

SINGLE ELECTRICITY MARKET COMMITTEE

DS3 System Services Auction Design

Consultation Paper

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1 INTRODUCTION

The DS3 Programme envisages the procurement of new System Services by the TSOs to ensure a safe and secure energy system while facilitating increased levels of non-synchronous generation (primarily renewables). These new System Services will offer an enhanced portfolio of options available to the TSO, and is expected to encourage new entrants to the energy market. The procurement of such System Services is an important factor in the overall design of the System Services programme. On 9th July 2014 the SEM Committee published a Consultation Paper (SEM-14-059) setting out the results of an economic analysis and five options for the design of the System Services procurement mechanism. On 19th December 2014 the SEM Committee published its decision on DS3 System Services Procurement Design and Emerging Thinking (SEM-14-108), outlining fourteen new System Services that are to be procured by the TSO beginning in 2016/2017. The TSOs published a draft DS3 Procurement Strategy document on 4th June 2015¹, which outlined at a high level some of the key principles that the TSOs will use in their procurement of System Services.

As outlined in the SEM Committee Decision Paper the Design and Development of System services has been assigned to specific workstreams (see Fig.1 below), all of which have distinct objectives but all are critically linked to each other to ensure the effective and efficient supply and procurement of DS3 System Services. It is important to note that an additional Workstream on Interim Tariff and contract arrangements has now been added to ensure that the appropriate tariffs and contracts are in place for the start of the Interim year (October 2016 – September 2017) while the detailed design of the Enduring arrangements from 2017 is completed.

The SEM Committee's decision framework aims to achieve the following:

- Provide a framework for the introduction of a competitive mechanism for procurement of system services;
- Provide certainty for the renewables industry that the regulatory structures and regulatory decisions are in place to secure the procurement of the required volumes of system services;
- Provide certainty to new providers of system services that the procurement framework provides a mechanism against which significant investments can be financed;
- Provide clarity to existing providers of system services that they will receive appropriate remuneration for the services which they provide;

¹ <http://www.eirgrid.com/media/Draft%20TSO%20Procurement%20Strategy%20-%20Published%2004062014.pdf>

- Provide clarity to the TSOs that the required system services can be procured from 2016 onwards in order to maintain the secure operation of the system as levels of wind increase;
- Provide clarity to the Governments in Ireland and Northern Ireland (and indeed the European Commission) that appropriate structures are in place to assist in the delivery of the 2020 renewables targets;
- Ensure that Article 16 of Directive 2009/EC/28 is being effectively implemented (duty to minimise curtailment of renewable electricity);
- Provide assurance to consumers that savings in the cost of wholesale electricity which can be delivered through higher levels of wind on the electricity system, can be harnessed for the benefit of consumers;
- Provide assurance to consumers that they will not pay more through system services than the benefit in terms of System Marginal Price (SMP) savings which higher levels of wind can deliver.

