SINGLE ELECTRICITY MARKET COMMITTEE

Future Arrangements for System Services

DASSA Market Design

Decision Paper

SEM-24-066

16 September 2024

EXECUTIVE SUMMARY

On 19 March 2024 the TSOs published a consultation paper[1] on the market design for the Day Ahead System Services Auction (DASSA), under the Future Arrangements for System Services (FASS) project. Subsequently, 16 responses were received, and following a period of engagement with the Regulatory Authorities (RAs), the TSOs formally submitted their Recommendations Paper, to guide the SEM Committee's decision on the design. This decision should be read in conjunction with the TSOs' Recommendations Paper, which is published alongside it.

Overview of SEMC Decision

The SEM Committee has considered the TSOs' Recommendation Paper, alongside consultation responses in publishing this decision. Overall, the SEM Committee considers that the TSOs have developed a strong set of recommendations, in terms of proposals to deliver an ex-ante market which maximises the ability of providers to participate, and in ensuring there are appropriate incentives for units to remain committed to market positions and to participate in secondary trading.

The SEM Committee welcomes the work done by the TSOs in developing the proposals, engaging with stakeholders and allowing adequate time to respond through the extension of the consultation window, and in going over and above the initial HLD design proposals by committing to delivering a fully automated secondary trading platform, by go-live of the arrangements. The SEM Committee is confident that the ex-ante market framework proposed by the TSOs, alongside the qualification and registration processes, provide a robust structure for which to commence competitive daily procurement of System Services, noting there are a number of areas requiring further consultation, such as the firm access policy for System Services and the setting of compensation payments for commitment obligations.

In terms of the DASSA Mechanics, the SEM Committee considers that the approach to initially procuring reserve services (later moving to incorporate all services) through a day ahead market, to close at 15:30 on D-1, covering the 24-hour period form 23:00 (D-1) to 23:00 (D) is a reasonable approach and the market framework has been well developed by the TSOs. An approach to procuring services individually and in explicit bundles, makes sense in the context of allowing flexibility in bids, while also enabling providers to achieve a continuous position. The use of an objective function and the application of long run constraints is also sensible to ensure that auction outcomes can most accurately resemble a portfolio of units that can meet the needs of the system.

The SEM Committee welcomes the commitment of the TSOs to introduce a fully automated secondary trading market. The ability to trade DASSA contracts will be a critical element in allowing more units to enter the market and in enabling units whose FPN is likely to be

[1] SOEF Markets – Future Arrangements for System Services – DASSA Consultation Paper | EirGrid Consultation Portal

incompatible with their commitments to avoid paying compensation payments as a result of missed commitment obligations. It will also allow units to continue to participate in the energy intraday markets in order to optimise their position. The SEM Committee considers that the proposals on the secondary market are well developed. The addition of bilateral trading will provide additional flexibility during the bedding in period, however the SEM Committee has some concerns with the ability of providers with large portfolios to abuse market power positions through bilateral trades, and therefore retains the right to direct a cessation of bilateral trading at any point, post go-live. The SEM Committee also considers batch matching to be a more optimal approach on balance, and has decided that this approach should be implemented from Go-Live.

The SEM Committee considers all proposals in relation to qualification, registration and settlement to be well developed. These proposals align with the HLD and offer flexibility and practicality for existing service providers and future service providers, to participate in the market.

The SEM Committee welcomes the TSOs' proposals around developing a commitment obligation framework, and notes that there will be further consultation on the valuation of commitment obligations. However, the SEM Committee is concerned about the proposals relating to partial compensation of units. It is important to clarify that the SEM Committee considers that the DASSA market will have a substantive impact on how units behave across all energy market activities as it will introduce new commitments on units, which do not currently exist under the Regulated Arrangements. With the introduction of a secondary market, which was not envisaged for day one under the HLD, the SEM Committee considers that units have sufficient scope to trade out of undeliverable commitments ahead of time, and there is no longer a need for additional conditions for units unable to meet obligations, in future trading periods, as a result of TSO actions in earlier periods.

The SEM Committee does have concerns in relation to a small number of the TSOs' recommendations, primarily relating to the proposal to include a Final Assignment Mechanism (FAM). The SEM Committee considers that the FAM, as proposed, does not appropriately incentivise units to actively establish an ex-ante System Services position, rather it is more likely that any position taken by providers, without a DASSA contract, will be a consequence of energy market activities. Additionally, it is not a "top-up auction" as described under the HLD, as it does not allow updated bids and does not propose to update volume requirements. In summary, the SEM Committee considers that the proposed FAM does not provide efficient incentives for ex-ante System Services availability and also risks distorting DASSA and secondary market participation.

The SEM Committee recognises the TSOs' have concerns around the risks associated with a volume deficit of available reserves when operating a constrained system. The SEM Committee considers that a fully automated secondary trading market largely achieves the objectives of the top-up auction, in allowing positions to be traded up to the point of balancing market closure. The well-structured ex-ante framework developed by the TSOs is sufficiently robust to enable accurate positions to be established by gate closure of the secondary market, and the balancing

market will act as a back stop to ensure appropriate levels of reserves are scheduled to meet operational constraints. However, in recognition of the TSOs' concerns, the SEM Committee is open to the TSOs proposing alternative measures to incentivising availability beyond the required volumes procured in the DASSA. This may be done through development of alternative proposals for a top-up auction mechanism, through the use of the LPF or through appropriately conservative procurement of volumes in the DASSA.

Overall, the SEM Committee considers that the changes from the TSOs' proposals do not constitute areas which require additional consultation. There is already a commitment to consult further on commitment obligations and performance scalars, and the decision to not implement the FAM constitutes the non-implementation of a secondary element, rather than a material change to the ex-ante auction framework. Any alternative solutions the TSOs identify will need to be consulted on, however the SEM Committee is comfortable with the DASSA going live ahead of the introduction of any alternatives to the FAM.

Following on from this decision, the TSOs will commence procurement of the IT solution to ensure timely delivery of the DASSA and will publish a revised PIR, reflecting any additional consultation requirements determined from this decision.

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1 INTRODUCTION

The Future Arrangements for System Services (FASS) project was formally launched by the SEM Committee in July 2020, with the publication of a Scoping Paper (SEM-20-044) for public consultation. Following on from this, the SEM Committee published the SSFA Decision Paper 1 (SEM-21-021), in March 2021. This closed the scoping phase (Phase I) and initiated the High Level Design Phase (Phase II).

The High Level Design Consultation paper (SEM-21-069) was issued in August 2021, with the consultation on that paper closing on 21 October 2021. The SEM Committee subsequently published its decision on the High Level Design on 14 April 2022. The decision paper set out a range of decisions that form the SSFA High Level Design. It also closed Phase II of the project and commenced Phase III, Detailed Design and Implementation.

On 8 December 2023, the SEM Committee published its decision on Phase III: Phased Implementation Roadmap (SEM-23-103). This paper set out a proposed Phased Implementation Roadmap (PIR) to support timely delivery of the project. The draft PIR set out responsibilities for the TSOs and RAs, for deliverables across the different workstreams of the project and directed the TSOs to revise the draft PIR and publish a more detailed final PIR, subject to SEM Committee approval. The decision paper also provided an extension of the Regulated Arrangements contracts, until 30 April 2026 and directed the TSOs to conduct a review of the prevailing tariff rates and to implement a quarterly reporting framework on the economic efficiency of the tariff rates by reference to quantitative and qualitative analysis of a combination of expenditure, contracted volumes and required volumes.

Following on from the SEM Committee's decision, the TSOs subsequently published the final PIR and committed to reviewing the workstreams and publishing an updated PIR every six months. The first deliverable on the PIR was to consult on the DASSA market design, and this consultation was published on 19 March 2024. Following a consultation period which included a workshop, the TSOs commenced a period of engagement with the Regulatory Authorities during the development of the recommendation paper. On 31 July 2024 the TSOs submitted their recommendations paper for consideration, as part of the SEM Committee's decision making process. This paper sets out the SEM Committee's decisions with respect to the DASSA market design.

1.1 Objective and Assessment Criteria

SEM-21-021 set out a final decision on the Objective of the project and Assessment Criteria. The objective of the project is:

> *"to deliver a competitive framework for the procurement of System Services, that ensures secure operation of the electricity system with higher levels of non-synchronous generation."*

In order to better facilitate the achievement of this objective, the SEM Committee has developed a set of criteria for assessing the proposed framework:

- **Consumer Value:** The pricing of services will be market-based in so far as these secure competitive outcomes in order to deliver consumer value, while taking into account levels of market power for each service;

- **European Compliance:** The arrangements will comply with relevant legislation including the Clean Energy Package (CEP) and the Electricity Balancing Guideline (EBGL) Network Code;

- **System Need:** The framework will operate in a manner which ensures the needs of the system including security of supply are maintained;

- **Alignment:** The SEM Committee will seek to ensure appropriate alignment between the markets in energy, capacity, and System Services, along with all other relevant revenue streams, to ensure an efficient overall outcome for consumers;

- **Accuracy:** The volume of services procured should match the requirements of the system as accurately as possible;

- **Adaptability:** The framework should be sufficiently agile to meet any system changes caused by future policy developments;

- **Simplicity:** The framework should be sufficiently simple and transparent to be readily understood and accessible to all stakeholders;

- **Enable the Energy Transition:** The arrangements will be cognisant of policy decisions in Ireland, Northern Ireland and the UK, and will enable the energy transition in so far as possible;

- **Clarity for Investors:** The arrangements will be clear in terms of how auctions will operate, in order to give a reasonable degree of clarity to developers in terms of financing; and

- **Transparency:** The framework will be transparent such that there will be no imbalance of information among market participants, and full sight of auction results and procurement requirements will be fully visible.

