SINGLE ELECTRICITY MARKET COMMITTEE

DS3 System Services

Fixed Contracts Procurement Arrangements

Decision Paper

SEM-18-049

07 September 2018

1 EXECUTIVE SUMMARY

This Decision Paper outlines the SEM Committee's Decision on the DS3 System Services Fixed Contracts Procurement approach. The SEM Committee Decision on Tariffs & Scalars (SEM-17-080) outlined that a competitive procurement process is to be undertaken for a sub-set of services with specific availability requirements on fixed six-year term contracts. The volumes procured under this fixed contract procurement process are to be capped while the intention of the arrangements is to incentivise entry of new technologies by providing a fixed contract term, and a degree of revenue certainty, while enabling provision of services from the most cost effective technologies able to meet the availability requirements.

The TSOs have consulted upon their proposed approach to the Fixed Contracts Procurement and have issued the Regulatory Authorities a Recommendations Paper on the DS3 System Services Volume Capped Competitive Procurement. The Regulatory Authorities have reviewed the TSOs' consultation paper, the responses received to this consultation, the TSOs' Recommendations Paper, and have engaged with the TSOs and industry members and attended Industry Fora in order to ensure a comprehensive consideration of all the issues raised in the development of this Decision.

The SEM Committee has decided to approve the majority of the TSOs' Recommendations with the exceptions being the maximum contracted volume per separate grid connection and the potential maximum volume procured in the first procurement round. The SEM Committee has decided to set the maximum contracted volume per separate grid connection under the Fixed Contracts at 50MW and to procure an overall minimum of 91MW up to a maximum of 140MW in the first procurement round.

The SEM Committee's decisions in relation to the TSOs' recommendations are summarised as follows:

- Providing units will be required to provide five DS3 System Services (FFR, POR, SOR, TOR1 and TOR2) and all to the same contracted volume level
- Providing units will be required to meet the technical requirements as specified in the TSOs' Recommendations paper
- Over-frequency response will be required at a minimum of 15% of a provider's volume for under-frequency for the same timeframes as the services FFR, POR and SOR, (i.e. out to 90 seconds), and in line with the technical requirements set out in the TSOs' Recommendations paper
- The service availability obligation will be 97%, excluding planned periods of maintenance, and will be measured over a 12 month period
- In order to enter the competition process, applicants must have either a valid legally binding connection agreement/offer, or be in receipt of a connection offer, or have confirmation that they will receive a connection offer suitable for contract delivery
- Service providers with non-firm connections will take on the risk of network unavailability due to network limitations and will not be remunerated if unavailable due to network limitations
- The maximum contracted volume per separate grid connection under the Fixed Contracts arrangements will be 50MW

- A staged procurement approach will be undertaken with an overall minimum of 91MW up to a maximum of 140MW procured in the first round
- Only whole bids will be accepted with an overall minimum of 91MW up to a maximum of 140MW procured in the first phase. The last successful whole bid will be the one which takes the total procured volume above 90MW
- Service delivery should start no later than two years from the date of contract execution
- Applicants will be required to submit a percentage discount factor against the tariffs, with this factor being the same for all five services. Bids will be assessed for the bundled service and ranked on price
- Bids should not exceed the tariff rates outlined in SEM-17-080 and the discount factor applied to the bundle must be positive
- Pay-as-bid will be used as a price determinant
- A Performance bond of €12,000 per MW (or equivalent GBP) will be required ahead of contract execution
- The product scalar for faster response of FFR provision will be applied to a service provider's remuneration but will not be applied in bid assessment
- The product scalars for enhanced delivery of FFR, POR, SOR and TOR1 and continuous provision of reserve from FFR to TOR1 will not be applied
- Performance scalars will be applied as outlined in the TSOs' Recommendations paper i.e. the 97% availability requirement will be measured over a 12 month period against an availability performance scalar and providers will also be assessed against an event performance scalar
- The temporal scarcity scalars will be applied based on an average wind year rather than operational SNSP. The SEM Committee requests the TSOs to provide clarity to industry on how this average wind year approach will be determined and applied as soon as possible in advance of the start of the procurement process
- The locational scalars will not be applied in this first procurement round
- There will be no minimum volumes per jurisdiction in this first procurement round
- Service providers will be required to comply with Grid Code or Distribution Code requirements and all relevant network charges will be applicable
- Service providers will be required to manage their own positions in the energy and capacity markets in order to meet their availability requirements

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2 INTRODUCTION

DS3 stands for Delivering a Secure, Sustainable Electricity System. The aim of the DS3 programme is to meet the challenges of operating the electricity system in a secure manner while achieving the 2020 renewable electricity targets. With increasing amounts of variable renewable generation there is a need to ensure that the power system can be operated securely and sustainably. Through the successful completion of the DS3 Programme the operational limit on non-synchronous generation may be increased to 75%. This operational limit was 50% in 2015 but has been increased to 65% as of April 2018.

System Services is a key work stream within the DS3 Programme. The System Services work stream will improve the technical capability of the generation fleet and the system more generally by incentivising generation valuable to the system and by interacting with the energy trading and capacity markets in order to deliver value to consumers and a secure, sustainable power system.