1.1 WORKSTREAM OVERVIEW

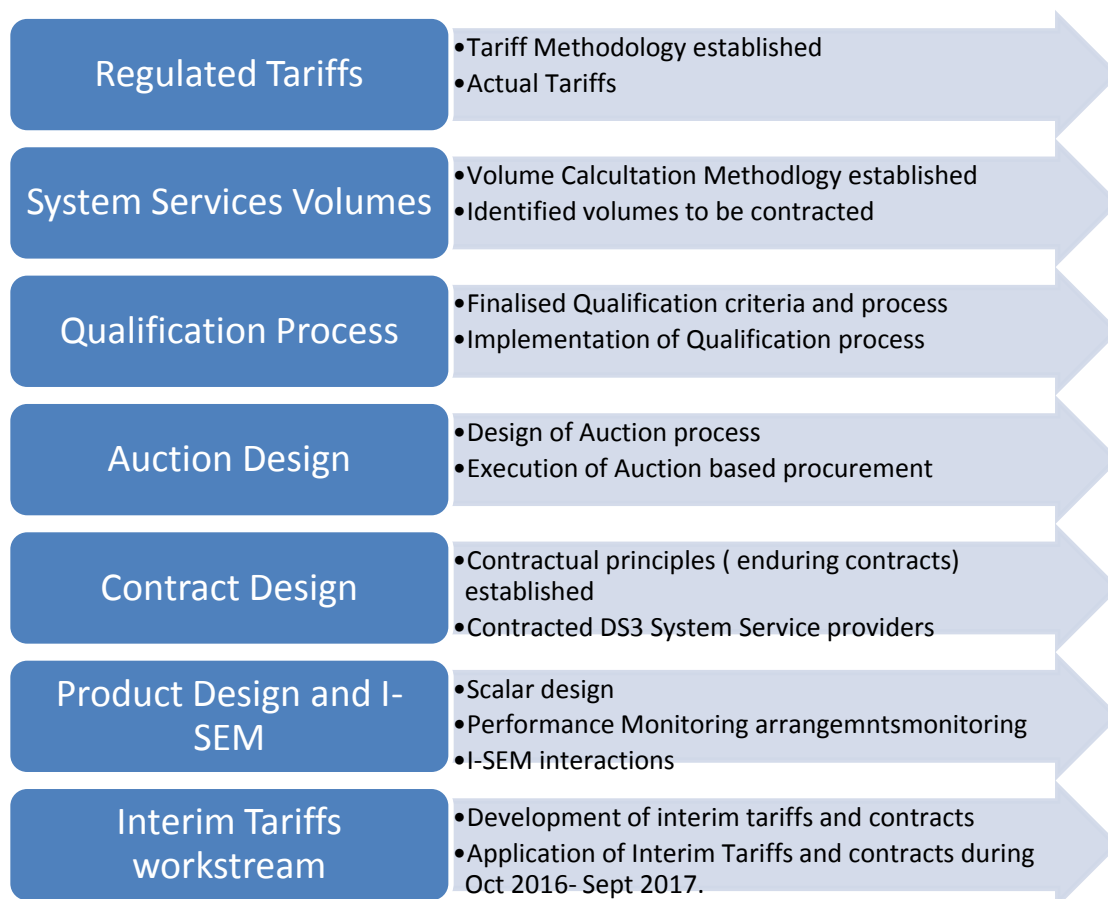


Figure 1- Overview of DS3 System Service Workstreams

The SEM Committee has consulted recently on the [Competition Metrics Paper](#), and on the [Qualification Process and Contract Design](#). The TSOs also have consulted recently on [Volume Calculation Methodology and Portfolio Scenarios](#) and the [Regulated Tariff Methodology Calculation](#) alongside a report on [Tariff Methodology by Pöyry](#).

1.2 THIS CONSULTATION PAPER

Workstream 4 - Auction Design is a critical Workstream in the DS3 System services development. Ensuring that a robust and meaningful competitive procurement mechanism can be facilitated is of significant importance to the SEM Committee as outlined in their objectives of achieving full competitive procurement in SEM-14-108. As outlined in the DS3 System Services Project Plan², under Workstream 4, the TSOs were assigned the task of developing the detailed design of the auction liaising as appropriate with the Regulatory Authorities.

During the summer of 2015 the TSOs engaged external professional assistance to assist with development of the principles and methodologies for certain technical design aspects of the DS3 System Service arrangements including the detailed Auction Design. The accompanying report presents the work conducted by DotEcon on this topic and highlights some important issues for consideration.

This paper should be read alongside the DotEcon report and has been prepared by the Regulatory Authorities. This paper discusses some of the main issues described in DotEcon's detailed examination of proposed Auction design parameters, and sets out specific questions on the Auction Design proposals. Respondents are therefore asked to read the DotEcon report in advance of developing their responses or views to the questions posed in this paper.

