

## Response to DS3 System Services Auction Design Consultation Paper SEM-15-105

### Schwungrad Energie

Schwungrad Energie is pleased to have the opportunity to respond to this DS3 consultation paper. We summarise the main points here and then respond to all the questions below.

- We agree that the volume of system services procured through the auction should be sufficient that it would not typically be necessary to call upon auction losers to provide system services (especially reserve) other than in exceptional circumstances. In such circumstances the losers should be paid significantly less than winners to incentivise them to commit, through the auction process, to the provision of system services.
- A defined volume of system services, say, 20-25%, should be allocated to new plant under long term contracts (15years). This volume must cover all products and not just some products, otherwise the contracts would not be financially viable. This volume must be defined at an early stage so that new players understand the size of the market.

The contracts should apply to new plant only and should be separate from refurbished/modified plant as the latter do not need such long term contracts e.g. 5 year contracts may be sufficient. Furthermore the latter may be able to subsidise their bids with other revenues from their existing plant which has already been paid off and so have an unfair advantage over genuinely new plant.

- In relation to the level of commitment a winner has to make to actually provide system services when requested by the TSO we would favour the Full Commitment option. Although it may lead to some times when the available volume of system services exceeds real time requirements, it is simple and avoids the complexity of the Contingent Commitment model. Under the latter, if the TSO requires system services which have been contracted but are not realizable because of generators' energy bids, there will be additional costs associated with the INCs and DEC's required to constrain down or constrain on these generators. (By comparison, flywheels and batteries have zero INCs and DEC's) **These additional costs would have to be estimated in advance at the time of the DS3 auction and added to the bid prices (for system services) from these generators when comparing them to the bid prices from players which can provide system services at all times without having to produce energy and hence without increasing the dispatch costs. This is the only way in which total costs, which will be passed on to the end consumer, can be minimized.** In addition to cost issues there are complexities associated with the contingent commitment model in terms of defining what DEC's and INCs should be used. It is not clear how the suggested energy price proxy would be calculated. Would it be recalculated each day based on some formula using latest fuel prices, plant availability etc. Would it be determined by the Market Operator each day? Would it apply only to the volume of DEC required to allow the generator to provide its full contracted MW of each system service? Would the generator bid a different DEC for any further decrements? There are similar difficulties with proxy prices for INCs and the difficulty with a cost minus approach is in determining the relevant costs and the potential requirement for regulatory investigations.

- A level of consistency is required between the CRM and DS3 auctions so that projects are bankable. Preferably the auctions should be combined. If not, a winner in the 1<sup>st</sup> auction should be able to relinquish its contract if it is not successful in the other auction and its project is not bankable. This would require a review of the 1<sup>st</sup> auction results as the relinquished contract volume would then be allocated to bidder(s) who had originally been unsuccessful. The consequence of this is that a player who has been unsuccessful in the 1<sup>st</sup> auction may still want to bid in the other auction in case it subsequently is allocated a contract from the 1<sup>st</sup> auction. These potential outcomes indicates the benefits of combining the 2 auctions from the start.
- It is not clear from the paper how package bids each with a different mix of system services will be compared in the evaluation process. It is also unclear how the clearing prices for individual services will be deduced from the winning packages. Chapter 6 explains the objectives to be satisfied both in text and in mathematical notation but it does not explain how this will be achieved. The simple worked example presented at the DS3 workshop on 1<sup>st</sup> Feb was useful in illustrating how it will work. An understanding of how the winning bids will be selected is necessary when any player is constructing a set of bids and a more detailed example may be required to achieve this.
- If some products are paid on a tariff basis, a player bidding into an auction for other products needs to know whether they have a contract for the tariff products and at what price.

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

A level of consistency is required so that projects are bankable. Preferably the auctions should be combined. If not, there should be interdependency as per Q2 below.

*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.*

Yes, a winner in the 1<sup>st</sup> auction should be able to relinquish its contract if it is not successful in the other auction and its project is not bankable. This would require a review of the 1<sup>st</sup> auction results as the relinquished contract volume would then be allocated to bidder(s) who had originally been unsuccessful. The consequence of this is that a player who has been unsuccessful in the 1<sup>st</sup> auction may still want to bid in the other auction in case it subsequently is allocated a contract from the 1<sup>st</sup> auction. These potential outcomes indicates the benefits of combining the 2 auctions from the start.

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

See answers to Q1 & 2

*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?*

It makes sense to have separate auctions with separate volumes for the reasons given in the DotEcon paper. A defined volume of system services should be allocated to new plant under long term contracts (15years). This volume must cover all products and not just some products, otherwise the contracts would not be financially viable. This volume must be defined at an early stage so that new players understand the size of the market.

The contracts should apply to new plant only and should be separate from refurbished/modified plant as the latter do not need such long term contracts e.g. 5 year contracts may be sufficient. Furthermore the latter may be able to subsidise their bids with other revenues from their existing plant which has already been paid off and so have an unfair advantage over genuinely new plant.

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

These should be aligned as far as possible for new plant so that such projects are bankable. As the requirement for additional capacity may not always coincide with the requirement for additional system services, the limited coincidence of these requirements should be used for new plant rather than existing plant as bankability is a much more serious issue for the former than the latter.

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

We agree with the simplifying assumption that it will be feasible for the TSOs to define a total quantity of system services that they seek to procure – the volume requirement – and that this can be split between different providers in an additive manner. Any other approach, particularly for the 1<sup>st</sup> auction would add undue complexity.