In December 2014, the SEM Committee published a decision paper on the high-level design for the procurement of DS3 System Services (SEM-14-108)[1]. Since the high-level design was published, the Transmission System Operators (TSOs) and the Regulatory Authorities have worked to implement many aspects of this design, including the successful development and implementation of DS3 System Services Interim Arrangements in October 2016, which resulted in 107 units contracting to provide DS3 System Services.

In 2017, the SEM Committee published papers on the Future Approach for DS3 System Services (SEM 17-017) and the SEM Committee Decision on Tariffs & Scalars (SEM-17-080) which set out the regulated arrangements for providers of DS3 System Services for go-live in May 2018. The SEM-17-080 paper also outlined that there would be (as per TSO recommendations) a separate procurement process, on a competitive basis for a sub-set of services with certain availability requirements, and that the contracts for this procurement would be fixed for a minimum of six years. The volumes procured under this fixed contract procurement process would be capped. The intention of the Fixed Contracts arrangements is to incentivise entry of new technologies by providing a fixed contract term, and a degree of revenue certainty, while enabling provision of services from the most cost effective technologies able to meet the availability requirements.

The TSOs subsequently consulted upon their proposed approach to the Fixed Contracts (Volume Capped) Procurement Arrangements during March – May 2018. Following this consultation process, the TSOs have issued the Regulatory Authorities a Recommendations Paper on the DS3 System Services Volume Capped Competitive Procurement. The Regulatory Authorities have reviewed the TSOs' consultation paper, the responses received to this consultation, the TSOs' Recommendations Paper, and have engaged with the TSOs and industry members and attended Industry Fora in order to ensure a comprehensive consideration of all the issues raised in the development of this Decision.

[1] DS3 System Services High Level Design Decision Paper (SEM-14-108) - https://www.semcommittee.com/publication/sem-14-108-ds3-system-services-decision-paper

This paper outlines the SEM Committee's decisions in relation to the TSOs' recommendations. The TSOs' recommendations paper 'Recommendation on DS3 System Services Volume Capped Competitive Procurement' was published on the 6th September 2018.

This Decision Paper is broken down into four sections as follows covering the TSOs' recommendations:

1. Product Definition and Service Provider Requirements
2. Entry into the Competition and Procurement Approach
3. Bidder Selection & Remuneration
4. Market Interactions & Obligations

3 PRODUCT DEFINITION AND SERVICE PROVIDER REQUIREMENTS

3.1 Bundling of Products and Dispatch of TOR1 and TOR2

TSO Recommendation: The TSOs' recommendation is that providing units successful in this Fixed Contracts procurement round will be required to provide all five services (FFR, POR, SOR, TOR1 and TOR2) as a bundle, with an equivalent level of volume across all five services. The TSOs have proposed in their Recommendations paper that dispatch of TOR1 and TOR2 would also be required and have added further clarification as to the detail on frequency conditions and duration of dispatch for these services in their Recommendations paper. In addition, the TSO is proposing that for "other system conditions" the TSO will have the ability to dispatch service provision up to a maximum of ten times per year.

SEM Committee Decision: The SEM Committee notes the TSOs' rationale for the proposed bundling of services and the general support for this approach from the responses to the TSOs' consultation, therefore, the TSOs' recommendation is approved. The SEM Committee also welcomes the TSOs' clarifications on dispatch conditions and duration of dispatched volumes of TOR1 and TOR2. The SEM Committee wishes to ensure that full clarity is provided to interested parties on the dispatch signals to be utilised to activate such dispatched services.

The SEM Committee notes the TSOs' proposal to require service provision to be dispatchable (at TSO discretion) in response to "other system conditions" and considers that further clarification is needed to highlight example system conditions that might precipitate this, the length of service provision required and how this would interact with availability calculations. The SEM Committee notes the TSOs' intention to provide further details on this provision in the forthcoming consultation paper on the contractual arrangements for the Fixed Contracts.

The SEM Committee approves the TSOs' recommendation that providing units will be required to deliver FFR-TOR2 at the same contracted volume level

3.2 Over-Frequency Response

TSO Recommendation: The TSOs have recommended that automatic over-frequency response will be required, at a minimum value of 15% of the MW volume required for under-frequency response and for the same timeframes as the services FFR, POR and SOR; i.e. from sub 1 second to 90 seconds. The activation of these services would be required only for frequency events above 50.2Hz and with symmetrical characteristics compared to the under-frequency services (identical speed of response and trajectory). The TSOs state that there is value in requiring over-frequency response capability from providing units to deliver benefits to the system during system events. The TSOs also note that, should a dispatchable over-frequency product be required in the future, that this product will be designed and procured separately.

SEM Committee Decision: The SEM Committee agrees there is a value to the system in requiring over-frequency response capability in the Fixed Contracts process and notes the majority of responses to the TSOs' consultation

which indicated that over-frequency response can be provided, while recognising respondents' concerns on the impact of charges associated with MIC values.

The SEM Committee considers that the TSOs' proposal for a minimum amount of 15% of a unit's contracted FFR-TOR2 volume in over-frequency capability out to 90 seconds has the potential to minimise the financial impact of charges associated with MIC. The SEM Committee notes that this will be a requirement of the Fixed Contracts arrangements, and will be included in the measurement of a service provider's availability, but will not be remunerated as a separate product. The SEM Committee also notes the TSOs' proposal that service availability, including over-frequency, will be measured on a per bundle basis with performance scalars applied, and that more detail on this requirement will be included in the upcoming TSO consultation paper on the contractual arrangements for the Fixed Contracts.