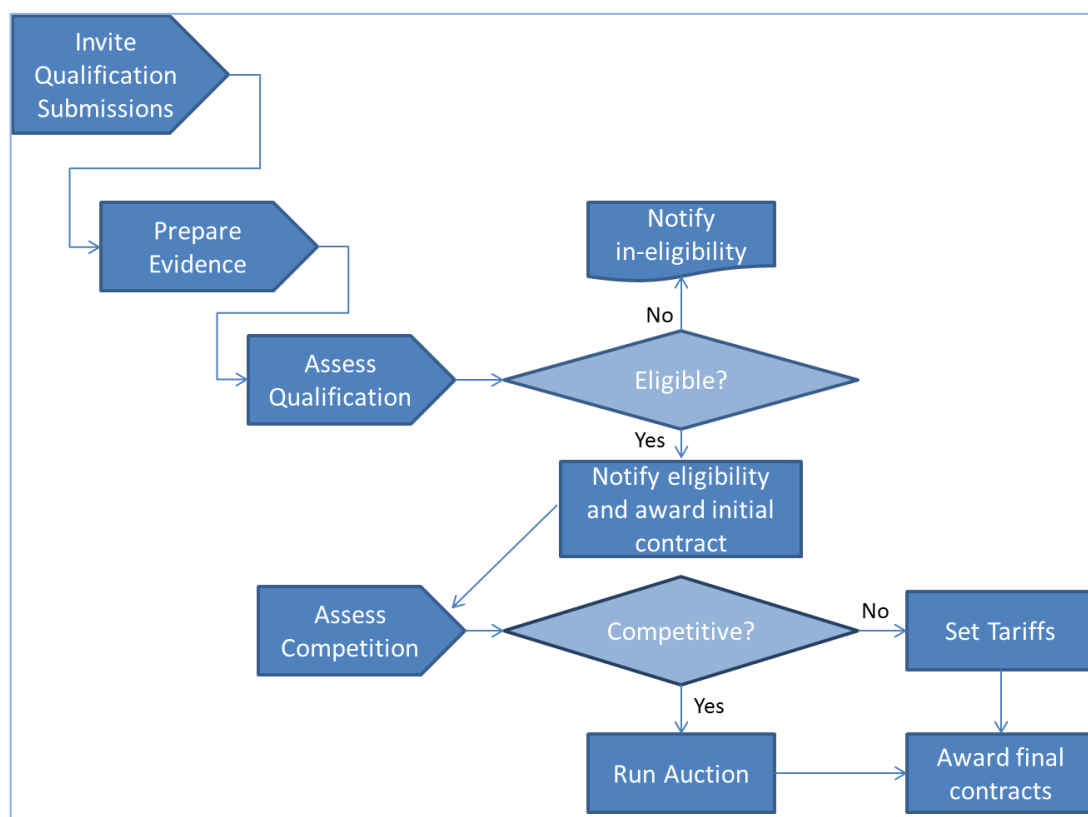
² http://www.semcommittee.eu/en/transmission_decision_documents.aspx?article=332ac31a-1224-44c7-97b6-00a7b6c8a8b9

2 KEY PRINCIPLES IN DS3 AUCTION DESIGN

The Regulatory Authorities are currently assessing various approaches to the high level Auction Design to determine suitability. This consultation paper shares the thinking that has been developed to date and asks for industry views on the current considerations and proposals.

As outlined in the Qualification Process and Contract Design Consultation Paper the currently envisaged procurement process will consist of several stages; qualification of eligible participants, a competition assessment, and then procurement of System Services via either Auction if it is deemed sufficient competition exists, or via regulated tariff if it is deemed sufficient competition does not exist for a particular service.

Figure 2-1: Overview of System Service Procurement Process



In SEM-14-108 several initial views are outlined with regard to the high level Auction Design that DotEcon has examined in its detailed review and design. These initial proposals are outlined below;

- Mandatory, sealed-bid, pay-as-cleared, instantaneous auction
- Multiple, mutually exclusive bids permitted
- Each bid includes price and capability for each service, provides a set of mutually exclusive outcomes for the auction

- Bids may include a minimum annual revenue requirement; if successful the TSO will guarantee to pay at least that revenue regardless of the provider's actual dispatch
- Required volume for each service fixed in advance
- Least-cost outcome is selected, results in individual uniform prices for each service
- Units decide contract length when bidding, existing capability of unit must be included as a bid with a fixed one-year contract.

SEM-14-108 established the high level framework for the Auction Design and noted that during the detailed design phase it may be appropriate to make changes to certain elements of the initial detail of the emerging thinking set out in that paper. Therefore, DotEcon has outlined in their Auction Design Report where an alternative approach is in their view necessary to achieve valid auction outcomes while remaining consistent with the objectives of the high level design. We will explore these different approaches throughout this paper.

2.1 AUCTION DETAILED DESIGN

The SEM Committee considers that several elements of the detailed design proposed in the DotEcon report will facilitate providers constructing bids and participating in the auction while other proposals may need further consideration. The SEM Committee is particularly interested in respondents' views in relation to the proposals on the appropriate commitment model for the auction. The SEM Committee does not currently have a preferred approach in this regard. In reaching a decision on the final auction design the SEM Committee will balance the efficiency of the auction process, ensuring the optimal outcome for consumers across the energy, capacity and system services markets, and providing an appropriate level of investor certainty. The design of other features of the system services framework, such as the minimum revenue requirement, will be considered further, taking account of the detailed design of the auction.