1.2 European Commission Directives and Regulations

The paper makes reference to balancing capacity and the procurement of reserve and non-reserve services. For clarity, the SEM Committee considers that the Clean Energy Package[2] (CEP) sets out definitions for “balancing ancillary services” and “non-frequency ancillary services”. The SEM Committee considers all reserve based System Services, to be determined through the reserve Product Review recently consulted on by the TSOs, to fit within the definition of balancing ancillary services, which are subject to both the Clean Energy Package

[2] Regulation (EU) 2019/943 and Directive (EU) 2019/944

and the Energy Balancing Guidelines[3] (EBGL). In summary, these services must be procured through market-based means and contracting for these services shall not be concluded more than one day before the provision of the balancing capacity and the contracting period shall be no longer than one day, i.e. they must be procured through a day ahead auction. There is scope for the national regulatory authority to grant a derogation for procurement of up to 30% of the required volumes through alternative means.

The CEP also sets out that the non-frequency ancillary services must be procured through market based means unless the relevant regulatory authority has determined that it is not economically efficient to do so and has granted a derogation. In this context, the SEM Committee considers non-reserve System Services to fall under the category of non-frequency ancillary services. These services will be subject to a separate Product Review consultation in 2025.

The SEM Committee considers that the FASS framework provides sufficient means to competitively procure System Services through daily auctions and longer term through the Layered Procurement Framework and Fixed Contracts.

1.2 Paper Structure

The Paper is structured as follows:

- DASSA Mechanics
- Secondary Trading
- Commitment Obligations
- Final Adjustment Mechanism
- Locational Considerations
- Registration and Qualification
- Settlements and Payments
- Additional Considerations
- Summary of SEMC Decisions
- Next Steps

[3] COMMISSION REGULATION (EU) 2017/2195

2 DASSA MECHANICS

This section sets out the SEM Committee's decisions on DASSA Mechanics, having considered the TSOs' recommendations and the views of participants, alongside any commentary from the SEM Committee based on its own supporting analysis. Further detail on a summary of consultation responses can be found in the TSOs' Recommendations Paper.

Overall, the SEM Committee welcomes the TSOs' proposals, in relation to DASSA Mechanics. The SEM Committee has largely approved the recommendations, with a number of additional reporting requirements related to the operation of the objective function and the setting of long-run constraints. Zero Volume Bidding and Volume Cap Bidding are captured under the Section 4 as they more closely relate to the operation of the FAM.

In terms of the timing of the auction and how it interrelates with energy, it is worth noting that ACER has recently consulted on the implementation of co-optimisation in the electricity price coupling algorithm methodology[4]. While the SEM Committee notes that no formal decision has been made in this regard, the SEM Committee has previously commented on the need for arrangements which are sufficiently agile and flexible to meet an ever changing regulatory and legislative landscape, both domestically and in Europe. It is therefore important that sufficient flexibility is built in to the framework so as to enable the core elements of the IT design to be adapted for any potential changes in how ancillary services need to be procured.

2.1 Products to be Procured

TSO Recommendation: That the DASSA will initially procure reserve services, both on an individual service basis and for any explicit bundle of services that may be defined as an individual product in the auction. The specific reserve services to be procured will be confirmed following the outcome of the DASSA Product Review and Locational Methodology Consultation.

Additionally, the auction design will allow for the TSOs to apply operational requirements to the procurement of individual reserve services, such as minimum volumes of a quality or type of service provision or the continuous provision of services from a single service provider (which may be known as implicit bundles of services).

The design of the auction will allow for the procurement of non-reserve services in the future.

SEMC Commentary: The SEM Committee welcomes the analysis of the TSOs in this area. The SEM Committee considers it to be reasonable and well founded and notes that there are some amendments from the initial proposal to account for changes to the recommended bidding process. It is sensible to initially procure reserve services on an individual basis alongside inclusion of explicit bundles.

It is important that the market solution is capable of procuring all System Service products on a daily basis, and in that context the SEM Committee welcomes the TSOs' recommendation to allow for procurement of non-reserve services in the future as part of the design. The SEM

[4] PC_2024_E_04 - Public consultation on the implementation of co-optimisation in the electricity day-ahead coupling algorithm

Committee does note that the method for procurement of non-reserve services is yet to be determined and these services will be the subject of a product review in 2025, as per the PIR. The SEM Committee considers that non-reserve services should be procured competitively, in line with the Article 40(5) of Directive 944/2019 from the European Commission, which sets out that all non-frequency ancillary services must be procured through market based means unless the relevant regulatory authority has determined that it is not economically efficient to do so and grants a derogation.

It will be important that respondents clearly understand the operational requirements that have contributed to the DASSA results and how these requirements correspond to their individual capabilities to support participation in the secondary market. Ex-post reporting on TSO decisions, that influence market outcomes, will be necessary to provide clarity to participants, on the determinants of DASSA winners.

The SEM Committee notes that some respondents highlighted the challenge of providing a response without clarity on the reserve product review. The SEM Committee considers that reasonable assumptions could be made around what constitutes a reserve product, and the categorisation of these is sufficiently broad so as to allow meaningful input. The SEM Committee also agrees with the TSOs that the product review consultation has afforded stakeholders with an opportunity to provide feedback on the suite of reserve products.

In terms of commentary on the different procurement mechanisms, the intention is that the DASSA will be the primary procurement mechanism, and that this will procure as much of the required volumes as is necessary. However, the SEM Committee considers that the LPF will provide a vital complimentary mechanism to enable longer term investment security and to potentially unlocking locational issues, where solving physical delivery of System Services provision is frequently misaligned with DASSA outcomes. As previously indicated under the HLD decision, the Fixed Contracts Framework is a mechanism to remove barriers to entry for new technology types which can deliver specific system benefits through service provision.

SEMC Decision: The SEM Committee has decided that the DASSA will initially procure reserve services, both on an individual service basis and for any explicit bundle of services that may be defined as an individual product in the auction. The specific reserve services to be procured will be confirmed following the outcome of the DASSA Product Review and Locational Methodology Consultation.

Additionally, the auction design will allow for the TSOs to apply operational requirements to the procurement of individual reserve services, such as minimum volumes of a quality or type of service provision or the continuous provision of services from a single service provider (which may be known as implicit bundles of services).

The design of the auction will allow for the procurement of non-reserve services in the future.

2.2 Timing of the auction

TSO Recommendation: Considering respondents' feedback and the TSOs' evaluation of the different options available, the TSOs recommend a DASSA gate closure time of 15:30 with results to be published 30 minutes later.

This option avoids running the DASSA in a more congested window and gives service providers sufficient time to consider their holistic bidding strategies into the energy and system services markets.

SEMC Commentary: The SEM Committee welcomes the analysis of the TSOs in this area. The SEM Committee notes that the recommendation represents a change to the initial proposal, and considers that the TSOs have taken account of respondents concerns around the proximity of the proposed timing to the European Intraday Auction 1 (EUIDA1), and that the TSOs presented clear options and the recommendation strikes an appropriate compromise in enabling sufficient time to consider initial energy market positions and moving away from the conflict with EUIDA1, while maintaining the principle of holding the auction prior to the publication of the Long Term Schedule (LTS). The TSOs have also confirmed that the IT implementation of the DASSA will allow for changes to the auction timing, in the future, should this be considered appropriate. For these reasons, the SEM Committee approves the TSOs' recommendation.

SEMC Decision: The SEM Committee has decided on a DASSA gate closure time of 15:30 D-1 with results to be published 30 minutes later. The timing of the auction and gate closure will be kept under review post-go live.

2.3 Auction Timeframe

TSO Recommendation: The TSOs recommend that the DASSA will procure services for an Auction Timeframe as per the original proposal: i.e. a 24-hour period commencing at 23:00 day-ahead (D-1) and ending at 23:00 next day (D).

SEMC Commentary: The SEM Committee welcomes the analysis of the TSOs in this area. The SEM Committee notes the general support from respondents, and notes that the proposals appear reasonable.

SEMC Decision: The SEM Committee has decided that the DASSA will procure services for an Auction Timeframe as per the original proposal: i.e. a 24-hour period commencing at 23:00 day-ahead (D-1) and ending at 23:00 next day (D).

2.4 DASSA Trading Period

TSO Recommendation: The TSOs recommend that each DASSA Trading Period will be 30 minutes in duration. The auction design will be compatible with allowing Trading Periods of different durations to be implemented in the future.

SEMC Commentary: The SEM Committee welcomes the analysis of the TSOs in this area. The SEM Committee considers the proposals to be reasonable and welcomes the commitment that

the design will be flexible in enabling a smooth transition to other Trading Period durations if required. The general support from respondents is noted.

SEMC Decision: The SEM Committee has decided that each DASSA Trading Period will be 30 minutes in duration. The auction design will be compatible with allowing Trading Periods of different durations to be implemented in the future.