Therefore, the SEM Committee has decided to approve the TSOs' recommendation that over-frequency response will be required at a minimum of 15% of a provider's volume for under-frequency in line with the technical requirements set out in the TSOs' Recommendations paper

Nevertheless, the SEM Committee considers that the extent of the value of over-frequency to the system is not yet clear and has not been fully examined. The SEM Committee notes the TSOs' statement as to the potential design and separate procurement of a dispatchable over-frequency product in the future, and considers that other providers may be interested in providing such a product. Therefore, the SEM Committee requests the TSOs to fully examine the potential value of over-frequency response on the all-island system, in line with scenario planning for future requirements, in order to develop robust proposals for a possible over-frequency response product and procurement mechanism open to all suitable market participants. This should be carried out in compliance with the System Operation Guidelines[2] and Electricity Balancing Guidelines[3]. The SEM Committee requests the TSOs outline a timeframe to develop an over-frequency product and will review such proposals as provided by the TSOs.

The SEM Committee approves the TSOs' recommendation that over-frequency response will be required at a minimum of 15% of a provider's volume for under-frequency for the same timeframes as the services FFR, POR and SOR (i.e. out to 90 seconds) and in line with the technical requirements set out in the TSOs' Recommendations paper.

The SEM Committee requests the TSOs outline a timeframe to develop an over-frequency product and will review such proposals as provided by the TSOs.

[2] EU System Operation Guideline

[3] EU Electricity Balancing Guideline

3.3 Product Characteristics

TSO Recommendation: The TSOs have recommended the same service provider technical requirements as were consulted upon, i.e. dynamic capability in response to a frequency trigger of 49.8 Hz. This is to follow a trajectory of 0.3 Hz with a speed of response time between 150ms-300ms. Essentially this means that contracted units will respond to significant frequency events. The TSOs have noted that activation of providers under these arrangements will be less frequent than providers with a standard contract but are of the view that the fast response requirements as well as the high level of availability requirements will be of benefit to the system in terms of managing large frequency disturbances.

The TSOs have also noted the comparisons with products procured in other jurisdictions from the consultation responses, but are of the view that the system in Ireland and Northern Ireland has its own unique characteristics and that the product the TSOs are proposing to procure is appropriate to managing system conditions here. Furthermore, the TSOs have stated that they do not currently foresee a need for additional frequency response within the regulation zone (closer to 50Hz) as there is already sufficient response on the system.

SEM Committee Decision: Given the fixed contract term and level of remuneration provided for under the Fixed Contracts, the SEM Committee wishes to ensure that the benefit to the system and the value to the consumer is maximised. The SEM Committee notes that a number of consultation responses questioned the TSOs' technical requirements and made comparisons with other jurisdictions where providers have been procured to provide very accurate service provision when responding to narrower frequency trigger points in the frequency regulation zone. The argument from a number of respondents is that Fixed Contract providers could be utilised more often, and could provide more benefit, than would be the case under the TSOs' proposals.

The Regulatory Authorities have engaged with the TSOs during and after the consultation process to ensure that there has been sufficient consideration, and analysis done, to ensure that the services procured under the Fixed Contracts are of maximum benefit to the system. The SEM Committee notes the TSOs' rationale in their Recommendations paper for procuring services that will be highly available and fast acting to manage large frequency disturbances unique to the all-island system, which may be more relevant as the level of SNSP increases and inertia reduces.

Having reviewed the TSOs' Recommendation, and following further engagement between the Regulatory Authorities and the TSOs, the SEM Committee is satisfied that sufficient analysis and rational has been provided by the TSOs in relation to their frequency response requirements for the Fixed Contracts i.e. a trigger set point of 49.8Hz, and that providers under these arrangements will be of benefit to the system in terms of responding to large frequency events to help manage the stability of the system.

The SEM Committee is aware of a number of stakeholders that have requested clarity on the number, and duration, of historical frequency events and requests the TSOs to provide clarity to industry on such matters in advance of the procurement process.

The SEM Committee notes that the product characteristics may be adjusted for potential future procurement rounds.

Providing units will be required to meet the technical requirements as specified in the TSOs' Recommendations paper

3.4 Availability Requirements

TSO Recommendation: The service availability obligation will be 97%, excluding planned periods of maintenance, and will be assessed on an annual basis. Service providers will not be counted as unavailable for the full duration of the response times (FFR out to TOR2) and for a 90 minute recovery window following activation (or the first trading period to complete after this time). Service availability will be assessed for the bundle of services against the performance scalar (detailed further in section 5.5)

SEM Committee Decision: The SEM Committee notes the TSOs' rationale for the 97% availability requirement and considers this appropriate given the proposed response characteristics, and need for service providers to be available and to respond rapidly to events which may be infrequent but significant. The SEM Committee approves the TSO's recommendation and welcomes the clarifications provided in the TSOs' Recommendations Paper as to queries raised in the consultation responses regarding availability following dispatch and the bundling of services. The SEM Committee notes the importance of the performance scalar in incentivising service providers to meet their availability requirements (the SEM Committee decision in this regard is detailed further in section 5.5) and welcomes the additional clarity to be provided to industry on planned and unplanned maintenance scheduling in the upcoming TSO consultation paper on the contractual arrangements for the Fixed Contracts.

