



***Response to Integrated Single Electricity Market (I-SEM)
Consultation on
Capacity Remuneration Mechanism
Detailed Design
Third Consultation Paper***

SEM-16-010

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

27th April 2016

Capacity Remuneration Mechanism

Introduction

AES welcomes the publication of the consultation document on I-SEM Capacity Remuneration Mechanism (CRM) (SEM-16-010) and the opportunity to provide comments on the issues raised. AES would like to submit the following consultation response to the Regulatory Authorities.

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.

CRM 3 DETAILED DESIGN – HIGH LEVEL MESSAGES

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 design of the I-SEM. The answers requested to the questions set out in the relevant sections in the consultation paper are set out below but AES would also like to submit the following high level messages.

Auction Frequency and Volumes - AES largely supports the proposals for transitional, T-4 and T-1 auctions and that the capacity requirement for the interim years should be set at a level to ensure that there is sufficient existing capacity able to sustain operational capability to ensure delivery in the T-4 auction timeframe and that the transition is managed in an efficient manner to avoid inefficient exit and ensure sufficient capacity is available in each jurisdiction. Dates and timings of the respective auctions would need to be finalised as soon as possible to enable effective planning and resourcing to be determined.

Market Power - AES agrees that market power is a material concern in the I-SEM CRM due to the structural and pivotal nature of some of the large participants and supports the positions that robust market monitoring and an independent market monitor will offer some protection against anti-competitive behaviour. AES is concerned that the design of the CRM auction process, the single zone treatment and the absence of the second south-north tie line will not deliver a feasible capacity outcome for Northern Ireland and also may not resolve locational issues in the south west, Dublin and other areas impacted by system constraints.

Auction Design - AES supports the auction format of a simple sealed bid multi-unit auction with a pay as cleared at the uniform clearing price with the marginal unit being accepted in full and incorporating a sloping demand curve positioned to ensure that the minimum capacity procured satisfies the security standard of 8 hours LOLE as this represents the

simplest and most efficient process for determining the required capacity with the lowest potential for market power abuse.

Auction Parameters - Auction parameters should be derived by the CRM delivery body and approved by the SEM Committee following consultation with market participants and AES accepts the approach of a sloping demand curve with slope and positioning of the demand curve to ensure that at a minimum, the security standard of 8 hours LOLE is met.

Strike Price - The Consultation paper states that the strike price would be based on a hypothetical low efficiency peaking unit taking a reference thermal efficiency of 15% and spot or forward oil or gas prices. AES believes that the choice of reference thermal efficiency of 15% is too high as peaking units efficiency averaged over an hourly trading period including a start-up and shut down would be less than this and probably in the order of 10%.

Auction Governance - AES supports the requirement for an independent Auction Monitor and its role in ensuring that the CRM delivery body and market participants comply with the capacity market code. AES has concerns regarding the potential conflict of interest for the TSO with respect to its role as the CRM delivery body and as an interconnector owner and auction participant in the context of the CRM 2 emerging thinking and minded to decision of an interim availability based interconnector led approach to cross border participation.

SECTION 3 AUCTION FREQUENCY AND VOLUMES

3.2.1 Do respondents agree with the proposed approach for transitional auctions, T-4 auctions and T-1 auctions? If not, please explain.

AES agrees with the proposed approach for auctions for the transitional years i.e. to conduct separate T-1 auctions for each of the capacity delivery years up to the delivery year of the first T-4 auction.

AES is of the view that the capacity requirement for the interim years should be set at a level to ensure that there is sufficient existing capacity is able to sustain operational capability to ensure delivery in the T-4 auction timeframe.

AES agrees with the proposed approach for an annual T-4 auction and the principle of competition between new and existing capacity to ensure the most efficient outcome and mitigation of market power.

AES also agrees the accurate prediction of the capacity requirement 4 years in advance of the delivery period could be challenging and supports the approach of an additional T-1 auction each year to ensure effective and sufficient procurement of capacity to meet the required security standard.

AES also believes that new capacity that can deliver in less than the four year time frame should also be accommodated through the T-4 (standard 10 year contracts) or T-1 (annual contracts) and should have the opportunity to state the contract length required when entering the appropriate auction and receive either longer contract lengths (up to 4 years) through the T-1 auction or shorter contract lengths through the T-4 auction.

3.2.2 What is respondents view in relation to the flexibility around the timing of the T-1 and T-4 auctions?

For the T-4 auction AES supports the proposed 6 month flexibility either side of the 4 year period for holding subsequent T-4 auctions.

