

## IWEA submission on DS3 System Services Auction Design Consultation

12 February 2016

The Irish Wind Energy Association (IWEA) welcomes the opportunity to comment on the consultation on DS3 System Services Auction Design.

### Introduction

**As outlined in previous submissions, IWEA's overriding objective with the DS3 arrangements is that they must deliver the necessary system services and any required investment for services to facilitate the achievement of the 2020 renewable targets and minimise curtailment.** The delays that have been seen to date in increasing the System Non-Synchronous Penetration (SNSP) on the electricity system are of serious concern to the wind industry, and wind generators are likely to see increasing levels of curtailment if these system services are not introduced in a timely manner, thereby putting the 2020 renewable energy targets at risk. It should also be recognised that the market re-design is currently also underway, along with a fundamental re-design of the capacity remuneration mechanism, which, combined with the enhanced curtailment risks, result in considerable challenges for the business plan for renewable generators and in respect of revenue certainty over the coming years.

Early in 2009, EirGrid and SONI (EirGrid group) initiated a suite of studies - entitled the Facilitation of Renewables - designed to examine the technical challenges with integrating significant volumes of windfarms onto the power system of Ireland and Northern Ireland. While progress has been made in understanding the problem we are still a considerable distance from investment in the system services which are required to operate the system at higher levels of SNSP. The risks to the wind industry is therefore considerably increasing and is compounded by the fact that wind industry will (unfairly in our opinion) face financial exposure due to the removal of compensation for curtailment from 2018.

While the detailed information is currently not available in relation to the volumes of system services required, IWEA believes that, if investment is required to achieve a volume of system services necessary for the facilitation of higher levels of SNSP, this may not be achieved with the proposed DS3 arrangements. IWEA is concerned at the level of complexity associated with the DS3 System Services workstream, and in particular in relation to the auction design. The level of complexity gives rise to uncertainty in the revenue adequacy associated with the provision of services. In order to develop an investment case there needs to be a clear understanding of the business case and the process which should be kept as simple as possible.

The proposals outlined in the DotEcon paper would have a number of improper impacts on participants which lead to a severe risk that investment in system services will not be incentivised. Such impacts include the following;

### **Allocation of risk**

IWEA believes that the DotEcon proposals have targeted to allocate risk away from the TSO and onto market participants. This is evidenced by diverting from a clearing price remuneration design with a minimum revenue guarantee to a package bidding design that relies upon availability metrics to manage revenue certainty. However the variations in availability and output deviations could be substantial and not driven by the participant. We are therefore concerned that the allocation of risk is inappropriate given it should always be placed on those who are best placed to manage it. Irrespective of the management of this risk, we are concerned that the end result is substantial deviation in expected revenue, which feeds back to auction volatility without a guarantee of revenue security.

### **Revenue Certainty**

As alluded to above, it is proposed that participants' business case will not now be underpinned by a revenue guarantee which was initially designed to provide investor certainty. In the face of the reliance on availability, the introduction of uniform pricing rules, and the inability of new entrants to finance via regulated tariffs, we believe there is still a need for a minimum revenue guarantee. However, we recognise that there must be an incentive to perform for service providers and suggest that further consideration is given to combining a performance incentive such as the scalar with the minimum revenue guarantee.

### **Complexity**

The DS3 process has become quite complex and it is proposed that it will interact heavily with the energy market and inevitably the capacity market. We have called for measures to be introduced to simplify the process for investors and participants alike.

### **Incentives**

Of particular concern is the lack of attention to risks and incentives within the proposals. This seems particularly obvious in the scenario of high levels of wind generation, when DS3 system service providers are most needed to support variations in renewable generation. At such times, there may be a requirement to "constrain on" at least some DS3 system services. Under the proposals, however, such providers will have little or no economic incentive to provide system services, which seems perverse, and could undermine their delivery when most needed. If the proposal to cap BM offer price at the energy market price is accepted service providers could receive less than even their cost of generation and so lose money (DotEcon, Box 2). This proposal should be rejected.

The effect of these proposals is to remove margins from generators providing services and to detract from the investment case for enhanced system services and seriously risks the successful implementation of the wider DS3 programme.

## **Unsuccessful Bidders**

If a bidder is unsuccessful, we believe the SEM Committee should be cautious as to how to proceed in regards to the utilisation of these services which remain available to the TSO under Grid Code. The SEM Committee needs to consider the implications of having lower payments for unsuccessful bidders, in particular if the TSO is to continue to be incentivised by minimising dispatch balancing cost. These lower payments could enable the TSO to procure less services knowing their availability irrespective of the auction results. An incentive on the TSO to reduce the outturn spend on services, could result in a clear conflict of interest in this regard.

On the other hand, where unsuccessful bidders receive the clearing price, they will not be subject to the same control over bidding in the energy market and therefore potentially be in a better position than those who have cleared the auction.