3 HIGH LEVEL AUCTION DESIGN

3.1 I-SEM INTERACTIONS AND ALIGNED DESIGN

As noted in SEM-14-108 there is a need to consider the possible interactions with developments in the I-SEM. The SEMC has noted there is merit in ensuring a broad consistency across the DS3 and I-SEM programmes. This has been evidenced in the recent inclusion of CRM related considerations in the DS3 System Services Qualification Process and Contract Design Consultation paper. Currently the CRM and DS3 programmes are progressing the development of separate auctions to procure Capacity and DS3 System Services respectively. This is envisaged to continue as planned for 2017. Notwithstanding this, the SEM Committee's view is that the design and deployment of CRM and DS3 System Services auctions should not preclude the development of such a combined auction in the future. To ensure a consistent approach is taken to the procurement of capacity and DS3 System Services, the SEMC have recognised there is a requirement to achieve a level of consistency regarding the procurement of capacity and DS3 System Services where possible. The following principles and actions have been agreed by the SEMC relating to current and continued DS3 System Services and I-SEM design;

- Develop, where possible, a consistent DS3 System Services and Capacity Implementation Agreement (recognising specific differences of each). The second CRM consultation paper will consult on the Implementation agreement. We will look at how this can be applicable to DS3 in the coming months.
- Develop, where possible, a consistent DS3 System Services and Capacity qualification process (recognising specific differences of each)
- Develop DS3 System Services auction platform that can accommodate an extra (Capacity) product
- Separately develop a capacity only auction platform in parallel

The DotEcon recommendations include separate auctions for new and existing plant with separate volumes for long-term contracts. This structure is not reflected in the evolving CRM design which is instead proposed to function without segmentation between 'existing' and 'new' volume requirements. Movement of certain aspects of the DS3 System Services structure to align with the CRM arrangements for long-term contracts may facilitate greater alignment of the arrangements.

3.2 CRM INTERACTION

It is recognised that for providers seeking to deliver new plant or significantly refurbish existing plant there will be a preference to gain investment certainty based on projected revenue streams, and that for many new entrants this will mean securing both DS3 System Services and CRM revenues. This introduces complexity and risk to

the process for the TSOs in terms of running auctions on a separate basis that then results in a provider being successful in one auction but unsuccessful in the other. Such an outcome could result in a particular provider not progressing with its development, with a subsequent need to re-run the initial auction, or accept lower volumes of services, which subsequently may affect SNSP targets. DotEcon have argued that there may be merit in a combined CRM and System Services auction. DotEcon also consider the merits of mechanisms to link the outcome of the CRM auction to successfully concluding a System Services supply contract, and have outlined the difficulties associated with such approaches. As outlined earlier in this paper the SEMC has allowed for the principle of aligning, where possible, the processes of procurement of DS3 System Services and CRM. Combining DS3 System Services and CRM auctions for 2017, or for the CRM initial transition years, is not currently envisaged and it is likely therefore that separate CRM and DS3 System Services auctions will run in 2017. It is important to note that no definitive decision has been made by the Regulatory Authorities on potentially holding a combined auction in the future for CRM and DS3 System Services.

3.3 SEPARATED DS3 SYSTEM SERVICE AUCTIONS

Several issues are worthy of consideration when determining the optimal DS3 System Service Auction design, including the degree of separation of auctions, potential alignment with CRM and issues that will impact on the efficiency of Auction processes and the resulting value to the end consumer.

SEM-14-108 envisaged that new and existing DS3 System Service providers would bid into one auction, with only new providers able to request a contract length of greater than one year. This has been explored by DotEcon who propose that for long-term (new providers) and short-term (existing providers) contract lengths separate auctions should be established. Respondents are asked to consider the potential impact of facilitating separate auctions which could allow for different lead times for those eligible for long-term contracts. By separating the evaluation of new and existing provider bids it is also proposed that this would necessitate further considerations regarding volume requirements from long-term contract providers. DotEcon have outlined their recommended approach that;

- Involves specific future volume requirements being set for a single future year only (or alternatively for a small number of future years); and
- Considers allowing some flexibility in the current auction, if it is practical to do so, to award contracts that either satisfy the entire future volume requirement or that only satisfy part of it (depending on bids received)

With regard to the DotEcon report, respondents are asked to consider the proposal of facilitating separate auctions which could allow for different lead times for those eligible for long-term contracts.