For the T-1 auction AES supports the view that annual auction should be held in a consistent time frame before the required delivery period but not less than 6 months prior to and not more than 10 months prior to the start of the delivery period.

SECTION 4 MARKET POWER

4.8.2 Do respondents agree that market power is a material concern in the I-SEM CRM? If no, why not? Should the SEM committee be concerned with unilateral market power, the potential for collusion or both?

AES agrees that market power is a material concern in the I-SEM CRM due to the structural and pivotal nature of some of the large participants as evidenced by the identified metrics. Even if not exerted the potential capability to exercise market power in the capacity auction, unilaterally or by collusion exists unless inhibited by effective market power mitigation measures.

4.8.3 Do respondents think that the overall market power control framework and package of mitigation measures set out in this section is comprehensive and proportionate?

AES supports the positions that robust market monitoring and an independent market monitor will offer some protection against anti-competitive behaviour such as physical or economic withholding and should prevent tacit collusion.

AES has no objection to the requirement for mandatory bidding for dispatchable generators with firm transmission access rights based on known technology specific derated capacity values within the allowable tolerance bands and AES accepts that the ability to adjust the capacity requirement down for physical withholding i.e. non bidders, should remove some opportunities for gaming.

AES understands the requirement for an auction price cap but does not agree with the bid limits requiring existing capacity to bid below a regulated price which is set below the price cap. The same price cap should apply to all bidders

- Are there any additional market power concerns that the SEM Committee should be focussing on?

In defining the relevant market in section 4.2 the geographical market area is intended to be a single zone consisting of the island of Ireland. AES is concerned that there is a disconnection between the design of the capacity procurement mechanism, the physical constraints of the all island system and the locational need for the appropriate capacity on the island. The design of the CRM auction process, the single zone treatment and the absence of the second south-north tie line will not deliver a feasible capacity outcome for Northern Ireland and also may not resolve locational issues in the south west, Dublin and other areas impacted by system constraints.

- Should the SEM Committee bar any existing firm transmission access intermittent generator which has opted out of an auction (on grounds of retirement) from bidding in subsequent auctions, if it subsequently does not retire and/or apply other sanctions?
AES does not support the prevention of existing plant, which has opted out of the T-4 auction, from participating in the T-1 auction for the same year as the circumstances in the time between the T-4 and T-1 auctions could have changed significantly and subsequently this plant could be needed for system security due to unforeseen forced outages of other plant, system constraints etc. Therefore plant should be allowed to opt back into later auctions if circumstances have changed

4.8.4 Do you think that firm transmission access plant which has bid at a certain point within the tolerance band in the T-4 auction (below the maximum) should be allowed to bid more capacity (up to the top of the tolerance band) in the T-1 auction?

Yes AES supports the position that generators required to bid within a tolerance band should be allowed to bid additional surplus generation within that tolerance band into the T-1 auction as this could allow for a more efficient overall outcome.

4.8.5 What metrics should be used to assess whether a capacity provider is dominant, for the purpose of either applying other Bid Limits and/or controls on aggregation (the approach to setting the level of bid controls is discussed in section 6)?

AES accepts that there are a number of metrics that could be used to determine whether a capacity provider is dominant 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 and had been discussed in the Market Power Mitigation Consultation paper. AES agrees that market share is the simplest measure of structural market power and the participant's ability to exercise unilateral market power and also agrees with the position stated in the consultation that the pivotal supply index would indicate that ESB is almost certain to be pivotal.

As stated in our response to the Market Power Mitigation Consultation, 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.

4.8.6 Do you agree that dominant /pivotal generators should be prohibited from acting as Capacity Aggregators? Should associated businesses of dominant / pivotal generators (e.g. their Supply arms) also be prohibited from acting as Capacity Aggregators too?

No, AES supports the position that small scale participants should have access to the market through aggregators and that this can be provided cost effectively and efficiently by existing participants willing to act as aggregators.

4.8.7 Should there be a prohibition on ESB and other dominant generators providing aggregation services?

Due to the structural dominance and pivotal nature of ESB, AES agrees that ESB should be prevented from aggregating further generation capacity however due to the uncertainty regarding the evolution of commercial aggregators, existing non pivotal market participants may be the only option for the facilitation of market entry for small participants requiring aggregation services and should therefore not be ruled out at this early stage of the market development.

SECTION 5 AUCTION DESIGN

5.9.2 Which auction format (simple sealed bid, multiple round descending clock, combinatorial format, i.e. Option 1 to 3 in Section 5.2) do you think is most appropriate for the transitional auctions, T-4 and T-1 auctions, and why?