The SEM Committee must address this issue and we support a principles statement whereby the TSO is actively encouraged not to utilise services from plants that have not cleared an auction or are in receipt of a DS3 contract.

**In summary**, if DotEcon is deemed to be correct in its assertion that the SEMC decision regarding DS3 is not implementable, then we agree that the SEMC decision must be amended. However, given our concerns set out above, the DotEcon proposals do not seem to be a viable alternative.

There must be a much better balance of risk between the TSO and providers, while delivering solutions to key concerns such as TSO cost management and revenue certainty for providers.

These issues taken in isolation would have the impact of creating a barrier to investment in system services and, combined, we are concerned that without sensible action from the SEM Committee, the targets to increase SNSP will be missed and curtailment will continue to increase for the renewables industry.

## **Consultation Questions**

### ***Question 1: What are your views on the proposals to try to ensure a level of consistency between CRM and DS3 System processes?***

IWEA strongly believes that the CRM and DS3 auction timelines should be aligned to ensure that projects and new investments can have sight of both revenue streams. IWEA believes that a combined auction would be the best outcome in relation to ensuring consistency between the two processes. In the absence of this there should, at the very least, coordination of the auction timelines, the commissioning windows and auction platforms. If an investor is relying on combined income from CRM and DS3 then they cannot commit to providing only one of these services if they are unsuccessful with the other.

We are aware of comments from the CER representative at the recent DS3 seminar in Ballsbridge which indicated that there would be no alignment of the processes for the first auction, and we request further clarification on why this is the case given that no systems have been procured at this stage. The separation of processes creates significant risk for new entrants and for the effectiveness of the DS3 process.

IWEA would however re-iterate the urgency to procure and commission the new system services. If all of the new system services are contracted to deliver at the end of the eligible commissioning window (5 years plus 1 year longstop) the level of curtailment could be considerable until 2022/2023.

***Question 2: Do you consider that the SEM Committee should consider facilitating a link (where participants require) to only proceed with participation in the DS3 System Services auction subject to a successful outcome in the CRM auction or (vice versa) i.e. create an interdependency that as much as possible mitigates the need for auction re-runs.***

IWEA strongly supports this proposal. It is essential that there is a link between CRM and DS3 auctions to only proceed with participation where an applicant has been successful in both auctions. However this link must not be mandatory and only when participants request the link. This will facilitate projects which rely on both revenue streams to form an investment case.

In the above circumstances of interdependent auctions, it would be advantageous to all parties that the auctions are coordinated to minimise the time in which it is uncertain whether CRM and DS3 System Services could be delivered by a bidder who has been successful in the first auction.

***Question 3: What are your views on managing the interactions between the CRM and DS3 System Services auctions?***

See answers to Questions 1 and 2 above.

***Question 4: Do you agree with the proposals for separate DS3 System Services long-term and short-term auctions as set out in the DotEcon recommendation?***

IWEA supports the proposal for separate auctions for long and short term contracts as this makes it easier to directly compare products. Further work will be required in determining the amounts of each service which should be allocated to each of the auctions and to ensure there is sufficient competition.

There are, however, risks of running two separate auctions, for example if the TSO only requires a number of products to be delivered as new investment. The Service Provider could provide other products yet is restricted to relying on short term contracts for these services. This could frustrate investment and result in inefficient outcomes.

An appropriate and transparent decision making process is needed to accept or reject new entrant bids including independent verification. Given the concerns around conflicts of interest due to the TSOs role as owner of an interconnector, anything less than full transparency will seriously erode investor confidence for potential new entrants.

The interaction with the energy market needs to be further considered. The existence of two prices for the same product may cause distortions in the energy market.

Many of the system service products require the provider to be synchronised and therefore these will be reflected in energy market bids and hence there may limited financial upside from the

provision of system services. This is the fundamental flaw in having payments based on availability rather than capability. Under a commitment model the energy market would be scheduled on the basis of a DS3 constrained market which is contrary to the high level design of I-SEM.

***Question 5: Do you think the treatment of long-term contracting for System Services should be aligned with the proposed framework in the CRM?***

IWEA strongly supports that the treatment of long term contracting for System Services should be aligned with the proposed framework in the CRM. This is particularly important in relation to the auction timelines as well as the Implementation Agreements and Commissioning Window. To have separate timelines will create an unpalatable level of risk for participants and we believe it would particularly impact new investment.

IWEA would however re-iterate the urgency to procure and commission the new system services. If all of the new system services are contracted to deliver at the end of the eligible commissioning window (5 years plus 1 year longstop) the level of curtailment could be considerable until 2022/2023.