Consideration of DotEcon' proposal needs to take account of the aspiration to align (as much as possible) DS3 System Service and CRM auctions. SEM-14-108 set out that "an (DS3) auction will be run in 2017 and in each subsequent year providing for long-term contracts" which also acknowledged that a lead-in period may be required. In the CRM however, new and existing capacity can compete on the same basis, with auctions held each year for capacity [4]³ years out.

If a proposal similar to the CRM was to be adopted for DS3 system services this would build in a common lead-in time for all participants. It could also allow new participants to compete with existing providers. The Regulatory Authorities are conscious that this would be a departure from the initial proposals in SEM-14-108. There are a number of benefits to moving to align with the CRM proposals, and the Regulatory Authorities are conscious that the issues outlined in this paper and in the DotEcon report will require careful consideration by the industry and the Regulatory Authorities before a final Auction Design is agreed.

The Regulatory Authorities request views on the appropriate structure of the procurement of services several years in advance and the extent to which the approaches to CRM and System Services should be aligned.

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

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.

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

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?

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

4 VOLUME CONSIDERATIONS

DotEcon has proposed that the auction volume requirements should be calculated on an additive basis. DotEcon expand on this by setting out that quantities from winning bidders can simply be added together in order to produce a total value that satisfies the volume requirement. However, DotEcon also state that this simple approach may fail to capture all of the TSO's requirements for procurement of system services.

The report then proceeds to indicate that it is possible for the auction to deal with a level of granularity which would provide some advantages such as permitting the TSOs to set out profiled volume requirements that could, for example, provide for a better representation of real-time volume requirements.

In DotEcon's view adding some form of granularity could also produce a more efficient outcome, this may be particularly relevant in the event that there are locational constraints. The potential for the introduction of such granularity has already been identified in the SEM Committee's consultation on Competition Metrics (SEM-15-068)

The DotEcon recommendation proposes that the volume requirement could also be considered as flexible rather than fixed, they propose two potential ways of introducing this flexibility:

- Set a minimum volume requirement
- Introduce a price dependent volume requirement (or a specified demand curve for system services)

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

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

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

5 BIDDING PARAMETERS

Dot–Econ have outlined their proposals to use a package bidding approach, whereby each plant would submit bids with the following criteria defined

- Services to be provided
- Quantity of each service
- Expected availability for each service
- Package bid price
- Contract length (only greater than one year for new or refurbished plant)
- Lead time – for new and refurbished plant

Providers can submit multiple bids, that outline different quantities of services, different prices etc, but only one package bid can be successful per provider (or equally a provider may not have any package bid successfully accepted in which case they will not become a contracted DS3 System Service provider). It is proposed that there is no subdividing or splitting of bids, i.e. if a package bid is accepted it is accepted in its entirety. Successful clearing prices will be established for each service following the auction optimisation process, but a bidder would only win with a successful package in the auction if the sum of all its predicted revenues from services included in the package (based on the established clearing prices) were sufficient to meet the package bid amount. The aim of this approach is to ensure that providers are guaranteed that the expected revenues associated with any winning package will be at least equal to the bidder’s required revenues (based on their submitted bid amount and availability expectations).

5.1 QUANTITY MEASUREMENT

DotEcon has outlined their definitions of quantity measurement units for each service, summarised below;

Service	Quantity
All Reserve services	MW
Ramping	MW
SIR	Stored kinetic energy – payments based on formula which acknowledges min output level
FFR	MW
FPFAPR	Binary (capable or not capable)

SSRP	MVAR range x (the capacity at which it can be provided/registered capacity)
DRR	Binary (capable or not capable)

5.2 BIDDING INCENTIVES

DotEcon also explore bidding incentives that could arise as a result of such a package bid approach. DotEcon's analysis is that, assuming services with substantial market power are not included in the auction, there should be good incentives for truthful bidding. Nevertheless, it is possible that actual availabilities may differ from expected availabilities, for reasons that are outside the provider's control. In such cases, DotEcon discuss possible options for the TSOs to manage expenditure, in the case that providers' actual availabilities exceed the expected availabilities. These options could include an expenditure cap, or some sort of clawback mechanism.