2.5 Publication of Volumes Forecast

TSO Recommendation: The TSOs recommend that the volume requirements for each system service, and any explicit bundle of services that may be defined as an individual product, for each Trading Period in the Auction Timeframe be published on the day of the auction (D-1), providing a reasonable time period prior to the gate closure of the DASSA. The precise timing of the publication will be subject to a decision on the timing of gate closure of the DASSA and the outcome of the Volumes Forecasting Methodology (VFM) consultation.

SEMC Commentary: The SEM Committee welcomes the analysis of the TSOs in this area. The SEM Committee notes that the TSOs' proposals for the methodology for calculating the volumes for the daily auctions, together with longer-term volume requirements, will be subject to industry consultation and approval by the SEM Committee through the VFM Consultation.

The SEM Committee notes the comments from respondents that sufficient volumes should be procured in the DASSA to maximise the probability that real time reserve requirements will be capable of being met entirely from the pool of DASSA winners. The SEM Committee also notes that the volume requirements should take account of volumes procured pre-DASSA (i.e. through products in the LPF or Fixed Contracts Framework).

SEMC Decision: The SEM Committee has decided that the volume requirements for each system service for each Trading Period in the Auction Timeframe be published on the day of the auction (D-1) at the earliest feasible time prior to the gate closure of the DASSA. The precise timing of the publication will be subject to the outcome of the VFM consultation.

2.6 DASSA Bidding Process and Format

TSO Recommendation: The TSOs recommend that service providers be able to submit bids for each service for each Trading Period within the auction timeframe, with no interdependency between bids, as per the consultation proposal. Subject to the outcome of the product review, the procurement of an explicit bundle of services as an individual product will be facilitated, which would address service providers' concerns relating to costs and inefficient auction outcomes.

Bids may be updated up to the time of the DASSA gate closure only.

The TSOs recommend that price caps be allowed for in the design of the DASSA to account for scarcity pricing in the event of volume insufficiency.

SEMC Commentary: The SEM Committee welcomes the analysis of the TSOs in this area. The SEM Committee notes respondents concerns with the simple bidding approach. The SEM

Committee also notes that it had previously consulted on the bidding approach during the High Level Design phase and at that time respondents had indicated a preference for simple bidding over combinatorial bidding.

The TSOs' considerations are reasonable in this area. The Regulatory Authorities, alongside their consultants, have also looked at the bidding process during this period and have concluded that there are limitations to the levels of flexibility which can be accommodated through a combinatorial approach. The SEM Committee welcomes the commitment of the TSOs to enable explicit bundles in the IT design. The RAs are continuing to explore additional measures to increase flexibility in terms of bundling of products, and will engage with the TSOs regarding the potential for introducing additional measures post Go-Live.

It will be important, as part of the product review process, that ultimately there is sufficient flexibility for the TSOs to readily amend the makeup of explicit bundles for potential changing system needs. While some bundles may have an associated volume of 0MW, for certain periods, it would be beneficial to have the capability to introduce these explicit bundles without the need for further consultation or updating to IT systems.

SEMC Decision: The SEM Committee has decided that service providers be able to submit bids for each service for each Trading Period within the auction timeframe, with no interdependency between bids, as per the consultation proposal. Subject to the outcome of the product review, the procurement of explicit bundles of services as individual products will be facilitated, which would address service providers' concerns relating to costs and inefficient auction outcomes.

DASSA bids may be updated up to the time of the DASSA gate closure only.

Price caps will be allowed for in the design of the DASSA, the TSOs are requested to consult on the methodology and conditions to apply to the use of price caps. The SEM Committee will decide upon the value and application of any price caps.

2.7 Divisibility of Bids

TSO Recommendation: The TSOs recommend that service providers be allowed to specify whether their DASSA bids are divisible or non-divisible and that all DASSA bids be treated as divisible in the FAM.

For clarity, the TSOs recommend that if an individual price-quantity step is accepted either partially or in full for a particular service provider, the previous price-quantity step(s) should have been accepted in full. This is called sequential filling guarantee (SFG). To be clear, the SFG does not apply across different service providers. This avoids accepting unnecessarily large volumes of non-divisible bids; however, over-procurement may occur subject to the optimality of the market clearing outcomes.

SEMC Commentary: The SEM Committee welcomes the analysis of the TSOs in this area. The SEM Committee notes the overwhelming support from respondents for the inclusion of bid divisibility. The SEM Committee considers the divisibility of bids to offer beneficial flexibility to

both participants and to consumers in offering flexible market settlement. The SEM Committee also understands the commercial benefits for providers in retaining the ability for including non-divisible bids, however the SEM Committee has concerns in terms of scenarios where marginal units create economic inefficiencies in clearing where it would be more beneficial to consumers for the TSOs to over procure volumes at the marginal price rather than to set a higher clearing price in order to limit the volumes procured.

SEM Committee welcomes the clarity provided in terms of the sequential filling guarantee (SFG), and this appears a reasonable approach in such scenarios. The SEM Committee understands that as part of the TSOs' intended auction design, the optimisation objective function (as designed) will minimise the total cost of the procurement of balancing capacity in the daily auction, where that cost is the summation of the prices that have been offered by service providers multiplied by their respective volumes in events where the SFG is not triggered. The SEM Committee considers this a reasonable approach.

SEMC Decision: The SEM Committee has decided that service providers will be allowed to specify whether their DASSA bids are divisible or non-divisible.

The SEM Committee approves the approach to clearing the auction on a cost minimisation basis.

2.8 DASSA Volume Insufficiency

TSO Recommendation: The TSOs recommend that the design of the DASSA allows for the specification of a scarcity price cap per service to address volume insufficiency in the DASSA. The scarcity price cap will apply to all DASSA Orders in instances of volume insufficiency for a service.

The TSOs recommend that the measure to address instances of volume insufficiency will be to procure the volume deficit in secondary trading at the DASSA scarcity price cap.

In the event that the daily auction has not been run due to a technical difficulty, e.g. a technical issue with the auction platform, the volume requirement may be met in the FAM, with the price being set in the FAM.

SEMC Commentary: The SEM Committee welcomes the analysis of the TSOs in this area. The SEM Committee considers that the recommendation to apply a scarcity price when settling a volume insufficient market is reasonable and sends appropriate market signals. Additionally, it is sensible for the TSOs to sell additional contracts in the secondary market and for the holders of all contracts to receive the scarcity price. However, the SEM Committee considers there to be a need to incorporate some form of economic merit based settlement to settle buy orders from participants for TSO issued sell orders and for these secondary trades to be settled based on the payment to the TSOs of the value of the successful buy orders. The SEM Committee considers the principal goal in this area is to send a robust signal to providers to bid competitively in the secondary trading market to resolve any volume insufficiency issues.

The SEM Committee has concerns around the possibility of the DASSA auction not running. The LPF could operate as a mechanism to mitigate this risk by ensuring there is a certain level of contracted services throughout the period, which would ensure availability of services.

SEMC Decision: The SEM Committee has decided that the design of the DASSA allows for the specification of a scarcity price cap per service to address volume insufficiency in the DASSA. The scarcity price cap will apply to all completed DASSA Orders in instances of volume insufficiency for a service.

The TSOs will address instances of volume insufficiency by procuring the volume deficit in secondary trading through issuing Sell Orders at a Secondary Trading Price of zero and assigning the DASSA scarcity price cap to the additional volumes procured in secondary trading. In the event of an oversubscription of volumes the TSOs will select matches based on, firstly, if the submitted buy orders are technically feasible, and secondly, on the basis of the value of the buy order starting at the highest submitted order.

2.9 DASSA Auction Clearing

TSO Recommendation: The TSOs recommend that the DASSA auction will be cleared on a pay-as-clear basis, per Trading Period. The recommended high-level clearing process is as per the proposal set out in the consultation paper.

SEMC Commentary: The SEM Committee welcomes the analysis of the TSOs in this area. The SEM Committee notes the general support for the TSOs proposals. Pay-as-clear is a reasonable approach to clearing the auctions.

SEMC Decision: The SEM Committee has decided that the DASSA auction will be cleared on a pay-as-clear basis per Trading Period. The recommended high-level clearing process is as per the proposal set out in the consultation paper.

2.10 DASSA Clearing Optimisation – Objective Function

TSO Recommendation: The TSOs recommend that the DASSA design will allow for the procurement of the following:

- Individual reserve services.
- An explicit bundle of reserve services, which would be defined as a separate product in the auction.
- An implicit bundle of reserve services, which would be expressed by the TSOs as an operational requirement to procure the continuous provision of individual services from service providers.
- An operational requirement to procure different qualities or types of individual services.

The precise nature of the services to be procured will be subject to the outcome of the DASSA Product Review and Locational Methodology Consultation.

The TSOs recommend that value functions in the objective function will allow for the TSOs to capture the TSOs' cost-sensitivity or willingness to pay in clearing implicit bundles of services

and different qualities or types of service provision above and beyond the specified minimum operational requirements for an implicit bundle or quality of service.