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

Granularity in terms of geographical location (Northern Ireland/Ireland) may make sense if there is a significant difference in the requirements and value to the TSO. Granularity in terms of technology would also be worthwhile. Granularity across different time periods would add undue complexity and will become less and less relevant as the penetration of renewables increases and hence the times when additional system services will be required become less and less predictable. It would also add uncertainty to providers bidding into the auction as they would not know how many periods they would be paid for each product. Such uncertainty would result in higher prices.

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

Such flexibility would add complexity and uncertainty. Such uncertainty would add risk and hence would result in higher prices.

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

Intuitively this seems a sensible approach. However, it is not clear from the paper how package bids, each with a different mix of system services, will be compared in the evaluation process. It is also unclear how the clearing prices for individual services will be deduced from the winning packages. Chapter 6 explains the objectives to be satisfied both in text and in mathematical notation but it does not explain how this will be achieved. The simple worked example presented at the DS3 workshop on 1<sup>st</sup> Feb was useful in illustrating how it will work. An understanding of how the winning bids will be selected is necessary when any player is constructing a set of bids and a more detailed example may be required to achieve this.

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

Plants which are designed specifically to provide system services should be more reliable in terms of predicting availability than plants which also provide energy and whose availability to provide system services depends on their running.

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

Yes.

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

It will be difficult to predict availability exactly. If there is a cap or clawback it should only come into operation after some deadband above the expected availability. There is also a risk that providers would tend to err on the optimistic side when bidding in availability so that a clawback would be less likely to occur. The consequence could be that actual availability would be less than expected and the TSO would be short of 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.*

Yes

*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?*

- Yes. The losers should be paid significantly less than winners to incentivise them to commit, through the auction process, to the provision of system services.

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

The proposals look reasonable at a high level but there is insufficient detail of how it can be done in practice to know whether it will work. It is not clear how the clearing prices for individual services will be deduced from the winning packages. Chapter 6 explains the objectives to be satisfied both in text and in mathematical notation but it does not explain how this will be achieved. A simple worked example may be sufficient to illustrate how it will work.

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

The technical capability to provide system services assumes that the interconnector is not running full. The running will be determined by market players, not by EWIC and so EWIC cannot guarantee that it will have any capability to provide system services unless it explicitly allocates capacity to system services. Otherwise it should be treated as other generators who do not have a contract and be paid the lower rates for system services.

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

In relation to the level of commitment a winner has to make to actually provide system services when requested by the TSO we would favour the Full Commitment option. Although it may lead to some times when the available volume of system services exceeds real time requirements, it is simple and avoids the complexity of the Contingent Commitment model. Under the latter, if the TSO requires system services which have been contracted but are not realizable because of generators' energy bids, there will be additional costs associated with the INCs and DEC's required to constrain down or constrain on these generators. These additional costs will have to be estimated in advance

at the time of the DS3 auction and added to the bid prices (for system services) from these generators when comparing them to the bid prices from players which can provide system services at all times (without having to produce energy) without increasing the dispatch costs. This is the only way in which total costs, which will be passed on to the end consumer, can be minimized.

*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)?*

This shows the complexity of the contingent commitment model. See our response to Q17 above. It is not clear how this proxy would be calculated. Would it be recalculated each day based on some formula using latest fuel prices, plant availability etc. Would it be determined by the Market Operator each day? Would it apply only to the volume of DEC required to allow the generator to provide its full contracted MW of each system service? Would the generator bid a different DEC for any further decrements?

*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)?*

See response to Q18. The difficulty with proxy prices is the same as outlined under Q18. The difficulty with a cost minus approach is in determining the relevant costs and the potential requirement for regulatory investigations.

*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)?*

System services must be available at the times when they are needed and it is difficult to predict when this will be, as the requirement will largely be driven by the volume of unpredictable non-synchronous renewable generation on the system at that time. There has to be a strong commitment from generators to have their system services available at any time that the TSO needs them. There is no point in being able to “make up” an average availability over a period by being available at some other time that suits the generator if the system services are not available at the precise time the TSO needs them. Hence we would not support this proposal.

Availability of system services on an average availability over a period would have a very low value compared to those available whenever the TSO requires them. If this proposal were adopted, this point would have to be taken into account in the auction process.

*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?*

Plant which can provide system services without having to be scheduled on to produce energy are always available without the additional cost of INCs and DEC which DotEcon correctly points out do not apply.

*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.*

The Full Commitment model is the preferred option. Although it may lead to some times when the available volume of system services exceeds real time requirements, it is simple and avoids the complexity of the Contingent Commitment model. Under the latter, if the TSO requires system services which have been contracted but are not realizable because of generators' energy bids, there will be additional costs associated with the INCs and DEC required to constrain down or constrain on these generators. (By comparison, flywheels and batteries will have zero INCs and DEC). These additional costs will have to be estimated in advance at the time of the DS3 auction and added to the bid prices (for system services) from these generators when comparing them to the bid prices from players which can provide system services at all times (without having to produce energy) without increasing the dispatch costs. This is the only way in which total costs, which will be passed on to the end consumer, can be minimized.

In addition to cost issues there are complexities associated with the contingent commitment model in terms of defining what DEC and INC should be used. It is not clear how the suggested energy price proxy would be calculated. Would it be recalculated each day based on some formula using latest fuel prices, plant availability etc. Would it be determined by the Market Operator each day? Would it apply only to the volume of DEC required to allow the generator to provide its full contracted MW of each system service? Would the generator bid a different DEC for any further decrements? There are similar difficulties with proxy prices for INCs and the difficulty with a cost minus approach is in determining the relevant costs and the potential requirement for regulatory investigations.