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

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

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

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

6 AUCTION PRICING

6.1 AVAILABILITY CONSIDERATIONS

As outlined in SEM-14-108 payment for provision of DS3 System Services is to be based on an availability basis i.e. when a service is technically realisable from a provider. Based on a contingent commitment model, payment on availability will require DS3 System Service providers to make decisions for their DS3 bid based on anticipated annual energy and balancing market positions.

The TSOs will have to plan for DS3 System Service provision on an annual basis with a degree of uncertainty as to which qualified plant will be supplying services in real-time.

The DotEcon report explores the notion of availability for reserve products, ramping services and non-reserve services. For participants in reserve markets who are also participating in the energy markets (Day Ahead and Intraday) availability requires an understanding of dispatch or market positions relative to DS3 system services, with examples given in the report of participants who need to be exporting to be technically available (e.g. conventional generators) and those providers who do not (e.g. battery storage).

For Ramping services and non-reserve based products the availability definition for the services of PPFAPR, SIR, SSRP and DRR are explored in more detail in the report.

DotEcon has also explored the possibility that providers may provide greater availabilities than those contracted by the TSO. Proposals on some form of limitation on payments made for such providers that exceed availability are outlined in the report, including the ability to utilise scalars to adjust payments (this has previously been indicated in SEM-14-108). These scalars would be used to target DS3 system services as required to ensure system stability and value for the end consumer.

The Auction will be designed to facilitate the application of scalars to auction clearing prices, and it is important that potential DS3 System Service suppliers have sufficiently clear information about the use of scalars to be able to take this into account when participating in the auction. There will be a forthcoming consultation paper specifically focused on the Scalar Design, so this paper does not address Scalars and their design further.

6.2 WINNERS AND LOSERS

To ensure that there is a competitive market established and that value for money for the end consumer is achieved one of the proposed parameters for Auction Design is that there is a material difference to being a winner in the DS3 System Services auction and a loser in the DS3 System Services auction. DotEcon considers the payment regime that should apply to DS3 auction losers when they are called upon by the TSOs to provide system services (e.g. constrained on or down). In such cases, the proposal by

DotEcon is that losers in the DS3 System Services auction are paid strictly lower prices for system services than auction winners, to ensure that there is real merit to a provider winning in the DS3 System Services Auction.

It should be noted that the design of DS3 System services is expected to reduce the differential between the generators selected by the energy market (as efficient producers of energy) and generators required by the TSOs to maintain system stability (as efficient providers of system services). Under I-SEM the TSOs will be required to utilise non-energy balancing actions to ensure system stability. If generators bid into the Day Ahead Market taking account of system service revenues the need for such non-energy action could potentially be reduced. This has potential implications for bidding behaviour in the Day Ahead and Intraday energy markets, and bid prices in DS3 System Services and energy markets. This is explored in greater detail in the DotEcon report.

6.3 WINNER/PRICE DETERMINATION

DotEcon has identified a number of key considerations relating to the determination of a winner in the auction process. These considerations relate to how contracts of different lengths and durations can be compared and include:

- Applying discount rates to long term contracts
- Adjusting for contract length
- Interaction with future auctions

DotEcon has proposed that the winners should be determined as part of a two phase process, with volumes being allocated first and price determined second. The clearing price would be uniform for each service regardless of contract length.

6.4 TREATMENT OF INTERCONNECTORS

DotEcon's report specifically addresses the potential impact of the SEMC decision to treat the East-West Interconnector as a price taker. They point out that interconnectors differ fundamentally from other system service providers in that they consist of transmission infrastructure and the technical realisability of system services is a function of the electricity flows across the interconnector at a given time. Interconnectors are required to provide all available capacity to energy flows, and therefore are not able to directly control the volume of system services that can be provided on a real time basis. The priority to facilitate energy flows will also impact on the ability for interconnector owners to forecast volumes for services that are inversely related to energy provision.

In the report DotEcon have also set out how a cap on the volume of system services that can be provided by any one participant could be applied to interconnectors. They

have also provided opinion on how the price-taking provision could be applied to all interconnectors.

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.

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?