SEMC Commentary: The SEM Committee welcomes the analysis of the TSOs in this area. As previously indicated, the SEM Committee welcomes the inclusion of explicit bundles, and considers that the TSOs should retain the flexibility for multiple explicit bundles. Additionally, as indicated previously, there is a need for ex-ante reports on the usage of the objective function to ensure that the TSOs can justify the efficiency of the approach and to provide clarity to units for the creation of implicit bundles and the potential non-inclusion of units, which come within the clearing price, for particular individual product auctions.

SEMC Decision: The SEM Committee has approved the TSOs' recommendation, that the DASSA design will allow for the procurement of the following:

- Individual reserve services.
- Explicit bundles of reserve services, which would be defined as separate products in the auction.
- An implicit bundle of reserve services, which would be expressed by the TSOs as an operational requirement to procure the continuous provision of individual services from service providers.
- An operational requirement to procure different qualities or types of individual services.

The precise nature of the services to be procured will be subject to the outcome of the DASSA Product Review and Locational Methodology Consultation.

Additionally, value functions in the objective function will allow for the TSOs to capture the TSOs' cost-sensitivity or willingness to pay in clearing implicit bundles of services and different qualities or types of service provision above and beyond the specified minimum operational requirements for an implicit bundle or quality of service.

The TSOs are requested to develop a reporting framework which summarises the impact of all decisions made in the DASSA clearing optimisation relative to an unconstrained model.

2.11 DASSA Clearing Optimisation – Constraints

TSO Recommendation: The TSOs recommend that long-run locational constraints, the parameters and values for which are to be determined, will be modelled in the daily auction clearing optimisation, as required for system security.

SEMC Commentary: The SEM Committee welcomes the analysis of the TSOs in this area. The SEM Committee considers it important that long run locational constraints are reflected in the DASSA to ensure the outcomes align as closely to the real time capability of units as possible. The SEM Committee acknowledges the requests from stakeholders for greater clarity around constraints. The SEM Committee considers that some level of ex-post reporting on System Services constraints is required to provide additional clarity to participants as to how the TSOs have categorised the constraints and the outcomes of participants. This report should also detail the impact of transitory constraints on the ability of DASSA winners to provide services. If

transitory constraints are routinely resulting in winners not being in a position to physically provide services, then a review of the categorisation of these constraints as long run or transitory may be required. The principle in this context is to ensure the DASSA provides the right outcomes for the actual needs of the system insofar as possible.

SEMC Decision: The SEM Committee has decided that long-run locational constraints, the parameters and values for which are to be determined, will be modelled in the daily auction clearing optimisation, as required for system security.

The TSOs are requested to develop a reporting framework which summarises the impact of all decisions made in the DASSA clearing optimisation relative to an unconstrained model.

2.12 DASSA Clearing Price

TSO Recommendation: The TSOs recommend that the design of the DASSA will be capable of clearing the auction with either a uniform all-island clearing price, per service, per Trading Period or zonal pricing where there are binding locational constraints, noting that the Regulatory Authorities will specify the pricing mechanism to apply.

In terms of how zonal pricing would be implemented in the DASSA:

- The all-island uniform price for a service will be applied to all zones with non-binding locational constraints for that service.
- In zones with binding locational requirements for a service, a zonal price will only apply if it exceeds the all-island uniform price for that service; otherwise, the all-island uniform price for that service will still apply.

SEMC Commentary: The SEM Committee welcomes the analysis of the TSOs in this area. The SEM Committee considers it important to send robust locational investment signals in situations where there are constrained zones on the network. While a single clearing price would be simpler to implement it may lead to inefficiencies, whereby units in constrained areas of the network set a high single clearing price, adding an unnecessary economic impact on consumers.

SEMC Decision: The SEM Committee has decided that, as set out in the High Level Design, zonal pricing should be introduced for the DASSA, as per the TSOs recommended process for this approach. The SEM Committee understands the initial intention, based on the product review consultation, is that zones will be limited to the portion of the all island network operated by SONI and the portion of the all island network operated by EirGrid. The SEM Committee considers it important that there is ongoing monitoring of the need for any further zones as a potential result of any observations of network constraints routinely causing distortions to the market clearing price.

3 SECONDARY TRADING

This section sets out the SEM Committee's decisions on Secondary Trading, having considered the TSOs' recommendations and the views of participants, alongside any commentary from the SEM Committee based on its own supporting analysis. Further detail on a summary of consultation responses can be found in the TSOs' Recommendations Paper.

The SEM Committee welcomes the work done in developing the proposals for Secondary Trading, noting it was a key element identified in facilitating market participation in SEM-23-103. The SEM Committee welcomes the recommendations to introduce a fully automated secondary trading platform that will remain open up to 60 minutes before the Trading Period.

The SEM Committee notes the TSOs' points around not having significant market power concerns in the secondary market. Having reviewed the supporting evidence provided by the TSOs in this context, the SEM Committee does not share this lack of concern. The commentary from the TSOs' consultants in relation to this indicates that the analysis focussed on how participants may abuse market power positions to achieve immediate benefits; however, the exercise of market power often involves short-term irrationality to achieve long-term market dominance i.e. making a decision which appears to not be advantageous in the short run, such as making discounted bids, which would be designed to undercut other providers and block market entry. The TSOs' supporting evidence does not provide robust evidence against the potential for such a strategy to be employed.

The SEM Committee considers that on balance batch matching is the more favourable approach in order to enable the settlement of buy and sell orders at gate closure, and to mitigate potential market power abuses. The market will need to be closely monitored in terms of participants behaviours, particularly bilateral trading behaviours of providers with large and diverse portfolios. The SEM Committee reserves the right to develop and implement market power mitigation measures in the future, and to cease operation of the bilateral trading arrangements if potential market power issues are identified.

3.1 Secondary Trading Platform

TSO Recommendation: The TSOs recommend that a fully automated central secondary trading platform be implemented from the go-live of the DASSA arrangements.

SEMC Commentary: The SEM Committee welcomes the work done by the TSOs in developing thinking on a fully automated secondary trading platform. It is noted that at the time of the HLD decision, it was not envisaged that a fully automated secondary trading platform would be feasibly implementable for market go-live, and progress in this area provides significant additional flexibility in ensuring greater participation in System Services markets and flexibility in meeting commitment obligations.

The SEM Committee notes the support from participants for the introduction of a fully automated market and that development of this should be a priority for go-live. The SEM Committee supports these views.

SEMC Decision: The SEM Committee has decided that a fully automated central secondary trading platform be implemented from the go-live of the DASSA arrangements. In addition to this, bilateral secondary trading will also be facilitated under the market arrangements.

3.2 Secondary Trading Window

TSO Recommendation: The TSOs recommend that secondary trading will take place after the DASSA results are published and up to 60 minutes before the relevant Trading Period.

SEMC Commentary: The SEM Committee welcomes the flexibility provided by the TSOs in proposing to enable trading up to 60 minutes before the relevant Trading Period. The SEM Committee notes that the previous proposal was for 90 minutes, and the SEM Committee recognises that the TSOs have provided additional flexibility based on the feedback of respondents. The SEM Committee welcomes this.

SEMC Decision: The SEM Committee has decided that secondary trading will take place after the DASSA results are published, and will run up to 60 minutes before the relevant Trading Period i.e. aligning with closure of the Balancing Market.

3.3 Placing Buy and Sell Orders

TSO Recommendation: The TSOs recommend that simple Buy and Sell Orders be placed on the central trading platform for a given service – including explicit and implicit bundles of services – and Trading Period(s). Service providers will be able to specify relevant conditions associated with a Buy and Sell Order.

The TSOs recommend that the integrity of explicit and implicit bundles be maintained in secondary trading when placing Buy and Sell Orders.

SEMC Commentary: The SEM Committee welcomes the analysis of the TSOs in this area. The SEM Committee notes the concerns of respondents around the inability to unwind bundles, the SEM Committee considers that the TSOs have certain operational requirements for continuous service provision, so it is therefore important that a certain level of services remain bundles under contracts. The SEM Committee welcomes the ability of participants to set conditions to their orders and the ability to submit negative bids.

SEMC Decision: The SEM Committee has decided that simple Buy and Sell Orders be placed on the central trading platform for a given service – including explicit and implicit bundles of services – and Trading Period(s). Service providers will be able to specify relevant conditions associated with a Buy and Sell Order.

The integrity of explicit and implicit bundles will be maintained in secondary trading when placing Buy and Sell Orders.

3.4 Validation of Buy and Sell Orders

TSO Recommendation: The TSOs recommend that Buy and Sell Orders will be validated against service provider capabilities and other relevant validation checks to ensure that all Orders are feasible. The integrity of bundles will be maintained as part of the validation of Buy and Sell Orders.

SEMC Commentary: The SEM Committee welcomes the recommendations of the TSOs in terms of validation of Buy and Sell Orders. The SEM Committee notes the general support from respondents. The SEM Committee acknowledges the importance of retaining bundles in terms of operational constraints and system security. Participants should be cognisant of their own performance capabilities and the risk of being implicitly bundled when bidding across a suite of individual products.

SEMC Decision: The SEM Committee has decided that Buy and Sell Orders will be validated against service provider capabilities and other relevant validation checks, on the basis of transparent criteria, to ensure that all Orders are feasible. The integrity of bundles will be maintained as part of the validation of Buy and Sell Orders. This will also apply to bilateral trades.