AES supports the auction format of a simple sealed bid multi-unit auction with a pay as cleared at the uniform clearing price as this represents the simplest and most efficient process for determining the required capacity with the lowest potential for market power abuse. However AES would have concerns regarding the scenario of partial acceptance and i.e. a marginal unit being accepted for less than all of its capacity creating the possibility of under recovery of costs. AES believes that the partial acceptance as mentioned in the consultation paper should not be permitted and the marginal unit must be accepted fully.

5.9.3 Do you have any preference for the structure of bids for the auctions? Explain your rationale.

With the expressed preference for an auction format of a simple sealed bid multi-unit auction, AES supports a unit based bid structure format with a simple price, quantity pair per capacity market unit respecting that the quantity must be the amount qualified in respect of that capacity market unit.

5.9.4 Do stakeholders agree with the proposed approach of adopting Option 3b to deal with the lumpiness/discrete bid problem? If not, please explain why not, and your preferred alternative approach.

AES supports the position that participants should have the right to submit all or nothing bids and that option 1 requiring the auctioneer to accept the marginal bid in all circumstances is the simplest and fairest option to deal with the lumpiness issue as it avoids out of merit procurement and the potential for unhappy winners and unhappy losers. It removes concerns around the transparency of acceptance or rejection of out of merit bids and when used with a sloping demand curve should allow for the optimum outcome respecting the security standard required.

5.9.5 Do stakeholders agree with the approach of setting the clearing price based on the highest accepted in-merit winner, and paying any out-of-merit winners based on a pay-as-bid basis? If not, please explain why not, and your preferred alternative approach.

AES supports the proposal of pay-as-clear pricing based on the highest accepted bid as this format is accepted as providing the most economically efficient outcome. AES does not support acceptance of an out of merit bid with a pay-as-bid option as this would add to the complexity due to the different capacity payment rates. AES views that the marginal unit should be accepted or rejected in full accepting that this will lead to a non-significant over or under procurement of capacity. The provision of a sloping demand curve and the decision on a security standard of 8 hours LOLE should allow for the marginal unit to be accepted in full and remove the need for out of merit procurement which could lead to unhappy losers in the auction.

5.9.6 Should the SEM Committee introduce a sloped demand curve, either as a market power control, or for other reasons?

AES supports the concept of a sloping demand curve but believes that the slope of the demand curve and the position of the demand curve should be selected to ensure that the security standard of 8 hours LOLE is met at the under procurement limit of the sloped demand curve. In its response to the security standard question in the CRM Consultation 1 AES favoured a security standard of 3 hours LOLE as this more closely reflected actual

operation and aligned with the GB standard. The position of the sloped demand curve could allow the margin between the 2 standards to be reduced.

5.9.7 Winner determination. Do you agree with winners being determined purely on price offered for each Capacity Delivery Year?

For the interim T-1 and transitional auctions based on the choice of a simple sealed bid auction format and where contract length is not an issue AES views that winners should be determined purely on price. For the T-4 auctions where comparison of different contract lengths is an issue AES again favours a winner determination based purely on price with no adjustment for contract length for the reasons of auction efficiency, competition, simplicity, practicality and cost stated in the consultation paper.

5.9.8 Winner determination. Do you agree that the auctioneer should be able to accept “out-of-merit” bids to manage the lumpiness problem or should only in-merit bid be accepted? What rules should be used to determine whether the marginal bidder is accepted (if only in-merit bids can be accepted) or to determine which out-of-merit bid should be accepted?

With reference to the answer given to question 5.9.5, AES views that out of merit bids should not be accepted and that in merit bids should be accepted fully or not at all bearing in mind the requirements of the decision on the I-SEM Security standard. Marginal bids should be accepted fully within the parameters of the sloping demand curve as this will serve to improve the security standard which AES believes should be set at 3 hours LOLE. A slight over procurement will serve to bridge the gap.

5.9.9 Price determination. Do you agree that it appropriate to pay auction winners on a “pay-as-clear” basis, with this uniform clearing price being based on the highest accepted in-merit bid price? Should any out-of-merit winners be paid a different price to in-merit winners?

As mentioned above AES supports the pay-as-cleared option and uniform clearing price based on the highest accepted bid and does not support the acceptance of out of merit bids or paying out of merit bids on a pay-as-bid basis as this adds to complexity and reduces transparency of the winner determination process.