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

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

7 AUCTION COMMITMENT REQUIREMENTS

7.1 COMMITMENT MODELS

DotEcon have outlined in their report their views on the need to ensure a difference between winners and losers in auctions for DS3 System Services. As a result of Grid Code compliance requirements which place obligations on existing ancillary service providers to maintain provision of such services during the DS3 System Services procurement process and the interactions with the day-ahead and intra-day markets there is a marked complexity to potential bidding behaviour. DotEcon note that under the no commitment model, without a price floor, prices could fall to low levels in the System Services auction. The introduction of a commitment will likely increase the clearing prices by requiring bidding to account for the risk associated with the commitment. DotEcon have conducted analysis on potential auction outcomes looking at three different commitment models;

Commitment Model 1	Commitment Model 2	Commitment Model 3
No Commitment	Full Commitment	Contingent Commitment
<p>Successful bidder in auction with no requirement to fulfil contracted system service provision. If the bidder opts to position itself in the Day Ahead Market (DAM) at a position that precludes its contracted DS3 system service quantities, thereby signalling its intent to supply energy rather than DS3 System services there is no subsequent penalty to that provider for failing to provide DS3 System services. The TSO can still procure SS through the Balancing market (BM). Additionally this approach could be limiting in providing a route to market for providers not receiving substantial energy or capacity revenues.</p>	<p>Successful bidder in auction with a full and stringent requirement to supply contracted DS System Services as per TSO requirements.</p> <p>This would require providers of reserve based products to reduce volumes available in the energy market to ensure compliance with contracted DS3 requirements. This could prove difficult for conventional generators required to commit to an annual reduction in energy market participation and could increase the costs bid into a DS3 auction.</p> <p>Using this model in the context of an annual auction, the available volumes of system services could frequently exceed real-time requirements.</p>	<p>Successful bidder in auction with a requirement to commit to either take up a market position that facilitates contracted DS3 System Services, or submit balancing market offers (price for such BM offers will be controlled through contractual conditions) that allow the TSOs to increase the volume of System Services from that provider up to the contracted volume. This approach would mitigate the risk, relative to the full commitment model, for providers to partake in energy and balancing market participation and mitigate the risk to the TSO, relative to the no commitment model, in providing clear visibility of DS3 System Services costs in dispatching to meet real time requirements.</p>

These commitment models are explored in greater depth in the report and examine the outcomes of potential auction outcomes for bidders in DS3, energy market participants and the TSOs. DotEcon have proposed that the Contingent Commitment model is the auction design option that offers the best outcomes for the DS3 System services providers, the TSO, and value to the consumer, assuming that auctions are held annually.

7.2 CONTINGENT COMMITMENT BIDDING

Under the proposed Contingent commitment model, DotEcon proposes that DS3 System Service auction winners must:

- a) either take up a market position such that the contracted volumes of system services are technically realisable from that position; or*
- b) in the event that the volumes of system services (that are technically realisable from the market position) falls short of the contracted volumes, submit BM offers that allow the TSOs to increase the volume of system services available from that provider through non-energy actions, including up to but not exceeding the contracted volumes. The price at which these BM offers are made is subject to conditions stipulated in the system services contract (but does not require any modification of the BM rules).*

When looking at reserve services, it is possible that some technologies will face a trade-off between taking up a market position to earn reserve payments (i.e. part load) and taking up a market position to earn higher energy payments (e.g. full load). In such cases, DotEcon propose that a DS3 contract holder that takes up a full-load market position must make DEC offers at a predetermined price level that allow the TSOs to constrain it down to provide additional reserve. DotEcon has proposed that this price for the required DEC should be a suitable proxy for the real-time energy price.

Additionally, the report notes that for some technologies reserve is not technically realisable when the provider is out of the market schedule. In such cases, a DS3 contract holder would have to submit an INC offer up to its minimum generation level, allowing the TSOs to constrain it on to increase the volume of available reserve. DotEcon outlined two alternative price levels at which winners could be required to make these INC offers:

- a) at the energy price (this would make the requirements symmetric to the DEC case, but might be onerous because units could be required to turn on at a substantial loss at that point); or*
- b) at the provider's costs (assuming a suitable proxy for cost is available) minus the system services payments it would receive following the TSO action (this would give the provider a zero payoff if constrained on).*

The requirement to make specific INC and DEC prices would be defined in DS3 system service supply contracts that will be established between successful DS3 providers and

the TSO. For providers that can be available for contracted amounts of reserve with no schedule position (for example some alternative technologies) this would have been clear in their qualification and bid submission. Under the contingent commitment model set out by DotEcon, such providers would not be required to make any such different pricing offers and would be remunerated based on their availability and contracted price. These proposals are summarised in the below table;