***Question 6: What are your views on the proposals to calculate clearing volumes for the auction as set out by DotEcon?***

IWEA is concerned with the statement in the DotEcon report that the methodology “may fail to capture all of the TSOs requirements for procurement of system services” The TSO has licence obligations to ensure the safe, secure and reliable operation of the system. System Services must be procured for all permutations and combinations of system events. The all island electricity system will be one of the most challenging in the world with high levels of non-synchronous penetration on a small system. Forced outages of large plant and interconnectors and variability of wind generation requires a diversified and robust portfolio of system services.

***Question 7: Do you agree with the proposals for introducing granularity for the purposes of calculating auction clearing volumes?***

This proposal seems sensible to ensure that services are being made available when and where they are needed, however it may be difficult for the TSOs to determine the appropriate level of granularity required. Whilst IWEA understands the logic for incentivising the correct location of system services, further consideration of the impact on energy markets is required.

***Question 8: What are your views on the proposal to introduce flexibility on the volumes to be procured?***

It is essential to ensure that there is strong governance in relation to how the volumes are set. There should be no incentive to set the auction volumes lower than what is required based on the knowledge that other suppliers who are not successful in the auction may be able to provide the service at a price lower than the clearing price.

***Question 9: What are your views on the proposals for package based bidding?***

IWEA understands the reasoning behind package based bidding as an appropriate way of running the auctions. The proposals in the DotEcon paper allow participants to bid a range of mutually exclusive packages which provides flexibility to generators. We are however concerned at the ability of participants to accurately reflect availability metrics (particularly new entrants over a 15-20 year period) given this risk is largely out of their control. We believe that tolerance bands need to be built into availability figures and the minimum revenue guarantee reintroduced to protect participants from TSO actions. Further consideration is needed to how performance incentives such as scalars can be incorporated with the minimum revenue guarantee so that investors have certainty and performance incentives to deliver the services remain.

IWEA would caution that the interaction with regulated tariffs needs to be carefully considered. If all products are not included in the auction, then the package bids may not include all the costs that would need to be covered for the service provider. A service provider may also need to be assured of the revenue stream from the regulated tariffs, which are subject to change on an annual basis. Therefore the package bidding approach does not remove the need for the Minimum Revenue Guarantee, which is considered to be a fundamental part of the High Level Decision, to be in place to ensure that the combination of revenues from both the auction and the regulated tariffs is sufficient. IWEA notes that the Minimum revenue Guarantee should be considered a fall back to ensure projects are investible. Incorporating floor prices into the auction would reduce the risk to participants in what is a novel and unproven auction design.

We do not support the premise that auction prices should be capped at the tariff price.

***Question 10: Do you consider that a provider will be able to predict its expected availability accurately on an annual basis?***

No generator will be in a position to predict its availability based on the market schedule/TSO dispatch accurately on an annual basis (please note this differs significantly from technical availability). The idea that units would be penalised for failing to accurately predict the effects of meteorological changes ( e.g. how big of an effect should El Nino have on average wind and rainfall) and shifts in underlying commodity markets (i.e. dramatic coal to gas shifting in GB this year) does not stand up to reason. Further, a participant's technical realisable availability is equally governed by market fundamentals and TSO actions. This risk is best managed by those in a position to manage it, i.e. the system operators.

This risk would jeopardise the delivery of DS3 as it would be difficult for providers to secure financing for new investments.

***Question 11: Do you agree with DotEcon's proposals in relation to quantity units for the services outlined above?***

The TSOs are the best placed to comment on the quantity units.

***Question 12: What are your views on a suggested cap or clawback on expected availability per plant to manage DS3 System Service expenditure?***

Please see response to Question 10. IWEA does not believe that a clawback is appropriate. Clawback places inappropriate level of risk with the investor. It would also create an incentive for the TSO to under-procure system services. There are too many factors which are outside the control of the system service provider. The provision of system services has a material impact on the wear and tear of the plant and apparatus of the providing the system services.

***Question 13: Do you consider the DotEcon Report to have accurately captured the considerations for availability the TSO should use for different DS3 System Service products? If not, please explain your reasons why.***

We have addressed availability in our answer to question 10. A system service provider should be paid for the provision of a service regardless.

***Question 14: Do you agree with the proposals to ensure lower payments are received by System Service providers who are not successful in the DS3 auctions but who are dispatched by the TSO to provide System services, than those providers who are successful in the Auctions?***

IWEA believes there must be careful consideration of the implications of having different prices for the same product – which would be the case for winners/losers of an auction under the proposals. There is a need to ensure that there is no perverse incentive on the TSO (resulting from the proposed lower payment) to use the system services from those not contracted, and as a consequence to contract for a lower volume of system services.

IWEA has concerns in relation to the possible pricing solutions for contracting with unsuccessful bidders:

- If unsuccessful bidders are paid at the clearing price then this could be lower than the cost of providing the services. It also reduces the incentive of participating in the auction in the first instance if you know you will receive the clearing price anyway.
- If unsuccessful bidders are paid at their bid price then this could be a perverse incentive to bid high, potentially increasing the clearing price unnecessarily.