The SEM Committee approves the TSOs' recommendation that the service availability obligation will be 97%, excluding planned periods of maintenance, and will be measured over a 12 month period

4 ENTRY INTO THE COMPETITION & PROCUREMENT APPROACH

4.1 Maximum Service Provider Limit and Volume Cap:

TSO Recommendation: The TSOs have recommended a 30MW maximum unit size per separate grid connection point in order to reduce the risk of project non-delivery and service unavailability due to network congestion and/or other circumstances where a providing unit is unavailable. The TSOs outlined in their consultation paper that a staged procurement approach should be adopted with a maximum volume of 100MW to be procured in the first round. The TSOs also consulted on options to set the maximum size per separate grid connection point at <10MW and 100MW. The TSOs have revised their original proposal of a 100MW total contracted volume cap in this phase to one where a maximum volume of 120MW and a minimum volume of 91MW could be contracted (see section 4.2).

SEM Committee Decision: The SEM Committee notes the points raised in the TSOs' recommendations paper that they currently operate the system with the majority of reserve services coming from a range of providing units and that the long term consequences of operating the system where the majority of reserves is concentrated within a small number of units is unknown and may result in increased operational risks.

The SEM Committee has also considered the TSOs' rationale as to the operational benefits of contracting multiple units under the fixed contracts arrangements in terms of increased service availability, system resilience and operational flexibility and notes the high level of support for the TSOs' 30MW limit proposal from the consultation responses.

The SEM Committee has taken a number of considerations into account in order to strike the balance between maximising entry into the competition, lowering costs for electricity consumers and ensuring maximum benefit to the system from service providers under the Fixed Contracts. Following further engagement between the Regulatory Authorities and the TSOs following the TSO's consultation, the SEM Committee considers that a maximum service provider limit of 50MW per separate grid connection point is appropriate and ensures sufficient entry into the competition, while adhering to the TSOs' views of the operational benefits of procuring multiple units under these arrangements, and the appropriate operational limits for providers under the Fixed Contracts. Therefore, the SEM Committee has decided not to approve the TSOs' recommendation and will set a maximum service provider limit of 50MW per separate grid connection point under the arrangements for the Fixed Contracts. The SEM Committee may review this limit for subsequent procurement rounds.

The SEM Committee notes that 50MW is the contracted limit for providers under the Fixed Contracts for the five System Services and not a limit on the overall potential installed capacity of a provider. Providers with additional capacity above their Fixed Contract System Services volume may use this additional capacity in the energy/capacity markets as they see fit.

In relation to industry concerns around project splitting and potential gaming regarding separate connection points, the SEM Committee notes the TSOs' statement in their recommendations paper on their intention to develop rules with respect to preventing such project splitting, as part of the procurement process, should such restrictions be viewed as necessary. The SEM Committee requests the TSOs to provide clarity on these rules, and

justification as to why they are required, as part of the upcoming TSO consultation paper on the contractual arrangements for the Fixed Contracts.

The SEM Committee approves the phased procurement approach to the Fixed Contractual arrangements but has decided that an overall minimum of 91MW up to a maximum of 140MW will be procured in the first phase. The SEM Committee also notes that any future procurement rounds for DS3 System Services will be determined with regard to required service needs and the implementation of the European Network Guidelines on System Operation (Commission Regulation EU 2017/1485[4]) and with the Electricity Balancing Guidelines (Commission Regulation EU 2017/2195[5]).

The maximum contracted volume per separate grid connection under the Fixed Contracts arrangements will be 50MW

A stage procurement approach will be undertaken and only whole bids will be accepted with an overall minimum of 91MW up to a maximum of 140MW procured in the first phase.

4.2 Acceptance of Last Tenderer

TSO Recommendation: The TSOs' consultation proposal indicated that whole bids would only be accepted in price order up to and not exceeding the total volume. The TSOs have noted, following the consultation responses, that this approach could see a significantly lower volume than 100MW procured. Therefore, in order to allow for a more efficient procurement process, the TSOs in their recommendations paper have indicated a change from their initial proposal. The TSOs' recommendation is to allow for a minimum contracted provision of 91MW and a maximum of 120MW, while retaining the whole bid requirement and selection of bidders based on price (subject to meeting all other prerequisites). The TSOs have also recommended that the last successful tenderer will be the next whole bid which takes the total procured volume above 90MW.

SEM Committee Decision: Given the high level of industry response to the consultation and attendance at Industry Fora, it is likely that the level of competition for these contracts will be high. It is important for the TSOs to have a very clear procurement ruleset in place for total volume of contracted providing units. The SEM Committee agrees that the TSOs' recommendation potentially provides for a more efficient procurement outcome but has decided, in line with the 50MW max service provider limit decision, that an overall minimum of 91MW up to a maximum of 140MW will be procured in the first phase. The SEM Committee approves the TSOs

[4] System Operation Guideline

[5] EU Balancing Guideline

recommendation to accept the last successful tenderer as the next whole bid which takes the total procured volume above 90MW.