Contracted DS3 SS provider position during TSO non-energy actions	Contractual bidding commitment
Providers that must be constrained down to provide System services	DEC offer based on real-time energy price (proxy)
Providers that must be constrained on to provide system services	INC offer; a) on real time energy price (proxy); or b) at providers costs minus system services payments
Providers that are available for DS3 System Services when not exporting	Will be paid at normal contracted price (based on successful auction bid)

These proposals aim to ensure that the contingent commitment model offers a level of security in terms of service provision and cost mitigation from successful DS3 System Services providers to the TSO when non-energy actions are required.

7.3 ALTERNATIVE CONTINGENT COMMITMENT BIDDING

DotEcon argue that it is desirable to impose some contractual obligations on winning providers, with associated penalties if necessary, without going to the extent of the firm commitment model. While DotEcon propose the contingent commitment model as a way of achieving this, they recognise that:

“There are various ways in which such obligations could be imposed in practice ... the precise commitments that are imposed on winning bidders remain to some extent a matter of choice and there may be alternative options that could also be viable. Therefore, we consider that the details are up for debate.”

In addition to the three commitment models proposed by DotEcon the Regulatory Authorities would like to explore further an alternative commitment model that would

not require participants to adopt a particular bidding strategy in the balancing market. This model would essentially require the provider to provide a minimum availability of system services over a defined period but would not define the trading period in which the provider should make themselves available, nor stipulate their balancing market bids. The alternative commitment model could contain the following features:

- a) *Bids for DS3 system services must include price, volume and expected availability on an annual basis.*
- b) *Volumes and Availability would form part of the contractual obligation*
- c) *Market Participants are not required to provide bids in balancing market to reflect contractual position (i.e. as proposed by DotEcon, providers would still be subject to the prevailing requirements of the balancing market).*
- d) *TSOs required to monitor compliance of market participants against contracted volumes and availability, defined periodic reviews (e.g. could be annual, quarterly or monthly) to be carried out by TSOs and failure to meet contractual obligation would be subject to compensation.*
- e) *Regular reporting from TSOs would be required to update market participants, which would keep them fully informed of their contractual obligations and ensure they can take appropriate action in the market.*

Taking the example of reserve services, it is possible that some technologies will face a trade-off between taking up a market position to earn reserve payments (i.e. part load) and taking up a market position to earn higher energy payments (e.g. full load). Under this proposal there would be no requirement for the participant to make a specified DEC offer to allow them to meet the DS3 contractual position. However if the contractual position has not been met by the end of the defined review period compensation from the contracted party would be required. This compensation payment would be calculated on the basis of the volume/availability that failed to deliver and a payment would be made to the TSO to compensate it for having to take alternative action; or an alternative compensation approach could be used.

These proposals aim to ensure that the alternative contingent commitment model offers a level of security in terms of service provision and cost mitigation from successful providers, however it does not interfere directly with the balancing price.

7.4 CONCLUSION

For the avoidance of doubt the SEM Committee does not have a preferred approach at this time. It is noted that the commitment model chosen, whether that is no commitment or some form of contingent commitment, will impact on the auction process, the incentives, risks, and bidding behaviours of participants. The SEM Committee will consider these issues holistically and will take the interactions with the energy trading arrangements into account before arriving at a decision on these issues.

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

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)?

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)?

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)?

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?

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.

8 CONCLUSION

Interested parties are invited to respond to the consultation, commenting on the matters set out in this paper and the proposed positions that have been expressed in this paper.

The SEM Committee intends to issue a final decision paper in April 2016 on the preferred Auction Design. In reaching this decision, it will take into account responses to this consultation and to the other consultations underway in the DS3 and I-SEM programmes.

Responses to the consultation paper should be sent to Mo Cloonan at the CER (mcloonan@cer.ie) and Andrew McCorrison at the Utility Regulator (Andrew.McCorrison@uregni.gov.uk) **by 12th Feb 2016**.

Please note that we intend to publish all responses unless marked confidential. While respondents may wish to identify some aspects of their responses as confidential, we request that non-confidential versions are also provided, or that the confidential information is provided in a separate annex. Please note that both Regulatory Authorities are subject to Freedom of Information legislation.