5.9.10 How do you think the lumpiness / discrete bid issue should be dealt with?

AES disagrees that the lumpiness issue is a market imperfection. By design generation units are economically designed and procured to certain sizes for efficiency and flexibility optimisation. The process of procuring capacity should have sufficient flexibility to enable the marginal unit to be accepted in full. In a requirement for over 7000 MWs, a 400 MW CCGT represents 5% of the requirement.

5.9.11 Do you have any comments on the treatment of tied bids?

AES supports the use of tie break rules that are based on a net welfare calculation to rank the tied bids but only where the tied bids represent the marginal units. This would present an efficient and transparent method to determine which bids are accepted and which are rejected.

5.9.12 What is the appropriate level of information to be provided: before qualification; between qualification and the auction start; between rounds in the case of a multiple round auction; and after the end of auction?

With respect to information to be provided before qualification AES agrees with the list provided in the consultation document i.e.:

- The quantity already procured for that delivery year
- Derating factors
- The demand curve function (sloping demand)
- The auction price cap and any other bid limits
- Capex thresholds to define new or upgraded
- Auction dates

Between qualification and the start of the auction

- Updated demand curve function
- Volumes opted out of the auction
- Competition considerations
- The total MW of qualified capacity

At the end of the auction

The clearing price

The MW quantity of RO obtained for each unit.

5.9.13 Are any additional restrictions on bidder communications (over and above existing competition law) required?

AES supports the restrictions on bidder communications proposed in the consultation document i.e. the prevention of explicit or tacit signals to bidding prices, before during or after the auction and from making public statements on expectation of clearing prices.

SECTION 6 AUCTION PARAMETERS

6.5.2 Do you have any comments on the overall scope / process of auction parameter setting outlined above?

AES views that the auction parameters should be derived by the CRM delivery body and approved by the SEM Committee following consultation with market participants to address concerns regarding transparency of the process and potential conflicts of interest with the CRM delivery body in and their role as TSO.

6.5.3 If a sloped demand curve is introduced, what principles should be used to determine the slope of the demand curve, and the range within which the demand curve is sloped?

AES understand the approach of a sloping demand curve but has concerns regarding slope and the positioning of the demand curve relative to the level of capacity required to ensure that the security standard of 8 hours LOLE is met.

Whilst the positioning of the demand curve represents a trade-off between reliability and cost the curve should be positioned to ensure that the auction is designed to procure a target level not less than the capacity required to meet the security standard of 8 hours LOLE.

With respect to the slope of the demand curve AES understands the concept of a sloped demand curve with an inflection point anchored at the point of the price of Net CONE and the target capacity quantity

6.5.4 If introduced, should the sloped demand curve be different for the transitional period? AES views that the slope of the demand curve should be shallow for the transition years to allow for additional capacity to be procured in absence of new entry and to successfully manage the transition and potential exit of plant to the T-4 capacity level.

6.5.5 What impact do you think the sloped demand curve will have on competition? AES agrees that the adoption of a sloped demand curve will increase competition given the auctioneers option to under procure if the auction price is high in addition to competition from other providers. However AES views that the minimum value procured should not be less than the value required to meet the security standard i.e. 8 hours LOLE.

6.5.6 Do you agree with the requirement for an Auction Price Cap? What principles should be used to determine the level for the Auction Price Cap/what level should it be set at? AES accepts the requirement for an auction price cap and supports the position that this should be set at a multiple of CONE greater than 1 to incentivise new investment and to mitigate to some extent the risk of estimating infra marginal rent and system services revenue four years in advance of the auction. Therefore AES supports the position that a margin of uncertainty must be allowed for when setting the auction cap. AES supports the position that the auction price cap should be set at a minimum of 1.5 time Net CONE.

6.5.7 Do you agree with the requirement for other Bid Limits? AES accepts that the SEM Committee has an objective to procure capacity at a low cost to consumers however any other bid limits set, most notably for existing plant, must be set at a level that ensures that participants can recover their costs.

6.5.8 Should the other Bid Limits be applied at the same level to all existing non-intermittent firm transmission access generators, or should the limits be technology specific? AES agrees that the complexity involved in setting and validating technology specific bid limits calibrated for the I-SEM presents significant workload and a simpler and more transparent option would be preferred that strikes an appropriate balance between avoiding the abuse of market power and the ability to recover costs. If a bid limit for existing plant is to be adopted AES prefers the generic price taker offer cap approach but set at a value that accepts the going forward costs with a reasonable margin for estimation error, greater than 50% of net CONE.