The SEM committee has decided that only whole bids will be accepted with an overall minimum of 91MW up to a maximum of 140MW procured in the first phase. The last successful tenderer will be the next whole bid which takes the total procured volume above 90MW

4.3 Contract Start Date

TSO Recommendation: The TSOs' consultation paper proposed a contract execution date of 31st May 2019, with a potential two year build phase, and a contract start date of no later than 31st May 2021. Following the delay to the Fixed Contracts Procurement Arrangements decision, the TSOs have now proposed a contract execution date of 1st September 2019 and a contract start date of no later than 1st September 2021.

Several respondents to the TSOs' consultation suggested that incentives should be introduced in relation to the contract start date, whereby successful bidders would receive a contract beyond the six-year term, if they began service delivery earlier than the latest contract start date.

SEM Committee Decision: The SEM Committee approves the TSOs' recommendation and considers that the two-year build phase, as decided in SEM-17-080, should be sufficient to ensure service delivery from the date of contract execution. In relation to the potential for extra incentivisation by means of a longer contract term, if a unit achieves early service delivery, the SEM Committee does not consider that a contract of longer than six years is required. Given the expected level of transition in the energy sector in the coming years, the rationale for extending contract length is not evident. The SEM Committee considers that the flexibility of the two year build phase allows the possibility for providers to start providing services and receive revenue earlier than 1st September 2021, however, there will no extension of the contract beyond six years.

The SEM Committee approves the TSOs' recommendation that service delivery should start no later than two years from the date of contract execution

4.4 Grid Connection

TSO Recommendation: The TSOs stated in their consultation paper that their preferred approach was for applicants to provide a connection agreement/offer or be in receipt of a connection offer in order to enter the competition process. Following the consultation process and industry engagement, the TSOs have recommended that, in order to enter the competition process, applicants must have either a valid legally binding connection

agreement/offer, or be in receipt of a connection offer, or have confirmation from the relevant system operator that they will receive a connection offer suitable for connection delivery in advance of the 1st September 2021.

SEM Committee Decision: In the interests of ensuring high levels of competition in the Fixed Contracts procurement process and facilitating new entry to the DS3 System Services market, the SEM Committee has decided to approve the TSOs' recommendation. In addition, this proposal helps facilitate alignment with the ECP-1[6] process currently underway in Ireland, and the 90-day turnaround time on grid connection offers in Northern Ireland.

The SEM Committee approves the TSOs' recommendation that in order to enter the competition process, applicants must have either a valid legally binding connection agreement/offer, or be in receipt of a connection offer, or have confirmation that they will receive a connection offer suitable for contract delivery

4.5 Bonding

TSO Recommendation: The TSOs have recommended that a performance bond of €12,000/MW should be utilised in order to help ensure delivery of services by providing units. The TSOs have proposed that the bond will be required before the point of contract execution and that further detail on contractual milestones will be provided in the subsequent consultation paper on the contractual arrangements for the Fixed Contracts. The TSOs have noted that a number of respondents to their consultation outlined that where there is a delay to delivery due to non-contestable grid connection delays, third party delays (DSO, TSO, planning authority etc.) or force majeure events, then the bond milestones should extend accordingly.

SEM Committee Decision: The bond value as proposed is approved. The SEM Committee's view is that the procurement process should be as straightforward as possible, whereby applicants who meet the technical requirements outlined by the TSOs are then ranked in order of price, with contracts awarded to those ranked within the overall minimum and maximum volume limits (as outlined in Section 3.2). Therefore, the SEM Committee approves the TSOs' proposal to require bond submission upon contract award and will review the more detailed proposals on contractual milestones, and bonding arrangements, in the forthcoming TSO consultation paper on the contractual arrangements for the Fixed Contracts. The SEM Committee will issue a further decision on the DS3 System Services Fixed Contracts Contractual arrangements following full consideration of the TSOs' proposals and industry responses.

The SEM Committee approves the TSOs' recommendation that a performance bond of €12,000/MW will be required for all successful applicants ahead of contract execution.

[6] https://www.cru.ie/document_group/electricity-connection-policy-2/

5 BIDDER SELECTION AND REMUNERATION

5.1 Price Submission

TSO Recommendation: The TSOs' initial proposal in their consultation paper was to require providing units to submit individual prices (capped at the regulated tariff rate) for each service, which the TSO would then assess based on an average wind year with scalars applied to determine an overall price per bundle/MW for comparison against other applicants. Following the responses to their consultation paper, the TSOs have revised their proposal and have now recommended to adopt an approach put forward by a consultation respondent, whereby providing units will be required to submit a single percentage discount factor against the regulated tariff rates for each service. This discount factor will be the same for all five services and will allow the TSOs to rank bidders based on their submitted discount factor.

SEM Committee Decision: The SEM Committee recognises that by procuring services as a mandatory bundle, there is merit in assessing and contracting on the basis of a bundled price. The recommendation by the TSOs to require applicants to submit a single discount factor against the regulated tariffs, with the same discount factor to be applied to all five services, appears to offer a simple and pragmatic solution for the TSOs to assess the most competitive bids. Therefore, the SEM Committee approves the TSOs' recommendation.

The SEM Committee approves the TSOs' recommendation that applicants will be required to submit a percentage discount factor against the tariff rates, with this factor being the same for all five services

5.2 Price Determination - Pay as Clear/Pay as Bid

TSO Recommendation: In their consultation paper, the TSOs proposed using pay-as-bid as a pricing determinant. A majority of responses to the TSOs consultation noted their preference for this option over pay-as-clear, thus, the TSOs have continued to recommend this approach in their Recommendations Paper.