Therefore it is important that the correct volume of system services is contracted for in the auction to reduce the need for the TSO to utilise system services from those not contracted.

IWEA recognises the need to incentivise participation in the auction as this certainty of service provision is of critical importance to the TSOs in operation of the system and to provide confidence in the ability to increase the SNSP, but we do not believe the proposals outlined are appropriate.

***Question 15: Do you agree with the proposals for determining the winner/price as set out in the DotEcon recommendation?***

IWEA has outlined in the introduction that we have concerns regarding the revenue adequacy. IWEA would also have concerns with a tariff capping the outcome of the auction. The purpose of the

auction is to have a competitive pricing mechanism which is undermined by interventions such as price caps and scalars.

***Question 16: Do you agree with the proposed treatment of interconnectors? Should this apply equally to all interconnectors?***

IWEA has no concerns in relation to the proposed treatment of interconnectors.

***Question 17: Do you agree with DotEcon's proposed preferred model of Contingent Commitment in DS3 System service Auction procurement?***

IWEA believes that some level of commitment is required. It is essential that the TSO has confidence that the system services will be available for secure operation of the system. We would also caution against a structure that is too onerous and which unduly impacts investment signals.

The SEM Committee have proposed an alternative to contingent commitment which involves general oversight and investigation powers by the market where prices are thought to be exerting market power. This is worthy of further consideration. Whichever model is selected, it must recognise the variable availability of primary energy sources for renewable generators and the duration availability limits of energy storage devices.

There are existing Grid Code obligations in relation to certain system services. The SEM Committee will also need to clarify whether Generator Performance Incentives will continue in I-SEM.

***Question 18: Do you agree with the position proposed by DotEcon that successful winners in the DS3 Auction should bid in the BM only at DEC prices set to a proxy of the energy price (section 7.2 above)?***

IWEA has concerns with this proposal arising from the fact that bidding controls are being proposed for providers of system services. We are concerned that this may act as a disincentive to providers of system services arising from limitations in how they are able to participate in the Balancing Market. Balancing Market offers should reflect the cost of deviating from a physical position, and we are concerned that these proposals will have an undue influence on the design of the I-SEM balancing market. Careful consideration needs to be given to the interaction of any bidding principles and the different revenue streams for a participant.

IWEA understands that this proposal is arising out of concerns in relation to potential market power issues resulting from being a provider of system services. IWEA believes that this, along with all other market power considerations, should be dealt with together in the Market Power workstream.

***Question 19: Do you agree with the position proposed by DotEcon that successful winners in the DS3 Auction should bid in the BM only at INC prices set to a proxy of the energy price, or on a costs minus System Services income basis (section 7.2 above)?***

The proposal that successful winners in the DS3 Auction should bid in the BM on a costs minus System Services income basis is the least bad of the options considered by DotEcon. However it

provides no incentive for investment in new plant and equipment for generators which may be constrained on to provide ancillary services. The proposed approach is not acceptable and indicates the lack of attention to risks and incentives within the DotEcon proposals. Careful consideration needs to be given to the interaction of any bidding principles and the different revenue streams for a participant.

The proposal that in effect, the provision of system services is in some cases not remunerated at all, or not remunerated in full so as to cover all relevant costs, and accordingly provided at a loss by a generator, displays a disregard for the requirement to ensure that all generators are able to finance their activities.

***Question 20: Do you support the application of an alternative contingent commitment model that avoids direct commercial interaction and obligation within the Balancing Market (section 7.3 above)?***

n/a

***Question 21: Do you agree with the proposed treatment of plant that does not require it to be in the schedule or on for provision of System Services?***

n/a

***Question 22: Do you believe that either the Full Commitment model or the No Commitment model offers a better option for DS3 System Service providers? Please explain your reasons for your view.***

Neither of these is suitable, as explained in the DotEcon report.

The “Full Commitment” model is not suitable in the context of the energy trading arrangements (I-SEM is not a self-dispatch market) or given the protracted procurement timeframes for system services. It would also be extremely inefficient as a system service provider would be obliged to position to provide their services even if not needed.

## **Conclusion**

In conclusion we would like to restate that IWEA’s overriding objective with the DS3 arrangements is that they must deliver the necessary system services and any required investment for services to facilitate the achievement of the 2020 renewable targets and minimise curtailment.

We have raised some concerns in relation to the complexity of the auction design and potential perverse incentives that may arise in relation to different prices for services. In particular we are concerned that the removal of the Minimum Revenue Guarantee will remove the investor certainty that is required to ensure system services are delivered and curtailment of wind generation can be reduced. While we do not want to see any further delays to this workstream, it is critically important to ensure that the proposals outlined will deliver the services required.