6.5.9 Should the other Bid Limits be applicable to all bidders, or just dominant/ pivotal generators? AES understands the necessity to mitigate market power abuse in the auction design particularly with the concentrated nature of the I-SEM and when no new generation capacity is required i.e. in the interim auctions. AES does not see need to impose bid limits below Net CONE on participants that do not have significant market power as the number of market participants combined with the sloping demand curve should provide sufficient incentive to ensure prices are competitive

6.5.10 What principles should be used to determine the level for the other Bid Limits/what level should they be set at?

AES prefers the generic price taker offer cap approach but set at a value that accepts the going forward costs with a reasonable margin for estimation error, greater than 50% of net CONE.

SECTION 7 AUCTION GOVERNANCE, ROLES AND RESPONSIBILITIES.

A) Do you agree on the proposed role of the TSOs with respect to the auctions?

AES supports the proposals for the role of the TSO as the CRM delivery body and its responsibilities as detailed in the consultation document i.e. procuring the software to run the auctions, developing auction guidelines, publishing key auction parameters, running the qualification process, and running the auction. AES also supports the monitoring of these obligations by the Auction Monitor bearing in mind the potential conflict of interest issues for the TSO.

B) Do you agree on the requirement for an Independent Auction Monitor and its proposed roles and responsibilities? If not, please specify what changes you would make? Should this role be combined with the role of SEM/I-SEM Market Auditor?

AES supports the requirement for an independent Auction Monitor and its role in ensuring that the CRM delivery body and market participants comply with the capacity market code. Also AES agrees that this independent body would report to the SEM Committee and the proposal that the function is funded by the CRM delivery body.

C) Do you agree with the SEM Committee's proposed approach to managing conflicts of interests in the Capacity Market Code? Are any other steps appropriate to ensure that any actual or perceived conflicts of interest are managed?

AES has concerns regarding the potential conflict of interest for the TSO with respect to its role as the CRM delivery body and as an interconnector owner and auction participant as based on the CRM 2 emerging thinking and minded to decision of an interim availability based interconnector led approach to cross border participation. Whilst AES supports the position that the SEM Committee should set the interconnector derating factor with the methodology to be consulted on the role of the auction monitor will be essential to ensuring the auction is carried out impartially, transparently and mitigating any perceived conflict of interest.

D) Do you have any comments on the proposed auction governance arrangements?

AES supports the concept of a rules based model "Capacity Market Code" captured within the Trading and Settlement Code, forming part of the TSOs licence conditions and subject to approval of the SEM Committee. AES also supports the proposed review of the Qualification and Implementation agreements governance arrangements and the requirement for SEM Committee approval of the Capacity Market Code. However there is still a lack of clarity on the governance arrangements on some elements of the auction process such as auction agreed procedures, auction timetables and auction parameters which are to be subject to consultation and should be determined by the SEM Committee also.

E) Do you have any views on the model and process for making modifications to the Capacity Market Code?

AES accepts the proposal that modifications to the Capacity Market Code are subject to a more precise timeline and would support the view that modifications can be proposed by any person and that a workshop approach as described would be suitable.

F) Do you think that disputes in respect of the Capacity Market Code should be resolved by a similar process to TSC disputes? Should there be a separate panel for Capacity Market Code dispute resolution?

AES supports the requirement for an independent dispute resolution process to be developed as part of the Capacity Market Code comparable with and with similar objectives to the process set out in the Trading and Settlement Code.

SECTION 8 OTHER RESIDUAL ISSUES

A) Do you agree with the proposed approach for setting the Supplier's contribution rate? If not, please explain.

AES supports the principles proposed in the consultation paper to guide the setting of the supplier's contribution rate i.e. based on adequate funding and the avoidance of price shocks from one year to the next and that this is achieved through adjustment of the capacity charge to suppliers. AES accepts the proposed normal constraints in setting the contribution rate increase and that it is subject to SEM Committee approval based on the detailed principles.

B) Do you have a preference as to which option (Suspend and Accrue or Immediate Additional Charge) should be applied to socialisation of any shortfall in Reliability Option difference payments? If not, please explain.

AES does not have any preference as to which option is chosen.

C) Strike Price

The Consultation paper states that the strike price would be based on a hypothetical low efficiency peaking unit taking a reference thermal efficiency of 15% and spot or forward oil or gas prices. AES believes that the choice of reference thermal efficiency of 15% is too high as peaking units efficiency averaged over an hourly trading period including a start-up and shut down would be less than this and probably in the order of 10%. AES also supports the position that daily indexing of oil and gas price should be. AES views that the floating strike price needs to be sufficiently high to ensure that all relevant generating plant would be scheduled.