SEM Committee Decision: The SEM Committee notes that pay-as-clear is consistent with the approach used in the Capacity Remuneration Mechanism, but recognises that this particular procurement process in DS3 System Services is different, with a distinct possibility of a lower number of contracts being awarded. Bearing this in mind, and with the likelihood that entrants to this competitive tender process will be making significant investments in plant, the SEM Committee approves the TSOs' recommendation that a pay-as-bid determination is used in this phase. The SEM Committee may review this approach for future rounds of DS3 System Services procurement.

The SEM Committee approves the TSOs' recommendation to use a pay-as-bid mechanism in this procurement phase of the Fixed Contracts

5.3 Application of Temporal Scarcity Scalar / Remuneration

TSO Recommendation: The TSOs have recommended that the temporal scarcity scalar should apply based on an average wind year rather than real system conditions (operational SNSP). Remuneration for providers will therefore be based on this average wind year for each of the six years of the contract. The TSOs have indicated that more details on how this 'average' wind year approach will be applied will be provided by the TSOs at least one month in advance of the procurement process.

SEM Committee Decision: The SEM-17-080 decision outlined that the fixed contracts would have a cap and floor applied to their revenues and that the temporal scarcity scalar would apply based on operational SNSP. The TSOs were requested to consult on the proposed cap and floor as part of the volume capped consultation. The SEM Committee notes the two options presented in the TSOs' consultation paper and notes the responses received from industry participants that showed general support for the TSOs' recommendation regarding the application of the scarcity scalar based on an average wind year. Some respondents considered this option as preferable in terms of providing greater revenue and investment certainty to providers. The SEM Committee also notes the TSOs' view that there is no need for an additional incentive for providers to make themselves available at times of high SNSP given the 97% availability obligations that will be required of providers as part of the contractual arrangements. On these grounds, the SEM Committee has decided to approve the TSOs' recommendation. The SEM Committee notes the importance of bidders having clarity on this average wind year in advance of bid submission and therefore welcomes the TSOs intention to provide clarity on this to industry at least one month in advance of the OJEU procurement process start date.

The SEM Committee approves the TSOs' recommendation to apply the temporal scarcity scalar to remuneration based on an average wind year. The SEM Committee requests the TSOs to provide clarity to industry on how this average wind year approach will be determined and applied as soon as possible in advance of the start of the procurement process.

5.4 Application of Locational Scalar

TSO Recommendation: The TSOs have proposed not to implement the locational scalar at this stage of the fixed contractual arrangements. Responses to the TSOs' consultation noted that the use of the locational scalar had not featured in the Volume Uncapped procurement and that any proposal to utilise a locational scalar in the Volume Capped procurement would add complexity to the procurement and competition elements in this initial phase. The TSOs however indicated that future rounds of procurement may require locational signals or scalars.

SEM Committee Decision: The SEM Committee approves the TSO proposal to not apply the locational scalar in the first round of the Fixed Contracts but notes that the value of the locational scalar may be adjusted for future procurement rounds.

The SEM Committee approves the TSOs' recommendation to not apply the Locational Scalar in the first round of the Fixed Contracts Procurement

5.5 Application of Performance Scalar

TSO Recommendation: The TSOs have provided detail in their recommendation paper on the application of the two proposed components of the performance scalar, the performance event scalar and the performance availability component against which a service provider's availability will be measured. The 97% availability requirement will be measured on an annual basis against an availability performance scalar and providers will also be assessed against an event performance scalar with payments impacted if a unit fails to respond to an event.

The responses to the TSOs' consultation showed general support for scalars to incentivise good performance. The TSOs have also recommended, in response to stakeholder views, that the application of the availability performance scalar should be on an annual rather than monthly basis.

SEM Committee Decision: The SEM Committee considers that accurate and high quality provision of services is essential from successfully contracted providers under the Fixed Contract arrangements. The contracts will be for a fixed term of six years, and with a fixed payment rate, so it is important to ensure value to electricity consumers and benefits to the system by incentivising delivery of services by contracted providers. The SEM Committee approves the use of the performance scalars as outlined by the TSOs in their recommendations paper.

In response to the TSOs' proposal to apply the performance scalar on an annual basis, the SEM Committee accepts the rationale for this and approves this approach in principle but will await further detail in the TSOs' consultation paper on the contractual arrangements for the Fixed Contracts before finalising the decision.

The treatment of charging periods in terms of availability calculations will be important for contracted units. The SEM Committee approves the TSOs' proposal whereby availability will not be counted in the application of the performance scalar during an event, and for 90 minutes post-event (or the end of the first trading period to complete after this time).

Performance scalars will be applied as outlined in the TSOs' Recommendations paper i.e. the 97% availability requirement will be measured over a 12-month period against an availability performance scalar and providers will also be assessed against an event performance scalar

5.6 Application of Product Scalars

TSO Recommendation: The TSOs have recommended that the product scalar for faster response of FFR provision will be applied to a service provider's remuneration but will not be applied in bid assessment. The TSOs have also indicated that the product scalar for faster response of FFR provision will be used in cases of tie-break situation at bid selection. The TSOs have also recommended that the product scalars for Enhanced Delivery (of FFR-TOR1) and Continuous Provision (of FFR-TOR1) are not applied given that these are required as pre-requisites for applicants.