3.5 Matching of Buy and Sell Orders

TSO Recommendation: The TSOs recommend that the matching of Orders in secondary trading be done on a rolling first-come first served basis.

SEMC Commentary: The SEM Committee welcomes the analysis of the TSOs in this area. The SEM Committee acknowledges the benefits to first come first served in enabling flexible continuous trading, however the SEM Committee considers batch matching to be a more optimal option for ensuring efficient matching of order for the following reasons:

- Reducing the ability of large market players to restrict trading outside of their own portfolios, mitigating market power risks,
- Consequently, it enables greater participation by small market players, potentially increasing liquidity in the secondary market,
- Ensuring there is a “last batch” settlement at gate closure to ensure all late notice sell orders, and incompatible FPNs at BM closure are capable of being traded, further increasing liquidity and maximising the likelihood that sufficient procured volumes will be in position in real-time.

SEMC Decision: The SEM Committee has decided that the matching of Orders in secondary trading will be done on a batch matching basis.

3.6 Bilateral Trading of DASSA Orders

TSO Recommendation: The TSOs recommend that the design of the DASSA arrangements will facilitate bilateral secondary trading.

SEMC Commentary: The SEM Committee welcomes the analysis of the TSOs in this area. The SEM Committee notes that the inclusion of the ability to bilaterally trade aligns with the HLD decision and provides additional flexibility to units in terms of moving away from commitment obligations, and greater flexibility in accommodating units to enter the market as their energy position crystallizes.

Notwithstanding the above, as stated previously, the SEM Committee retains some concerns with the potential for market power issues within the secondary market, and bilateral trading may lead to opportunities for market power abuses. It will therefore need to be kept under review, and the ability to cease bilateral trading will need to be incorporated into the systems.

SEMC Decision: The SEM Committee has decided to allow the bilateral trading of DASSA orders. This will be kept under ongoing review and the mechanism may be ceased in the event concerns around market power abuses emerge. The TSOs are directed to enable the ability to cease the operation of bilateral trades in the IT solution.

3.7 Validation of Trades

TSO Recommendation: The TSOs recommend that secondary trades be allowed between imperfectly substitutable service providers. This approach will be supported by fully automated validation functionality within the secondary trading platform.

SEMC Commentary: The SEM Committee welcomes the analysis of the TSOs in this area. The SEM Committee notes broad support for the TSOs' preferred option to permit secondary trades between imperfectly substitutable service providers. The SEM Committee considers the recommendation to be reasonable and welcomes the flexibility to avoid restrictions that could limit the volume and frequency of trades in proceeding with this option, and to commitment to fully automate the validation functionality.

SEMC Decision: The SEM Committee has decided that secondary trades be allowed between imperfectly substitutable service providers. This approach will be supported by fully automated validation functionality within the secondary trading platform. This will also apply to bilateral trades.

3.8 TSOs' participation in Secondary Trading

TSO Recommendation: The TSOs recommend that they may participate in secondary trading in the event of volume insufficiency in the DASSA by meeting unmatched Buy Orders or submitting Sell Orders at a Secondary Trading Price of zero and assigning the DASSA scarcity price cap to the additional volumes procured in secondary trading.

Service providers will not be able to update their bids for the FAM in this event.

SEMC Commentary: The SEM Committee welcomes the considerations of the TSOs in regard to their participation in Secondary Trading. The SEM Committee considers that this provides a key mechanism in ensuring that there is a route to releasing unprocured volumes into the secondary market when the DASSA does not solve the volume requirement initially. The SEM

Committee has some concerns around the wording in relation to procuring the secondary volumes at the scarcity price. For clarity, the SEM Committee considers it more appropriate that the TSOs submit sell orders at the scarcity price and procurement of these volumes is solved by running a demand curve on the economic merit of submitted Buy Orders for the volumes.

SEMC Decision: The SEM Committee has decided that the TSOs may participate in secondary trading in the event of volume insufficiency in the DASSA. They may do this by meeting unmatched Buy Orders or submitting Sell Orders at a Secondary Trading Price of zero and assigning the DASSA scarcity price cap to the additional volumes procured in secondary trading. In the event of an oversubscription of volumes the TSOs will select matches based on, firstly, if the submitted buy orders are technically feasible, and secondly, on the basis of the value of the buy order starting at the highest submitted order.

4 COMMITMENT OBLIGATIONS AND INCENTIVES

This section sets out the SEM Committee's decisions on Commitment Obligations and Incentives, having considered the TSOs' recommendations and the views of participants, alongside any commentary from the SEM Committee based on its own supporting analysis. Further detail on a summary of consultation responses can be found in the TSOs' Recommendations Paper.

The SEM Committee welcomes the work done in developing the proposals for Commitment Obligations and Incentives, noting it was a key element of the HLD and is vital in ensuring meaningful participation, and cost reflective bidding behaviours, in the DASSA. The SEM Committee welcomes the commitment to introduce commitment obligations by way of introducing a compensation payment mechanism and notes there is some work to do in terms of the quantification of the compensation payment. Further consultation is required on how that will be derived.

The SEM Committee also notes the TSOs proposal for the inclusion of a mechanism to partially compensate units who are no longer capable of meeting future commitment obligations, as a result of a TSO action, and to remove their commitment obligation. The SEM Committee notes that the HLD stated that units who are incapable of service provision, as a result of a TSO action, should be compensated fully for their DASSA contract and not be subject to a compensation payment. It is important to note that the HLD did not envisage a fully automated secondary trading mechanism to be delivered as part of the initial platform, and so there would be no recourse for units to trade out of a position which could no longer be met. Given the decision to introduce a fully automated secondary trading platform, the SEM Committee considers one of the aims of the commitment obligation to be to encourage trading in the secondary market for units no longer capable of meeting obligations, for any reason. It is unclear how a partial payment alongside a removal of the commitment obligation would achieve this.

4.1 Commitment Obligations Overview

TSO Recommendation: The TSOs recommend that the evaluation of DASSA Order holders' commitment obligations will be as set out in Section 6.1 of the consultation paper.

SEMC Commentary: The SEM Committee welcomes the work done on developing the scenarios for lapsed DASSA orders by the TSOs, and the determination to implementing a commitment obligation framework. The SEM Committee notes the general support for the commitment obligations, and the comments from stakeholders around the consideration that the TSOs should be financially responsible for TSO actions.

As previously indicated, the HLD stated that units who are incapable of service provision, as a result of a TSO action should be compensated fully for their DASSA contract and not be subject to a compensation payment. The HLD did not envisage a fully automated secondary trading mechanism to be delivered as part of the initial platform, and so there would be no recourse for units to trade out of a position which could no longer be met. The SEM Committee considers that the secondary trading market offers sufficient opportunity for units to trade out of positions

regardless of the cause of inability to meet obligations. A partial or full payment mechanism would act as a disincentive to secondary market participation. Whereas, on the contrary, removing the partial payment provides an incentive for units to submit sell orders in secondary trading and seek to recoup some level of DASSA payment.

Similarly, the waiving of the compensation payment may impact bidding behaviour in the BM, and having to factor the risk of compensation payments into BM bids may result in more efficient alignment between market outcomes and physical dispatch. However, the SEM Committee acknowledges that apportioning all the risk on participants for actions outside of their control may act as a disincentive to DASSA market participation. The SEM Committee therefore reserves a decision on this until conclusion of the TSOs consultation on the valuation of the commitment obligations.

SEMC Decision: The SEM Committee has decided that all units which are unable to meet commitment obligations will not be eligible to receive a DASSA payment.

The TSOs are directed to conduct a consultation on the valuation and application of the compensation payment which will determine the treatment of both self-lapsed and TSO-lapsed units.

4.2 Commitment Obligation and Incentive Process

TSO Recommendation: The TSOs recommend that the Commitment Obligation and Incentive Process as set out in Figure 15 in the Recommendation Paper be implemented, noting the amendment to the process proposed in the consultation paper.

SEMC Commentary: The SEM Committee welcomes the clarity the TSOs have provided through the illustrative process diagram. The SEM Committee supports the application of the commitment obligation framework fully on units which self-lapse. The SEM Committee acknowledges the concerns raised by respondents in terms of the reduced payment for units which are lapsed by the TSOs.

The HLD decision did not envisage a fully automated secondary market being implemented by go-live. This consideration was a key reason in the decision at that point to waive commitment obligations for units unable to meet obligations as a result of TSO actions. With the introduction of a fully automated secondary trading market, the SEM Committee considers that there is now sufficient capability within the auction framework for units to trade out of their position regardless of the cause of lapsing. Moreover, the SEM Committee considers the partial payment proposal to be a disincentive for units to participate in the secondary trading market, thus potentially reducing liquidity.

SEMC Decision: The SEM Committee has decided that no units will be eligible for a partial payment.

4.3 Value of Compensation Payment

TSO Recommendation: The TSOs will carry over the feedback received on the determination of the value of the Compensation Payment to a future workstream and associated industry consultation, the timelines for which will be set out in the next iteration of the PIR, to be published in September 2024.

SEMC Commentary: The SEM Committee welcomes the TSOs commitment to consulting further on the setting of the commitment obligations. The SEM Committee considers that the commitment obligations will be the primary mechanism through which contract holders are incentivised to maintain a physical position which aligns with their commitments through the relevant trading period. It is important that the commitment obligation reflects the full cost to consumers, through costs imposed on the TSOs, to ensure strong incentives to maintain availability, active secondary market participation and cost reflective bidding behaviours.

