impact of the optimisation time horizon allows more than one trading period to be taken into account and although the duration has not been determined factoring in actual capability of delivery into an algorithm may add to the complexity of the calculation but would seem appropriate to determine realistic imbalance price.
4. What are your views	• On the final price based methodology whereby units bound by

	on the price based method – unconstrained unit from actual dispatch?	non-energy system constraints e.g. reserve, cannot set the price as their output cannot increase. (This seems contrary to previous options whereby units required for reserve are free to trade in the IDM) • This process flags and removes binding non-energy action from the pricing calculation whereas non-binding non-energy actions are included. • This option includes plant dynamics but does not have a multiple hour optimisation time horizon as it uses the actual dispatch stack which also removes the need for widespread flagging and tagging. • Although presenting the opportunity for straightforward implementation AES views that the lack of transparency on calculating the imbalance price would need to be resolved if this option were to be adopted.
5.	What are your views on the sharpness of the marginal imbalance price? Do any concerns relate to the transition between SEM and I-SEM or are there other broader concerns?	• AES believes a consequence of averaging could be to dampen imbalance prices which in turn could reduce incentives in the earlier market timeframes and reduce liquidity. • The extent of the impact would depend on which imbalance pricing option is decided on, but market participants should have the incentive avoid exposure to the imbalance price if out of balance and reducing price volatility will reduce this incentive. • AES does not see this as a transitory issue only but an issue for the enduring design.

2.10 IMBALANCE SETTLEMENT (SECTION 9)

Question	Answer
1. What are your views on the issues set out in the imbalance settlement section?	• A participants imbalance quantity is the difference between the quantity of electricity it has contracted to produce in the ex-ante markets, adjusted for any incs and decs accepted by the TSO in the balancing market and the quantity of electricity actually produced. • Imbalance settlement is at the unit level for generation with all participants being balance responsible although it is unclear how this will be achieved for wind and non dispatchable demand. • Uncontacted electricity quantities are bought and sold at the imbalance price and to/from the transmission system. • For settlement of non-energy actions AES agrees with the principle that units should not be financially worse off for having followed a dispatch instruction and having solved a constraint. • Also with using the "in merit" approach that all balancing actions Incremental actions are paid at the maximum of the offer price and the imbalance price and detrimental prices are paid back at the minimum of imbalance price and the bid price.
2. What are your views on the refined proposal whereby the payment rule applies only to incremental offer acceptance volumes above the PN and to decremental bid acceptance volumes below the PN?	• The addition of notified and un-notified imbalance introduces the concept of imbalance with respect to a participant's final physical notification (FPN) i.e. the difference between the metered quantity and the FPN. • AES accepts that there is a cost to the system of participants not following dispatch instructions however any decision regarding this would depend on the degree of linkage between the PN and the ex-ante traded position as dealt with earlier. • As incs and decs are included in the ex-ante quantities and are settled at the imbalance price the difference between ex-ante traded quantity and FPN Quantity is settled at the imbalance price, the difference between FPN quantity and metered generation is settled at a discount for over generation (DOG) and the difference between metered quantity and dispatched quantity if greater, represents an uninstructed imbalance. • AES agrees with the principles of discount for over generation (DOG) and premium for under generation (PUG) with respect to measuring metered generation quantities against dispatch generation quantities with reference to the requirement for generators to be frequency sensitive and subject to the required tolerances being in place to account for generator frequency following.
3. What are your views on the possible consequences of ex-ante trades based on trading periods of	• AES understands that the DAM trading period will be one hour with IDM period of a least one hour with possible finer resolution. The ISP is set to half hourly could lead to positive or negative cash flows in imbalance depending on how the ex-ante quantities are split between the ISPs. • Of the 3 options identified for accounting for potential imbalances e.g. during plant start up or ramping, AES favours an option of

	different duration to the Imbalance Settlement Period (ISP) and what are your views on the options put forward in the paper.	reducing the potential for significant cash flow deviations by allocating ex-ante contract volumes as they wish between the ISPs but such that the overall imbalance volume over the hour should be zero.

2.11 OTHER ISSUES (SECTION 10)

Question	Answer
1. Global Aggregation – what are your views on the current policy and the three alternative options put forward in the paper for dealing with global aggregation	• Managing the inevitable uncertainty in the quantity of unaccounted for energy was discussed during the building blocks process. • AES believes this is more an issue for the suppliers and does not have a firm view on any of the options proposed however a continuation of the current SEM policy would seem appropriate.
2. Local Market Power – What are your views on whether there are any specific issues in relation to local market power which need to be considered at this stage.	• AES acknowledges the current market power mitigation measures already in SEM such as the BCoP, but also recognises that I-SEM brings different challenges and that there is a distinct work stream on market power. • The potential feasibility and use of targeted controls for specific generators such as bid mitigation by use of a regulated bid for intermittent or long term conditions requires further explanation as to how and when this would be used as this has a significant impact for a participant and the potential affect the functioning of the market. • AES will participate in the market power work stream and take the opportunity to comment further on the developments in this area during that process.
3. Metering – What are your views on the proposal for metering put forward in the Consultation Paper.	• AES has no comments on the proposed approach to metering agreed with the meter data providers.
4. Instruction Profiling – What are your views on the instruction profiling section. In particular, is it feasible to more accurately model the precise loading of units and whether more technical characteristics need to be	• AES agrees with the instruction profiling approach proposed in the consultation document which accommodates the technical characteristics of the units into dispatch instructions by use of the T.O.D. • Being used to determine the dispatched quantity at a given time and hence the potential uninstructed imbalances and notified imbalances of a unit, AES views the ability to accurately reflect the technical capabilities of the unit as significant. • AES agrees with the comment regarding start conditions and in particular warmth conditions and would seek to investigate opportunities to declare additional warmth conditions based on the actual parameters of the units.

accommodated in the technical offer data.	
5. Units Under Test – What are your views on the two options put forward for units under test in I-SEM.	• For generator requested tests AES favours a continuation of the SEM arrangements with the facility for in day and market tests with greater emphasis placed on improving and reducing the notice times required to obtain and modify market tests as was discussed during the Building Blocks workshops. • For TSO requested tests Generator should also be given a test profile by the TSO as required with a suitable notice period.