SEM Committee Decision: The SEM committee approves the TSOs' recommendations on product scalars and considers that providers will have the flexibility to factor in potential revenues from the product scalar for faster response of FFR in their bids. With regard to the use of speed of response in the assessment of bids in a tie-break situation, the SEM Committee considers this is only appropriate if providers are asked to submit independently certified measurements of speed of response. If this is not possible then an alternative tie-break determinant will be required. The SEM Committee requests the TSOs to provide more detail on their proposed tie-break determinants in their consultation paper on the contractual arrangements for the Fixed Contracts.

The SEM Committee approves the TSOs' Recommendations on the application of the Product Scalars

5.7 Bidder Selection

TSO Recommendation: The TSOs have recommended a selection process whereby bidders must meet the appropriate contractual and technical pre-requisites to enter the competition and that winning bids will be determined on price i.e. each individual unit will be ranked based on their discount factor against the regulated tariffs. Bids will then be selected to allocate contracts within the overall minimum/maximum procured volume and whole bid only requirements. If a tie-break situation exists between two identically priced bids for the last contract award, the TSOs have proposed tie-break determinants such as fastest speed of response/ greater over-frequency response provision.

SEM Committee Decision: The SEM Committee approves the bidder selection process recommended by the TSOs. The SEM Committee considers that having pre-requisites that applicants must meet in order to enter the competition, and then ranking bidders based on price, provides for the most straight-forward and transparent approach to bidder selection. As noted in Section 5.6 above, the SEM Committee requests the TSOs to provide more detail on their proposed tie-break determinants in their consultation paper on the contractual arrangements for the Fixed Contracts.

The SEM Committee approves the TSOs' Recommendations on process for bidder selection

5.8 Network Availability

TSO Recommendation: The TSOs had put forward an option in their consultation paper that applicants would need to provide confirmation from the TSO/DSO that network limitations will not prohibit service availability and that they expect their connection location will allow them to meet the availability requirements. Providers would still be remunerated if unavailable due to network limitations under this option. The TSOs had proposed that this would be used in the bid assessment process as a pass/fail or prioritisation mechanism.

However, following further consideration subsequent to the consultation, the TSOs note that no sufficiently robust or transparent process currently exists which could be used in assessing or determining network availability over the six-year term of the contract. They note that to develop such an objective process as part of bid assessment would also be extremely difficult and challenging and therefore, they have recommended that service providers will take on the risk of network unavailability and will not be paid for periods of unavailability due to network limitations.

SEM Committee Decision: The SEM Committee is of the view that the end consumer should not cover payments for service provision if the services are unavailable due to network limitations and that the incentive should be on the service provider to locate on a part of the network where they can have more certainty of meeting their availability requirements. Therefore, the SEM Committee has decided to approve the TSOs' recommendation that the risk of unavailability due to network limitations will rest with the service provider but wishes to clarify that this will apply to non-firm connections only i.e. only providers with non-firm connections will not be remunerated if unavailable due to network limitations.

The SEM Committee approves the TSOs' Recommendations that the risk of unavailability due to network limitations will rest with the service provider. For clarity, only providers with non-firm connections will not be remunerated if unavailable due to network limitations

6 MARKET INTERACTIONS & OBLIGATIONS

6.1 Grid Code Obligations

TSO Recommendations: The TSO has recommended that service providers must meet the applicable Grid Code or Distribution Code requirements for their connection, but that where requirements are incompatible with those under the Fixed Contracts, appropriate derogations should be sought by these providers. The TSOs have not provided detail on what these potential incompatibilities may be but note that there is a derogation process in place which must be adhered to. The TSOs have also stated that any necessary Grid Code derogations would need to be time-limited to the length of the Fixed Contract term.

SEM Committee Decision: The SEM Committee notes the TSOs' statement that valid and necessary derogations will be facilitated to enable service provision under the terms of the Fixed Contracts. The SEM Committee wishes to ensure that providers under the Fixed Contracts have clarity on what Grid Code or Distribution Code derogations may be required in order to enable service delivery and requests the TSOs to engage with providers and to provide clarity on this to industry in advance of the procurement process. The SEM Committee notes that a derogation process is in place, with the Regulatory Authorities as final decision makers following a TSO/DSO recommendation, and that the Regulatory Authorities will take into consideration the term of the contractual arrangements when reviewing any derogation request.

The SEM Committee approves the TSOs' Recommendations that Grid Code or Distribution Code requirements must be met, or derogations sought as appropriate

6.2 Network Charges

TSO Recommendation: The TSOs have stated in their Recommendations Paper that units contracted under the Fixed Contractual arrangements would be required to pay the applicable network charges as appropriate. The TSOs have noted the responses to the consultation that expressed concern at the application of both generation and demand network charges to battery type units, and agree that a review of the charging arrangement for such units is required to determine an appropriate charging regime. The TSOs, however, have highlighted that such a review would take time and have proposed that the procurement process continues in line with proposed timelines with a review of appropriate network charging to be potentially conducted and concluded in time for service delivery in 2021.

SEM Committee Position: The SEM Committee notes that the prevailing charging regime will apply to providers under the Fixed Contracts and welcomes the TSOs' statement that a review of the current charging regime is necessary for storage type units. The SEM Committee would welcome further detail on the timing of such a review

to be publicised by the TSOs so that clarity and opportunities for engagement are made available to industry participants.