The SEM Committee considers there is merit in giving further consideration to previous approaches included under the quarterly LPF proposal to have a increasing deficiency payment framework based on the level of notice provided by lapsing units.

SEMC Decision: The SEM Committee directs the TSOs to consult on the valuation and application of the compensation payment, giving consideration to the points raised by respondents and the position of the SEM Committee.

4.4 Performance Scalar Design

TSO Recommendation: The TSOs did not make a specific proposal relating to the finalised design of the performance scalar regime for the DASSA, in the consultation paper, noting that this would be addressed in a separate workstream and be subject to industry consultation.

SEMC Commentary: The SEM Committee acknowledges the points made by the TSOs and the requests for further clarity, and concerns raised, from stakeholders. The SEM Committee is unconvinced by the need for a performance scalar in an auction-based framework. It may create distortions in terms of bidding behaviour and clearing prices, particularly if marginal units are subject to the performance scalar and alter their bidding behaviour accordingly. While this may lead to reduced competitiveness for the poorly performing units, if they continue to win in the auction it may lead to distortions to clearing prices. From a review of some other European countries, some have a framework of penalties for not maintaining availability up to activation, and potential disqualification of units from auctions for not meeting performance requirements when called upon from an available position. Reinstatement in such instances is following retesting of the unit to ensure it can adequately respond to service requirements.

SEMC Decision: The TSOs will consult further on measures to address issues of unit performance standards at the point of activation and the incentivisation of maintaining availability post gate closure up to real-time. Options include a performance scalar framework or maintaining the commitment obligation framework up to real time dispatch.

The TSOs are directed to ensure the IT solution is capable of applying the commitment obligation framework for all lapses up to real-time.

5 FINAL ASSIGNMENT MECHANISM (FAM)

This section sets out the SEM Committee's decisions on Final Assignment Mechanism (FAM), having considered the TSOs' recommendations and the views of participants, alongside any commentary from the SEM Committee based on its own supporting analysis. Further detail on a summary of consultation responses can be found in the TSOs' Recommendations Paper.

The SEM Committee welcomes the work done in developing the proposals for the FAM. The SEM Committee acknowledges that the HLD included a decision to include a top-up auction. The intention of the physical top-up auction was to ensure sufficient volumes were procured, should all winners of the market auctions not be capable of providing services.

As part of its decision, the SEM Committee indicated that total volumes cleared between the day ahead market and the top-up auction should not exceed the total forecast volume requirement for a service and that the top-up auction should only be a top-up for real-time volume requirements. It was anticipated that units would be capable of updating bids in the top-up auction window to ensure the value of the top-up auction was cost reflective.

Additionally, in the worked example section of the HLD it states that if a unit which cleared in the market auction provides their service through their commitment obligation but fails to provide it physically for reasons which are not their own "fault" (e.g. being redispatched by the TSOs despite being available to provide the service), then they would be paid for their cleared volume in the market auction at the clearing price of that auction with imperfections costs covering the cost of the TSO moving away from the economically efficient dispatch. This highlights the intention that the top-up auction would deal with volumes variances caused by self-lapsing, but would not account for units which are redispatched close to real time by the TSOs. The appropriate compensation mechanism in such instances is through imperfections payments and the Balancing Market.

The HLD also stated that measures would need to be introduced that ensures a ramp down on the use of the top-up auction. An important element in this consideration was the eventual introduction of a secondary trading market, which will now be in place from day 1 of the DASSA arrangements.

The SEM Committee has a number of concerns related to the FAM, as proposed:

- The SEM Committee considers the daily auction framework for procurement of system services does not robustly incentivise availability as intended by the TSOs. There is a need to ensure only units that position themselves ex-ante for service provision are rewarded through System Services markets. Moreover, given there will be no understanding of the FAM volume requirement ahead of time, there will be no certainty of achieving a FAM position for bidders. This is therefore unlikely to have any influence on how units enter the intra-day energy markets and does not provide any robust incentive to position a unit for ex-ante reserve availability. The SEM Committee considers that it would simply act as a compensation mechanism for units based on what their position ended up being at gate closure, as opposed to a mechanism which incentivises units to position their portfolio of assets across energy and system services provision;

- The inability to update bids in the FAM means that the true value of closer to real time service provision is not reflected in the FAM, as the DASSA bids are essentially outdated due to updated market positions;
- The introduction of a fully automated secondary market and the removal of compensation payment protections for providers mitigates the need for a top-up auction as the market mechanisms should now encourage outcomes which ensure providers are physically able to provide;
- The SEM Committee understands that units who are repositioned in real time will remain categorised as DASSA winners, but their volumes will be released into the FAM for further procurement. This does not align with the HLD that the total volume procured must not exceed the total volume requirement;
- Measures such as the zero volume bid and volume capped bidding recommendations encourage reduced liquidity in both the DASSA and the secondary market. The SEM Committee considers that a secondary market which is fully automated and allows trading up to 60 minutes before a trading period adequately allows all technologies to participate, and the FAM risks reducing incentives for participation, reducing secondary market liquidity and reducing the likelihood of all technologies being able to establish an ex-ante market position.
- The FAM volume is intended to meet any deficit in the DASSA volume, however it would be more appropriate for it to make up any deficit in the real-time volume requirement once the available DASSA winning volumes have been accounted for. The third worked example in the HLD (SEM-22-012, page 95) illustrates this.

At this time, the SEM Committee considers that the FAM, as proposed, does not deliver the intended outcomes of the HLD. The proposed design does not robustly incentivise ex-ante availability of units. The introduction of a secondary market provides ample opportunity for all units to establish an appropriate ex-ante position and to trade out of unachievable commitment obligations. The SEM Committee also considers that the Balancing Market is a sufficient mechanism for the TSOs to redispatch and compensate units to meet any reserve requirements not addressed through the DASSA and secondary trading.

Notwithstanding the above concerns, the SEM Committee recognises the risks identified by the TSOs in terms of operating a constrained system with high levels of renewable penetration and the associated high levels of redispatch. The SEM Committee also recognises that moving from a framework of availability payments, which rewards all providers who maintain availability, to a market based framework which should only remunerate availability up to a required level represents a significant change to the incentive framework and consequently is likely to impact the pool of available service provision. In that context, the SEM Committee is happy to work with the TSOs to develop any alternative approaches the TSOs may identify. These may include:

- the introduction of a top-up auction which more closely aligns with the HLD for introduction at a point after market go-live;
- the use of the LPF to deliver a volume limited availability contract framework; or
- appropriately conservative procurement of volumes through the DASSA auction.

5.1 FAM Overview

TSO Recommendation: The TSOs have recommended the introduction of the FAM, an ex-post reconciliation mechanism to take the place of the top-up auction set out in the HLD. The FAM is proposed to address volume deficits caused by:

- The TSOs repositioning DASSA Order Holders (through real time dispatch), who are then no longer able to fulfil the commitment obligation associated with their DASSA Order.
- DASSA Order Holders failing to meet their commitment obligations and lapsing their Order, or choosing to self-lapse their Order.
- The unavailability of DASSA Order holders in real time due to actions under the control of service providers.

The FAM process is proposed to include:

- Determining the FAM volume to meet any deficit in the DASSA volume.
- Creating Adjusted Supply Functions for all available service providers.
- Clearing the FAM & Issuing FAM Assignments

SEMC Commentary: The SEM Committee welcomes the work done by the TSOs in developing the FAM. The SEM Committee has several concerns which were set out in the previous section. In summary, the SEM Committee does not consider the FAM as proposed to be an effective mechanism to incentivise units who do not win in the DASSA, or get a position through the secondary market, to position themselves for availability. These units are more likely to continue bidding for energy as if they have no potential System Services payment, and eventual reserve availability will simply be a consequence of their energy position.

The SEM Committee considers that the DASSA mechanism, along with a fully automated secondary trading market and a robust commitment obligation framework, offers sufficient incentives for units to position themselves in a manner that is compatible with system dispatch up to an hour before real time dispatch, and that the Balancing Market is the appropriate mechanism to physically dispatch units to meet any shortfalls in real-time reserve requirements on the system. The SEM Committee is confident that this framework should sufficiently allow to TSOs to maintain security of supply, and is appropriate in achieving the intended investment signals.

The SEM Committee recognises the TSOs' have concerns around the risks associated with a volume deficit of available reserves when operating a constrained system. The SEM Committee considers that a fully automated secondary trading market largely achieves the objectives of the top-up auction, in allowing positions to be traded up to the point of balancing market closure. The well-structured ex-ante framework developed by the TSOs is sufficiently robust to enable accurate positions to be established by gate closure of the secondary market, and the balancing market will act as a back stop to ensure appropriate levels of reserves are scheduled to meet operational constraints. However, in recognition of the TSOs' concerns, the SEM Committee is open to the TSOs proposing alternative measures to incentivising availability beyond the required volumes procured in the DASSA. This may be done through development of alternative

proposals for a top-up auction mechanism, through the use of the LPF or through appropriately conservative procurement of volumes in the DASSA.