The SEM Committee approves the TSOs' Recommendations that all relevant network charges will be applicable

6.3 I-SEM Market Interactions

TSO Recommendation: The TSOs have recommended that contracted service providers should manage their own positions in the energy balancing and capacity markets to ensure they can fulfil their contractual requirements under the Fixed Contracts. The TSOs have highlighted the recent SEM Committee decision on Capacity Auction Parameters and Enduring De-rating Methodology (SEM-18-030)[7] to introduce a decreasing tolerance (DECTOL) for storage units on a voluntary basis to facilitate the flexibility of these units to meet their obligations in the provision of system services without being exposed to capacity market penalties.

SEM Committee decision: The SEM Committee agrees with the TSOs' recommendation on allowing units to manage their own positions in the energy balancing and capacity markets to ensure System Services availability and considers that this facilitates alignment with the I-SEM energy market and DS3 System Services. The SEM Committee also notes concerns in the responses to the TSOs' consultation regarding interactions, and potential penalties, in relation to CRM and DS3 System Services participation and considers that the recent decision (SEM-18-030) introduces flexibility and should be a mechanism by which Fixed Contract providers may balance their capacity market obligations in order to meet their system services contractual requirements.

The SEM Committee approves the TSOs' Recommendations that service providers will manage their own positions in the energy and capacity markets in order to meet their availability requirements

[7] SEM Committee decision on Capacity Auction Parameters and Enduring De-rating Methodology (SEM-18-030) - https://www.semcommittee.com/sites/semc/files/media-files/SEM-18-030%20CRM%20T-1%20CY201920%20Parameters%20%26%20Enduring%20De-rating%20Methodology%20Decision%20Paper.pdf

7 CONCLUSION

The SEM Committee has decided to approve the majority of the TSOs' Recommendations with the exceptions being the maximum contracted volume per separate grid connection and the potential maximum volume procured in the first procurement round. The SEM Committee has decided to set the maximum contracted volume per separate grid connection under the Fixed Contracts at 50MW and to procure an overall minimum of 91MW up to a maximum of 140MW in the first procurement round.

The SEM Committee's decisions in relation to the TSOs' recommendations are summarised as follows:

- Providing units will be required to provide five DS3 System Services (FFR, POR, SOR, TOR1 and TOR2) and all to the same contracted volume level
- Providing units will be required to meet the technical requirements as specified in the TSOs' Recommendations paper
- Over-frequency response will be required at a minimum of 15% of a provider's volume for under-frequency for the same timeframes as the services FFR, POR and SOR, (i.e. out to 90 seconds), and in line with the technical requirements set out in the TSOs' Recommendations paper
- The service availability obligation will be 97%, excluding planned periods of maintenance, and will be measured over a 12 month period
- In order to enter the competition process, applicants must have either a valid legally binding connection agreement/offer, or be in receipt of a connection offer, or have confirmation that they will receive a connection offer suitable for contract delivery
- Service providers with non-firm connections will take on the risk of network unavailability due to network limitations and will not be remunerated if unavailable due to network limitations
- The maximum contracted volume per separate grid connection under the Fixed Contracts arrangements will be 50MW
- A staged procurement approach will be undertaken with an overall minimum of 91MW up to a maximum of 140MW procured in the first round
- Only whole bids will be accepted with an overall minimum of 91MW up to a maximum of 140MW procured in the first phase. The last successful whole bid will be the one which takes the total procured volume above 90MW
- Service delivery should start no later than two years from the date of contract execution
- Applicants will be required to submit a percentage discount factor against the tariffs, with this factor being the same for all five services. Bids will be assessed for the bundled service and ranked on price
- Bids should not exceed the tariff rates outlined in SEM-17-080 and the discount factor applied to the bundle must be positive
- Pay-as-bid will be used as a price determinant
- A Performance bond of €12,000 per MW (or equivalent GBP) will be required ahead of contract execution
- The product scalar for faster response of FFR provision will be applied to a service provider's remuneration but will not be applied in bid assessment

- The product scalars for enhanced delivery of FFR, POR, SOR and TOR1 and continuous provision of reserve from FFR to TOR1 will not be applied
- Performance scalars will be applied as outlined in the TSOs' Recommendations paper i.e. the 97% availability requirement will be measured over a 12 month period against an availability performance scalar and providers will also be assessed against an event performance scalar
- The temporal scarcity scalars will be applied based on an average wind year rather than operational SNSP. The SEM Committee requests the TSOs to provide clarity to industry on how this average wind year approach will be determined and applied as soon as possible in advance of the start of the procurement process
- The locational scalars will not be applied in this first procurement round
- There will be no minimum volumes per jurisdiction in this first procurement round
- Service providers will be required to comply with Grid Code or Distribution Code requirements and all relevant network charges will be applicable
- Service providers will be required to manage their own positions in the energy and capacity markets in order to meet their availability requirements

8 NEXT STEPS

Following publication of this Decision Paper, the TSOs will adopt these decisions into the contractual arrangements for the Fixed Contracts and will consult on a draft contract in October 2018.

The OJEU Notice for the procurement process will be launched in February 2019 and contract execution is due on the 1st September 2019 with a service delivery date of no later than 1st September 2021.