SEMC Decision: The SEM Committee does not approve the introduction of the FAM. The TSOs may propose alternatives to the FAM for delivery either alongside the scheduled market go-live date or post go-live.

5.2 Further considerations

As a result of the decision to not proceed with the FAM, the SEM Committee does not consider there to be a need to address the individual proposals in relation to the FAM. There is therefore no further FAM decisions to be made. However, in the context of any further top-up auction proposals, the SEM Committee has identified some key considerations for the TSOs:

- A top-up auction should allow for the updating of bids up to gate closure of the latest market, in this context this is currently the secondary market one hour before the trading period;
- If the intention is to incentivise availability payments should be based on the lower of market or physical position. Units should not be rewarded as a consequence of how they have been positioned post redispatch;
- Units should not be incentivised to withhold volumes from the initial DASSA auction i.e. there should be no mechanism for partial volume bids; and
- Ex-post volume requirements should not be set by reference to ex-ante forecasts, rather it should only be used if there is a deficit against the ex-post real time volume requirement for each service.

6 LOCATIONAL CONSIDERATIONS AND FIRM ACCESS

This section sets out the SEM Committees decisions on Locational Considerations and Firm Access, having considered the TSOs' recommendations and the views of participants, alongside any commentary from the SEM Committee based on its own supporting analysis. Further detail on a summary of consultation responses can be found in the TSOs' Recommendations Paper.

The SEM Committee welcomes the work done by the TSOs in developing thinking on locational constraints and welcomes the proposals to consult on an approach to firm access. The SEM Committee considered firm access to be a critical element to ensuring appropriate locational incentives when developing the HLD.

The SEM Committee notes that the TSOs have recently consulted on a product review for reserve services and had proposed that initially locational zones would reflect the jurisdictional constraints in Ireland and Northern Ireland. The SEM Committee endorses the TSOs retention of the right to define new zones if the need arises.

The SEM Committee considers that the Layered Procurement Framework may also be used in order to mitigate market distortions or physical delivery issues as a result of locational constraints, through providing targeted contracts in particular areas of the network.

SEMC Decision: The TSOs are directed to conduct a consultation on the firm access policy for FASS.

7 REGISTRATION AND QUALIFICATION

This section sets out the SEM Committee's decisions on Registration and Qualification, having considered the TSOs' recommendations and the views of participants, alongside any commentary from the SEM Committee based on its own supporting analysis. Further detail on a summary of consultation responses can be found in the TSOs' Recommendations Paper.

The SEM Committee welcomes the work done by the TSOs in developing thinking on registration and qualification and notes that the proposals align with the HLD.

7.1 Registration

TSO Recommendation: The TSOs recommend that service providers register to participate in the DASSA arrangements as per the proposal, with the System Services Register to regulate eligibility for participation in the daily auction.

Where appropriate, the TSOs will utilise data gathered under the existing DS3 System Services Regulated Arrangements to support service providers' registration.

SEMC Commentary: The SEM Committee welcomes the analysis of the TSOs and notes the broad support for the proposal to have registration on an open rolling basis to be completed, including qualification, within 90 days of receipt of a completed application.

SEMC Decision: The SEM Committee has decided that service providers register to participate in the DASSA arrangements as per the proposal, with the System Services Register to regulate eligibility for participation in the daily auction.

Registration will be open on a rolling basis. The TSOs will complete the registration process, including qualification, within 90 days of receipt of a completed application.

Where appropriate, the TSOs will utilise data gathered under the existing DS3 System Services Regulated Arrangements to support service providers' registration.

This registration process should also apply to any LPF competitions.

7.2 Qualification

TSO Recommendation: The TSOs recommend leveraging the established system services testing regime for the DASSA qualification process and adapting it where required for new or amended services. Where possible and subject to the outcome of the product review, the TSOs will endeavour to transfer existing qualified capability to the DASSA arrangements.

SEMC Commentary: The SEM Committee welcomes the work done by the TSOs in assessing the approach to qualification. The SEM Committee notes that the proposal aligns with the HLD. The SEM Committee agrees with the position of the TSOs and broad position of stakeholders that existing providers of system service services should automatically qualify for the provision of services in the DASSA. The feasibility of this process will be subject to the outcome of the reserve services product review, particularly in instances of service definitions and quality descriptions changing.

SEMC Decision: The SEM Committee has decided that the TSOs will leverage the established system services testing regime for the DASSA qualification process and adapt it, where required, for new or amended services. Where possible and subject to the outcome of the product review, the TSOs will endeavour to transfer existing qualified capability to the DASSA arrangements.

This process should also qualify units for LPF competitions.

8 DASSA SETTLEMENT

This section sets out the SEM Committee's decisions on DASSA Settlement, having considered the TSOs' recommendations and the views of participants, alongside any commentary from the SEM Committee based on its own supporting analysis. Further detail on a summary of consultation responses can be found in the TSOs' Recommendations Paper.

The SEM Committee welcomes the work done by the TSOs in developing thinking on the DASSA Settlement Period.

8.1 DASSA Settlement Period

TSO Recommendation: The TSOs recommend that the timing of the settlement of the DASSA arrangements will be monthly in arrears. Payments to service providers will be made within a timeframe that allows for the settlement process to complete and accounts for the settlement timeframe for the System Services Charge.

The TSOs will continue to consider the feasibility of indicative settlement notices to be provided weekly; however, this functionality will not be delivered from the go-live of the DASSA.

SEMC Commentary: The SEM Committee welcomes the analysis of the TSOs and notes the broad support for the proposal on the settlement period.

SEMC Decision: The SEM Committee has decided that the timing of the settlement of the DASSA arrangements will be monthly in arrears. Payments to service providers will be made within a timeframe that allows for the settlement process to complete and accounts for the settlement timeframe for the System Services Charge.

The TSOs will continue to consider the feasibility of indicative settlement notices to be provided weekly.

9 ADDITIONAL CONSIDERATIONS

This section provides a summary of the SEM Committee's considerations on further topics raised in the consultation paper being, Forwards Markets, Migration to DASSA Arrangements and DASSA Interactions with Energy Markets, having considered the TSOs' comments and the views of participants. Further detail on a summary of consultation responses can be found in the TSOs' Recommendations Paper.

9.1 Forwards Markets

The TSOs sought views on the potential introduction of forwards markets. The SEM Committee acknowledges the points raised by respondents and welcomes the TSOs' commitment to providing clarity on this workstream as part of the next review of the PIR.

9.2 Migration to the DASSA Arrangements

The TSOs set out considerations for the migration of the procurement of system services into the daily auctions, from the arrangements in place prior to the DASSA. The SEM Committee acknowledges the points raised by respondents and welcomes the TSOs' commitment to consulting further on the migration to DASSA Arrangements.

9.3 Volume Withholding

The TSOs in their Recommendations Paper indicated that consultation respondents had "flagged the risk of an inadvertent breach of the Regulation on Wholesale Energy Market Integrity and Transparency (REMIT) requirements for capacity withholding" in the context of providers withholding some capacity from the DAM to bid into the DASSA. The TSOs indicated they had been advised that that this would apply only in exceptional circumstances where withholding the capacity aligns with the definition of manipulation as defined in the REMIT.

Based on expert advice it has received, the SEM Committee does not have any concerns in relation to volume withholding under REMIT. REMIT is primarily concerned with issues of withholding volumes for the purposes of market manipulation through economic withholding to increase prices or in cases of physically withholding capacity from all market. ACER explicitly provides that market participants can rely on opportunity costs as a "legitimate" justification for either physical or economic withholding. Based on the advice provided, the SEM Committee considers that maintaining capacity for the purposes of entering into other markets is a legitimate justification under the terms of REMIT. It is important that participants document bidding strategies so they can clearly evidence that no capacity was physically withheld entirely, and that there was an opportunity cost in cases of economic withholding and that this capacity was subsequently bid in to another market.

9.4 DASSA Interactions with Energy Markets

The TSOs provided information on the interaction of the DASSA with other markets. The SEM Committee acknowledges the points raised by respondents. In terms of the SEM and capacity markets, the SEM Committee considers that all units will need to be cognisant of their portfolio

of commitments when considering entrance into any particular auction. Protection from commitments in other markets will not be provided through a DASSA order contract and the risk lies with the provider in this instance.

In terms of interactions with EU markets, the ability to interact with the standard European balancing capacity markets is a key element of ensuring the DASSA is compliant with EU Regulations. The SEM Committee welcomes the TSOs' commitment to ensuring the DASSA is capable of interacting with European markets, post-2026. The TSOs' recommendations on the product review will need to provide clarity on how the suite of System Services products will be capable of being standardised for EU compliance when entered into Euphemia.

10 SUMMARY OF DECISIONS

Having considered the TSOs position, alongside industry feedback, the SEM Committee has made a number of decisions on the proposals set out the TSOs' recommendations:

DASSA Mechanics:

Products to be procured – The SEM Committee has decided that the DASSA will initially procure reserve services, both on an individual service basis and for any explicit bundle of services that may be defined as an individual product in the auction. The specific reserve services to be procured will be confirmed following the outcome of the DASSA Product Review and Locational Methodology Consultation.

Additionally, the auction design will allow for the TSOs to apply operational requirements to the procurement of individual reserve services, such as minimum volumes of a quality or type of service provision or the continuous provision of services from a single service provider (which may be known as implicit bundles of services).

The design of the auction will allow for the procurement of non-reserve services in the future.

Timing of the auction – The SEM Committee has decided on a DASSA gate closure time of 15:30 D-1 with results to be published 30 minutes later. The timing of the auction and gate closure will be kept under review post-go live.

Auction Timeframe – The SEM Committee has decided that the DASSA will procure services for an Auction Timeframe as per the original proposal: i.e. a 24-hour period commencing at 23:00 day-ahead (D-1) and ending at 23:00 next day (D).

DASSA Trading Period – The SEM Committee has decided that each DASSA Trading Period will be 30 minutes in duration. The auction design will be compatible with allowing Trading Periods of different durations to be implemented in the future.

Publication of Volumes Forecast – The SEM Committee has decided that the volume requirements for each system service for each Trading Period in the Auction Timeframe be published on the day of the auction (D-1) at the earliest feasible time prior to the gate closure of the DASSA. The precise timing of the publication will be subject to the outcome of the Volume Forecast Methodology consultation.

DASSA Bidding Process – The SEM Committee has decided that service providers be able to submit bids for each service for each Trading Period within the auction timeframe, with no interdependency between bids, as per the consultation proposal. Subject to the outcome of the product review, the procurement of explicit bundles of services as individual products will be facilitated, which would address service providers' concerns relating to costs and inefficient auction outcomes.

DASSA bids may be updated up to the time of the DASSA gate closure only.

Price caps will be allowed for in the design of the DASSA, the TSOs are requested to consult on the methodology and conditions to apply to the use of price caps. The SEM Committee will decide upon the value and application of the price cap.

Divisibility of DASSA Bids – The SEM Committee has decided that service providers will be allowed to specify whether their DASSA bids are divisible or non-divisible.

The SEM Committee approves the approach to clearing the auction on a cost minimisation basis.

DASSA Volume Insufficiency – The SEM Committee has decided that the design of the DASSA allows for the specification of a scarcity price cap per service to address volume insufficiency in the DASSA. The scarcity price cap will apply to all completed DASSA Orders in instances of volume insufficiency for a service.

The TSOs will address instances of volume insufficiency by procuring the volume deficit in secondary trading through issuing Sell Orders at a Secondary Trading Price of zero and assigning the DASSA scarcity price cap to the additional volumes procured in secondary trading. In the event of an oversubscription of volumes the TSOs will select matches based on, firstly, if the submitted buy orders are technically feasible, and secondly, on the basis of the value of the buy order starting at the highest submitted order.

DASSA Auction Clearing – The SEM Committee has decided that the DASSA auction will be cleared on a pay-as-clear basis per Trading Period. The recommended high-level clearing process is as per the proposal set out in the consultation paper.

DASSA Clearing Optimisation – Objective Function – The SEM Committee has approved the TSOs' recommendation, that the DASSA design will allow for the procurement of the following:

- Individual reserve services.
- Explicit bundles of reserve services, which would be defined as separate products in the auction.
- An implicit bundle of reserve services, which would be expressed by the TSOs as an operational requirement to procure the continuous provision of individual services from service providers.
- An operational requirement to procure different qualities or types of individual services.

The precise nature of the services to be procured will be subject to the outcome of the DASSA Product Review and Locational Methodology Consultation.

Additionally, value functions in the objective function will allow for the TSOs to capture the TSOs' cost-sensitivity or willingness to pay in clearing implicit bundles of services and different qualities or types of service provision above and beyond the specified minimum operational requirements for an implicit bundle or quality of service.

The TSOs are requested to develop a reporting framework which summarises the impact of all decisions made in the DASSA clearing optimisation relative to an unconstrained model.

DASSA Clearing Optimisation – Constraints – The SEM Committee has decided that long-run locational constraints, the parameters and values for which are to be determined, will be modelled in the daily auction clearing optimisation, as required for system security.

The TSOs are requested to develop a reporting framework which summarises the impact of all decisions made in the DASSA clearing optimisation relative to an unconstrained model.

DASSA Clearing Optimisation – Clearing Pricing – The SEM Committee has decided that, as set out in the High Level Design, zonal pricing should be introduced for the DASSA, as per the TSOs recommended process for this approach. The SEM Committee understands the initial intention, based on the product review consultation, is that zones will be limited to the portion of the all island network operated by SONI and the portion of the all island network operated by EirGrid. The SEM Committee considers it important that there is ongoing monitoring of the need for any further zones as a potential result of any observations of network constraints routinely causing distortions to the market clearing price.

Secondary Trading

Secondary Trading Platform – The SEM Committee has decided that a fully automated central secondary trading platform be implemented from the go-live of the DASSA arrangements. In addition to this, bilateral secondary trading will also be facilitated under the market arrangements.

Secondary Trading Window – The SEM Committee has decided that secondary trading will take place after the DASSA results are published, and will run up to 60 minutes before the relevant Trading Period i.e. aligning with closure of the Balancing Market.

Placing Buy and Sell Orders – The SEM Committee has decided that simple Buy and Sell Orders be placed on the central trading platform for a given service – including explicit and implicit bundles of services – and Trading Period(s). Service providers will be able to specify relevant conditions associated with a Buy and Sell Order.

The integrity of explicit and implicit bundles will be maintained in secondary trading when placing Buy and Sell Orders.

Validation of Buy and Sell Orders – The SEM Committee has decided that Buy and Sell Orders will be validated against service provider capabilities and other relevant validation checks to ensure that all Orders are feasible. The integrity of bundles will be maintained as part of the validation of Buy and Sell Orders. This will also apply to bilateral trades.

Matching of Buy and Sell Orders – The SEM Committee has decided that the matching of Orders in secondary trading will be done on a batch matching basis.

Bilateral Trading of DASSA Orders – The SEM Committee has decided to allow the bilateral trading of DASSA orders. This will be kept under ongoing review and the mechanism may be ceased in the event concerns around market power abuses emerge. The TSOs are directed to enable the ability to cease the operation of bilateral trades in the IT solution.

Validation of Matched and Bilateral Trades – The SEM Committee has decided that secondary trades be allowed between imperfectly substitutable service providers. This approach will be supported by fully automated validation functionality within the secondary trading platform. This will also apply to bilateral trades.

TSOs' Participation in Secondary Trading – The SEM Committee has decided that the TSOs may participate in secondary trading in the event of volume insufficiency in the DASSA. They may do this by meeting unmatched Buy Orders or submitting Sell Orders at a Secondary Trading Price of zero and assigning the DASSA scarcity price cap to the additional volumes procured in secondary trading. In the event of an oversubscription of volumes the TSOs will select matches based on, firstly, if the submitted buy orders are technically feasible, and secondly, on the basis of the value of the buy order starting at the highest submitted order.

Commitment Obligations and Incentives:

Commitment Obligations Overview – The SEM Committee has decided that all units which are unable to meet commitment obligations will not be eligible to receive a DASSA payment.

The TSOs are directed to conduct a consultation on the valuation and application of the compensation payment which will determine the treatment of both self-lapsed and TSO-lapsed units.

Commitment Obligation and Incentive Process – The SEM Committee has decided that no units will be eligible for a partial payment.

Value of Compensation Payment – The SEM Committee directs the TSOs to consult on the valuation of the consultation payment, giving consideration to the points raised by respondents and the position of the SEM Committee.

Performance Scalar Design – The TSOs will consult further on measures to address issues of unit performance standards at the point of activation and the incentivisation of maintaining availability post gate closure up to real-time. Options include a performance scalar framework or maintaining the commitment obligation framework up to real time dispatch. The TSOs are directed to ensure the IT solution is capable of applying the commitment obligation framework for all lapses up to real-time.

Final Assignment Mechanism (FAM):

FAM Overview – The SEM Committee does not approve the introduction of the FAM. The TSOs may propose alternatives to the FAM for delivery either alongside the scheduled market go-live date or post go-live.

Locational Considerations:

Locational Constraints – The TSOs are directed to conduct a consultation on the firm access policy for FASS.

Registration and Qualification:

DASSA Registration – The SEM Committee has decided that service providers register to participate in the DASSA arrangements, as per the proposal, with the System Services Register, to regulate eligibility for participation in the daily auction.

Registration will be open on a rolling basis. The TSOs will complete the registration process, including qualification, within 90 days of receipt of a completed application.

Where appropriate, the TSOs will utilise data gathered under the existing DS3 System Services Regulated Arrangements to support service providers' registration.

DASSA Qualification – The SEM Committee has decided to leverage the established system services testing regime for the DASSA qualification process and adapt it, where required, for new or amended services. Where possible and subject to the outcome of the product review, the TSOs will endeavour to transfer existing qualified capability to the DASSA arrangements.

Settlement and Payment

DASSA Settlement Period – The SEM Committee has decided that the timing of the settlement of the DASSA arrangements will be monthly in arrears. Payments to service providers will be made within a timeframe that allows for the settlement process to complete and accounts for the settlement timeframe for the System Services Charge.

The TSOs will continue to consider the feasibility of indicative settlement notices to be provided weekly.

11 NEXT STEPS

The TSOs to enter into procurement with vendors to procure systems which can flexibly deliver a solution against the SEM Committee's decision. TSOs to carry out first review of PIR in September and continue progressing other workstreams on the PIR.